



Water: One Resource – Shared Effort – Common Future

Eighth National Monitoring Conference

Poster Presentations

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

11A *Relations Between Hydrology, Water Quality, and Taste-and-Odor Causing Organisms and Compounds in Lake Houston, Texas, April 2006-September 2008*, **Mike Burnich**, USGS

12A *Field Guides for Inventory and Monitoring of Groundwater Dependent Ecosystems on National Forests and Grasslands*, **Christopher Carlson**, USFS

13A *Guidelines for Design and Sampling of Water, Sediment, and Biological Quality in Lakes and Reservoirs - A New Chapter in the U.S. Geological Survey National Field Manual for the Collection of Water-Quality Data*, **Reed Green**, USGS

14A *Testing Landscape Metrics as Indicators of Lake Ecological Condition*, **Lillian Herger**, USEPA

15A *Modeling of Phosphorus Dynamics in a Deep Reservoir in the Asian Monsoon Region (Lake Soyang, Korea)*, **Yoonhee Kim**, Kangwon National University, Republic of Korea

16A *Water Quality Evaluation of Isabella Lake in Preparation for Dam Remediation*, **Heather Jackson**, USACE

17A *Zooplankton Community Structure, Body Size and Biomass in Western U.S. Reservoirs Prior to Potential Invasion of Dreissenid Mussels*, **Teodoro Rosati**, BSA Environmental Services, Inc.

18A *Experiences with the National Wetland Condition Assessment and Implications for the follow on Intensification Grant with North Carolina, South Carolina and Alabama*, **Rick Savage**, North Carolina Department of Environment and Natural Resources

19A *New Jersey Statewide Statistical Assessment of Lakes for Aquatic Life Use*, **Brian Taylor**, New Jersey Department of Environmental Protection

20A *Assessing Water Quality and Food Web Resources Supporting Juvenile Salmonids in Tidal Emergent Wetlands in the Lower Columbia River and Estuary*, **Whitney Temple**, USGS

Harmful Algae Blooms

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

- 22A *Genetic and Toxin Analysis of Single Colonies to Catalogue the Toxigenicity of Pacific Northwest Bloom-Forming Cyanobacteria in Water Bodies Used for Drinking Water Supplies*, **Connie Bozarth**, Oregon State University
- 23A *High Throughput Sequencing Analysis of Cyanobacterial Bloom Populations for Identifying Commonalities and Differences Across Time and Location*, **Theo Dreher**, Oregon State University
- 24A *Citizen-Based Monitoring of Cyanobacteria in Littoral Regions of the Muskingum River Watershed, Ohio*, **Alison Minerovic**, BSA Environmental Services, Inc.
- 25A *Microcystin Toxin Migration, Bioaccumulation, and Treatment Fremont Lake #20 Dodge County, Nebraska*, **Will Myers**, Nebraska Department of Environmental Quality
- 26A *Why Cyanobacteria Dominate the World: Ecological Strategies*, **Barry Rosen**, USGS
- 27A *Cyanobacterial Management in Clear Lake, the Oldest Lake in the Nation*, **Carolyn Ruttan**, Lake County (CA) Department of Water Resources
- 28A *Environmental Factors that Influence Cyanobacteria and Geosmin Occurrence in Two Southeastern United States Reservoirs*, **Celeste Journey**, USGS

