



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Pumps and Controls for Wastewater. Where are we in 2024

**Presenter:** Simon Cartwright  
Representative

**Job Title:** Municipal Projects -

**Employer:** Xylem - Flygt Product

**Phone #:** 5039130119

**Email:** [simon.cartwright@xylem.com](mailto:simon.cartwright@xylem.com)

**Summary of Lesson Content:** Pumps, controls and station designs have been rapidly evolving over the last 10 years. This presentation will look at the most current application of these components to increase reliability of our station infrastructure. We will also look at several case studies in Oregon where the technology has been applied

**CEU Relevancy:** This presentation will expose operators to the advances in technology available and the outcomes from deploying them. The goal is to provide a framework for upgrading of pump stations with the goal of eliminating issues from ragging and FOG which are increasing costs of operation thanks to modern trash

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 23+ Years working for pump and treatment manufacturing assisting operators and engineers develop pumping and control solutions

#### **Education:**

#### **Professional Registration/Certification:**

**Related Papers/Instruction Given:** Pump station design, pumps and curves, pump maintenance. various operators conferences (APWA, OAWU ETC 2011- Present)

#### **Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Practical Guide to Locating Water and Sewer

**Presenter:** Brian Moss

**Job Title:** Owner

**Employer:** RJM Equipment Sales, Inc

**Phone #:** 360-903-0558

**Email:** [Brianmoss@rjmcompany.com](mailto:Brianmoss@rjmcompany.com)

**Summary of Lesson Content:** Choosing the best frequencies and antennas for locating water and sewer pipes in many situations. How to verify accuracy of position and depth. Locating non-metallic pipes.

**CEU Relevancy:** Prevention of damage to system utilities.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 20 years training

**Education:** Bachelor Civil Engineering

**Professional Registration/Certification:** EIT

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Water Leak Detection with Examples

**Presenter:** Brian Moss

**Job Title:** Owner

**Employer:** RJM Equipment Sales, Inc

**Phone #:** 360-903-0558

**Email:** [Brianmoss@rjmcompany.com](mailto:Brianmoss@rjmcompany.com)

**Summary of Lesson Content:** The water leak detection process and tools review. Examples water leak sounds from previous leaks in the field. Using water leak detection equipment to locate PVC and other non-metallic water pipes.

**CEU Relevancy:** 1/4" leak at 60 psi creates 5.2 million gallons per year of non-revenue water loss and damage to roadways.

### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 20 years of training in the field and from manufacturers

**Education:** BSCE Washington State

**Professional Registration/Certification:** EIT

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## 2024 Eastern Oregon Operators Conference

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:**

**Presenter:** Mike Uthe

**Employer:** Mueller Water Products

**Phone #:** 4062232192

**Job Title:** Western Technology Manager

**Email:** [muthe@muellerwp.com](mailto:muthe@muellerwp.com)

**Summary of Lesson Content:** We will review current best practices for repairing leaks that are reported along with innovations in the repair industry. The next section will focus on pressure zones and creating district metered areas. Hydraulic control valve operation and maintenance will be highlighted in this section, along with techniques for using pressure to reduce economic real losses. The next section will be on active leakage control. We will look at current methods available for locating un-reported existing leaks in a distribution system using non-acoustic methods. We will then look at acoustic methods and compare tactical field equipment versus fixed systems. The last section will be on creating and updating pipeline replacement programs. We will review different pipe condition assessment methods that are available today. We will conclude with the asset management inverted pyramid approach to long-term planning.

**CEU Relevancy:** Today's water utilities are dealing with a combination of aging infrastructure and workforce alongside growing populations and drought. Luckily, there are new innovations that are helping offset these issues. In this presentation I will define some of the terms in the water industry today, such as non-revenue water, transients, background leakage, district metering areas, and asset management. I will also introduce the M36 Manual from AWWA and dive into tactics for reducing annual real losses in a distribution system.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** I have been in the water and wastewater industry for over a decade.

**Education:** Master's of Engineering (Mechanical)

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Packaged Lift Stations for Fast Retrofits

**Presenter:** Jon Neuenschwander

**Job Title:** Outside Sales

**Employer:** Owens Pump & Equipment

**Phone #:** 503-442-0419

**Email:** jon@owenspump.com

**Summary of Lesson Content:** From time to time, many municipal wastewater lift stations need to be upgraded. This presentation looks at different lift station designs and offers many options

**CEU Relevancy:** Operators can use this information to help select the best options for future lift stations or lift station upgrades.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 12 years outside sales experience pumps & equipment

**Education:** High School

**Professional Registration/Certification:** n/a

**Related Papers/Instruction Given:** n/a

**Professional Organizations/Activities:** n/a

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Sanitary Sewer Management Planning: A Better Way to Manage Sewer Collection Systems

**Presenter:** Jesse Christensen

**Job Title:** Project Engineer

**Employer:** HECO Engineers

**Phone #:** 208-812-2026

**Email:** [jessec@hecoengineers.com](mailto:jessec@hecoengineers.com)

**Summary of Lesson Content:** The current performance of many collection systems is poor and many systems have received minimal maintenance for many years.

Many collection systems are maintained by a public works department charged with various functions, such as street, sidewalk, storm drain, and sometimes water utility maintenance.

Money is usually spent where the ratepayer can see the results.

**CEU Relevancy:** A SSMP is a living document and it is important to keep this up to date. This document helps gives you the vehicle you can use to keep your system up to date and running efficiently. By reducing the frequency and severity of SSO's and I&I problems the cost associated with running your system should be reduced. A SSMP can be an effective program that ensures that new sewers are properly designed and installed can minimize system deficiencies that could create or contribute to future overflows or operations and maintenance problems.

### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Civil Engineer that has worked on many sanitary sewer system projects including rebuilding, infiltration and inflow, and new systems.

**Education:** Bachelor of Science Civil Engineering, Boise State University

**Professional Registration/Certification:** PE

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Improving Water Quality, Mixing and TTHM (DBP) Removal in Potable Water Tanks

**Presenter:** Harvey Hibl

**Job Title:** Reg Mgr

**Employer:** Ixom Watercare, Inc.

**Phone #:** 303-887-5323

**Email:** harvey.hibl@ixom.com

### **Summary of Lesson Content:** Summary of Lesson Content:

By utilizing the latest water treatment technology water districts can improve their potable drinking water quality by methods not available to them previously. This presentation will cover potable water tank mixing and trihalomethane (THM) removal technologies.

Potable Water Tank Mixing - Fill and discharge cycles are often insufficient to homogeneously mix the water in water storage tanks. Unmixed water tanks can result in water quality problems including water age issues, stagnation, dead zones, short circuiting, biofilm build up, loss of residual, and increased disinfection by products (DBPs). By actively mixing potable water tanks these problems can be minimized or eliminated.

Trihalomethane (THM) removal - EPA requires that the total trihalomethane (THM) running annual average not exceed the maximum contaminant level of 80 ppb at any one tank location in the distribution system.

THM can be volatilized (air stripped) either in-tank, in Clearwell or within the distribution piping system itself.

By utilizing the latest advances in water tank mixing and Trihalomethane (THM) removal the operator can improve water quality and stay in compliance.

**CEU Relevancy:** The presentation provides information on technology that can help the operator maintain water quality and maintain compliance in their Drinking Water System.

**Professional Background:** I will email my Bio / Resume

**Primary Knowledge/Skills/Abilities Related to Presentation:** Approx. 30 years experience in fluid handling and approx. 23 years applying the SolarBee / GridBee technology.

