



# The Clean Water Act & the Regulatory Landscape of Water Quality

Local Government Advisory Committee

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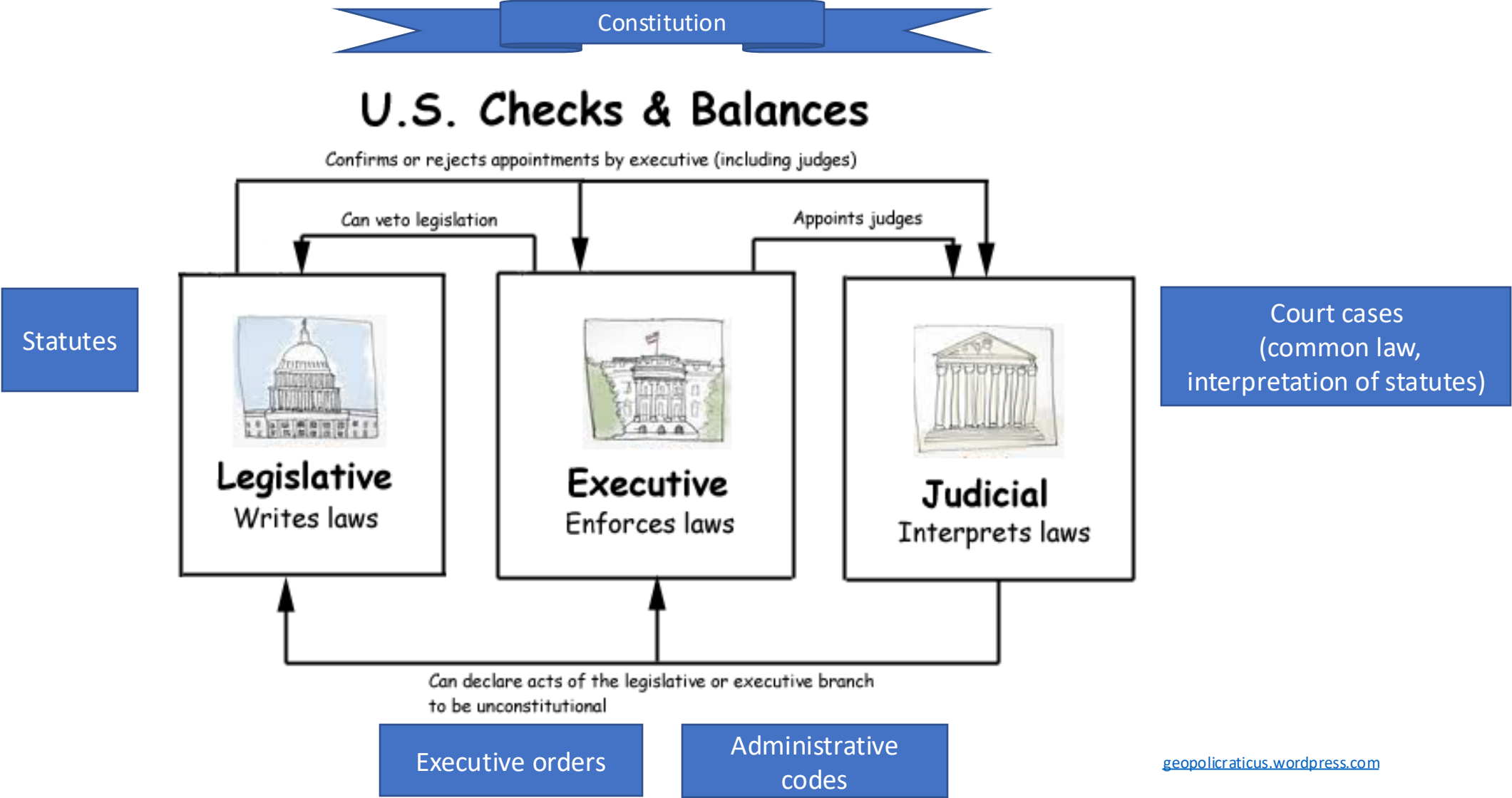
- Chief Sustainability Officer, Penn State
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- Affiliate Faculty, School of International Affairs

# Overview

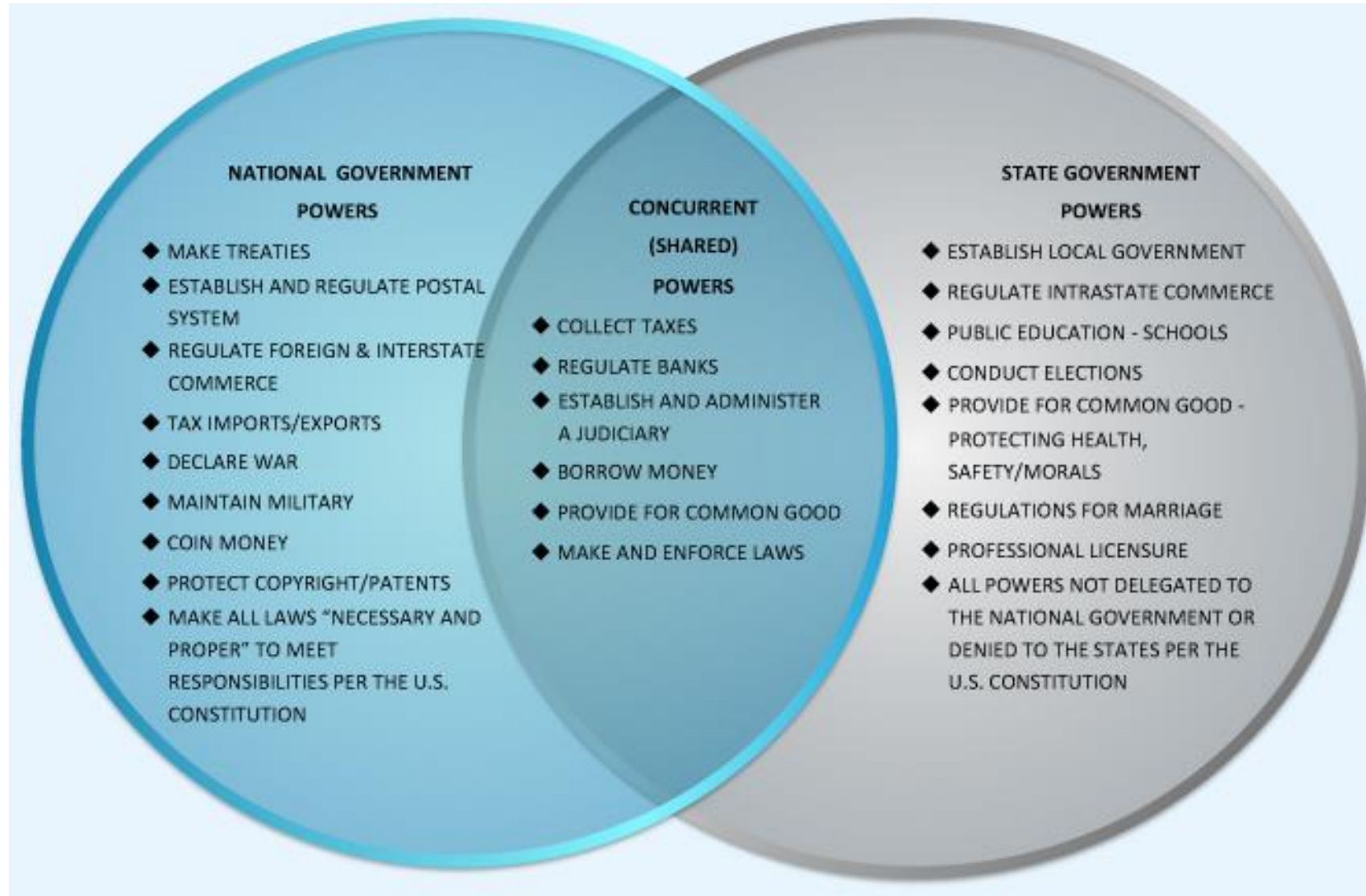
- Quick reminder of where “law” comes from
- A very fast history leading up to 1972
- The Clean Water Act + interpretation of WOTUS
- Recent SCOTUS decisions re: Chevron
- Regulations & the Chesapeake Bay
- Pennsylvania as a case study
- What now + some ideas



# The basic legal structure in the U.S. remains critical to clean water



# The interplay between the federal and state governments = federalism





# Long history of common law, federalism, and managing for clean water



Common law riparian rights & nuisance (dating to the Roman Empire's Justinian Code, imported with the English)

Photograph: Pittsburgh Salt Works, <https://explorepahistory.com/displayimage.php?imgId=1-2-1D73>



## 1899 Rivers and Harbors Act

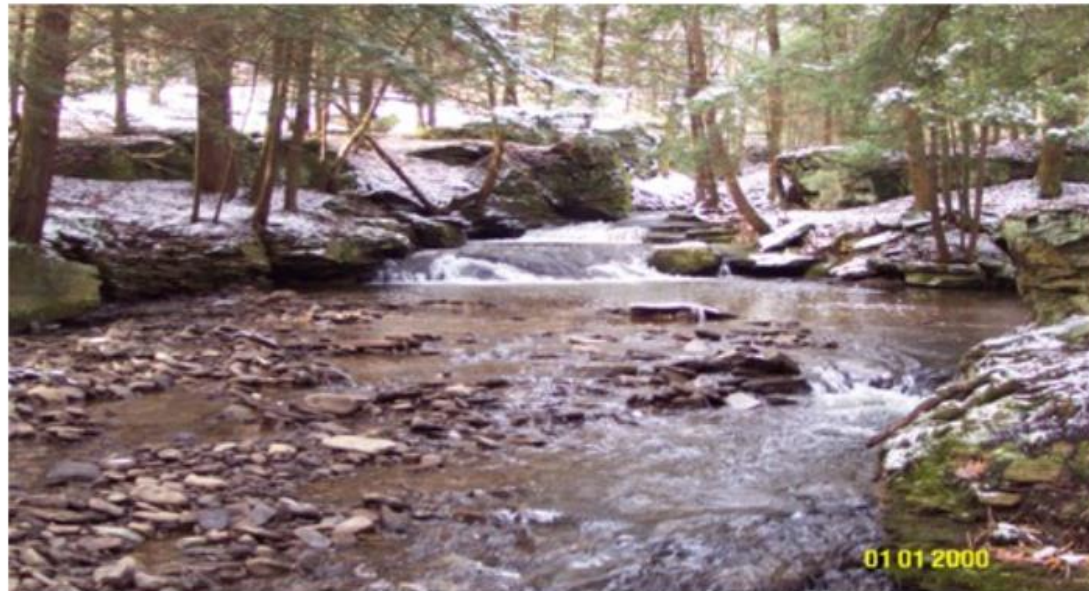
<https://www.historycentral.com/IndustrialAge/RiverHarborAct.html>

- Criminal misdemeanor for discharge of “any refuse matter of any kind or description whatever other than that flowing from streets and sewers and flowing therefrom in a liquid state” into navigable waters
- Prohibition to excavate, fill or alter the course, condition, or capacity of any port, harbor, channel, or other areas without permit

# Example state law: Pennsylvania's Clean Streams Law (1937)

## PENNSYLVANIA CODE Title 25.Environmental Protection Chapter 102 Erosion and Sediment Control

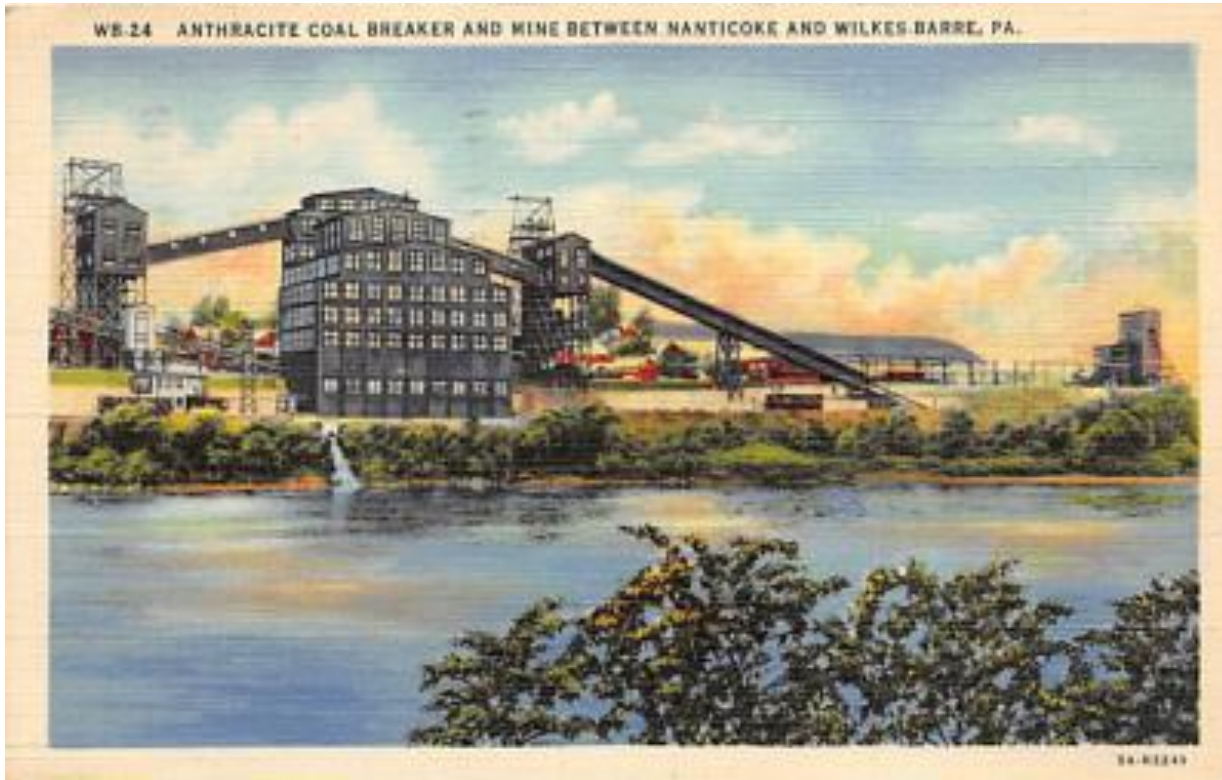
**Clean Streams Law-Act 394 of 1937-** To preserve and improve the purity of the waters of the Commonwealth for the protection of public health, animal and aquatic life, and for industrial consumption, and recreation...





# Continued evolution: the 1948 Federal Water Pollution Control Act

- Federal \$ → communities for sewage treatment
  - Loans to build wastewater treatment plants
  - Grants for state /local agencies to investigate pollutant sources



“We would strenuously object to any bill that would make it unlawful to allow water from the anthracite mines or breakers to enter the streams adjacent thereto because, as stated herein, they do not adversely affect the streams and there is no other place where these waters can go.....The anthracite industry would be put out of business overnight if such laws were passed and enforced and it would still leave the problem unsolved. If no new source of pollution (especially acid mine water) is permitted, as proposed in H. R. 123, except with final approval of the Surgeon General, it may eventually prevent the opening of new mines, whose mineral products might be sorely needed in our economy, especially in being ready to secure our Nation in its problems of defense.”

