NEWEA 2025 Annual Conference Call for Abstracts Topics

NEWEA invites the submission of abstracts for professional papers or presentations at its Annual Conference & Exhibit. This year, the conference's focus is **Work for Water**. See below for a list of abstract topics. We invite you to submit your abstract under the primary and secondary category that best fits your subject.

Committee	Topic Ideas
Asset Management (AM)	Technology including: Choosing and integrating AM software (horizontal and/ or vertical), data-driven decision-making (energy/resource optimization), and security. Planning including: Asset replacement and lifecycle planning strategies, capital financing, and long term planning.
Collection Systems	Planning; design; construction; operation and maintenance; rehabilitation; aging infrastructure solutions; technology tools; specifications; PFAS in collection system; regulatory updates; inflow and infiltration; CMOM/SSOs; preventative maintenance; non-dispersible wipes; FOG; SCADA; cybersecurity; workforce development; pumping station efficiency; carbon footprint considerations.
Contaminants of Emerging Concern	Environmental occurrence, fate and transport; fate in engineered systems- removal and degradation in reclaimed water and biosolids; land applications of biosolids; ecological impacts; advances in analytical methods and integration of microconstituent analyses in WRRF operations; pharmaceuticals return and disposal; federal and state positions and policy; risk communication for contaminants. Contaminants of interest include endocrine disruptors, pharmaceuticals, personal care products, flame retardants, microplastics, nanomaterials, plasticizers, PFAS, and pesticides, among others.
CSO/Wet Weather Issues	Impacts to CSO strategies and CSO communities due to updated financial capability analysis; Impacts of new EPA Draft Guidance for Future NPDES Permitting of Combined Sewer Systems (February 24), Innovative and integrated wet weather solutions to manage and balance regulatory compliance and affordability; Implementation and impacts of the public notification of CSOs; utilization of technology including treatment, real-time data, artificial intelligence, collection system modeling, wet weather modeling, and water quality modeling to improve regulatory compliance, system performance, and cost effectiveness of CSO programs; utilization and interpretation of EPA's Integrated Planning program, and other Long-Term CSO Control Planning strategies for strategic implementation of CSO programs; technical approaches to CSO projects.
Diversity, Equity, & Inclusion	Topics relating to discussions, projects, research, case studies, community actions, and workforce efforts that promote Diversity, Equity and Inclusion, including but not limited to race, ethnicity, gender identity and expression, sexual orientation, socio-economic background, immigration status, religious beliefs, and mental and physical disabilities.
Energy	Energy efficiency and alternative applications at wastewater treatment facilities, case studies for rehab and upgrades at WWTFs, designing efficiencies and alternatives for new facilities, case studies of new technologies for saving or generating energy and facilities working towards zero net energy, CHP applications, heat pump applications, biosolids to energy.
Government Affairs	Federal or state newly implemented or proposed legislation or regulation related to wastewater facility financing and management, regulatory challenges (TMDLs, NPDES permits).

Industrial Wastewate	Industrial pretreatment, process water management, wastewater reuse and recycle case studies, innovative membrane technology applications, source reduction, resource recovery,new treatment technologies, PFAS removal (source reduction and treatment), whole effluent toxicity, and industrial stormwater management.
Innovation	Break down barriers to innovation, incentivize innovation, accelerate use of digital technologies (AI and ML) for problem solving, apply real-time monitoring and analytics to support resiliency, proactively addressing cybersecurity, emphasis on data protection
Laboratory Practices	Lab safety, lab QA/QC procedures, developing a lab QA/QC program, compliance sampling, new analytical methodologies, activated sludge microbiology, troubleshooting analytical problems, and laboratory ethics.
Operator Ingenuity	Projects, tools, equipment and methods developed by operators to: assist with maintenance and/or sampling; avoid expenditures for costly specialty equipment/ supplies; reduce labor cost and/or physical exertion; improve safety; improve process performance/efficiency; reduce chemical or electrical costs.
Plant Operations	Plant Operations: Methods of improving plant operations including operational troubleshooting, process monitoring and control techniques including online instrumentation, maintaining plant operations during construction, operations during startup or pilot testing, low level nutrient removal experience, metals and emerging contaminant removal, advanced treatment technologies, pretreatment to reduce influent loadings, wet weather operations, upgrade success stories with focus on demonstrating the potential benefits/application to other facilities.
Public Awareness	Success stories of public education or outreach campaigns (brochures, flyers, posters, warrant articles, etc.), program rollout (FOG, stormwater, PFAS, etc.), public engagement (workshops, site tours), and community events (Imagine a Day Without Water).
Residuals Management	Biosolids management case studies, thickening and dewatering, thermal drying, PFAS removal and destruction technologies, thermal hydrolysis and anaerobic digestion, FOG management and processing, enhancing biosolids products for reuse, energy from biosolids, odor control systems, microconstituents, sustainability, emerging technologies, regulatory updates, public awareness, environmental management systems, academic research, future planning and financial analysis of biosolids management.
Small Community	Seasonal applications (schools, resort areas, etc.), innovative technologies, natural systems for wastewater treatment and disposal, Continuity of Operations, Planning, best practices, and lessons learned during a pandemic; Innovative/Alternative Onsite Wastewater Treatment Systems
Stormwater	MS4 permits, regulation, stormwater collection, stormwater treatment, stormwater utilities (creation and management), BMPs, TMDLs, modeling, rule making, sampling, and monitoring. NPDES Stormwater permits, regulation, stormwater collection, stormwater treatment, stormwater utilities (creation and management), BMPs, TMDLs, green infrastructure, flood resilience, modeling, rule making, sampling, and monitoring.
Student Poster Board Competition	Research topics on dealing with water pollution control, water quality, wastewater, storm water, hazardous waste, or other water-related topics are requested for Graduate and Undergraduate poster competition.

