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CLEAN WATER ACT OVERVIEW

History

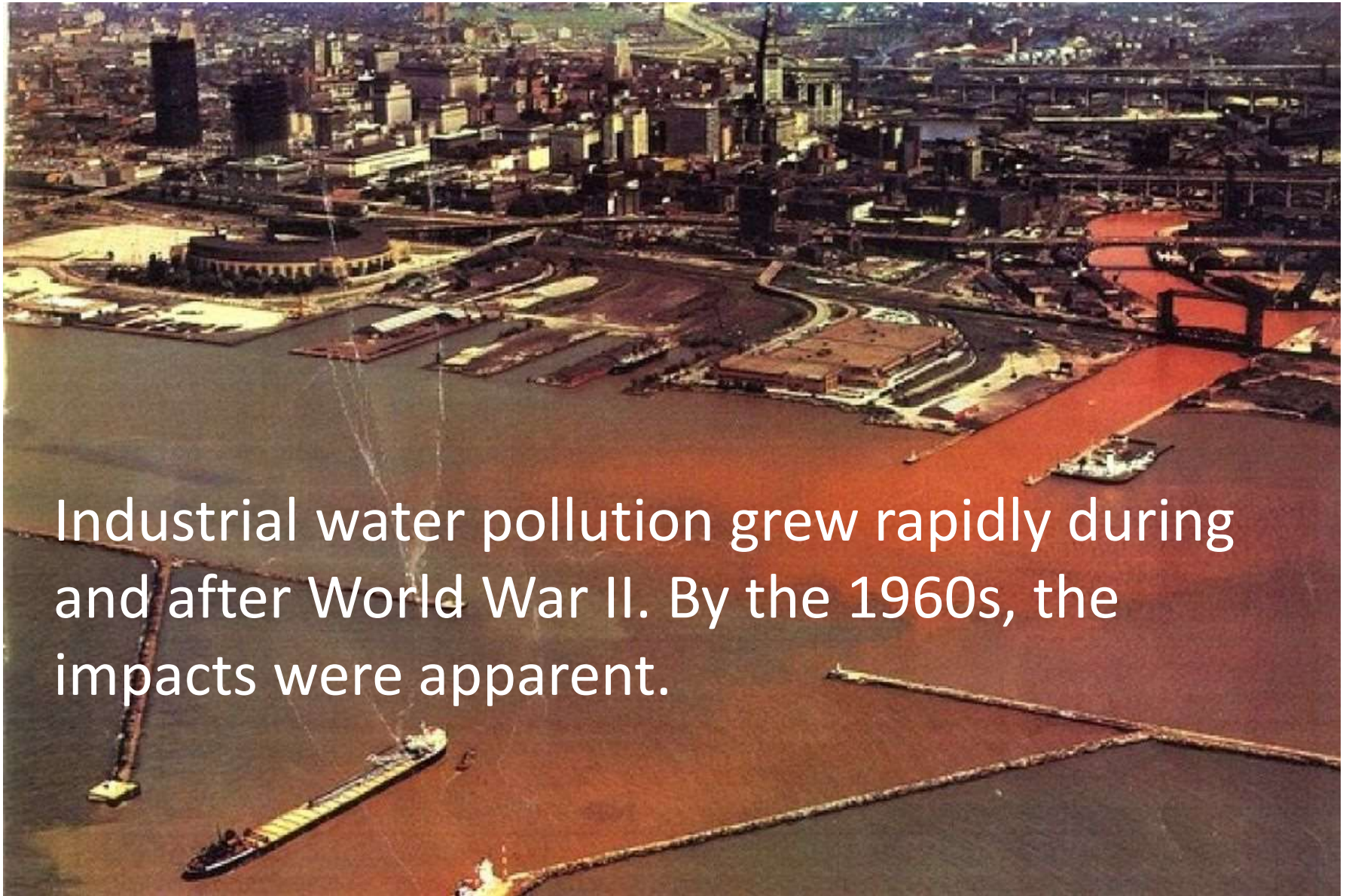
Water pollution was first recognized as a public health issue in the 19th century, as the causes of cholera and other waterborne diseases became recognized.