Henry H. Otto, Assistant General Manager, The Hudson Coal Co., Scranton, PA on behalf of the Anthracite Institute of Wilkes-Barre, PA., Testimony, House Committee on Public Works (06/11/1947)  
Quote from <http://crywolfproject.org/taxonomy/term/416>

# Catalysts for change



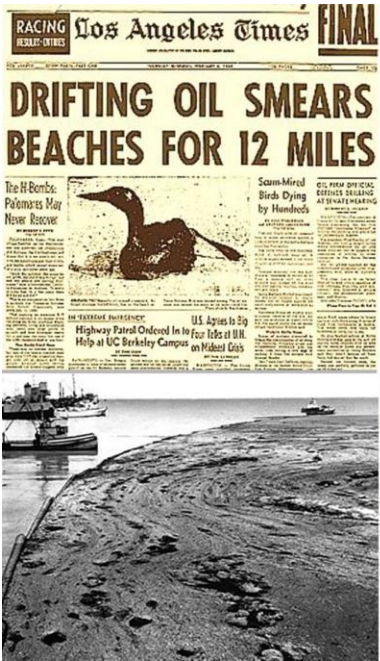
1948- Donora, PA



1962



1969- Cuyahoga River, Ohio



1969- Santa Barbara



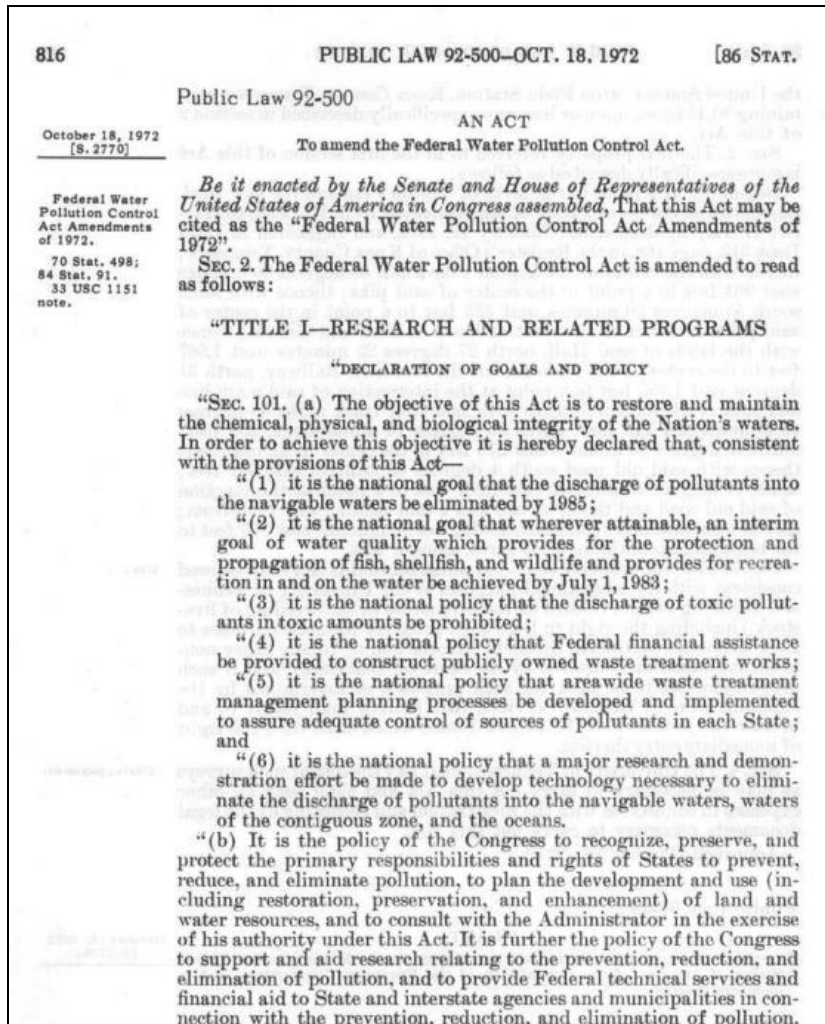


# Major US Environmental Legislation

Major Environmental Legislation

Year	Law	Year	Law
1899	Refuse Act	1975	Hazardous Materials Transportation Act
1918	Migratory Bird Treaty Act of 1918	1976	Resource Conservation and Recovery Act
1948	Federal Water Pollution Control Act	1976	Solid Waste Disposal Act
1955	Air Pollution Control Act	1976	Toxic Substances Control Act
1963	Clean Air Act (1963)	1977	Clean Air Act Amendments
1965	Solid Waste Disposal Act	1977	Clean Water Act Amendments
1965	Water Quality Act	1980	CERCLA (Superfund)
1967	Air Quality Act	1984	Resource Conservation and Recovery Act Amendments
1969	National Environmental Policy Act	1986	Safe Drinking Water Act Amendments
1970	Clean Air Act (1970)	1986	Superfund Amendments and Reauthorization Act
1970	Occupational Safety and Health Act	1986	Emergency Wetlands Resources Act
1972	Consumer Product Safety Act	1987	Clean Water Act Reauthorization
1972	Federal Insecticide, Fungicide, and Rodenticide Act	1990	Oil Pollution Act
1972	Clean Water Act	1990	Clean Air Act (1990)
1972	Noise Control Act	1993	North American Free Trade Agreement
1973	Endangered Species Act	2003	Healthy Forests Initiative
1974	Safe Drinking Water Act		

# 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.”

## 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



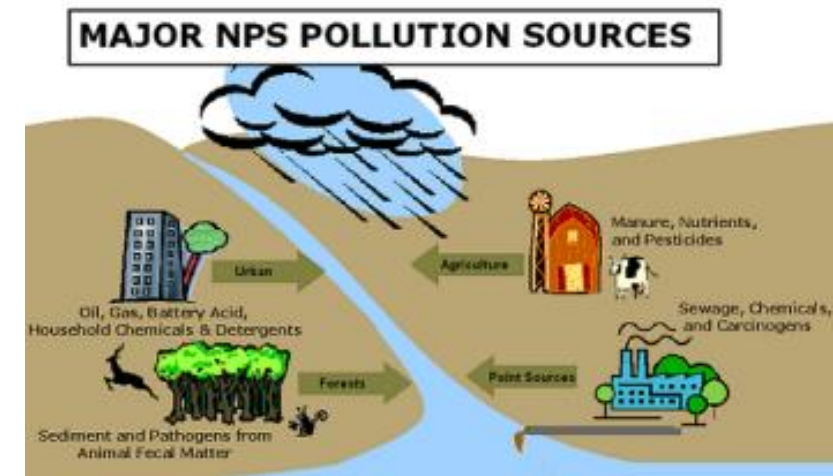
# Definitions

- 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”



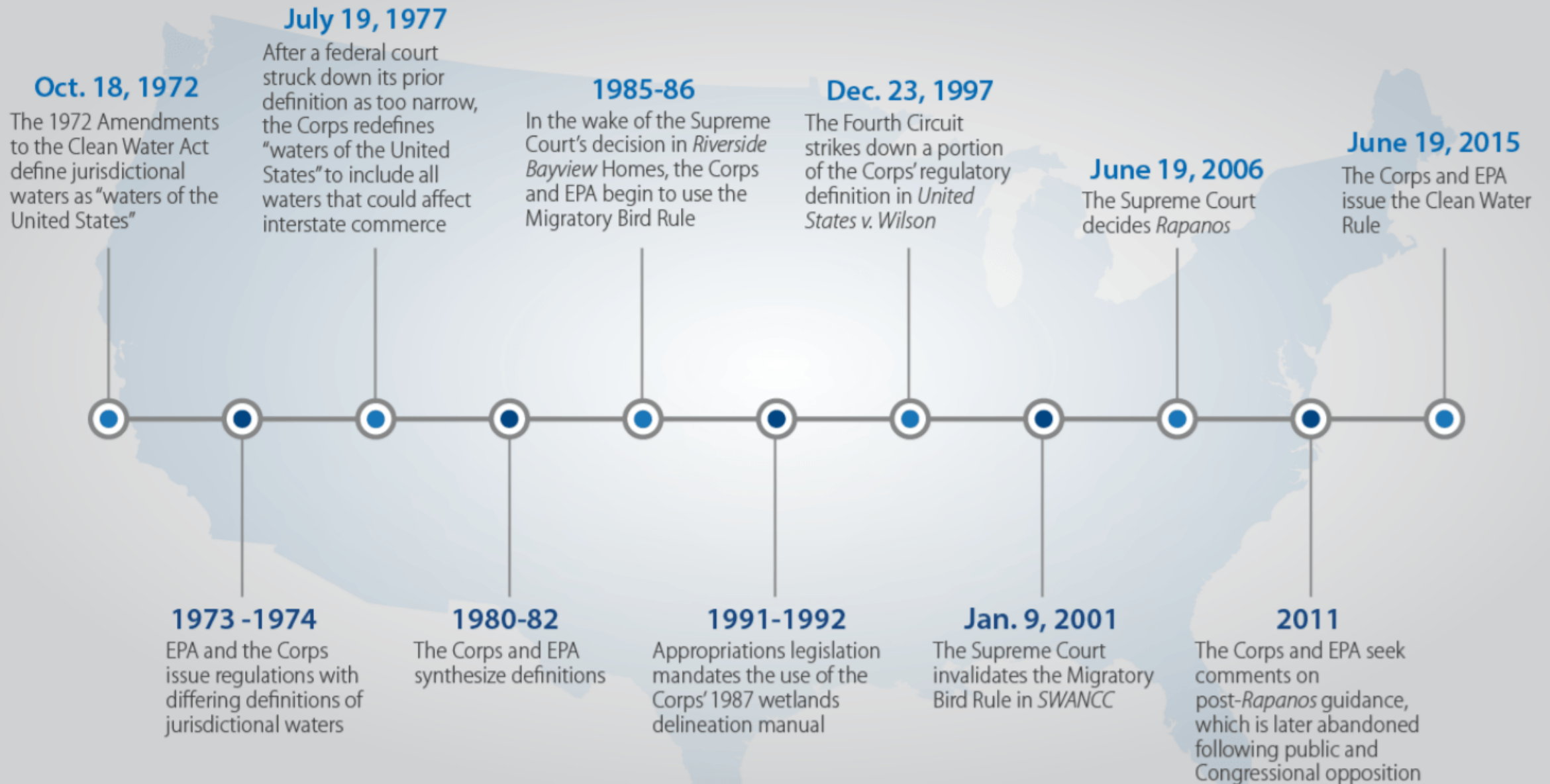
# Definitions

- 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)
- Exceptions:
  - Dispersed runoff of pollutants (stormwater/agricultural)
  - Airborne pollutants



# EVOLUTION OF THE DEFINITION OF "WATERS OF THE UNITED STATES"

## Critical Events Timeline





# Multiple US Supreme Court cases, conflicting views

- *United States v. Riverside Bayview Homes, Inc.* (1985)
  - Deference to the Corps' assertion of jurisdiction over wetlands actually abutting a traditional navigable water, stating that adjacent wetlands may be regulated as waters of the United States because they are "inseparably bound up" with navigable waters and "in the majority of cases" have "significant effects on water quality and the aquatic ecosystem" in those waters.
- *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)* (2001)
  - Rejected a claim of federal jurisdiction over nonnavigable, isolated, intrastate ponds that lack a sufficient connection to traditional navigable waters, noting that the term "navigable" must be given meaning within the context and application of the statute.
- *Rapanos vs. U.S.*, 547 U.S. 715 (2006)
  - Split outcome:
    - Scalia for 4 person plurality: dictionary definition "only relatively permanent, standing or flowing bodies of water" (no deference to US Army Corps)
    - Kennedy concurrence: fact specific test depending on "significant nexus between the wetlands in question and navigable waters in the specific sense"
    - Stevens dissent with 4: *Chevron* deference to Corps' regulations

# How to Define a Wetland

By a vote of 5 to 4, the Supreme Court found that regulators may have gone too far in trying to thwart the plans of two Michigan property owners who have sought to develop tracts designated as wetlands. But the justices failed to form a majority on the broader issue of how the government defines a wetland.

## PLURALITY



Alito

Roberts

Scalia

Thomas

Kennedy

Government can regulate land that is adjacent to a "relatively permanent body of water" and has a "continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins."

FROM THE OPINION  
BY JUSTICE  
ANTONIN SCALIA

## DISSENTERS



Breyer

Ginsburg

Souter

Stevens

Government's reach extends to wetlands adjacent to "all identifiable tributaries that ultimately drain into large bodies of water," even temporary ponds and manmade drains.

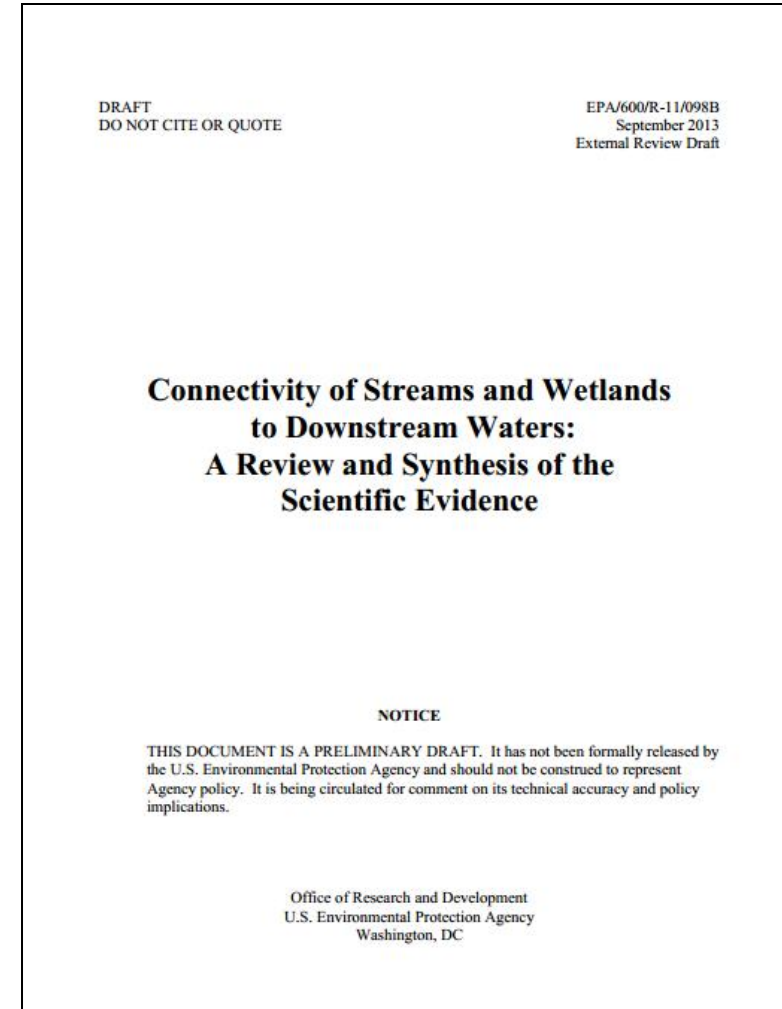
FROM THE OPINION  
BY JUSTICE JOHN  
PAUL STEVENS

Agreed with the plurality to return the two cases to lower courts for further deliberation but disagreed that only "permanent bodies of waters" are subject to regulation. Also said that remote tributaries that have a "significant nexus" to a navigable waterway can be protected.

