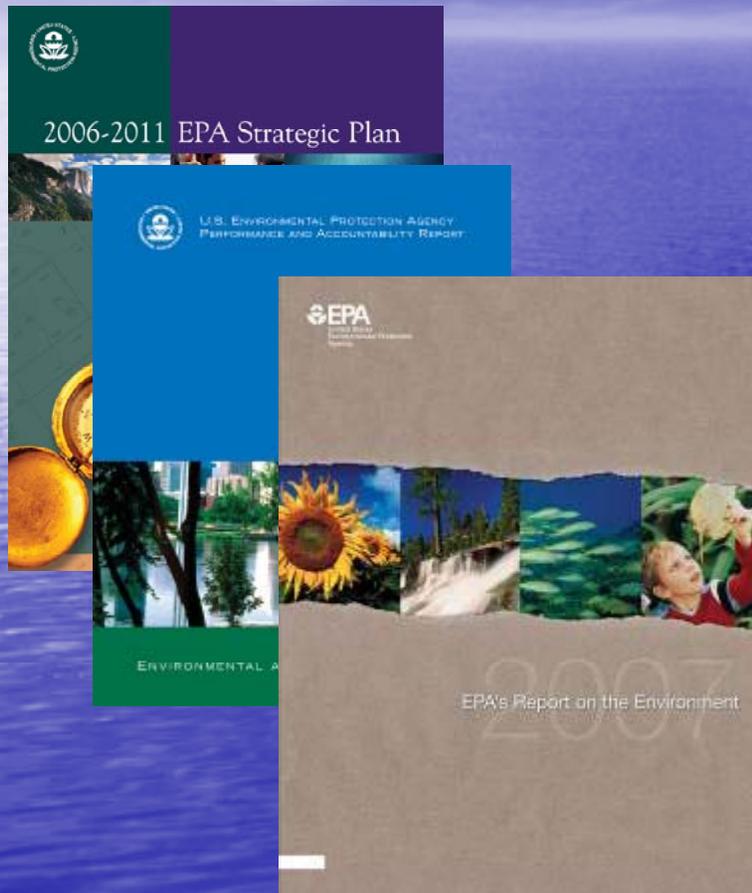


EPA's Report on the Environment, Strategic Plan & Performance Report



- EPA Strategic Plan
- EPA Annual Performance Report
- EPA's Report on the Environment

National Policy Questions

- EPA, states' and tribes' shared mission is to protect human health and the environment. Meeting this mission requires EPA to understand and track trends in
 - The condition of the Nation's air, water, and land; and
 - Associated trends in human health and ecological systems.
- Is the cumulative effect of environmental laws protecting human health and the environment?
- Do data and information drive effective policy, program priorities, management decisions?

National Water Policy Questions – EPA Perspectives

- Do the Nation's waters provide for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water (CWA Section 101 goal)?
- What are the priority stressors threatening achievement of this goal?
 - Nutrients
 - Toxics
 - Flow
 - Habitat
 - Invasive species

Challenges to Producing National Water Quality Inventory from State Reports

- In 2000, GAO concluded NWQI is not reliable due to “wide variation in” state:
 - Selection of monitoring sites
 - Monitoring methods
 - Assessment methods
 - Stressor identification