**Education:** College Mechanical Engineer

**Professional Registration/Certification:**

**Related Papers/Instruction Given:** Improving Water Quality, Mixing and TTHM (DBP)

Removal in Potable Water Tanks - Energy Efficient Mixing for Compliance / Energy Savings in Wastewater Ponds

**Professional Organizations/Activities:** Many of the OR, WA and ID Rural Water and other Conferences

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Energy Efficient Mixing for Compliance / Energy Savings in Wastewater Ponds

**Presenter:** Harvey Hibl

**Job Title:** Regional Manager

**Employer:** Ixom Watercare, Inc.

**Phone #:** 303-887-5323

**Email:** harvey.hibl@ixom.com

**Summary of Lesson Content:** Summary of Lesson Content: Discuss how energy efficient mixing / circulation can reduce short-circuiting, reduce odors, reduce organic sludge buildup and improve overall water quality while reducing energy costs in wastewater ponds and basins. Also, discuss how many Partial Mix Wastewater Pond Systems may qualify as an energy savings project where a 3rd Party Program Delivery Contractor will work with the Power Company to help the city or industrial plant submit an application for funding to offset some of the energy efficient mixing equipment capital costs.

**CEU Relevancy:** The presentation provides information on technology that can help the operator maintain water quality and maintain compliance in their Wastewater Systems.

**Professional Background:** Yes I will email you my Bio / Resume

**Primary Knowledge/Skills/Abilities Related to Presentation:** Approx. 30 years experience in fluid handling and approx. 23 years applying the SolarBee / GridBee technology.

**Education:** College Mechanical Engineer

**Professional Registration/Certification:**

**Related Papers/Instruction Given:** Presented at many OR, WA and ID Rural Water and other Water and Wastewater Conferences

**Professional Organizations/Activities:** Have also attended many OR, WA and ID Rural Water and other Water and Wastewater Conferences

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Operators round table

**Presenter:** Rob Cox

**Job Title:** Farm Supervisor

**Employer:** J.R. Simplot Compnay

**Phone #:** 541-561-7266

**Email:** rob.cox@simplot.com

**Summary of Lesson Content:** this class will be an interactive class with Operators to discuss various issues they face daily at their treatment facilities and possible solutions or resources to help them.

**CEU Relevancy:** This course allows operators to pull form the experience of others to solve problems they have encountered at their facilities and gives them resources to call upon even after the conference is over.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Over 30 years of experience in the treatment and land application of wastewater for beneficial use.

**Education:** over 300 college credits associated with the land application of Industrial wastewater for the purpose of agriculture

#### **Professional Registration/Certification:**

**Related Papers/Instruction Given:** numerous courses pertaining to land application of wastewater. Hydrology, Soil conservation, and groundwater protection

**Professional Organizations/Activities:** EOR PNCWA (Past President), OESAC committee

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Emerging Solids Technology

**Presenter:** Chris McCalib

**Job Title:** President

**Employer:** Treatment Equipment Company (TEC)

**Phone #:** 2069091546

**Email:** Chris@tec-nw.com

### **Summary of Lesson Content:**

The presentation highlights emerging solids technology that are developed and implemented in the United States from across the globe. Ranging from thickening technologies, dewatering, polymer reduction capabilities, drying, digestion alternatives, digestion enhancement, and beyond Class A solids minimization.

**CEU Relevancy:** These systems supply viable solutions at cost savings options that can be retrofitted into existing WWTP facilities to meet current and future needs. This presentation will touch on current alternatives to address Emerging compounds of concern (PFAS/PFOA/endocrine disrupters/microplastics/pharmaceuticals).

### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Emerging Solids Technology

### **Education:**

**Professional Registration/Certification:** Wastewater Group 4 Operator

### **Related Papers/Instruction Given:**

### **Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Introduction to Fluid Mechanics - Water/Wastewater in Motion

**Presenter:** Dane Maben

**Job Title:** Project Engineer

**Employer:** Anderson Perry & Associates, Inc.

**Phone #:** (541)805-0601

**Email:** dmaben@andersonperry.com

**Summary of Lesson Content:** This presentation will serve as an introductory course to fluid mechanics. We will discuss basic hydraulic fundamentals and principles of water/wastewater in motion. Basic principles will be applied to closed conduit flows, pumping, etc.

**CEU Relevancy:** It is essential for an operator to have a basic understanding of fluid mechanics as it relates to their water system. All water systems have some component of fluid in motion. If the operator has a basic understanding of fluid mechanics, it will assist them in operation, maintenance, and management of their system as they will have a better understanding of how the system physically works and they will have a better understanding of how to diagnose maintenance issues when they arise. Operators will also be better equipped to identify deficiencies in their system and any associated improvements that may be required. Certified operators will be able to apply these principles to their water supply system to generally ensure that the system is capable of providing water in quantities that meet daily demands.

**Professional Background:** I am a Professional Engineer with Anderson Perry & Associates, Inc (AP). I've been at AP since 2020 and have worked on numerous municipal water and wastewater design and construction projects across Eastern Oregon.

**Primary Knowledge/Skills/Abilities Related to Presentation:** I work on municipal water and wastewater projects on a daily basis as a project engineer. Almost all of the projects I work on have a component of fluid mechanics dealing with water/wastewater in motion.

**Education:** Two Bachelor's Degrees - Civil Engineering and Forest Engineering, Oregon State University

**Professional Registration/Certification:** Professional Engineer (PE) - State of Oregon

**Related Papers/Instruction Given:** N/A

**Professional Organizations/Activities:** N/A

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** A Summary of Dam Safety Monitoring and Maintenance

**Presenter:** Robert Voeks

**Job Title:** Geotechnical Engineer

**Employer:** OWRD

**Phone #:** 503 507 6441

**Email:** robert.voeks@water.oregon.gov

**Summary of Lesson Content:** This presentation will cover the key components of a dam, modes of dam failure and signs of distress, types of monitoring, and preventative maintenance. The focus of these topics will be on earthen embankment dams and lagoons. This presentation is geared towards onsite workers to provide insight or a refresher on ways to maintain a safe and functioning dam.

**CEU Relevancy:** Many water supply and wastewater treatment systems use dams to store large volumes of water. This presentation is geared towards onsite workers to provide insight or a refresher on ways to maintain a safe and functioning dam. This may influence public health protection by reducing the risk of flood inundation resulting from dam breach, as well as helping maintain a functioning water supply or wastewater system.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Geotechnical aspects of dam safety

**Education:** MS Geological Engineering from Missouri University of Science and Technology

**Professional Registration/Certification:** PE, CEG

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** System Development Charges (SDCs)

**Presenter:** Kyle Carpenter

**Job Title:** Director of Public Works

**Employer:** City of La Grande

**Phone #:** 5416636217

**Email:** [kcarpenter@cityoflagrande.org](mailto:kcarpenter@cityoflagrande.org)

**Summary of Lesson Content:** Review the need for SDCs and the process undertaken to adopt them for water and wastewater systems. Discussion will include explanation of SDCs, the mechanics behind their formation, and the process of adoption. Finally, will discuss the long-term maintenance and updating of the charges and how generated funds are allocated.

