Monday

OGS

Opening General Session

Moderator: Jonathan Pressman

WQTC11 Planning Committee Welcome
Jonathan Pressman, USEPA

Local Welcome

Watering the Sun Corridor
Grady Gammage, Gammage & Burnham

Sustainability in Drinking Water Activities at AWWA
J. Alan Roberson, American Water Works Association

The Path Forward: USEPA's New Approach to Research
Paul Anastas, Assistant Administrator of the
Office of Research and Development, USEPA

Sustainability Through Water Research
Robert Renner, Water Research Foundation

MON01

Distribution System and Corrosion Posters

Track: Distribution Systems Corrosion

Taste and Odor Evaluation of Polyurethane and
Epoxy Lining Materials 1
Eric Wert, Southern Nevada Water Authority,
Gina Neilson, David Rexing

Integration of Surface Water Into a Groundwater System—
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Howard Christian, Christine Cooper, Dhananjay Mishra
Monday

Galvanic Corrosion Under Flow Conditions and Simulated Partial Replacements of Aged LSLs  N/A
Clement Cartier, NSERC Industrial Chair on Drinking Water, Ecole Polytechnique de Montreal, Shokoufeh Nour, Laurent Laroche, Marc Edwards, Michele Prevost

Turning Challenges Into Opportunities: Selecting DBP Reduction Pre-Treatment Alternatives at the Scottsdale, Arizona Chaparral WTP  29

Lead Release Consequences Associated With Residual Iron and Aluminum Concentrations Following Coagulant Changeovers  44
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Invasive Mussel Management: What Are the Unforeseen Consequences?  N/A
Sarah Clark, HDR Engineering, Philip Brandhuber

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Michelle De Haan, Water Works Engineers, Clint McAffee, Darren Lytle
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Track: Microbiology & Lab Methods

- Flow Cytometric Assessment of Indigenous Drinking Water Bacterial Communities During Chemical Disinfection  
  Frederik Hammes, Eawag  
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- A Stochastic Risk Model to Assess the Microbial Risks of Fecal Pollution in Vulnerable Watersheds  
  Wim Hijnen, KWR Watercycle Research Institute, Mirjam Blokker, Leo Heijnen, Gertjan Medema  
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- Molecular Mechanisms of Adenovirus Resistance to Ultraviolet Disinfection  
  Sarah Bounty, Roberto Rodriguez, Karl Linden  
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- A New Method for the Concentration of Viruses From Water  
  Kelly Bright, University of Arizona, Luisa Ikner  
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**Membrane Posters**

Track: Treatment Techniques & Membranes

- Fouling Characteristics of Ceramic Microfiltration and Ultrafiltration Membranes Treating Surface Waters  
  Seung-Jin Lee, Georgia Institute of Technology, Mehmet Dilaver, Pyung-Kyu Park, Jaehong Kim  
  N/A

- Adsorptive Activated Carbon Coatings for Ultrafiltration Membranes  
  David Ladner, Clemson University, Jaclyn Ellerie  
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- Effects of Extended Operation and Air Leaks on an RO Membrane During Brackish Groundwater Desalination in Texas  
  Justin Sutherland, Carollo Engineers, Graham Juby, William Causey, Lance Rothe, Duane Bryant, Kevin Morrison  
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Track: Sustainable Water/Biological & Other Treatment Methods

**Determination of 2-MIB and Geosmin in Surface and Groundwater by Stir Bar Sorption Extraction/GC/MS in Full MS Scan Mode**  
Chenxi Shi, San Francisco PUC, Water Quality Bureau, Quansing Tu, Lisa Mazuca, Mike Giles, Rod Miller, Megan Tran  

**Navigating Uncharted Waters: Assessing Geosmin Occurrence in a Colorado Rocky Mountain Source Water River**  
Jill Oropeza, City of Fort Collins Utilities—Water Treatment Facility, Judith Billica, G. Keith Elmund  

**GAC Taste-and-Odor Removal Capacity: Predicted vs. Full-Scale Performance**  
Roger Scharf, CH2M HILL, Tony Myers, Jim Bode  

**Beauty vs. the Beast: Balancing Geosmin Removal With DBP Formation**  
Katie Walker, HDR Engineering, Inc., Stan Williams, Donald Sarich

MON05  
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Track: Regulation, Detection & Treatment

**Are All Single-Use Media Created Equal? A Pilot Study of Radium Removal From Groundwater Comparing Three Different Media**  
Justin Sutherland, Carollo Engineers, Lance Rothe, Hutch Musallam, Paul Walker, Will Wilde, Tom Kerr  

**Determination of Hexavalent Chromium in Drinking Water**  
Yongtao Li, Underwriters Laboratories, Inc., Jane Timm, James Lovick, Ray Siery  

**Assessing Innovative Magnetic Separation Processes of Zero-Valent Iron (ZVI) in Arsenic and Fluoride Treatment Systems**  
Nathan Little, M. Robin Collins, Paul Pepler  

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Moderator: Sharon Long

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Moderator: David Hartman

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- Evaluating the Performance of Ceramic Water Kegs for Household Water Treatment in Developing Countries 312  
  *Chris Schulz, CDM Inc., Joanna Cummings, Susan Murcott, Stephen Lohman, Rhonda Birdnow*

- Ceramic Filter Pots: Household Treatment Systems Made in Rural Factories in Developing Countries 332  
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- UV Advanced Oxidation for Taste-and-Odor Control: Understanding Life-Cycle Cost and Sustainability 402
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**The ABCs of Laboratory Methodologies**

