

Presented at

# Great Rivers Reference Condition Workshop

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**EMAP**  
Great River Ecosystems



U.S. EPA Office of Research and Development

Environmental Monitoring and Assessment Program

# Large Rivers and State Clean Water Act Reporting Responsibilities

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Great River Ecosystems



# The Clean Water Act

## Section 101(a)

- Objective: “restore and maintain the chemical, physical and biological integrity of the Nation’s waters”
- (1) Goal: “the discharge of pollutants into navigable waters be eliminated by 1985”
- (2) Interim goal: “water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water”, wherever attainable

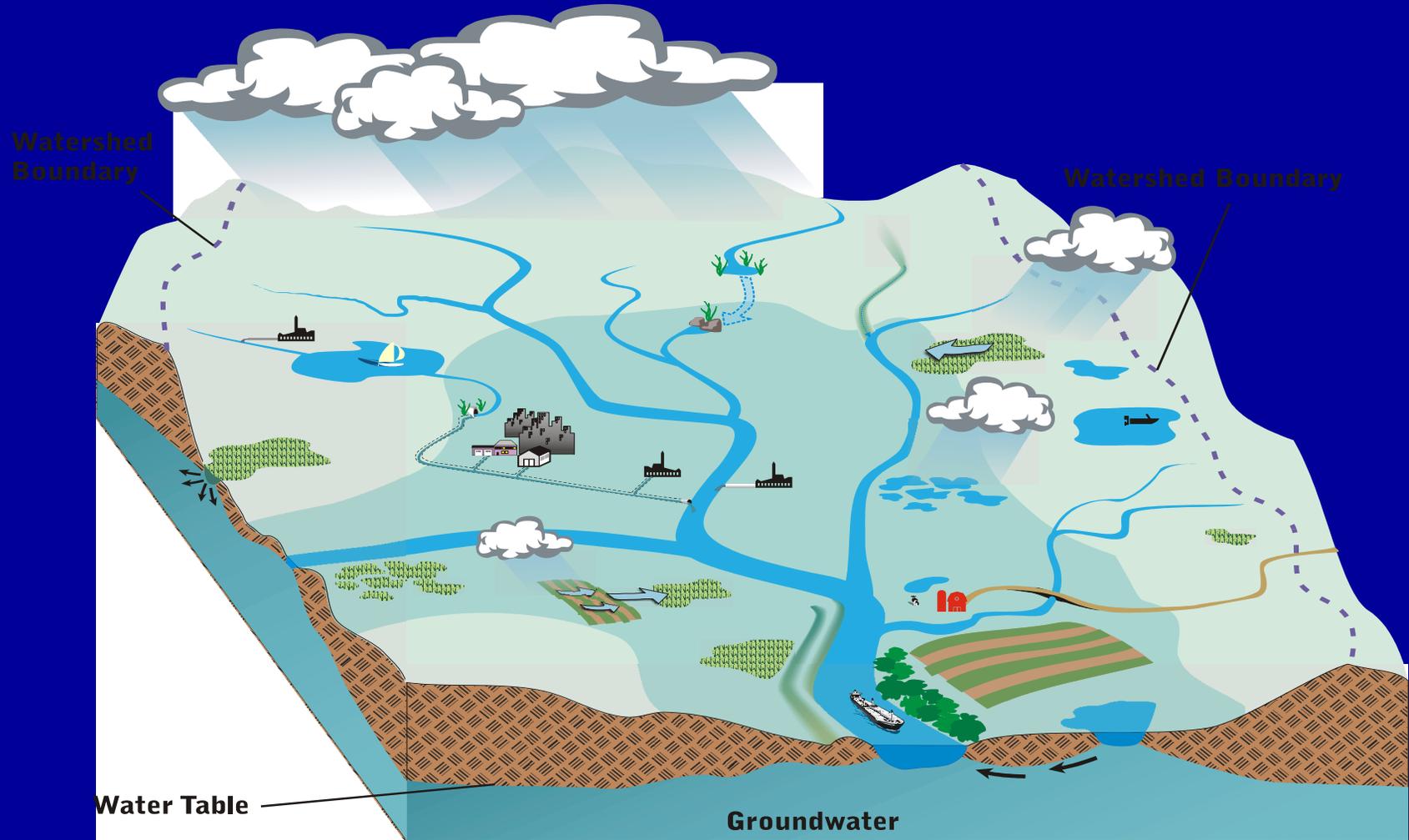
## States and Authorized Tribes Administer the WQS Program

- Charged with monitoring and assessing the water quality of surface waters (Sections 106, 305b, 303d)
- Have the primary authority to adopt, review and revise water quality standards (Section 303 (c) of the CWA)

