



September 13-14

2012

Watershed Science and Technical Conference

Thayer Hotel, West Point, NY

Flooding in the NYC Watershed – Impacts to Communities and Water Quality



2012 Watershed Science and Technical Conference September 13–14, Thayer Hotel, West Point, NY

Last year, as the annual Watershed Science and Technical Conference was convened, communities across the State of New York were still reeling from the disastrous effects of Hurricane Irene and Tropical Storm Lee. The September meeting at the Thayer Hotel took place while many were still in the field assessing damage and contributing to the first wave of recovery efforts in scores of devastated communities.

For 2012, along with the usual presentation of the most current scientific trends and data regarding the New York City Watershed and other water supplies across the country, the conference will highlight some of what took place in the aftermath of these storms of record. From simply grabbing a shovel to mobilizing massive statewide recovery efforts, everyone came together to do whatever they could to lend a hand.

We have learned much since the flood waters rose. Coordinated recovery, mitigation and prevention efforts continue to bring communities back, but some will never be the same. Through it all, the highest levels of scientific and technical analysis, coupled with

community planning efforts and engineering expertise have contributed to an ever expanding knowledge base regarding why, where and how flooding happens. The 2012 conference will showcase some of the data and information developed concerning the magnitude of this disaster, its associated recovery efforts and readiness for future flood events.

The 2012 conference continues its long history of bringing scientists, engineers and technical experts together with watershed stakeholders and the public to share water quality science.

Who should attend? Elected officials, directors of public works, buildings, planning and highway departments, land use planners, consulting engineers, regulated industries, attorneys, educators, environmental groups and interested citizens, and everyone interested in clean water. Conference attendees will find themselves in a unique forum for collaboration, providing an opportunity to enhance information and technology transfer and increase coordination among the array of entities working with watershed protection science.

Organizers



The New York Water Environment Association, Inc. (NYWEA) – Founded in 1929, by professionals in the field of water quality as a non-profit, educational organization. Association members helped lead the way toward existing state and national clean water programs. Today the Association has over 2,500 members representing diverse backgrounds and specialties, but all are concerned and involved with protecting and enhancing our precious water resources.

www.nywea.org, Phone: 315-422-7811



The New York State Department of Environmental Conservation – Exists to conserve, improve, and protect New York State's natural resources and environment, and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well being.

www.dec.state.ny.us



The Watershed Protection and Partnership Council – Created by the historic New York City Watershed Memorandum of Agreement to provide a regional forum to aid in the longterm protection of New York City's drinking water, and the economic vitality of the Upstate Watershed communities.

www.dos.state.ny.us/watershed/WPPC.htm



New York State Department of State – The Office of the Secretary of State was established in 1778, making it, other than the Offices of Governor and Lieutenant Governor, the oldest agency in the administration of New York State government.

www.dos.state.ny.us

Many Thanks to the Conference Sponsors

- Catskill Watershed Corporation
- New York City Department of Environmental Protection
- New York State Department of Environmental Conservation
- New York State Department of Health
- New York State Department of State
- New York Water Environment Association, Inc. Lower Hudson Chapter
- The New York State Environmental Facilities Corporation
- United States Geological Survey
- Watershed Protection and Partnership Council

Watershed Science and Technical Conference

September 13–14, 2012 – Program and Schedule

DAY 1 **Thursday, September 13, 2012** (Location: Washington)

Contact Hours: 1.25 Water*

8:00 am	Registration
9:00 am	Welcome – Richard J. Lyons, NYWEA President
9:15 am	Opening Remarks – William C. Harding, WPPC Executive Director
9:30 am	Cesar A. Perales, New York State Secretary of State
9:50 am	Carter H. Strickland Jr., NYC Department of Environmental Protection Commissioner
10:10 am–10:40 am	Break
10:40 am–12:00 pm	Flooding in the NYC Watershed – Impacts to Communities and Water Quality* Panelists: <ul style="list-style-type: none">• Paul Rush, Deputy Commissioner, NYC Department of Environmental Protection – An Overview: Flooding Impacts to Water Supply Operations and Infrastructure• Doug DeKoskie, Stream Engineering Coordinator, NYC Department of Environmental Protection – Prattsville NY, A Technical Case Study• Tracey Corbitt, AICP, Principal Planner, Westchester County Department of Planning – Flooding and Land Use Planning, Guidance for Municipal Decision Makers• Alicia Terry, Director of Planning, Schoharie County – Federal and State Flood Recovery Programs, A Community Perspective
12:00 pm–1:30 pm	Lunch

