



Rogue Community College

COMMUNITY & WORKFORCE TRAINING

July 31, 2025

OESAC CEU Committee

P.O. Box 577

Canby, OR 97013

Enclosed is the complete course descriptions and class agenda for the 2025 Southern Oregon Water and Wastewater Short School for review and approval. The dates of the short school will be September 17-19, 2025 at Rogue Community College in Grants Pass, Oregon. The course is sponsored by the AWWA Southern Oregon Subsection. The short school will provide 2.0 CEUs for Drinking Water, and 2.0 CEUs for Wastewater.

Attendance will be tracked by moderators and stamp cards. All courses are in 1 hour or more.

Please don't hesitate to reach out if you have questions or need more information.

Sincerely,

Heather Green

Training Services Coordinator

Rogue Community College

HGreen@roguecc.edu

541-956-7285

2025 PNWS-AWWA Southern Oregon Subsection Water & Wastewater Short School

Wednesday 9/17

Moderator		
Room	I1	J2
	Water	Water/Wastewater Combo
7:00 AM - 8:00 AM	REGISTRATION AND BREAKFAST	
8:00 AM - 8:30 AM	Welcome and Conference Logistics	
8:30AM - 9:30 AM	Arlo Todd/Katie Baker: Building a Spill Response Program Step by Step	Tiana Michaud: Arc Flash Studies and Safety
9:30 - 10:30 AM	Robbie West: AMI: Not just for meter reading	Tiana Michaud: Distributed Energy Systems
10:30 - 10:45 AM	BREAK	
10:45 - 11:45 AM	Patrick Miller: Hydraulic Control Valve Basics: Function and Application	Chris Beebe/Greg Nieckarz: Water/Wastewater Treatment Chemistry 101
12:00 - 1:00 PM	LUNCH - Recognize Reiner Pump	
1:00 - 5:00 PM	TOURS (4 hours)	

Thursday 9/18

Moderator			
Room	I1	J2	O122
	Water	Wastewater/ Combo	Water/Wastewater Combo
7:00 AM - 8:00 AM	REGISTRATION AND BREAKFAST		
8:00 AM - 9:00 AM			Patrick Miller: Locating 101: The Science Behind Using Tracer Wire to Locate Pipelines
9:05 AM - 10:05 AM			Jeff Hesse: Modernizing SCADA: Architecture and Strategic Planning for Utilities
10:05 AM - 10:20 AM	BREAK		
10:20 AM - 11:20 AM			Andy Huffman: Understanding Enginereez - Helping Operators communicate with Engineer(ish) types
11:25 AM - 12:25 PM			Bryce O'Neill: On-Site Hypochlorite Generation: OSEC Systems
12:25 PM - 1:30 PM	LUNCH & VENDOR PASSPORT RAFFLE & AWWA Subsection Meeting		
1:30 PM - 2:30 PM			Jeff Zachman: Chemicals in Water & Wastewater Application
2:35 PM - 3:35 PM	Kevin Chapa: Benefits of Tank Mixing and Automated Residual Control in Potable Water Storage Tanks	Kimi Grzyb: DEQ Operator Certification Basics	
3:40 PM - 4:40 PM	Timothy English: Low Pressure Membrane Filtration Systems - Introduction and Operations	Dan Lawrence: Get the F.R.O.G. Out	
4:40 PM - 5:00 PM	Thursday Wrap Up & YP Event Introduction		
5:00 pm - 7:00 pm	YP EVENT		

Friday 9/19

Moderator				
Room	I1	J2	O122	G1
	Water	Wastewater/ Combo	Water/Wastewater Combo	Water
7:00 AM - 8:00 AM	REGISTRATION AND BREAKFAST			
8:00 AM - 9:00 AM			Caleb Trammell: Operator Math	Garrett Yates & Ray Johnson: Cross-Connection Control Certification Update
9:05 AM - 10:05 AM				
10:05 AM - 10:20 AM	BREAK			
10:20 AM - 11:20 AM	Patrick Miller: Eyes and Ears on Your Water System	Chris Bennett: Alternative to Gravity Sewer - Pressure Sewer	Caleb Trammell: Operator Math Cont.	Garrett Yates & Ray Johnson: Cross-Connection Control Certification Update Cont.
11:25 AM - 12:25 PM	Pierre Kwan: Getting ready for the Microbial/Disinfection Byproducts Rule	Brian Murphy - PFAS Treatment Options, Alternatives, and Considerations		
12:25 PM - 1:30 PM	LUNCH			
1:30 PM - 2:30 PM			Gerald Fejarang: Designing for Reliability: Embedding O&M Wisdom Early	Garrett Yates & Ray Johnson: Cross-Connection Control Certification Update Cont.
2:35 PM - 3:35 PM			Jacob Lovin: Pipeline Resiliency	
3:35 PM - 4:00 PM	CLOSING REMARKS AND RAFFLE			



Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: _____

Presenter: _____ Title: _____

Employer: _____ Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Summary of Lesson content: _____

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

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Professional Registration/Certification: _____

Related papers/instruction you have presented:

Title: _____ Date: _____ Event: _____

Title _____ Date: _____ Event: _____

Professional Organizations/Activities:

_____ Date: _____

_____ Date: _____

Course sponsor: _____

Signature of Instructor: _____ Date: _____

DO NOT WRITE BELOW THIS LINE

Date Evaluated: _____ By: _____ Approved: Yes _____ No _____

Return Completed Form To: OESAC CEU COMMITTEE
P.O. Box 577
Canby, OR 97013-0577

Email: info@oesac.org
Phone: 503-698-6486



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Professional Organizations/Activities:

_____ Date: _____

_____ Date: _____

Course sponsor: _____

Signature of Instructor: Collet Trammell Date: _____

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Caleb W. Trammell
541-530-4081
calebwtrammell@gmail.com
433 West Berdine Street
Roseburg OR 97471

EDUCATION

Oregon State University 2012 - 2017. *B.S. Microbiology-Sustainability Dual Degree. Chemistry and Soil Science Minors. Undergraduate Research Fellow. Academic Achievement Award Scholarship. Joseph E. Simmons Memorial Scholarship.*

PROFESSIONAL HISTORY

Plant Pathology Laboratory Research Assistant 06/2014 - 09/2017
Oregon State University, Corvallis OR

- Collected 100s of irrigation water samples and performed DNA analyses.
- Coded a model in Excel Visual Basic to autonomously summarize massive datasets.

Crop Health Specialist 09/2017 - 08/2019
Blooming Nursery, Cornelius OR

- Analyzed 1000s of past records to manage effective, preventive pesticide applications based on chemical modes of action.
- Monitored the pH and alkalinity of irrigation water on a weekly basis.
- Developed a model to predict acid additions to irrigation water using linear regression analysis.

Viticulture/Enology Intern 06/2020 - 11/2020
Abacela Vineyard, Winston OR

- Maintained irrigation systems for the growing season.
- Chemical analyses to determine the pH and total acid of weekly wine samples.
- Operated pump equipment to transfer wine between holding tanks.
- Routinely mixed and handled caustic and acidic cleaning agents.

Operator-in-Training 11/2020 - 11/2022

Jacobs-RUSA WRRF, Roseburg OR

- Performed daily plant checks to ensure proper equipment operation.
- Took process samples and completed basic laboratory analyses.
- Completed preventive maintenance on equipment, oil changes etc.
- Assisted in major equipment repairs as necessary.
- Carried a 24/7 on-call phone when assigned and responded to emergencies.
- Maintained facility appearance, cleaning, landscaping, etc.
- Repaired broken irrigation lines and sprinklers at the 'Natural Treatment System'.

Project Manager

11/2022 - Current

Jacobs-RUSA WRRF, Roseburg OR

- Managing a \$1.4 million budget approved by the client.
- Scheduling large-scale projects at the facility.
- Consulting with operators and guiding process change decisions.
- Hiring, firing, and promoting employees.
- Preparing, signing, and submitting monthly and annual reports.
- Planning capital improvement projects and coordinating with the client.
- Directing emergency responses.
- Attending client board meetings.
- Ensuring that the project operates to regulatory and corporate standards.
- Negotiating 'Out of Scope' agreements to expand services provided.

Part-Time Instructor

06/2023 - Current

Umpqua Community College, Roseburg OR

- Assembling online course material related to water and wastewater treatment.
- Responding to questions from students to further their understanding.
- Grading assignments and exams and providing feedback.
- Recording video lectures.
- Attending part-time instructor meetings.
- Adhering to rules protecting student identities and preventing harassment.



