Residuals & Biosolids and Innovations in Treatment Technology Conference

May 10-14, 2026 | Kansas City, MO

2026

CALL FOR CONTENT

Accepting Submissions from December 2025 to January 2026

Submission Topics

We are looking for submissions falling under the following topics and focus areas for the 2026 technical program. Each submission should have one topic and one focus area.

Focus Areas

Research & Academia | Applied Technologies & Projects | Operations & Maintenance

Topics

Biosolids Land Application

Biosolids land application remains the most common method of biosolids disposal in many regional areas including in the heart of the Midwest. Submissions are invited with focused on the land application of wastewater biosolids, case studies, best practices, operational challenges, and especially about the fate of Contaminants of Emerging Concern (PFAS, pharmaceuticals, microplastics, etc.). We welcome insights from utilities, researchers, consultants, and regulators that demonstrate measurable outcomes, address evolving challenges, and showcase practical solutions for safe and effective land application programs.

Contaminants of Concern (PFAS, Inhibitory Compounds)

Contaminants such as per- and polyfluoroalkyl substances (PFAS), inhibitory compounds, pharmaceuticals, pesticides and herbicides can have a negative impact on the environment or human health. Submissions should investigate the monitoring, operational impacts, pathways of degradation, treatment, regulatory considerations and future outlook of contaminants.

Decentralized Systems & Treatment

Small communities largely benefit from decentralized wastewater treatment systems. Submissions should be focused on decentralized systems, unique challenges with small systems, operation and maintenance of the system, and regulatory compliance.

Digestion (aerobic, anaerobic, and other stabilization processes)

We invite abstracts that showcase advancements, research findings, and real-world experience in aerobic, anaerobic digestion (or other stabilization processes) for wastewater solids and organic residuals. Submissions may cover process optimization, digester design, co-digestion strategies, organics diversion programs, capacity expansion, biogas enhancement, foaming or struvite control, sidestream treatment, and integration with downstream biosolids processes. Topics of interest include feedstock management, pretreatment technologies, process modeling, nutrient and carbon impacts, energy recovery, greenhouse gas reduction, and approaches for achieving energy-neutral or energy-positive operations. Case studies demonstrating measurable performance improvements, innovative partnerships with haulers or commercial organics generators, and lessons learned from full-scale facilities are strongly encouraged.

Fugitive Emissions & GHGs
Water resource recovery facilities treat wastewater by utilizing biological processes in turn emitting large quantities of fugitive gases negatively impacting air quality. Fugitive gases encompass compounds such as carbon dioxide, methane and nitrous oxide. Submissions may revolve around pathways and quantification of fugitive emissions, regulations, monitoring, mitigation in the liquids and solids processes, and innovative methods to capture and treat emissions.

Innovative and Advanced Treatment for Achieving Limit-of-Technology Performance
As discharge limits tighten and resources become increasingly constrained, water utilities face the challenge of meeting regulatory requirements while addressing water scarcity. This session seeks submissions that explore concepts designed to push the boundaries of technology performance. Topics may include integrated approaches for achieving ultra-low discharge limits, enabling water reuse applications, and positioning utilities for next-generation treatment solutions. Contributions highlighting practical strategies, novel technologies, and implementation at any scale—laboratory, pilot, or full-scale—are encouraged.

Managing Redox Conditions for Maximum Benefits
Optimizing redox conditions across treatment processes is essential for unlocking the full potential of microbial communities. Submissions are invited to showcase innovative strategies, design considerations, and operational approaches that harmonize biological selection principles with oxygen supply, mixing dynamics, and recycle rates, etc. Topics may include enrichment of novel microbial consortia, innovative oxygen supply strategies, innovative control systems, etc. Contributions demonstrating progress at any scale—laboratory, pilot, or full-scale—are encouraged.

Odor Control, Safety & Public Outreach
Water resource recovery facility owners use various public outreach strategies to address odors, noise, safety, truck traffic and construction concerns. Submissions on odor control can include a combination of prevention, containment and/or treatment strategies for hydrogen sulfide (H_2S) and other volatile organic compounds (VOCs).

Practical Application of Digital Water, AI & Modeling Strategies
Digitalization and advanced analytics are redefining water treatment. Submissions are invited to demonstrate practical and applied innovations leveraging real-time data, automation, and intelligent modeling. Key areas of interest include but are not limited to, data treatment, sensor technologies, data-driven, hybrid, and mechanistic modeling, digital twins, artificial intelligence, biokinetic and compartmentalized CFD solutions.

Process Intensification for Water Utilities
Achieving greater efficiency with limited resources remains a critical challenge for water utilities worldwide. Submissions are invited to inspire attendees with cutting-edge intensification approaches being developed and implemented across the sector. Topics may include—but are not limited to—

densification, membrane aerated biofilm reactors, electrochemical systems, nanobubble technologies, and other transformative solutions. Contributions showcasing progress at all scales—laboratory, pilot, and full-scale—are encouraged.