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 Carlyon 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
- 38A *Stability and Behaviour of Low Level Spiked Inorganic Mercury in Natural Water Samples*, **Milena Horvat**, Jožef Stefan Institute, Slovenia
- 39A *Mercury Monitoring from the Tundra to the Tropics: Using Songbirds as Indicators of Ecological Risk*, **Allyson Jackson**, Biodiversity Research Institute
- 40A *Biogeochemical Cycling of Mercury Coupled with a Nitrogen and Carbon Watershed Hydrology Model (VELMA)*, **Christopher Knightes**, USEPA
- 41A *Influence of Fire on Mercury Cycling in Boreal Forests*, **Randy Kolka**, USFS
- 42A *Fishery Assessments on the Duck Valley Reservation, Idaho and Nevada, 2007-09*, **Terry Maret**, USGS
- 43A *Role of Particles in Mercury Transport in a Coastal Plain Subsurface Environment*, **Pamela Reilly**, USGS
- 44A *Spatial Patterns of Mercury in Macroinvertebrates and Fishes from Streams of Two Contrasting Forested Landscapes in the Eastern United States*, **Karen Riva-Murray**, USGS
- 45A *The Song Sparrow as a Biosentinel for Methylmercury in Riparian Food Webs of the San Francisco Bay Area*, **Cristina Grosso**, San Francisco Estuary Institute
- 46A *Methylmercury in Lower Food Web Components of Six National Park Units in the Western Great Lakes Region*, **Kristofer Rolfhus**, University of Wisconsin–La Crosse
- 47A *Bioaccumulation and Ecological Risk of Methylmercury to Fish in National Parks of the Western Great Lakes Region*, **Mark Sandheinrich**, University of Wisconsin–La Crosse
- 48A *Geochemical Controls on Mercury Methylation in the Water Column of Backwaters of a Gulf Coastal Plain River System, Lower Ouachita River, Arkansas*, **Liam Schenk**, USGS
- 49A *Linking Local-Scale Monitoring to Form an Integrated Regional Seafood Safety Assessment for Southern California*, **Kenneth Schiff**, Southern California Coastal Water Research Project
- 50A *EPA's Assessment of Mercury in Fish from U.S. Rivers*, **Leanne Stahl**, USEPA
- 51A *Estimation of Particulate Mercury Washout Using National Atmospheric Deposition Program Samples and Instrumental Neutron Activation Analysis*, **Gregory Wetherbee**, USGS

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
- 56A *Stormy Weather: Event-based Pathogen Monitoring in the Bull Run Watershed*, **Ann Richter**, City of Portland
- 57A *E. coli in the Urban South Platte River Watershed*, **Philip Russell**, Littleton/Englewood (CO) Wastewater Treatment Plant
- 69A *Water Quality in the Piedmont and Blue Ridge Crystalline- and Carbonate-Rock Aquifers, Early Mesozoic Basin Aquifers, and the Valley and Ridge Carbonate- and Siliclastic-Rock Aquifers, Eastern United States, 1993-2009*, **Bruce Lindsey**, USGS
- 70A *Water Quality of the High Plains Aquifer System*, **Peter McMahon**, USGS
- 71A *Water Quality in the Columbia Plateau, Snake River Plain, and Hawaiian Basaltic-Rock and Basin-Fill Aquifers, Washington, Idaho, Hawaii, 1992-2005*, **Michael G. Rupert**, USGS
- 72A *Water Quality of the Southwest Basin-fill Aquifers*, **Susan Thiros**, USGS
- 73A *Water Quality of the Glacial Aquifer System – Anthropogenic and Natural Contaminants*, **Kelly Warner**, USGS

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 Stream 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*, **Bomchul Kim**, Kangwon National University, Republic of Korea
- 04B *Comparison of Two Adjacent Watersheds Using Multi-metric 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

- 07B *Water Quality Dynamics and Phycocyanin Detection as a Biomass Indicator in Upper Klamath Lake, Oregon, 2011*, **Blake Eldridge**, USGS
- 08B *Surrogate Bed Load Measurement Using Impact Sensors on the Elwha River During and After Dam Removal*, **Robert Hilldale**, USBR

Data Management and Sharing

- 9B *Status Network Water Quality Sampling within the St. Johns River Water Management District: Annual Sampling Cycles 2009 to 2010*, **Aisa Ceric**, St. Johns River Water Management District, FL
- 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

25B *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

26B *Assessment of Perfluorinated Compounds in Fish from U.S. Rivers*, **Leanne Stahl**, USEPA

GIS

27B *Geospatial Assessment of the Impacts of Changing Agricultural Landscape In Southern Louisiana*, **Edmund Merem**, Jackson State University

28B *Linked Micromaps: Statistical Summaries in a Spatial Context*, **Quinn Payton**, USEPA

29B *A GIS-Based Approach to Evaluating Riparian Integrity along Montana's Large Rivers*, **Linda Vance**, University of Montana