**CEU Relevancy:** SDCs are a funding mechanism widely used by public owned water and wastewater utilities to recover costs associated with the expansion of an existing system to provide for new users, while also recovering costs of existing unused capacity. By recovering funds through SDCs utilities free up resources to adequately maintain their systems.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Process recently undertaken by the City of La Grande, oversee City's current systems

**Education:** BS Civil Engineering, MBA

**Professional Registration/Certification:** Professional Engineer and Certified Water Rights Examiner

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Preparing for and Recovering from Wildfires for Water and Wastewater Utilities

**Presenter:** Heath Cokeley

**Job Title:** Circuit Rider, Programs Manager

**Employer:** Oregon Association of Water Utilities

**Phone #:** 5035596589

**Email:** [hcokeley@oawu.net](mailto:hcokeley@oawu.net)

**Summary of Lesson Content:** This class will go over the basics of what could be done by your water and wastewater facilities before, during and after a wildfire.

**CEU Relevancy:** This class will go over the basics of what could be done by your water and wastewater facilities before, during and after a wildfire.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** water/wastewater operations and emergency response

**Education:** Central High School

**Professional Registration/Certification:** Distribution 2,

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Drinking Water Program regulatory overview and service line inventory

**Presenter:** Amy Word

**Job Title:** Natural Resource Specialist III

**Employer:** OHA-Drinking Water Services

**Phone #:** 541-214-8105

**Email:** amelia.a.word@oha.oregon.gov

**Summary of Lesson Content:** A review of current drinking water program activities and a review of the service line inventory. The service line inventory review will cover the requirements for the inventory and how to submit the information to the drinking water program. The service line inventory is a requirement on all community water systems to complete by Oct 2024.

**CEU Relevancy:** The presentation is relevant to water systems as this is a requirement for the water systems to put together. Documenting the service line material is important especially if any lead service lines are discovered. This will allow the system to document the lines and get them replaced. The review/regulatory update gives all operators a current review of the drinking water program.

**Professional Background:** Employed with the State of Oregon-Drinking Water Services since 2008. Cover the Eastern Oregon region and am part of the technical services unit. I assist water systems with regulatory issues and perform surveys.

**Primary Knowledge/Skills/Abilities Related to Presentation:** Am primary contact person for the state drinking water for the lead and copper rule.

**Education:** B.S. Biology

**Professional Registration/Certification:** Registered Environmental Health Specialist

**Related Papers/Instruction Given:** Service Line Overview was given at the Pendleton short school in 2023

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** NPDES Permit and Land Application

**Presenter:** Mark Copley

**Job Title:** Site Supervisor

**Employer:** The Stover Group

**Phone #:** 208-739-0448

**Email:** [mcopley@stovergroup.net](mailto:mcopley@stovergroup.net)

### **Summary of Lesson Content:**

**CEU Relevancy:** The presentation will provide a day-to-day overview of managing land application under an NPDES permit. Key items discussed include the importance of efficient wastewater treatment, when/where to land apply, sampling, system maintenance, and staff training. Operators will benefit by the example of an active permit management. General overview of the systems in place to ensure compliance and water quality will be provided.

**Professional Background:** See resume

**Primary Knowledge/Skills/Abilities Related to Presentation:** See Resume

**Education:** BSB: Green and Sustainable Enterprise Mgt., University of Phoenix

**Professional Registration/Certification:** Idaho WWTP Operator License II

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Your DEQ Online (YDO) - Account Set-up and Registration

**Presenter:** Kimi Grzyb  
Program Coordinator

**Job Title:** Wastewater Operator Certification

**Employer:** DEQ

**Phone #:** 9712193308

**Email:** [kimi.grzyb@deq.oregon.gov](mailto:kimi.grzyb@deq.oregon.gov)

**Summary of Lesson Content:** The Operator Certification Program has moved to an online application and payment system. This video presentation covers the basics of setting up your account.

**CEU Relevancy:** This knowledge is mandatory to get/stay certified

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Program Coordinator

**Education:** PhD Environmental Sciences

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:** OESAC

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Solids Processes in Wastewater Treatment and Reuse

**Presenter:** Bob Smith

**Job Title:** Regional Sales Manager

**Employer:** Treatment Equipment Company

**Phone #:** 541-236-8145

**Email:** bob@tec-nw.com

**Summary of Lesson Content:** Every major stage of a given wastewater treatment plant has, or could have, a solids management process, and perhaps multiple processes. Indeed, they are distributed at a number of stages within most plants, from the most rudimentary bar screens to reverse osmosis. In fact, the solids management of the plant presents a major issue for many municipalities that are becoming challenged to find alternative methods for disposal. This presentation will be an overview of many of the treatment processes available today for operators of wastewater treatment plants.

**CEU Relevancy:** Many operators are mostly familiar with their own plants, understandably. This presentation will be an overview of a number of different technologies and processes that may help them accomplish a particular task better, easier or less expensively than they are doing it now. Additionally, it may help them achieve ever increasing levels of treatment necessary to meet future limits and discharge parameters.

### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 23 years in the wastewater field, in manufacturing, and outside sales.

**Education:** University of Washington, B.S. Mechanical Engineering

**Professional Registration/Certification:**

**Related Papers/Instruction Given:** High BOD Food and Beverage Wastewater: Characterization and Treatment Processes, March 2023, OAWU Sunriver, High BOD Food and Beverage Wastewater: Characterization and Treatment Processes, Eastern Oregon Operators, 2023, NPSH and Cavitation, PEO, 2023

**Professional Organizations/Activities:** OAWU, PEO

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** a basic guide to land application of wastewater

**Presenter:** Rob Cox

**Job Title:** Farm Supervisor

**Employer:** J.R. Simplot Company

**Phone #:** 5415617266

**Email:** rob.cox@simplot.com

**Summary of Lesson Content:** we will be discussing irrigation equipment selection and efficiencies, Nutrient and Hydraulic Management, groundwater and surface water protection. and working with third parties growers to ensure land application is mutually beneficial.

**CEU Relevancy:** This is beneficial for attendees with land application sites (both ran by the operators or delivered to third party growers) as well as locations considering land application to ensure the application of wastewater is for a beneficial use and the process is protective of waters of the state.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** over 30 years of experience in managing a land application site under a WPCF permit

**Education:** over 300 college credits in environmental and Ag subjects

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Energy Savings Performance Contracting (ESPC) & Supporting Grants/Incentives

**Presenter:** Kathleen Kelleher

**Job Title:** Account Executive

**Employer:** Ameresco

**Phone #:** 775-385-3472

**Email:** [kkelleher@ameresco.com](mailto:kkelleher@ameresco.com)

**Summary of Lesson Content:** Energy Savings Performance Contracting (ESPC) is an alternative to design-bid-build that mitigates financial and technical risk through price and performance guarantees. ESPC goes hand-in-hand with grants and incentives available for Oregon through federal, state and local programs. This presentation will discuss where/how to implement ESPC as well as available/upcoming grants and incentives.

