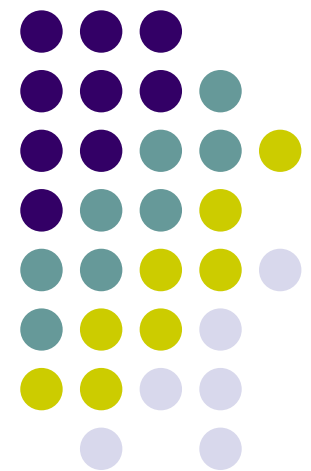
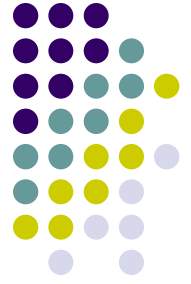


Measuring and Reporting Progress in Water Conditions

Joan Warren
Monitoring Branch
Office of Water
8th EMAP Symposium
April 11, 2007

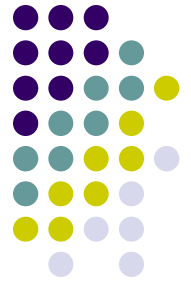


Clean Water Act Drivers for Monitoring



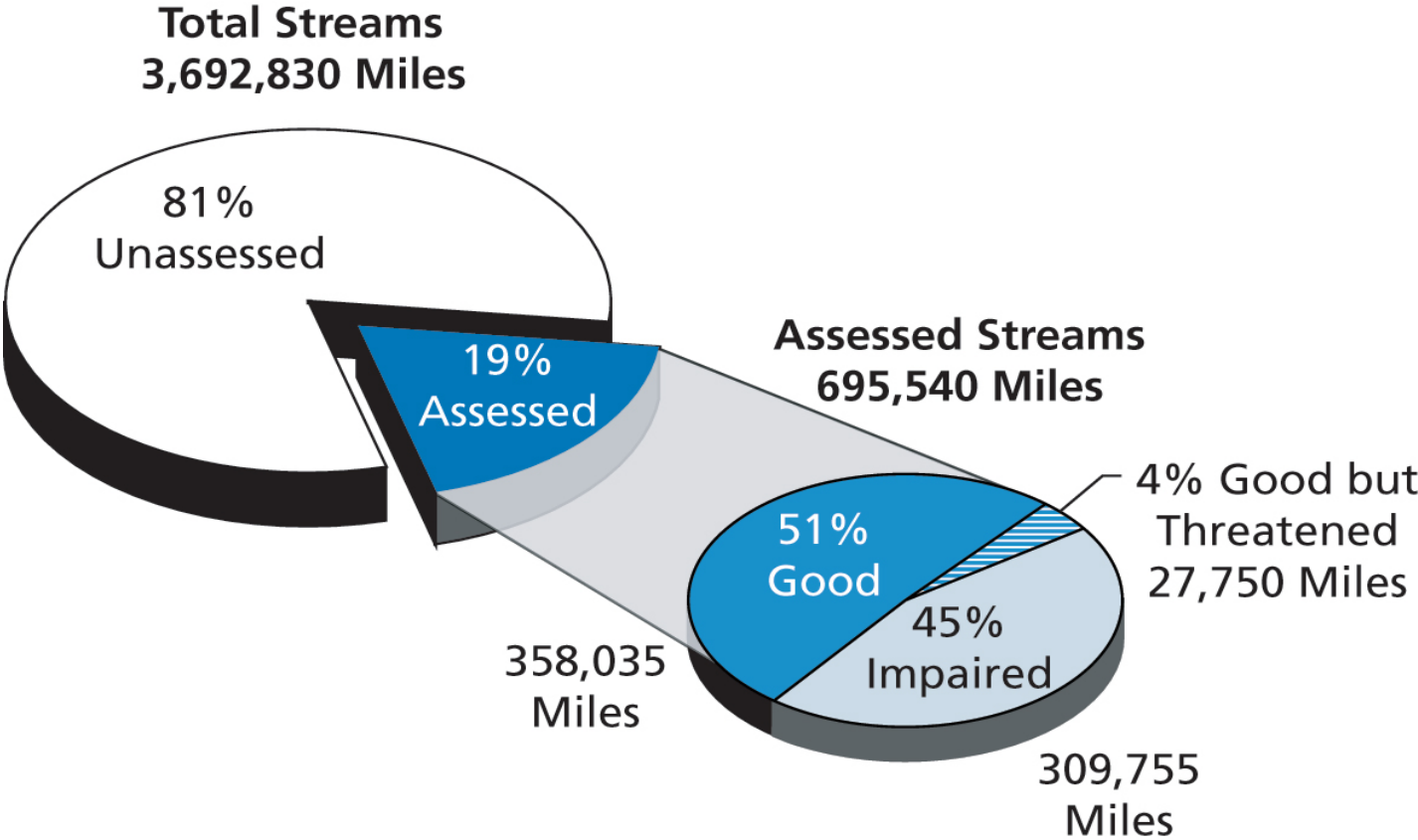
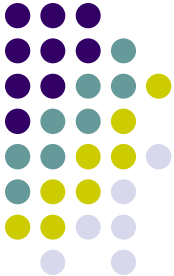
- Section 305(b)
 - States must report on condition of all waters every 2 years
 - Specifically the extent that support healthy aquatic life and recreation in and on the water
 - EPA must provide an analysis to Congress
- Section 303(d)
 - States must submit prioritized list of waters that do not meet water quality standards and need a TMDL
 - Develop and implement TMDL
- Other CWA programs
 - Setting & refining water quality standards
 - Issuing and ensuring compliance with NPDES permits
 - Managing nonpoint sources to meet water quality standards

