


2.0 CEUs

Attend 1 - 5 mornings
of virtual sessions

Register today!
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NORTHWEST OREGON SUBSECTION
AWWA WATERWORKS SCHOOL

June 21-23rd, 28th, 29th, 2022



WHEN

Tuesday, June 21, 2022 at 8:00 AM PDT
-to-
Wednesday, June 29, 2022 at 12:35 PM PDT

[Add to Calendar](#)

[View preliminary schedule here.](#)

WHERE

This is an online event. Please check your confirmation email for your event link.

CONTACT

CCC Dept. of Water and Environmental Technology
Clackamas Community College
503-594-3345
wet@clackamas.edu

OVERVIEW

Join us for the Northwest Oregon Subsection AWWA Waterworks School hosted via Zoom by Clackamas Community College.

This event provides training for water system operators in four core sections:

- Basics
- Distribution & Maintenance
- Water Quality & Treatment
- Supervision & Leadership

This online event provides the registered participant the opportunity to gain a full 2.0 CEUs, which satisfies the state requirement for two years of continuing education.

PRICING

Attendees may register for 1-5 mornings of virtual sessions from 8 a.m. – 12:35 p.m. on June 21-23 and 28-29th.

- 1 day: members \$50, non-members \$60
- 2 day: members \$100, non-members \$120
- 3 day: members \$150, non-members \$180
- 4 day: members \$200, non-members \$240
- 5 day: members \$250, non-members \$300

REGISTRATION

Registration is open until June 20, 2022.

Upon successful registration, attendees will receive a link to access the Zoom meeting. We are not able to offer bulk registration at this time, as virtual attendance tracking for CEUs requires individual participant information.

SCHEDULE

June 21st, 22nd, 23rd, 28th, and the 29th.

Tuesday, June 21, 2022			
	7:45-8:00am		Opening Announcements
#1	8:00-9:00am	Title:	HOLD FOR KEYNOTE
		Presenter:	Michelle Cheek
		Company/Organization:	City of Portland
		Brief Description:	Michelle will be providing an overview of the American Water Works
	9:00-9:10am		BREAK
#2	9:10-10:10am	Title:	Vibration Analysis Introduction
		Presenter:	Greg Brown
	Assigned to:	Company/Organization:	Ititechnologies
		Brief Description:	
	10:10-10:25am		BREAK
#3	10:25-11:25am	Title:	
		Presenter:	
	Assigned to: Bill	Company/Organization:	
		Brief Description:	
	11:25-11:35am		BREAK
#4	11:35am-12:35pm	Title:	Restoring Water System Confidence with CIPP
		Presenter:	Brendan O'Sullivan
	Assigned to: Bill	Company/Organization:	Murraysmith
		Brief Description:	critical water main in their distribution system. Installed in 1947, the water main was
Wednesday, June 22, 2022			
	7:45-8:00am		Opening Announcements
#5	8:00-9:00am	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
	9:00-9:10AM		BREAK
#6	9:10-10:10AM	Title:	Checking In With Check Valves: Design and Selection
		Presenter:	Steve Causseaux
	Assigned to:	Company/Organization:	Cimco-GC Systems

		Brief Description:	
	10:10-10:25AM		BREAK
#7	10:25-11:25AM	Title:	Seeing Purple: Final Design of the City of Beaverton's Non-potable Water System fc
		Presenter:	Ronan Igloria
	Assigned to:	Company/Organization:	
		Brief Description:	
	11:25-11:35AM		BREAK
#8	11:35AM-12:35PM	Title:	Seismic Resiliency for WWSP
		Presenter:	Mike Britch
	Assigned to:	Company/Organization:	Willamette Water Supply Program
		Brief Description:	seismic resiliency into its projects in a variety of ways. Projects include both
Thursday, June 23, 2022			
	7:45-8:00am		
#9	8:00-9:00am	Title:	
	Assigned to:	Presenter:	
		Company/Organization:	
		Brief Description:	
	9:00-9:10AM		BREAK
#10	9:10-10:10AM	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
	10:10-10:25AM		BREAK
#11	10:25-11:25AM	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
	11:25-11:35AM		BREAK
#12	11:35AM-12:35PM	Title:	
		Presenter:	Tara Vanderwey
	Assigned to:	Company/Organization:	TVWD
		Brief Description:	