**CEU Relevancy:** Energy Savings Performance Contracting (ESPC) is another tool to be utilized for needed infrastructure upgrades. ESPC allows for price and performance guarantees which is specifically desired when investing in newer technologies and sustainability measures.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Alternative contracting for energy-related projects

**Education:**

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:** OR ACWA, PNCWA

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Tackling PFAS in Oregon: What Water/Wastewater Utility Operators Need to Know

**Presenter:** Susie Smith  
Manager

**Job Title:** Special Projects and Events

**Employer:** Private consulting firm is Stony Creek Consulting providing services to the Oregon Association of Clean Water Agencies (ACWA)

**Phone #:** 541-914-5106

**Email:** smith@oracwa.org

**Summary of Lesson Content:** Growing scientific evidence shows that exposure to per- and poly fluoroalkyl substances (PFAS) may lead to a range of health problems in people. PFAS are a major environmental concern because they do not break down easily and are difficult to treat, are found just about everywhere, and can cause harm at low levels. PFAS pose unique challenges to municipal wastewater, drinking water, and stormwater agencies, as public water facilities are not designed to handle complex chemicals like PFAS, and effective, affordable treatment has not been developed. This session will provide an overview of PFAS sources and risks and will describe efforts that have been undertaken by key state agencies and municipal wastewater agencies to characterize sources and risks in Oregon and identify source reduction strategies for local governments.

**CEU Relevancy:** EPA is completing work to assess human health and aquatic risks of PFAS pollution and to develop a regulatory framework to address PFAS. Drinking water and wastewater regulations are coming in the future, and utilities will need to plan on engaging in source identification and reduction activities at the utility level. This is important for utility operators, maintenance personnel, and managers to understand because it will impact numerous aspects of their programs, from product procurement to public outreach to regulatory compliance activities.

**Professional Background:** Executive Director, Oregon Association of Clean Water Agencies (ACWA) and Owner, Stony Creek Consulting 2016-2023  
Contracted Project Manager, cities of Albany (2012-2016) and Corvallis (2016-2017)  
Public Works Director, City of Springfield and Executive O

**Primary Knowledge/Skills/Abilities Related to Presentation:** I have spent most of my career working for or with local governments on infrastructure and water resources planning and regulatory compliance, as well as construction, maintenance, and administration of public utility facilities. I have gained knowledge o

**Education:** MS Degree, Univ. of Oregon, Urban and Regional Planning; BS Degree, University of California Berkeley, Conservation of Natural Resources; High School Diploma, Fremont Highschool, Sunnyvale, Calif.

**Professional Registration/Certification:** N/A

**Related Papers/Instruction Given:** Municipal Leadership in Reducing Toxics, June 6, 2023, Northwest Toxics Summit, Portland, OR

**Professional Organizations/Activities:** N/A

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Oregon DEQ Wastewater Permitting and Compliance Overview

**Presenter:** Justin Sterger  
Inspector

**Job Title:** Water Quality Permit Writer and

**Employer:** Oregon DEQ

**Phone #:** 541-714-0206

**Email:** [justin.sterger@deq.oregon.gov](mailto:justin.sterger@deq.oregon.gov)

**Summary of Lesson Content:** 45 minute presentation, 15 mins questions. Overview of DEQ permitting and compliance procedures for wastewater permits. Aimed to give direction to wastewater operators about how to read/interpret their permits, what to expect in an inspection, compliance/records review, etc.

**CEU Relevancy:** Relevant to wastewater operators who manage treatment plants, monitoring, compliance, reporting required by State issued NPDES and WPCF permits. Overview of permitting process, DEQ inspections, compliance review, permit renewal and issuance. Relevant for reporting spills, emergencies at wastewater plants and operator certification in relation to permitting.

**Professional Background:** 20 years experience in environmental science. Project management professional. Certified hazardous materials manager. Permit writer, compliance inspector at Oregon DEQ last 5 years.

**Primary Knowledge/Skills/Abilities Related to Presentation:** DEQ Compliance Inspector for Eastern Oregon wastewater permitting. Permit writer for industrial and domestic wastewater facilities. Team program lead for the region. Over 20 years experience in environmental programs, permitting, compliance, emergency

**Education:** BA - University of Colorado, MS, University of Colorado

**Professional Registration/Certification:** CHMM, PMP

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Oregon DEQ Engineering Plan Reviews and Permitting/SRF Discussion

**Presenter:** Blair Edwards

**Job Title:** Senior Environmental Engineer

**Employer:** Oregon DEQ

**Phone #:** (503) 229-5185

**Email:** [blair.edwards@deq.oregon.gov](mailto:blair.edwards@deq.oregon.gov)

**Summary of Lesson Content:** Overview of engineering plan review requirements applicable to wastewater systems permitted by DEQ. Fees, submittal requirements, permit renewal outreach, forms, discussion. Applicable to permittees, consulting engineers, and City staff.

**CEU Relevancy:** Overview of engineering plan review requirements applicable to wastewater systems permitted by DEQ. Fees, submittal requirements, permit renewal outreach, forms, discussion. Applicable to permittees, consulting engineers, and City staff. Topics aimed at assisting certified operators with compliance with their permits to influence water quality and public health protection by ensuring proper reviews are completed.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Senior Environmental Engineer  
- Wastewater Plan Review. Compliance Inspector

**Education:**

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Oregon DEQ - DMR and Reporting Review, Land Application Reviews

**Presenter:** Carl Edwards

**Job Title:** Agronomist

**Employer:** Oregon DEQ

**Phone #:** 971-300-5142

**Email:** [carl.edwards@deq.oregon.gov](mailto:carl.edwards@deq.oregon.gov)

**Summary of Lesson Content:** Oregon DEQ review of required NetDMR/Monthly Reporting. Review of land application permitting procedures in wastewater permitting-- biosolids and recycled water.

**CEU Relevancy:** Review required reporting under permits required to protect waters of the state and for public health protection. Review required reporting procedures for land application permitting, NetDMR, required annual reporting.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Soil Scientist, Land Application Specialist

**Education:**

**Professional Registration/Certification:** Soil Scientist, Land Application Specialist for Recycled Water and Biosolids

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Innovations in Water Treatment

**Presenter:** Eric Klann  
Services

**Job Title:** Owner, Divergent Engineering

**Employer:** Divergent Engineering Services

**Phone #:** 541-848-7184

**Email:** [eric@divergentengineering.com](mailto:eric@divergentengineering.com)

**Summary of Lesson Content:** I thought it would be fund to go through the water and wastewater projects I did with the City of Prineville. The theme would be "other ways to treat water" and I could go through the Crooked River Wetlands Project for Wastewater and the Prineville Aquifer Storage and Recovery project for Water. Two hours would be great.

**CEU Relevancy:** The presentation would provide an insight into alternative ways to treat and manage our water resources. Both water and wastewater will be covered so it would be nice to provide dual CEUs

**Professional Background:** Eric Klann founded Divergent Engineering Services in July of 2022. Prior to that he was the City of Prineville Engineer and Public Works Director. In that position, Eric became known for his commitment to bettering the Prineville community through the f

**Primary Knowledge/Skills/Abilities Related to Presentation:** Water/Wastewater Treatment

**Education:** B.S. Mechanical Engineering, PE Civil Engineering

**Professional Registration/Certification:** Lots

**Related Papers/Instruction Given:** None

**Professional Organizations/Activities:** Professional Engineers of Oregon

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Know What You Have to/Know What You Need: Creating a Water Rights Inventory to Meet Deadlines & Required Conditions Including Water Management & Conservation Plans

**Presenter:** Laura Schroeder

**Job Title:** Shareholder

**Employer:** Schroeder Law Offices PC

**Phone #:** 503-887-4753

**Email:** [counsel@water-law.com](mailto:counsel@water-law.com)

**Summary of Lesson Content:** This presentation will teach water rights holders, property owners, or those generally how to research water rights, how to find out if there are water rights on your property (due diligence), and will include a water management and conservation plan overview. It will include how to create a water right inventory for a property, what uses of water may be exempt from needing a water right, meeting deadlines for inchoate water rights, and steps for creating a WMCP if needed. The presentation will be interactive and will allow participants to ask questions, present hypotheticals, or present real-world applications to the information to obtain as much from the presentation as possible.