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Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: Alternative to Gravity Sewer - Pressure Sewer

Presenter: Chris Bennett Title: _____

Employer: Correct Equipment Address: _____

City: 300 S Redwood St State: OR Zip: 97013 Phone: 541.233.3114

Summary of Lesson content: The Industry Misunderstanding of Low-Pressure Sewer: Flow Study and Analysis of Gravity vs Low Pressure Collection Systems

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

Primary Knowledge/Skills/Abilities related to presentation: Channel Partner / Distributor for E-ONE low pressure sewer :
Have worked in the water/wastewater industry for 5 years.

Education (High School, Upgrades, Colleges and Degrees): HS Diploma (some college - no degrees)

Professional Registration/Certification: Attended E-One University in New York

Related papers/instruction you have presented:

Title: _____ Date: _____ Event: _____

Title _____ Date: _____ Event: _____

Professional Organizations/Activities: _____ Date: _____

_____ Date: _____

Course sponsor: Correct Equipment Inc.

Signature of Instructor: Chris Bennett Date: 07-23-2025

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CROSS CONNECTION SPECIALIST UPDATE COURSE COURSE OUTLINE AND AGENDA

Course Description

The course is intended to provide the currently certified cross connection control specialist with the information required for renewal of their Cross Connection Specialist certification from the State of Oregon, Oregon Health Authority, Cross Connection/Backflow Prevention Program. This course is also applicable to water distribution operators and water treatment operators to understand the hazards associated with cross connections to the public water supply and to meet Drinking Water Services Oregon Administrative rules for establishing and maintaining cross connection control programs within their water systems.

Objective

This course is also designed to meet the regulatory agency requirements for renewal as specified under Oregon Administrative Rules or for an individual certified as a Specialist in another state to apply for certification in Oregon through the OHA reciprocity rules. This is an update course designed to review rule changes, testing procedures and safety awareness. Current issues, industry standards and trends are presented to keep specialists up to date. Questions and discussions about unique situations are encouraged.

Instructors

- Garrett Yates
- Ray Johnson

Target Audience

1. Cross Connection Specialists renewing their OHA-issued certification.
2. Cross Connection Specialists from other states applying for Oregon Specialist certification under reciprocity rules in Oregon.
3. Plumbers and plumbing inspectors needing to update their knowledge about cross connection control, survey techniques and testing requirements.
4. Water distribution managers and water treatment operators to understand the hazards associated with cross connections to the public water supply and to meet rules for establishing and maintaining cross connection control programs within their water systems.

“BMI is dedicated to the pursuit of clean, safe drinking water through education”

17752 NE San Rafael Street • Portland, OR 97230
503-255-1619 • 800-841-7689 • Fax: 503-255-1220
bmi@bmibackflow.com • Website: www.bmi-backflow.com

Text manuals and materials

- Chapter 6, “Water Supply and Distribution”, *Uniform Plumbing Code*, Int’l Assoc. of Plumbing and Mechanical Officials, current Oregon adopted Edition.
- Hand-out of current state regulations and cross connection control requirements as specified by the regulatory agency, OHA.
- Overhead projection of text materials, samples of various backflow prevention assemblies and devices, posters of assemblies as schematics and also under operating conditions with failures illustrated.
- “Summary of Backflow Incidents”, PNWS-AWWA, and other current backflow incident documentation.
- Available reference materials: USC Manual of Cross Connection Control, 10th Edition; Backflow Prevention Theory and Practice University of Florida TREEO; Recommended Practice for Backflow Prevention and Cross Connection Control M14 AWWA; Cross Connection Control Manual 7th Edition, PNWS-AWWA; and Cross Connection Control Manual EPA.

Course Agenda - 8:00 AM to 5:00 PM, 1 hour lunch, 2 – 15-minute breaks

1. Discussion and review of current federal, state and local regulations as they apply to cross connection specialists and backflow assembly testing. Handout of most current OHA Administrative Rules. **1 Hour**
2. Discussion and review of recent backflow incidents, survey techniques, specialist safety and current topical issues and trends in the industry. **1 Hour**
3. Review of state requirements such as cross connection control ordinances, written program plans, water system annual fees and annual summary reports. **1 Hour**
4. Question and answer period to address student experiences and concerns. **1 Hour**
5. Discussion of customer relations, preparing staff to understand and answer customer questions. Discussion about public education materials and distribution options. **1 Hour**
6. Review of new industry information, current test procedures, backflow products and approvals. Discussion on managing a quality assurance/quality control tester program. **1 Hour**

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GARRETT YATES

Garrett Yates has been with BMI since 1993 where he has served clients, customers and students throughout the country. As Manager of the cross connection and backflow division of BMI, Garrett works in the office, classroom, workshop and out in the field. He keeps his field experience current by providing backflow assembly testing services, conducting field surveys, and managing cross connection control programs of all sizes for BMI clients in the Pacific Northwest and beyond.