# Clean Water Act: Post *Rapanos/Obama Admin*

- In the courts...
  - At least 14 courts declined to extend *Rapanos*
- Administratively...
  - Scientific peer review in 2013
  - Draft rules from EPA & Corps →
    - Released in March 2014
    - Comment period closed Nov. 2014
    - Million + comments
  - Rule finalized in 2015
- Back in the courts, stayed by the 6<sup>th</sup> Circuit on Oct. 9, 2015
- Rulemaking to repeal, 2017
- Unstayed for 26 states in 2018

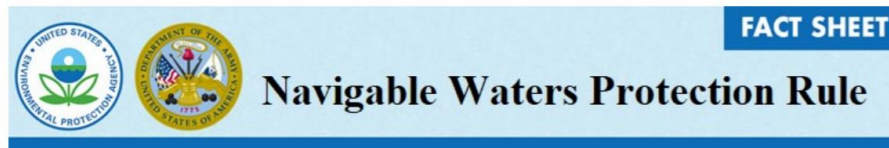
<http://www2.epa.gov/cleanwaterrule/documents-related-proposed-definition-waters-united-states-under-clean-water-act>





# Clean Water Act- Trump Administration

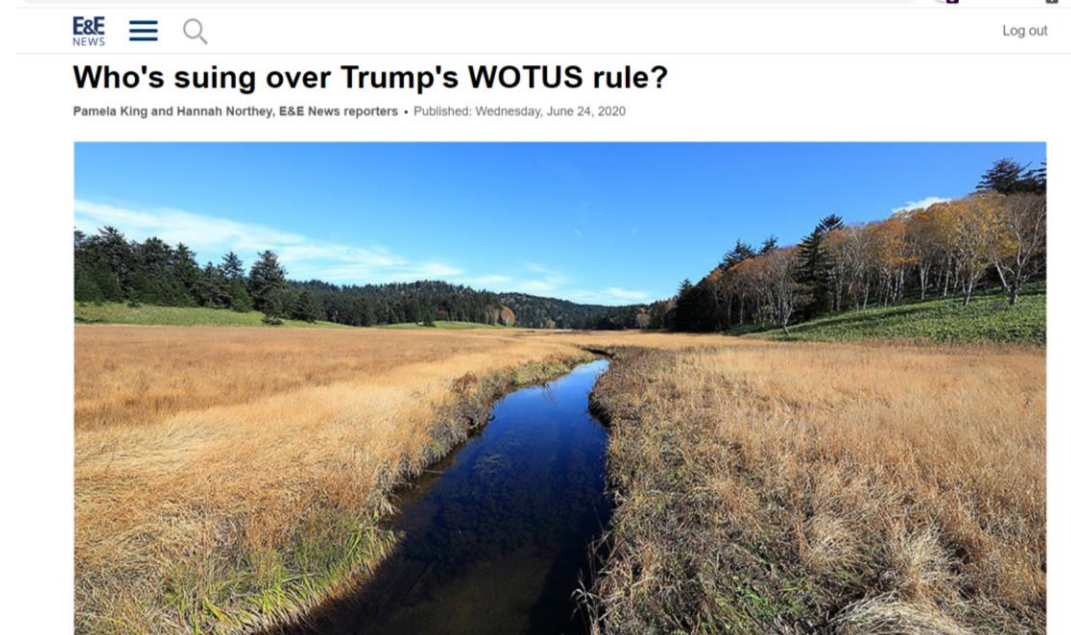
- 2019 Final Rulemaking to undo 2015 Rule
- Jan. 2020 Draft “Navigable Waters Protection Rule” listed for public comment
- April 2020 Navigable Waters Protection Rule became final
- More lawsuits (lots)



## Overview of the Navigable Waters Protection Rule

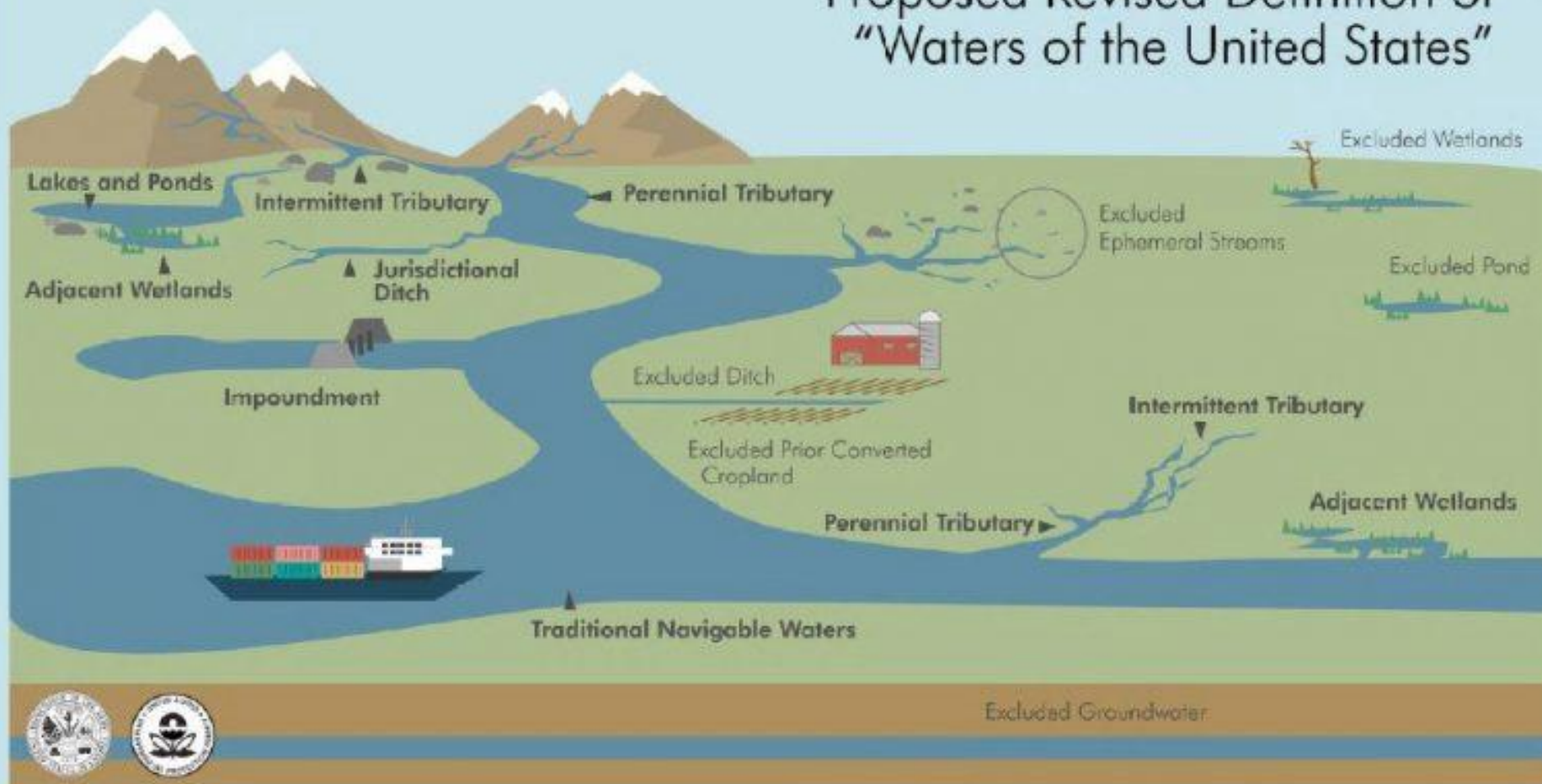
On January 23, 2020, the U.S. Environmental Protection Agency (EPA) and the Department of the Army (Army) fulfilled yet another promise of President Trump by finalizing the Navigable Waters Protection Rule to define “waters of the United States” (WOTUS). For the first time, the agencies are streamlining the definition so that it includes four simple categories of jurisdictional waters, provides clear exclusions for many water features that traditionally have not been regulated, and defines terms in the regulatory text that have never been defined before. Congress, in the Clean Water Act, explicitly directed the Agencies to protect “navigable waters.” The Navigable Waters Protection Rule regulates these waters and the core tributary systems that provide perennial or intermittent flow into them. The final rule fulfills [Executive Order 13788](#) and reflects legal precedent set by key Supreme Court cases as well as robust public outreach and engagement, including pre-proposal input and comments received on the proposed rule.

The Navigable Waters Protection Rule protects the environment while respecting states, localities, tribes, and private property owners. It clearly delineates where federal regulations apply and gives state and local authorities more flexibility to determine how best to manage waters within their borders. Assertions have been made that the new rule will reduce jurisdiction over thousands of stream miles and millions of acres of wetlands. These assertions are incorrect because they are based on data that is too inaccurate and speculative to be meaningful for



Water Resource	Obama Rule	Trump Rule
Traditionally Navigable Waters	✓	✓
Perennial and intermittent tributaries	✓	?
Ephemeral Streams	✓	✗
Wetlands with physical surface connections to waterways	✓	Some
Wetlands lacking a surface connection to waterways	✓	✗
Ditches	Some	Very Few
Lakes and Ponds	Most	Most
Impoundments	✓	✓

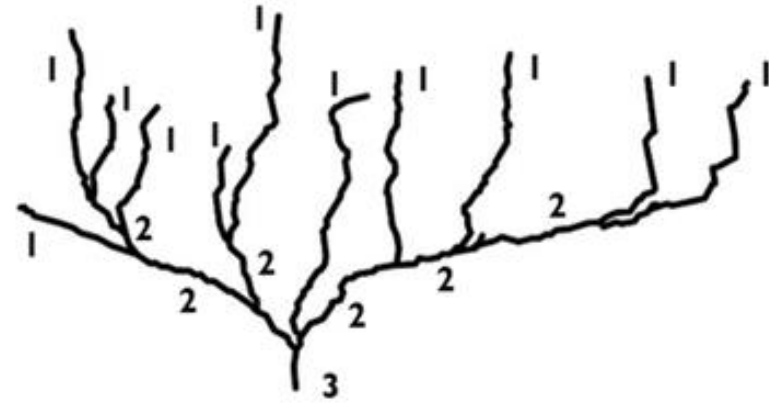
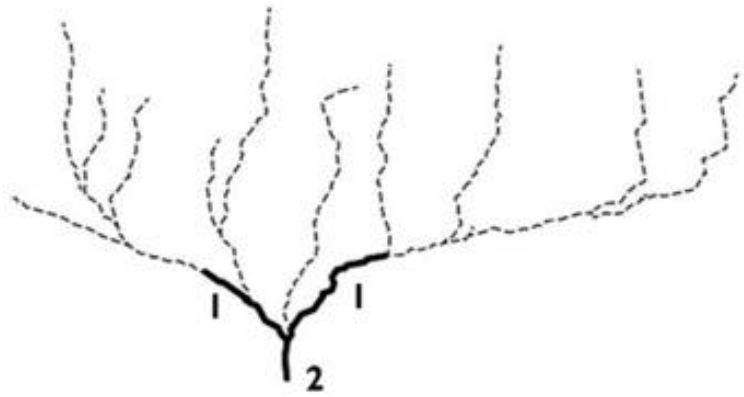
## Proposed Revised Definition of "Waters of the United States"



\* 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

# Clean Water Act- continued

- Aug. 30, 2021- US District Court for Arizona vacated, remanded Trump's "Navigable Waters Protection Rule"
  - EPA & US Army Corps halted implementation
  - Interpreting WOTUS as consistent w/ pre-2015 regulatory regime framework
- Nov. 18, 2021- new proposed rulemaking to reinstate 2015 rulemaking
- Oct. 3, 2022- Sackett Case argued
- January 18, 2023- EPA/COE publish definition of waters of the United States
- May 25, 2023- US Supreme Court decides Sackett (9-0 decision)

**Sackett Holding:** The Clean Water Act extends only to wetlands that have a continuous surface connection with "waters" of the United States — i.e., with a relatively permanent body of water connected to traditional interstate navigable waters, [33 U.S.C. § 1362\(7\)](#) — making it difficult to determine where the water ends and the wetland begins.

<https://www.scotusblog.com/case-files/cases/sackett-v-environmental-protection-agency/>

- August 29, 2023- EPA & US Army Corps issue final rule to amend the final "Revised Definition of the Waters of the United States" rule; effective Sept. 2023
- Lots more litigation

**Operative Definition**

- 2023 Rule as Amended
- Pre-2015 Regulatory Regime Consistent with *Sackett*

EPA is providing this map for informational purposes only, and it cannot be relied on for specific determinations or other legal purposes. As the litigation continues, EPA will update the map, when possible, to reflect the most current information that is made available to EPA and the Army. If a state, Tribe, or an entity has questions, please contact a local U.S. Army Corps of Engineers District office or EPA. This map was updated on September 23, 2024.

<https://www.epa.gov/wotus/definition-waters-united-states-rule-status-and-litigation-update>



## One other critical case: Hawai'i Wildlife Fund v. County of Maui (2020)



In June 2013, the University of Hawaii prepared the Lahaina Groundwater Tracer Study for the State of Hawai'i Department of Health, U.S. Environmental Protection Agency, and U.S. Army Engineer Research and Development Center. The study showed that there was a hydraulic connection between the Lahaina Wastewater Reclamation Facility (LWRF) and the water off the coast of Kaanapali. The treated wastewater effluent that the County of Maui was injecting into its wells was making its way through the groundwater and into the ocean.

# New test for functional equivalency through groundwater from *Hawai'i Wildlife Fund v. County of Maui* (2020)

(Slip Opinion)

OCTOBER TERM, 2019

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## Syllabus

NOTE: Where it is feasible, a syllabus (headnote) will be released, as is being done in connection with this case, at the time the opinion is issued. The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Timber & Lumber Co.*, 200 U. S. 321, 337.

## SUPREME COURT OF THE UNITED STATES

## Syllabus

COUNTY OF MAUI, HAWAII *v.* HAWAII WILDLIFE  
FUND ET AL.

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR  
THE NINTH CIRCUIT

No. 18–260. Argued November 6, 2019—Decided April 23, 2020

The Clean Water Act forbids “any addition” of any pollutant from “any point source” to “navigable waters” without an appropriate permit from the Environmental Protection Agency (EPA). §§ 301(a), 502(12), 86 Stat. 844, 886. The Act defines “pollutant” broadly, §502(6); defines a “point source” as “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.” including, *e.g.*, any “container,” “pipe, ditch, channel, tunnel, conduit,” or “well,” §502(14); and defines the term “discharge of a pollutant” as “any addition of any pollutant to navigable waters [including navigable streams, rivers, the ocean, or coastal waters] from any point source,” §502(12). It then uses those terms in making “unlawful” “the discharge of any pollutant by any person” without an appropriate permit. §301.

