Oregon Association of Clean Water Agencies (ACWA) Application for Wastewater CEUs for a biosolids management workshop June 9, 2026 entitled:

2026 ACWA Best Practices in Biosolids Management Workshop

Wastewater CEUs requested: A total of 4 hours of instruction are programed, excluding breaks and lunch, which equates to .4 Wastewater CEUs requested.

This document includes the information required to demonstrate eligibility for general CEUs, including: 1) the educational need for the program provided; 2) the learning outcome for attendees; 3) an expanded program including a description of the course content and importance to wastewater management professionals; 4) the qualifications of the instructors; 5) the time schedule; and 6) the method of tracking attendance.

Educational Need and Learning Goals:

ACWA periodically convenes a Best Practices in Biosolids Management workshop to update wastewater management professionals across the state on current issues and trends impacting their work to manage successful, sustainable biosolids programs in compliance with federal and state requirements. The last one was in 2017 and CEUs were approved for the entire program. The goal of this workshop is to increase the knowledge and understanding of wastewater and biosolids program managers, engineers, operations professionals, and utilities management staff regarding the regulations, new water quality challenges and issues of concern, new/emerging technologies, operational controls, sustainable land application and composting practices, and communication needs for partnering with cooperative farmers/land owners.

The course emphasizes science-based information on benefits and risks related to operating biosolids land application and composting programs, and on the methods employed to minimize risks and optimize the resource value of biosolids. It also focuses on regulatory compliance and best management practices to meet pollution reduction objectives. The course also educates attendees regarding emergent issues and challenges that must be addressed through adaptive management or source reduction activities, such as PFAS and microplastics concern.

A variety of research scientists, technical experts and experienced practitioners are included in the program as speakers/instructors. The workshop will be convened in person at the City of Salem Public Library.

Method of Tracking Attendance for CEU Certification:

All attendees wishing CEUs will be required to sign a CEU registration and certification roster for the sessions, which will be attended by a conference logistical coordinator. ACWA will monitor attendance and the roster and will sign and maintain the roster as required.

Course Outline (Program), Instructor Information, and Time Schedule:

2026 ACWA Best Practices in Biosolids Management—Tuesday, June 9, 2026: 9:30 am to 4:30 pm; with a 75-minute lunch break and morning/afternoon breaks totaling 35 minutes.

9:30 am	**Welcome & Introductions:** Frank Dick, Chair, Mark Cullington, Vice-Chair, Biosolids and Recycled Water Committee
9:40 am	**The Beauty of Biosolids: Healthier Soil, More Productive Farms, and Support for Environmental Resilience** …Sally Brown, PhD, University of Washington Session description and relevance to wastewater professionals: Dr. Brown will discuss why biosolids are so beneficial for soils and plants (and the atmosphere). While there may be some debate on this in the general public, soils and plants have reached consensus. Dr. Brown will provide research findings from several recent studies on the impacts of biosolids on soil health and carbon sequestration. These studies have repeatedly shown that biosolids improve soil fertility, physical properties and health, and that plants respond well to biosolids. It is important for wastewater personnel to understand this information so they are well-equipped to discuss the properties and benefits of biosolids to prospective farmers, elected officials, and the general public. It is also important for them to understand that biosolids land application is not about disposal, it is about recovering a resource and putting it to beneficial use. Instructor information: Dr. Brown is a research professor at the School of Environmental and Forest Sciences at the University of Washington. Her research focuses on different aspects of the use of biosolids and composts including risks associated with contaminants, in situ restoration of contaminated sites, carbon balance for different end use options, and integration of residuals use in green urban infrastructure. She has a BA from Williams College in Massachusetts and an MS and PhD in Soil Science from the University of Maryland.
10:10 am	**Setting the Bar: Biosolids Leading Best Management Practices** …Maile Lono-Batura, Director of Renewable Resources, CA. Association of Sanitation Agencies Session description and relevance to wastewater professionals: Ms. Lono-Batura will discuss the foundational actions that have shaped the course of clean water management and have elevated (and sometimes targeted) the role of recovered resources. She will review the actions that created the national biosolids rule, including:

	• U.S environmental movement to protect water • USDA multi-state research team established to inform the original Part 503 rule and continuous research on both the environmental impacts and benefits of biosolids • Iterative reviews built into regulatory policies • Biosolids as the original influencer on best management practices • Role of support networks built into beneficial use opportunities It is important for wastewater personnel to understand the regulations in place to ensure that land application practices are protective of the environment, the public, workers, and farming partners. This is not only important for operations purposes, but also for staff to be able to communicate accurately about the regulatory parameters in place based on scientific assessment of risks and federal establishment of required risk mitigation measures. <u>Instructor information:</u> Maile Lono-Batura is the Director of Renewable Resources for the California Association of Sanitation Agencies (CASA). In this role, she works closely with CASA's Air/Climate/Energy Director to synchronize advocacy efforts that bolster the role of bioresources in creating a circular resource society. She was previously the Director of Sustainable Biosolids Programs at the Water Environment Federation (WEF) after her 22 year career as the Executive Director of Northwest Biosolids. Maile has a Bachelors degree in Community and Environmental Planning from the University of Washington and a Masters degree in Non-profit management from Seattle University.
10:40 am	**Break**
11:00 am	**PFAS Challenges for Biosolids Management Programs:** • The Role Biosolids has Played in Shaping the National PFAS Conversation …Maile Lono-Batura, California Association of Sanitation Agencies • What We've Learned in Washington and What it Means …Sally Brown, PhD, University of Washington • Oregon's Strategic Actions to Support Biosolids Programs …Susie Smith, Stony Creek Consulting …Rachel Golda, PhD, Operations Analyst, Clean Water Services • Panel Q and A <u>Session description and relevance to wastewater professionals:</u> Per- and Polyfluoroalkyl substances (PFAS) are of growing concern to wastewater utilities and municipal biosolids programs in particular. Biosolids have come under fire from environmental organizations, and some states have enacted legislation either restricting or banning biosolids land application. It is important for wastewater utilities to understand the regulatory landscape and current scientific research so they can make well-informed biosolids program management

	decisions and accurately communicate biosolids benefits and PFAS exposure risks with their farming partners. This panel of four speakers will provide an overview the current federal picture, a summary of findings from the biosolids/PFAS study in Washington State, a status of the Oregon research study currently underway, and a case study of how one Oregon jurisdiction has successfully traced PFAS in their wastewater system and worked with industrial dischargers to eliminate PFAS sources from their waste streams. <u>Instructor information:</u> The instructors' information for Maile Lono-Batura and Dr. Sally Brown is provided above. Susie Smith has worked for local governments in Oregon for nearly 40 years, focusing on water, energy, land and infrastructure planning, management, policy development and regulatory compliance. She worked for the City of Springfield, 23 years in various capacities, including Environmental Services Manager, General Manager for the Eugene-Springfield Metropolitan Wastewater Commission, and Public Works Director. Susie founded Stony Creek Consulting to support local governments in addressing water quality and infrastructure challenges and climate resiliency. She served from 2016 to 2023 as the Executive Director of the Oregon Association of Clean Water Agencies (ACWA). She currently maintains contracts with ACWA and other clients that are primarily focused on water quality toxics issues, sustainable water quality management strategies, and statewide water quality policy issues. Smith has a BS in Conservation of Natural Resources from the University of California at Berkeley, and an MS in Urban and Regional Planning from the University of Oregon. Dr. Rachel Golda is a researcher at Clean Water Services in Oregon, where she leads the Emerging Contaminants group. Her work focuses on real-world water challenges like PFAS, microplastics, and algal toxins, with the goal of improving water quality in the context of wastewater engineering. She has over 15 years of experience in applied research and holds M.S. and Ph.D. degrees in Environmental Science and Engineering from Oregon Health & Science University. She's also active in the water sector through organizations like Water Environment Federation and the Oregon Association of Clean Water Agencies.
12:00 pm	**Lunch Provided** Lunch Discussion Topics: What are you proud of in your work? What are the issues, challenges, and goals for your biosolids program? What are your ideas for expanding beneficial uses of biosolids in Oregon? What should the ACWA BRWC prioritize to help?
1:15 pm	**What Your Farming Partners Want You to Know** … Randy Hilderbrand, Wasco Wheat Farmer … Bill Starns, Douglas County Grass farmer … Paul Vandegrift, General Manager, Eichler Brothers Farm, McMinnville