Water treatment and sewer systems were the first response.



A COURT FOR KING CHOLERA.

History



Industrial water pollution grew rapidly during and after World War II. By the 1960s, the impacts were apparent.



Early water pollution law

- Nuisance claims were available, but ineffective
- The Rivers and Harbors Act of 1899 barred unpermitted discharge of refuse to navigable waters, but exempted sewers and was narrowly construed.
- A few states adopted water quality standards or effluent limitations.

Early water pollution law

- The 1948 Federal Water Pollution Control Act provided financial and technical assistance to states.
- Amendments in 1965 required states to adopt water quality standards, but by themselves those proved difficult to enforce.

The modern Clean Water Act

In 1972, Congress passed what is now known as the Clean Water Act, imposing new federal regulatory requirements.

President Nixon vetoed the bill based on its provision of funds to construct wastewater treatment plants. Congress overrode that veto.

The modern Clean Water Act

The Clean Water Act, like most federal environmental laws, takes a “cooperative federalism” approach. Both state and federal authorities have important roles.

Federal law sets the floor for regulation. States can be more strict, if they choose.

Key provisions: Goals and policy

CWA § 101(a) [33 USC § 1251(a)]

“The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

To that end, national goals of (among other things)

- eliminating the discharge of pollutants into navigable waters by 1985;
- achieving water quality sufficient to protect water recreation and aquatic life by 1983;
- prohibiting the discharge of toxic pollutants in toxic amounts

Key provisions: Goals and policy

CWA § 101(b):

“It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution . . .”

CWA § 101(g):

“It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter.”

Key provisions:

Water quality standards

CWA § 303(c):

States must set water quality standards (WQSs) for waters within their borders. State standards are subject to EPA review and approval. They must be revised every 3 years.

WQSs must “protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter.”

Water Quality Standards

WQSs have two elements (303(c)(2)(A)):

- **Designated uses** of the water segment. All existing uses must be included.
- **Water quality criteria** sufficient to protect the designated uses. EPA supplies reference criteria for many pollutants and uses, but state need not adopt them.

Water Quality Standards

Theoretically, combining designated uses with criteria should produce numerical standards for each pollutant for each water segment.

Often, though, standards are “narrative” rather than numerical: e.g., “no substances which will impart any undesirable taste to fish flesh or make fish inedible.”

State certification

CWA § 401 requires the applicant for a federal permit or license which may result in any discharge to the navigable waters to obtain certification from the state that the discharge will not violate state WQSs. The state may choose to waive this requirement. Applicants complain that it adds too much time and an unjustified hurdle to the approval process.

Key provisions: Point source discharge regulation



Point source discharge regulation

§ 301(a): “Except as in compliance [with the Clean Water Act], **the discharge of any pollutant** by any person shall be unlawful.”

§ 402(a): “[T]he Administrator **may . . . issue a permit** for the discharge of any pollutant, or combination of pollutants . . .”

§ 404: “The Secretary [of the Army] **may issue permits . . . for the discharge of dredged or fill material** into the navigable waters . . .”

