

Monday Morning - September 19							
7:00 - 5:30	Registration						
8:30 - 10:00	Opening Session						
10:00 - 10:30	Break & Ops Challenge Viewing Time						
10:00 - 3:00	4-Person Operations Challenge						
	Session 1A Phosphorous Removal	Session 2 CSOs & Wet Weather Treatment	Session 3 Stormwater	Session 4 Collection & Pump Systems	Session 5A Research	Session 6A Operations	
10:30 - 11:15	Implementing "Next Level of Treatment" at Spokane's Riverside Park Water Reclamation Facility <i>Lars Hendron, City of Spokane Mark Esvell, Esvell Engineering</i>	Challenges and Approaches to Siting CSO Control Facilities <i>Kevin Dour, Tetra Tech</i>	Lessons Learned from Eighteen Years of Disconnecting Downspouts in Portland, Oregon <i>Amber Clayton, City of Portland</i>	Sustainable Design of Buried Pipelines <i>Sri Rajah, HDR</i>	Assessing the Likelihood of Pathogen Transport in Groundwater <i>Russell Mau, WA Dept of Health</i>	O&M Energy Efficiency Ideas for Wastewater Treatment Plants <i>Walt Mintkeski</i>	
11:15 - 12:00	Optimizing Sludge Fermentation to Improve Biological Phosphorus Removal Reliability <i>Li Lei, CH2M HILL</i>	Developing Best Estimates for Combined Sewer Overflow (CSO) Control Volumes to Meet NPDES Requirements through Flow Monitoring, Automated Calibration, and Long Term Simulations <i>Robin Joanne Lee, Brown and Caldwell</i>	Assessing Stormwater Program Implementation Effectiveness <i>Robbin Finch, City of Boise</i>	Careful Planning Assures Sewer Capacity in Vancouver, WA <i>Lakshmi Priya Dhanapal &amp; Heather Stephens, Kennedy/Jenks Consultants</i>	Forward Osmosis - Reverse Osmosis Process Offers a Novel Hybrid Solution for Water Reuse and Desalination <i>Carl Lundin, CDM</i>	Tri-City WPBP MBR Performance Certification <i>Michael Trent, Clackamas WES</i>	
Monday Afternoon - September 19							
12:00 - 1:15	PNCWA Business Luncheon						
1:15 - 2:00	Spokane County's Wastewater Program to Meet the Most Restrictive TMDL in the Nation <i>Dave Clark, HDR</i>	Portland's 2011 CSO System Operations, Objectives & Optimization <i>Virgil Christopher Adderley City of Portland</i>	Clean Water Services' Watershed Approach to Hydro-Modification <i>Jadene Stensland, Clean Water Services</i>	Before It's Too Late: Development of a Force Main Prioritization and Inspection Program <i>Steven Drangsholt, HDR</i>	Single-stage Deammonification MBBR Process for Reject Water Sidestream Treatment: Start-Up Strategy and Carrier Design <i>Hong Zhao, Kruger, Inc</i>	Counterfeit Electrical Components Can Destroy Equipment, and Kill <i>Grant Van Hemert, Schneider Electric</i>	
2:00 - 2:45	CASE STUDY: You want Struvite to be my friend? Design and Construction Implementation of a Phosphorus Recovery Process <i>Jeffrey M. Lindgren, Black &amp; Veatch</i>	Portland's CSO Program Construction Challenges <i>Paul Thomas Gribbon, City of Portland</i>	Boardman Creek Basin Initiative: Strategic Planning to Restore Clean Flowing Streams <i>Brett Arvidson, Oak Lodge Sanitation District</i>	Evaluating Alternatives for Interim Capacity Improvements At the Sherwood Sewage Pump Station <i>Mike Carr, Murray, Smith &amp; Associates</i>	Benchmarking Wastewater Treatment Sustainability <i>Usama Zaher, Washington State University</i>	Oh Crud! – Inspection and Permitting of Mobile Washers <i>Jeff Skinner, CCCSD CA</i>	
2:45 - 3:00	Break & Ops Challenge Viewing Time						
	Session 1B Inflow & Infiltration				Session 5B Water Quality	Session 6B Biosolids and Digestion	
