

Sunday, August 30

SUN1

Security and Emergency Response for Small Systems

9:00 a.m. – 5:00 p.m.

Moderator: Michael Burrington

Water systems are critical to every community. Protection of public drinking water systems must be a high priority for local officials and water system owners and operators to ensure an uninterrupted safe water supply, which is essential for the protection of public health (safe drinking water and sanitation) and safety (fire fighting).

A wastewater system faces many of the same threats that a drinking water system does, and failure of a community's wastewater system can be as damaging to the public's health. Simple things like securing employee keys, changing computer passwords, backing up computer files, and enacting document control for system blueprints are good ideas whatever the type of system you have. Additionally, many small systems (serving 3,300 or less) have been exempted from many of the security measures that protect all of the nation's largest drinking water and wastewater systems. Threats and emergencies happen to systems of all sizes; being prepared will minimize the hazards for a systems customers and get the system back online as quickly as possible. Smaller system operators often serve a dual purpose, operating both the water and wastewater systems in smaller communities and need to know how to respond to an emergency.

This workshop discusses the need to be for smaller systems to be prepared for an emergency, take simple precautions to prevent most tampering, and to have mutual aid agreements in place to respond in an emergency. A table top exercise was chosen from the EPA Office of Water, Water Security Division "Emergency Response Tabletop Exercises for Drinking Water and Wastewater Systems" training CD. This exercise is applicable to both water and wastewater systems.

Sunday, August 30

SUN2

Practical Valve Operation and Maintenance

9:00 a.m. – 5:00 p.m.

Moderator: Charlie Wachs

The objective of this workshop will be for the attendees to learn the fundamentals of valves, their operation, maintenance, documented resources, provide hands-on valve assessment and operations experience, data collection and provide attendees access to experts and best practices from around the country.

Topics to be covered during this workshop are:

- Review of the AWWA M44 Manual (Distribution Valves: Selection, Installation, Field Testing, and Maintenance) including history and design considerations, inspection and storage, and emergency response planning
- A review the main topics of the G200-04 (Distribution Systems Operation and Management Standard) which describes the critical requirements for the effective operation and management of drinking water distribution systems.
- Valve Operation – including valve fundamentals, condition assessment, operations, and repairs

- Industry best practices on capturing, validating and using valve information – including what data to collect, how to collect it, importance of validation, where to put it, and how to maintain it
- Hands on field operations that will allow attendees to learn recommended specific operations guidelines for valves by size and type in order to minimize potential valve failure or damage to a valve. Attendees will then take the field data and apply it for analysis and utilization.

Monday, August 31

OGS

Opening General Session

8:30 – 9:30 a.m.

Moderator: Brian Murphy

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|-----------|----|---|
| 8:30 a.m. | 1. | Planning Committee Chair Welcome
Brian Murphy* |
| 8:40 a.m. | 2. | Local Welcome |
| 8:50 a.m. | 3. | Gimmicks & Gadget Award (two awards) |
| 9:00 a.m. | 4. | Local Speaker |
| 9:15 a.m. | 5. | Stimulus Speaker
Tom Curtis*, American Water Works Association (INVITED) |

Monday, August 31

MON1

Legislative Drivers

9:30 – 11:00 a.m.

Moderator: Brian Murphy

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|------------|----|--|
| 9:30 a.m. | 1. | AWWA Legislative Update
Tom Curtis*, American Water Works Association (INVITED) |
| 10:00 a.m. | 2. | TCR (Regional EPA)
Speaker to be determined |
| 10:30 a.m. | 3. | Distribution System Rule
Speaker to be determined |

Monday, August 31

MON2

Managing Your Distribution System During Drought Conditions

9:30 – 11:00 a.m.