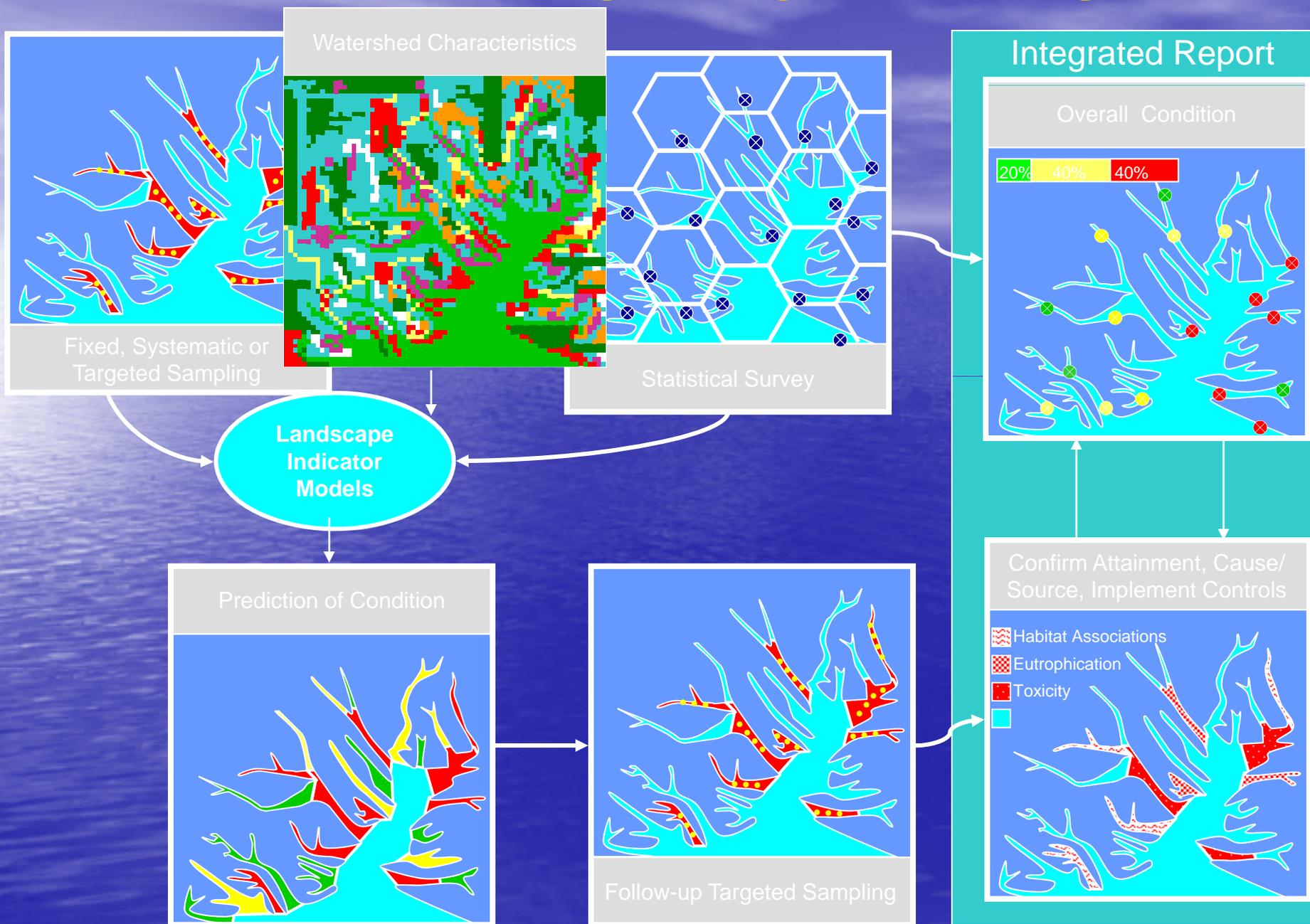
Monitoring Initiative and EPA Support Framework

- Increase CWA Section 106 Grant to States and Tribes
 - \$10 M for monitoring strategy implementation
 - \$8.5 M for state and tribal participation in NARS
- EPA Technical Assistance
 - Coordinate National Aquatic Resource Surveys
 - Develop Water Quality Exchange (WQX) tools and improved STORET warehouse
 - Develop Geospatial Tools, including NHD Plus, HEM

Combination of Monitoring Tools Support Management Needs

Targeted monitoring	<ul style="list-style-type: none">• Assess WQS attainment for specific segments• Measure localized water quality trends• Identify sources of pollutants to specific waters• Support development of local management measures
Statistical survey	<ul style="list-style-type: none">• Describe proportion of all waters supporting CWA goals, with documented confidence• Measure water quality trends and program effectiveness• Inform management priorities and control strategies for widespread problems• Prioritize follow up monitoring
Modeling and landscape analysis	<ul style="list-style-type: none">• Support development of local management measures• Predict where water quality is likely impaired• Predict water quality changes• Prioritize targeted monitoring