Challenges in Using Traditional State 305(b) Reports

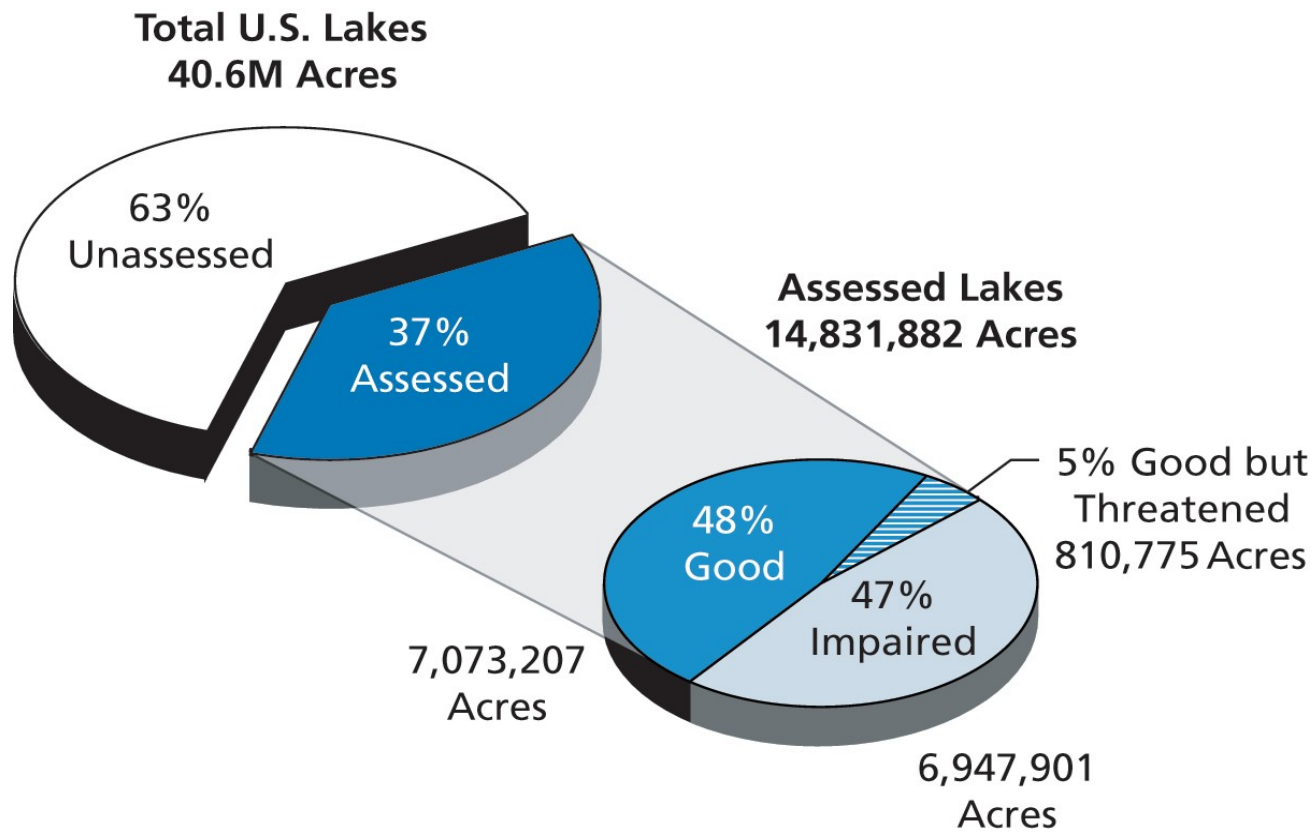


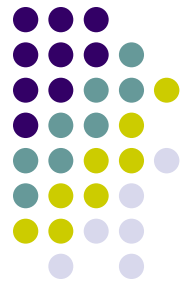
- Small portion of water resources are assessed
- Indicators, parameters, and sampling procedures vary
- Methods to define amount of water assessed vary