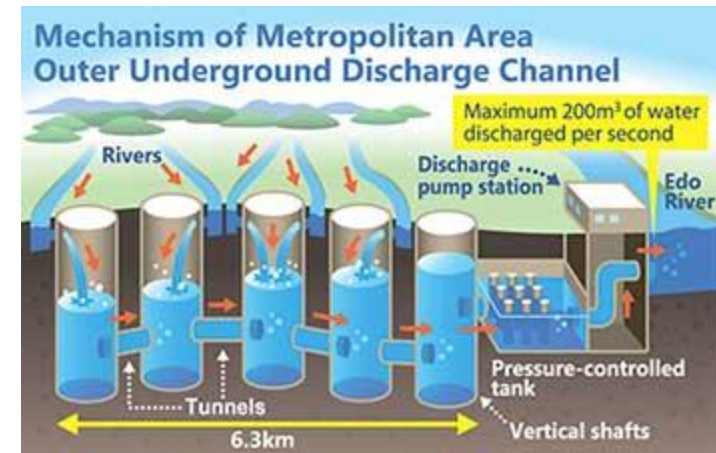
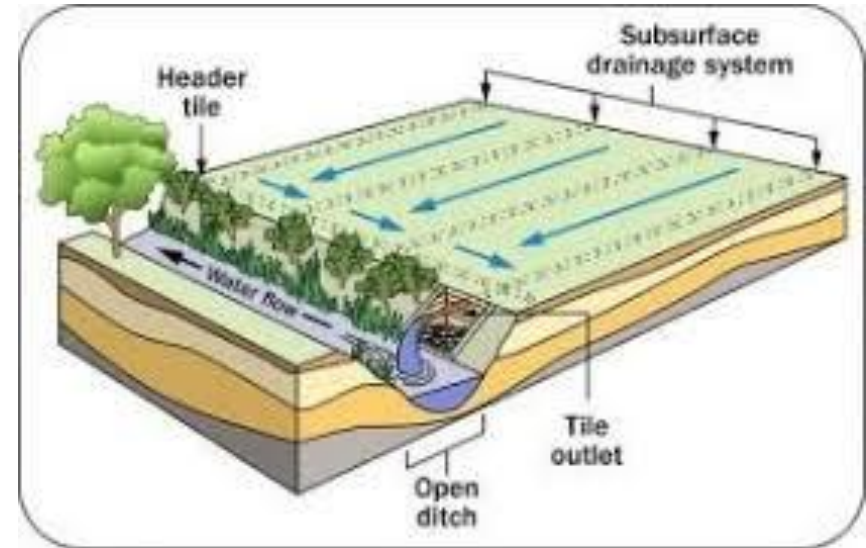
Petitioner County of Maui’s wastewater reclamation facility collects sewage from the surrounding area, partially treats it, and each day pumps around 4 million gallons of treated water into the ground through four wells. This effluent then travels about a half mile, through groundwater, to the Pacific Ocean. Respondent environmental groups brought a citizens’ Clean Water Act suit, alleging that Maui was “discharg[ing]” a “pollutant” to “navigable waters” without the required permit. The District Court found that the discharge from Maui’s wells into the nearby groundwater was “functionally one into navigable water,” 24 F. Supp. 3d 980, 998, and granted summary judgment to the environmental groups. The Ninth Circuit affirmed, stating that a permit is required when “pollutants are fairly traceable from the point source to a navigable water.” 886 F. 3d 737, 749.

*Held:* The statutory provisions at issue require a permit when there is a

“the functional equivalent of a direct discharge”

- (1) transit time,
- (2) distance traveled,
- (3) the nature of the material through which the pollutant travels,
- (4) the extent to which the pollutant is diluted or chemically changed as it travels,
- (5) the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source,
- (6) the manner by or area in which the pollutant enters the navigable waters,
- (7) the degree to which the pollution (at that point) has maintained its specific identity. Time and distance will be the most important factors in most cases, but not necessarily every case.

# How does the Maui case fit in today? (????)





# More wrinkles from the Loper-Bright (2024) case

*The Washington Post*  
*Democracy Dies in Darkness*

## Supreme Court curbs federal agency power, overturning Chevron precedent

The Chevron precedent was targeted by conservatives who say the government gives too much power to federal bureaucrats.

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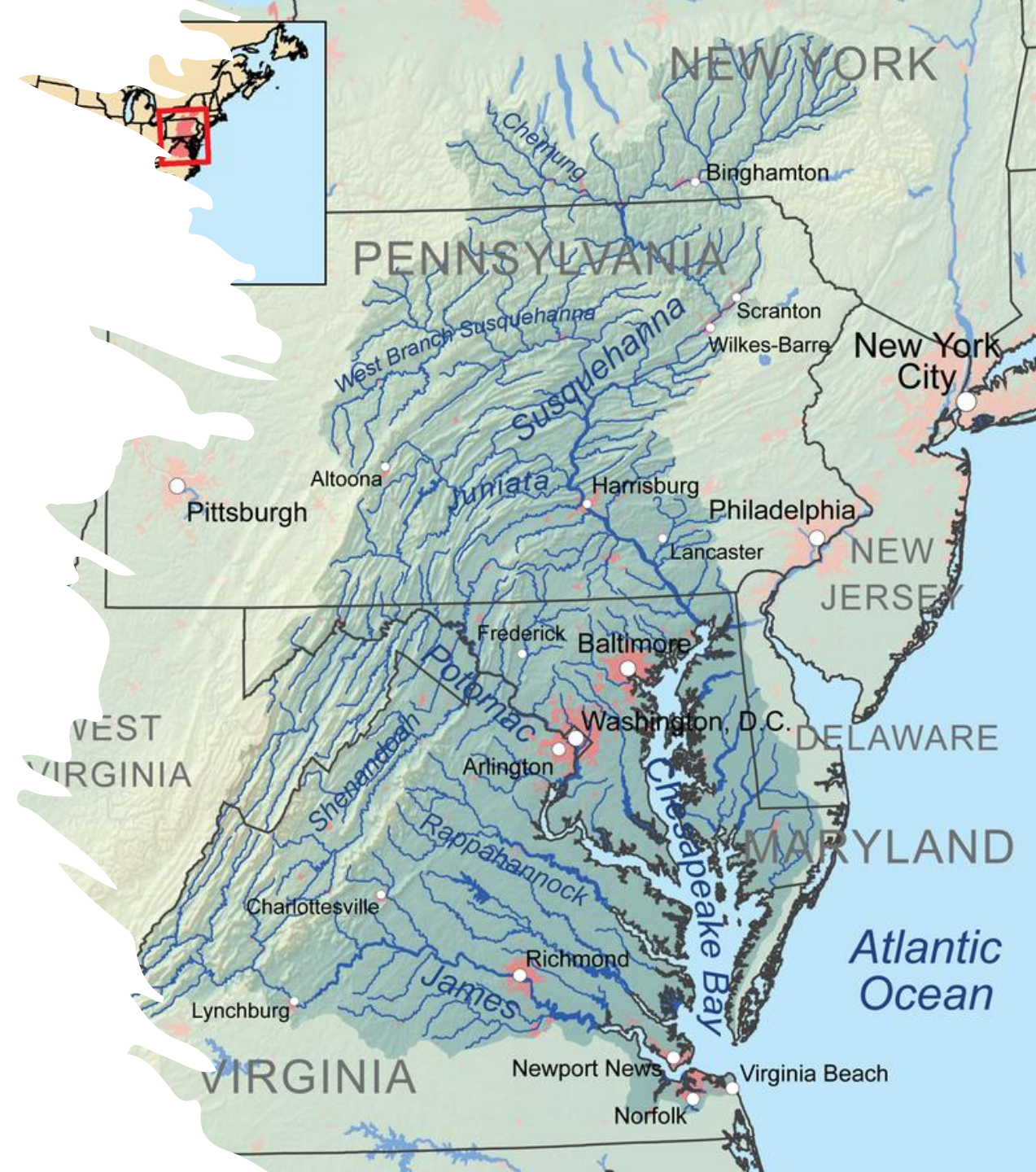


### 2024 US Supreme Court Decision

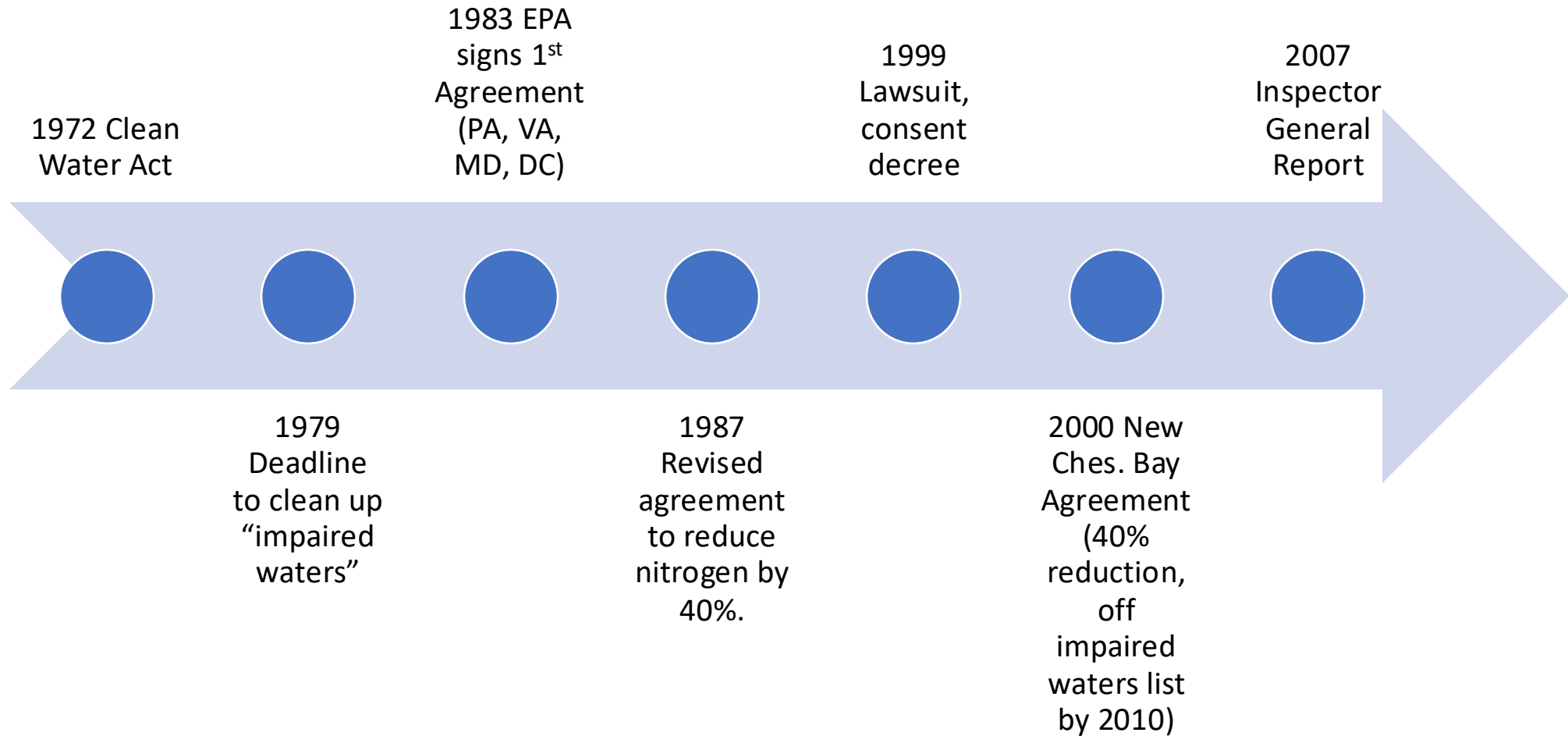
- Overturned “Chevron” case which provided deference to reasonable agency interpretations of ambiguous statutory provisions
- Deference given to agencies given their specialized expertise in the subject area; Congress allowed agencies to fill the gaps, promote uniformity across the United States
- Now? Agency interpretations should be given “respect” but not binding deference
- Impact?
  - Past cases are unaffected
  - Future cases cannot apply deference
  - More litigation (federal and state)

# Overview

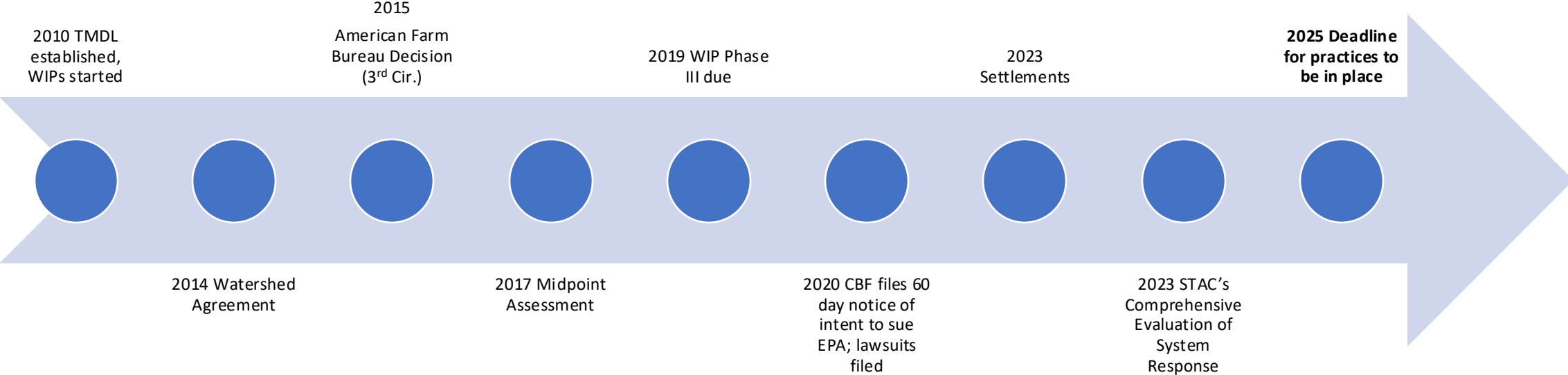
- Quick reminder of where “law” comes from
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- The Clean Water Act + interpretation of WOTUS
- Recent SCOTUS decisions re: Chevron
- **Regulations & the Chesapeake Bay**
- Pennsylvania as a case study
- Now what + some ideas



