The following posters will be displayed on Wednesday, May 2, 9:30 am – 10:30 am. Poster presenters will be available to answer questions during this time.

**Climate Change**
01A  New England - New York Pilot Climate Change Monitoring Network, Jen Stamp, Tetra Tech, Inc.

**Communication**
02A  Snap Shot Monitoring of the Niangua River Watershed – Part II, Results from a Large-Scale Monitoring Effort with an Emphasis on Data Presentation, Daniel Obrecht, University of Missouri
03A  Innovations in Sharing Water Quality Data and Identifying Sources of Impairment, TK Conrad, Windsor Solutions, Inc.
04A  To Wade or Not To Wade? Inquiring Minds May Want To Know, David Peck, USEPA
05A  Engaging Farmers in the McKenzie Watershed, Nancy Toth, Eugene (OR) Water & Electric Board

**Water Monitoring Councils**
06A  The Maryland Water Monitoring Council: Furthering the Cause of Water Monitoring in Maryland, Daniel Boward, Maryland Department of Natural Resources
07A  New Jersey Water Monitoring Council: Strengthening Monitoring Collaboration and Partnerships Across a State Water Monitoring Community, Leslie McGeorge, New Jersey Department of Environmental Protection

**Groundwater**
08A  Hydrologic Mixing of Geothermal and Alluvial Groundwater in Dixie Valley, Nevada, Michael R. Rosen, USGS
09A  Water Availability for the Future – Is Brackish Groundwater the Answer for Growth and Sustainability, Steven Sagstad, Civil & Environmental Consultants, Inc.

**Lakes, Estuaries, and Wetlands**
10A  Wisconsin Intensification Study of Lake Michigan Basin Wetlands: Combining Quantity Trends and Condition Assessment, Thomas Bernthal, Wisconsin Department of Natural Resources

**Harmful Algae Blooms**
21A  Role of BMAA (cyano-neurotoxin) in Nebraska Freshwater Ecosystems, Maitham Al-Sammak, University of Nebraska- Lincoln
Mercury

29A Fluvial Transport of Mercury and Dissolved Organic Carbon in Contrasting Stream Basins in the Eastern United States, Celeste Journey, USGS

30A Rapid Site Characterization at a Former Mercury Mine Site Using Lumex, Arvind Acharya, Kristen Carlson and Guy Jett, Innovative Technical Solutions, Inc.

31A In Situ Measurements of Porewater Hg and MeHg via DGT, Paul Bireta, University of Texas

32A Simulation of Streamflow in the McTier Creek Watershed, South Carolina, using TOPMODEL and GBMM, Paul Bradley, USGS

33A Development of a Mercury Load Model for McTier Creek, South Carolina using TOPMODEL, Paul Bradley, USGS

34A More than Generalist Predators: Are Behavioral Guilds Useful for Monitoring Mercury Concentration in Larval Dragonflies?, Roger Haro, University of Wisconsin–La Crosse

35A Variability in Selenium: Mercury Molar Ratios in Fish in Freshwater Ecosystems, Joanna Burger, Rutgers University

36A Parameters for a Biomonitoring Plan for Mercury in Freshwater Ecosystems, Joanna Burger, Rutgers University

37A Mercury Bioavailability and Transport in Deer Creek Over Lake Wildwood Dam, Joanne Hild, Sierra Streams Institute

Microbial Pathogens

52A Occurrence and Distribution of Fecal Indicator Bacteria and Gene Markers of Pathogenic Bacteria in Great Lakes Tributaries, March-September 2011, Angela K. Brennan, USGS

53A Validation and Application of Large Volume MPN Techniques Using a Modification of US EPA Method 1601: Detecting Low Concentrations of MS2 Coliphage
to Demonstrate the Efficacy of Soil-Aquifer Treatment of Secondary Effluent, Richard Danielson, BioVir Laboratories, Inc.

54A Quantitative Microbial Risk Assessment for Recreational Exposure in Northern California Receiving Waters, Richard Danielson, BioVir Laboratories, Inc.