Streams Assessed in 2002

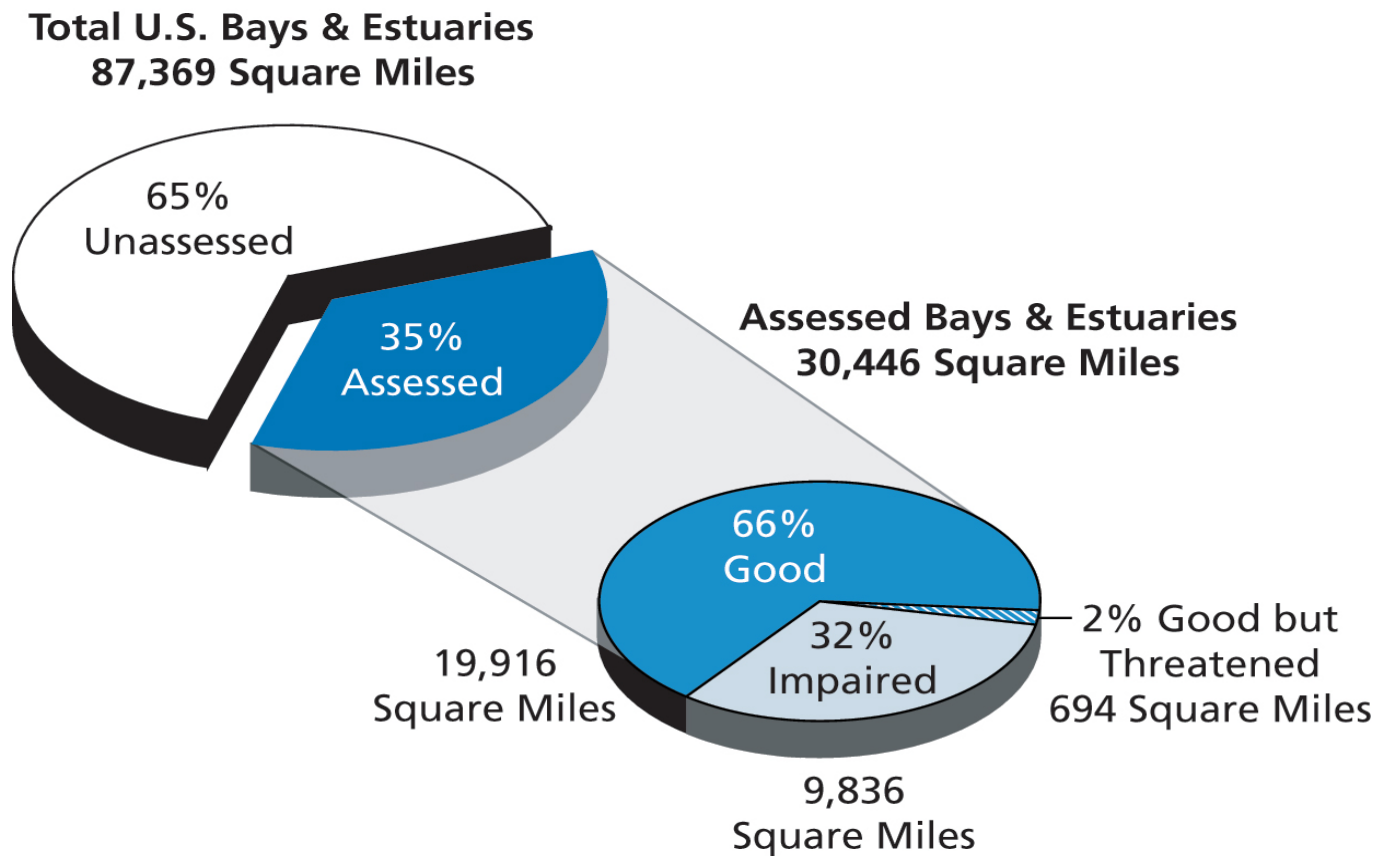


Lakes Assessed in 2002

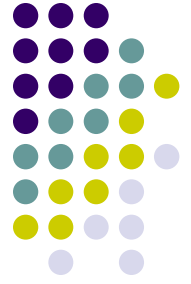




Bays and Estuaries Assessed in 2002

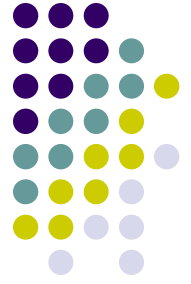


Critiques of Water Monitoring Programs



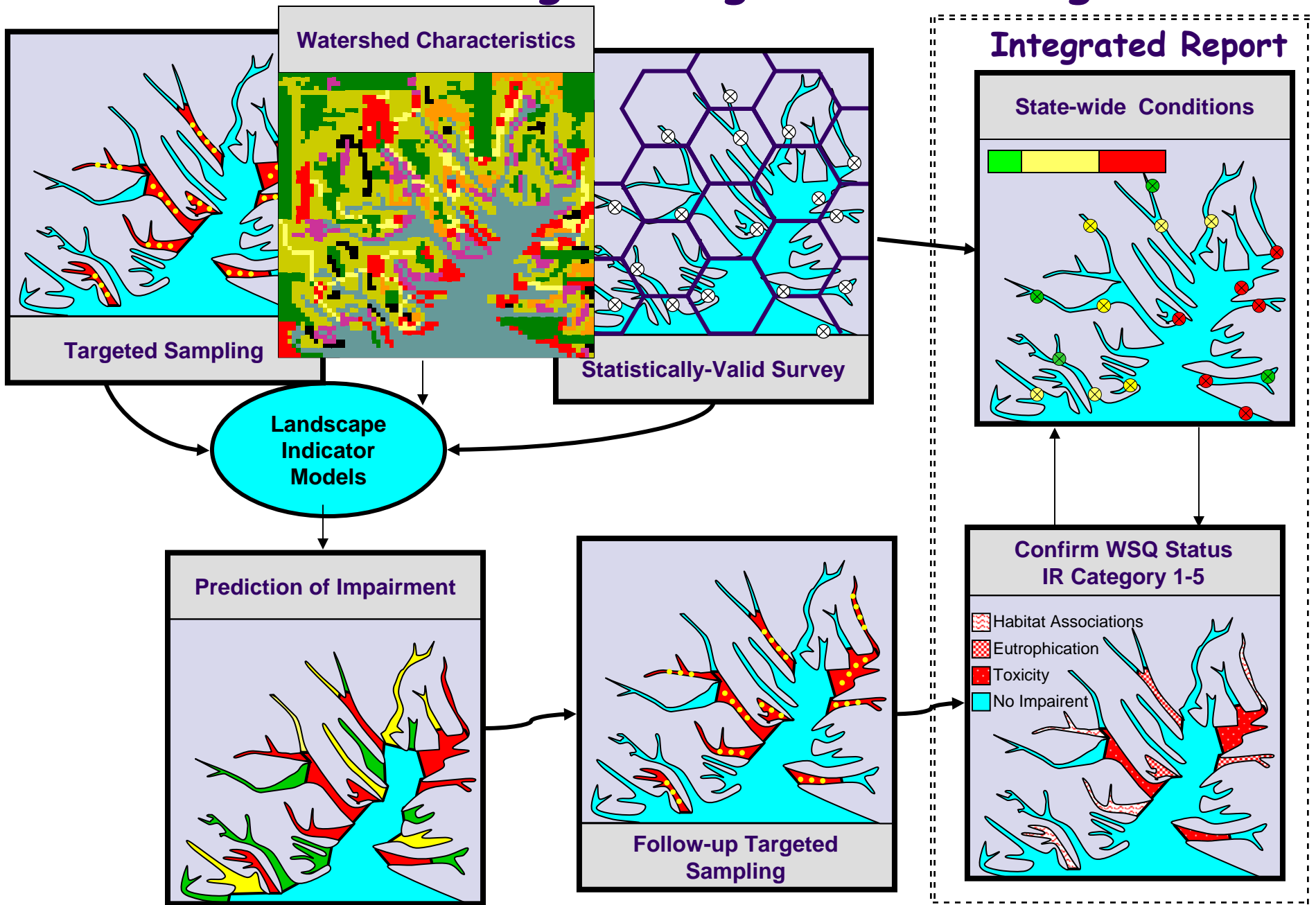
- GAO, National Research Council, National Academy of Public Administration, EPA's Report on the Environment, and others find that EPA and States need better data to
 - Support all management decisions
 - Develop and refine water quality standards
 - Implement measures to protect and restore waters
 - Evaluate the effectiveness of management actions
 - Make statistically valid assessments of the condition of all waters

Monitoring Initiative- Objectives



- Strengthen State monitoring programs by providing new funds to States to develop and implement monitoring strategies
 - Enhance access to and use of data
 - Integrate tools to support more efficient use of monitoring resources
- Assess the condition of all of the Nation's waters and changes over time
 - Create partnership among federal, state and others to cost-effectively survey the Nation's waters
 - Provide statistically-valid information on the extent of water quality problems and key stressors across the country to support decision making