Tuesday, June 28, 2022			
	7:45-8:00am		Opening Announcements
#13	8:00-9:00am	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
	9:00-9:10am		BREAK
#14	9:10-10:10am	Title:	Extending the Life of Your Concrete Tanks
		Presenter:	Daniel Gancher
	Assigned to:	Company/Organization:	DN Tanks
		Brief Description:	
	10:10-10:25AM		BREAK
#15	10:25-11:25am	Title:	Ritz Safety
		Presenter:	Greg Mcdonald
	Assigned to:	Company/Organization:	
		Brief Description:	
	11:25-11:35am		BREAK
#16	11:35am-12:35pm	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
Wednesday, June 29, 2022			
	7:45-8:00am		Opening Announcements
#17	8:00-9:00am	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
	9:00-9:10am		BREAK
#18	9:10-10:10am	Title:	Cross Connection Program
		Presenter:	Kahlil Howell
	Assigned to:	Company/Organization:	TVWD
		Brief Description:	

	10:10-10:25am		BREAK
#19	10:25-11:25am	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	
	11:25-11:35am		BREAK
#20	11:35-12:35am	Title:	
		Presenter:	
	Assigned to:	Company/Organization:	
		Brief Description:	

June 21st, 22nd, 23rd, 28th, and the 29th.

Tuesday, June 21, 2022						
	7:45-8:00am		Opening Announcements			
#1	8:00-9:00am		Title: HOLD FOR KEYNOTE	Presented last year? (Y/N)		
			Presenter: Michelle Cheek	n	Phone:	
			Company/Organization: City of Portland		Email:	michelle.cheek@portlandoregon.gov
			Brief Description: Michelle will be providing an overview of the American Water Works Association (AWWA) as well as opportunities and benefits of getting involved at the local level through the Pacific Northwest Section and subsections.		Notes:	Michelle Cheek is the current Chair of the Pacific Northwest Section of AWWA. Michelle has over 20 years experience in the water industry and is currently the Deputy Program Director for the Portland Water Bureau's Bull Run Treatment Projects.
	9:00-9:10am		BREAK	Presented last year? (Y/N)		Contact Info
#2	9:10-10:10am		Title: On-Site Sodium Hypochlorite Generation as a Safe and Efficient Alternative to Chlorine Gas or Commercial Strength Bulk Hypochlorite for Water Disinfection	y	Phone:	
			Presenter: Ethan Brooke		Email:	
			Assigned to: Jen		Notes:	
			Company/Organization: UGSI Solutions, Inc.			
			Brief Description: This 60-minute seminar will provide water system managers, operators and engineers a practical understanding of the science and implementation behind on-site sodium hypochlorite generation (OSHG) as a source of chlorine disinfection capacity for water and wastewater plants as well as distributed well systems.			
	10:10-10:25am		BREAK	Presented last year? (Y/N)		Contact Info
#3	10:25-11:25am		Title: Understanding How Your Distribution System is Performing Using State-of-the-Art Sensors	Confirmed: YES	Phone: 406-223-2192	
			Presenter: Mike Utthe, M. Eng		Email: MUthe@muellerwp.com	
			Assigned to: Bill		Notes:	
			Company/Organization: Mueller			
			Brief Description: By using fire hydrants and battery powered state-of-the-art sensors, operations will be able to understand how their distribution system is performing and be proactive rather than reactive. With 24/7 monitoring platforms utilities will be able to plan strategically rather than on urgency. They can record and display data including pressure, flow, leak, chlorine and pH and then make informed decisions to control assets on their own terms. Asset management is only as good as the data that is available, and this presentation will focus on how to collect the data, but also how to use it to improve service to their customers and plan for the future.			
	11:25-11:35am		BREAK			
#4	11:35am-12:35pm		Title: Building a UDF Program	Confirmed	Phone:	
			Presenter: Christy Suto	Presented last year	Email:	
			Assigned to: Bill		Notes:	
			Company/Organization: Portland Water Bureau			