Garrett delivers educational trainings for BMI and a variety of partner organizations. He also trains at seminars and conferences both locally and throughout the nation. His customer service skills and ability to present information have resulted in excellent pass rates for his students. Garrett is also called upon as a speaker, presenter and panel member. He was recently named the Subject Matter Expert on backflow at the Association of Boards of Certification 28th Annual conference.

EDUCATION

- Backflow Assembly Tester Certification, Oregon and Washington – BMI
- Cross Connection Specialist Certification, Oregon and Washington – BMI

CERTIFICATION

- Cross Connection Specialist and Instructor, Oregon and Washington
- Backflow Assembly Tester and Instructor, Oregon and Washington
- ABPA-Certified Backflow Assembly Tester
- ABPA-Certified Proctor for Backflow Assembly Testers
- Approved Test Gauge Calibrator, Oregon
- Labor & Industries Plumber Certification / Backflow Specialty License, Washington

PROJECTS

- Environmental Protection Agency (EPA) and Indian Health Services
Garrett was responsible for the Safe Drinking Water Act and Cross Connection Control Program implementation on over 25 Native American Tribal lands in the Pacific Northwest. Some of these services included:
 - Writing sampling plans
 - Sample collection
 - Review of results
 - Addressing compliance issues
 - Emergency Response Planning
- Material Preparation and Trainings – Washington State (2002 - present)
BMI and Evergreen Rural Water of Washington have partnered to create presentations and trainings for over 25 different classes that serve to assist students in fulfilling their certification requirements.

PROJECTS, Continued

- **Material Preparation and Trainings – Idaho Department of Environmental Quality**
The State of Idaho, BMI, and Idaho Rural Water Association teamed up to prepare and present several different classes to assist operators in fulfilling their new certification requirements.
- **Material Preparation and Trainings – California (2010 – present)**
BMI teaches Backflow Assembly Tester Certification and Recertification classes, as well as Confined Space Entry Safety trainings through California Rural Water Association.
- **Native American Tribal Trainings – EPA**
BMI and ERWoW partnered to work with Native American Tribes throughout Region 10 on training, compiling and implementing Emergency Response Plans.

RECENT PUBLICATIONS

- “Face Time – A Skill Worth Learning”, *IAPMO Drinking Water & Backflow Prevention Magazine*, 2014

ORGANIZATION MEMBERSHIPS

- American Backflow Prevention Association
- Oregon Chapter of the American Backflow Prevention Association; President 2001-2002
- Evergreen Rural Water of Washington
- Oregon Association of Water Utilities
- Pacific Northwest Section, American Water Works Association

Gerald Fejarang, PE

Client Service Leader

Gerald has 30 years of engineering experience specializing in wastewater systems, operations, maintenance, and master planning. He began his career working for the Sacramento Regional Wastewater Plant's Operations and Maintenance (O&M) Support team. Since then, he has served as project manager or project engineer for a variety of water and wastewater projects, including evaluations, feasibility studies, and master plans, as well as preliminary and detailed designs for treatment, storage, conveyance, and distribution facilities. His experience extends to construction management, start-up and commissioning, O&M engineering, reliability engineering, and implementation of utility management elements for O&M organizations. Gerald was part of several capital projects that required Environmental Impact Studies prior to delivering the projects

Prior to CDM Smith

Reliability Lead, Reliability-Centered Design (RCD) Switchgear Replacement, Delta Diablo Sanitation District, Antioch, California, Gerald led the team in conducting a 6-hour reliability design review for Delta Diablo's Treatment Plant Electrical Switchgear Replacement Project. The review included the chief plant operator, lead electrical technician, the District's project manager, the electrical design consultant, and the team's electrical design expertise to review the design collaboratively. Used the failure mode effects and criticality analysis to fully document the design review for 48 total assets and the associated one-time opportunities relative to design and/or O&M tasks to meet the reliability objectives defined by the District.

