50+ Years of the Clean Water Act

2026 Environmental Law Institute Summer School

June 24,2026

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Presentation Outline

- Constitutional Context & History of Water Quality Regulation
- Basic Structure and Function of the Clean Water Act
- Cooperative Federalism
- Current Issues

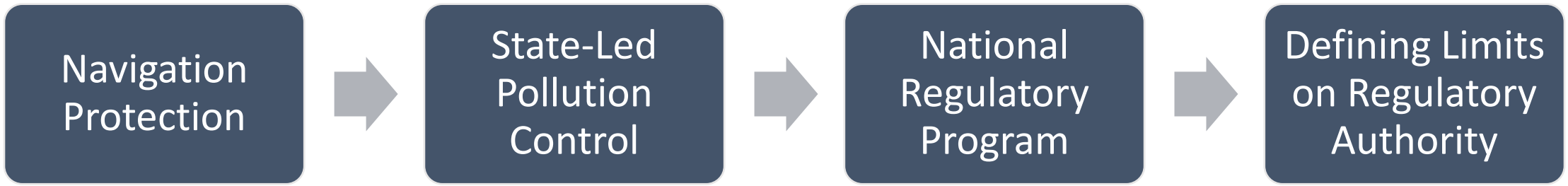
Constitutional Context

- **Commerce Clause** – “Congress shall have the power . . . to regulate commerce with foreign nations, and among the several states, and with the Indian tribes.” Art. I, Sec.8, cl. 3

- **Supremacy Clause** – The laws of the United States ”shall be the supreme law of the land; the judges in everyState shall be bound thereby . . .” Art. V

- **10th Amendment** – “The powers not delegated to the Unted States by the Constitution . . . are reserved to the States . . .” Amend. 10.

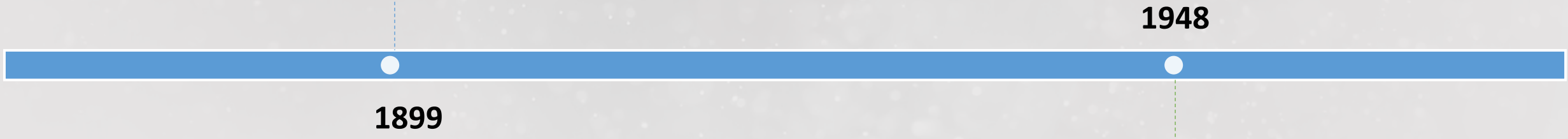
Clean Water – The Big Picture



Early Congressional Action on Clean Water

Rivers and Harbors Act of 1899 (33 U.S.C. 401)

- Required a permit from the U.S. Army Corps of Engineers to dump refuse into a navigable water



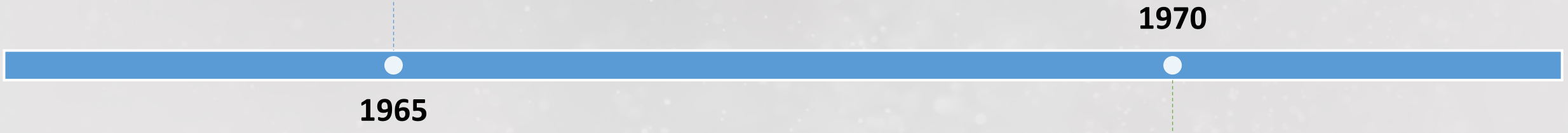
Federal Water Pollution Contro l Act of 1948 (amended in 56, 61, 65, 70)

- Considered the first attempt to comprehensively address concerns over water pollution
- Viewed as unsuccessful because it relied on voluntary state action and consent of states for enforcement actions

Early Congressional Action on Clean Water

Water Quality Act of 1965

- Established the first water quality standards program
- Focus on interstate waters
- Fell short because because relied primarily on water quality standards rather than direct regulation of pollution sources



Water Quality Improvement Act

Adopted amid growing concerns over water pollution with many major rivers severely polluted despite federal legislation

EPA created in 1970

Increasing Public Concern about Clean Water and Pollution

“CLEAN WATER ACT” of 1972
Federal Water Pollution Control Act Amendments

- Restore and maintain the chemical, physical, and biological integrity of the Nation’s waters
- Set a national goal of waters that are fishable and swimmable
- Congress moved beyond regulating the condition of the water body itself to regulating the sources of the pollution

Role of "Navigable Waters"

Purpose → "to restore and maintain the chemical, physical and biological integrity of the Nation's waters."