			Brief Description: The Portland Water Bureau (PWB) operates 2,500 miles of distribution system which consists of a variety of pipe materials, pipe ages, and conditions. Additionally, as an unfiltered system, the distribution system has continuously received sediment loading during the more than 100 years of operation. Over the next eight years PWB plans to clean the distribution system with a variety of tools including unidirectional flushing (UDF), in preparation of the new filtration treatment facility. This presentation will discuss the challenges related to expanding a small UDF program to a large-scale program including purchasing/incorporating a UDF module for hydraulic modeling, implementing new BMPs learned in a WaterRF project to revise flushing methods and benchmarks, hiring new staff and developing new program goals all while operating a complex distribution system which serves drinking water to close to one million customers.	Pre-Recorded:	https://youtu.be/NVvxF1XvSOM	
Wednesday, June 22, 2022						
	7:45-8:00am		Opening Announcements			
#5	8:00-9:00am		Title: Where Drinking Water Meets Stormwater		Phone: 503-723-3510	
			Presenter: Kim Swan		Email: kims@clackamasproviders.org	
			Assigned to: Jen		Notes: Bio: https://us02web.zoom.us/recording/detail?meeting_id=taVGwlWmRnOK5KuV	
			Company/Organization: Clackamas River Water providers			
			Brief Description: Clackamas River, which combined provide drinking water to over 300,000 people in Clackamas and Washington Counties. The organization is made up of representatives from the City of Estacada, City of Lake Oswego, City of Tigard, Clackamas River Water (District), the North Clackamas County Water Commission (Oak Lodge Water Services, City of Gladstone), South Fork Water Board (City of Oregon City, City of West Linn), and Sunrise Water Authority (City of Happy Valley and the Damascus area). The purpose of the CRWP is to collectively fund and coordinate source water protection and public outreach and education efforts around watershed issues, drinking water, and water conservation to preserve the Clackamas River as a high quality drinking water source and to minimize future drinking water treatment costs. The Clackamas River watershed is very large with multiple stakeholders and jurisdictional boundaries (federal vs. state lands, County boundaries etc.). Human activities in the watershed such as construction, timber harvesting, live stock management, fertilizer and pesticide use if not performed responsibly can degrade water quality. In addition impervious surfaces such as parking lots, roads, and roofs carry pollutants directly to the Clackamas. Therefore, the combination of cars, homes, people, and animals in the watershed makes pollution from stormwater a serious threat to our drinking water sources water quality. Establishment of Wellhead Protection Programs and Source Water Protection Program are outlined in the Safe Drinking Water Act (SDWA) as a means to protect valuable drinking water resources whether they are derived from surface water sources, from groundwater sources. In Oregon, implementation of both of these kinds of programs by public water systems is completely voluntary. Because of the impacts nonpoint source pollution/ stormwater pollution can have our on drinking water source it create opportunities for us as water providers to work with our stormwater utilities within the watershed to look at ways to reduce stormwater pollution. This presentation will look at how the CRWP has been working with Clackamas County's Water Environment Services (our stormwater utility) on stormwater related issues and how this these efforts have been beneficial for both parties by working to	Pre-recorded Power Point Presentation		
	9:00-9:10AM		BREAK			
#6	9:10-10:10AM		Title: Life After YP – An Elder Millennial Taking the Next Steps	Confirmed? Yes	Phone:	
			Presenter: Andrew Nishihara		Email:	
			Assigned to: Stantec		Notes:	
			Company/Organization: Stantec			

