

New York State AWWA 2010 Water Event & Expo Training Program

Corporate Sponsors:
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Tuesday, April 20, 4:00 p.m.

Session 1

An Historical Perspective of the Design Considerations in Developing New York City's Water Supply System, Paul V. Rush, P.E., Deputy Commissioner, New York City Dept. of Environmental Protection

New York City's development as an economic center would not have been possible without a reliable system to deliver sufficient quantities of high quality water. Beginning in the 1800's and continuing through today, the City embarked on a program to capture and deliver sufficient quantities of drinking water. The ultimate selection of water sources were based on engineering and political considerations. Early design decisions have resulted in a flexible supply system that depends primarily on gravity to deliver over 1 billion gallons of high quality drinking water each day to more than 9 million people.

Session 2, Wednesday, April 21, 7:30 a.m.

Donuts with DOH, Victor Pisani, Jack Dunn, NYS Department of Health

A regulatory update on drinking water regulations affecting New York State, including recent regulatory changes made on the state level and a status update on federal regulations adopted or proposed by the EPA.

Session 3 A , Wednesday, April 21, 9:00 - Noon

The Challenges of a Little Spot with a Big Problem, Richard Kern, Lindsey Olson, Long Island American Water
Long Island American Water has elevated levels of iron at its Hempstead Plant 8 facility. Working together, American Water and H2M Group overcame obstacles to design and permit this facility. Construction had its own hurdles, including an extremely limited site with no on-site staging areas. This presentation discusses all the design, permitting, and construction obstacles and how LIAW, H2M and Layne worked together to overcome them.

Water Supply Impacts from Natural Gas Development in the NYC Watershed, Ben Wright, Hazen & Sawyer
The Marcellus Formation extends beneath much of New York State; the drilling practice has the potential to contaminate water supplies, making natural gas drilling in the formation an issue of current interest to utility operators and managers in the region. This presentation reviews the potential risks to water supplies from natural gas development.

Session 3 B, Wednesday, April 21, 9:00 - Noon

GAC Treatment for MTBE and Emerging Contaminants, Michael Donaway, Calgon Carbon Corp.

The use of GAC for treatment of MTBE and emerging contaminants. Review of the type of GAC and GAC equipment required to treat for these groundwater contaminants as well as the cost for implementing this treatment technology.

Ion Exchange Treatment System for Perchlorate Removal, Michael Boufis, Bethpage Water District

The session shows how one water district dealt with a rising perchlorate level in a public supply well through a case study showing the district's action from sample results to pilot program to a full treatment system.

Session 4 A, Wednesday, April 21, 9:00 - Noon

Water System Management and the Aging Workforce, Teresa Boepple, NYSDOH

The aging workforce is a high priority for many water systems throughout the country. Combined with an aging infrastructure, the public's health could be jeopardized. This session for water system operators, owners, engineers, regulators, and other stakeholders provides background information on this potential crisis and offers management tools to address the aging workforce.

Inter-Municipal/Agency Projects Can Succeed! Phillip Zegarelli, Village of Briarcliff Manor

This project case study focuses on the importance of inter-municipal projects and cooperation by demonstrating challenges and obstacles that were overcome. The inter-municipal planning, agreements, permitting and approvals for this full water supply project required a collaborative effort among the town governments, engineering consultants, municipal counsel, and residents that was nearly a decade in the making and led to the project being funded under the ARRA Stimulus program.

Session 4 B, Wednesday, April 21, 9:00 - Noon

Utility to Utility Collaboration: Working Together to Tackle Today's Issues, Jim Ginley and John Mastrocchio, Red Oak Consulting

Along with regulations, public pressure, aging infrastructure, and a departing workforce, utilities are being impacted by the struggling economic times. Rather than tackling these issues alone, a number of utilities are working with their neighbors and peers to solve these issues together. This presentation illustrates utility-to-utility collaboration in two ways: an overview of a nationwide inventory of regional collaboration efforts, and a case example of the City of Dayton (OH) Water Department's "Strategic Water Initiative."

Planning for a Major Interruption of Supply Capacity, David D'Angelo, Onondaga County Metropolitan Water Board

This presentation details the planning that took place after a leak was identified in the major transmission pipeline serving the eastern portion of Onondaga County and parts of Madison County. The discussion includes examples of how the Metropolitan Water Board is incorporating lessons learned from this case study into its inspection and maintenance plans.

Operator Training – Session 5 A, Wednesday, April 21, 9:00 - Noon

Dam Safety – an Operator's Perspective, Eric Lanzarotta, Malcolm Pirnie

A brief introduction to the latest DEC Dam Safety Regulations and how they will impact the day-to-day work on dams that operators perform as part of their operational routines. Focus is on types of data that should be collected, how the data is reviewed, and what it means to dam safety.