**CEU Relevancy:** This presentation will teach water system managers to organize and conduct due diligence on their water rights, research their water rights or other water rights within the state if relevant to their needs, and how to apply for an track any inchoate water rights to ensure no time laps occur causing cancellation of a water right. Also, the presentation instructs suppliers of over 1,000 people that they may need a Water Management and Conservation Plan and what that would entail. By properly knowing how to manage the water rights applicable to a supply area or knowing if you need to create a WMCP based on state law, this presentation will help managers best serve their customers or members, and ensure water rights are properly tracked and not lost unbeknownst to a member or customer.

**Professional Background:** Laura Schroeder is an Oregon native, born and raised in the small agricultural area of Vale, Oregon. She earned her B.A. in 1972 from the University of Oregon and her J.D. in 1987 from Northwestern School of Law, Lewis & Clark College. She is admitted to

**Primary Knowledge/Skills/Abilities Related to Presentation:** Ms. Schroeder's primary skills include litigation and transactional work related to water rights and regulation in Oregon, Idaho,

Nevada, Washington, and Utah. She has practiced law and specifically water law for over thirty years. She also has experience

**Education:** University of Oregon, B.A. 1972, Northwestern School of Law, Lewis & Clark College, J.D. 1987

**Professional Registration/Certification:** Oregon State Bar 1987 □ Idaho State Bar 1988 □ Nevada State Bar 1988 □ Washington State Bar 1995 □ Utah State Bar 2016

**Related Papers/Instruction Given:** Ms. Schroeder is a frequent speaker at conferences and seminars on topics including Water Rights Due Diligence and Transactions; Municipal Water Rights and Permit Extensions; Advanced Water Rights Issues; Water Quality and Toxics; Ethics in Water Rights;

**Professional Organizations/Activities:** Oregon State Bar Association. Current and Past Section Memberships: Administrative Law; Agricultural Law; Construction Law; Environmental and Natural Resources Law; Estate Planning and Administration; Family and Juvenile Law; International Law; Law Practi

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Who's the Boss? Public & Private Entity Requirements for Meetings and Records

**Presenter:** Laura Schroeder

**Job Title:** Shareholder

**Employer:** Schroeder Law Offices PC

**Phone #:** 503-887-4753

**Email:** [counsel@water-law.com](mailto:counsel@water-law.com)

**Summary of Lesson Content:** The presentation will provide information on public and private meeting law requirements. This includes what must be done at a meeting, what is not required for a meeting, and proper procedure to ensure legal compliance with these requirements. Participants will learn how to handle emergency meetings, avoiding inadvertent quorums, the public's role in a meeting, and how to address any concerns presented during a meeting. Participants may ask questions or provide hypothetical situations to gain the most from the presentation.

**CEU Relevancy:** Many irrigation districts, community water associations, or water companies must follow public or private meeting laws depending on how they are organized with the state. By educating and complying with proper meeting law requirements, this will lead to less decisions being overturned and less procedural error from the associations/districts/companies which can impede on time spent on water quality or other member/customer related issues. It will keep members involved in the decisions made which may impact the water quality, supply, and public health.

**Professional Background:** Laura Schroeder is an Oregon native, born and raised in the small agricultural area of Vale, Oregon. She earned her B.A. in 1972 from the University of Oregon and her J.D. in 1987 from Northwestern School of Law, Lewis & Clark College. She is admitted to

**Primary Knowledge/Skills/Abilities Related to Presentation:** Ms. Schroeder has been a practicing attorney for over thirty years in the area of water law, natural resources law, land use law in Oregon, Nevada, Washington, Idaho, and Utah. She has also served as City Attorney to municipalities, and as general counsel

**Education:** □ B.A., University of Oregon, 1972; J.D., Northwestern School of Law, 1987

**Professional Registration/Certification:** Oregon State Bar 1987 □ Idaho State Bar 1988 □ Nevada State Bar 1988 □ Washington State Bar 1995 □ Utah State Bar 2016

**Related Papers/Instruction Given:** Ms. Schroeder is a frequent speaker at conferences and seminars on topics including Water Rights Due Diligence and Transactions; Municipal Water Rights and Permit Extensions; Advanced Water Rights Issues; Water Quality and Toxics; Ethics in Water Rights;

**Professional Organizations/Activities:** □ Oregon State Bar Association. Current and Past Section Memberships: Administrative Law; Agricultural Law; Construction Law; Environmental and Natural Resources Law; Estate Planning and Administration; Family and Juvenile Law; International Law; Law Prac

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Proper Sampling

**Presenter:** Sue Lawrence

**Job Title:** Consultant

**Employer:** SWL Environmental Consulting

**Phone #:** 360-281-5613

**Email:** slenvironmental2016@gmail.com

**Summary of Lesson Content:** The reasons for sampling and the proper methods for collection of representative samples

**CEU Relevancy:** Water and wastewater operators are required to collect and have samples analyzed. if not collected properly they do not reflect the actual conditions of the water.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 30 years in the water and wastewater treatment industry, including laboratory and operations

**Education:** 2 years College

**Professional Registration/Certification:** Water Treatment II, FE, Wastewater Treatment IV, Wastewater Collection IV

**Related Papers/Instruction Given:** Sampling Procedures , April 2017, EO Region Conference

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Reducing Operation Costs with Energy Efficiency

**Presenter:** Nick Ridling

**Job Title:** Account Manager

**Employer:** Energy Trust of Oregon

**Phone #:** 5412860300

**Email:** nridling@energy350.com

**Summary of Lesson Content:** this presentation provides high level overview of typical energy consumptions at both water and wastewater facilities. We also dive into potential capital and O&M upgrades that can be implemented in order to reduce operating costs. Finally we dive into incentive offerings that are available to customers through the Energy Trust of Oregon.

**CEU Relevancy:** This presentation will help operators of both water and wastewater systems to better understand where energy is being consumed at their facility as well as how to make changes to lower operating costs. Additionally, operators will learn about the available incentive programs for their region primarily through Energy Trust of Oregon but also some federal programs.

**Professional Background:** will provide resume via email

**Primary Knowledge/Skills/Abilities Related to Presentation:** I work as an engineer with the Energy Trust of Oregon delivering their production efficiency program. Over the last 8 years i have helped eastern Oregon businesses save over 20 GWh of energy and delivered over \$3 million in incentives.

**Education:** B.S. Energy Systems Engineering OSU

**Professional Registration/Certification:** Certified Energy Manager AEE

**Related Papers/Instruction Given:** Reducing Operation Costs with Energy Efficiency 4/4/2023 EIOC

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Pumps 101

**Presenter:** Curtis Butterfield

**Job Title:** Office / Project Manager

**Employer:** Keller Associates, Inc.

**Phone #:** 12088904216

**Email:** [cbutterfield@kellerassociates.com](mailto:cbutterfield@kellerassociates.com)

**Summary of Lesson Content:** Pumps are vital in water distribution and ensuring efficient fluid movement. Come learn how to optimize water pumping systems for reliability and efficiency. In this presentation, we explore centrifugal and other pump technologies, how to read pump curves, identifying and mitigating cavitation, and impeller applications.

**CEU Relevancy:** This presentation helps operators to understand basic pump principals. Pump issues tend to be ignored or addressed inappropriately due to lack of understanding and knowledge.