Project Manager, Laguna Treatment Plant (LTP) Business Risk Vulnerability Analysis (BRVA), Subregional Facility On-Call Services Contract, City of Santa Rosa, Santa Rosa, California, The LTP is a key facility within the Santa Rosa Regional Water Reuse System (RWRS), serving approximately 230,000 residents in Santa Rosa and surrounding areas. The plant processes and cleans sewage from residential and business customers, recycling about 20 mgd. This treated water is reused for agricultural and urban irrigation, as well as for recharging the Geysers steam fields to produce clean, renewable energy. Due to normal plant wear and tear, increasing demand to optimize the total cost of ownership, and management's objective to understand the inherent risks associated with the LTP, the City requested that Gerald collaboratively lead a BRVA with key City engineering and O&M staff. The goal was to collect information on the current condition of assets and business practices. Gerald facilitated O&M-centered workshops, resulting in a risk profile of the treatment facilities. The profile leveraged the institutional knowledge of O&M, engineering, and management, along with staff-driven solutions to address large and small problems impacting the overall performance of the facilities. These efforts provide reliable treatment and safe delivery of recycled water to customers, supporting the largest energy sustainability initiative. This information will be the backbone for future integrated subregional facilities master planning efforts.

Project Manager, Geysers Recharge System (GRS) BRVA, Subregional Facility On-Call Services Contract, City of Santa Rosa, Santa Rosa, California, The GRS is a pioneering project that has been operational since 2003. It involves pumping approximately 20 mgd

Education

BS – Civil Engineering,
California State
University, Sacramento

Registration

Professional Civil
Engineer: California
#61346

of recycled water from the LTP to the Geysers steam fields via a 41-mile pipeline. The recycled water is used to replenish the geothermal reservoir at the Geysers, which generates clean, renewable electricity for about 100,000 households in Sonoma and other North Bay counties. Aside from energy generation, the GRS is a crucial asset to the City because it helps to reduce treated effluent discharge into the Santa Rosa Creek during the summer months.

Gerald served as project manager two separate BRVA workshops with key City engineering and O&M staff to collect information on current conditions of assets and business practices for the GRS. The collaborative BRVA workshops resulted in a risk profile of the conveyance, critical valve stations, and pumping facilities that was produced by leveraging O&M, engineering, and management institutional knowledge, and staff-driven solutions to solve large and small problems that are impacting the overall performance of the facilities to reliably deliver recycled water to sustain the largest energy sustainability project in California. This information will serve as the backbone for the future integrated subregional facilities master planning efforts.

Project Manager, RCD and RCM Implementation for Questa Water Regulatory Project, Chevron Questa Mine, Taos County, New Mexico. Chevron Mining constructed a state-of-the-art water treatment plant to support the Questa Mine Site in Taos, New Mexico. This project supported the treatment of water from surface runoff, influent streams, and water collected by wells near the Red River. Project provided Reliability Centered Design and created an asset management program. Serving as Project Manager, oversaw execution of scope of work, which included:

- Asset and location hierarchy development RCM
- Mechanical integrity/risk-based inspection (MI/RBI)
- PM and job plan development
- Repair procedure development
- Spare parts analysis
- CMMS configuration enhancement and upload support
- O&M training on maintenance strategy

Sacramento, California. In September 2022, the District experienced a water main leak in a residential neighborhood. Despite SSWD's quick response, an 8" PVC water main caused enough damage that 11 properties had water shut down for 11.5 hours, 3 vehicles were damaged, and around 365,000 gallons of water were lost. SSWD had to repave a large portion of the affected road. To reduce the frequency of such incidents, SSWD identified Main Replacement Areas within their Distribution Asset Management Plans. These areas aim to replace pipes with similar age or materials within an 8-mile radius to keep costs low and maximize efficiency. The Butterball Main Replacement Area, which included the street with the break, was initially ranked low in priority. However, after the break, SSWD worked with Gerald to use VODA.ai's machine learning engine to identify vulnerable locations and predict pipe failures more accurately. This proactive approach has significantly improved their capital planning, by identifying high-risk areas and predicting 40% of 2023 failures within the top 1% of pipes likely to fail.