AFTERNOON **SESSION I** (Location: Bradley North)

Contact Hours: 2 Engineer 2 Water

Moderator John Sansalone, NYSDEC

1:30 pm	Mapping and Characterization of Wetlands along the Upper Esopus Creek, Ulster County, NY Frank Parisio, NYC Department of Environmental Protection
2:00 pm	Assessing Changes in the Catskill and Delaware Watersheds Water Quality as a Function of Changing Land Cover: A Post 9/11 Perspective Ari Engelberg; Myrna Hall, Department of Environmental Studies, SUNY-ESF; Philippe Vidon, Lianjun Zhang, Department of Forest and Natural Resources Management, SUNY-ESF
2:30 pm	Break / Refreshments in Exhibit Hall
3:00 pm	West Branch Silvicultural Treatment Results 1999–2011 Deborah Layton, NYC Department of Environmental Protection; Janice Rich, NYCDEP Intern, Ulster County Community College
3:30 pm	Data Streams of Interest to the NYC Water Supply Ray Homolac, NYC Department of Environmental Protection
4:00 pm–5:30 pm	Reception

AFTERNOON **SESSION II** (Location: Bradley South)

Contact Hours: 2 Engineer 2 Water

Moderator Lisa Melville, NYSDOS

1:30 pm	An Evaluation of Water Quality Modeling Used to Inform Operational Decisions for the NYC Water Supply Mark Zion, Donald C. Pierson, Elliot M. Schneiderman, NYC Department of Environmental Protection; Adao H. Matonse, CUNY, Institute for Sustainable Cities
2:00 pm	Computational Methods for Green Infrastructure in NYC Watershed Shohreh Karimipour, NYS Department of Environmental Conservation
2:30 pm	Break / Refreshments in Exhibit Hall

3:00 pm	Modeling the Evolution of Catskill Stream Channels – Preliminary Results Rajith Mukundan, CUNY; Elliot M. Schneiderman, NYCDEP Water Quality Modeling, Kingston, NY; Danny Davis, NYCDEP Stream Management Program, Kingston, NY; Eddy Langendoen, National Sedimentation Laboratory, Oxford, MS
3:30 pm	Beyond Rating Curves: Time Series Models for In-Stream Turbidity Prediction Lucien Wang, Nova Consulting & Engineering, LLC; Rajith Mukundan, CUNY, Institute for Sustainable Cities; Mark Zion, Donald C. Pierson, NYC Department of Environmental Protection
4:00 pm–5:30 pm	Reception

