



## Integrated Monitoring & Assessment for Effective Water Quality Management

# EMAP SYMPOSIUM 2004

Newport, Rhode Island • The Hotel Viking

May 3-7, 2004

### **Description**

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The U.S. Environmental Protection Agency's (EPA) Environmental Monitoring and Assessment Program (EMAP) Symposium 2004 will be a three and a half day symposium, jointly sponsored by EPA's Office of Research and Development, the Council of State Governments (CSG), and the National Oceanic and Atmospheric Administration (NOAA):

This Symposium will:

- Offer how advances in monitoring and assessment are targeted to meet emerging State and Tribal needs;
- Illustrate examples of research and technology transfer that have led to more efficient, less expensive, and more scientifically rigorous monitoring and assessment programs.

### **Format**

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Expert managers and scientists from Federal, State, Tribal Nations and local government agencies, academia, and nonprofit organizations will contribute to Platform and Poster presentations during this Symposium. Ample opportunity will be available for those with experience in the design and implementation of Water Quality Monitoring and Assessment Programs to exchange ideas during the Poster Session, discussion groups, and Workshops to be conducted during the symposium. The symposium will be held at the Hotel Viking in Newport, Rhode Island on **May 3-7, 2004**. It is expected that there will be approximately 300 participants from across the country.

### **Submission of Abstracts (Platform and Poster Presentations)**

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Abstracts for Platform and Poster presentations related to any of the three main Themes will be accepted. All abstracts for both poster and platform presentations must be received by **January 30, 2004**. Details about the Submission of these Abstracts can be found on the Symposium's Web Site (<http://www.csg.org>), keyword "EMAP".

### **Focus**

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This Symposium will focus on the following three (3) main THEMES; with Sessions supporting each of these Themes:

## **1 Monitoring the Condition of Aquatic Resources**

### Description:

This Theme will focus on the presentation of results of existing aquatic (freshwater and marine) resource monitoring programs, specifically those describing condition of these resources at large geographic scales such as State, Tribal land, watershed, region, etc. Sessions in this theme will emphasize improvements in the ability of local, State, regional, Tribal, and Federal agencies to assess aquatic resource condition at multiple spatial and temporal scales. This Theme will also explore advances; in the use and integration of standardized and innovative monitoring tools for condition assessment and to address assessment questions regarding aquatic resource conditions.

#### Objectives:

- Highlight applications of innovative survey designs for multiple purposes;
- Examine improved methods to estimate condition across resource types (e.g. streams, wetlands, estuaries), substrate (e.g., air, water, sediment), political reporting units, and geographic area; and
- Highlight successful monitoring and assessment programs and partnerships.

## **2 Methods to Integrate Monitoring and Assessment for Clean Water Act [305(b)/303(d)] Reporting**

#### Description:

The focus of this theme will be on monitoring designs, models, and approaches that help States and Tribes integrate monitoring and assessment efforts needed under the Clean Water Act for reporting both overall condition and identification of impaired waterbodies. The goal is the integration of broad-scale monitoring information with the need to identify and assess site-specific conditions.

#### Objectives:

- Determine current practices, research progress, and guidance needed for these combined Clean Water Act Reports; and
- Develop strategies for survey design, analysis and assessments to facilitate decisions on research directions and methods to implement these integrated programs.

## **3 Monitoring to Establish Aquatic Life Uses, Develop Criteria, and Evaluate Use Attainment**

#### Description:

This theme focuses on improvements to the Water Quality Standards “toolbox”; including chemical, physical and biological methods for determining appropriate levels of protection for aquatic systems (e.g. designated aquatic life uses) and for establishing criteria to protect those systems. Criteria development includes approaches for measuring effects attributable to both individual and multiple stressors and generally can be grouped into:

- Those requiring field data collection to determine naturally occurring condition (e.g. biological, habitat, nutrients, clean sediment, pH, temperature);
- Those based on laboratory toxicity exposures (e.g. chemical, whole effluent, contaminated sediments); and
- Those based on a combination of field data and laboratory toxicity testing (e.g. biological assessment-based, field derived chemical criteria).

This theme and its associated sessions focus on three questions: 1) What is the role of monitoring in the establishment of water quality goals and the “criteria” to protect those goals?, 2) What is the role of monitoring in evaluating use attainment, and 3) How is the concept of “reference condition” woven throughout the criteria and use attainability issues? The sessions will include invited and contributed papers describing work conducted in freshwater, marine, and wetland systems.

#### Objectives:

- Demonstrate monitoring approaches that help develop designated aquatic life uses, various “criteria” (e.g., water quality, habitat, nutrient, biocriteria), reference conditions, and measures for assessing attainment; and
- Cross-fertilization of management and research ideas concerning different approaches to environmental resource monitoring.

## **Contacts**

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Further information on the EMAP Symposium 2004 can be obtained from:

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**Information regarding Registration, Program Agenda, and submissions of Abstracts will soon follow; and can be found on the EMAP Symposium’s Web Site (<http://www.csg.org>), keyword “EMAP”.**