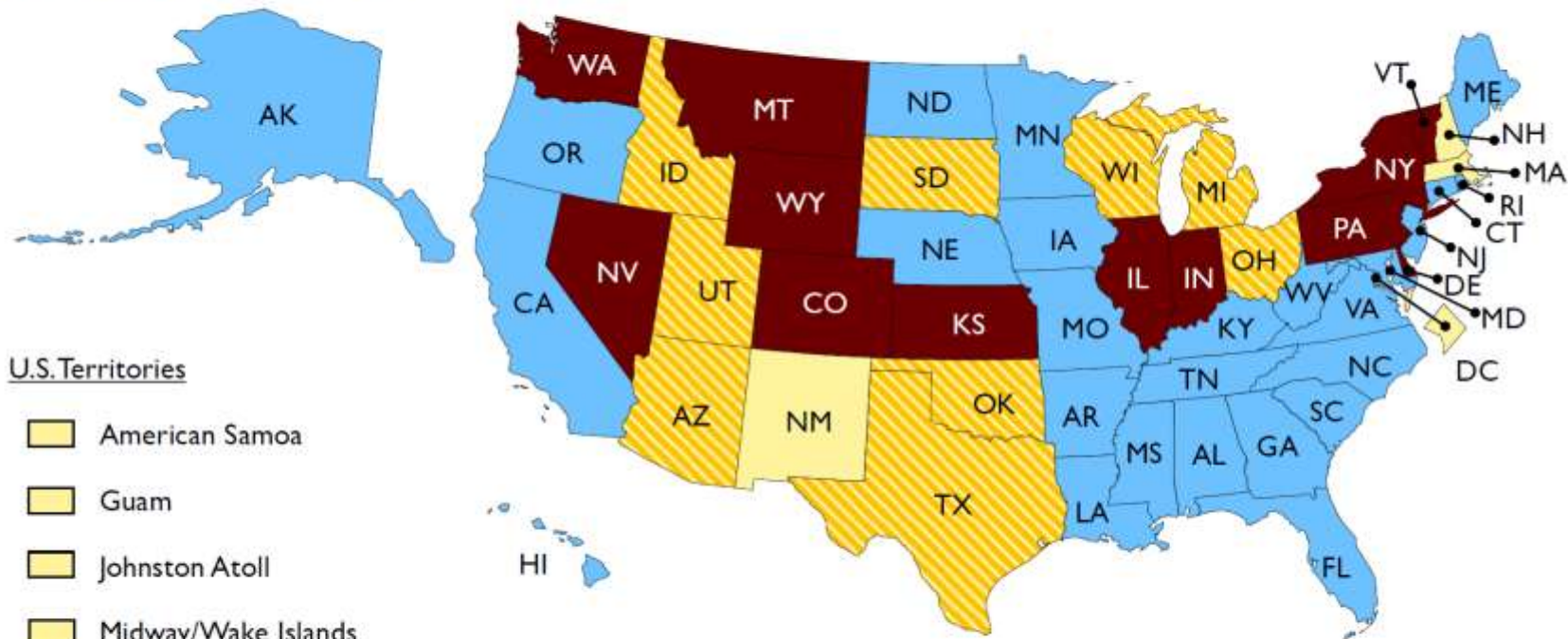
Point source discharge regulation

§ 402 permits are known as NPDES permits. For the most part, they are issued by the states under delegated authority.

NPDES permits are the regulatory heart of the Clean Water Act.

NPDES Program Authorizations





(as of July 2019)



U.S. Territories

-  American Samoa
-  Guam
-  Johnston Atoll
-  Midway/Wake Islands
-  Northern Mariana Islands
-  Puerto Rico
-  Virgin Islands

State NPDES Program Status

-  Fully authorized
-  Fully authorized, including an approved biosolids program
-  Partially authorized
-  Unauthorized

Permit terms

EPA sets effluent limitations for point source categories. Those must require application of best available technology, up to and including zero discharge standards.

Standards are often expressed as quantity of discharge permissible per unit of production.

Where no EPA standard has been developed, permit writers must apply their “best professional judgment.”

Permit terms

Technology based standards are intended to level the industrial playing field. They do not account for the quality of receiving waters or the presence of other sources.

Permits must include additional restrictions if necessary to ensure compliance with water quality standards.

TMDLs

Total Maximum Daily Loads (TMDLs) help translate WQSs to permit effluent limitation standards.

States must identify impaired waters, that is waters for which implementation of technology-based standards on point sources is insufficient to achieve WQSs.

TMDLs

For each impaired water, the state must establish an allowable pollution input budget, called a TMDL, consistent with achieving the WQSs. Because they are only prepared for impaired waters, TMDLs necessarily seek to ramp down total inputs.

The TMDL budget is divided among all sources, point and non-point, discharging to the impaired water, as state authorities think best. Enforceable limits on non-point discharges are imposed only to the extent the state chooses.

Enduring challenges

- 1) Defining the scope of the NPDES program, in terms of covered waters and covered actions.
- 2) Encouraging control of non-point source pollution.
- 3) Achieving acceptable water quality.

