



A National Water Quality Monitoring Network for U.S. Coastal Waters and their Tributaries

The annual cost of water resource monitoring is hundreds of millions of dollars. Yet, numerous reports in recent years indicate that monitoring remains insufficient and lacks coordination to provide comprehensive information about U.S. water resources. The final report of the U.S. Commission on Ocean Policy recommended a National Monitoring Network (Network) to assure effective stewardship of ocean resources. The National Water Quality Monitoring Council of the Advisory Committee on Water Information was asked to design such a Network, in part because of its broad membership, including federal, tribal, state and local agencies, water associations, universities and the private sector. The proposed Network shares many attributes with ongoing monitoring efforts but is unique in that it uses an integrated, multi-disciplinary approach to address a broad range of resource components, from upland watersheds to offshore waters. Key design features include:

- Clear objectives linked to management questions
- Linkage to the Integrated Ocean Observing System (IOOS)
- Flexibility in design over time
- Importance of metadata, quality assurance, comparable methods and ready access

The Network provides critical information about the quality of coastal waters and their tributaries at regional and national scales, but does not incorporate or replace all ongoing water quality monitoring. State and local agencies must continue to meet many regulatory and local needs, (e.g., monitoring for drinking water) that will be outside the scope of the Network. However, many existing state and regional monitoring programs may well become “network compliant” and both contribute to and benefit from the National Network.

Table 3-2 in the Executive Summary (available at the NWQMC exhibit booth) provides an at-a-glance overview of the Network design by resource component, including estuaries, nearshore, offshore, Great Lakes, rivers, ground water, atmospheric deposition, beaches and wetlands. Constituents to be monitored include physical characteristics, inorganic and organic chemical concentrations, and biological conditions. Continuity of measurements among all resource components will provide a better understanding of the linkages among resources.

Full implementation of the Network will require the use of data collected by a number of federal, tribal, state, local, academic, and private sources. Data must be comparable to allow integration into a coherent assessment of the condition of and trends in the quality of the Nation’s coastal waters and their tributaries. The use of models to interpret environmental data will facilitate understanding of complex environmental issues.

Plenary talks, special sessions and exhibits throughout the conference will provide opportunities for you to learn more about the Network design, and to provide important feedback to the National Water Quality Monitoring Council.