	Jen	Brief Description:	As more and more people from generation z (zoomers) start to enter the workforce it also means that elder millennials are wrapping up their transition from being young professionals to the next phase in their careers. Not quite seasoned professionals like baby boomers and gen x mentors, some are on the fast-track to being supervisors or leaders of their companies or utilities. This presentation will provide some stories and experiences from elder millennials who have made the transition and things they wish they knew when they were YPs. It will also cover some of the differences in communication styles and challenges presented from having four generations in the workforce.			
	10:10-10:25AM		BREAK			
#7	10:25-11:25AM	Title:	The Value of Connection	Confirmed: YES	Phone:	
		Presenter:	Rebecca Geisen, Managing Director		Email:	Rebecca.Geisen@portlandoregon.gov
	Assigned to:	Company/Organization:	Rgional Water Providers Consortium		Notes:	Managing Director of the Regional Water Providers Consortium, responsible for m
	Chris	Brief Description:	COVID-19, a historic ice storm, wildfires, power outages, legionella, chlorine shortage, drought, and more, have all challenged water providers over the last year and a half. This presentation will focus on the role the Regional Water Providers Consortium played in helping its 24 water provider members successfully navigate these challenges and the importance of regional collaboration in mitigating risk and building resilience. Learn how water providers worked together to minimize impacts to water systems and customers by using regional messaging campaigns, system interconnections, established networks and other regional tools and resources. The presentation will focus on tools and strategies to improve management of water and wastewater systems by learning about the importance of partnerships, collaboration and planning.			
	11:25-11:35AM		BREAK			
#8	11:35AM-12:35PM	Title:	Emerging Contaminants in Drinking Water	Confirmed		
		Presenter:	Gregg Baird	Presented last year		
	Assigned to:	Company/Organization:	Oregon Health Authority			
	Jen	Brief Description:	This presentation will provide an overview of emerging contaminants in drinking water including those that are of particular concern in Oregon.			
Thursday, June 23, 2022						
	7:45-8:00am		Opening Announcements			
#9	8:00-9:00am	Title:	Leadership the Dirty Secrets They Didn't Tell You			
		Presenter:	Kathy McAlpine			
	Assigned to:	Company/Organization:	City of Tigard			
	Chris	Brief Description:	Leadership begins before you have the formal title or positional power. How to prepare for leadership, how to continue to develop as a leader and how to thrive. With 35 years of law enforcement experience and 25 years in supervision/leadership, I will discuss lessons learned (both positive and negative) that will hopefully provide context to your personal journey into supervision and leadership or continue to build upon your current foundation.			
	9:00-9:10AM		BREAK			
#10	9:10-10:10AM	Title:	Communicating with Engineers – Getting Non-Communicators to Understand the Real World		Phone:	
		Presenter:	Mike Grimm		Email:	
	Assigned to:	Company/Organization:	West Slope Water District		Notes:	Bio-General Manager, West Slope Water Distr
	Chris	Brief Description:	How can engineers help operators and operators help engineers without stumbling over each other? This session will explore helpful ways opera can select and work with engineers to achieve a common goal and bring value and optimized efficiency to a water system.			
	10:10-10:25AM		BREAK			
#11	10:25-11:25AM	Title:	OHA Updated Emergency Response Plan Requirements	Confirmed: YES	Phone:	(971) 666-8512
		Presenter:	Chantal Wikstrom		Email:	Chantal.T.Wikstrom@dshsa.state.or.us
	Assigned to:	Company/Organization:	OHA Drinking Water Services		Notes:	Chantal Wikstrom has a natural resource management and disaster risk reduction d
	Chris	Brief Description:	OHA's Drinking Water Services has developed new emergency response and planning requirements for Oregon's water utilities. Participants will learn how the new requirements impact their utilities, how they can better respond to emergencies, and how to develop an emergency response plan. This presentation is recommended for managers, operators, administrative staff, water quality staff and board members.			
	11:25-11:35AM		BREAK			
#12	11:35AM-12:35PM	Title:	HOLD		Phone:	
		Presenter:	Beth McGinnis and Mel Damewood		Email:	
	Assigned to:	Company/Organization:	CRW & West Yost		Notes:	Beth McGinnis, MPH, ORCEMSBeth is the Emergency Manager at Clackamas River v
	Chris	Brief Description:	"Security Planning after the initial RRA – Pump Stations & Reservoirs" Presenters: Beth McGinnis, MPH, ORCEMS Emergency Manager, Clackamas River Water. Mel Damewood III, P.E., West Yost, Eugene, OR Abstract: Water Utilities are subject to new policies regarding risk and resiliency planning. Born from the 2018 AWIA legislation, CRW undertook a project to understand the risks to various assets in the utility enterprise. The level of security enterprise management was identified as a gap that needed significant improvement in the next 5 years. The current state of security management practices at CRW for pump stations and reservoirs was inventoried during the original RRA process and programmatic recommendations for improvement were made. However, there are no current industry best practices that allow for easy benchmarking of facilities. This session will guide you through our expanded project to determine a weighted formula to calculate a risk quotient for pump stations and reservoirs, our scoring outcomes for CRW assets, along with the recommended security levels & associated interventions needed to bring these assets into best practice level operations.			Mel Damewood, PE (OR) - BIOMel is a registered Civil Engineer with nearly 40 years of exper
Tuesday, June 28, 2022						
	7:45-8:00am		Opening Announcements			
#13	8:00-9:00am	Title:			Phone:	
		Presenter:			Email:	
	Assigned to:	Company/Organization:			Notes:	
	Chris	Brief Description:				
	9:00-9:10am					
#14	9:10-10:10am	Title:	and weaknesses of an emergency response plan		Phone:	
		Presenter:	Sarah Stalder and Jessica Dorsey		Email:	
	Assigned to:	Company/Organization:	City of Hillsboro		Notes:	

