

Building a Framework for the Future

SUNDAY, MAY 19, 2002

12:00 – 5:00 PM	Conference Registration
5:00 – 7:00 PM	Welcome Reception Hosted by the NWQMC – All are encouraged to attend.

MONDAY, MAY 20, 2002 – Concurrent Workshops

8:30 – 9:00 AM	Welcome to the 3 rd NWQMC National Monitoring Conference					
9:00 – 10:30 AM	Ground Water Network Design Issues	Surface Water Network Design Issues	Looking Beyond the Border: International Issues of Cooperation and Comparability	Use NEMI First – The Role of NEMI in Monitoring Design	Capacity Building for State and Regional Councils	Bridging the Gap Between Assessment of Condition and Diagnosis of Impairment
10:30 – 10:45 AM	Break					
10:45 – 12:15 PM	Clean Water Act (CWA)/Safe Drinking Water Act (SDWA) Integration: The Ground Water Link – Part 1	Statistical Design and Analysis of Monitoring Programs (with emphasis on 305(b) and 303(d) preliminary listing process) – Part 1				
12:15 – 1:30 PM	Lunch					
1:30 – 4:30 PM	Clean Water Act (CWA)/Safe Drinking Water Act (SDWA) Integration: The Ground Water Link – Part 2	Statistical Design and Analysis of Monitoring Programs (with emphasis on 305(b) and 303(d) preliminary listing process – Part 2	Looking Beyond the Border: Building a Monitoring Framework for the Great Lakes Basin	New Technologies	Statistics for Everyone	Celebrating Our Nation's Waters: Monitoring to Motivate, Stimulate, and Integrate

NOTE: Each 90-minute session within the six conference tracks will include oral presentations followed by a question and discussion period.

TUESDAY, MAY 21, 2002

8:00 – 10:00 AM	Opening General Session					
10:00 – 10:30 AM	Break					
10:30 – 12:00 PM	<p>Collaboration: Meeting Multiple Needs through Monitoring Partnerships</p> <p>Expanding the Network: A Regional Model of Cooperative Surface Water Quality Monitoring, Cassandra Champion</p> <p>Connecticut River Fish Tissue Study, Bethany Card</p> <p>Developing and Maintaining a Collaborative, Multi-Watershed Monitoring Network, Mark Doneux</p>	<p>Volunteer Monitoring Expands Your Reach</p> <p>Cost Effective/Level 4 Citizen Monitoring, Philip Emmling</p> <p>IOWATER, Iowa's Statewide Volunteer Water Quality Monitoring Program, Richard Leopold</p> <p>The Role of Volunteer Watershed Monitors in TMDL Development and Implementation, Diane Wilson</p> <p>Aquatic Monitoring Workshops for Alaska Tribes, Elaine Major</p>	<p>Watersheds: The Natural Basis for Monitoring Design</p> <p>Water Quality Monitoring at the Watershed Level in the Upper Grande Ronde River Basin, Teena Ballard</p> <p>Monitoring Pesticides for TMDL Development in the San Joaquin River Basin, California, Charles Kratzer</p> <p>Developing a Scientific Basis for Source Water Protection Policies in the Salt Lake City Watershed Canyons, Lindsay Griffith</p> <p>Designing Monitoring and Assessment Strategies to Include Nearshore Ecosystems of the Great Lakes, John Kelly</p>	<p>What's New at the State Level: New Ways to Meet Increasing Needs</p> <p>A 5 Year Strategy for Comprehensive Surface Water Monitoring, Arthur Garceau</p> <p>Life on a High Wire: Managing a Monitoring Program to Meet Multiple Goals and Expectations, Gary Kohlhepp</p> <p>Oklahoma's Beneficial Use Monitoring Program (BUMP), Monty Porter</p> <p>The South Carolina Estuarine and Coastal Assessment Program (SCECAP), David Chestnut</p>	<p>Monitoring Design on a National Scale</p> <p>Consideration of Contaminant Sources, Physical Hydrology, and Policy Implications in a National Design for Monitoring Groundwater Quality, Jeffrey Stoner</p> <p>Design of the Trend Network for Rivers and Streams in the National Water Quality Monitoring Assessment (NAWQA) Program, David Mueller</p> <p>Application of a Probabilistic Sampling Design on a National Level: EPA's National Fish Tissue Study, Leanne Stahl</p>	<p>Track 1: Setting the Stage for Monitoring</p> <p>Concurrent Presentations and Discussions</p>
12:00 – 1:00 PM	Lunch					
1:00 – 1:30 PM	Break, posters highlighted					