Moderator: Kenneth Thompson

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| 9:30 a.m. | 1. | Options for Meeting Water Supply and Treatment Challenges during Extreme Drought Conditions |
|-----------|----|---|

Raymond P. Thomson*, Jordan, Jones & Goulding

- 10:00 a.m. 2. Managing Water Supply and Distribution to Meet Water Quality Goals and Mitigate Drought Impacts
Stephen K. Davis*, Black & Veatch
- 10:30 a.m. 3. Interconnecting Water Systems in Response to Drought
Jeff Cruickshank*, Hazen & Sawyer

Monday, August 31

MON3

Workforce Strategies Roundtable Discussion

9:30 – 11:00 a.m.

Moderator: Rhonda Harris, Melinda Raimann

Monday, August 31

MON4

Distribution System Operation & Optimization

1:30 – 5:00 p.m.

Moderator: Gerald Caron

- 1:30 p.m. 1. Finding Economic Solutions for Small Communities to Improve Distributed Water Quality to Meet New Regulations
Anna Neugebauer*, CDM
- 2:00 p.m. 2. Development of Optimization Criteria for Distribution System Operations
Gregory J. Kirmeyer*, HDR Engineering
- 2:30 p.m. 3. Distribution System Efficiency: Challenges, Concepts and Change
Cliff Wilson*, Wachs Utility Services
- 3:00 p.m. BREAK
- 3:30 p.m. 4. Do Not Pump a Second Time
Joseph C. Cantwell*, Science Applications Int'l Corp.
- 4:00 p.m. 5. Finding Closed Valves in your Water Distribution System
Thomas Walski*, Bentley Systems
- 4:30 p.m. 6. Field Testing and Hydraulic Modeling Locate Closed Valves in Distribution Systems
Megan G. Roberts*, Hazen and Sawyer
- ALTERNATE Elevated Storage Tank Replacement for Grand Isle
Avinash Mehta*, CDM

Monday, August 31

MON5

Leveraging the Benefits of Water Audits and Advanced Customer Metering Systems

1:30 – 5:00 p.m.

Moderator: John Donahue

- 1:30 p.m. 1. Highlights of AWWA's New 3rd Edition M36 Publication: Water Audits and Loss Control Programs
George A. Kunkel*, Philadelphia Water Department
- 2:00 p.m. 2. Tennessee Water Audit Results - Small, Medium and Large
Paul Johnson*, WSO
- 2:30 p.m. 3. Flow Measurement Accuracies of New Residential Flow Meters
Steven L. Barfuss*, Utah Water Research Laboratory
- 3:00 p.m. BREAK
- 3:30 p.m. 4. Under-Registration of Customer Meters and Opportunities to Improve Accuracy
Holly Donahue*, City of Weston
- 4:00 p.m. 5. Sizing, Selection and Application of Large Meters
Craig Nisen*, Badger Meter, Inc.
- 4:30 p.m. 6. Water Audits and Leak Detection: Techniques and Case Histories
ALTERNATE Speaker to be determined

Monday, August 31

MON6

Distribution System Water Quality Optimization: Monitoring, Modeling, Mixing

1:30 – 5:00 p.m.

Moderator: David Wilkes

- 1:30 p.m. 1. When a State-of- the-Art Treatment Plant is Not Enough: Valdosta's Strategy to Maintain Water Quality in its Distribution System
Cecile Toupiol*, CDM
- 2:00 p.m. 2. How to Reduce Water Age in Your Distribution System
Jeff Cruickshank*, Hazen & Sawyer
- 2:30 p.m. 3. Water Quality Analysis Related to Finished Water Mixing in Water Storage Tanks
Jason Heberling*, Birmingham Water Works Board
- 3:00 p.m. BREAK
- 3:30 p.m. 4. HYDROMON: The First Built-in On-Line Water Quality Monitoring System in a Public Supply Network
Corrado C. Nosedo*, AGE SA

4:00 p.m. 5. Direct Measure of Total and Viable Cell Concentrations of Specific Pathogens in Water Networks Using NASA's Nanotech Biosensor
Garry A. Palmateer*, Early Warning, Inc.