## EPA Provides Oversight and Assistance to States and Authorized Tribes

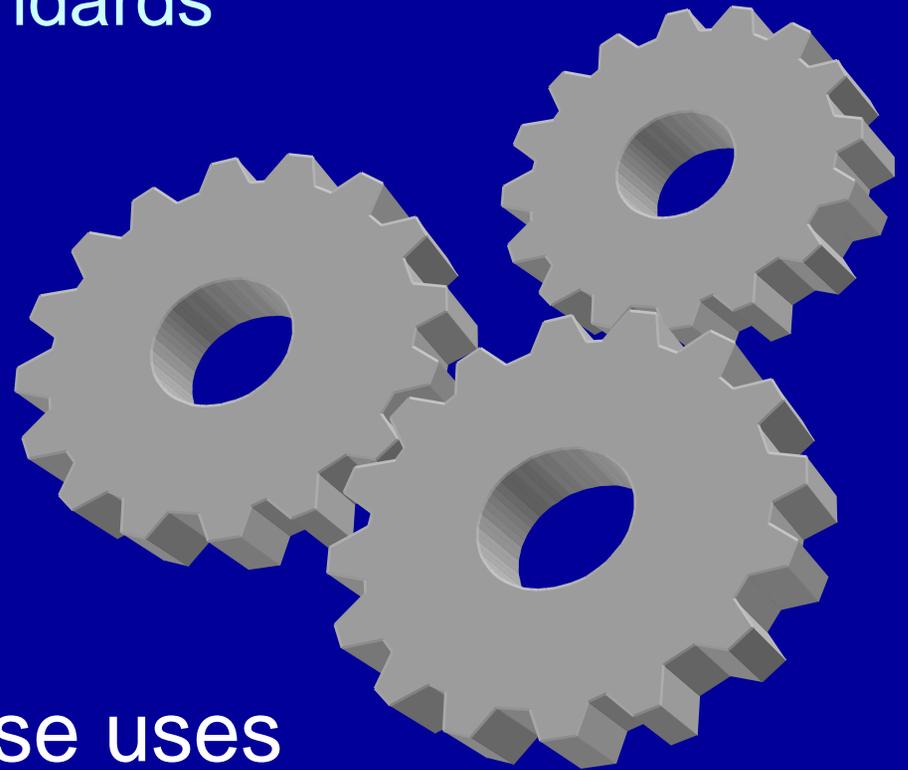
- Primary contacts with States and Tribes for water programs
- Provide technical assistance
- Ensure consistency with the CWA and across State/Tribal programs

# Great River Systems Are Complex



## Water Quality Standards

- Designated Uses
- Criteria to protect those uses
- Antidegradation Policy



*What's the bottom line?*

*Are the designated uses protected?*

How do we determine whether designated Uses are protected?

Need benchmarks!



CWA calls these water quality criteria.

States have the flexibility to derive their own criteria as long as uses are protected.

For shared waters, EPA wants maximum consistency.

# Forms of Criteria

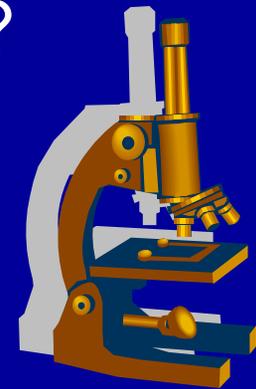
- **States should adopt (1) Numerical Criteria based on:**
  - **304(a) Guidance, or**
  - **304(a) Guidance Modified to Reflect Site-Specific Conditions, or**
  - **Other Scientifically Defensible Methods**
- **And (2) Narrative Criteria or Criteria based on Biological Monitoring and Assessment Methods to Supplement Numerical Criteria**

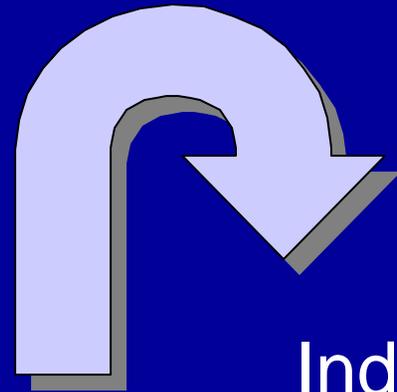
# Monitoring Approaches....

Indicators?

Sampling design?

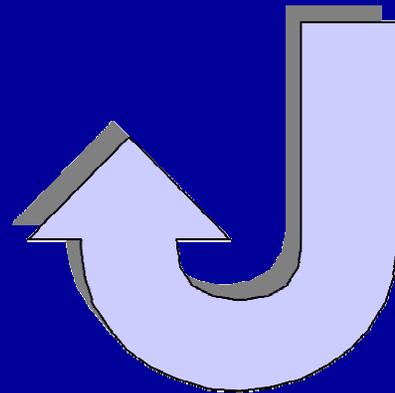
Assessment approach?





Indicators and  
Sampling Design

Benchmarks/  
Criteria



# Water Quality-based Adaptive Management