3:00 - 3:45	Case Study in Inflow and Infiltration Abatement: Sump Pump Disconnection & Pipe Rehabilitation Pilot Project <i>Joe Dvorak, Clean Water Services</i>	Disinfection and Dechlorination of CSOs <i>Jeffrey Lundt, King County WA</i>	Stormwater Facility Retrofit and Performance Optimization Program <i>Paul Fendt, CDM</i>	Evolution of Real-Time Control Strategies to Achieve Sewer System Efficiencies <i>Edward Speer, CDM</i>	The Efficiency of Wastewater Processes in Reducing a Suite of Indicator Trace Organic Compounds <i>Tanja Rauch-Williams, Carollo Engineers</i>	Thicker is Better - Bend Digester Mixing Part Two <i>Michelle Burkhart, CH2M HILL</i>	
3:45 - 4:30	Cochran Basin I&I Reduction Effectiveness for the City of Spokane Combined Sewer Overflow Program <i>Beryl L. Childs, AECOM</i>	UV Disinfection for Treatment of Stormwater <i>Jennifer Muller, Trojan Technologies</i>	Development of a New Water Quality Best Management Practice for Roadway Runoff <i>Paul Bucich &amp; Charles S. Wisdom, Parametrix</i>	Evaluating Self-Cleaning in Existing Sewers Using the Tractive Force Method <i>Paull Mitchell, ADS</i>	Ambient Water Quality Conditions Study in the Columbia River - Determining Critical Seasonal Periods for Receiving Water Ammonia Toxicity <i>David J. McBride Cosmopolitan Engineering</i>	Return on Investment from Anaerobic Digester Upgrades: Case Studies from Wastewater Treatment Facilities that Switched to Large Bubble Gas Mixers <i>Sudhakar Viswanathan, Inflico Degremont</i>	Vancouver Plant Tour 2:45 - 5:00
4:30 - 5:15	Infiltration & Inflow: Source Identification in Semi-Arid Climates <i>Dennis Galinato, Murray, Smith &amp; Associates</i>	Finding a Winning Solution to Reduce Seattle Waterfront CSOs <i>Vicki Sironen, HDR</i>	Collaboration to Consistently and Efficiently Evaluate the Effectiveness of Proprietary Stormwater Treatment Systems for Pollutant Removal and Long Term Maintenance <i>Paul R. Wirfs, OR Dept. of Transportation</i>	Clean Water Services Dawson Creek Pump Station and Force Main <i>Scott Woodbury, Clean Water Services Todd Perimon, Carollo Engineers</i>	South Puget Sound Dissolved Oxygen Study <i>Andrew T. Kolosseus, WA Dept of Ecology</i>	Taking the Fog out of FOG <i>Heather Stephens, Kennedy/Jenks Consultants</i>	
5:00 - 7:00	Manufacturers Reception—Exhibit Hall						
7:00 - 8:00	Monday Night Dinner						
8:00 - 9:00	Monday Fun Night						

Tuesday Morning - September 20							
7:00 - 5:30	Registration						
7:00 - 8:00	Operators Breakfast						
	Session 7	Session 8	Session 9	Session 10	Session 11	Session 12	
	Public Education & Involvement	Instrumentation and Controls	Energy Recovery and Efficiency	Biosolids and Digestion	Planning for Sustainability	Plant & System Operations	
8:00 - 8:45	<p>How Voluntary Participation Can Affect the Success of a Program</p> <p><i>Martha L. Burke, Seattle Public Utilities</i></p>	<p>Value of Online Instrumentation for Wastewater Treatment Plant Operation</p> <p><i>Mario Benisch, HDR</i></p>	<p>Low Head Hydroelectric Projects at Pacific NW Wastewater Treatment Plants</p> <p><i>Terry Stulc, Trindera Engineering</i></p>	<p>City of Camas' New Sludge Belt Dryer Facility</p> <p><i>John Wilson, Gray &amp; Osborne</i></p>	<p>Building a Legacy: Integrated Water Resources Management in Damascus, Oregon</p> <p><i>Emily Callaway, CH2M HILL</i></p>	<p>Will Your Wastewater Facility Meet Your Long Range Operations and Maintenance Needs?</p> <p><i>Ron Kohler &amp; Bob Swamer King County</i></p>	