Sustainability	Projects that focus on the three responsibilities of sustainability (i.e., social well-being, environmental stewardship, economics) during the following phases: Planning and Development (sustainable communities, low impact development, resiliency); Engineering Design (standards, specifications, materials, water reuse, residuals); Construction (methods, materials); Operations (energy conservation, collection systems, asset management); or End of Life (reuse, recycle). Or projects that incorporated or used Sustainability Metrics and Rating Systems (LEED, Envision, WaterSense, EnergyStar) to evaluate the project during the planning or design phases.
Utility Management	Utility leadership, employee development, aging workforce & institutional knowledge transfer, addressing the new talent gap, staffing, alternative training techniques, New England/State WARN, the Utility Council, utility optimization (strategic energy purchasing, process optimization, enterprise software systems, procurement), alternative project delivery, creative financing, infrastructure funding and implementation, Capital Project Planning, Remote Workforce, people management systems, utility performance measures, infrastructure security, customer satisfaction programs, ISO certification, Environmental Management Systems, Biosolids Management, Cyber Security, and crisis management techniques.
Water Reuse	Water Reuse projects, processes and/or infrastructure for reclamation and reuse planning, implementation, and operations; Emerging technologies and zero liquid discharge (ZLD); Energy savings and carbon footprint reduction; Regulatory drivers, State and local regulations, and subject matter that incorporate the EPA's "Fit for Purpose" principals in reuse applications.
Watershed Management	Integrated water resources planning, risk-based watershed management strategies, stressed watersheds and embankments, pathogens and pathogen indicators, illicit connection detection, TMDLs, dam removal, river and wetland restoration, decreasing/controlling nutrient loading in watersheds, and climate resilience
Workforce Development	Recruitment, retention, knowledge transfer, and succession planning; Professional development and soft skills training for potential managers; Attracting veterans, dislocated workers, and career and technical education programs; Challenges for contract operations providers; Engaging opportunity youth and those with potential barriers to employment; Employee optimization/self-actualization, and infusing a sense of mission in our water workforce; Diversity hiring and equity and social justice efforts; Improving interstate harmony in licensing and portability of operator credentials; Regional collaboration and community partnerships; Messaging campaigns and enhancing visibility of careers in water quality; Case studies and success stories involving any of above or related topics
Young Professionals The Future of the Industry	Innovative programs and approaches to deal with the transition of the older generation going into retirement and younger engineers and operators moving into positions as Town Engineers, Project Managers, and Head Operators. Key discussion point may include mentoring programs designed to pass along the experience and knowledge of the outgoing generation while implementing the new approaches of the incoming generation, discussions regarding the impacts of technology and online networking on the industry, and the use of other technologies such as 3D design and how firms are keeping up with technology in a cost-driven industry.
Youth Education	Success stories of youth education and outreach focusing on promoting stewardship of one of our most precious resources, Water. Sharing programs, ideas and other resources that can be used, as individuals or committees, to not only educate, but also attract the next generation of environmental champions to our industry.