Water Loss Reduction Through Pressure Management, Mark Magda, Singer Valve

Water loss, also known as non-revenue water (NRW), is a significant problem worldwide in potable water distribution systems. System losses vary by utility; however, water losses ranging from 15% to 70% are common. A good pressure management approach is one of many solutions to reducing water loss, but is typically the most economical approach with immediate results.

Session 5 B, Wednesday, April 21, 9:00 - Noon

Leak Detection and Survey – to Hire or Not to Hire? Alan Banks, Prowler Leak Detection

The evolution of leak detection instrumentation and what it means to water operations managers: the balance between technological advancement and man power levels; facts on employee quantity versus employee quality when looking at harnessing unaccounted for water loss figures; and a real look at the dollars and sense – how quickly a leak survey can pay for itself, and a look at the real numbers of leak detection value.

Improving Customer Service and Generating Revenues with Homeowner Warranty Plans, Bruce Tobey, Home Service USA Corp.

In 2008, the Louisville Water Company made a pioneering entry into providing water service line protection plans to its residential customers. This presentation examines the background to the program's launch, the mechanics of its operations, and the impact it has had on customer service, utility revenues, and public education on homeowner infrastructure responsibilities.

Manufacturers Association Presentation Session 6, Wednesday, April 21, 1:30 – 2:30

New Product Showcases, Dan Reed, Master Meter, Don Chalanik, Koester Associates

Top Operator's Contest, Wednesday, April 21, 3:00

Meter Madness Contest, Wednesday, April 21, 4:00

Best Tasting Water Contest, Wednesday, April 21, 4:30

Session 7 A, Wednesday, April 21, 1:30 – 4:30

Optimized Treatment as a Method for DBP Control: The Greater Watertown Water Quality Improvement Project, Katie Hoek, Hazen & Sawyer

The City of Watertown's system provides water to the City and up to five consecutive systems, for an average daily demand of up to 6.3 million gallons. Although the plant is well-operated, certain times of the year find concentrations of disinfection by-products (DBPs) in the system near or above the regulatory limits. This session presents the results of a pretreatment optimization study to evaluate the impacts of operational limitations and identify methods to minimize DBP formation.

Water Quality in Real Time: The Pros, The Cons And The Tools, Connie Schreppel, Ph.D., Mohawk Valley Water Authority

A "sentinel station" with advanced monitoring tools (on-line toxicity, bacterial and organic contaminants monitors) complements the standard water quality on-line instruments for turbidity, pH and chlorine residual and is integrated into the Mohawk Valley Water Authority's distribution network. This case study deals with system operation changes, issues in dealing with the change, and operations response to the numerous alarms that such a monitoring system can generate.

Session 7 B, Wednesday, April 21, 1:30 – 4:30

Storage Tank Interior Plumbing Configuration using CFD for the Westcott Reservoir Rehabilitation Project, Michael Ryan, City of Syracuse

This session presents a Computational Fluid Dynamics (CFD) evaluation to determine the most efficient internal plumbing configuration for the City of Syracuse Westcott Reservoir Rehabilitation Project. The CFD evaluation provided significant money savings by justifying that a simple design/installation concept would still yield the desired results.

Modeling DBPs in the NYC system with Free Chlorine or Chloramines as Residual Disinfectants, Amanda P. Keyes, University of Massachusetts, Amherst

This work aided the assessment of New York City's disinfection by-product control and the possible use of chloramine as a residual disinfectant. The focus was on water quality, including the formation of a broad spectrum of disinfection by-products. Results are intended to help assess DBP occurrence under several chloramination scenarios and also can be used to develop and calibrate kinetic models for DBP formation in the NYC system. Modeling effort results are presented, including model formulations, predictions and validations.

Session 8 A, Thursday, April 22, 9:00 - Noon

Meeting Water & Sanitation Needs through Participatory Community Development, Tamar Losleben, Malcolm Pirnie

Water and sanitation projects often fail because they lack stakeholder input, participation, and leadership, and have limited monitoring programs. This case study from El Salvador illustrates how a water system better meets community needs when residents take part in all levels of project design, implementation, operation, and maintenance.

Overcoming the Gap in Water/Wastewater Infrastructure in Developing Countries, Chris Strock, Virginia Tech
There is an “effectiveness gap” between water/wastewater infrastructure services in developed and developing countries. This session offers some social/development theories to explain the gap, based on a survey of engineering professionals and their attitudes on barriers and how we overcome them. A case study on Partners In Health (PIH) also is presented. Ultimately, an argument for more effective solutions versus “appropriate technology” is offered.