Streamlined Monitoring – Using the Tools Together



National Aquatic Resource Surveys

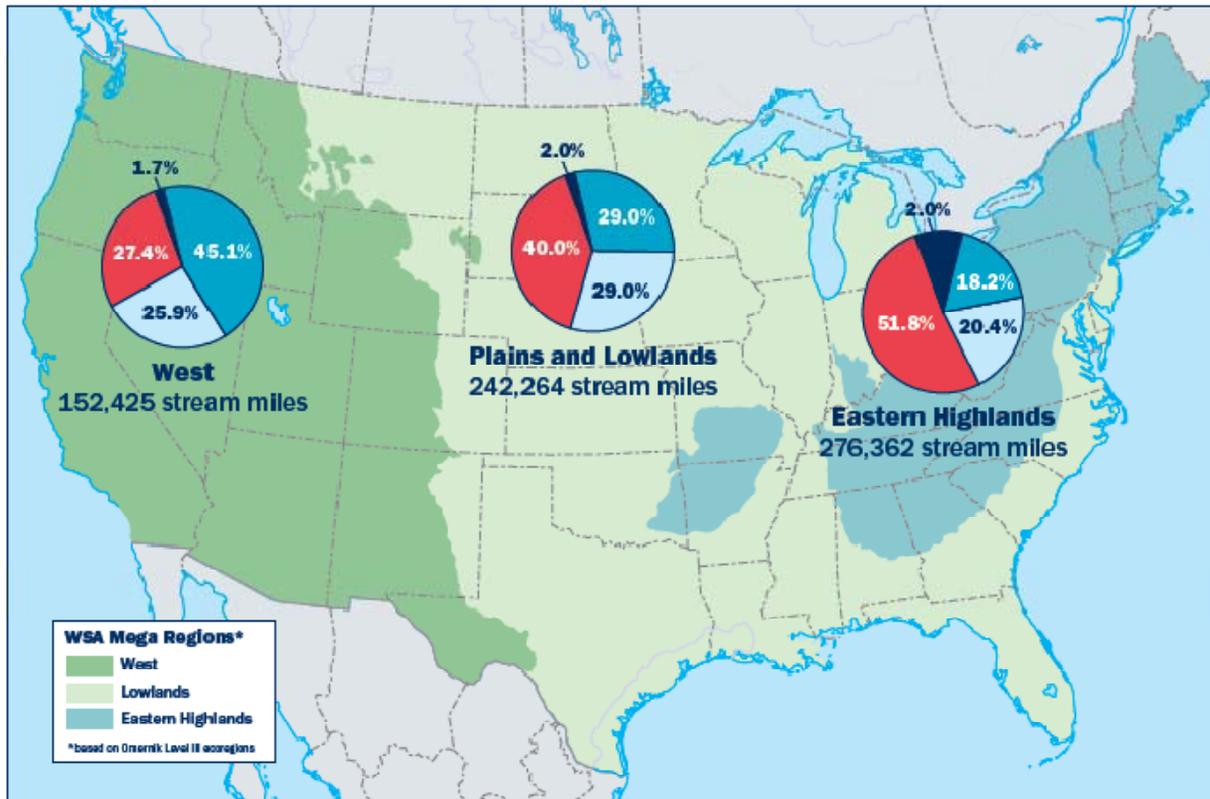
- **Short-term strategy**

- Rotate through water resources
- Use standardized design
- Use standardized methods

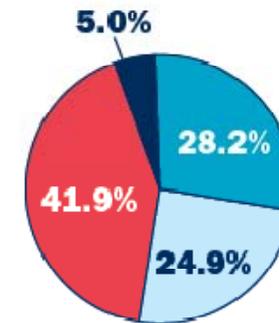
- **Long-term vision**

- State-scale surveys roll into national surveys
- More flexibility in methods, implementation, schedule, with appropriate rigor
- Develop vision and roadmap for getting there