8:45 - 9:30	<p>Public Involvement? A Key to Your Wastewater System Success</p> <p><i>Mark Holtzen, JUB Engineers</i></p>	<p>Why Wait for Effluent Grab Sample Results? Find out Now What's Hitting You Up Front! An Overview of On-line, Nitrogen Analyzer Technologies for Wastewater</p> <p><i>David Kopchynski Parametrix</i></p>	<p>Developing and Implementing Energy Management Programs at a Wastewater Utility</p> <p><i>Frank Dick, City of Vancouver WA</i></p>	<p>Sustainability Comparison of Class A and Class B Biosolids Technologies</p> <p><i>Dana Devin-Clarke, Brown and Caldwell</i></p>	<p>Building on Lessons Learned for Expanding the Next Phase of the Groundwater Replenishment System</p> <p><i>James Clark, Black &amp; Veatch</i></p>	<p>Chemical and Energy Procurement Options for a Utility</p> <p><i>Steve Walker, Carollo Engineers</i></p>	
9:30 - 10:30	Break - Exhibit Hall						
10:30 - 11:15	<p>Stormwater Education: Creating A Program That Works</p> <p><i>Megan M. Hanson, City of Portland</i></p>	<p>Lessons Learned Implementing Multi-Media for Telemetry and SCADA</p> <p><i>Terry Stulc, Trindera Engineering</i></p>	<p>Demonstrating WERF's CHEApet: A new powerful energy tool for WWTPs</p> <p><i>Matt Noesen, CH2M HILL</i></p>	<p>Renewable Energy Production from Anaerobic Digestion of Food Waste</p> <p><i>Cale Andrew McPherson, CDM</i></p>	<p>Innovative Sustainability Analysis for Wastewater Facilities Planning</p> <p><i>Dave Clark, HDR</i></p>	<p>Determining the Long &amp; Short Term Costs of Pump System Efficiency</p> <p><i>Joe Edwin Evans, Pump Tech</i></p>	PNCWA Section Exchange 10:30- Noon
11:15 - 12:00	<p>Developing Relationships, Empowering Communities, Public Involvement, and Siting Wastewater Facilities in an Urban Environment</p> <p><i>Andrew Lee, Seattle Public Utilities</i></p>	<p>Life-Cycle Cost Effectiveness, High Availability, and Disaster Recovery of SCADA Systems Through Virtualization</p> <p><i>Mike Karl, CH2M HILL</i></p>	<p>Blowing Your Money Away: Combining New Technology with an Energy Savings Grant to Retrofit Aeration Systems at a Fraction of the Cost</p> <p><i>Jeffrey Zahller, HDR</i></p>	<p>Installing Roof-Mounted Draft Tube Mixers in Floating Cover Digesters</p> <p><i>Catherine Drummer, Brown and Caldwell</i></p>	<p>Defining Sustainable Water Management in Calgary Through Truly Integrated Water Resources Planning</p> <p><i>Guy Carpenter, Carollo Engineers</i></p>	<p>The Myths of Empty Bed Residence Time in Biological Odor Control</p> <p><i>Bonno Koers, Azzuro</i></p>	
12:00 - 1:15	Networking Lunch						

EXHIBIT HALL

Tuesday Afternoon - September 20						
12:00 - 1:15	Networking Lunch					
	Session 13 Utility & Asset Management	Session 14A Collection & Pump Systems	Session 15A Water Quality - TMDLs	Session 16 Odor Control	Session 17A Climate Change and GHG	Session 18 Advanced Wastewater Treatment
1:15 - 2:00	Financial Sustainability to Support Utility Missions <i>Edward John Cebron, FCS Group</i>	Challenging Access and Site Constraints at City of Redmond Pump Station No. 1 <i>Adam Schuyler, BHC</i>	Septic System and Non-Point Source Pollution: A Tale of Two TMDLs <i>Jim Fisher, Clackamas County WES</i>	Large Diameter Outfall Drop Structure Ventilation Analysis in Los Angeles, CA <i>Mark Smith, Brown and Caldwell</i>	Conducting GHG Analyses and Integrating Results into Decision-Making in the Wastewater Field <i>Jennifer Belknap Williamson, City of Gresham</i>	Tili Death Do Us Part? Marrying Old and New Technology: Expanding the West Boise WWTF UV Disinfection Facility <i>Matt Gregg, Brown and Caldwell</i>