The scope of NPDES coverage

§ 502(12): **Discharge of a pollutant** “means (A) any **addition** of any **pollutant** to **navigable waters** from any **point source**, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.”

“Addition”

Not defined in statute or regulations.

Supreme Court addressed its meaning in *South Florida Water Management District v.*

Miccosukee Tribe of Indians, 541 U.S. 95 (2004), in which the Tribe argued that a NPDES permit was required for a pump station which is part of the Central and South Florida Flood Control Project.



The S-9 pump station. NPDES permit required?

Addition?

The Project consists of a series of canals, levees, pumps, and impoundments. Rainwater polluted by phosphorous fertilizer runs off into the canals. The S-9 pumps move that polluted water from collection canals to an Everglades wetland, where the fertilizer encourages the growth of algae and non-native plants.



Do the pumps require a CWA permit? Supreme Court said it depends whether canal and wetlands are “meaningfully distinct water bodies.”

Water transfers rule

After the *Miccossukee* decision, EPA by rule exempted from NPDES permit requirements water transfers that “convey[] or connect[] waters of the United States” without industrial, municipal, or commercial use, and without directly introducing pollutants to the water transferred.

Water transfers rule



Clear Lake, CA



Lake Tahoe, CA

Water transfers rule

Upheld by *Catskill Mountains Chapter of Trout Unlimited v. EPA*, 846 F.3d 492 (2d Cir. 2017), and *Friends of the Everglades v. South Florida Water Management District*, 570 F.3d 1210 (11th Cir. 2009).

“Pollutant”

§ 502(6): “The term ‘**pollutant**’ means 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 discharged into water.”

Excludes sewage from vessels and materials injected to facilitate oil and gas production or derived from that production

Are pesticides pollutants?



Are pesticides pollutants?

Yes, per *National Cotton Council v. EPA*, 553 F.3d 927 (6th Cir. 2009).

EPA subsequently issued a Pesticide General Permit.

“Navigable waters”

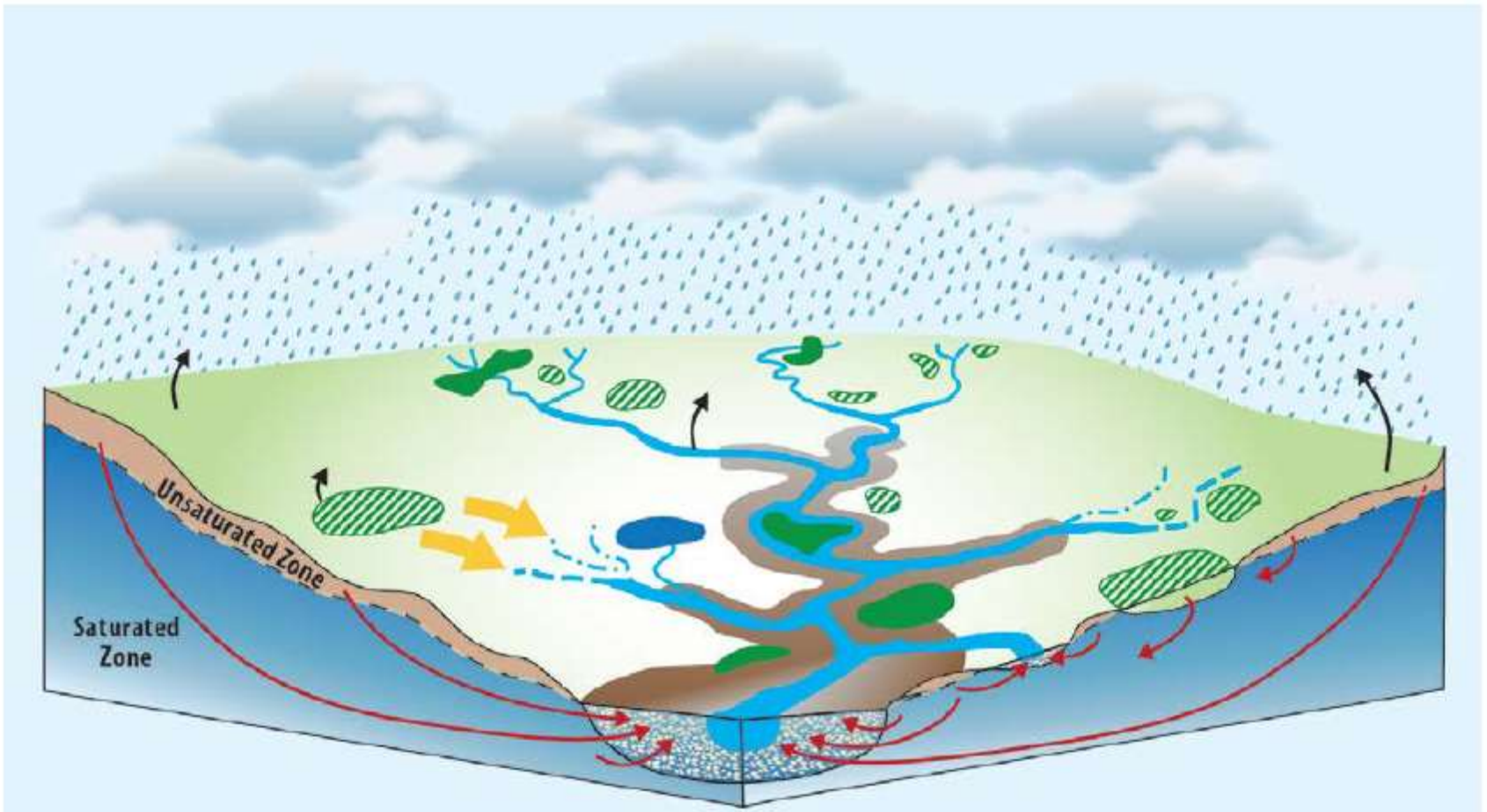
§ 502(6): The term “**navigable waters**” means the waters of the United States, including the territorial seas.