<p>1:30 – 3:00 PM</p> <p>Track 2/3: Field and Laboratory Methods for Today and Tomorrow</p> <p>Concurrent Presentations and Discussions</p>	<p>Ground Water: Sampling and Analysis</p> <p>Immunoassay Monitoring for Atrazine in Texas, Alan Cherepon</p> <p>Low Purge Volume Sampling Technique for the Collection of Groundwater Samples at Brookhaven National Laboratory, Douglas Paquette</p> <p>Investigation of Carbon Tetrachloride Contamination in a Deep Aquifer with Westbay Monitoring Wells, Former Fort Ord, California, Michael Taraszki</p> <p>Serious Problems with Ground Water Monitoring Wells: The Confounding Effect of Vertical Ambient Flows, Alper Elci</p>	<p>Metals: Sampling and Analysis</p> <p>Improvements in Field Methods for Arsenic Monitoring, Dan Kroll</p> <p>Monitoring Dissolved Metals in the Ohio River Using Clean Sampling Techniques, Kimberly Mays</p> <p>Field Instrumentation and Monitoring for Mercury Isotopes at the Experimental Lakes Area, Ontario, Canada, David Owens</p> <p>Utilizing Stable Mercury Isotopes for Tracers in Aquatic Ecosystems, Mark Olson</p>	<p>In-Situ Monitoring</p> <p>Field Sampling and Analytical Methods for Monitoring Volatile Organic Compounds in Karst Springs, Shannon Williams</p> <p>Continuous Stream Monitoring for a High Quality Water Resource: Silver Creek, Washington County, Minnesota, Robert Fossum</p> <p>Adapting Marine In Situ Photometric Nutrient Monitors for Freshwater Applications, Charles Patton</p> <p>Remote Sampling Technology: Proactive Management of Surface Water and Development of Comprehensive Data Sets for "Early Warning" Applications, Christopher Owen</p>	<p>Early Warning Monitoring</p> <p>Real-time Biomonitoring to Check the Water Quality, Christian Moldaenke</p> <p>Monitoring Strategy for the Dutch National Early Warning Network, Ad Jeuken</p> <p>Toward Early-Warning Monitoring for Water-System Security: DOE-USGS Collaboration on Development and Testing of Advanced Sensors, Glenn Patterson</p>	<p>Enhancing Data Quality and Comparability – Part 1</p> <p>New Efforts to Implement PBMS, Jerry Parr</p> <p>Keeping an Analytical Program in Step with Rapidly Evolving Data Quality Objectives, Craig Payne</p> <p>Use of Monitoring Data for Detection Limit Determination-Practical Suggestions for the Limit of Detection Dilemma, William Sonzogni</p> <p>Park Service Experience with Developing Monitoring and QA/QC Guidance Consistent with that of other Federal Agencies and States, Roy Irwin</p>
<p>3:00 – 3:30 PM</p>	<p>Break, posters highlighted</p>				
<p>3:30 – 5:00 PM</p> <p>Track 2/3: Field and Laboratory Methods for Today and Tomorrow</p> <p>Concurrent Presentations and Discussions</p>	<p>Biological Monitoring</p> <p>NEMI: Field Methods, Dan Sullivan</p> <p>Monitoring Needs to Meet Benthic TMDL Requirements, Tamim Younos</p> <p>Invertebrate Sample Processing at the U.S. Geological Survey's National Water Quality Laboratory, Stephen Moulton</p> <p>In-Situ Monitoring of Phytoplankton on the Cell Level, George Dubelaar</p>	<p>Nutrients: Sampling and Analysis</p> <p>Continuous Monitoring of Nutrients and Chlorophyll in North Carolina Estuaries, Jerad Bales</p> <p>Sampling Strategies for Determining Nutrient Loads in Streams, Thomas Soerens</p> <p>Corn Leaf Nitrate Reductase- A Nontoxic Alternative to Cadmium for Photometric Nitrate Determinations in Water Samples, Ellen Campbell</p> <p>Alternatives to Kjeldahl Digestion for Determination of Total and Particulate Nitrogen in Water, Charles Patton</p>	<p>Screening Tools for Priority Contaminants</p> <p>Comparison of Indicator Bacteria Densities and their Relation to Turbidity in Kansas Streams, Patrick Rasmussen</p> <p>Monitoring of Chlorinated Disinfection By-Products in Drinking Water: Approach Based in Differential Spectroscopy, Gregory Korshin</p> <p>Using Colilert® to Monitor the Impacts of Wet Weather Pollution Sources, Mindy Garrison</p> <p>Determination of Total and Clay Suspended-Sediment Loads From In-Stream Turbidity Data in the North Santiam River Basin, Oregon; 1998-2000, Mark Uhrich</p>	<p>Remote Sensing</p> <p>Combining Satellite Remote Sensing and Volunteer Secchi Disk Measurement for Lake Transparency Monitoring, Thomas Lillesand</p> <p>Screening to Identify and Prevent Urban Storm Water Problems: Estimating Impervious Area Accurately and Cheaply, James Harrison</p> <p>Lake Water Clarity Assessment at Broad Geographic Scales Using Satellite Remote Sensing, Steve Kloiber</p> <p>Assessing Nitrogen Contamination Potential Via Remote Sensing, Larry Beard</p>	<p>Enhancing Data Quality and Comparability – Part 2</p> <p>NEMI: Laboratory Analytical Methods, Herb Brass</p> <p>Use of Field Quality-Control Samples in Determining the Quality of Pesticide Data Collected for the USGS National Water-Quality Assessment (NAWQA) Program, Jeffrey Martin</p> <p>The Blind Audit Program: An Ongoing QA Initiative of the Chesapeake Bay Water Quality Monitoring Program, Carl Zimmerman</p> <p>Meeting the Demands of Methods 1631 and 245.7 in a Single Instrument with Dual Atomic Fluorescence Detectors, David Pfeil</p>
<p>5:00 – 6:00 PM</p>	<p>Exhibit/Poster Session</p>				
<p>5:00 – 7:00 PM</p>	<p>Reception</p>				