# The law & policy on how to address the Chesapeake Bay has evolved over 40+ years

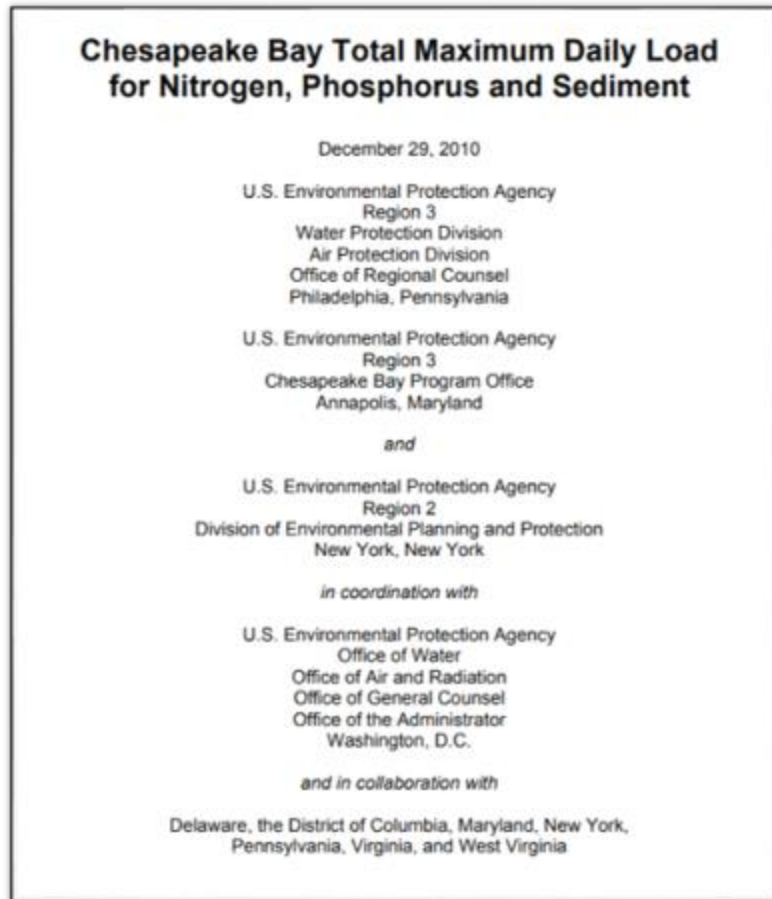


# The legal framework has tightened over time, but what now?





# 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”

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



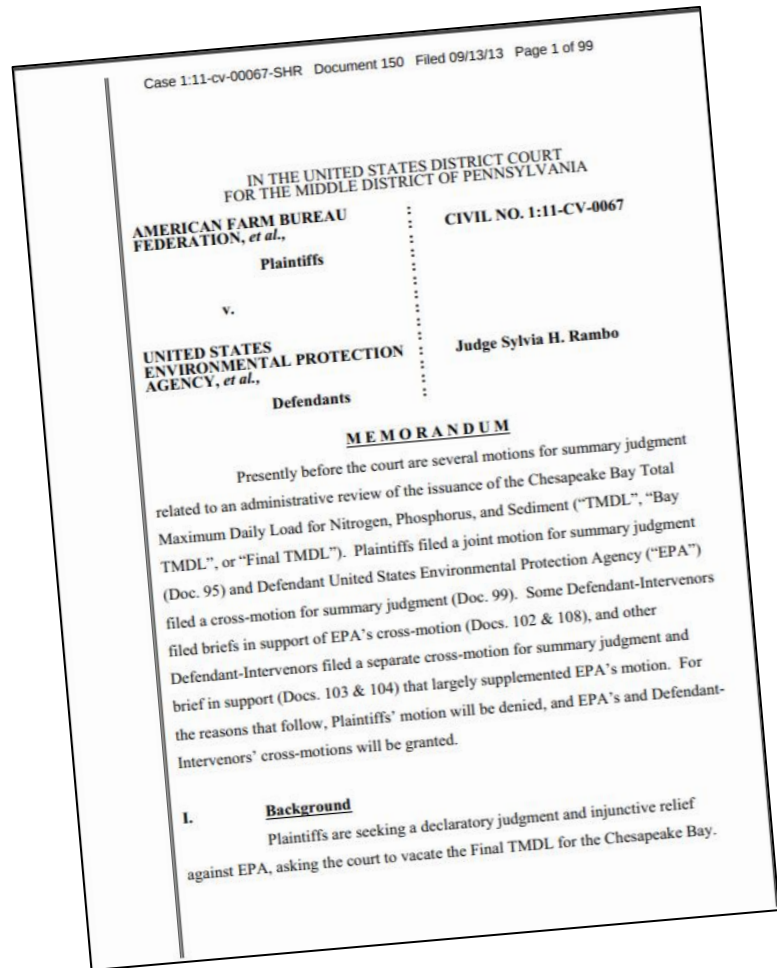
	Expectation letter	Submission
Phase I	2009	2010
Phase II	2011	2012
Phase III	2018	2019

## 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.

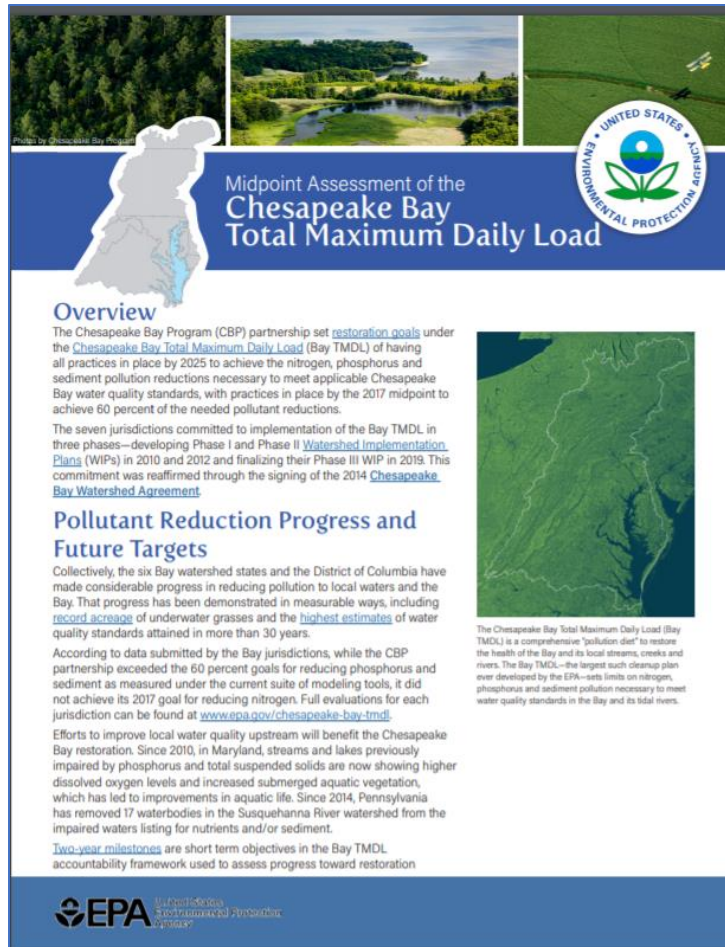
Water Quality Standards Attainment and Monitoring Outcome



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



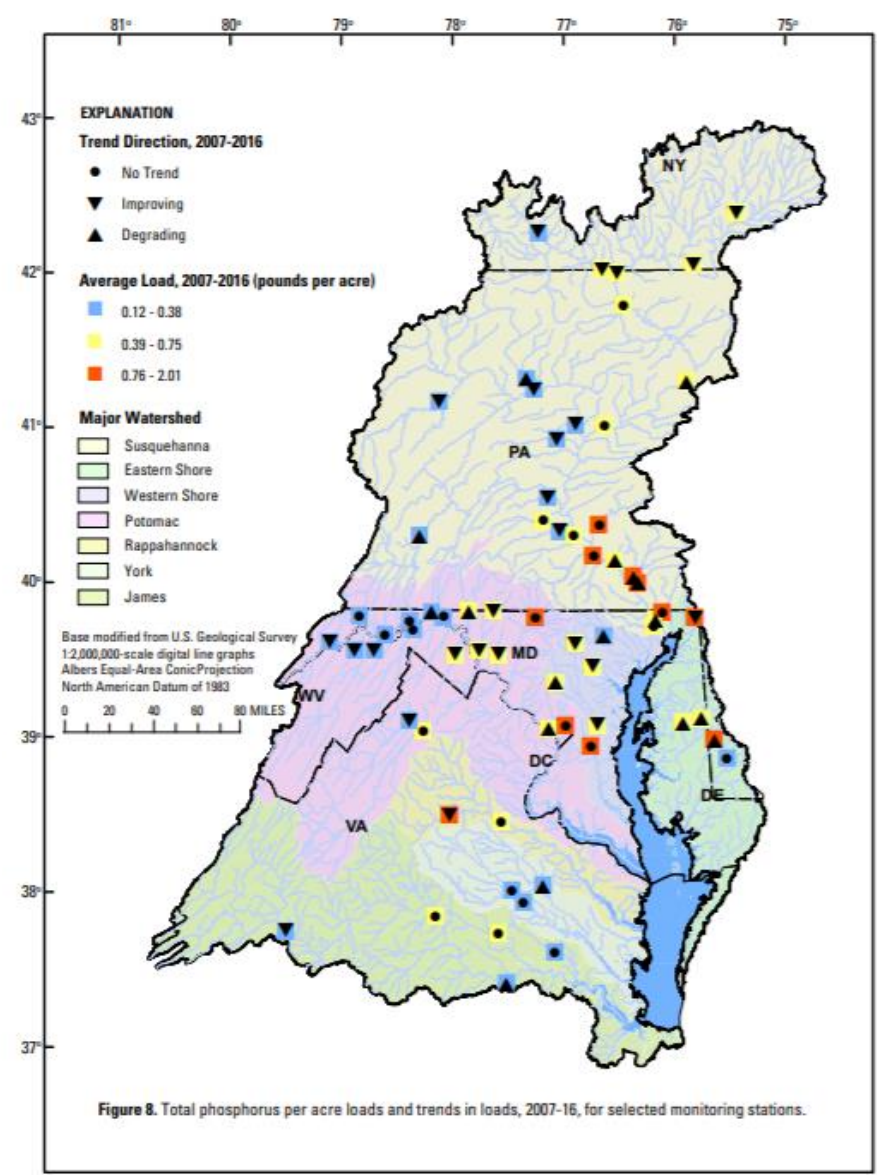
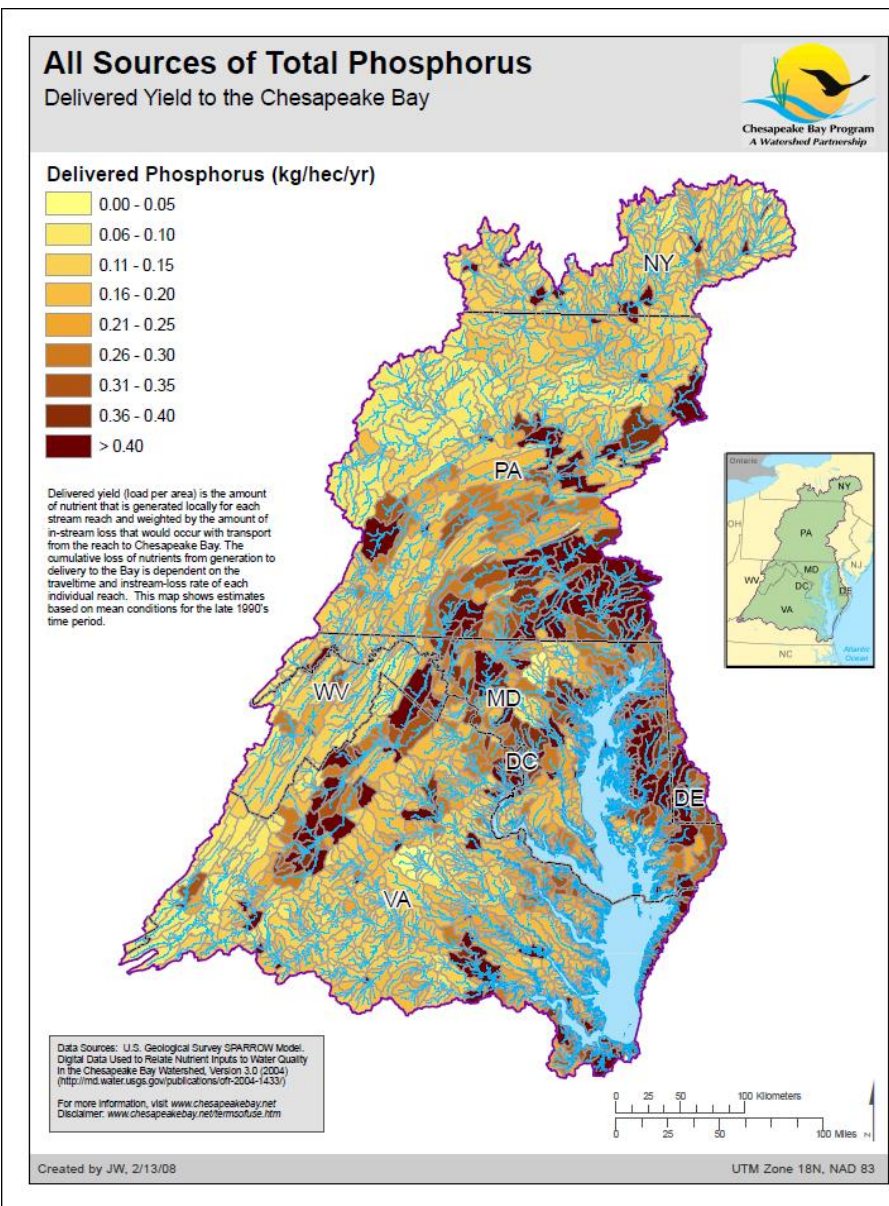
Considerable measurable progress:

- 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

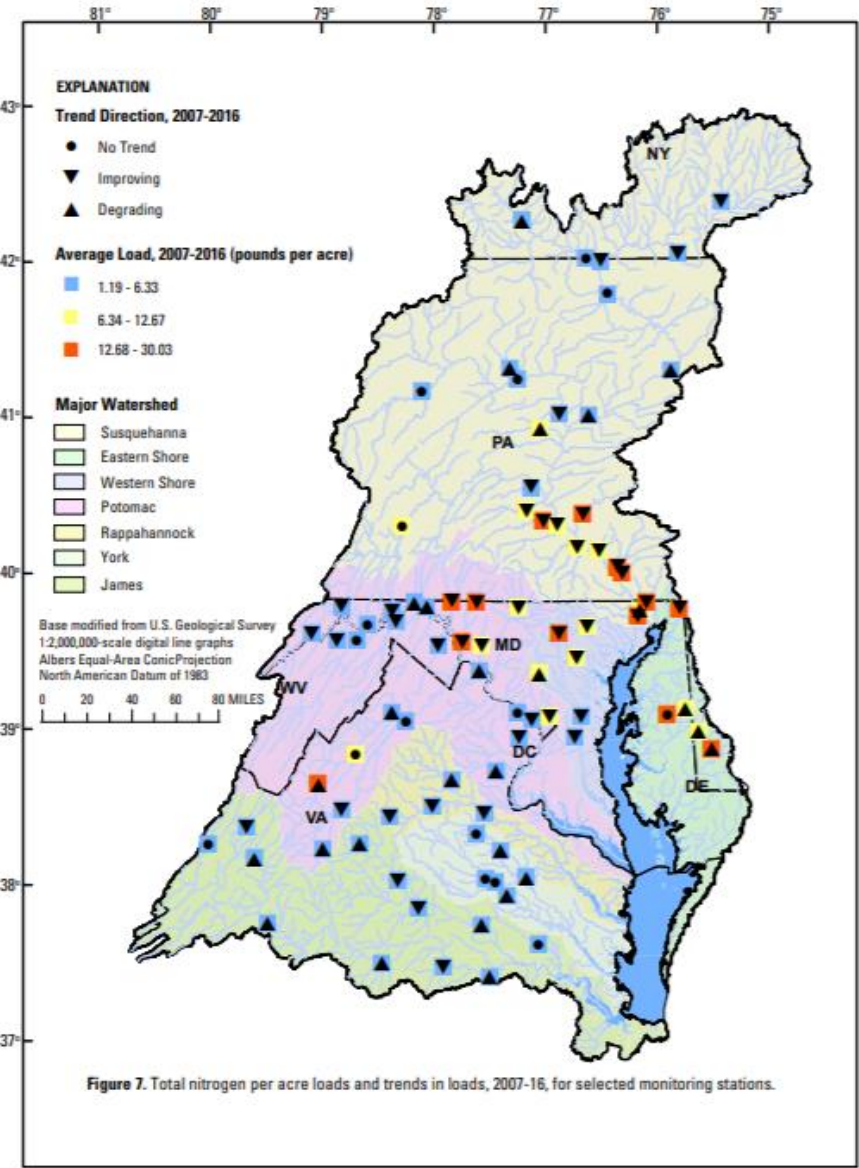
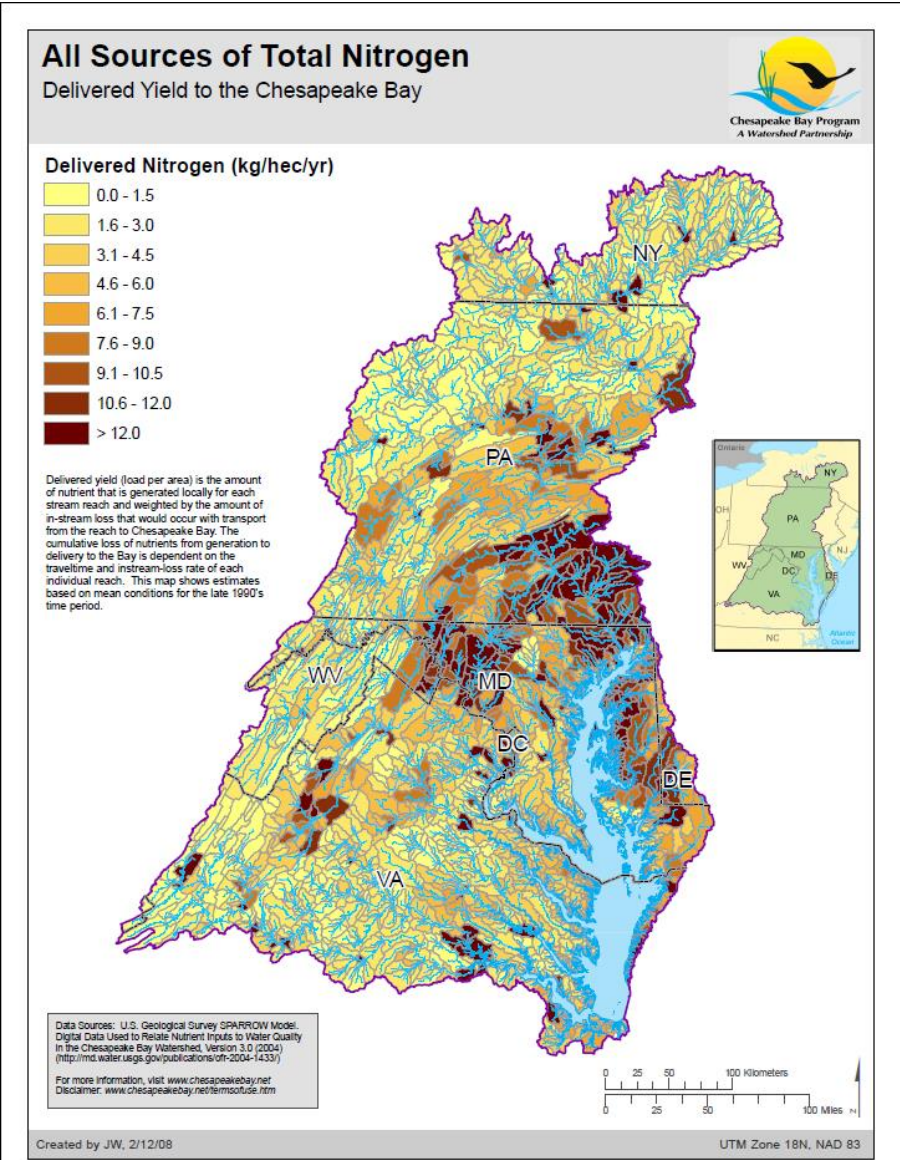
# Monitoring showed that phosphorous runoff was improving in many areas