Sounds simple, but defining what are “waters of the United States” (often abbreviated “WOTUS”) has proven extremely challenging.

“Navigable waters”

The Supreme Court has addressed the definition of covered waters three times. Most recently, in *Rapanos v. US*, 547 U.S. 715 (2006), the Court split 4-1-4 over whether wetlands miles from any navigable waterway were covered.

Justice Kennedy’s concurring opinion has generally been considered controlling. It requires a “significant nexus” between the water or wetland regulated and traditionally navigable waters, in the sense that regulated waters affect the chemical, physical, or biological integrity of navigable waters.



 Perennial stream	 Wetland with surface outlet	 Geographically isolated wetland	 Evapo-transpiration
 Intermittent stream	 Floodplain	 Overland flow (fill-and-spill)	 Subsurface flows
 Ephemeral stream	 Riparian/floodplain wetland	 Hyporheic zone	

“Navigable waters”

Post-*Rapanos*, EPA has struggled to clarify the definition.

In 2015, the Obama Administration issued what it called the Clean Water Rule. Based on an extensive scientific report on the connectivity of hydrological systems, it sought to implement Kennedy’s “significant nexus” test.

EPA claimed the new rule would include about 3% more waters included. Others, including the incoming Trump administration, argued that it would expand federal jurisdiction much more than that.

“Navigable waters”