Accomplished by → Prohibiting discharge of any pollutants, including dredged or fill material, into "navigable waters"

Defines "navigable waters" → as "waters of the United States", so called "WOTUS" rule or "jurisdictional waters"

Major Provisions of the Clean Water Act

Section 301/402 – NPDES Permit Program, effluent limitations

Section 303 – Ambient Water Quality Standards, total maximum daily loads (TMDLs)

Section 404 – Dredge and Fill Permit

Section 505 - Citizen Suit Provisions

Sections 200; 600 - 607 - Revolving Funds; Grants and Low-Interest Loans

Note: Safe Drinking Water Act (42 U.S.C. 300)

- Regulates public drinking water supplies and systems
- National drinking water standards through maximum containment levels and treatment requirements
- **Clean Water Act** protects the quality of the source water; **Safe Drinking Water Act** regulates the safety of drinking water delivered to the public

Cooperative Federalism

Federal

- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers

State

- Delegated Authority
- Water Quality Criteria must not be below minimum criteria recommended by EPA

Tribal

- Treatment as States (“TAS”) Status

Current Issues

- WOTUS Rule
- State Programs
- Tribal Innovations

Current Conforming "WOTUS" rule → 2026 Proposed Rule

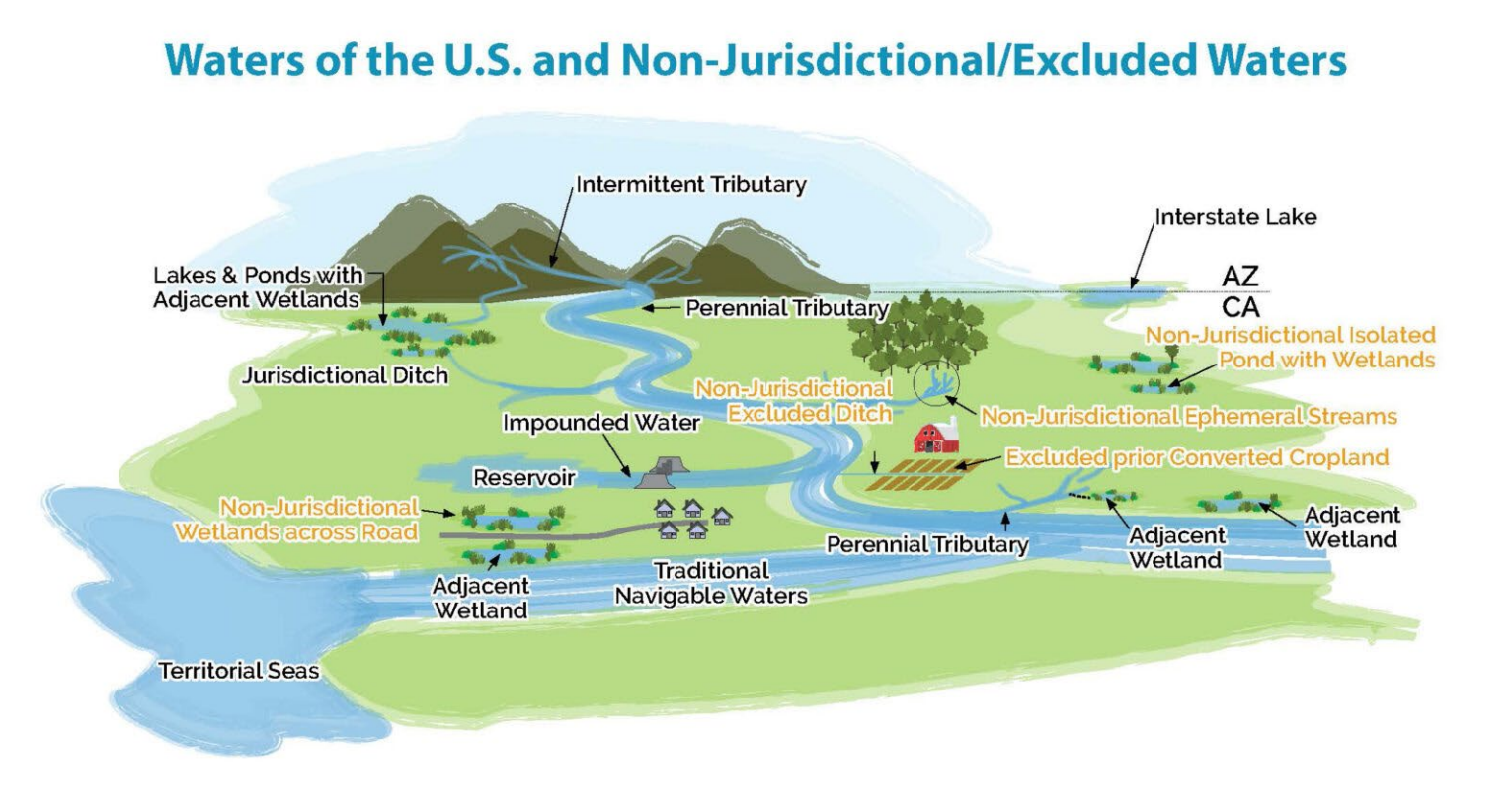
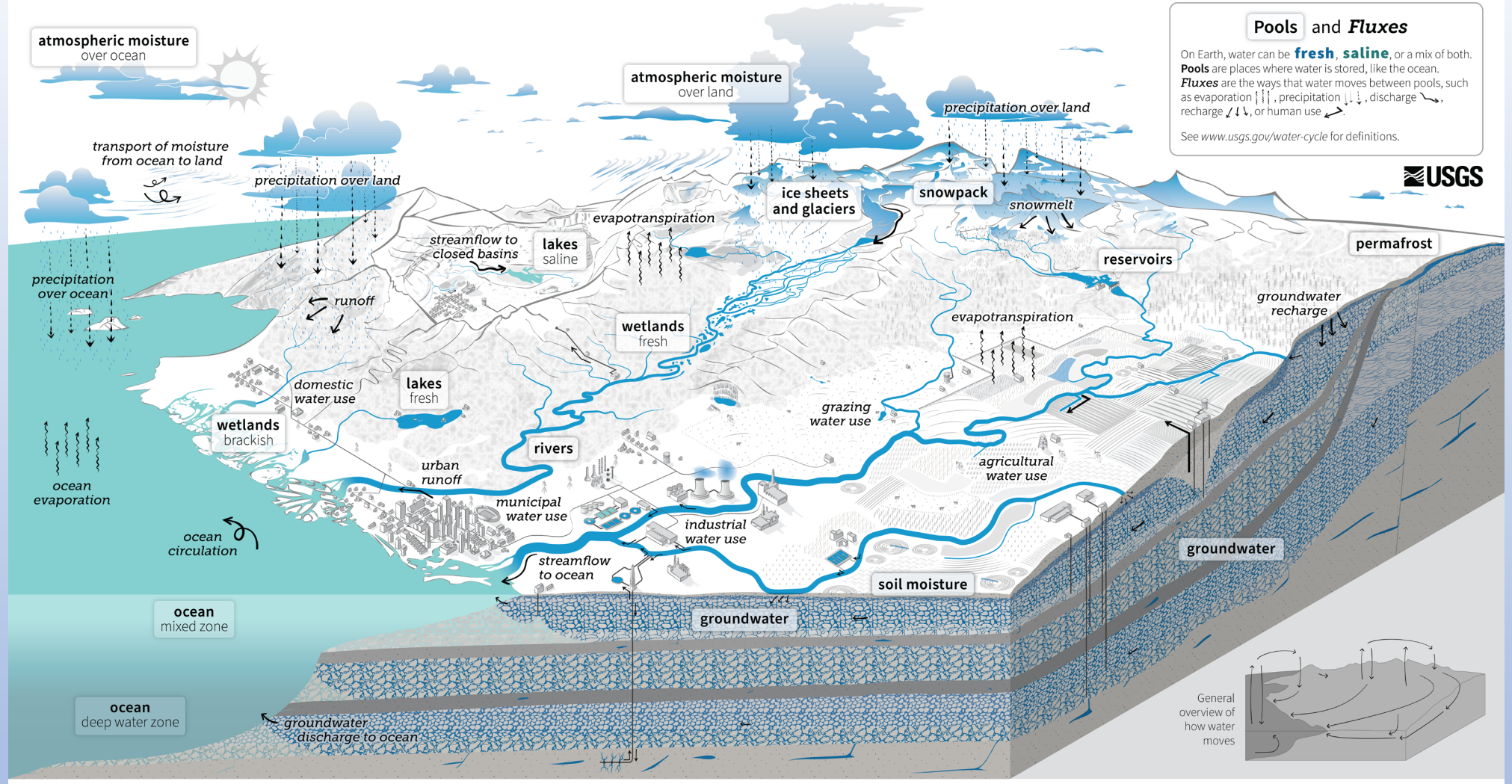


