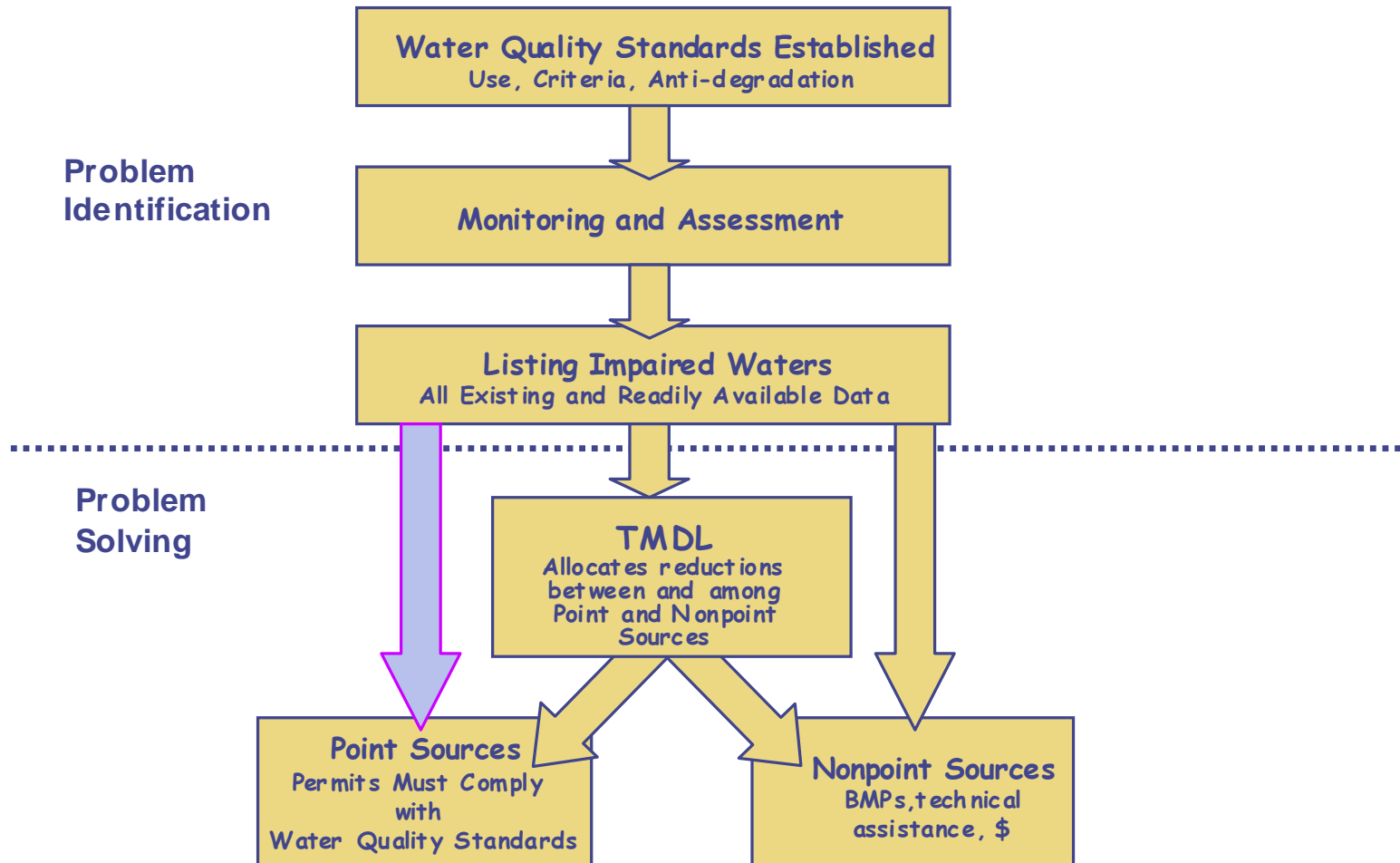


U.S. EPA Federal Perspective:  
**The Clean Water Act and the  
Watershed Approach**  
Focus and Vision