Innovative Monitoring

30B *Understanding Peatland Mercury Cycles under Elevated Carbon Dioxide and Soil Warming: Introduction of the SPRUCE Experiment*, **Randy Kolka**, USFS

31B *Techniques for Winter Stormwater Monitoring in Minnesota*, **Matthew Loyas**, Capitol Region Watershed District, MN

32B *Developing a Monitoring Strategy for Tracking Environmental Impacts of Co-Digested Feedstocks in an Anaerobic Biomass Energy Project*, **Chelsea Spier**, University of the Pacific

33B *Snap Shot Monitoring of the Niangua River Watershed – Part I, Organizing a Large-Scale Monitoring Effort*, **Anthony Thorpe**, University of Missouri

In Situ Monitoring

34B *Everglades Depth Estimation Network (EDEN): Integrating Real-time Networks to Provide Hydrologic Data for the Restoration of the Everglades*, **Paul Conrads**, USGS

35B *Quantifying Effects of Temperature, Concentration, and Particles on In Situ Measurement of DOC Concentration Using Fluorescence Based Sensors*, **Bryan Downing**, USGS

36B *Continuous Monitoring of Suspended-Sediment Transport from Headwater Basins in Northeast Kansas*, **Guy Foster**, USGS

37B *Time Integrative Continuous Sampling Finally Made Quantitative for both Total and Dissolved Trace Organics*, **Brent Hepner**, Aqualytical Services, Inc.

38B *Deployment of Data Sondes from Fishing Piers to Monitor Nearshore Hypoxia in Long Bay, South Carolina*, **Susan Libes**, Coastal Carolina University

39B *A Novel Application of Dithizone in an Evanescent Wave Sensor for Rapid Detection of Acidic Gases and Ammonia*, **Justus Ndukaife**, Purdue University

40B *Computing Time-Series Concentrations and Loads from In-Stream Sensors and Streamflow Data*, **Patrick Rasmussen**, USGS

41B *Long-term Deployment Module: Promising New Anti-fouling Technology*, **Janice Fulford**, USGS

Multiple Stressors

42B *Combination of Monitoring Approaches Provides Comprehensive Assessment of Changing Stream Conditions in Urbanizing Watersheds of Northeastern Kansas*, **Teresa Rasmussen**, USGS

43B *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

44B *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

45B *Preliminary Results from the North Dakota Intensification of the National Wetland Condition Assessment*, **Shawn DeKeyser**, North Dakota State University

46B *Fish Taxonomy Proficiency in the National Rivers and Streams Assessment*, **Chris Turner** and **Dennis McCauley**, Great Lakes Environmental Center, Inc.

Network Design and Evaluation

47B *Quality Water for Wildlife: Developing a Comprehensive and Integrated Water Quality Monitoring Effort for the National Wildlife Refuge System*, **Michael Higgins**, USFWS

48B *Retrospective Analysis of Periodically-Collected Suspended-Sediment Data in the United States*, **Casey Lee**, USGS

49B *Monitoring Water Quality in the Mississippi River Basin – An Integrated and Interagency Approach*, **Shaun McKinney**, USDA-NRCS

50B *Condition of Indiana Streams and Rivers using a Probabilistic Monitoring Program*, **Myra McShane**, Indiana Department of Environmental Management

51B *Urban Waters Monitoring: Monitoring and Assessment of Biological, Chemical, Habitat and Watershed Influences on Kansas City Streams and Lakes*, **Gary Welker**, USEPA

52B *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 Referenced Regressions*, **John Brakebill**, USGS
- 54B *Influence of Land Use on Phosphorus Concentrations in Southeastern US Piedmont Headwater Streams*, **Roger Burke**, USEPA
- 55B *Validation of a Green Chemistry Method for the Determination of Total Nitrogen and Total Phosphorus Levels in Pulp and Paper Mill Wastewaters: NCASI Method TNTP W10900 Comparative Study*, **Diana Cook**, NCASI
- 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 Phosphorous 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 Harbourt**, 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

- 69B *Strengthening Regional Monitoring Programs through the Development of a Collaboration Network: The California Water Quality Monitoring Collaboration Network*, **Erickson Burres**, California SWRCB
- 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