Principals include understanding pump and impeller types, reading pump curves, various applications and uses of different pump types and so forth. We'll also be sharing some practical real-life examples and show case some common issues and how to mitigate pump issues.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Pump Design, Pump Analysis, Mechanical Design; Pipe Design, Etc.

**Education:** College - Bachelors of Science - Civil Engineering

**Professional Registration/Certification:** Professional Engineer: OR, ID, WA

**Related Papers/Instruction Given:** Pump Station Design, 2023-02-14, ERWoW Conference Vancouver

**Professional Organizations/Activities:** APWA - Washington State Chapter

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Trenchless Technologies

**Presenter:** Curtis Butterfield

**Job Title:** Office / Project Manager

**Employer:** Keller Associates, Inc.

**Phone #:** 12088904216

**Email:** [cbutterfield@kellerassociates.com](mailto:cbutterfield@kellerassociates.com)

**Summary of Lesson Content:** Trenchless technologies offer innovative solutions for rehabilitating or replacing existing pipeline infrastructure without the need for traditional open-cut excavation. These minimally invasive methods reduce disturbance, cost, and environmental impact. In this presentation, we'll explore several key trenchless techniques and their applications. Join us as we explore these trenchless technologies, share practical insights, and discuss how they contribute to extending infrastructure lifespan while minimizing disruption.

**CEU Relevancy:** Trenchless technologies are becoming very common in today's utility industries. This presentation helps operators to understand what methods are available in the marketplace and when it is appropriate to use them. It also discusses the risks and benefits of a variety of different methods to help operators understand which applications are best suited for a given condition. It also looks at some case studies to showcase various project related issues and how they were performed to address various challenges.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Trenchless Technology

**Education:** Boise State University - Bachelors of Science, Civil Engineering

**Professional Registration/Certification:** Professional Engineer: OR, ID, WA

**Related Papers/Instruction Given:** Pump Station Design, 2/14/2023, ERWoW - Vancouver

**Professional Organizations/Activities:** APWA - Washington State Chapter

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Biostimulation - Making Your Biology Work Harder

**Presenter:** Scott Miller  
Representative

**Job Title:** Pacific NW Sales/Technical

**Employer:** ByoGon Northwest

**Phone #:** 5414905628

**Email:** scottmiller@gorge.net

**Summary of Lesson Content:** The presentation will discuss the benefits of a biostimulant, ByoGon PX-109, in municipal and industrial waste water treatment. Topics discussed will include how to measure biological activity, sludge surveys and the benefits of biostimulation for odor, grease and solids reduction. ByoGon PX-109 case study data for various trials will also be presented.

**CEU Relevancy:** With the high cost of capital investment challenging wastewater treatment facilities who can afford an equipment upgrade, biostimulation offers the alternative of a much lower cost point and immediate benefits to operational problems. Biology is the primary driver in improving water quality. Limitations in biological performance can result in odor, excess grease, excess solids generation and/or poor effluent quality. Maximizing the health of your biology to address limitations in your process should definitely be considered prior to an expensive capital upgrade.

### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Sold/serviced the waste water industry for 22 years. Performed numerous biological/chemical trials in waste water treatment in activated sludge, MBR, collection systems, lagoons in both municipal and industrial systems. Performed numerous sludge surveys

**Education:** Bachelors Degree in Pulp and Paper Engineering

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCW





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Beneficial Uses of Hydraulic Models

**Presenter:** George Murgel  
Project Manager

**Job Title:** Senior Environmental Engineer &

**Employer:** HECO Engineers

**Phone #:** 208-841-3188

**Email:** georgem@hecoengineers.com

**Summary of Lesson Content:** Hydraulic models are mathematical models developed for a water/sewer/storm system used to analyze the hydraulic behavior of the system. The models can illustrate the effects of changing conditions on these systems and allow demonstration of the effectiveness of proposed solutions and help minimize the cost of improvements through optimization of the proposed solution. This Presentation will use several case studies where models were applied to provide optimal solutions to the client and illustrate how the models were selected, applied and the results interpreted moving forward with the design and implementation.

**CEU Relevancy:** An operator's ability to use hydraulic models will be useful in developing operation and maintenance plans, setting budgets and providing input for cost effective upgrades or expansions of a water/sewer/storm system. Use of a hydraulic model will allow operator's to visualize how changes will affect system sizing, wet well expansion and the implementation of newer technologies into older systems for correct sizing of units, among other possibilities.

**Professional Background:** Resume will be sent separately

**Primary Knowledge/Skills/Abilities Related to Presentation:** BS-Civil; MS Civil-Env & Water Resources, Ph.D. Environmental eng in water & Wastewater Systems with emphasis on design and modelling w/ over 35 years in consulting & Academic settingsteaching and applying this knowledge. (see Resume)

**Education:** Through PH. D. from Cornell U.

**Professional Registration/Certification:** Licensed in AZ, ID, MT, NV, OR, WA

**Related Papers/Instruction Given:** See Resume to be sent separately

**Professional Organizations/Activities:** member of ASCE; NCEES exam licensing committees; Emeritus member Idaho Board of Professional Engineers & Land Surveyors

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Benefits of Advanced Metering Infrastructure, benefits of Acoustic Leak Detection.

**Presenter:** Brandona Anderson  
AMI/AMR Projects

**Job Title:** Senior Project Manager,

**Employer:** H.D. Fowler Company

**Phone #:** 360-789-0591

**Email:** brandona@hdfowler.com

**Summary of Lesson Content:** A technical overview of the difference between automated meter reading and advanced metering infrastructure. An explanation of the benefits of using the data provided in AMI, and repurposing the manhours once used in manual/drive by reading. Lastly, an explanation of the advancement of acoustic leak detection in water meters and the benefit of having those devices throughout a distribution system.

**CEU Relevancy:** The technical overview of the difference between automated meter reading and advanced metering infrastructure can be useful to operators with or without these system in place, both to educate on what is available to them and/or gain further knowledge of what they have. The technical overview of the data provided in these systems is used to educate operators what information is available at their fingertips and how to put that data to work. Acoustic leak detection through metering is a recent advancement in smart metering that can provide operators a new look and approach towards non-revenue water and overall water loss.

**Professional Background:** Will attach in email

**Primary Knowledge/Skills/Abilities Related to Presentation:** Automated metering, water and waste water infrastructure, project management

**Education:** Oregon State University, Civil Engineering, Construction Engineering and Management

**Professional Registration/Certification:** P.E.

**Related Papers/Instruction Given:** Automated Metering Infrastructure: benefits, project deployment

**Professional Organizations/Activities:** AWWA, OAWU, Idaho Rural, Evergreen Rural, Montana Rural

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Math for level 1-2 test

**Presenter:** Hans Schroeder

**Job Title:** Circuit Rider

**Employer:** Oregon Assoc. Water Utilities (OAWU)

**Phone #:** 5419699900

**Email:** hschroeder@oawu.net

**Summary of Lesson Content:** Math for operators and certification review of pumps, flows, volumes and disinfection calculations.

**CEU Relevancy:** Math for operators and certification review of pumps, flows, volumes and disinfection calculations. Directed to level 1 and 2 operators planning to test. A good refresher for level 3 and 4 operators.

### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 15 years of training, teaching, providing technical assistance to water systems

### **Education:**

**Professional Registration/Certification:** W/WW, Backflow tester, repair

**Related Papers/Instruction Given:** Certification Review courses

### **Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Collections Plugging Solutions

**Presenter:** Jon Neuenschwander

**Job Title:** Outside Sales

**Employer:** Owens Pump & Equipment

**Phone #:** 503-442-0419

**Email:** jon@owenspump.com

**Summary of Lesson Content:** Lift station and wastewater plant pumps are always in danger of getting plugged. The majority of the population seems unconcerned with what they dispose of on public collection systems. This presentation will identify issues and provide possible solutions.

**CEU Relevancy:** Collections and plant operators can use the information from this presentation to solve any existing problems that they have in their specific situations.

#### **Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Wastewater Equipment and public speaking

**Education:** High School

**Professional Registration/Certification:**

**Related Papers/Instruction Given:** n/a

**Professional Organizations/Activities:** n/a

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Advanced Monitoring Solutions for Water and Wastewater

**Presenter:** Ken Hayes  
Manager

**Job Title:** Senior Business Development

**Employer:** Core and Main

**Phone #:** 256.642.6368

**Email:** ken.hayes@coreandmain.com

**Summary of Lesson Content:** Advanced Monitoring Solutions are technologies that help utilities with the persistent issues of Sanitary Sewer Overflow's, Infiltration and Inflow and Environmental Water Quality. These solutions harness sensor and measurement technologies to provide actionable analysis to monitor collection and distribution systems.

**CEU Relevancy:** Advanced Monitoring Solutions are technologies that help utilities with the persistent issues of Sanitary Sewer Overflow's, Infiltration and Inflow and Environmental Water Quality. These solutions harness sensor and measurement technologies to provide actionable analysis to monitor collection and distribution systems. Attendees will learn when, where, and how to apply these monitoring solutions

**Professional Background:** master degree, 33 years management experience, 23 years in utility related jobs

**Primary Knowledge/Skills/Abilities Related to Presentation:** 30 years in utilities, professional speaker

**Education:** MA Organizational Behavior

**Professional Registration/Certification:**

**Related Papers/Instruction Given:**

**Professional Organizations/Activities:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### **Instructor Background & Information**

**Presentation Title:** Application of Artificial Intelligence (AI) for sewer manhole inspection

**Presenter:** Ken Hayes  
Manager

**Job Title:** Senior Business Development

**Employer:** Core and Main

**Phone #:** 256.642.6368

**Email:** ken.hayes@coreandmain.com

**Summary of Lesson Content:** The application of Artificial Intelligence (AI) for sewer manhole inspection represents a significant advancement in municipal infrastructure maintenance and management. Presented is the application robotic systems with 3D cameras and sensors that can be sent into sewer systems to collect data. AI algorithms then analyze this data to assess the condition of the sewer infrastructure using machine learning models, a subset of AI, that are particularly adept at recognizing patterns and anomalies over large datasets. In sewer manhole inspections, these models can learn from thousands of examples to accurately identify issues that require attention. The application of AI in sewer manhole inspection modernizes and improves the efficiency, accuracy, and safety of sewer system maintenance, leading to better managed and more sustainable urban infrastructure.

**CEU Relevancy:** The application of Artificial Intelligence (AI) for sewer manhole inspection represents a significant advancement in municipal infrastructure maintenance and management. Presented is the application robotic systems with 3D cameras and sensors that can be sent into sewer systems to collect data. AI algorithms then analyze this data to assess the condition of the sewer infrastructure using machine learning models, a subset of AI, that are particularly adept at recognizing patterns and anomalies over large datasets. In sewer manhole inspections, these models can learn from thousands of examples to accurately identify issues that require attention. The application of AI in sewer manhole inspection modernizes and improves the efficiency, accuracy, and safety of sewer system maintenance, leading to better managed and more sustainable urban infrastructure.

**Professional Background:** multiple degrees and years of professional experience

**Primary Knowledge/Skills/Abilities Related to Presentation:** 33 years in utilities as a manager and solutions developer

**Education:** MA Organizational Behavior

**Professional Registration/Certification:**

**Related Papers/Instruction Given:** Presented 12 times in 2023

**Professional Organizations/Activities:** AWWA, WEF

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Understanding Blueprints for Control Systems & SCADA Integration, Maintenance, and Safety

**Presenter:** Jonathan Frank

**Job Title:** Director of Business Development

**Employer:** Advanced Control Systems

**Phone #:** 2089992333

**Email:** jon@advancedcontrol.com

**Summary of Lesson Content:** Jonathan Frank's presentation, "Understanding Blueprints for Control Systems & SCADA Integration, Maintenance, and Safety" delves into the critical aspects of interpreting and creating engineering drawings and specifications. It emphasizes the importance of clarity and precision in engineering plans, particularly for water and wastewater treatment projects. The presentation is designed to enhance the skills of professionals in understanding complex technical documents, thereby improving project execution and compliance. This content is particularly valuable for continuing education and professional development in the engineering field.

**CEU Relevancy:** Jonathan Frank's "Understanding Blueprints for Control Systems & SCADA Integration, Maintenance, and Safety" presentation is crucial for water system operators, focusing on interpreting and creating engineering plans and specifications. It prepares operators to review blueprints and provide timely input to engineers and management during project development, enhancing design quality and project lifetime value. This knowledge directly contributes to efficient water system management, influencing water quality, supply, and public health protection while ensuring regulatory compliance and effective resource management.

**Professional Background:** Please see resume on LinkedIn at:  
<https://www.linkedin.com/in/jonathanfrank/>

**Primary Knowledge/Skills/Abilities Related to Presentation:** Jonathan Frank's extensive career in the mechatronics industry spans over three decades, showcasing profound expertise in manufacturing, project management, and sales engineering. His academic foundation in electrical engineering from the University of Idaho

**Education:** Bachelor of Business Administration (BBA)

**Professional Registration/Certification:**

**Related Papers/Instruction Given:** 1) Understanding Control Systems Integration and SCADA, 12/12/2023, OAWU Annual End of Year Operator's Conference, Hood River OR, 2) SCADA in the Cloud, 11/16/2022, Oregon Operator Conference, Roseburg OR, 3) Supervisory Control and Data Acquisition, 4/3/

**Professional Organizations/Activities:** Idaho Rural Water Association (teach classes), Oregon Association of Water Utilities (teach classes), Idaho Manufacturing Alliance (Support trade expansion activities)

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Fire Hydrant Maint.& Record Keeping

**Presenter:** Brian Anderson

**Job Title:** Territory Manager

**Employer:** American Flow Control

**Phone #:** 5037840835

**Email:** banderson@american-usa.com

**Summary of Lesson Content:** Fire hydrant maintenance, record keeping, common problems, history, hands on.

**CEU Relevancy:** Fire hydrant maintenance is lacking in many water systems.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Water Industry for just less than 50 years

**Education:** High School (Milwaukie)

**Professional Registration/Certification:** At a time Oregon Water Distribution3, Cross Connection Tester, Inspector

**Related Papers/Instruction Given:** EO Region Hydrants & Valves 2022

**Professional Organizations/Activities:** Life Member AWWA, Rural Water- OR, ID, MT

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Valve selection

**Presenter:** Brian Anderson

**Job Title:** Territory Manager

**Employer:** American Flow Control

**Phone #:** 5037840835

**Email:** banderson@american-usa.com

**Summary of Lesson Content:** Valve selection, history, types, installation.

**CEU Relevancy:** Proper valve uses.

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** Just less than 50 years.