Christine Urban  
Region 5 Watersheds and Wetlands Branch  
October, 2005

# Framework to Restore Polluted Waters

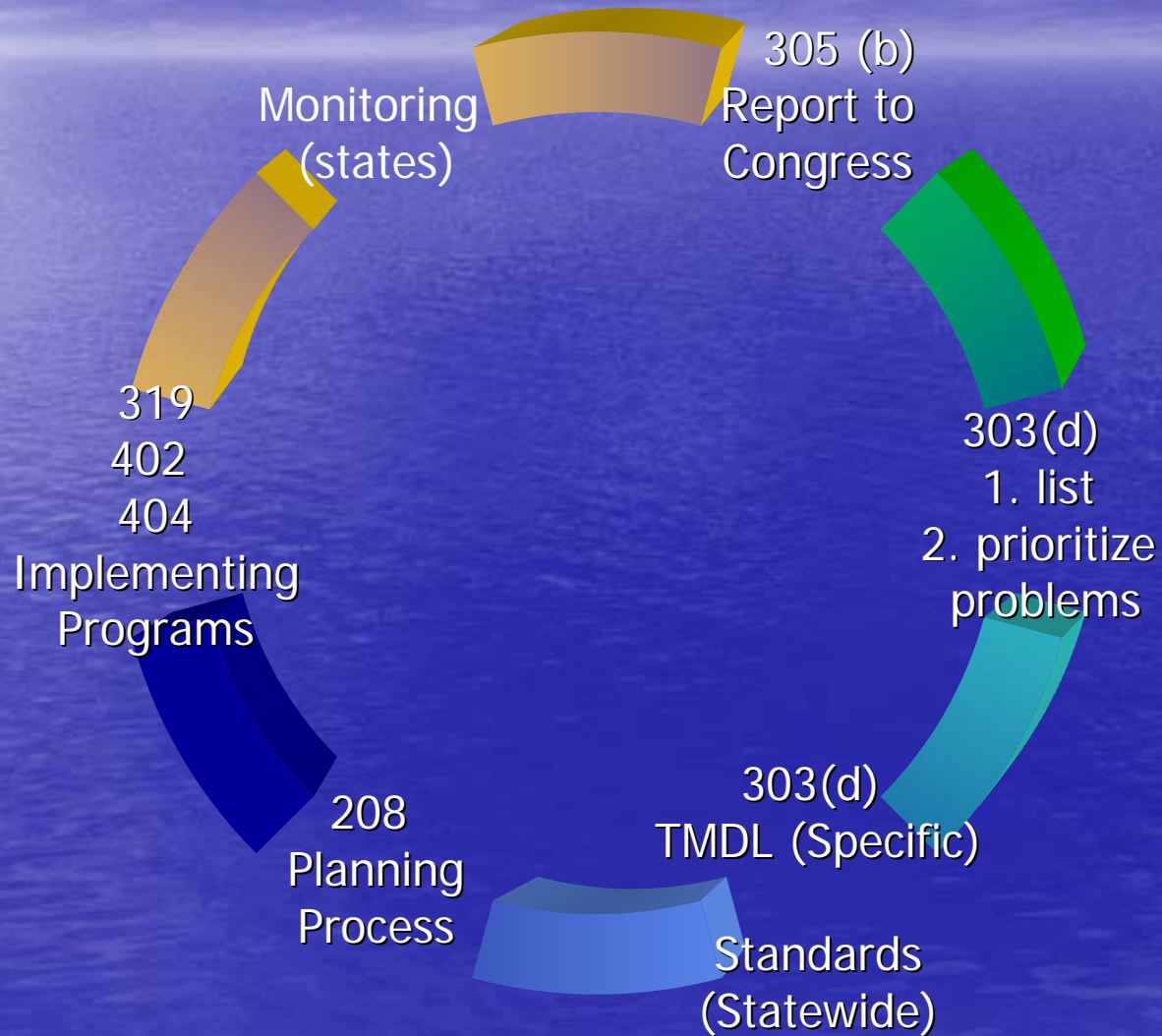


# The Watershed Approach



# The Watershed Approach:

## CWA Program Integration



# Challenges: Setting Goals and Assessing Progress

- Updating and Establishing Standards/designated uses (waterbody goals).
- Monitoring needs: ASWIPCA Identified \$260 Million shortfall - Monitoring methods not always available for all waterbody types
- Need methods for Assessing Data (what do the numbers mean?)
- Accurate Impaired Waters (TMDL) Lists (EPA's Book keeping for meeting CWA)
- Success of Implementation?

# Large and Great River Goal-setting, Monitoring and Assessment

- Developing indicators to improve all states bioindices.
- Assessment tools and methods that are well developed and can be used across state boundaries.
- Goal setting for waterbodies - Tiered aquatic use designations for large rivers. Better define goals (tiered) for each water body and tools to assess goals beyond basic water chemistry.

