



## **Agenda**

### **Monday, November 17, 2008**

- 4:30 –  
7:30 PM      **Registration**              **Commons**
- 7:30 –  
9:30 PM      **Welcome Reception**      **Roosevelt Lounge**

### **Tuesday, November 18, 2008**

- 7:30 AM –  
5:30 PM      **Registration**              **Commons**
- 8:15 AM      **Plenary Session**              **Auditorium**

***Introductory Remarks:*** Paul Ziemkiewicz, Director, West Virginia Water Research Institute  
***U.S. Department of Energy National Laboratory: Energy-Water Nexus National Lab Team,***  
 John Gasper, Environmental Policy Analysis and Planning Manager, Argonne National Laboratory  
***Potomac Drinking Water Source Protection Partnership,***  
 Joe Hoffman, Executive Director, Interstate Commission on the Potomac River Basin  
***Using and Protecting Water Resources in Energy Development,***  
 Catherine Shrier, President, Watercat Consulting LLC

- 10:00 AM      **Break**
- 10:30 AM      **Panel Session**              **Auditorium**

***Water-Energy Issues in the Mid-Atlantic Region: A State-by-State Discussion***

Moderator: Frank Borsuk, Aquatic/Fisheries Biologist, USEPA Region III

Panelists:

Paul Ziemkiewicz, Director, West Virginia Water Research Institute  
 William Hare, Director, Washington DC Water Resources Research Institute  
 Kaye Brubaker, Associate Professor, Civil & Environmental Engineering, University of Maryland  
 Elizabeth Boyer, Director, Pennsylvania Water Resources Research Institute  
 Stephen Schoenholtz, Director, Virginia Water Resources Research Center

- 11:45 AM      **Lunch Provided**              **Commons Dining Area**

(Tuesday continued on next page.)

1:00 PM

**Technical Sessions**

**Marcellus Shale Drilling & Implications on Water**

**Instructional East Room 111**

Moderator: Steve Platt, Class II Team Leader,  
USEPA Region III

*The Impacts on Water Resources from Drilling Operations in the Marcellus Shale*, James Coleman,  
Team Chief Scientist, U.S. Geological Survey Eastern Energy Team

*Marcellus Shale Drilling Operations from the Pennsylvania Perspective*, Susan Weaver, Special Projects  
Manager, Water Planning Office, Pennsylvania Department of Environmental Protection (*tentative*)

*The Impacts on Water Resources from Drilling Operations in the Marcellus Shale: The Pennsylvania,  
Maryland and New York Experience*, Michael Brownell, Chief, Division of Water Resources Management,  
Susquehanna River Basin

*Environmental Concerns Related to Completion Fluids Associated with Drilling the Marcellus Shale*  
Roger Willis, President, Universal Well Services Inc. (*tentative*)

2:30 PM

**Break – Outside Instructional East Meeting Rooms 105 and 111**

**Track I – Instructional East Room 111**

**Track II – Instructional East Room 105**

3:00 PM

**Coal Mining Impacts on Water**

**Water Resource Issues**

Moderator: Todd Petty, Associate Professor,  
Forestry, West Virginia University

Moderator: Alan Raffo, Research Associate  
Virginia Water Resources Research Center

*Organic Matter Retention and Decomposition in an  
Intensively Mined West Virginia Watershed*,  
Megan Minter, Research Assistant,  
Division of Forestry and Natural Resources,  
West Virginia University

*Water, Energy, and Drought: A Look at the  
Relationship Between Water Use and Energy  
Production*, Seth Sheldon, Ph.D. Student,  
University of Massachusetts

*Interactive Effects of Large Scale Surface Mining  
and Residential Development on Stream Condition  
in a Southern West Virginia Watershed*, Eric Merriam,  
Research Assistant, Division of Forestry and  
Natural Resources, West Virginia University

*Power Plant Water Research Program at the  
National Energy Technology Laboratory*,  
Barbara Carney, U.S. Department of Energy  
National Energy Technology Laboratory

*Ecological Functions of Headwater Aquatic Habitats  
On Reclaimed Surface Mines*, Gretchen Gingerich,  
Research Assistant, West Virginia University

*Mine Pool Water as a Water Source for  
Power Plants*, Joseph Donovan, Director  
Hydrogeology Research Center, West  
Virginia University

*Using Air Permeametry to Characterize Surface  
Hydraulic Properties in West Virginia Minesoils*,  
Blake Davis, Student, Division of Plant and  
Soil Sciences, West Virginia University

*Active Biomonitoring for PAH, PCB and  
Chlordane Sources in the Anacostia Maryland  
Watershed*, Harriette L. Phelps, Biology  
Professor, Emeritus, University of the District  
of Columbia

*Downstream Effects of Mountaintop Coal Mining  
On Resident Aquatic Life*, Greg J. Pond,  
Aquatic Biologist, EPA Region III

*A Use Attainability Analysis (UAA) Conducted  
on a TMDL Stream for an Aquatic Life  
Designated Use*, D. Gruber, President,  
Biological Monitoring, Inc.