4:30 p.m. 6. Can Active Mixing save you Money? An Economic Analysis of Four Distinct Operational Benefits
Jason Oppenheimer*, PAX Water Technologies

ALTERNATE Title to be submitted
Carlos Diaz*, Winzler & Kelly

Monday, August 31

MON7

Infrastructure Condition Assessment and Flushing

1:30 – 5:00 p.m.

Moderator: Charlie Wachs

1:30 p.m. 1. Distribution System Flushing: Meeting Stakeholder Expectations
Michael H. Gray*, American Water Company

2:00 p.m. 2. Less Aggressive, Partial Cleaning of Tuberculated Water Mains to Improve Fire Flows in Springfield, Massachusetts
Douglas R. Borgatti*, Springfield Water & Sewer Commission

2:30 p.m. 3. An Infallible Approach to Implementing a UDF Program
Dave Lewis*, Wachs Utility Services

3:00 p.m. BREAK

3:30 p.m. 4. The Need to Proceed and Accessing the Unpredictable
James M. Crook*, Greg J. Henry*, Lockwood, Andrews & Newman, Inc.

4:00 p.m. 5. Trenchless Technologies for Potable Pressure Pipes
Richard Barge*, Insituform Technologies, Inc.

4:30 p.m. 6. Criticality of Valve Operability
Cliff Wilson*, Wachs Utility Services

ALTERNATE Historic Functionality: The Refurbishment of Wilmington's Brandywine Raceway
Julian R. Chianelli*, AECOM Water (Metcalf& Eddy)

Tuesday, September 1

TUE1

Distribution System Operation & Optimization

8:30 a.m. – 12:00 p.m.

Moderator: Charly Angadicheril

- 8:30 a.m. 1. GPS in Support of Distribution System Operations: Development of a Program
Michael H. Gray*, American Water Company
- 9:00 a.m. 2. Vertically Integrating GIS and Operational Data for Water Distribution: An
Unrestricted Look at What It Really Takes
Dave Lewis*, Wachs Utility Services
- 9:30 a.m. 3. An Innovative Concept for a Dual Water System in Older Cities
Anthony T. Rolan*, McKim & Creed
- 10:00 a.m. BREAK
- 10:30 a.m. 4. A WTP Finished Water Pump Station: Designing a Distribution and Water
Transfer Node to Meet Current and Future Needs
Jason Yoshimura*, CDM
- 11:00 a.m. 5. Location of New Isolation Valves Using Pressure Dependent Demand
Christopher R. Basford*, Newport News Waterworks
- 11:30 a.m. 6. Water Quality Impact on Pipe Roughness Coefficient and Water System
Capacity: Testing, Calibration and Evaluation
Susen Gali*, CDM
- ALTERNATE Determining Free Chlorine in the Presence of Manganese and Chloramines
Patrick M. Wiese*, Hach Company

Tuesday, September 1

TUE2

Pipe Inspection & Rehabilitation

8:30 a.m. – 12:00 p.m.

Moderator: Rhonda Harris

- 8:30 a.m. 1. Live PCCP Inspection Using a Free-Swimming Tool
Xiangjie Kong*, Pressure Pipe Inspection Company
- 9:00 a.m. 2. Phased Condition Assessment Program for a 13-mile, 36-inch Transmission Main
Michael S. Higgins*, Pure Technologies
- 9:30 a.m. 3. Viability Evaluation of Fibre Optics for Monitoring PCP
Roberto Mascarenhas*, Pressure Pipe Inspection Company
- 10:00 a.m. BREAK
- 10:30 a.m. 4. Rehabbed in Manhattan: Trenchless Potable Water Main Renewal Beneath
Madison Avenue
Andrew Fulford*, Insituform Blue
- 11:00 a.m. 5. Elmendorf Air Force Base in Alaska Carries Out the Structural Rehabilitation of

Its Water Mains Using a CIPP Solution
Joseph Loiacono*, Aqua-Pipe Sanexen Environmental Services

11:30 a.m. 6. Tank Shell Reinforcing -An Innovative Approach to Comply with Seismic Load Requirements of AWWA D100-05 Standard
Victor M. Alaniz*, Nolte Associates

ALTERNATE Condition Assessment Challenges in a Mountain Canyon - Selecting the Right Technologies
Bryon L. Livingston*, Black & Veatch

Tuesday, September 1

TUE3

Getting the Most Out of Your Hydraulic Model

8:30 a.m. – 12:00 p.m.