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Course sponsor: _____

Signature of Instructor: _____ Date: _____

DO NOT WRITE BELOW THIS LINE

Date Evaluated: _____ By: _____ Approved: Yes _____ No _____

Return Completed Form To: OESAC CEU COMMITTEE
P.O. Box 577
Canby, OR 97013-0577

Email: info@oesac.org
Phone: 503-698-6486

Jacob Lovin is an accomplished sales professional with a proven track record of driving exceptional business growth and delivering impactful results across diverse industries. With extensive experience spanning sales management, engineering, and project management, Jacob brings a dynamic perspective to building customer relationships and fostering revenue growth.

Currently serving as the Regional Engineer for McWane Ductile, Jacob Lovin works with municipalities and engineering firms to develop and implement portable and wastewater infrastructure throughout the western United States.

Jacob Lovin is an Engineering graduate from the University of Missouri-Columbia and an MBA recipient from the University of Arizona with a focus on Management Information Systems, Cybersecurity, and Entrepreneurship. Jacob Lovin combines technical expertise with innovative leadership.

As a conference speaker, Jacob Lovin brings invaluable insights into market development, customer relationship management, and strategic sales growth. Attendees can expect an engaging session filled with actionable strategies and lessons from throughout his career.



Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: _____

Presenter: _____ Title: _____

Employer: _____ Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Summary of Lesson content: _____

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

Primary Knowledge/Skills/Abilities related to presentation: _____

Education (High School, Upgrades, Colleges and Degrees): _____

Professional Registration/Certification: _____

Related papers/instruction you have presented:

Title: _____ Date: _____ Event: _____

Title _____ Date: _____ Event: _____

Professional Organizations/Activities: _____ Date: _____

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Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: Modernizing SCADA: Architecture and Strategic Planning for Utilities

Presenter: Jeff Hesse Title: Principal Technical Specialist

Employer: West Yost Address: 5 Centerpointe Drive, Suite 130

City: Lake Oswego State: OR Zip: 97035 Phone: 916-306-2218

Summary of Lesson content: Understanding the components of a Supervisory Control and Data Acquisition (SCADA) system, how they work together, and the key considerations utilities must address when planning system improvements in 2025.

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

Primary Knowledge/Skills/Abilities related to presentation: Water and Wastewater Process Control Theory & Automation, Industrial Cybersecurity, Design & Integration, Programming, Data Analysis, Troubleshooting & Diagnostics

Education (High School, Upgrades, Colleges and Degrees): Bachelor of Science, Civil Engineering, Iowa State University, Ames, Iowa

Professional Registration/Certification: Professional Engineer (Oregon), Global Industrial Cyber Security Professional (GICSP), GIAC Response and Industrial Defense (GRID)

Related papers/instruction you have presented:

Title: Unlocking the Flow: SCADA-Powered Knowledge Retention for Efficient Flow Management Date: 5/2/2024 Event: PNWS AWWA Conference (Spokane, WA)
Title: Real-World Impacts of Cyberattacks: Hacking Demonstration and Risk Mitigation Discussion Date: 4/19/2018 Event: CWEA Conference (Sacramento, CA)

Professional Organizations/Activities:

American Water Works Association / Pacific Northwest Section Date: _____

National Society of Professional Engineers / Professional Engineers of Oregon Date: _____

Course sponsor: West Yost

Signature of Instructor:  Date: 6/20/2025

DO NOT WRITE BELOW THIS LINE

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Phone: 503-698-6486

OESAC Course Application Form

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Phone: (503)698-6486

Email: info@oesac.org • Web: http://www.oesac.org

Course title: _____

Instructor(s): _____

Location(s): _____

Date(s): _____

Requested CEUs (1 hour class time = .1 CEU; do not include time for breaks, lunch): _____

Does this course promote a product or apparatus or offer such to those attending? Yes No

If YES, this must be explained on a separate attachment to this application and disclosed

Has this course been through OESAC review before? Yes No

If Yes, CEUs approved: DW: _____ WW: _____ O2-I: _____ O2-SP: _____

Course Format: Lecture Home Study Computer One Time Class Recurring

Recurring Dates: _____

Training Objective: _____

Target Audience: _____

Method of Tracking Attendance: _____

Course contact name: _____

Address: _____

City, State, Zip: _____

Course contact phone: _____

Course contact fax: _____

Course contact email: _____

Sponsor: _____

Address: _____

City, State, Zip: _____

Contact: _____

Sponsor phone: _____

Sponsor fax: _____

Sponsor email: _____

Enclosed: Instructor Biography Course Brochure
(check as appropriate) Course Agenda Amount enclosed: _____
Course Timeline Check #: _____

Do you want the course to be listed on the OESAC website as "closed to registration"? Yes No

If you want to list newly scheduled classes from an already approved course, you must send the new schedule to OESAC.



Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: Medford RWRP Tour

Presenter: Johnny Leavy Title: Water Reclamation Division Manager

Employer: City of Medford Address: 1100 Kirtland Road

City: Central Point State: OR Zip: 97502 Phone: 541-774-2750

Summary of Lesson content: Provide a verbal overview of planned facility expansion during a 45-min bus ride, plus a 90-min tour of a TF/AS secondary treatment facility.

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

Primary Knowledge/Skills/Abilities related to presentation: 20-years of experience operating/maintaining several facilities in OR & WA. 5+ years at current facility, provide tours to groups regularly for public outreach.

Education (High School, Upgrades, Colleges and Degrees): HS Grad 1995, AAS Industrial Electronics 2000.

Professional Registration/Certification: Oregon DEQ: Grade IV WW-T, Grade II WW-C

Related papers/instruction you have presented:

Title: Nutrient Jeopardy in the Rogue Date: 17-Jul-2025 Event: ACWA Annual Conference, Bend OR

Title: Compliance Pitfalls Date: 30-May-2025 Event: Cascade to Coast, Albany OR

Professional Organizations/Activities: Oregon Association of Clean Water Agencies (Co-Chair of Pretreatment Comm.) Date: 2018-2020

Oregon Association of Clean Water Agencies (Vice Chair) Date: 2023-Current

Course sponsor: NA

Signature of Instructor: [Signature] Date: 22-JUL-2025

DO NOT WRITE BELOW THIS LINE

Date Evaluated: _____ By: _____ Approved: Yes _____ No _____

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Email: info@oesac.org
Phone: 503-698-6486



Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: _____

Presenter: _____ Title: _____

Employer: _____ Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Summary of Lesson content: _____

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

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Professional Registration/Certification: _____

Related papers/instruction you have presented:

Title: _____ Date: _____ Event: _____

Title _____ Date: _____ Event: _____

Professional Organizations/Activities:

_____ Date: _____

_____ Date: _____

Course sponsor: _____

Signature of Instructor: _____ Date: _____

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Instructor Background And Information Form

Thank you for filling out this form.

Presentation Title: _____

Presenter: _____ Title: _____

Employer: _____ Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Length of Lesson: _____ Lesson applies to: Water Wastewater Both Online Option:

Summary of Lesson content: _____

Professional Background: (Note a brief - 2 page maximum - resume may be submitted in lieu of the following data. Please be sure the resume includes all requested information. Qualifications should be related to your presentation.) Use the reverse side of this form if more room is needed to fully answer the following questions.

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Professional Registration/Certification: _____

Related papers/instruction you have presented:

Title: _____ Date: _____ Event: _____

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Professional Organizations/Activities:

_____ Date: _____

_____ Date: _____

Course sponsor: _____

Signature of Instructor: _____ Date: _____

DO NOT WRITE BELOW THIS LINE

Date Evaluated: _____ By: _____ Approved: Yes _____ No _____

Medford RWRP Plant Tour Narrative:

The RWRP provides wastewater treatment service to the cities of Medford, Central Point, Jacksonville, Talent, Phoenix, and Eagle Point as well as the areas served by Rogue Valley Sewer Services (RVSS). RVSS is responsible for the interceptor sewer system and for wastewater collection for the cities of Talent, Phoenix, Jacksonville, Central Point, Eagle Point, unincorporated areas, and the White City Sanitary District. The City of Medford is responsible for most of the collection system within its boundaries but contracts with RVSS for some smaller areas.

The RWRP includes liquid treatment facilities, solids treatment facilities, and a cogeneration system. The liquid treatment facilities include an influent diversion structure (provided for catastrophic events, influent screening at the headworks facility, aerated grit removal, primary sedimentation, biological treatment, and secondary clarification. The biological treatment facilities consist of a trickling filter and a suspended growth activated sludge process. Secondary effluent from the RWRP is disinfected using chlorine, then dechlorinated prior to discharge to the Rogue River through an outfall diffuser.

Solids from the primary sedimentation tanks are pumped directly to the anaerobic digesters. Wastewater solids from the activated sludge treatment system are thickened prior to being treated by anaerobic digestion. Digested solids are further stabilized in the sludge lagoons. Every spring, biosolids from the sludge lagoons are spread onto drying beds. Dried biosolids are hauled to the landfill for disposal. Biogas produced from the digesters is treated and used to power a cogeneration (heat and power) system.