Moyer & Blomquist (2017)



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



Moyer & Blomquist (2017)





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



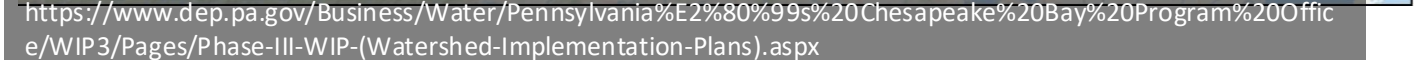
To the left: [https://prd-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/styles/side\\_image/public/thumbnails/image/MODIS%20image%20of%20Chesapeake%20Bay%20area%20after%20Tropical%20storm%20Lee\\_2011\\_09.PNG](https://prd-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/styles/side_image/public/thumbnails/image/M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



A map of the Eastern United States, highlighting major river basins and cities. The map includes an inset of the United States with a red box indicating the study area. The main map shows the following features:

- States:** NEW YORK, PENNSYLVANIA, NEW JERSEY, DELAWARE, MARYLAND, VIRGINIA, and parts of WEST VIRGINIA.
- Cities:** Binghamton, Scranton, Wilkes-Barre, New York City, Harrisburg, Philadelphia, Lancaster, Pittsburgh, Altoona, Frederick, Baltimore, Washington, D.C., Arlington, Shenandoah, Charlottesville, Richmond, Lynchburg, Newport News, Norfolk, and Virginia Beach.
- Rivers and Basins:** Chesung, West Branch Susquehanna, Susquehanna, Juniata, Potomac, Shenandoah, Rappahannock, James, and Chesapeake Bay.
- Ocean:** Atlantic Ocean.





# Impact of upstream flows puts the focus on Pennsylvania

**Pittsburgh Post-Gazette®**

post-gazette.COM

## EPA gives poor marks to Pa. on protecting Chesapeake Bay watershed

March 23, 2015 12:00 AM



Dennis Drenner/The New York Times

Pennsylvania discharges more nitrogen into tributaries of the Chesapeake Bay than any other state.

By Don Hohey / Pittsburgh Post-Gazette

Share with others:

258

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Tweet

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+1



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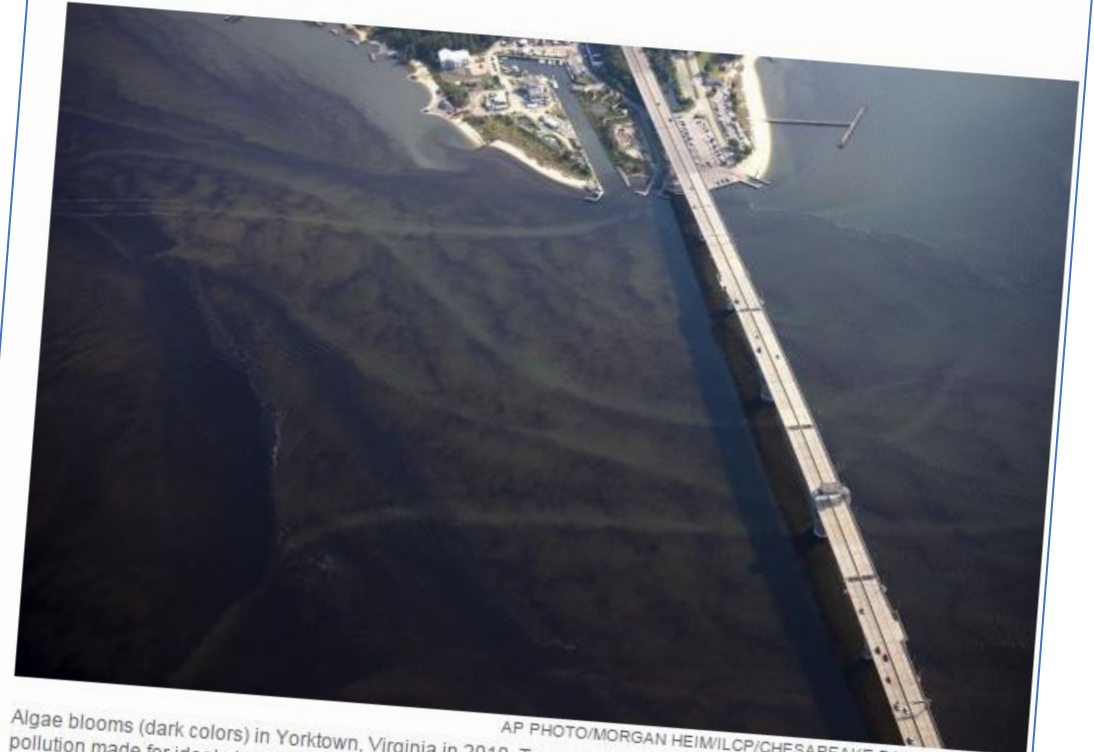
Related Media:

Proposed natural gas pipe comes close to Susquehanna levee system

## More pollution flowing into Chesapeake Bay than expected

APRIL 21, 2015 | 12:01 AM

BY MARIE CUSICK






Algae blooms (dark colors) in Yorktown, Virginia in 2010. Torrential rain combined with high temperatures and pollution made for ideal algae bloom conditions.

AP PHOTO/MORGAN HEIM/WILCP/CHESAPEAKE BAY FOUNDATION

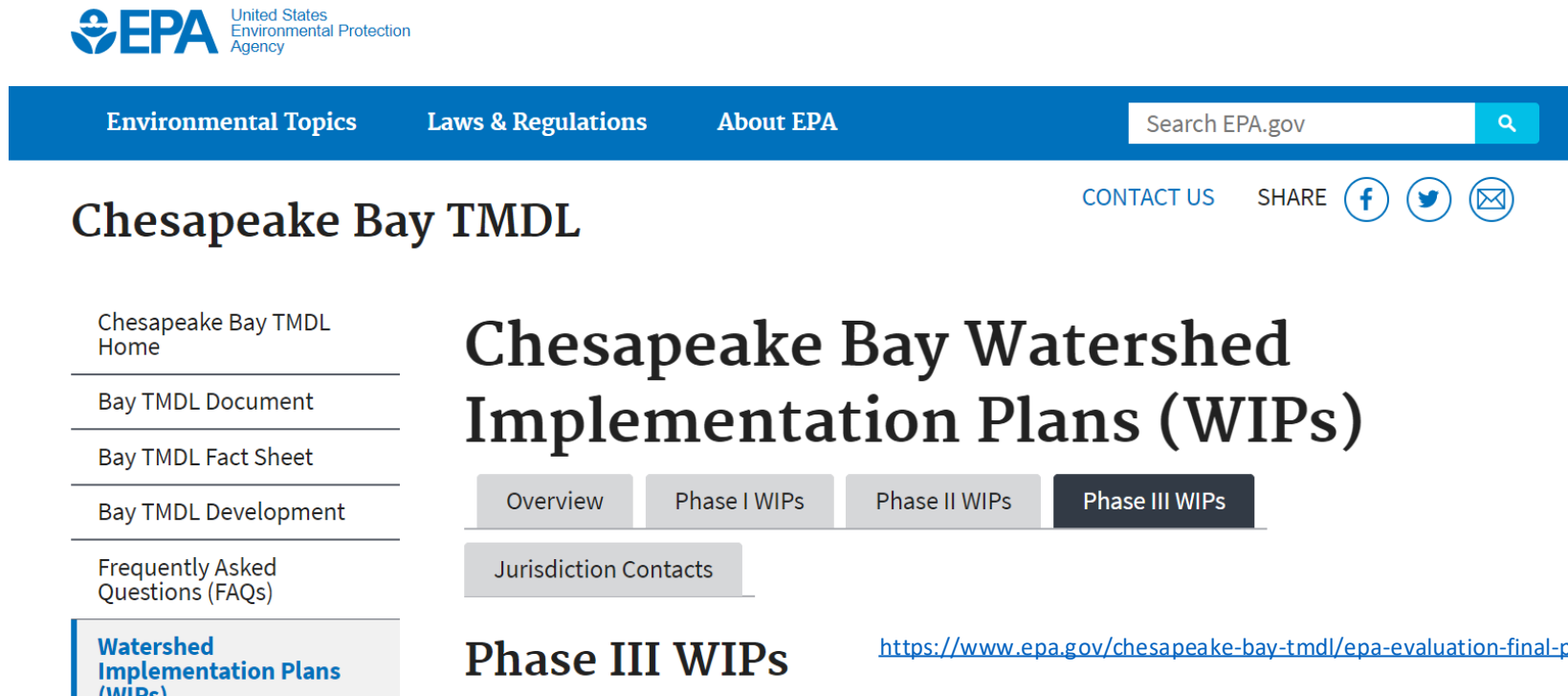
# Concerns over PA sharpened by the Mid Point Assessment

## 2018 Oversight Status

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



# 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, along with a search bar. The main heading is "Chesapeake Bay TMDL". A sidebar on the left lists links: Chesapeake Bay TMDL Home, Bay TMDL Document, Bay TMDL Fact Sheet, Bay TMDL Development, Frequently Asked Questions (FAQs), and Watershed Implementation Plans (WIPs). The main content area features the title "Chesapeake Bay Watershed Implementation Plans (WIPs)" and a set of tabs: Overview, Phase I WIPs, Phase II WIPs, and Phase III WIPs (which is selected). Below the tabs is a link for "Jurisdiction Contacts". At the bottom, the text "Phase III WIPs" is displayed next to the URL <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

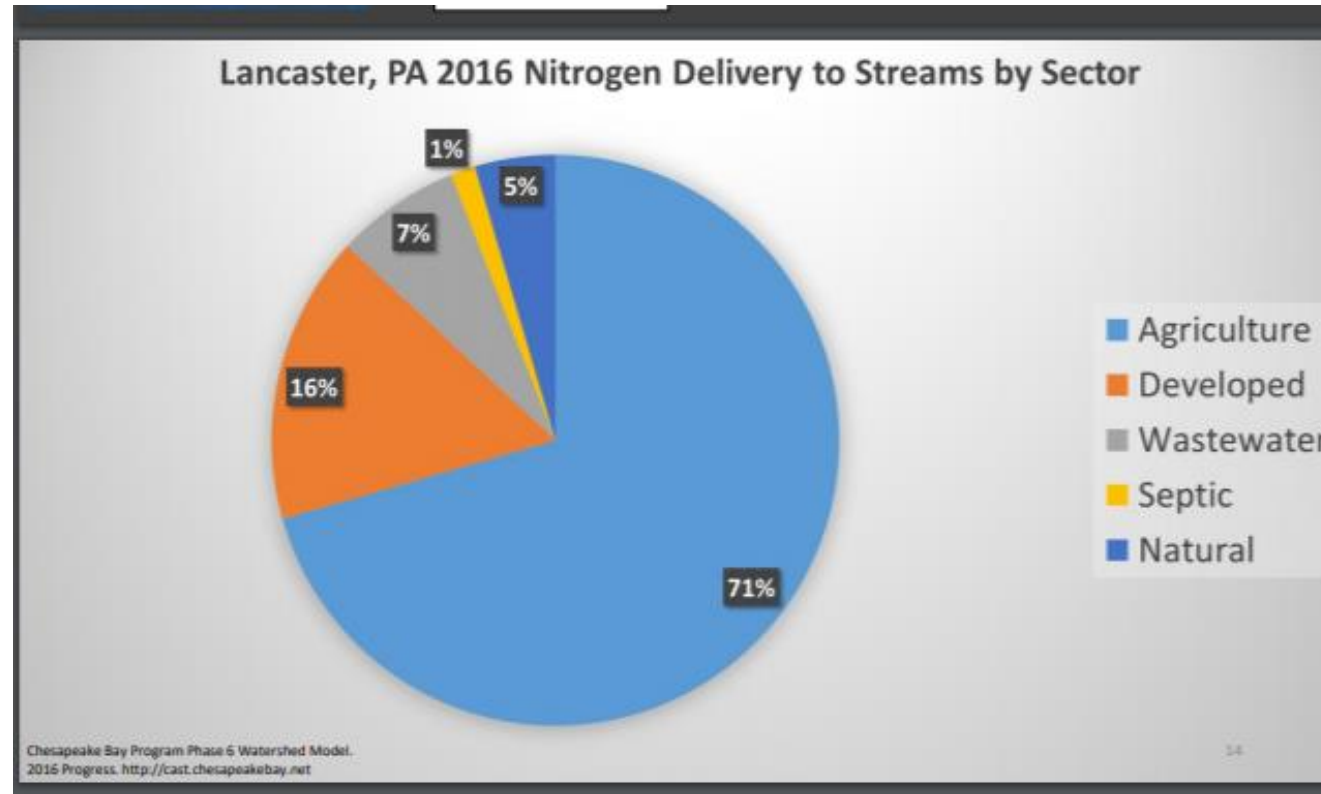
## Phase III:

- 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.”