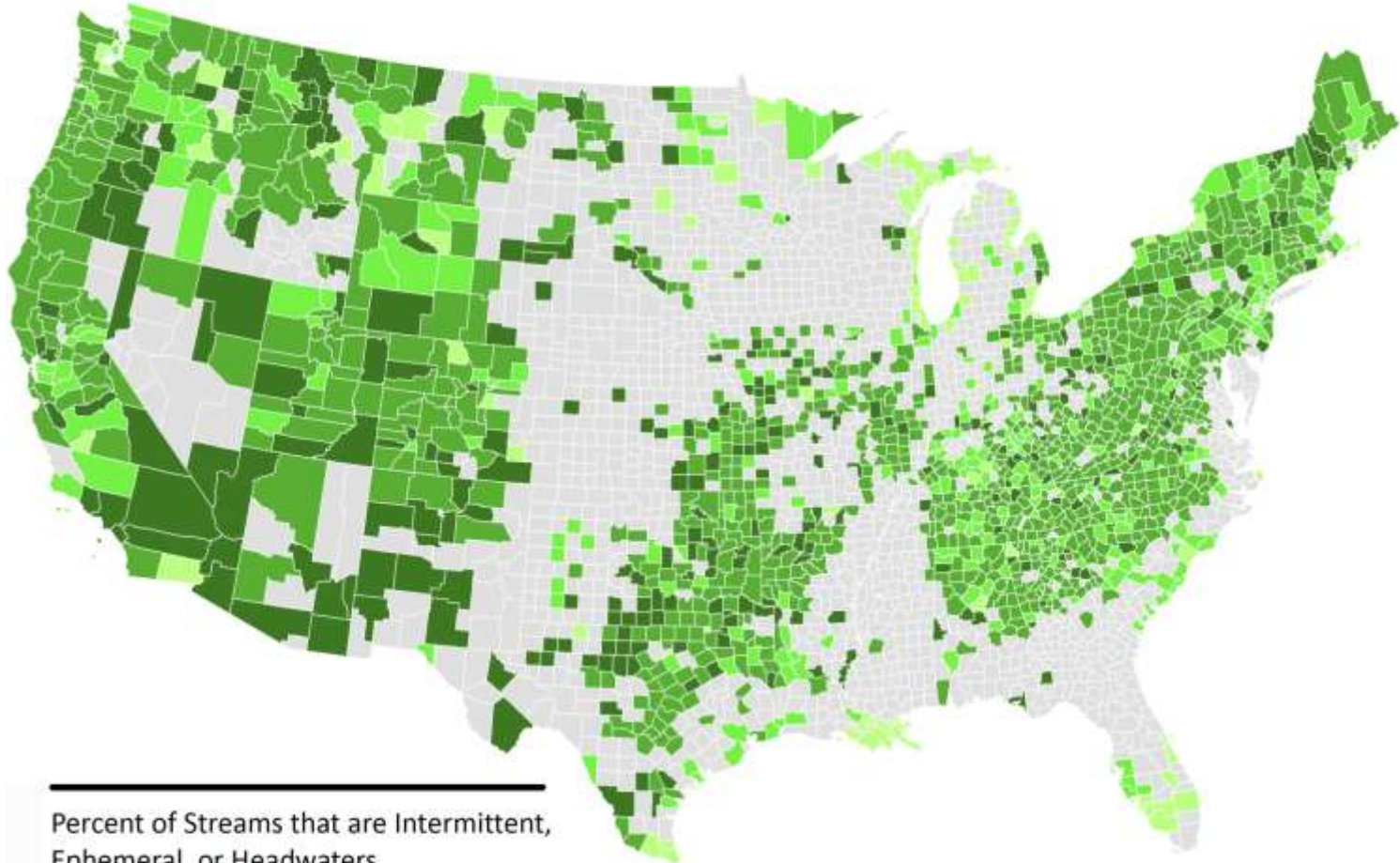
Hard to know for sure without implementing it. Which didn't happen.

The rule was stayed nationwide by the Sixth Circuit, but the Supreme Court then held that challenges had to be brought in District Courts. Temporary chaos ensued . . .

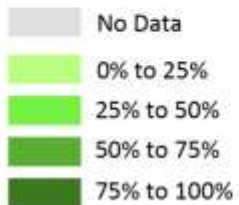
“Navigable waters”

In April 2020, the Trump EPA finalized its own WOTUS rule, which it calls the Navigable Waters Protection Rule. It does away with the “significant nexus” test. Instead, hewing to Justice Scalia’s *Rapanos* plurality decision, it excludes ephemeral streams and requires a direct surface connection between wetlands and navigable waters.

Percent of streams that are intermittent, ephemeral, or headwaters, by county



Percent of Streams that are Intermittent,
Ephemeral, or Headwaters





Federal jurisdictional waters?