Monitoring Shows Sustainability of Water For People’s Water and Sanitation Efforts, Brian Henn, Hazen & Sawyer
In November 2008, a team of monitors from the World Water Corps, Water for People’s group of specialist volunteers, spent two weeks in rural areas of Guatemala evaluating water and sanitation systems implemented by Water for People - Guatemala. The team used a variety of performance indicators: availability of water, use, management, operations, financial/tariff policies, and hygiene. This presentation describes the work performed and Water for People – Guatemala’s Strategic Plan emphasizing community capacity-building to implement successful and sustainable water and sanitation projects.

Session 8 B, Thursday, April 22, 9:00 - Noon

Water for People Moves into the Dominican Republic, Robert Adamski, Gannett Fleming

This session describes how the World Water Corps evaluated the water, sanitation and health conditions in the Dominican Republic, what the Water For People Board decided, and follow-up actions taken in the Dominican Republic.

Environmentally and Socially Sustainable Economic Growth in the Dominican Republic, Dr. James Danoff-Burg, Columbia

The Environmentally and Socially Sustainable Economic Growth initiative in the Dominican Republic (ESSEG-DR) focuses on the 22,000 people who live in and around the Municipality of Miches, a 190-square mile watershed on the Dominican Republic’s northeastern coast. The ESSEG-DR Initiative in Miches is a collaboration among Columbia University, several Dominican entities, researchers from U.S. institutions, and private sector representatives. This session reviews how EESG works, what it has accomplished, and what is planned.

Fulfilling a Community’s Water Needs, Albert Capuzzi, CH2M HILL

Cap Haitien, Haiti has an orphanage and elderly home that need water. The session presents results of groundwater, water quality, and groundwater pump tests sponsored by Water for People, details the recommended design, offers a project status update, and presents next steps.

Session 9 A, Thursday, April 22, 9:00 - Noon

The Multi-barrier Assessment Tool for Selection of Enhanced Disinfection Alternatives, Roopesh Joshi, Hazen & Sawyer

Results from the Water Research Foundation Project 2861 – Integrating UV Disinfection into Existing Water Treatment Plants. As part of that project, the Multi-Barrier Assessment Tool (MBAT) was developed to evaluate a utility’s water quality goals, source water quality, and existing treatment processes to determine whether enhanced disinfection is necessary and the risks and conceptual costs for enhanced disinfection alternatives. The presentation shows how a risk assessment methodology known as Regrets Analysis can be used to select treatment technology.

Investigations of Water Quality in Relation to LPHO Lamp Quartz Sleeving Fouling, Megan Messman, CDM

The City of New York is constructing an Ultraviolet (UV) Disinfection Facility to meet the requirements of the LT2ESWTR. This presentation covers the results of the 17-month pilot testing program to investigate the extent of fouling on the exterior surfaces of the UV lamp quartz sleeves and the resulting cleaning frequency. The pilot testing was conducted because there is little information available to predict fouling based on water supply characteristics.

Session 9 B, Thursday, April 22, 9:00 - Noon

Is it Time to Give Your Ozone System Some Gas? Ozone Generator Replacement Improves Efficiency, Gerard Moerschell, Town of New Castle

Because ozone generators can provide years of service, plant operators do not often look at major replacement. This session presents an ozone system replacement evaluation for the Town of New Castle's 10-mgd Millwood Water Treatment Plant (WTP). The project has been designed and bid, and now is under construction.

The Basics of Carbon Dioxide Injection Methods and Equipment for pH Control, Michael Dirth, TOMCO2 Equipment Co.

Learn about the municipal applications for carbon dioxide pH control systems, the basics of CO₂, the equipment required, and the differences between CO₂ injection methods. The session includes a brief discussion about other pH control methods.

Session 10, Thursday, April 22, 1:00 – 3:00

Dam! Safety! Revised Regulations, Alon Dornitz

The latest information on New York's revised dam safety regulations, owners' obligations, and compliance tools.

Safe Drinking Water Act Overview and the Standard Setting Process, Paul Ponturo, H2M

The regulatory structure of the Safe Drinking Water Act with an emphasis on how the U.S. EPA develops drinking water standards, the changes in EPA's standard setting approach over time, and the issues that drove those changes. The session details the current standard development process as well as difficulties that a water supplier may experience when occurrence of a new emerging contaminant becomes a community issue.

PESH Regulatory Update, John Usher, NYS Dept. of Labor

A brief overview of recent Public Employee Safety and Health (PESH) regulatory changes and current issues potentially affecting New York Section AWWA members.

Who Wants Cavities? John Helmeset, NYS Dept. of Health

Fluoride is found naturally in water and the adjustment of those levels is a proven public health policy to reduce dental disease. The adjustment of those levels has long been supported by the State Department of Health, both as a policy and with technical assistance. This presentation by the Department will summarize the proven health benefits, safety, cost savings, and why the state supports this health practice.