5:30 PM

**Adjourn**

7:30 – 9:30 PM Reception

**Roosevelt Room**

**Wednesday, November 19, 2008**

**7:30 AM –  
12 Noon**

**Registration Commons**

**8:30 AM Technical Sessions**

**Track I – Instructional East Room 111**

***Biofuels for Energy***

Moderator: Patrick Kirby, Director, Northern West Virginia Brownfields Assistance Center

*Growing Switchgrass for Biofuels on Mine Land*, Jeff Skousen, Professor Plant & Soil Science, West Virginia University

*Sustainable Energy Park Pilot Project*, Tamara Vandivort, Project Manager, West Virginia Water Research Institute, West Virginia University

*Ethanol Production Plant Monitors Impacts To Water Supply and Stays in Compliance*, John E. Dustman, President, Summit Envirosolutions, Inc.

**Track II – Instructional East Room 105**

***Industry-Scale Water/Energy***

Moderator: Stephen Schoenholtz, Director Virginia Water Resources Research Center

*Water Quality Implications of Pipe Rehabilitation Technology*, Bridget M. Donaldson, Research Scientist, Virginia Transportation Research Council

*Modeling of Integrated Urban Wastewater System: Model Selection and Implementation*, Tolessa Deksissa, Research Associate Washington, DC Water Resources Research Institute

*ACUA: The Positive Impact of Renewable Energy on the Energy Needs for Wastewater Treatment Accompanied by the Potential of Beneficial Water Reuse for the Preservation of Water Resources*, Eugene L. Petitt, Chief Engineer, Atlantic County Utilities Authority

**10:00 AM Break – Outside Instructional East Meeting Rooms 105 and 111**

**10:30 AM *Nutrient Issues and Energy***

Moderator: Alan Raflo, Research Associate, Virginia Water Resources Research Center

*Effect of Pelletized Poultry Manure on Crop Production and Vadose Zone Water Quality*, Tolessa Deksissa, Research Associate, Washington DC Water Resources Research Institute

*Wastewater Irrigation: The Potential to Increase Biofuel Production While Removing Endocrine-Disrupting Hormones*, Charles Walker, Postdoctoral Research Associate, Pennsylvania State University

*Engineered Wetland Filters for Removing Phosphorous from Eutrophic Retention Ponds*, Shawn E. Rosenquist, Ph.D. Student, Virginia Tech

***Small-Scale Water/Energy***

Moderator: Jane Walker, Research Associate, Virginia Water Resources Research Center

*LEAFHouse – A Smart, Adaptable, Resource-Efficient Home Powered by Renewable Energy*, Kaye Brubaker, Associate Professor, Civil & Environmental Engineering, University of Maryland

*A Paradigm Shift: Decentralized Water Supply and Energy Systems*, Tamim Younos, Associate Director, Virginia Water Resources Research Center

*True Low Impact Development from the Single Family Home Perspective*, Richard A. Street, Chesapeake Bay Division of Department of Code Compliance for Spotsylvania County, VA Presentation by Jane Walker, Research Associate, Virginia Water Resources Research Center

**12:00 PM Lunch Provided Commons Dining Area**

**(Wednesday continued on next page.)**

**1:00 PM**

**Waste Products/Use/Contamination**

Moderator: Tamara Vandivort, Program Coordinator, West Virginia Water Research Institute

*Subsurface Contamination from High-Alcohol Content Fuel Blends: Viscosity with Water*, Kenneth Y. Lee, Associate Professor, Civil & Environmental Engineering, University of Massachusetts

*Waste Items for Alternative Energy*, Ricky Crews, Southeast RCAP

*Alternative Uses for Algae Produced for Photosynthetic CO<sub>2</sub> Mitigation*, Louis Landesman, Virginia Cooperative Extension, Virginia State University Columbia

**Small-Scale Water/Energy**

Moderator: Tamim Younos, Associate Director, Virginia Water Resources Research Center

*Efficiency of Decentralized Drinking Water Treatment Systems in Rural Areas of Variations Developing Countries: A Case Study in Puebla and Queretaro, Mexico*, Brittany Bogle, University of Arkansas, NSF-REU Fellow at Virginia Tech; Presentation by Tamim Younos, Associate Director, Virginia Water Resources Research Center

*Analysis of Water and Energy Conservation of Rainwater Capture and Well Water Systems in a Single Family Home*, Caitlin Grady, Undergraduate Research Fellow, Virginia Tech

*Green Building Design: A Case Study Application to Car Dealerships and Implications for Water and Energy Conservation*, Ini Li, Presentation by Caitlin Grady, Undergraduate University Research Fellow, Virginia Tech

**2:30 PM**

**Break – Outside Instructional East Meeting Rooms 105 and 111**

**3:00 PM**

**Water Quality/Hydroelectric Production**

Moderator: Gary Wick, Unit Chief Federal Bureau of Investigation and Member of the West Virginia Advisory Committee for Water Research

*Increasing Demands for Hydroelectric Production*, David Meadows, Chief of Engineering and Construction Division, U.S. Army Corps of Engineers, Huntington, WV

*Reservoir Water Quality Important in Hydroelectric Power Generation*, Carolyn L. Thomas, Professor of Environmental Science and Biology, Ferrum College

*Monitoring Invasive Aquatic Plants in Smith Mountain Lake, Virginia*, Delia R. Heck, Assistant Professor of Environmental Science, Ferrum College

**Large-Scale Water/Energy**

Moderator: Tamim Younos, Associate Director, Virginia Water Resources Research Center

*Socio-economics of Future Water Resource Needs: A Case Study of the Hampton Roads Region of Virginia*, Jackie Rickards, Graduate Student, Virginia Commonwealth University

**4:30 PM**

**Adjourn**