# Improved Large River Monitoring and Assessment to meet CWA

- U.S.EPA grant to ORSANCO methods for fish and bugs using fish as an indicator for large river. (Large river tribs to the Mississippi, IL Rock Wisconsin, St. Croix, Wabash Scioto) 800K
- RMI – Regional methods initiative. Macro invertebrate assessment quality at a number of sites in large rivers.

# Great River Indices

- EMAP Developing indicators for Great River fish and bugs, periphyton indices (Ohio River, Mississippi)



## Evaluating BMP Implementation Impacts to Water Quality – Emiquon example:

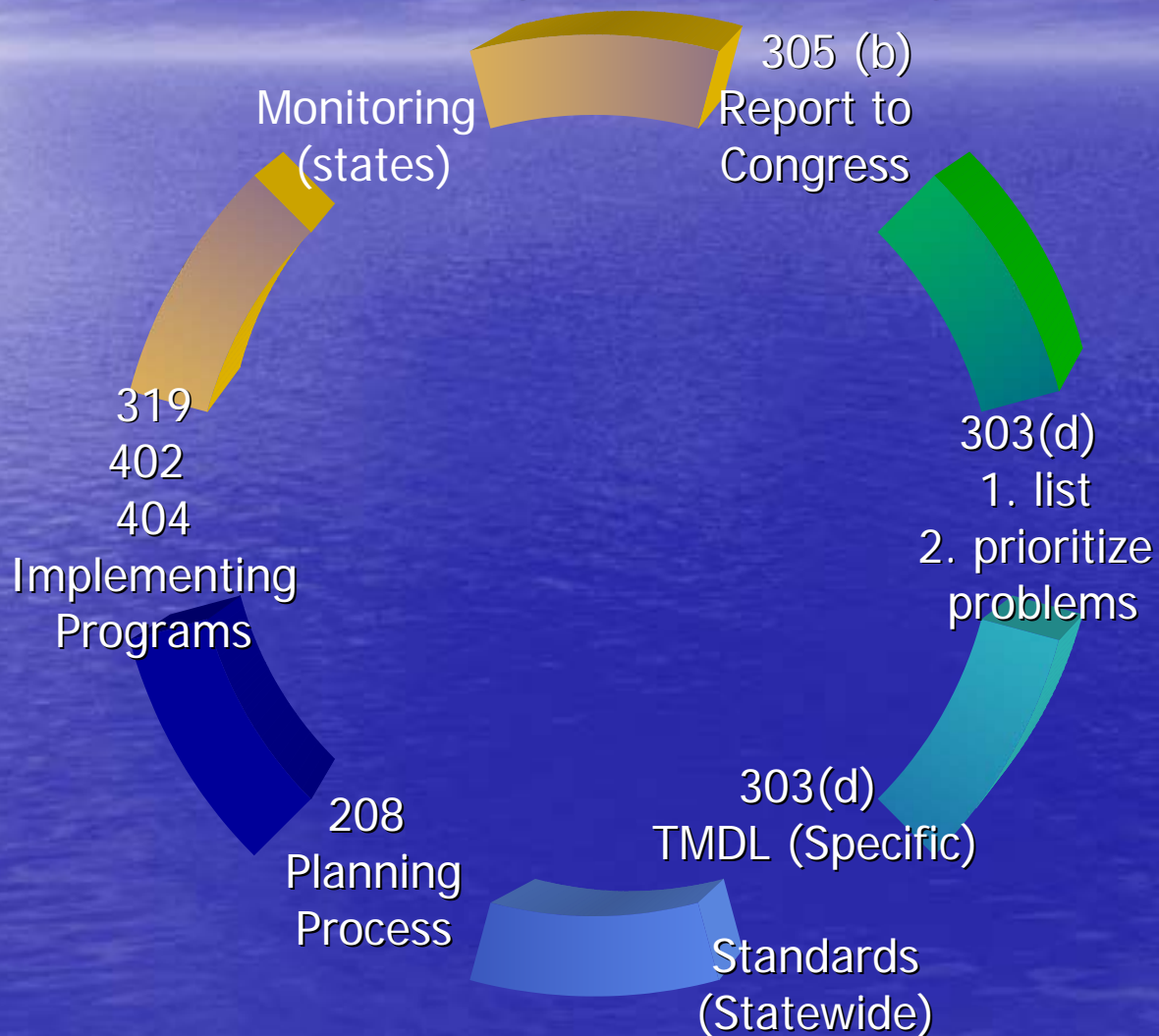
- Initial step to come to better understanding of how wetlands serve to process nutrients.P and N
- Measure incoming water vs. outgoing and learn what restored wetland from biodiversity standpoint contributes to WQ improvements
- Baseline from 2005. Grab samples (TNC), Catch as Catch can (EPA ORD doing storage and analysis, equipment)