WEDNESDAY, MAY 22, 2002

<p>8:00 – 9:30 AM</p> <p>Track 4: Exploring Opportunities in Data Management</p>	<p>Moving Forward with Water Quality Data Elements</p> <p>Using Common Data Elements to Exchange Data with Confidence,</p>	<p>Applied Database Systems</p> <p>MrBST Software Application, Milo Anderson</p>	<p>Data Rich Indicators</p> <p>Monitoring the Effectiveness of TMDL Implementation with the Oregon Water Quality Index (OWQI), Curtis</p>	<p>Tools to Help Link, Explain, and Manage Data</p> <p>XML - The Lingua Franca of the Information Age,</p>	<p>Data Warehouses and Repositories</p> <p>Natural Systems Data Management Methods, Harry House</p>
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<p>Concurrent Presentations and Discussions</p>	<p>Charles Job Biological Water Quality Data Elements, Charles Peters</p>	<p>Assessment of the Water Quality Impacts of Farming Systems by Integrating Databases and Simulation Models, Jerry Hatfield</p> <p>Hydrologic Databases for Federally-Listed T&E Species, Allen White</p>	<p>Cude Indicators for the Great Lakes, The SOLEC Set, Paul Bertram</p> <p>Moving from "Data" to "Indicators": Connecting Water with Decision-Making, Elisabeth Graffy</p> <p>Mapping the Road to Recovery: Integrated Water Quality and Biological Monitoring of Onondaga Lake, New York, Elizabeth Moran</p>	<p>Abigail Cantor The Milwaukee Metropolitan Sewerage District Corridor Study: A Case Study in the Compilation of Surface Water Related Datasets from Multiple Local, State, and Federal Agencies, Morgan Schneider</p> <p>Letting Monitoring Data Speak for Themselves, Revital Katznelson</p> <p>Watershed Assessment Tracking and Environmental Results System (WATERS), Thomas Dewald</p>	<p>Data Integration and Delivery through a Web-Enabled Environmental Data Warehouse, Steve Kloiber</p> <p>Using Modernized STORET to Create a State-wide Data Clearinghouse in Iowa, Mary Skopec</p> <p>STORET - Supporting the Business of Environmental Monitoring, Cary Mcelhinney</p>
<p>9:30 – 10:00 AM</p>	<p>Break, posters highlighted</p>				
<p>10:00 – 11:30 AM</p> <p>Track 5: Making Sense of the Data</p> <p>Concurrent Presentations and Discussions</p>	<p>Considerations for Interpreting Data The Dynamic Nature of Sediment and Organic Constituents in TSS, Mark Riedel</p> <p>Assessing the Sensitivity of Endangered and Threatened Fish Species Using WET, Jim Dwyer</p> <p>Ecological Description of Fish Assemblages in the Coast Range Ecoregion of Washington and Oregon, Lillian Herger</p> <p>Utilization of Thermal Refugia by Salmonids in a Stressed River System: Implications for the Design of Water Quality and Biological Monitoring Programs, George Guillen</p>	<p>Considerations for Developing Nutrient Criteria Evaluating the Link Between Nutrient Concentrations, Periphyton-Growth Rates, and Biological Indicators of Ecosystem Health in Five Streams in Tennessee and Alabama, Anne Hoos</p> <p>Establishing Nutrient Criteria for Alabama Reservoirs, Chris Johnson</p> <p>Nutrient and Algal Dynamics in the Quinebaug River Basin, in Connecticut, Mike Colombo</p> <p>Environmental Water-Quality Zones for Streams: A New Regionalization