DAY 2 Friday, September 14, 2012

MORNING	SESSION III (Location: Bradley North) Contact Hours: 2 Engineer ⁺ 2 Wastewater [‡]
Moderator	Diane Galusha, Catskill Watershed Corporation
8:00 am	Registration and coffee
9:00 am	Long Term Phosphorus Reduction at Four NYC Water Supply Watershed Wastewater Treatment Plants Upgraded to Tertiary Filtration^{+ ‡} Paul LaFiandra, NYC Department of Environmental Protection
9:30 am	Innovative Trends in Wastewater Treatment for High Volume Hydraulic Fracturing^{+ ‡} Ed Weinberg, ESSRE Consulting, Inc.
10:00 am	Coffee Break/Refreshments in Exhibit Hall
10:30 am	On-Site Wastewater Treatment Programs in the Watershed – A Status Update^{+ ‡} Michael Meyer, NYC Department of Environmental Protection
11:00 am	Innovative Process^{+ ‡} Terry Wright, Trans Terra Technical Group (3TG)
11:30 am	Tanners Pond Environmental Center – Nassau County Stormwater Basin 232 Robert Alvey, Garden City Bird Sanctuary
12:00 pm	Lunch
MORNING	SESSION IV (Location: Bradley South) Contact Hours: 2 Engineer ⁺ 1.5 Water* 1 Wastewater [‡]
Moderator	William Harding, NYSDOS
8:00 am	Registration and coffee
9:00 am	Long Island Sound Environmental Benefit Projects in Westchester County^{+ *} David Kvinge, Robert Doscher, Westchester County Department of Planning
9:30 am	Moving Watershed Management into the Watershed^{+ *} Rahul Verma, East of Hudson Watershed Corporation
10:00 am	Coffee Break/Refreshments in Exhibit Hall
10:30 am	Turbidity in the Esopus Creek Watershed: Historical versus Recent^{+ *} James Mayfield, NYC Department of Environmental Protection
11:00 am	Sustainable Point and Non-Point Source Nutrient Pollutant Phosphorus Control Using Nanotechnology^{+ ‡} Ed Weinberg, ESSRE Consulting, Inc.
11:30 am	Westchester’s MS4 Communities on the LIS Upgrade Stormwater Infrastructure to Comply with the CWA and SDWA[‡] Robert Ferri, Jerry Ciotola, U.S. EPA Region 2
12:00 pm	Lunch

MORNING	SESSION V (Location: Patton Tavern) Contact Hours: 2 Engineer ⁺ 1.5 Water* 1 Wastewater [‡]
Moderator	Patricia Cerro-Reehil, NYWEA
8:00 am	Registration and coffee
9:00 am	Comparison of Two Field Filters for the Collection of Viruses from Surface Water in the New York City Watershed^{+ *} Christian Pace, Kurt Gabel, NYC Department of Environmental Protection
9:30 am	The Ecological Evaluation of the Voghchi and Meghriget Rivers by the Hydrochemical and Hydrobiological Parameters⁺ Gor Gevorgyan, National Academy of Science of the Republic of Armenia; Astghik Danielyan, Karlen Grigoryan, Yerevan State University; Seyran Minasyan, Environmental Impact Monitoring Center
10:00 am	Coffee Break / Refreshments in Exhibit Hall
10:30 am	Disk Filtration for Water Re-use^{+ ‡} David Silverman, PSI Process and Equipment; Daniel Loy, David Popowitch, Nova Water Technologies
11:00 am	UV as a Disinfection Barrier and as a Barrier Against Emerging Contaminants^{+ * ‡} Jennifer Kintzer, Jon McClean, Patrick Bollman, Engineered Treatment Systems, LLC
11:30 am	Sharing Outstanding Recreational Opportunities on NYC Water Supply Lands* Paul Lenz, Charles Laing, NYC Department of Environmental Protection
12:00 pm	Lunch
AFTERNOON	SESSION VI (Location: Bradley North) Contact Hours: 1 Engineer ⁺ 2 Water 0.5 Wastewater [‡]
Moderator	John Sansalone, NYSDEC
1:30 pm	Management of Wastewater and Potable Water in a Storm Utility District^{+ ‡} Robert H. Feller, Bond, Schoeneck & King, PLLC; Richard Franzetti, Carpenter Environmental
2:00 pm	Northeast Orange County, NY, Jurisdictions Begin Implementation of Projects to Address Regional Water Supply Goals⁺ Michael Principe, HDR Engineering; David Church, Orange County, New York
2:30 pm	Engaging Youth in Watershed Science Through School-based Education Programs John Schwartz, NYC Department of Environmental Protection; Diane Galusha, Catskill Watershed Corporation; Kim Estes-Fradis, NYC Department of Environmental Protection
3:00 pm	Piloting Recreational Boating on NYC Reservoirs – A Success in Public and Private Cooperation Mark Danvetz, NYC Department of Environmental Protection
AFTERNOON	SESSION VII (Location: Bradley South) Contact Hours: 2 Engineer
Moderator	William Harding, NYSDOS
1:30 pm	Green Infrastructure in New York City: Monitoring Stormwater Source Controls to Guide Implementation Matthew Jones, Hazen and Sawyer; John McLaughlin, Julie Stein, NYC Department of Environmental Protection; William Leo, HDR-HydroQual
2:00 pm	Green Infrastructure in New York City: Stormwater Source Control Performance John McLaughlin, Julie Stein, NYC Department of Environmental Protection; Sandeep Mehrotra, Matthew Jones, Hazen and Sawyer
2:30 pm	Application of a Culvert Assessment Procedure for Determining Compliance with USACE Nationwide and New York Regional Permit Conditions for Aquatic Life Movement and Management of Water Flows Kevin Verweire, HDR Engineering, Inc.
3:00 pm	The NYC Water Supply Operations Support Tool (OST): Planned Upgrades of Interim Functionality James H. Porter, NYC Department of Environmental Protection