	Session description and relevance to wastewater professionals: Maintaining trust and cooperative relationships with farming partners is critical to the long-term sustainability of biosolids land application programs, and is therefor very relevant to wastewater personnel. In this session, attendees will hear directly from three farmers from different parts of the state. These farmers have been partnering with local municipalities for many years and will share what is important to them in maintaining the partnership. They will be asked to discuss coordination and communications issues, site access and logistics, operational issues, data about the biosolids being applied, among other things. Instructor information: Randy Hilderbrand—After attending Portland Community College and Oregon State University with emphasis on Agricultural Engineering Technology, Randy spent the early part of his career working in Salem in various capacities, including as Chief of Staff and Senior Policy Advisor for Oregon Legislators, and as a supervisor with the Bureau of the Census. He returned to Sherman County to operate the family's Century Farm in 2009 as the fourth generation. Bill Starns--After 20 years of teaching high school in California, Bill Starns bought his farm near Roseburg in 1987, and began to raise exotic birds, cattle, and pasture grass. He has been a cooperative farming partner of the Roseburg Urban Sanitary Authority for the past 20 years, land applying Class B biosolids annually. Paul Vandegrift—Paul is the General Manager for Eichler Brothers Farm outside of McMinnville. After graduating from Yamhill Carlton high school, Paul worked as a diesel mechanic for seven years and in 2019 he went to work for Eichler Brothers in Amity, Oregon, where he learned the farming business alongside his wife's family. They grow hazelnuts, tall fescue, red clover, and an assortment of other specialty seed crops. They have been receiving McMinnville's biosolids for the past 15 years.
1:45 pm	**Successful Communications for Sustainable Biosolids Land Application Programs** • Communicating the Risks and Benefits of Biosolids …Sally Brown, PhD, University of Washington • Sustaining Relationships with the New Generation of Farmers …Jared Kinnear, Resource Recovery Division Manager, Clean Water Services Session description and relevance to wastewater professionals: This panel will provide part two of the presentations related to communications and relationships with farmers, as well as elected officials and the general public. Dr. Brown's focus will be on how to talk about the benefits of biosolids and address concerns regarding the potential presence of PFAS, stressing the importance of respect for the audience and listening to their questions and concerns. Jared Kinnear will provide a case example of how Clean Water Services

	has been successful for many years in maintaining long-term partnerships with farmers. <u>Instructor information:</u> The instructor information for Dr. Brown is provided above. Jared Kinnear is the Resource Recovery Division Manager at Clean Water Services, where he oversees recycled water and biosolids programs, the agency's water rights portfolio, composting programs, and natural treatment systems. His work focuses on integrating regulatory compliance, system performance, and operational practicality across water, wastewater, and resource recovery programs. Jared brings extensive experience managing complex environmental programs and collaborating with operators, regulators, and partner agencies to advance sustainable and resilient infrastructure solutions. Jared holds a Bachelor of Science degree in Natural Resources Conservation from the University of Montana in Missoula. He also has professional certifications in Wetland Sciences and River Restoration from Portland State University.
2:15 pm	**Getting Agronomic Rates Done Right!** … Steve Wilson, CPSS, Brown and Caldwell <u>Session description and relevance to wastewater professionals:</u> Agronomic rates for biosolids land application are a fundamental management tool for ensuring positive crop yield response while minimizing potential for nitrate leaching loss. Nitrogen transformations in biosolids-amended soil are biologically mediated and vary with site conditions. This session will describe the nitrogen cycle in soil and factors that can affect nitrogen availability. Regulatory policy and calculations will be explained, and literature references will be provided. Every biosolids manager should understand the basis and principles behind calculating agronomic rates, even when contractors provide fieldwork, to make sure that regulatory compliance is achieved at the same time as beneficial use goals are met. <u>Instructor information:</u> Steve Wilson is a certified professional soil scientist (CPSS). He's had a long career with Brown and Caldwell Engineers working on biosolids land application projects nation-wide. He began his career at DEQ in 1979, where he developed guidance for biosolids land application in advance of federal regulation. After leaving DEQ in 1981, he was a private consultant for 10 years, before joining Brown and Caldwell. Steve holds a Bachelors degree in Environmental Science from Whitman College in Walla Walla, Washington, and a Master of Science degree in Soils from Washington State University.
2:45 pm	**Break**