2:00 - 2:45	What is CMOM and Why Should You Care? <i>Mary King, City of Portland</i>	Challenges and Approaches to Underwater Open-Cut Pipe Installation <i>Kevin Goss, Tetra Tech</i>	Idaho Antidegradation Implementation Procedures Increase Protection for High Quality Waters <i>Robbin Finch, City of Boise</i>	Good Neighbor Policy: Making Advanced Odor Control Efficient and Effective When You Have No Room for Error <i>Jeffrey Zahler, HDR</i>	Climate Change: What does it mean for your WWTP? <i>Sarah Anne Deslauriers, Carollo Engineers</i>	Implementation of an Integrated Fixed-Film Activated Sludge Process for Secondary Treatment - Bend WRF <i>Bill Leaf, CH2M HILL</i>
2:45 - 3:00	Break - Exhibit Hall					
		Session 14B Water Reuse	Session 15B Water Quality - Temperature		Session 17B Membranes	
3:00 - 3:45	Seattle Public Utilities' Practical Approach to Sewer Cleaning Schedule Optimization for SSO Reduction <i>John R. Evans, HDR</i>	Reclaimed Water - The Next Phase <i>Patrick Skillings, Skillings Connolly, Inc.</i>	Overcoming Barriers to Comply with a Temperature Limit <i>Larry Rupp, Keller Associates</i>	Addressing Odor Nuisance Without Creating a Noise Nuisance <i>Grizelda Sarria, Tetra Tech</i>	The Evolution of MBR Design to Minimize Capital Cost and Optimize Energy Efficiency <i>Adrienne Menniti, CH2M HILL</i>	High Rate Sidestream Treatment Provides Multiple Benefits <i>Jyh-Wei (Al) Sun, CDM</i>
3:45 - 4:30	Enhanced Decision Support Tools Help Maximize Value <i>Lynne Chicoine, CH2M HILL</i>	Tailored Effluent to Fit End Use <i>Peter Schauer, Black &amp; Veatch</i>	Sustainable Solutions for Temperature Compliance <i>Jason Smesrud, CH2M HILL</i>	Odor Control Management Strategies & Field Experience <i>Brett Converse, JUB Engineers</i>	Technology Evaluation and Membrane Pilot Study to Achieve Low-Level Phosphorus Limits for Barrie, Ontario <i>Rip Copithorn, GHD</i>	Nitrogen Removal at King County Wastewater Facilities <i>Peter Carter, King County</i>
4:30 - 5:15	Funding Opportunities for Stormwater and Wastewater Projects <i>David Dunn, WA Dept of Ecology</i>	Water Reuse Pilot Using Membrane Filtration in Spokane, WA <i>Michelle LeBaron, AECOM</i>	Indian Creek TMDL - Determination of "Natural" Temperature Conditions <i>Craig B. Anderson Murray, Smith &amp; Associates</i>	When "Green" Really isn't Greenest: A Design Employing Inorganic Biofilter Media Restores Confidence and Advances Biofilter Technology, While Saving Cost and Energy <i>Aaron Collett, City of Springfield, OR</i>	Retrofitting an Existing Treatment Plant with MBR Technology - Challenges and Results <i>Tom Giese, Kennedy/Jenks Consultants</i>	Meeting New Nitrate and Color Requirements at a Ski Resort Wastewater Treatment Plant <i>Lynn Williams, Brown and Caldwell</i>
5:15 - 7:00	Beer Tasting - Exhibit Hall					
7:00 - 9:00	PNCWA Awards Banquet					

EXHIBIT HALL

La Center Plant Tour  
1:15 - 3:45

Wednesday Morning - September 21								
7:00 - 1:00	Registration							
	Session 19A Phosphorous Removal	Session 20 Innovative Planning & Approaches	Session 21 CSOs & Wet Weather Treatment	Session 22 Plant and System Operations	Session 23 Energy Recovery & Efficiency	Session 24A Operations		
