

# Working Together for Clean Water

9<sup>TH</sup> NATIONAL MONITORING CONFERENCE

April 28 - May 2, 2014

Cincinnati, Ohio



## CALL FOR ABSTRACTS



Photo courtesy Jerry Schulte, Ohio River Valley Water Sanitation Commission

Join us in Cincinnati for the National Water Quality Monitoring Council's 9<sup>th</sup> National Monitoring Conference – *Working Together for Clean Water* on April 28 – May 2, 2014. This national forum provides an exceptional opportunity for federal, state, local, tribal, volunteer, academic, private, and other water stakeholders to exchange information and technology related to water monitoring, assessment, research, protection, restoration, and management, as well as to develop new skills and professional networks.

### Conference themes will cover your water management & science needs, including:

- Addressing Emerging Contaminants and Threats to Human Health and Aquatic Ecosystems
- Evaluating the Impact of Extreme Events – Natural and Man-made
- Evaluating and Managing Water Protection and Restoration Activities
- Managing and Sharing Water Quality Monitoring Data
- Determining the Holistic Value of Water - How Science, Public Opinion, Economic and Social Information are used for Better Water Management and Decision Making
- Assessing the Influence of Energy Production on Water Quality, Aquatic Ecosystems, and Water Management
- Connecting Science to Action - Communicating Science and Data in Ways that Influence Behavior
- Advancing Innovation in Monitoring: Technology, Assessment, Modeling, and Methods
- Strengthening Monitoring Collaboration and Partnerships
- Demonstrating the Value of Monitoring in Measuring Environmental Change

### Of special note...



The *Fluid 5K Run* will be back! Funds from the run go toward Eleanor Ely Memorial Scholarships that support volunteer monitoring colleagues' attendance to the National Monitoring Conference.

### Awards

We are currently accepting nominations for the 2014 Elizabeth J. Fellows Award, Barry A. Long Award, and Vision Award. Please visit the conference website for details.

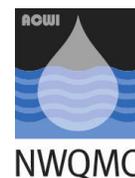
**Instructions for submitting abstracts and proposals for extended sessions (workshops, short courses, and panel discussions) can be found at the Conference website: [acwi.gov/monitoring/conference/2014/](http://acwi.gov/monitoring/conference/2014/)**

**All abstracts and proposals must be received no later than September 20, 2013**

**Registration information will be available soon!**

Authors of abstracts accepted for oral and poster presentations and organizers of extended sessions will be notified by January 17th, 2014. Presenters will receive further guidelines for preparation of presentations and posters. All presenters must register for the conference.

For exhibitor and sponsorship information please contact Greg Arenz, [garenz@nalms.org](mailto:garenz@nalms.org). For questions related to programming, please contact the 2014 National Monitoring Conference Co-chairs Cathy Tate, [cmtate@usgs.gov](mailto:cmtate@usgs.gov), Jeff Schloss [jeff.schloss@unh.edu](mailto:jeff.schloss@unh.edu) or Alice Mayo, [Mayio.Alice@epa.gov](mailto:Mayio.Alice@epa.gov). To be placed on a mailing list, please contact Philip Forsberg, [forsberg@nalms.org](mailto:forsberg@nalms.org). To learn more about the Council and previous conferences, visit: [acwi.gov/monitoring/](http://acwi.gov/monitoring/).



The NWQMC is requesting abstracts for oral and poster presentations that are applicable to the monitoring of rivers, streams, lakes, groundwater, wetlands, estuaries and the ocean. The conference prides itself on attracting attendees and presenters from across the globe and from all types of monitoring organizations. Provided below are candidate topics that address the conference themes and components of the NWQMC's monitoring framework. This list is intended to spark thinking about issues that might be addressed, and should not be considered comprehensive or limiting.

#### ***Addressing Emerging Contaminants and Threats to Human Health and Aquatic Ecosystems***

- Invasive species monitoring
- Monitoring for pharmaceuticals and endocrine disrupting compounds
- Pesticide risk assessment: monitoring and modeling
- Putting monitoring data into context with human health and ecological benchmarks
- Harmful algae blooms (HABs) and cyanotoxins
- Transport and distribution of mercury through aquatic systems
- Assessing impacts of nutrients, sediments, and other common stressors
- Monitoring for waterborne illnesses - microbial source tracking, PCR, genomics, and predictive models for microbiology
- Assessing environmental and health effects from aquifer recharge and discharge
- Nanoparticles and risks to environmental and human health