Image Source: Environmental Science Associates, https://esassoc.com/news-and-ideas/2023/10/an-update-on-the-definition-of-the-waters-of-the-us/



The Water Cycle

The water cycle describes where water is found on Earth and how it moves. Water can be stored in the atmosphere, on Earth's surface, or below the ground. It can be in a liquid, solid, or gaseous state. Water moves between the places it is stored at large scales and at very small scales. Water moves naturally and because of human interaction, both of which affect where water is stored, how it moves, and how clean it is.

Liquid water can be fresh, saline (salty), or a mix (brackish). Ninety-six percent of all water is saline and stored in **oceans**. Places like the ocean, where water is stored, are called **pools**. On land, saline water is stored in **saline lakes**, whereas fresh water is stored in liquid form in **freshwater lakes**, artificial **reservoirs**, **rivers**, **wetlands**, and in soil as **soil moisture**. Deeper underground, liquid water is stored as **groundwater** in aquifers, within the cracks and pores of rock. The solid, frozen form of water is stored in **ice sheets**, **glaciers**, and **snowpack** at high elevations or near the Earth's poles. Frozen water is also found in the soil as **permafrost**. Water vapor, the gaseous form of water, is stored as **atmospheric moisture** over the ocean and land.

As it moves, water can transform into a liquid, a solid, or a gas. The different ways in which water moves between pools are known as **fluxes**. **Circulation** mixes water in the oceans and transports water vapor in the atmosphere. Water moves between the atmosphere and the Earth's surface through **evaporation**, **evapotranspiration**, and **precipitation**. Water moves across the land surface through **snowmelt**, **runoff**, and **streamflow**. Through infiltration and **groundwater recharge**, water moves into the ground. When underground, groundwater flows within aquifers and can return to the surface through **springs** or from natural **groundwater discharge** into rivers and oceans.

Humans alter the water cycle. We redirect rivers, build dams to store water, and drain water from wetlands for development. We use water from rivers, lakes, reservoirs, and groundwater aquifers. We use that water (1) to supply our **homes** and **communities**; (2) for **agricultural** irrigation and **grazing** livestock; and (3) in **industrial** activities like thermoelectric power generation, mining, and aquaculture. The amount of available water depends on how much water is in each pool (water quantity). Water availability also depends on when and how fast water moves (water timing), how much water is used (water use), and how clean the water is (water quality).

Human activities affect **water quality**. In agricultural and urban areas, irrigation and precipitation wash fertilizers and pesticides into rivers and groundwater. Power plants and factories return heated and contaminated water to rivers. Runoff carries chemicals, sediment, and sewage into rivers and lakes. Downstream from these types of sources, contaminated water can cause harmful algal blooms, spread diseases, and harm habitats. **Climate change** is also affecting the water cycle. It affects water quality, quantity, timing, and use. Climate change is also causing ocean acidification, sea level rise, and extreme weather. Understanding these impacts can allow progress toward sustainable water use.

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