Resource & Energy Recovery (nutrients/carbon diversion/biogas/bioenergy, including thermal & other renewables)
Wastewater resource recovery facilities provide utilities many opportunities for resource and energy recovery or on-site utilization. We invite abstracts that explore innovative approaches to resource and energy recovery in wastewater and biosolids systems, with a focus on nutrient capture and/or sequestration, biogas production, treatment, and utilization, and emerging thermal (hear recovery), solar, or other renewable energy sources and technologies. Case studies, lessons learned, and cross-sector collaborations that demonstrate measurable opportunities for resource recovery are encouraged.

Sidestream Treatment / Solid Recycle Streams
Biosolids processing can generate liquid flows containing high nutrients which must be managed or treated before returning to the liquid treatment process. Submissions may include lab-scale, pilot-scale or full-scale examples of conventional nitrification/denitrification, deammonification, nitritation/denitritation, bioaugmentation, physical/chemical treatment or other innovative technologies.

Solids Separation (thickening and dewatering)
Solids separation in both sludge thickening and sludge dewatering remains essential for the downstream process efficiency and intensification. We invite abstracts focused on both practical experience with case studies and technological advancements in solids separation processes. Submissions may highlight equipment performance, polymer and chemistry optimization, process control strategies, operational troubleshooting, innovative technologies, pilot testing results, and approaches to improving reliability and solids or cake quality. Case studies demonstrating measurable performance improvements, cost or energy savings, operational lessons learned, or integration with downstream processes are especially encouraged.

Thermal Processes (thermal drying, incineration, pyrolysis, and gasification)
We invite abstracts highlighting research, full-scale experience, and emerging innovations in biosolids thermal treatment and destruction technologies. Submissions may address thermal drying systems, multiple-hearth and fluidized-bed incineration, pyrolysis, gasification, or other high-temperature processes that transform biosolids into energy, heat, or value-added products. Topics of interest include process optimization, emissions control, energy recovery, carbon footprint reduction, residuals management, permitting and regulatory challenges, technology comparisons, and lifecycle or cost evaluations. Case studies demonstrating real-world performance, startup and commissioning lessons learned, or integration of thermal systems into broader solids-handling strategies are strongly encouraged.

Submission Types

Workshop

Due by 9:00AM Eastern on January 16th, 2026

Accepted workshops submissions will become half-day or full-day pre-conference events. Workshop facilitators will be expected to work alongside WEF Staff to produce an interactive workbook for all workshop participants.

1. Agendas must consist of a cohesive theme or topic with the goal of encouraging knowledge exchange among session participants.
2. Description should not be longer than 9,000 characters (approx. 1,000 words).
3. Proposal speakers and facilitators must have diversity of utilities, organizations, backgrounds, and experiences. Meaning the session should not all represent the same utility, consulting organization, or manufacturer.

Individual Abstract

Due by 9:00AM Eastern on January 30th, 2026

Accepted abstract submissions will be paired with 1-2 other individual abstract submissions to develop one technical session. Accepted speakers will be expected to coordinate with fellow session speakers.

1. Must include an author, co-author, and maximum of two speakers.
2. Abstracts shall be no longer than 9,000 characters. Tables, graphics, and/or images will not count towards this number and are submitted separately from the abstract text within our system.
3. Some accepted abstract speakers will be expected to participate in interactive activities during the technical session to help facilitate adult learning.

Session Proposal

Due by 9:00AM Eastern on January 30th, 2026

Accepted session proposal submissions will become a full 90-minute technical session. Proposal facilitators will be expected to coordinate with WEF staff and conference planning committee members to finalize session agenda.

1. Must include a maximum of three speakers, two facilitators, and complete agenda (90-minute session). Agendas must consist of a cohesive theme or topic with the goal of encouraging knowledge exchange among session participants.
2. Description should not be longer than 9,000 characters (approx. 1,000 words).
3. Proposal speakers and facilitators must have diversity of utilities, organizations, backgrounds, and experiences. Meaning the session should not all represent the same utility, consulting organization, or manufacturer.

How to Submit

*For submission tips and best practices, visit our **Speaker Resources**.*

All submissions type should be submitted via https://ww5.aievolution.com/wef/.

Paper or emailed submissions will not be accepted.

Submission Review Criteria

Reviewers will provide each submission a score between 1-100 (1 = lowest, 100 = highest). Each focus area has five criteria reviewers will use to guide them in their scoring process. When submitting, please keep the following criteria in mind.

Research & Academia

- Originality
- Research Rigor
- Clarity of Hypothesis
- Contribution to Field
- Quality

Applied Technologies & Projects

- Innovation in Tech
- Deployment Status
- Technical Depth
- Impact Potential
- Quality

Operations & Maintenance

- Impact to O&M Staff
- Reliability Benefit
- Applicability Across Utilities
- Economic Benefit
- Quality

Call for Content Timeline

December	Call for Content Opens
January	1/16 – Workshops Submissions Due 1/30 – Abstracts and Session Proposals Due Workshop submitters notified of acceptance or rejection.
February	RBITT conference program committee reviews submissions.
Early-Mid March	Abstract and session proposal submitters are notified of acceptance or rejection status.
Late April	Final technical paper/extended abstract due for accepted abstract authors.
May	5/10 – 5/14 RBITT Conference in Kansas City, MO

Questions?

Email all questions to speakers@wef.org.