Wadeable Streams Assessment Condition of the Resource



National Summary

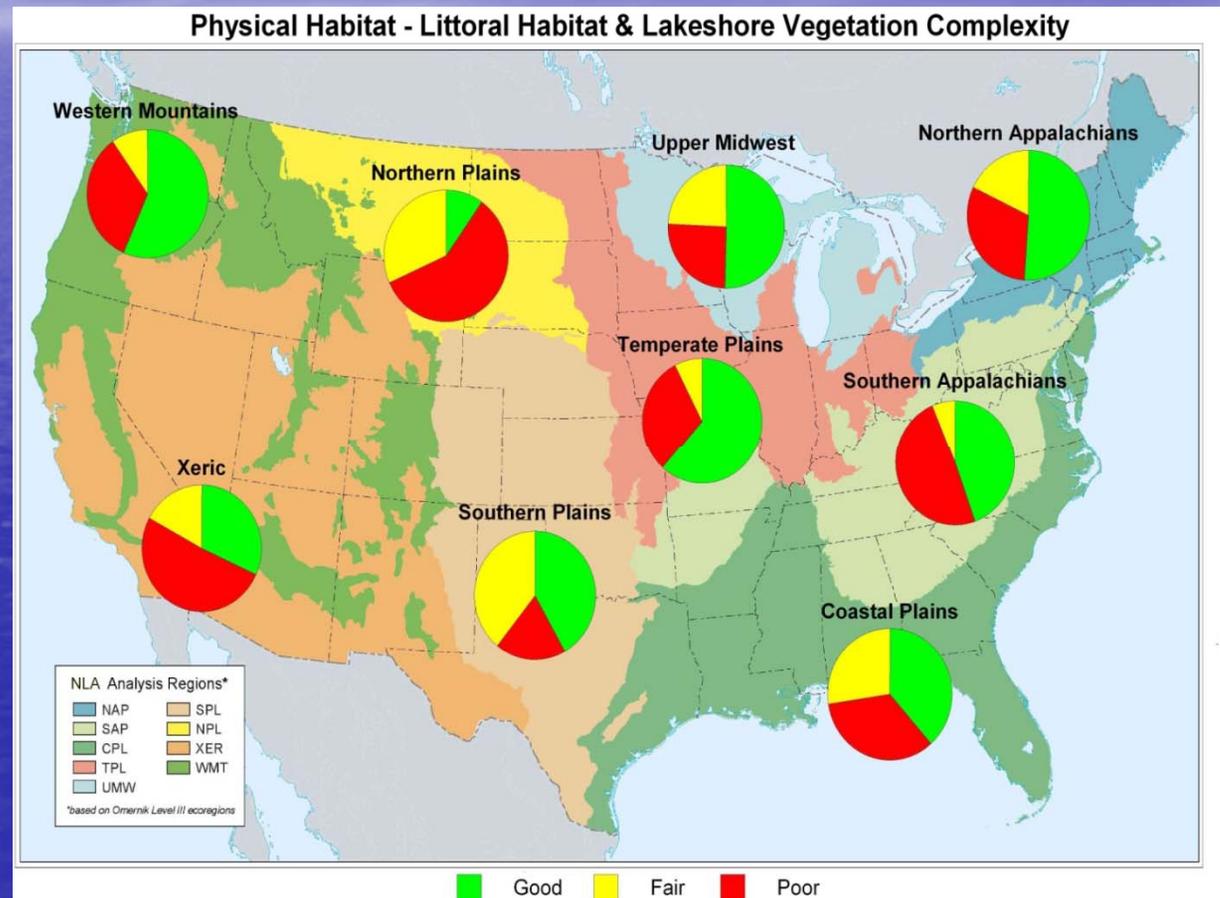


Biological Condition of Wadeable Streams

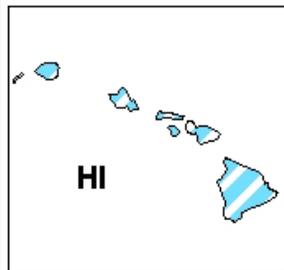
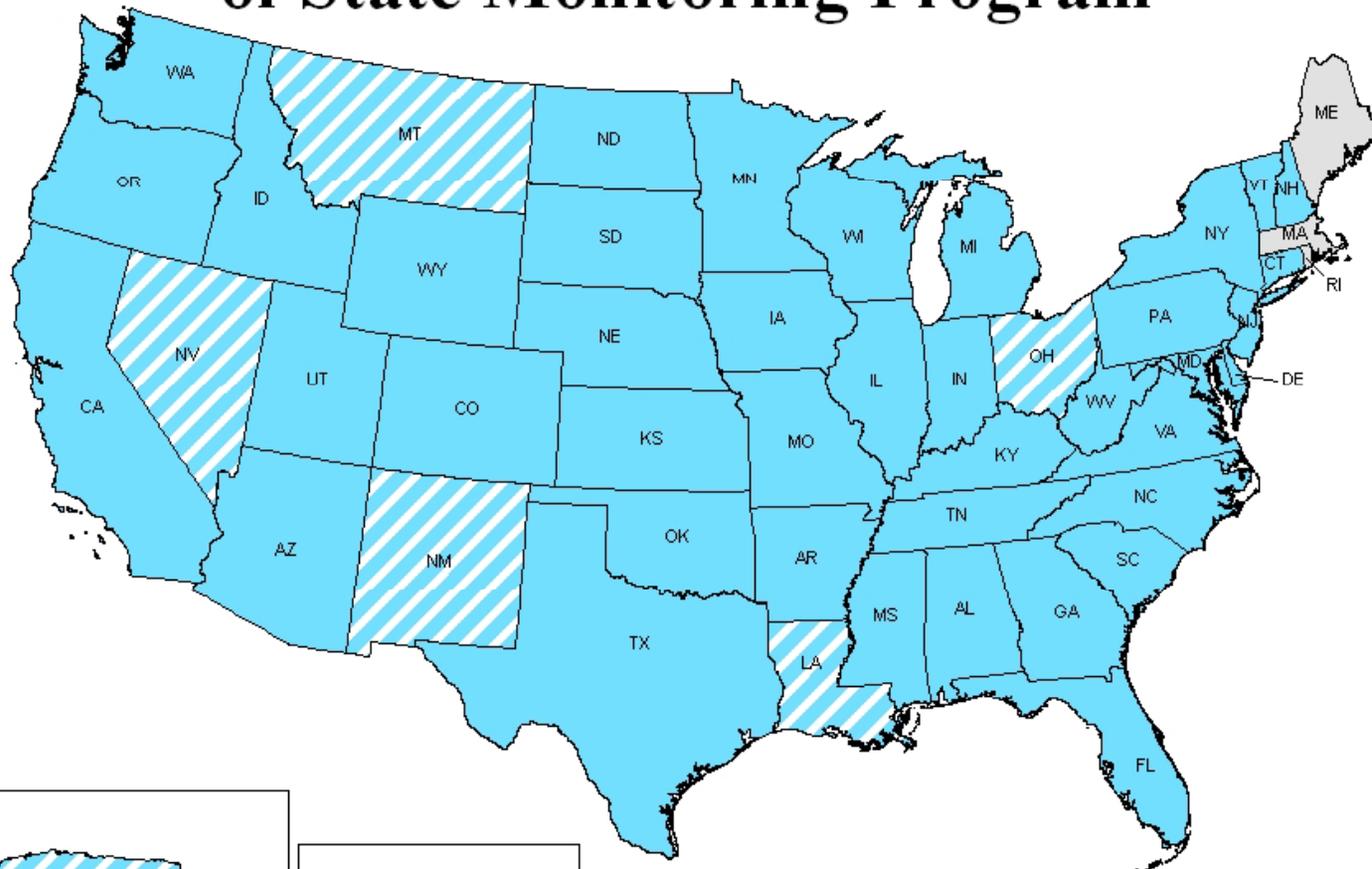


Poor Habitat Quality Increases Risk of Degraded Biology 300%

- National Summary:
 - 47% of lake shorelines in good condition
 - 20% are in fair condition
 - 32% are in poor condition
- Assessment thresholds based on regionally explicit reference expectations.



Use of Probability Surveys as a Component of State Monitoring Program



Status of State Use of Probability Surveys

-  Adopted state scale survey (40)
-  Piloting/Investigating use of state scale survey (7)
-  Not currently pursuing state scale survey (3)

August 25, 2009

Challenges to Producing National Water Quality Inventory from State Reports

- 2010 progress and potential
 - Survey condition of the nation's water resources—coastal, lakes, rivers and streams, wetlands
 - Harmonize survey design across scales
 - Promote consistent methods and assessment
 - Explore comparability where lacking consistency
 - Advance data analysis (reference approach, relative risk, CADDIS, NHDPlus)

Using Data to Protect and Restore Human and Ecological Health

- Track status and trends of water, air and land resources
- Analyze the effectiveness of environmental programs and adjust actions accordingly
- Develop human and ecological health thresholds and criteria
- Protect public health
 - Fish consumption advisories
 - Air Quality Index
- Respond to emergencies and conduct clean-up activities
 - National Coastal Assessment data provided baseline information for evaluating the impacts of Katrina near New Orleans

National Environmental Status and Trends Indicators – Water Pilot

- **Water Quantity**

- How much water do we have?
- How much water do we use?

- **Water Quality**

- How much of our waters support healthy aquatic communities?
- What is the physical and chemical condition of our waters?
- How much of our waters are suitable for human use and contact?

Looking Forward

- What would GAO say now?
- What foundation are we laying for the next 40 years of CWA implementation?
- What role will monitoring play in supporting the next leap forward?
- Will we create a sustainable approach to integrating monitoring and assessment to meet our full range of policy and program needs?