Moderator: Richard Hope

8:30 a.m. 1. GIS and Hydraulic Model Integration: Implementing Cost-Effective Sustainable Modeling Solutions
Brian Lendt*, Black & Veatch

9:00 a.m. 2. Leveraging Automated Meter Reading (AMR) Data for Model Improvements
Stanley V. Plante*, CDM

9:30 a.m. 3. Hydraulic Modeling Considerations of Seasonal Variability in Clean Drinking Water Consumption
James D. Maher*, Black & Veatch

10:00 a.m. BREAK

10:30 a.m. 4. Getting the Most Mileage from SCADA Data for Hydraulic Modeling
Rajan Ray*, IDModeling

11:00 a.m. 5. Developing Better and More Efficient Protocols for Unidirectional Flushing Utilizing a Combined Effort of GIS and Hydraulic Mode
Piotr Zbigniew Michalowski*, CDM

11:30 a.m. 6. Hydraulic Transients in Distribution Systems, Small or Large, Can Occur in the Least Expected Places
V. Ravisangar*, CDM

ALTERNATE Efficient Hydraulic Model Development and Calibration
Youssif Hussein*, CDM

Tuesday, September 1

TUE4

Developments in Progressive Leak Management

8:30 a.m. – 12:00 p.m.

Moderator: John Donahue

- 8:30 a.m. 1. Sewerage & Water Board of New Orleans : Water Loss Control Program
Rudy August*, Sewerage and Water Board of New Orleans
- 9:00 a.m. 2. Harnessing Greenhouse Gas Emissions through Water Loss Control
Lisa A. Maddaus*, Brown & Caldwell
- 9:30 a.m. 3. Introducing District Metered Areas (DMA) and Pressure Management Areas
(PMA) at ENIA, Italy
Marco Fantozzi*, MIYA
- 10:00 a.m. BREAK
- 10:30 a.m. 4. Estimating Leakage Reduction Due to Pressure Management
Thomas Walski*, Bentley Systems
- 11:00 a.m. 5. Leak Detection Management of Allentown's 100 Year-Old Transmission Main
Christine Carroll*, Pure Technologies Ltd.
- 11:30 a.m. 6. Leak Detection Survey for a Large Diameter Water Transmission Main: Denver
Water
Matt Turney*, Denver Water

ALTERNATE Speaker to be determined

Tuesday, September 1

TUE5

Operating Strategies to Reduce Energy Use

1:30 – 5:00 p.m.

Moderator: Jerry Anderson

- 1:30 p.m. 1. Energy Efficiency in the Selection and Operation of Water Pumping Systems
Thomas D. Hendrey*, Whitley Burchett & Associates
- 2:00 p.m. 2. Energy Recovery at a Surface Water Plant: An Innovative Design in Pearland,
Texas
Kimberly Michele Chanslor*, CDM
- 2:30 p.m. 3. Reduce Pumping Energy Cost By Strategic Management of Distribution Storage
and Pumping
Thomas R. Nevins*, Black & Veatch
- 3:00 p.m. BREAK
- 3:30 p.m. 4. Use of VFD's as Energy Savers
Joseph C. Cantwell*, Science Applications Int'l Corp.

- 4:00 p.m. 5. New Tools that Support Greater Energy Efficiency
Steve A. Conrad*, Junxion Strategy
- 4:30 p.m. 6. Gwinnett County Distribution System Operation Optimization Will Provide
Energy Savings
Brian M. Skeens*, CH2M Hill

ALTERNATE Speaker to be determined

Tuesday, September 1

TUE6

Tools for Managing All of Your Assets, People, Money & Infrastructure

1:30 – 5:00 p.m.