#### ***Evaluating the Impact of Extreme Events – Natural and Man-Made***

- Effects of extreme weather events on human and ecological health
- Effect of extreme weather events on infrastructure
- Monitoring and assessing sewage spills and contamination from flood and severe weather events
- Assessing effects of hydrologic alteration on water quantity and quality
- Preparing your monitoring program for extreme events: lessons learned
- Assessing the effects of prolonged drought on water quality and beneficial uses

#### ***Evaluating and Managing Water Protection and Restoration Activities***

- Nonpoint source monitoring to meet the needs of TMDL implementation
- Assessing green infrastructure/low impact development performance
- Monitoring the effectiveness of habitat restoration actions
- Dam removal and monitoring associated water quality impacts
- Picking the right data analysis to measure your water quality management objectives
- Monitoring the effectiveness of contaminated site cleanup activities
- Assessing public health outcomes from water management activities
- Identifying causes of stream impairment due to multiple stressors
- Use of continuous water quality monitoring data in regulatory applications
- Use of reference sites to assess water protection and restoration activities

#### ***Managing and Sharing Water Quality Monitoring Data***

- Data management approaches for diverse monitoring groups
- Access to and use of water quality monitoring data in federal pesticide re-evaluations
- Geospatial tools for data integration
- Using and enhancing the Water Quality Portal
- Using diverse data types together for analysis and assessment
- Developing and using data standards for data sharing
- Developing local, regional, and national water quality data exchanges
- Using new technologies to manage and share water quality data

#### ***Determining the Holistic Value of Water - How Science, Public Opinion, Economic and Social Information are used for Better Water Management and Decision Making***

- Economic impacts of harmful algae blooms
- Public attitudes, beliefs and opinions on water quality impairment and the translation to water quality protection
- Indigenous and spiritual considerations of the value of water
- Communicating the value of ecosystem services to the public – the role of clean and plentiful water in enabling economic growth
- The One-Health Paradigm: connecting the health of people, the health of animals, and the health of the environment
- Communicating the economic and public health value of water protection, supply and treatment to the public

#### ***Assessing the Influence of Energy Production on Water Quality, Aquatic Ecosystems, and Water Management***

- Monitoring and assessing the impact of hydraulic fracturing
- Monitoring water quality impacts of energy development and energy transportation
- Impact of biofuels on water quality and quantity
- Coastal and marine impacts from oil production
- Impacts of frac sand mining on water quality
- Quantifying the water-use footprint of energy production sectors
- Weighing the cost and benefits of energy production relative to water
- Considering water availability and water quality in energy planning

#### ***Connecting Science to Action - Communicating Science and Data in Ways that Influence Behavior***

- Innovative approaches to presenting water quality data
- Making water quality data relevant to national, state, tribal, and local policy
- Connecting water quality changes to public health outcomes
- Innovations in water quality outreach, education, communication and social media
- Water quality curriculum for the next generation

#### ***Advancing Innovation in Monitoring: Technology, Assessment, Modeling, and Methods***

- Modeling surface water and groundwater interactions
- Innovative approaches to statistical testing
- Predicting toxic algae bloom events
- Real-time monitoring using indicator organisms and surrogate measurements
- Advances in sensor technology and application
- Monitoring with passive sampling devices
- Satellite image interpretation for water applications
- Nutrient source tracking using multiple lines of evidence
- Assessing methods and data comparability
- Integrating data sets and network designs to support water quality assessment
- Improving and enhancing biological assessments, including metagenomic approaches
- Emerging smartphone apps and technology for monitoring applications
- Approaches for connecting water quantity and water quality

#### ***Strengthening Monitoring Collaboration and Partnerships***

- Expanding collaborations with tribes, states, federal programs and the private sector
- Reconnecting environmental and public health partnerships
- Collaborative data sharing and program management success and challenges
- New partnerships for old and new water quality concerns
- Collaborating to sustain programs in times of declining budgets
- Enhancing partnerships through state and regional monitoring councils
- Expanding the inclusion of volunteer data by state and local partners
- Using information/data collected for community projects
- Large-scale (regional and national) monitoring strategies

#### ***Demonstrating the Value of Monitoring in Measuring Environmental Change***

- Tracking trends in water quality
- Considerations of geographic scope, timeframes and monitoring frequencies when measuring environmental change
- Communicating the value of water to decision makers
- Articulating the value of monitoring in demonstrating the effectiveness of water quality management activities
- Assessing effects of climate change on water availability and quality