3:00 pm	**Key Issues, Challenges, and Opportunities for Improving Biosolids Beneficial Land Application Programs in Oregon** • Through the Lens of the Regulators …Pat Heins, Biosolids and Recycled Water Coordinator, DEQ …Tim Ruby, DEQ • Words of Wisdom from Your Consultants …Mark Cullington, PhD, PMP, Client Service Director, Kennedy Jenks …Steve Wilson, CPSS, Brown and Caldwell • Municipal Perspectives …Cindy Ryals, Resource Recovery Program Manager, City of Portland <u>Session description and relevance to wastewater professionals:</u> This session will bring together regulators, consultants, and municipal biosolids program managers to share critical information that is important for wastewater utilities to understand and avoid pitfalls and prepare for the future. DEQ staff will discuss what they see as developments on the regulatory horizon, key issues consultants and biosolids program managers and operators need to pay attention to to maintain compliance, and their perspectives on public perceptions about biosolids safety. Consultants will share the wisdom they've gained through decades of experience working with municipalities and the DEQ, and finally, Portland staff will share the issues and concerns they're anticipating as they look to the future of the largest generator of municipal biosolids in the state. In other words, this session will help forge a common understanding in an effort to support municipalities in managing successful programs now and in the future. <u>Instructor information:</u> Pat Heins joined the Oregon Department of Environmental Quality (DEQ) in 2014 and currently serves as the statewide biosolids and recycled water program coordinator. He also serves as a permit writer for individual and statewide Water Pollution Control Facility permits. He has worked in environmental compliance for nearly 30 years. Prior to joining DEQ, Pat worked as an analyst for an environmental laboratory and an assistant environmental compliance manager for a manufacturing facility, and then as a consultant for 14 years. Pat has a BA degree in Environmental Biology from the University of Montana and a Bachelor of Applied Science degree in Hazardous Waste Management from Concordia University in Portland. Tim Ruby serves as Oregon DEQ's NW Region permit specialist for the beneficial reuse of biosolids, domestic septage, industrial solids, and wastewater. He is a certified professional soil scientist with over 40 years of combined regulatory, environmental consulting, and corporate environmental management experience. Prior to joining DEQ, Tim managed environmental water compliance programs at Del Monte Foods for 19 years. Tim has a Bachelor of Science degree in Agronomy from Delaware Valley College and a Master of Science degree in Plant and Soil