Streamlined Monitoring - Using the Tools Together

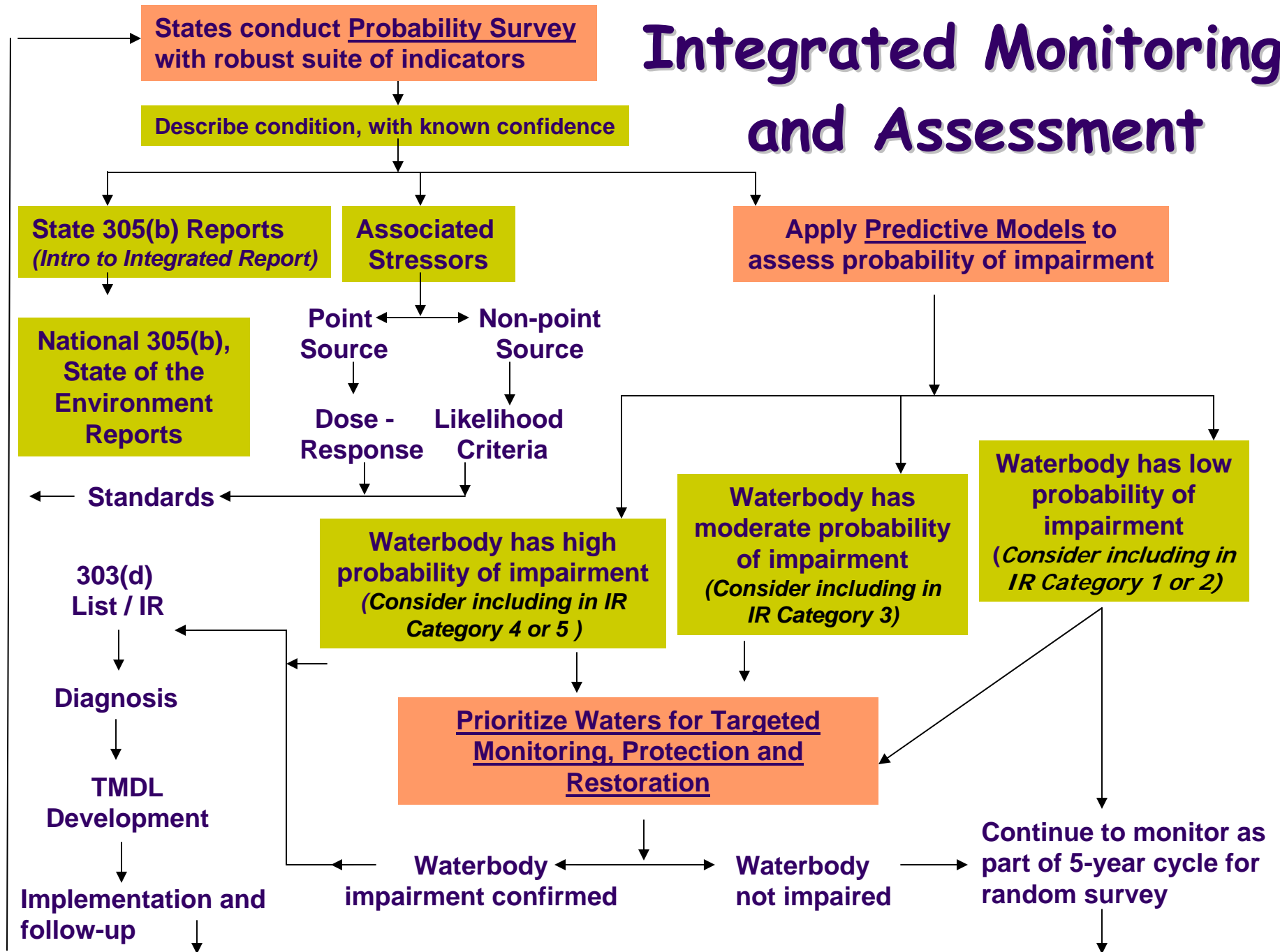


Additional State Use of Monitoring Initiative

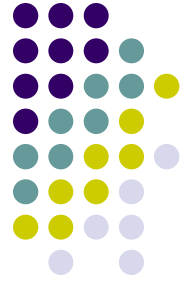


- All States have developed Monitoring Strategies
- Expanding monitoring to unassessed waters
 - Build on national/regional surveys to produce State scale statistically valid surveys
 - Enhance existing State monitoring networks
 - Improve priority setting for targeting site specific monitoring
- Enhancing data management systems
 - Provide for greater sharing and use of water monitoring data within the States and across state boundaries
- Increasing State technical capabilities
 - Upgrade laboratories and analytical expertise
 - Develop or enhance bioassessment programs
 - Develop or refine water quality standards

Integrated Monitoring and Assessment



Monitoring to Account for Results



- Are we protecting and restoring water quality?
 - Nationally, regionally, statewide, watershed-wide, HUC, segment by segment?
- Are we targeting protection and restoration activities for greatest environmental return?
- Are watershed plans, TMDLs, BMPs, NPDES permits effective in restoring water quality?