**Education:** High School

**Professional Registration/Certification:** Water Distribution3 ( no longer)

**Related Papers/Instruction Given:** EO Region AWWA 2023

**Professional Organizations/Activities:** Life Member AWWA, Rural Water- OR, ID, MT

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Lab Review for Certification Tests

**Summary of Lesson Content:** Introduction to the importance of testing and sampling correctly (including hands-on sampling)

**CEU Relevancy:** Correct sampling and techniques are critical for regulatory sampling and protecting public health

**Target Audience:** Combined: Both Water & Wastewater Operators

**Presenter:** Beth Read

**Job Title:** Rural Development Specialist

**Email:** bread@rcac.org

**Employer:** RCAC

**Phone #:** 15415705741

**Education:** Bachelor of Science

**Professional Background:** Numerous short schools and conferences, instructor for Professional Training Association, prior environmental laboratory owner

**Primary Knowledge/Skills/Abilities Related to Presentation:** Rural Development Specialist, Bachelor of Science, Numerous short schools and conferences, instructor for Professional Training Association, prior environmental laboratory owner

**Professional Organizations/Activities:**

**Related Papers/Instruction Given:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA





## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Using Mobile GIS to Streamline Field Data Collection

**Summary of Lesson Content:** Recent advances in GIS technology make it easy to collect and update data, track field data collection activities, and coordinate field operations. This presentation will show how the City of Dayton, WA used a combination of web and mobile solutions to collect and store the city's hydrant flow test data and present the resulting information to city council.

**CEU Relevancy:** Esri's solutions allow facility and asset managers, executives, and operations professionals to collect data, track their assets and performance, maintain historical records, and sustain an accurate inventory. GIS provides invaluable real-time information to improve the way architecture, engineering, and construction (AEC) professionals run facilities, deliver preventive maintenance, monitor sites, and track natural environment improvement projects. Proper asset life cycle management ensures that a project fulfills its mission throughout its expected life-span.

**Target Audience:** Combined: Both Water & Wastewater Operators

**Presenter:** Rusty Merritt

**Job Title:** GIS Department Manager

**Email:** [rmerritt@andersonperry.com](mailto:rmerritt@andersonperry.com)

**Employer:** Anderson Perry and Associates

**Phone #:** 5418157920

**Education:** University of Maine - B.S. in Natural Resources

**Professional Background:** Rusty is the GIS Department Manager at AP's where he leads the effort to advance AP's GIS capabilities and service offerings to its' clients. Prior to joining AP, Rusty owned and managed a GIS consulting firm, where for more than 18 years, he operated as an Esri Business Partner delivering web and mobile GIS solutions to agricultural water managers and small municipalities throughout the Pacific Northwest. Rusty joined AP in 2016, and since then, has configured and deployed web and mobile GIS capabilities to more than 30 AP clients. Rusty has more than 28 years experience in field of GIS.

**Primary Knowledge/Skills/Abilities Related to Presentation:** GIS

**Professional Organizations/Activities:**

**Related Papers/Instruction Given:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Water/Wastewater Polymers-Who, What, Where, How and Why

**Summary of Lesson Content:** The presentation will cover different polymer types, their differences, their uses, strengths and weaknesses. It will also include some polymer characteristics and some optimization techniques.

**CEU Relevancy:** The presentation will increase the knowledge of polymers. This will include the who, what, where, how and why. By increasing polymer knowledge, it could equate to a additional optimization of the process that include polymers. This would lead to better overall performance and decreased cost.

**Target Audience:** Combined: Both Water & Wastewater Operators

**Presenter:** Charles Scott

**Job Title:** Technical Sales Rep

**Email:** charless@polydyneinc.com

**Employer:** SNF Polydyne

**Phone #:** 360-931-5566

**Education:** High School

**Professional Background:** I started out in the polymer industry in our polymer manufacturing plant producing both the dry powders and emulsions. Working my way up from entry level operator to Supervisor and Foreman. I was given the opportunity to become a Technical Service Rep and move back to my original hometown. I then worked my way up to Technical Sales Rep. I am currently the SNF Polydyne Rep for Oregon, Washington, Idaho and Alaska.

**Primary Knowledge/Skills/Abilities Related to Presentation:** 13 Years in the Polymer Industry, over 21 years in the Chemical Industry.

**Professional Organizations/Activities:** Lean Six Sigma Green Belt

**Related Papers/Instruction Given:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Confined Space Hazard Awareness Seminar

**Summary of Lesson Content:** Class has been certified in AK, WA, OR and MT for CEU for Water/WWTP. Morning session overviews of confined space essentials. Breakouts in afternoon with hands on training with confined space rescue equipment and gas detection testing of spaces. Groups will then be given scenarios where they will fill out confined space entry reports, select proper PPE for task and come up with a rescue plan.

**CEU Relevancy:** Confined Space Entry poses a host of safety challenges for employers and workers alike. Found in thousands of work environments, confined space is unique: every confined space has distinct characteristics as well as real potential hazards. Consequently, a thorough assessment of each confined space must be made in order to ensure workers safety. The critical process can only be accomplished when the employer and the workers involved in the entry understand the complexities involved in conducting safe work practices.

**Target Audience:** Combined: Both Water & Wastewater Operators

**Presenter:** Shaun Endsley

**Job Title:** Senior Account Representative

**Email:** slendsley@mmm.com

**Employer:** 3M

**Phone #:** 208-818-0122

**Education:** Eastern Washington University B.A. in Marketing

**Professional Background:**

**Primary Knowledge/Skills/Abilities Related to Presentation:** 25+ years of training for Water/WWTP on Confined Space Entry Awareness - WETRC Certified

**Professional Organizations/Activities:** American Society of Safety Engineers

**Related Papers/Instruction Given:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA



## **2024 Eastern Oregon Operators Conference**

April 8 - 10, 2024

Four Rivers Cultural Center, Ontario Oregon

### Instructor Background & Information

**Presentation Title:** Water and Wastewater Through History

**Summary of Lesson Content:** The presentation will provide a brief summary of water and wastewater through history.

**CEU Relevancy:** The presentation will provide a brief summary of water and wastewater through history. Key items discussed include pertinent developments, milestone regulation changes, and new innovative processes. Operators will benefit from knowing key historical events and developments in how water and wastewater is managed, as well as steps that are continuously being made to change regulations and put reuse and recycle of by-products into the forefront of our current treatment processes.

**Target Audience:** Combined: Both Water & Wastewater Operators

**Presenter:** Rachel Muniz

**Job Title:** Utility Worker

**Email:** [rmuniz@hermiston.or.us](mailto:rmuniz@hermiston.or.us)

**Employer:** City of Hermiston

**Phone #:** 541-371-1696

**Education:** High School Oregon WWT-level 2 -Oregon WWC-level 2

**Professional Background:** Work Experience- City of Hermiston, Lamb Weston, and Oregon Travel Experience

**Primary Knowledge/Skills/Abilities Related to Presentation:** Nine years of hands-on experience.

**Professional Organizations/Activities:** Eastern Oregon Region AWWA/PNCWA

**Related Papers/Instruction Given:**

**Course Sponsor:** Eastern Oregon AWWA/PNCWA

## **Preapproved Training Courses**

- Brian Warren, City of Pendleton
  - Bloodborne Pathogens - OESACID #5817
  - Ladder Safety - OESACID #6120
  - Personal Protective Equipment (PPE) - OESACID #6146
- Leslie Kainoa, CISA
  - Cybersecurity – OESACID #6124