Clear as mud

Both the Obama and Trump rules claimed to increase clarity about the extent of federal jurisdiction. But both would leave plenty of difficult determinations.

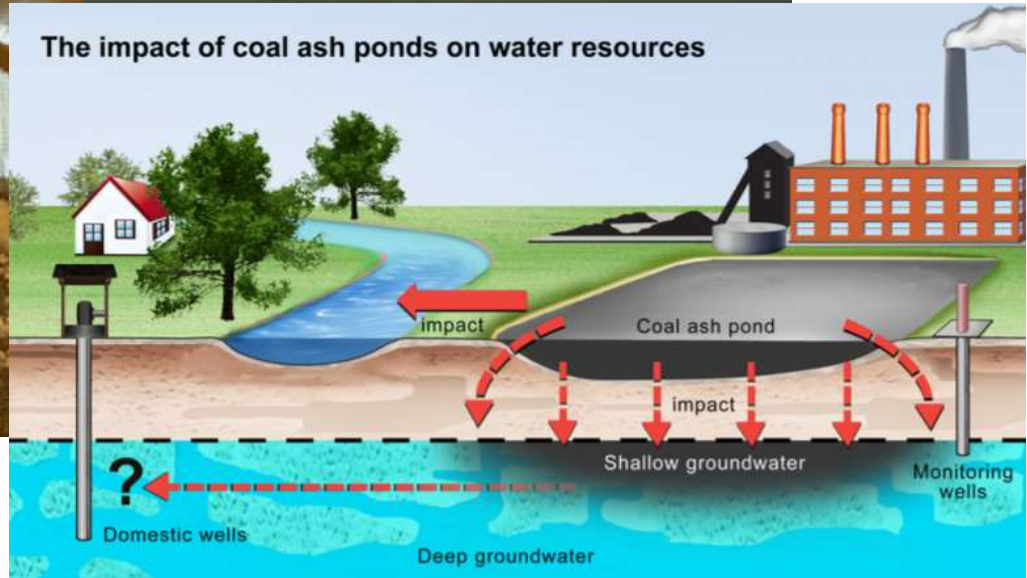
District-by-district litigation continues, of the rule repealing the Obama rule and of the Trump replacement. All that is clear for now is that the scope of federal CWA jurisdiction is distinctly unclear.

“Point source”

CWA § 502(14):

“The term ‘point source’ means 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. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.”

Point source?



What principles should control?

Feasibility of technological control?

Ability to assign responsibility?

Congressional focus on industrial sources?

Effect on achieving the statute's core purpose?

Balance of federal / state authority?

Avoiding perverse incentives?

Control of non-point source pollution

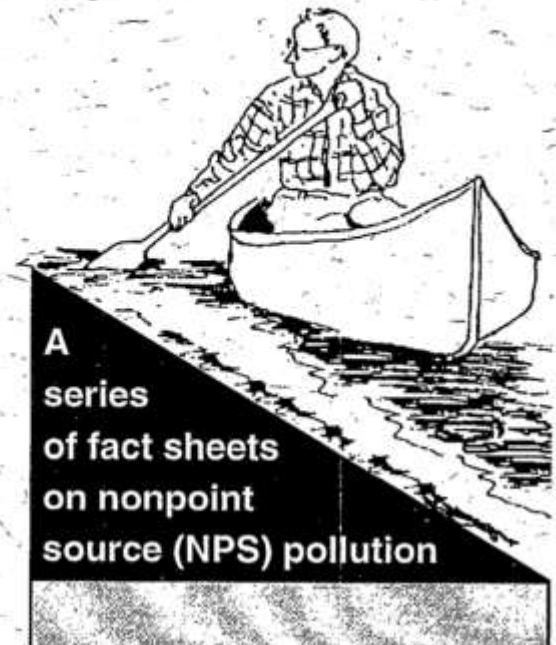
Pointer
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Nonpoint Source Pollution: The Nation's Largest Water Quality Problem

Why is there still water that's too dirty for swimming, fishing, or drinking? Why are native species of plants and animals disappearing from many rivers, lakes, and coastal waters?

