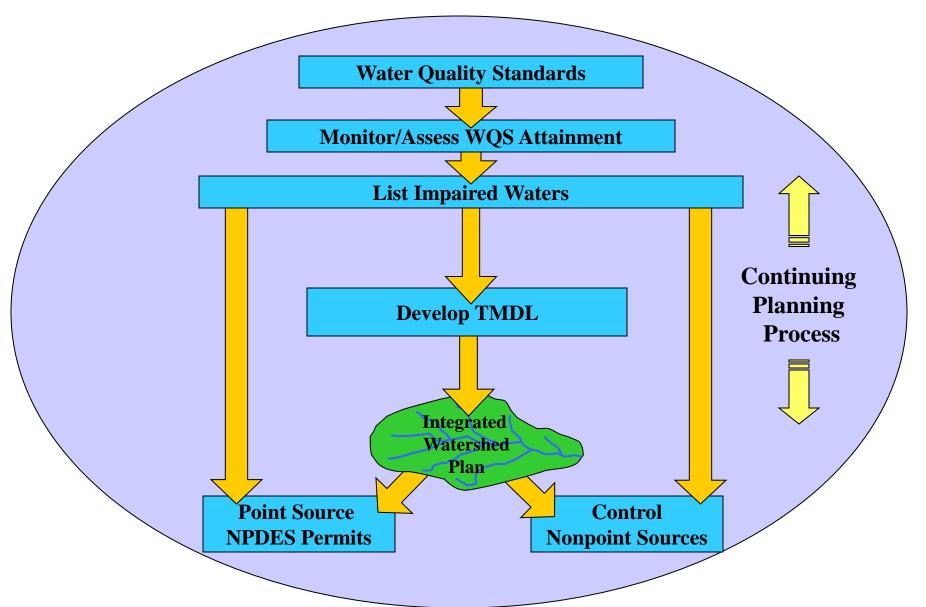






#### Clean Water Act – Standards to Controls







#### Overall EPA Monitoring Objectives

- Monitoring to serve assessments at multiple scales:
  - National scale: Condition of waters
  - State scale: Regulatory programs
  - Watershed scale: Management & protection decisions
  - Source scale: Control requirements







#### Overall EPA Monitoring Objectives

- Build State monitoring programs that can
  - Describe status and trends & rank existing and emerging problems
    - 305(b), 303(d)
  - Support management and regulatory programs
    - Based on standards
  - Protect critical waters
    - Source water, Chesapeake Bay, etc.







#### Develop Monitoring Objectives

- EPA Produces Guidance on the Data Quality Objectives Process
- Encouraging the formation of state and regional monitoring councils

Maryland, Virginia, Texas, Oklahoma, Colorado, Wisconsin, Montana, Lake Michigan Chesapeake Bay, New England

Other technical tools for states







#### Design Monitoring Program

- Newly Combined State 305(b) and 303(d) reports
  - Integrated Water Quality Monitoring and Assessment Policy
  - Consolidated Assessment and Listing Guidance
- State monitoring networks
  - EMAP assistance in probabilistic design
  - Models to bridge cover unmonitore
- Refined methods
  - Biological resources, Wetlands





#### Design Monitoring Program

- A major concern is state capacity and funding
  - States spend \$138 million on ambient monitoring annually
  - Only 37% is Federal funding
  - \$100 million short of the need
  - Many clearly need help
- NAPA Study reinforces these concerns





#### Collect Field & Laboratory Data

- Nearly all ambient water data is collected by states and USGS
- EPA does innovate
  - EPA Pioneered Rapid Bio Assessments
  - New guidance on the use of ecosystem data to set nutrient standards
  - EMAP field methods







### Compile & Manage Data

- STORET Database
  - Stores data & metadata
    - Water quality
    - Biological measures
  - Data from States, Superfund,
     EMAP, Forest Service, National
     Park Service
- EPA Data Standards based on the Council's Water Quality Data Elements





#### Compile & Manage Data

- STORET Database is free to users, but is sustained by EPA
  - STORET funding down % since
     1996
  - STORET staff down to 5 FTE
- The current budget may not be sustainable if competing responsibilities become mandatory







### Compile & Manage Data

- Continuing support for comparable data structures
  - National Hydrography Dataset
    - USGS partnership
  - Uniform Watershed Boundaries
    - With USGS and USDA







### **Convey Findings & Evaluate Programs**

- Program evaluations are becoming a part of EPA's Strategic Plan
- State program reviews called for in the *Elements* Guidance
- EPA prepares summaries using its WATERS software
- EPA reports include:
  - Coastal Condition Report, Report on the Environment





# Collaborate Communicate & Coordinate

- Support for the National, State and Regional monitoring councils
- Supporting volunteer monitoring
- Support for many technical workshops on monitoring methods
- Soon to establish a monitoring council inside EPA





## Future Support Develop of the Framework monitoring

objectives program

- **► EPA Report on the Environment** 
  - New interest in indicators of progress
- Design of a National Survey to complement state assessments
  - FY03 funding of \$4 million
  - FY04 monitoring initiative to follow
- Reformatted National Water Quality Report
- Work with ASIWPCA and ECOS



#### Reference Sites

Develop monitoring objectives

Design monitoring program

- Elements of a State Water Monitoring and Assessment Program http://www.epa.gov/owow/monitoring/elements/
- NAPA: Understanding What States Need to Protect Water
   Qualityhttp://www.napawash.org/pc\_economy\_environment/ongoing\_stwaterquality.html
- Consolidated Assessment and Listing Methodology–Toward a Compendium of Best Practiceshttp://www.epa.gov/owow/monitoring/calm.html
- National Coastal Condition Report http://www.epa.gov/owow/oceans/nccr/National Environmental Methods Index: www.nemi.gov