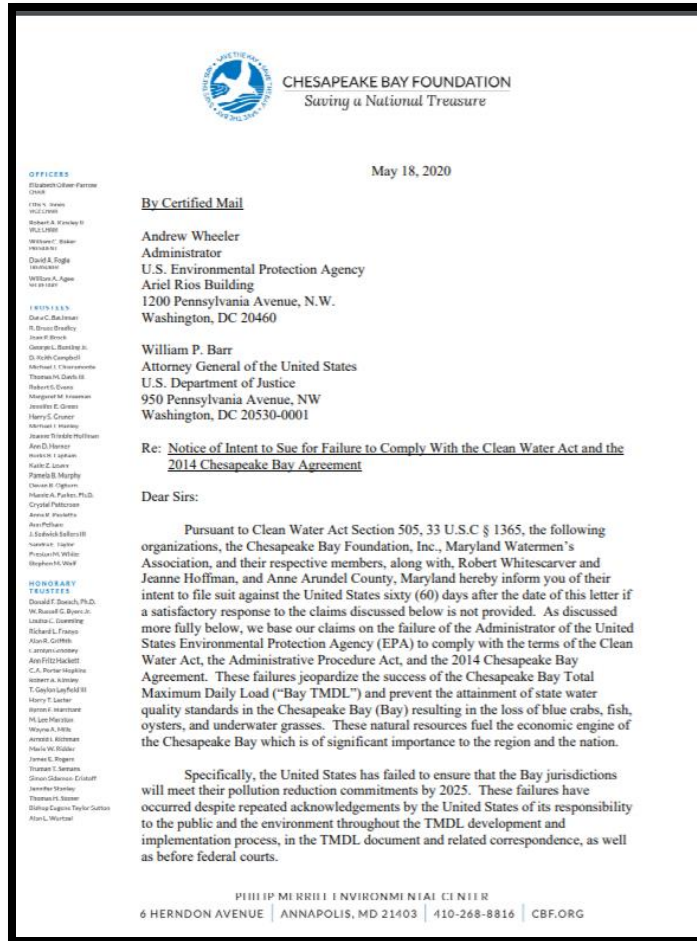
<https://www.capitalgazette.com/environment/ac-cn-bay-comission-0104-20200103-o5nun6uojbapjecl5dak7p62wa-story.html>



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



**In early 2020, other states, NGO 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



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)

# 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

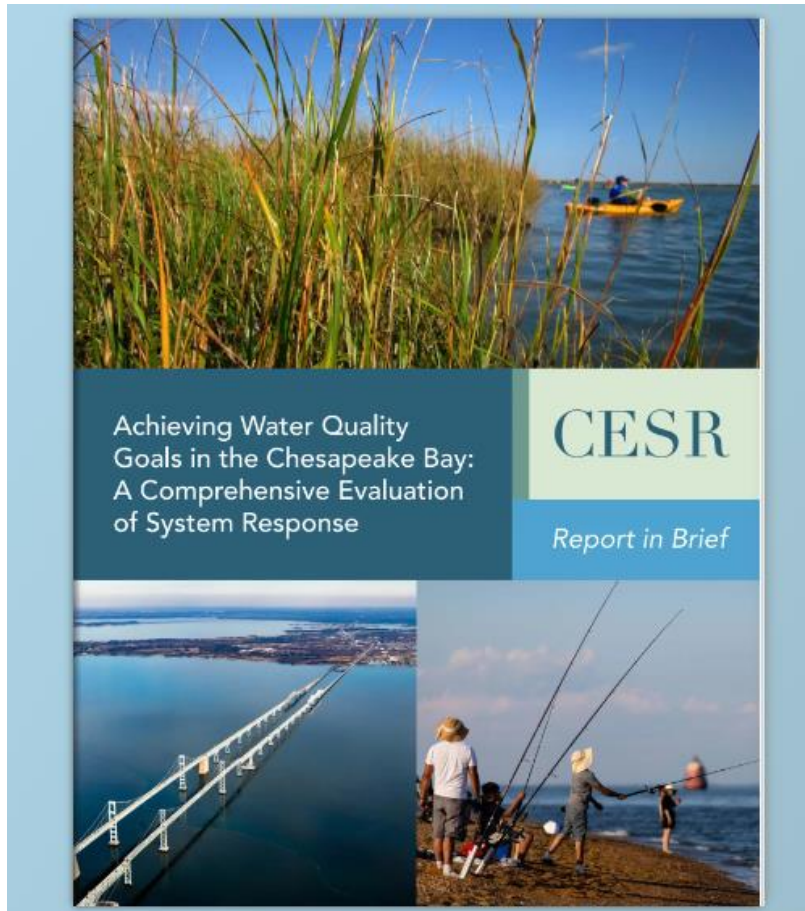
#### ➔ PA's Chesapeake Bay Reboot Strategy To Improve Water Quality May Need Kick-Start

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



# 2023 Comprehensive Evaluation of System Response: We're headed in the right direction, but not fast enough + challenges from non-point source pollution



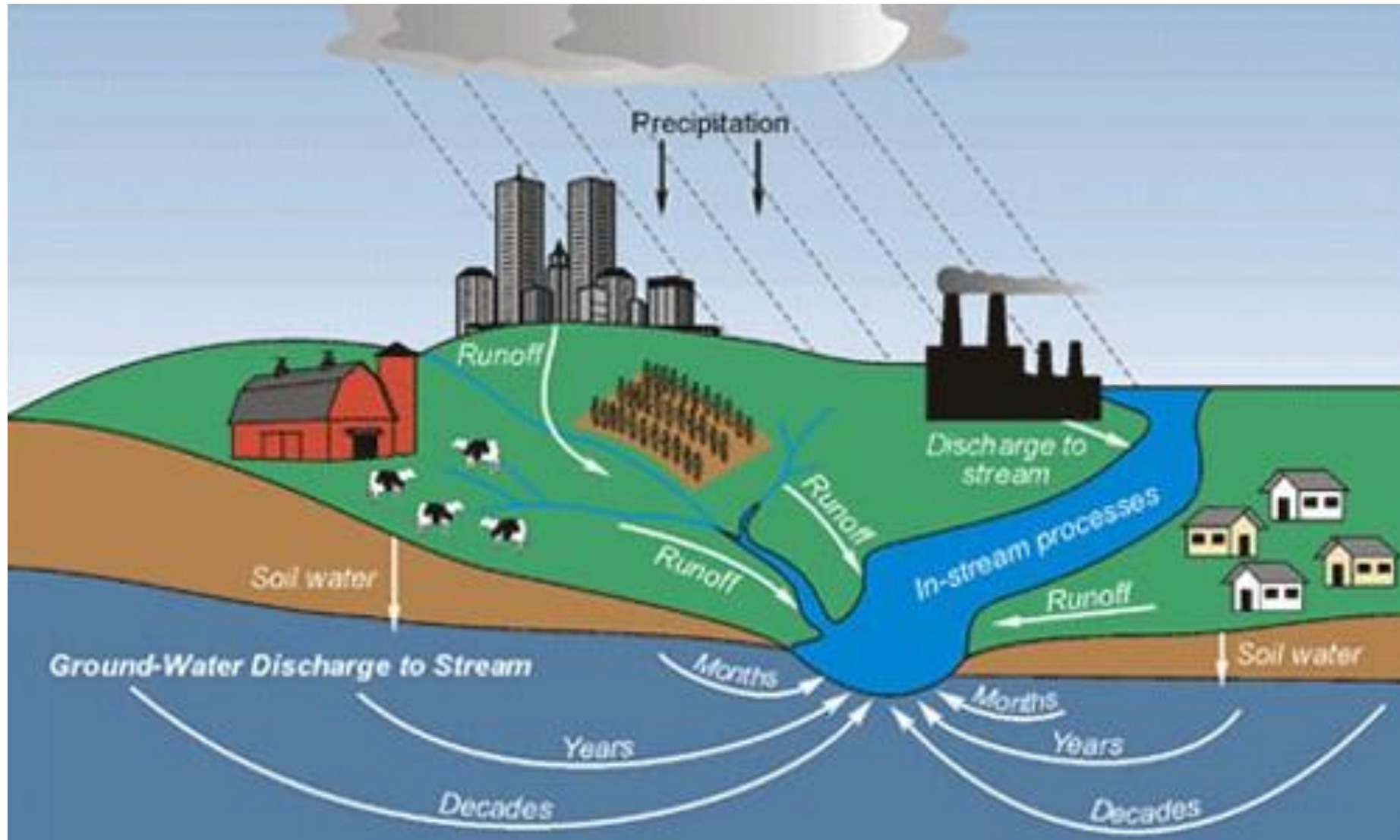
<https://www.chesapeake.org/stac/cesr/>



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



While challenges facing the Chesapeake Bay and its watersheds are significant, the pathway from each state highlights opportunities



# PA as an example: a challenge, and an opportunity

Impaired Waters Listed By State

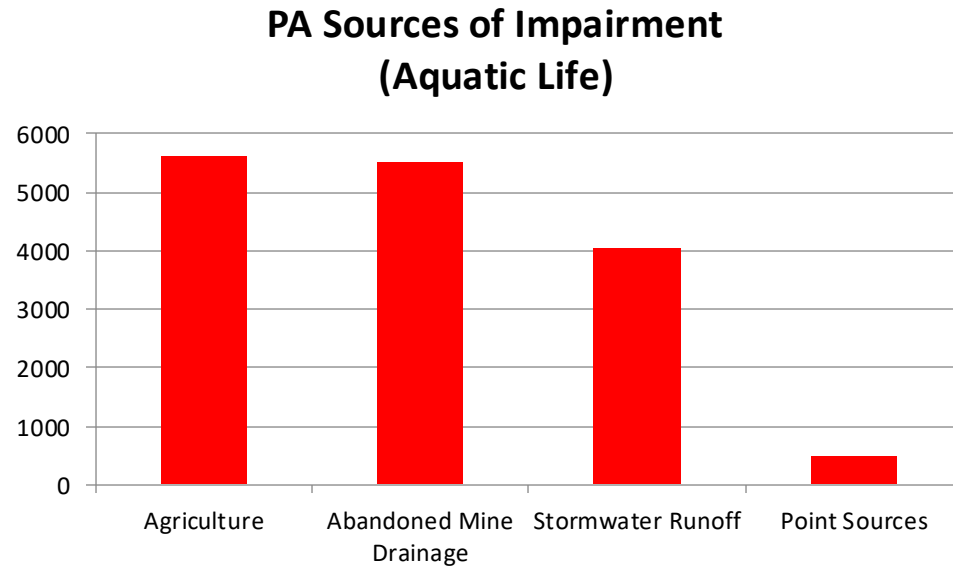
[Description of this table](#)

State Name	Number of Waters on 303(d) List
<a href="#">Alabama</a>	283
<a href="#">Alaska</a>	35
<a href="#">American Samoa</a>	45
<a href="#">Arizona</a>	91
<a href="#">Arkansas</a>	225
<a href="#">California</a>	1,021
<a href="#">Colorado</a>	244
<a href="#">Connecticut</a>	461
<a href="#">Delaware</a>	101
<a href="#">District Of Columbia</a>	36
<a href="#">Florida</a>	2,292
<a href="#">Georgia</a>	242
<a href="#">Guam</a>	47
<a href="#">Hawaii</a>	298
<a href="#">Idaho</a>	741
<a href="#">Illinois</a>	1,057
<a href="#">Indiana</a>	1,836
<a href="#">Iowa</a>	480
<a href="#">Kansas</a>	1,372
<a href="#">Kentucky</a>	1,433
<a href="#">Louisiana</a>	236
<a href="#">Maine</a>	114
<a href="#">Maryland</a>	184
<a href="#">Massachusetts</a>	720
<a href="#">Michigan</a>	2,352
<a href="#">Minnesota</a>	1,144
<a href="#">Mississippi</a>	229

<a href="#">Missouri</a>	257
<a href="#">Montana</a>	480
<a href="#">N. Mariana Islands</a>	24
<a href="#">Nebraska</a>	342
<a href="#">Nevada</a>	215
<a href="#">New Hampshire</a>	1,449
<a href="#">New Jersey</a>	716
<a href="#">New Mexico</a>	209
<a href="#">New York</a>	1,543
<a href="#">North Carolina</a>	1,130
<a href="#">North Dakota</a>	201
<a href="#">Ohio</a>	267
<a href="#">Oklahoma</a>	657
<a href="#">Oregon</a>	1,397
<a href="#">Pennsylvania</a>	6,957
<a href="#">Puerto Rico</a>	231
<a href="#">Rhode Island</a>	120
<a href="#">South Carolina</a>	961
<a href="#">South Dakota</a>	166
<a href="#">Tennessee</a>	1,012
<a href="#">Texas</a>	719
<a href="#">Utah</a>	156
<a href="#">Vermont</a>	104
<a href="#">Virgin Islands</a>	87
<a href="#">Virginia</a>	1,523
<a href="#">Washington</a>	2,420
<a href="#">West Virginia</a>	1,097
<a href="#">Wisconsin</a>	593
<a href="#">Wyoming</a>	107

Total: 42,459 impaired waters

**There are various sources of impairment;  
big ones include ag and urban stormwater runoff**





**In March 2016, the “PA in the Balance” Conference brought 100+ stakeholders together to discuss water quality and agriculture: soil health a key focus**



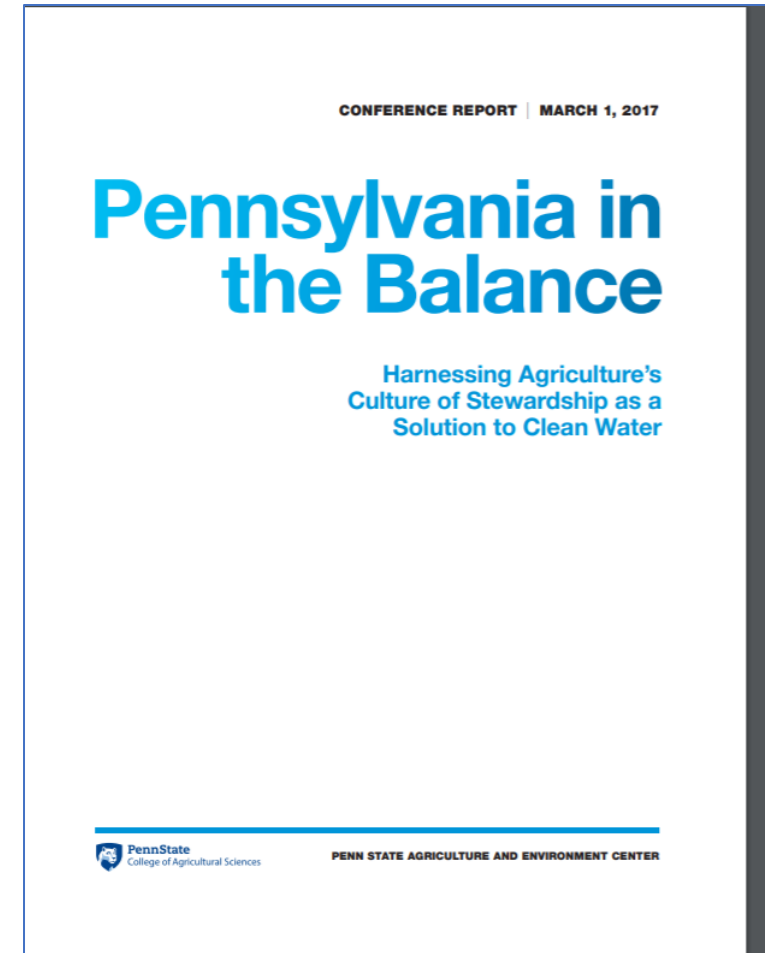
*This conference feels like “we” can all try to pull together to make things better for the watershed and the Bay. It’s real lonely feeling that ag is in this alone, and to blame for what has happened.*