			The increasing frequency and intensity of Harmful Algal Blooms (HABs) globally is a serious concern for managers of freshwater systems, especially in regards to public health. Given the rise in occurrences of Cyanobacterial HABs, managers of drinking water sources, such as the Joint Water Commission (JWC), are tasked with implementing HAB response plans to protect public health. Following the Cyanobacterial HAB in Salem, OR in 2018 the JWC revised their algal response plan for their source water supplies. This plan was put into action during a bloom of toxin-producing cyanobacteria, Aphanazomenon flos-aquae, in Scoggins Reservoir in April 2019. Although toxins were never detected at the JWC water treatment plant (WTP) raw water intake, the plan was a valuable tool for monitoring and assessing risks to the treatment process and public safety. The results from this investigation also identified gaps in the WTPs ability to properly remove any toxins that may enter the plant which prompted a study to determine the impacts of powdered activated carbon on cyanotoxin removal from the JWC's raw surface water supply. Overall, the 2019 cyanobacterial HAB in Scoggins Reservoir proved to be an important but successful test of the JWC's overall preparedness for protecting public health during future HABs.			
	10:10-10:25AM		Brief Description:			
#15	10:25-11:25am		Title:			Phone:
			Presenter:			Email:
			Assigned to:	Company/Organization:		Notes:
			Brief Description:			
	11:25-11:35am					
#16	11:35am-12:35pm		Title:			Phone:
			Presenter:			Email:
			Assigned to:	Company/Organization:		Notes:
			Brief Description:			
Wednesday, June 29, 2022						
	7:45-8:00am					
#17	8:00-9:00am		Title: ShakeAlert Earthquake Early Warning - Beyond the Basics (Optimization and Enhancements)			Phone: Phone:425.269.8479
			Presenter: Dan Ervin	Presented last year		Email: Email:dan.ervin@variusinc.com
			Assigned to:	Company/Organization: Varius Inc.		Notes:
		Jen	Brief Description: The ShakeAlert earthquake early warning system is now in use in several northwest water systems and is being used to protect lives and millions of dollars of facility assets. This presentation will describe how the ShakeAlert earthquake early warning system can be optimized to provide even more benefits and to improve system operation after a damaging quake. Topics include; filtering and preventing false alarms, improving SCADA security and air-gap protection, automated damage assessment and return to normal protocols, post-quake triage and automated response plan integration and control optimization in a compromised water system and others.			Dan is Vice President of Varius Inc, a municipal consulting engineering company specializing in the application of earthquake early warning technology in northwest water and sewer systems. Dan has over 35 years' experience as a consulting engineer in
	9:00-9:10am		BREAK			
#18	9:10-10:10am		Title: Automatic Facility Damage Assessment – New Technologies			Phone: Phone:425.269.8479
			Presenter: Dan Ervin	NEW		Email: Email:dan.ervin@variusinc.com
			Assigned to:	Company/Organization: Varius Inc.		Notes: Notes: NEW PRESENTATION
		Jen	Brief Description: Recent advancements in earthquake early warning technology can now be used to automatically detect and identify damage in water and sewer system facilities following natural disasters; like earthquakes, landslides, and windstorms. Through the addition of inexpensive and easy to install sensors, you can now get automatic facility assessments within seconds on your mobile device or via email. These sensors can detect structural damage in your reservoirs, pending failures in your pump stations, and damage in your piping systems all without having to visit the site or make an inspection. This is especially valuable capability after a large earthquake when your staff may be compromised and mobility may be difficult. This presentation will discuss how this new technology works, how it can be beneficially applied in the water and wastewater industry and how you can fund and operate this new and exciting capability.			Dan is Vice President of Varius Inc, a municipal consulting engineering company specializing in the application of earthquake early warning technology in northwest water and sewer systems. Dan has over 35 years' experience as a consulting engineer in integrating leading-edge control concepts into water and sewer control systems and
	10:10-10:25am		BREAK			
#19	10:25-11:25am		Title: Service Line Inventory Requirements of the LCRR (Lead and Copper Rule Revision)			Phone:
			Presenter: Kari Salis	NEW		Email:
			Assigned to:	Company/Organization: OHA-DWS		Notes:
			Brief Description: An inventory of all public and private service lines is required to be completed by October 2024. Learn what data must be gathered, what methods will be allowed, and what assistance is available.			
	11:25-11:35am					
#20	11:35-12:35am		Title:			Phone:
			Presenter:			Email:
			Assigned to:	Company/Organization:		Notes:
			Brief Description:			