Moderator: Melinda Raimann

- 1:30 p.m. 1. Management, Commitment and Leadership in the 21st Century
James J. Courchaine*, Westin Engineering Inc.
- 2:00 p.m. 2. Find Funds for New Construction
Thomas Hutka*, HNTB Corporation
- 2:30 p.m. 3. Ratepayer Relations - How to Best Survive Your Next Inevitable Rate Increase
Richard A. Wilson*, Sentium Strategic Communications

3:00 p.m. BREAK

- 3:30 p.m. 4. Asset Management: What It Means For Water Distribution
Cliff Wison*, Wachs Utility Services
- 4:00 p.m. 5. Simplified GIS for Water Pipeline Management
Mike Garaci*, PPIC
- 4:30 p.m. 6. Optimization of Water Distribution System Asset Management through GIS
Integration
Jeff Kirshberg*, Infrastructure Engineering Corporation

ALTERNATE Total Cost of Storage Tank Ownership
Gregory "Chip" R. Stein*, Tank Industry Consultants

Tuesday, September 1

TUE7

Lessons Learned in Distribution System Security and Response

1:30 – 5:00 p.m.

Moderator: Kenneth Thompson

- 1:30 p.m. 1. Lessons Learned from Development and Execution of Drills and Exercises at the
Greater Cincinnati Water Works
Brian C. Pickard*, USEPA

- 2:00 p.m. 2. A Water Utility Perspective on Emergency Response Methodologies During a Slowly Evolving Emergency
Keath Ashley Witwicki*, EPCOR Water Services Inc.
- 2:30 p.m. 3. Keeping Our Control Systems Secure
Candace Sands*, EMA, Inc.
- 3:00 p.m. BREAK
- 3:30 p.m. 4. Water Security Initiative: Outlining Operational Response Actions During Possible Contamination Incidents
Brian C. Pickard*, USEPA
- 4:00 p.m. 5. Six Easy Pieces: Ways to Improve Your Emergency Response Capabilities
Xavier J. Irias*, East Bay Municipal Utility District
- 4:30 p.m. 6. Considerations and Methods for Evaluation of Water Distribution Network Early Warning Systems for Use on Military Bases
Dan J. Kroll*, Hach Homeland Security Technologies
- ALTERNATE Beyond Security: Real-Time Water Distribution Monitoring to Optimize Water Quality
John B. Cook*, Advanced Data Mining International

Tuesday, September 1

TUE8

Meeting Multiple Water Quality Objectives in Distribution Systems

1:30 – 5:00 p.m.

Moderator: Gregory Kirmeyer

- 1:30 p.m. 1. Impact of Chloramine Dose, Stagnation Time and pH on Lead and Copper Corrosion
Robert R. Sharp*, Manhattan College
- 2:00 p.m. 2. The Use of Inhibitors to Control Copper Release in a Changing Water Quality Environment
David E. MacNevin*, Carollo Engineers
- 2:30 p.m. 3. Simultaneous Compliance: Testing Long Term Changes for Compliance with Lead and Copper Rule Revisions
William B. Dowbiggin*, CDM
- 3:00 p.m. BREAK
- 3:30 p.m. 4. Pipe Flow through Investigation: Determining Potential Water Quality Problems Involved with Switching to Chloramines
Jason Heberling*, Birmingham Water Works Board

- 4:00 p.m. 5. Large System DBP Control Efforts: Treating the System Extremities
Thomas F. Clark*, Monroe County Water Authority
- 4:30 p.m. 6. DBPs and Corrosion Control - Coming Full Circle Back to Chloramines
Jay Jackson*, Hazen & Sawyer
- ALTERNATE Managing Disinfection Byproducts in Small Consecutive
Steven J. Quail*, Earth Tech AECOM