# Evaluating BMP Implementation Impacts to Water Quality – Emiquon Example

- ORD Cincinatti Wetland assessment program exploring potential for Wetland restoration for Biodiversity and Nitrogen removal..
- Goal is multi year sampling (10 years, seasonalities and mature operation). Sediment temp DO
- Partners, TNC, Illinois Water Survey, possibly COE

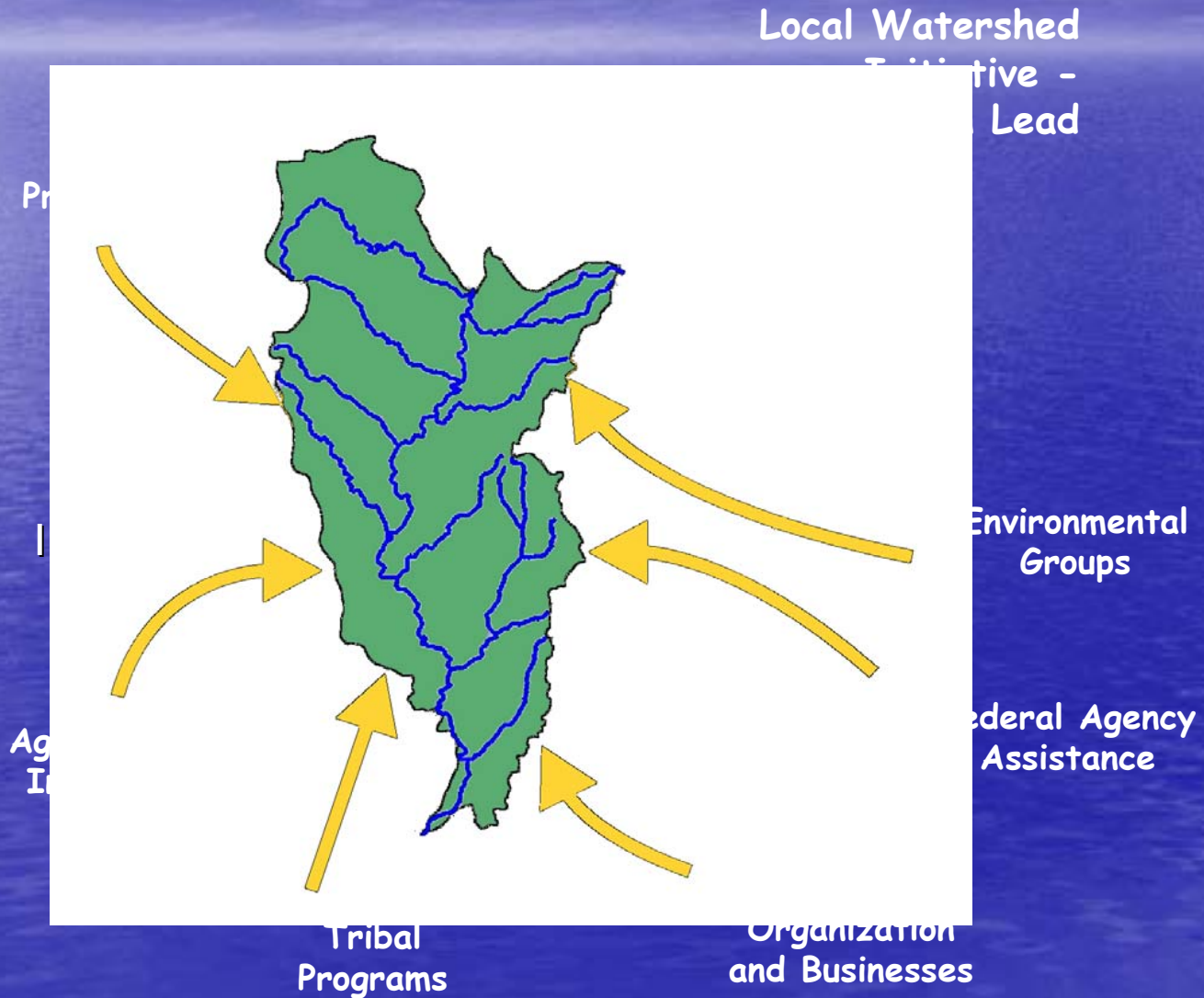
# The Watershed Approach:

## CWA Program Integration



# The Watershed Approach: Many Partners, Light Work?

*Integration?*



# Improve internal/external program integration *Based on Watershed Approach*



- Leverage resources, in ways that make sense (Cooperative Conservation).
  - Partners/programs
  - Enhanced communication education about each other
  - Common goals and measures

Improve internal/external program  
integration

## *Leveraged Watershed Approach*



Example: Wetland Nutrient  
reduction research

Example: State Technical  
Committee Participation

Example: Coordination with  
COE on WRDA projects

# Joint Focus on Results

- Focus on achievement of water quality standards
- Prioritize and improve ranking to maximize results we show.
- Document Improvements resulting from watershed implementation

# Jointly Improve promote tools to support Watershed Approach at all stages and scales

- TMDL Model Selection Toolkit
- Implementation tools
- Tracking and prioritization tools that support TMDL decision-making

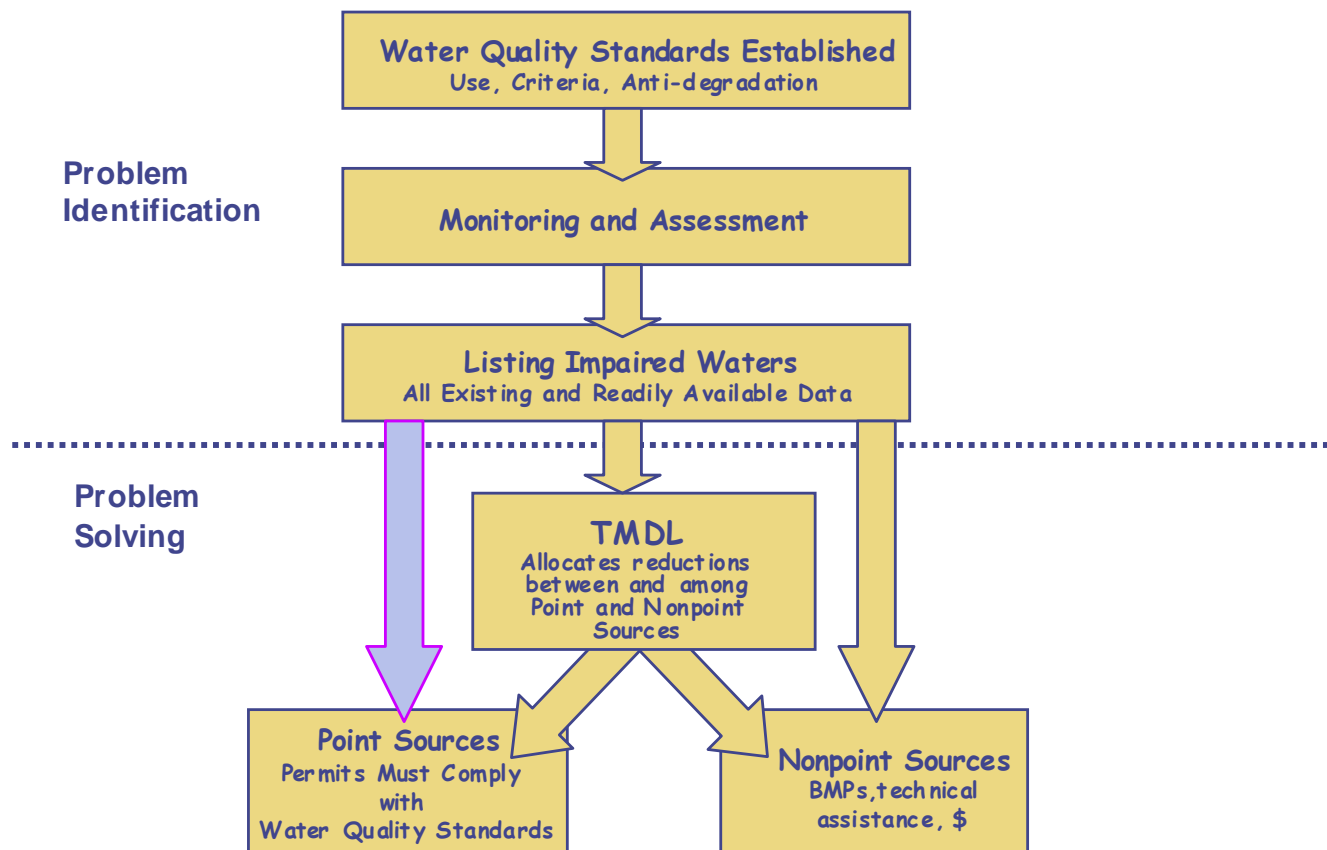
Example: Midwest Spatial Decision Support Partnership