8:00 - 8:45	Enhanced Wetlands Treatment of Non-Point Sources: A Sustainable and Cost Effective Alternative Approach to Meet Increasingly Stringent Phosphorus Limits <i>Steve Burgos, Brown and Caldwell</i>	Wastewater Treatment in 2062.... What does that look like? <i>Lydia Holmes, Carollo Engineers</i>	10 Years of Operational Experience on High Rate Clarification (HRC) for Remote Combined Sewer Overflow (CSO) System <i>MattCrow, CDM</i>	Real-time Characterization of Aqueous Organic Matrix Using Hybrid, Hyperspectral Optical Measurement <i>Sanjai Tripathi, ZAPS Technologies</i>	Ammonia Nitrogen Recovery and Biomethane Production from Anaerobic Digestate <i>Dennis Burke, EEE Inc.</i>	Maxmizing Performance of Wastewater Lagoons <i>Heather Hecht, Lemna</i>	Durham Plant Tour 8:00- Noon	
8:45 - 9:30	Spokane RPWRF Low Level P Pilot Studies – Final Performance Outcomes <i>Mark Esvell, Esvell Engineering</i>	Whither Wastewater? <i>David Jenkins, David Jenkins Assoc.</i>	Combining an Electrical Power Transmission System with Combined Sewer Overflow (CSO) Conveyance and Storage: Strange Marriage? <i>Brian Hemphill, HDR</i>	Oxidation Ditch Modifications to Increase Capacity and Performance <i>John Wilson, Gray &amp; Osborne</i>	Heat Extraction from Plant Influent/Effluent: "Pumped-up Heat Pumps" <i>Bo Vestergaard-Hansen, Brown and Caldwell</i>	Optimizing Your Drying Beds Using Geotextile Containers <i>Randall Wilcox, WaterSolve LLC</i>		
9:30 - 10:15	Evaluation of a Tertiary Membrane Filter (TMF) Demonstration Pilot to Achieve Ultra-Low Effluent Phosphorus Concentrations <i>Karen Bill, HDR</i>	Is It Sewer or Not? <i>Rick Fuller, City of Tacoma</i>	Integrating Existing Assets into a New CSO Control System <i>Greg Humm, Brown and Caldwell</i>	Impact of Waste Biological Solids from Satellite Plants on the Performance of Primary Sedimentation Tanks <i>Lazaro Eleuterio, HDR</i>	Construction of a Food Waste Digestion Facility in Portland Oregon <i>John McKinney, Columbia BioGas</i>	Electronic Operations Manuals - The Evolution into Complete Information Management Systems <i>Brad Musick, Kennedy/Jenks Consultants</i>		
10:15 - 10:30	Break							
	Session 19B Stormwater					Session 24B Pretreatment Programs		
10:30 - 11:15	Oregon Municipal Stormwater Permits and New Directions <i>Angela Wieland, Brown and Caldwell</i>	Making a \$200 Million Decision in Tough Economic Times <i>Craig Anderson, Murray, Smith &amp; Associates</i>	Using Flow Monitoring to Understand CSO Structure Performance <i>Lisa Tamura, HDR</i>	Centrate Treatment Using Ultrafiltration and Reverse Osmosis <i>Dale Richwine, Richwine Environmental</i>	Energy Savings at the City of Edmonds Wastewater Treatment Plant Effluent Pump Station <i>Adam Schuyler, BHC Consultants</i>	Development of Local Limits for Sulfate Discharged to a Municipal Wastewater Treatment Plant <i>Jay Swift, Gray &amp; Osborne</i>		
11:15 - 12:00	Funding a Storm Water Program: Utility Rates, Fees and Begging <i>Gregory L. Seegmiller, JUB Engineers</i>	Characterizing VFA Sources to Optimize Treatment at the Post Point Treatment Plant <i>Anne Conklin, Carollo Engineers</i>	Use of Spatial Rainfall Variability for CSO Facility Design at Spokane, WA <i>Kiana Eller, AECOM</i>	Getting to Yes. Collaborative Headworks Design at Durham AWWTF <i>Lynne Chicoine, CH2M HILL</i>	Energy Recovery Enhances Wastewater Treatment Sustainability <i>Jyh-Wei Sun, CDM</i>	Fats, Oils and Grease (FOG) Control Programs: Overview and Resources <i>Charles Johnstone, City of Everett WA</i>		
12:00 - 1:00	CEU Forms Turn In							