Facility improvements are needed to address regulatory requirements, increase the capacity of existing facilities, and improve conditions of existing facilities.

The reach of the Rogue River that receives discharge from the RWRP is listed by Oregon Administrative Rule (OAR) 340-041-0271 including both public and private domestic water supplies, salmonid spawning and rearing, fishing, and water contact recreation. Additionally, the Rogue River has a cool water species fish designation. The 2022 DEQ integrated report on water quality shows that the reach of the Rogue River that receives discharge from the RWRP is water quality limited for:

- Temperature – Year-round Category 5
- Temperature – Spawning Category 5
- Methylmercury – Human Health Criteria Category 5
- Biocriteria – Category 5

To date, DEQ has developed a TMDL to address the identified temperature impairment. This TMDL includes an allocation of a fixed temperature rise of 0.1772°C for the RWRf. Other TMDLs are under development. The federal court has ruled that the natural thermopotential water quality criteria is not legal and needs to be replaced by the numeric water quality criteria. DEQ is revising the TMDL. Considerable evaluation of the Rogue River in the vicinity of the RWRf discharge has also been completed by private parties, DEQ, and the City related to the biocriteria impacts from the discharge. As a result of these activities, the RWRf Permit includes specific nutrient limitations related to addressing the influence of the discharge on biocriteria of the Rogue River. Because the RWRf was not designed to remove nutrients, addressing these nutrient requirements is one of the key drivers for the improvements identified in this Facilities Plan.

Most of the existing RWRf facilities will be incorporated into the required plant modifications. Some of these facilities will require improvements to increase their capacity. Moreover, many of the structures and equipment that will remain in service will require condition-related improvements. To evaluate these needs, a condition assessment has been completed for the RWRf. The projects identified through the condition assessment will either be completed as part of the Capital Improvement Program or as part of the City's maintenance activities under the overall Wastewater Program.



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RAMON L. JOHNSON

BACKGROUND

Ramon (Ray) Johnson has worked with BMI since 1993 as an instructor and consultant. While his focus has been training Cross Connection Specialists and Backflow Assembly Testers, he has also taught on a variety of drinking water-related topics for small water systems. Ray has worked directly with BMI and water purveyors in their efforts to maintain safe drinking water. Ray's experience includes working as a Utilities Superintendent for the largest private water and waste water company in Oregon, supervising water operations, cross connection control and safety programs. Ray managed the cross connection program for the City of Redmond for eleven years and is currently employed as the Water Distribution Manager for the City of The Dalles.

Ray is an OHA, AWWA and ASSE Certified Cross Connection Control Instructor and teaches nationwide for certification as well as teaching Backflow Assembly Tester safety courses and speaking on additional related topics. He is an active Backflow Assembly Tester and Cross Connection Specialist, as well as a Certified Gauge Calibrator.

EDUCATION

- Machinist, Lane Community College, Eugene, Oregon
- Mechanical Design, Long Beach City College, Long Beach, California

CERTIFICATIONS

- Water Distribution Systems Operator, Grade WDII, State of Oregon
- Cross Connection Control Specialist and Instructor, State of Oregon
- Backflow Prevention Assembly Tester and Instructor, State of Oregon
- Approved Test Gauge Calibration, State of Oregon
- OHA-Approved Instructor

MEMBERSHIPS

- American Backflow Prevention Association (ABPA)
- American Water Works Association (AWWA)
- Pacific Northwest Section Cross Connection Control Committee (PNWS-AWWA)
- Oregon Cross Connection Specialists Regional Subcommittee (OCCSRS)

PROJECTS

Material Preparation and Trainings – Washington State (2001 – present)

Assists in developing and delivering presentations and classes on more than 25 SDWA topics to assist small system operators in fulfilling their certification requirements.

BMI is dedicated to the pursuit of clean, safe drinking water through education.

17752 NE San Rafael Street • Portland, OR 97230
503-255-1619 • 800-841-7689 • Fax: 503-255-1220
Email: bmi@bmibackflow.com • Website: www.bmi-backflow.com



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_____ Date: _____

Course sponsor: _____

Signature of Instructor: Robert H West Date: _____

DO NOT WRITE BELOW THIS LINE

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