	Science from the University of Connecticut. Tim's current and future interests in soil science include working more closely with municipalities, industries, and the farming community to promote more use of recycled water, biosolids, composts and organics to conserve water resources and to build healthy soils. Mark Cullington is a Vice President and Client Service Director for Kennedy/Jenks Consultants in Portland, Oregon with 27 years of experience in engineering consulting and as a state water quality manager for Oregon DEQ. Mark primarily works on wastewater planning, design, and construction oversight projects. He has technical expertise in biosolids treatment technologies, beneficial use practices and fate & transport of contaminants of concern. Most of his projects are located in Oregon, Washington, California and Hawaii. He holds a B.A. degree from Ithaca College, New York; and B.S., M.S., and Ph.D. degrees from the University of Washington. The instructor information for Steve Wilson is provided above. Cindy Ryals is the Resource Recovery Program Manager for the City of Portland Bureau of Environmental Services. Cindy has over 20 years of professional experience in both private and public sectors working under various environmental regulatory frameworks. Her current work focuses on Class B biosolids management, with particular attention to PFAS-related challenges and regulatory compliance. Her work supports compliant and practical land application and residuals management strategies. Cindy holds a Masters Degree in Environmental Science and Management from the University of California Santa Barbara, with specialized training in remediation and toxicology.
3:45 pm	**Recovering Biosolids Resources for our Resilient Future—The Way Forward** • Turning Sludge into Black Gold—Albany's Growing Compost Program Success Story …Kristin Preston, P.E., Operations Manager, City of Albany • The Benefits, Challenges, and Opportunities of Municipal Poplar Farms for Biosolids and Recycled Water …Todd Miller, Deputy Director, Springfield Environmental Services/MWMC • Looking Ahead—Biosolids Considerations as you Approach Your Next NPDES or WPCF Permit Renew and Your Next Facilities Plan Update …Mark Cullington, PhD, PMP, Client Service Director, Kennedy Jenks …Frank Dick, P.E., Wastewater Engineering Manager, City of Vancouver, WA …Susie Smith, Stony Creek Consulting <u>Session description and relevance to wastewater professionals:</u> This session will feature case examples from communities that have embarked on innovative, sustainable, beneficial reuse projects that provide added value to their communities. Kristin Preston will describe how the City of Albany solved a significant biosolids management problem through pilot testing a composting

	process that is cost-effective and scalable, and how the City is now expanding the program to compost 100% of the City's biosolids. Todd Miller will discuss the history of the Metropolitan Wastewater Management Commission's (MWMC) Biocycle Farm and the opportunities and challenges that have emerged throughout its nearly twenty years of operation. The final three speakers will close the workshop by highlighting key factors and considerations wastewater utilities need to be contemplating now in order to successfully plan for and manage sustainable beneficial biosolids reuse programs for the next 20 years. <u>Instructor information:</u> Kristin Preston, P.E. has served as the Operations Manager/Assistant Public Works Director for the City of Albany since 2021. Previous to holding this position, she served the City as the Wastewater Superintendent since 2013. Prior to joining the City of Albany, she worked for TriMet in Portland for seven years as the Environmental Compliance Manager. She holds an M.S. in Civil Engineering from Oregon State University and a B.S. in Civil Engineering from the University of Maine. She is a registered engineer in the State of Oregon. Todd Miller has worked for the City of Springfield and the Metropolitan Wastewater Management Commission's regional wastewater services program for Eugene/Springfield for the past 18 years and is currently Deputy Director. He has worked over his 35-year career in water resources and environmental planning and management and has lived and worked in both small rural communities and large metropolitan areas and across a range of small and large companies, nonprofit, and government employers. Whatever the regulatory or business driver or need is, Todd's ultimate focus is on cost-effective and meaningful environmental outcomes. Todd holds a Bachelor of Science degree in Biology and Geology from the University of Rochester, NY and a Master of Science degree in Environmental Studies from the University of Oregon. The instructor information for Mark Cullington and Susie Smith are provided above. Frank Dick is the Wastewater Treatment Engineering Manager for the City of Vancouver Washington's Public Works Department. Frank oversees wastewater treatment engineering functions for Vancouver, including planning, capital project management, O&M contract administration and Vancouver's fully delegated pretreatment program. He is leading a multi-year planning and engineering effort to transform Vancouver's wastewater solids management program from incineration to resource recovery – biosolids for beneficial soil amendment and biogas for energy uses. Prior to his 18 years at Vancouver, he spent 14 years at semiconductor and electronics manufacturing facilities in the Portland-Vancouver area, in consultant and staff positions for facilities engineering and environmental compliance. He currently serves as the Co-Chair of the National Association of

	Clean Water Agencies' Pretreatment and Pollution Prevention Committee and is active Oregon ACWA and Pacific Northwest Clean Water Association. Frank earned his B.S. degree in Chemical Engineering from Washington State University.
4:30 pm	**Adjourn**