Scheme, Dale Robertson</p>	<p>Selecting Indicators and Categorizing Results in Environmental Evaluations Evaluation of Monitoring Data from Three Major Rivers in India: Examination of Present Policies and Exploring the Ways to Maximize the Efficiency of Existing Data, Lenin Kamepalli</p> <p>Oklahoma's Use Support Assessment Protocols (USAP): An Historical Overview and Their Practical Application, Bill Cauthron</p> <p>Development and Application of Indicators for Monitoring Coastal Response to Effluent Diversion in Massachusetts Bay, Carlton Hunt</p> <p>Finding the Gaps: An Assessment of Aquatic Biodiversity for the Great Lakes Region, Jana Stewart</p>	<p>Data Evaluation Tools – Statistics, GIS, and Models Analyzing Archived Water Monitoring Data For Temporal Patterns, Carl Zipper</p> <p>Estimation of Nutrient Loads Using Continuous Water-Quality Monitoring and Regression Analysis Compared to Other Load-Estimation Methods, Victoria Christensen</p> <p>A WEB-based GIS Application with a Focus on Source Water Protection Goals of the Safe Drinking Water Act, William Cooter</p> <p>The Dane County, Wisconsin Groundwater Flow Model - An Important Tool for Water Resource Management, Kenneth Bradbury</p>	<p>Examples and Experiences with Multimetric Indices Vegetation Index of Biotic Integrity (VIBI) for Wetlands: Ecoregional, Hydrogeomorphic and Plant Community Comparisons with Preliminary Wetland Aquatic Life Use Designations, John Mack</p> <p>Development and Testing of a Stream Site Classification for Mississippi, David Bressler</p> <p>Invertebrate Index of Biological Integrity for Wetlands Assessment, Judy Helgen</p>
<p>11:30 – 1:30 PM</p>	<p>Speaker Luncheon, Conference Dedication and Award Presentation</p>				
<p>1:30 – 3:00 PM</p> <p>Track 6: Data to Information to Action</p> <p>Concurrent Presentations and Discussions</p>	<p>Communicating Results that People Can Understand Communicating Monitoring Results that People Can Understand, Abby Markowitz</p> <p>Expressing Scientific Data for Environmental Managers and the Public: Taking the Mystery out of Bioassessment, Kristen Pavlik</p>	<p>Volunteer Monitoring Programs Bridge the Communication Gap Monitoring for Action, Elizabeth Herron</p> <p>FM River Project, Thomas Moe</p>	<p>Initiating Action at the Local Level Amish Water Quality Education, James Hoorman</p> <p>Design of Water Quality Information Systems within the Framework of Collaborative Watershed Organizations, Case Study: Big Thompson Watershed Forum, Julianne Brown</p> <p>Communicating Water Quality/Quantity Data to</p>	<p>Computerizing the Environmental Movement Using Internet Information to Protect Water Quality in Missouri, Tabitha Madzura</p> <p>Dissemination of Beach Water Quality and Notification Nationwide, Tim Gormley</p> <p>Online with IOWATER Monitors, Lynette Seigley</p>	<p>Communicating the Big Picture Water in the Dutch National Accounts, Rurd Maasdam</p> <p>Key Strategies Toward Solving The Water Monitoring Problem in EPA Region 7: A Strategic Plan for Improving our Inability to Monitor and Characterize All Waters, Lyle Cowles</p> <p>Communicating U.S. Geological Survey</p>