The United States has made tremendous advances in the past 25 years to clean up the aquatic environment by controlling pollution from industries and sewage treatment plants. Unfortunately, we did not do enough to control pollution from diffuse, or nonpoint, sources. Today, nonpoint source (NPS) pollution remains the Nation's largest source of water quality problems. It's the main reason that approximately 40 percent of our



EPA Fact Sheet, 1996

Control of non-point source pollution

From EPA's website, 2020:

“States report that nonpoint source pollution is the leading remaining cause of water quality problems. The effects of nonpoint source pollutants on specific waters vary and may not always be fully assessed. However, we know that these pollutants have harmful effects on drinking water supplies, recreation, fisheries and wildlife.”

Achieving water quality standards

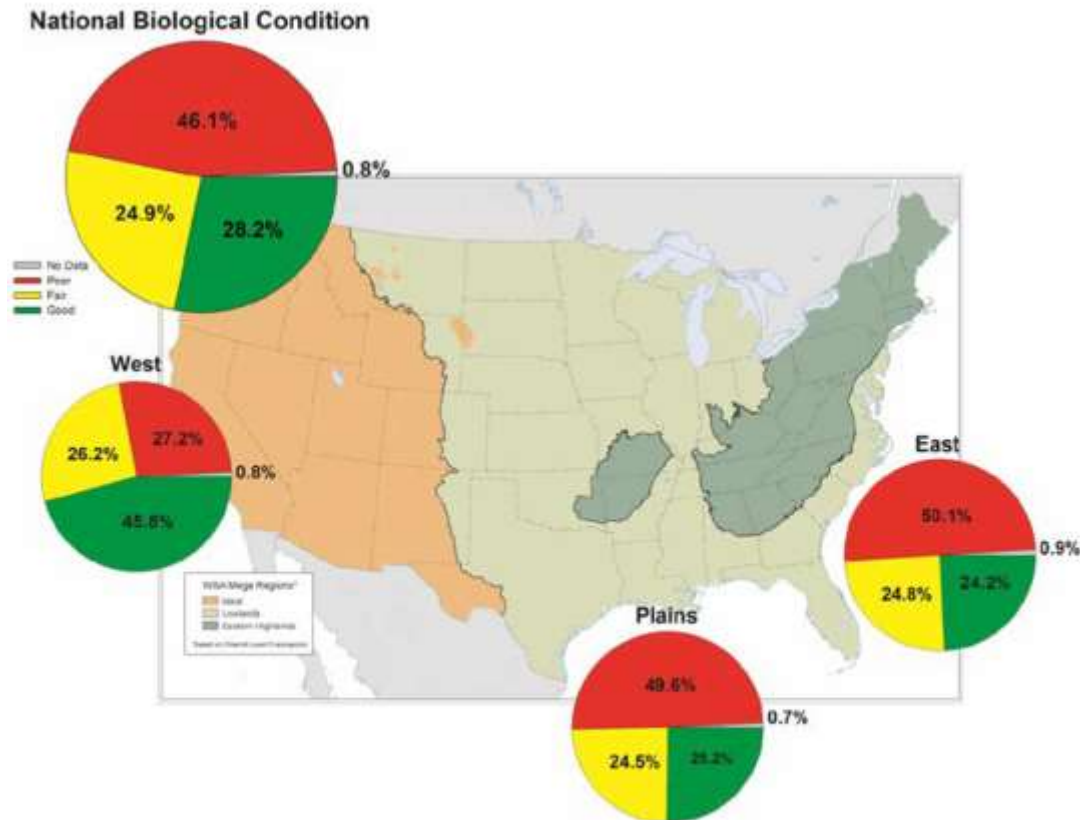


Figure 1. Biological condition of the nation's rivers and streams
(Source: NRSA 2008/09)

Three messages to take away

- 1) Since 1972, the Clean Water Act has done a great deal to reduce point source industrial pollution.
- 2) It has done much less to control non-point source pollution.
- 3) Interpretation of the scope of the point source provisions remains hotly contested, both because it matters economically and because it determines the balance of state-federal power.