Track: Regulation, Detection & Treatment  
Moderator: Betsy Shepherd

Comparison of a Rapid Bioluminescence-Based Assimilable Organic Carbon (AOC) Assay With the Standard Method  
*Menu Leddy*, Orange County Water District, *Richard Bold*

Monitoring DOM Removal and Transformation During Drinking Water Treatment by 3D Fluorescence  
*Aaron Dotson*, University of Alaska Anchorage,  
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Detection of Low-Level Estrogenic Endocrine Disruptors in Water  
*John Gordon*, Alion Science and Technology, *Andrew Chu*

Performance-Based Analytical Method for Determination of Nine Nitrosamines Using Isotope Dilution and CI/MS/MS Techniques  
*Lee Yoo*, Orange County Water District, *Michael Wehner*

A Simple and Inexpensive Kit for Measuring Total THMs and Total HAAs in Drinking Water  
*Gary Emmert*, University of Memphis, *Paul Simone, Christina Henson, Yin Yee Choo, Aaron Brown, Megan Larson, Wei Wu-Emmert*

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*Jody Shoemaker*, USEPA, *Dan Tettenhorst*
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Early Bird–Hydraulic Fracturing and Drinking Water

Track: Source Water Protection
Moderator: Jonathan Pressman

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Track: Source Water Protection
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Monica Hoyt, Central Utah Water Conservancy District,
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Lee Odell, CH2M HILL, Katsu Yamada, Nagaoka International Corporation

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Track: Emerging Contaminants  
Moderator: Paul Swaim

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Gary Emmert, University of Memphis, Paul Simone, Christina Henson, Aaron Brown

Critical Elements in the Manufacture and Application of Preformed Chloramines  1932  
Emily Owens, Trussell Technologies, Fredrick Gerringer, R. Shane Trussell, R. Rhodes Trussell

Chloramine Conversion to Free Chlorine in A Combined System  1952  
Stephanie Posse, Lori Kappen, Gannett Fleming, Jamie Shambaugh

Simulations and Experiments Reveal the Relative Significance of the Free Chlorine/Nitrite Reaction in Chloraminated Systems  1960  
David Wahman, USEPA, Gerald Speitel

Effect of NOM on Monochloramine and Total Chlorine Decay After a Short Prechlorination Time in the Presence of Bromide  1971  
Abdalrahman Alsulaili, Kuwait University, Lynn Katz, Gerald Speitel

Role of Nitrification in Accelerating Chloramine Decay Through Application of Microbial Decay Factor Method  1987  
Arumugam Sathasivan, Curtin University of Technology, George Kastl, Ian Fisher, Bal Krishna KC, Dipok Sarker
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Controlling Metals Release in the Distribution System

Track: Distribution Systems Corrosion
Moderator: Colleen Arnold

The Impact of Orthophosphate on Copper Corrosion and Chlorine Demand 2000
Darren Lytle, USEPA-WSWRD, Jennifer Liggett

Distribution System Diagnostics: Geo-Referencing Historical LCR Data to Determine the Causes of Lead in Drinking Water 2009
Matthew McFadden, HDR Engineering, Inc., Leonard Schantz, Pierre Kwan, Steve Reiber

Electrochemical Reversal and the Effects of Flow Pattern on Galvanic Corrosion of Lead 2027
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Controlling Lead Release in a Water Distribution System, Which Experienced an Increase in Chloride to Sulfate Mass Ratio 2034
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**Track:** Microbiology & Lab Methods  
**Moderator:** Paul Rochelle

- **The Hunt for Green Fluorescence: Portland Water Bureau’s One-Year Cryptosporidium Study in the Bull Run Watershed**  
  Yone Akagi, Portland Water Bureau, Ann Richter, Zoe Rodriguez Del Rey  
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- **Investigating Matrix Spike Recovery Challenges for the Bull Run Water Source, Portland, Oregon**  
  Jeffrey Rosen, Tetra Tech-Clancy Environmental, Yone Akagi, Ann Richter, Paul Westerhoff, Chao-An Chiu, Justin Irving  
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- **Phylogenetic Processes for Analyzing the Sequence Diversity of Cryptosporidium for Source Tracking From Water Samples**  
  Norma Ruecker, City of Calgary, Joanne Matsune, Thomas Edge, Ed Topp, Christoph Sensen, Lihua Xiao, Norman Neumann, David Lapen, Eric Van Bochove, Wendell Koning, Hans Schreir  
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- **Free-Living Protozoa, Biofilm Bacteria, and Disinfection in Distributed Water: An Approach to Understanding the Interactions**  
  Susan Springthorpe, Centre for Research on Environmental Microbiology (CREM), Richard Kibbee, Alain Stintzi, Roger Pickup, Jackie Parry, Syed Sattar  
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- **Occurrence of Filamentous Fungi in Real Water Sources and Their Inactivation Using Chlorine and Chloramines**  
  Vanessa Pereira, Instituto de Biologia Experimental E Tecnológica, Marta Marques, Rosalina Marques, Maria Vitória San Romão, Maria Crespo  
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- **Application of Control Strategies for Mitigation of Nuisance Aquatic Macrofauna in a Drinking Water Treatment Plant**  
  Joe Hernandez, City of Scottsdale Water Resources, Jeanne Jensen  
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Moderator: James Malley

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Harold Wright, Carollo Engineers, Jeff Bandy, Mark Heath, Christian Bokermann, Ronnie Bemus

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Brian Petri, Trojan Technologies, Stewart Hayes, Adam Festger, O. Karl Scheible, Chengyue Shen, Prakash Patil

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Track: Microbiology & Lab Methods
Moderator: Marsha Pryor

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Anne Camper, Montana State University

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Janice Skadsen, CDM

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Moderator: Michelle De Haan

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Moderator: Graham Gagnon

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