55A Genetic Sequencing Methodologies to Assess Human Contributions of Fecal Coliforms to a Freshwater Receiving Stream, Bryan Rabon, South Carolina Department of Health and Environmental Control


57A E. coli in the Urban South Platte River Watershed, Philip Russell, Littleton/Englewood (CO) Wastewater Treatment Plant

Urban Monitoring

58A Volunteer Stream Monitoring: Assessing Aesthetics along Urban River Corridors, Christina Anderson, Wisconsin Department of Natural Resources

59A Assessment of Water Quality and Ecological Condition of Urban Streams in Independence, Missouri Using Multiple Lines of Investigation and Continuous Water-Quality Monitors, Eric Christensen, USGS

60A Analysis of the Patrick Henry School Stormwater Retrofit Demonstration Project, Chris French, Virginia Commonwealth University

61A Stormwater Sampling: A Look at the City of Portland’s UIC Monitoring Program, Beth Hiscott, City of Portland

62A Assessing Progress towards Reducing E. coli Levels in Dry Weather Discharges from Denver’s MS4, Jon Novick, Denver Department of Environmental Health

63A Development of Urban Steam Water Quality Indices in the Kansas City Urban Streams Network, Gary Welker, USEPA

Water Quality Indicators

74A New Mexico’s Hydrology Protocol – An Expedited Field Methodology for Classifying Ephemeral, Intermittent and perennial Waters and Documenting the Supported Uses, James Hogan, New Mexico Environment Department

75A Application of a Water Quality Index for the New River Estuary, NC, Kimberly Matthews, RTI International

76A The Water Quality Index for Agricultural Fields – A Tool to Establish Trends in Water Quality, Shaun McKinney, USDA-NRCS

77A Salinity in the Lower Middle Rio Grande, Socorro County, New Mexico, Belle Rehder, University of New Mexico

78A Clark County Stream Health Report: Sharing Stream Health Information with Citizens in Clark County, Washington, Jeff Schnabel, Clark County, WA

79A Evaluating Seasonal Effects on Langelier Saturation Index Ability to Predict Corrosion Potential of Water, Glenn Terrell, Birmingham (AL) Water Works Board

Aquifers

64A Water-Quality Assessments of Principal Aquifers, Terri Arnold, USGS

65A Water Quality of the Denver Basin Aquifer System, Nancy Bauch, USGS

66A Water Quality of the Floridan Aquifer System - Anthropogenic and Naturally Derived Contaminants, Marian Berndt, USGS

67A Water Quality of the Surficial Aquifer System of the Northern Atlantic Coastal Plain, Judith Denver, USGS

68A Water Quality of the Mississippi Embayment-Texas Coastal Uplands Aquifer System and Mississippi River Valley Alluvial Aquifer – Anthropogenic and Naturally Derived Contaminants, James Kingsbury, USGS
The following posters will be displayed on Thursday, May 3, 2:30 pm – 3:30 pm. Poster presenters will be available to answer questions during this time.

**Biological Assessments**

01B  Calibration of the Biological Condition Gradient (BCG) for Fish Community Assemblages in Connecticut and Southern New England. **Christopher Bellucci,** Connecticut Department of Energy and Environmental Protection

02B  Calibration of Biological Condition Gradient (BCG) Models for Fish Assemblages in Minnesota, Michigan and Wisconsin. **Jeroen Gerritsen,** Tetra Tech, Inc.

03B  Assessment of Water Quality and Biota in Korean Reservoirs. **Bonchul Kim,** Kangwon National University, Republic of Korea

04B  Comparison of Two Adjacent Watersheds Using Multimetric Macroinvertebrate Indices to Assess Biological Conditions in the Kansas City, Missouri Metropolitan Area, 2007 to 2011. **Heather Krempa,** USGS

05B  The Extent of Fishing and Fish Consumption in the Los Angeles and San Gabriel Rivers Watersheds, California. **Kristy Morris,** Council for Watershed Health

06B  The Influence of Reducing Full Macroinvertebrate Sample Data to a Common Fixed 300 Individual Count on Assessments of Stream Quality. **Jean Sifneos,** Oregon State University

**Dam Removal**


**Data Management and Sharing**


10B  What’s New with the National Hydrography Dataset Plus (NHDPlus) Version 2?. **Tommy Dewald,** USEPA

11B  Update on the U.S. EPA Integrated Reporting Activities. **Charles Kovatch,** USEPA

12B  The Freshwater Biological Traits Database. **Jen Stamp,** Tetra Tech, Inc.

13B  Integration of Routinely Collected Municipal Monitoring Data Sets to Supplement a Regional Dissolved Oxygen Total Maximum Daily Load (TMDL) Model. **Ashley Stubblefield,** University of the Pacific

14B  Using the Lower Colorado River Water Quality Database to Share and Exchange Data between Agencies and Researchers along the Lower Colorado River. **Todd Tietjen,** Southern Nevada Water Authority

**Diel Cycling**

15B  Diel Biogeochemical Processes and Their Effects on Sample Design and Trend Analysis: A Study Looking at Diurnal Arsenic Cycling in a NJ Stream. **Pamela Reilly,** USGS

**Drinking Water**

16B  A Multipronged Approach to Identifying Potential Risks to Drinking Water. **David Donahue,** Eugene (OR) Water & Electric Board