- Conference Participant

The result? A lot of good thoughts on meeting both water quality and ensuring healthy & productive farms



<https://twitter.com/agsciences/status/705529878414761984>



[http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/Ag%20page/\(2\)%20PA%20in%20the%20Balance%20Full%20Report.pdf](http://files.dep.state.pa.us/Water/ChesapeakeBayOffice/Ag%20page/(2)%20PA%20in%20the%20Balance%20Full%20Report.pdf)

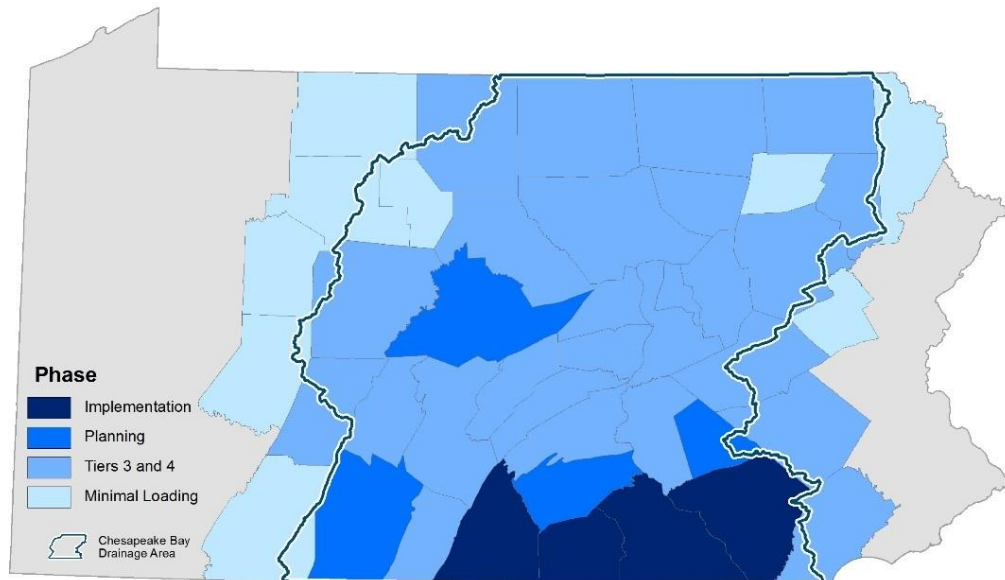
# A focus on stakeholder engagement has been built into the PA Department of Environmental Protection's WIP III approach.

## Will local action lead to effective implementation?



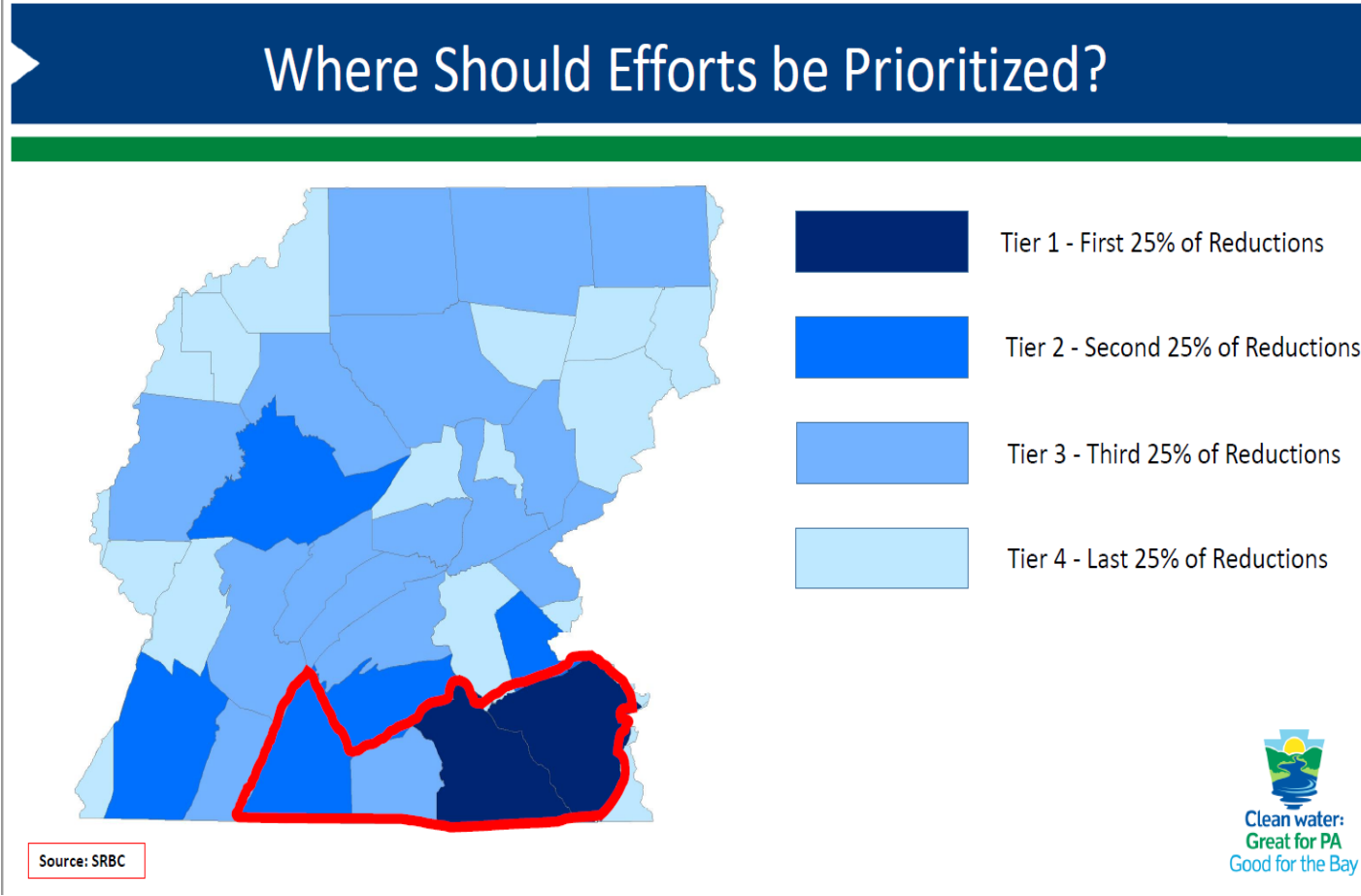
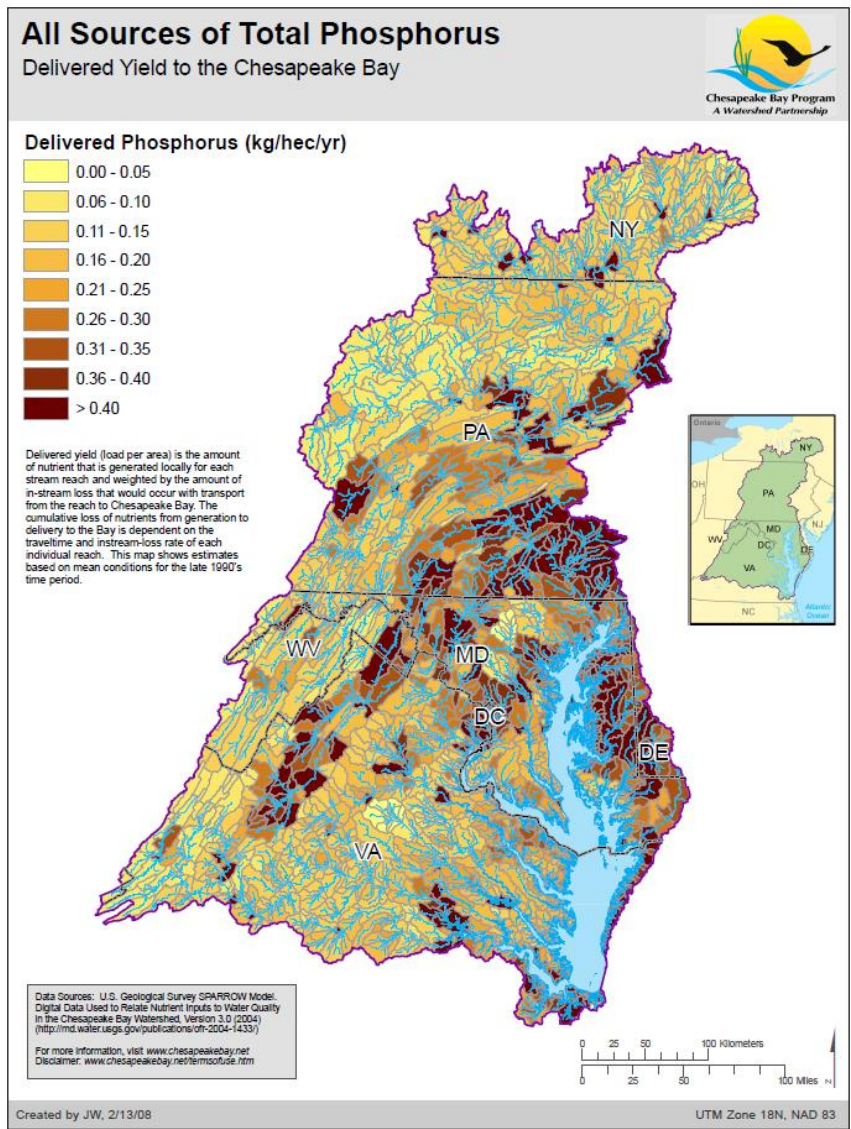
### Potential local priorities + co-benefits:

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





# PA is also using a tiered approach to prioritize its efforts and reinforce local action at a county level



# PA focus on implementation

## Phase 3 WIP: Journey to Success



# 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.

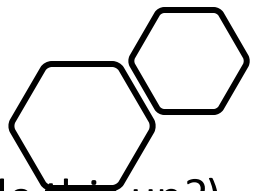






## **Opportunities to engage very locally and across all of our watersheds?**

- Maintenance → engagement!
- Integrated opportunities for restoration/habitat
- A chance to get outside (how do we continue to scale this up?)
- Financing





## What now?

- Election uncertainty
- Litigation uncertainty + less deference to agencies
- Clean Water Act litigation- don't hold your breath for clarity

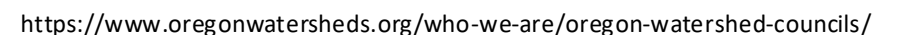
- 
- Beyond 2025- now what?
  - State action- shift toward pay for performance?
  - Opportunity for regulatory "sandboxes"? Local foci?
  - Funding for process (as much as for projects?)





## Oregon: Watershed Focus

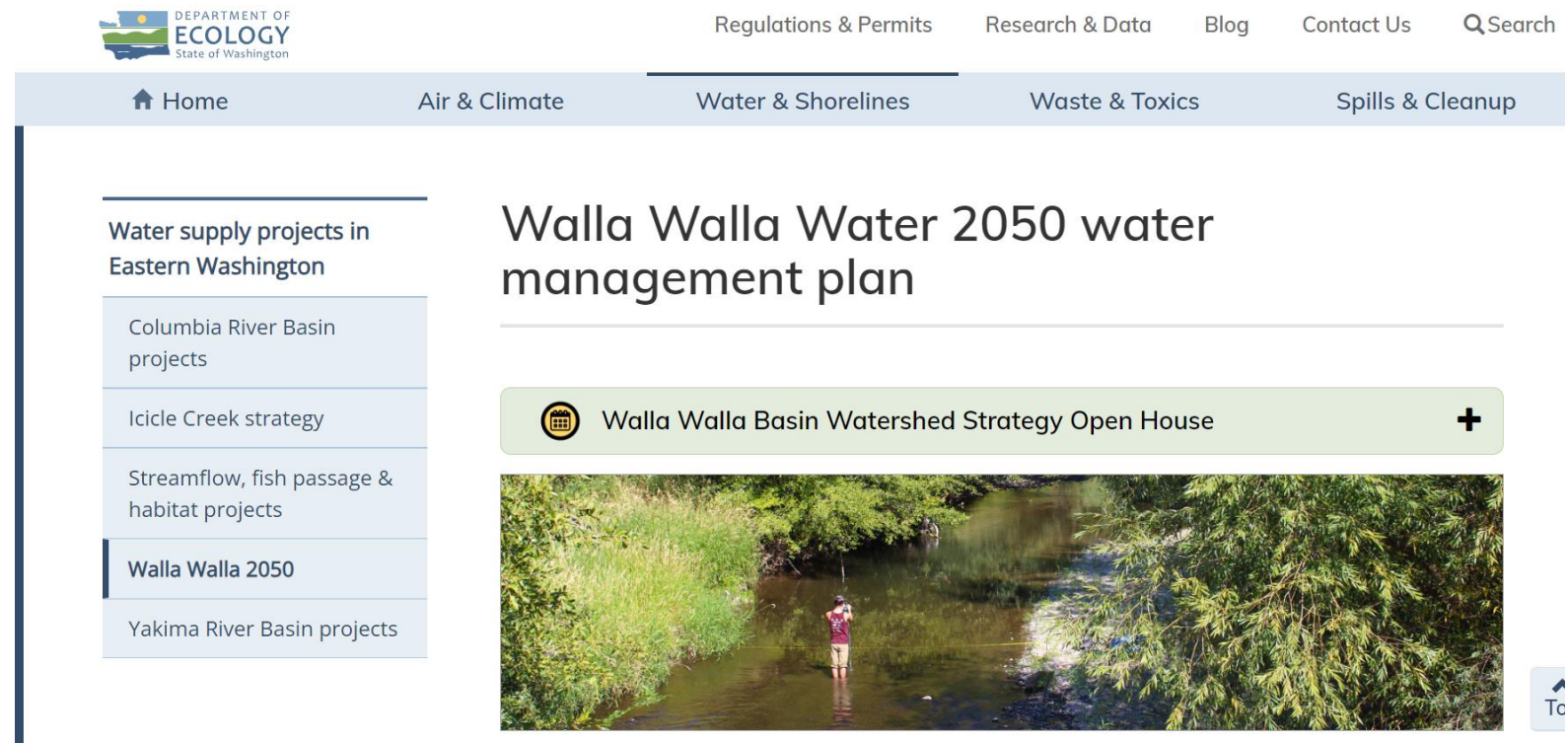
- 
- ## Oregon Watershed Enhancement Board
- Providing grants to help protect and restore healthy watersheds and natural habitats that support thriving communities and strong economies.




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



# Questions/discussion?

Lara Fowler, Penn State

[lb10@psu.edu](mailto:lb10@psu.edu)