Example: Improved GIS and landscape analysis



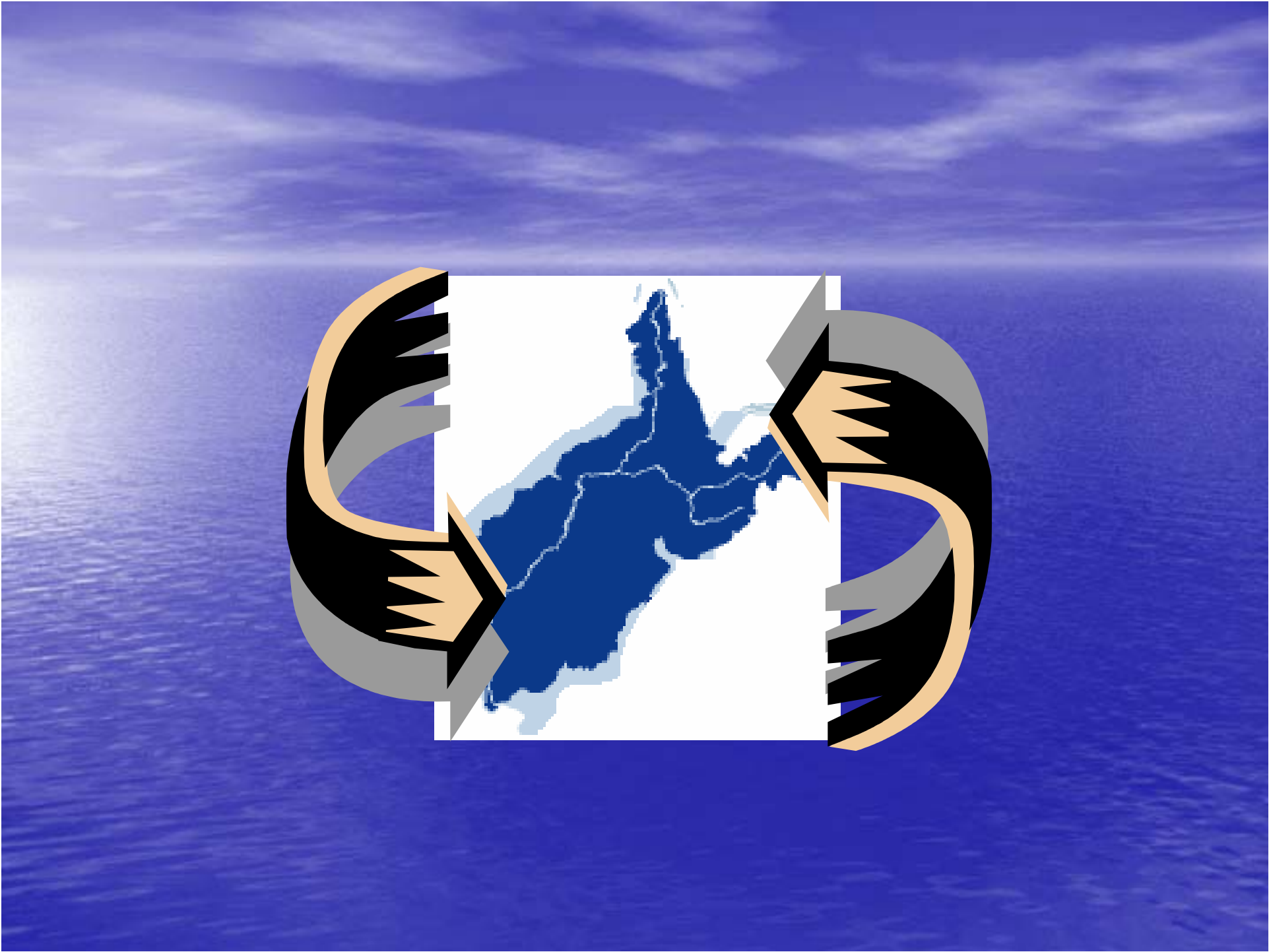
# 20th - Century Watershed Approach Model

## Framework to Restore Polluted Waters



# 21st Century Watershed Approach Model?





Thank You!