			a Small Wisconsin Village Board in time for Informed Decisions, Wes Halverson	GIS Outreach and Training Approaches for Decision-Makers and Educators to Ensure Data to Action in Local Watersheds, Jeffrey Schloss	Water-Quality Data Using Health- Based Screening Levels, Patty Tocciano Navigating the Path from Data to Information with a PR Pro as a Guide, Edward Konsevick
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3:00 – 3:30 PM Break, posters highlighted

3:30 – 5:30 PM	<p><i>Water Information Strategies</i></p> <p>The goal of this Council workgroup is to create and communicate goal-oriented monitoring design guidance that results in comparable information, over time and space, being produced in support of management decision making.</p>	<p><i>Methods and Data Comparability</i></p> <p>The goal of this Council workgroup is to explore, evaluate, and develop methods and approaches to measurement that facilitate collaboration and promote comparability between water quality monitoring programs.</p>	<p><i>Collaboration and Outreach</i></p> <p>The goal of this Council workgroup is to build and support creative partnerships among the many elements of the monitoring community, particularly by supporting the development of state and regional monitoring councils.</p>	<p><i>Watershed Components Interactions</i></p> <p>The goal of this Council workgroup is to provide a national forum to demonstrate how the interactions of the ground water resource with other components of the watershed can impact the ecological integrity of the entire system.</p>
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THURSDAY, MAY 23, 2002

8:30 – 11:30 AM Concluding General Session: Summary reports from Wednesday's four Council workgroup discussion sessions, followed by an open-microphone period.

11:30 – 1:00 PM Lunch

1:00 – 5:00 PM	<p>Adding Structure to the Monitoring Framework</p> <p>This interactive session will give participants the opportunity to look at a large visual representation of the "monitoring framework" and to brainstorm the missing pieces. This session will help guide the NWQM Council's current and future efforts to promote and sustain the monitoring framework.</p>	<p>FIELD TRIP</p> <p>Join us for an afternoon field trip to three locations in the greater Madison area: La Fontaine Springs, Lake Mendota, and Black Earth Creek.</p> <p>We will explore:</p> <ul style="list-style-type: none"> • effects of urbanization on the surface and ground water resource • approaches to monitoring and reporting beach contamination • impacts of urban and agricultural land uses on a world class trout stream • various biological and water quality sampling methods • new and unique in-situ instruments
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