17B  Can the Addition of a Polymer during Drinking Water Treatment Improve Finished Water Quality?. **Jason Heberling,** Birmingham (AL) Water Works Board

18B  Development of a U.S. EPA Method for the Analysis of Selected CCL 3 Drinking Water Contaminants by Solid Phase Extraction and LC/MS/MS. **Daniel Tettenhorst,** USEPA

**Energy**

19B  The Hydraulic Fracturing (HF) Process: Real Concern or Misdirected Focus Concerning Threats to Drinking Water Supplies (DWS). **Peter Penoyer,** USNPS

**Emerging Contaminants**

20B  Analytical Approaches and Challenges to Measuring Pharmaceuticals and Endocrine Disrupting Compounds in the Environment. **Mark Benotti,** Battelle

21B  An Overview of Oregon DEQ's Toxics Monitoring Efforts and Their Relevance to the Agency’s Toxics Reduction Strategies. **James Coyle,** Oregon Department of Environmental Quality

22B  iSTREEMTM – An Internet-Based National Watershed Scale Model Capable of Determining Where and When to Monitor for Chemicals from Consumer Products. **Paul DeLeo,** American Cleaning Institute

23B  Emerging Contaminants in Bottom Sediments from the Lower Boise River and its Tributaries near Boise, Idaho. **Alexandra Etheridge,** USGS

24B  Preliminary Assessment of the Effects of Treated Wastewater Effluent on Water-Quality, Sediment-Quality, and Biological Conditions in Spirit Creek, Fort Gordon, Georgia: 2010 – 2011. **Celeste Journey,** USGS
A Survey of Trace Metals and Organic Chemicals in Effluent from Oregon’s Major Municipal Treatment Facilities, Bruce Hope, CH2M Hill, Lori Pillsbury and Brian Boling, Oregon Department of Environmental Quality

Assessment of Perfluorinated Compounds in Fish from U.S. Rivers, Leanne Stahl, USEPA

GIS

Geospatial Assessment of the Impacts of Changing Agricultural Landscape In Southern Louisiana, Edmund Merem, Jackson State University

Linked Micromaps: Statistical Summaries in a Spatial Context, Quinn Payton, USEPA

A GIS-Based Approach to Evaluating Riparian Integrity along Montana’s Large Rivers, Linda Vance, University of Montana

Innovative Monitoring

Understanding Peatland Mercury Cycles under Elevated Carbon Dioxide and Soil Warming: Introduction of the SPRUCE Experiment, Randy Kolka, USFS

Techniques for Winter Stormwater Monitoring in Minnesota, Matthew Loyas, Capitol Region Watershed District, MN

Developing a Monitoring Strategy for Tracking Environmental Impacts of Co-Digested Feedstocks in an Anaerobic Biomass Energy Project, Chelsea Spier, University of the Pacific

Snap Shot Monitoring of the Niangua River Watershed – Part I, Organizing a Large-Scale Monitoring Effort, Anthony Thorpe, University of Missouri

In Situ Monitoring

Everglades Depth Estimation Network (EDEN): Integrating Real-time Networks to Provide Hydrologic Data for the Restoration of the Everglades, Paul Conrads, USGS

Quantifying Effects of Temperature, Concentration, and Particles on In Situ Measurement of DOC Concentration Using Fluorescence Based Sensors, Bryan Downing, USGS

Continuous Monitoring of Suspended-Sediment Transport from Headwater Basins in Northeast Kansas, Guy Foster, USGS

Time Integrative Continuous Sampling Finally Made Quantitative for both Total and Dissolved Trace Organics, Brent Hepner, Aqualytical Services, Inc.

Deployment of Data Sondes from Fishing Piers to Monitor Nearshore Hypoxia in Long Bay, South Carolina, Susan Libes, Coastal Carolina University

Multiple Stressors

Combination of Monitoring Approaches Provides Comprehensive Assessment of Changing Stream Conditions in Urbanizing Watersheds of Northeastern Kansas, Teresa Rasmussen, USGS

Use of High-Frequency Dissolved Oxygen and Water Temperature Data to Infer the Relative Importance of Components of a Stream Dissolved Oxygen Budget, Stewart Rounds, USGS

Lateral Variability of Water Quality Refugia Created by Near Shore Aquatic Macrophytes During Periods of Prolonged Hypoxia in the Klamath River, Garrett Steensland, Oregon Institute of Technology

National Aquatic Resource Surveys

Preliminary Results from the North Dakota Intensification of the National Wetland Condition Assessment, Shawn DeKeyser, North Dakota State University

Fish Taxonomy Proficiency in the National Rivers and Streams Assessment, Chris Turner and Dennis McCauley, Great Lakes Environmental Center, Inc.