AFTERNOON

SESSION VIII (Location: Patton Tavern)

Contact Hours: 2 Engineer 1.5 Water*

Moderator

Lisa Melville, NYSDOS

1:30 pm

Tropical Storms Irene and Lee – Historical Precipitation and Microbiological Response in the Kensico Watershed*

Kerri Alderisio, NYC Department of Environmental Protection

2:00 pm

Water Supply Operations and Monitoring in Response to Tropical Storms Irene and Lee*

Charles Cutietta-Olson, NYC Department of Environmental Protection

2:30 pm

Effect of Flooding from Tropical Storm Irene on Fish and Macroinvertebrate Assemblages in the Upper Esopus Creek Basin

Scott George, Barry Baldigo, US Geological Survey;

A.J. Smith, NYS Department of Environmental Conservation

3:00 pm

Disinfection Byproducts (DBPs) in the NYC Water Supply System in the Aftermath of Tropical Storms Irene and Lee*

Richard Van Dreason, NYC Department of Environmental Protection

MORNING

SESSION IX Operator Training (Location: Eisenhower)

Contact Hours: 2 Engineer⁺ 4.5 Wastewater[‡]

8:00 am

Registration and coffee

9:00 am–12:00 pm

Discharge Monitoring Reports, Compliance and Enforcement^{+‡}

Robert Wither, John Sansalone, Shohreh Karimipour, NYSDEC

12:00 pm–1:30 pm

Lunch

1:30 pm–3:00 pm

Discharge Monitoring Reports, Compliance and Enforcement, continued^{+‡}

Robert Wither, NYSDEC

Special Event

Thursday Special Event (Location: Hap Arnold Room)

4:00 pm–5:30 pm

Reception at the Thayer Hotel overlooking the scenic Hudson River

Enjoy refreshments while networking.

Evaluation Criteria

The Watershed Protection and Partnership Council’s Technical Program Committee reviewed submitted abstracts for quality, technical merit, interdisciplinary utility, as well as temporal and substantive relevance. All papers presented will be included in the Compendium of Abstracts that will be published for distribution at the conference and to interested parties.

Exhibition

Watershed Science and Technical Conference

Exhibit Hours: Thursday, 8:30 am–4:00 pm • Friday, 8:30 am–3:30 pm

Location: Grant Ballroom



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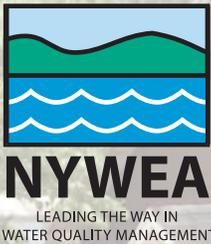
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2012

Upcoming Meetings

Upcoming Meetings

WEFTEC

September 29–October 3, 2012
New Orleans, LA

Nitrification / Denitrification

October 17, 2012
Rochester, NY

Nutrient Removal Technology and Process Optimization

October 24, 2012
Monticello, NY

Nutrient Removal Technology and Process Optimization

November 7, 2012
Lyons, NY

Energy Specialty Conference

November 15, 2012
Albany, NY

Pump Hydraulics, Selection, Sizing and Controls

November 28, 2012
New York City

Sustainability

November 29, 2012,
Williamsville, NY

Fundamentals of Wastewater

Asset Management

December 5, 2012,
New York City, NY

Sustainability

December 12, 2012
New York City

85th Annual Meeting

February 3–6, 2013
New York City Marriott Marquis

*For more details,
visit www.nywea.org*