Network Design and Evaluation

Quality Water for Wildlife: Developing a Comprehensive and Integrated Water Quality Monitoring Effort for the National Wildlife Refuge System, Michael Higgins, USFWS

Retrospective Analysis of Periodically-Collected Suspended-Sediment Data in the United States, Casey Lee, USGS

Monitoring Water Quality in the Mississippi River Basin – An Integrated and Interagency Approach, Shaun McKinney, USDA-NRCS

Condition of Indiana Streams and Rivers using a Probabilistic Monitoring Program, Myra McShane, Indiana Department of Environmental Management

Urban Waters Monitoring: Monitoring and Assessment of Biological, Chemical, Habitat and Watershed Influences on Kansas City Streams and Lakes, Gary Welker, USEPA

Monitoring Nutrient Concentrations to the Lower Missouri and Upper Mississippi Rivers, Gary Welker, USEPA
Nutrients

53B Dynamic Modeling of Nitrogen Flux in the Potomac Watershed Using Spatially References Regressions, John Brakebill, USGS

54B Influence of Land Use on Phosphorus Concentrations in Southeastern US Piedmont Headwater Streams, Roger Burke, USEPA


56B Algal Community Response to Nitrogen and Phosphorus Concentrations in Ozark Streams, Southern Missouri, 1993-95 and 2006-07, Suzanne Femmer, USGS

57B Tracing Sources of Nitrate, Organic Matter, and Water in the Willamette River Basin, From the Headwaters to Portland, Using Stable Isotopic Techniques, Carol Kendall, USGS

58B Evaluating the Variability of Sediment and Nutrient Characteristics of the Trinity River Entering Galveston Bay, Texas during High Flow Events, Michael Lee, USGS

59B A Method for Economic Valuation of Nutrient Monitoring, Richard A. Smith, USGS

60B Clay Minerals as Important Inorganic Constituents Controlling Uptake and Bioavailability of Phosphorus Retained in Bottom Sediments of Klamath Lake, Oregon, Daniel Webster, USGS

Pesticides

61B Analysis of Monitoring Data from Multiple Small Watersheds to Identify Drivers of Agrochemical Runoff from Corn and Sorghum Agriculture, Chris Harbourn, Waterborne Environmental, Inc.

62B Improved Characterization of the Temporal and Spatial Variability of Potential Surface Water Drinking Water Exposure by Using Environmental and Historic Monitoring Databases, Paul Hendley, Syngenta Crop Protection, Inc.

Restoration and Protection

63B Water Quality Implications from Wildfire in Northern Oregon, Kimberly Gupta, City of Portland

64B State of the San Gabriel River Watershed (California) 2005 to 2009: Ambient Stream Condition, Unique Habitats, Swimming Safety & Fish Consumption Safety, Karin Patrick, Aquatic Bioassay & Consulting Laboratories, Inc.

65B Can an Urban Stream that has been Diverted into a Series of Pipes Underneath the City of Portland Ultimately Contribute to Improving Salmonid Habitat in the Willamette River?, Marc Peters, City of Portland

66B Trophic Level Interactions in Lake Havasu, AZ-CA: Comparison With Other Colorado River Reservoirs, Thomas Renicker, BSA Environmental Services, Inc.

Trend Analyses

67B Analysis of Water Quality Trends and Evaluation of Climate Change Effects in a Rocky-Mountain Reservoir: A Case Study, Nicolas A. Gonzalez, Brigham Young University

68B Integrated Water Quality Trend Analysis: A Standardized Non-Parametric Characterization of Water Quality at the Watershed Scale, Donald Smith, Virginia Department of Environmental Quality

Strengthening Monitoring Programs


70B Making a Difference on the Ground: The US Forest Service-TNC Partnership for Monitoring and Managing Groundwater Resources, Christopher Carlson, USFS

71B Communication, Consistency & Quality: Keys to Volunteer Data Incorporation in Morro Bay, California, Annie Gillespie, Morro Bay National Estuary Program

72B Supporting Volunteer Water Quality Monitoring Efforts throughout the USA, Linda Green, University of Rhode Island

TMDLs

73B Investigating the Feasibility of Using Biological and Habitat Metrics to Determine the Effectiveness of TMDLs: A Case Study, Scott Collyard, Washington Department of Environmental Quality

74B Use of NAIP Imagery to Characterize Riparian Vegetation Health for TMDL and Land Management Purposes, Randy Pahl, Nevada Division of Environmental Protection

75B Fanno and Tryon Watersheds Water Quality Monitoring – 1998 – 2011, Amin Wahab, City of Portland

Volunteer Monitoring

76B The Stream Temperature Project: Expanding the Use of Volunteer Data, Kari Paulson, North Jackson Company, OR