



We surveyed our members, local section leaders, technical committee leaders and top agency leaders to uncover the challenges our membership faces. These challenge areas are divided into two categories for the 2019 Annual Conference:

- Team Challenge Area sessions will bring many different professions or practice areas together. These sessions will cover important issues necessary to build utilities of the future. We would like these sessions to be fun, include audience interaction and tap into the wisdom and experience of our diverse audiences.
- Professional Challenge Area sessions will focus on discipline or practice area specific issues. During these professional development sessions, participants will improve their skills, build professional connections and share solutions.

Proposals focused on these challenge areas will be given priority.

TEAM CHALLENGE AREAS	
Asset Management for Aging Infrastructure	Audience
<ul style="list-style-type: none"> • Condition assessment best practices for collection systems and/or treatment plants • Getting to data driven decisions • Risk evaluation tools and financial models • Condition monitoring / predictive and preventive maintenance (reliability centered maintenance/RCM, vibration or thermal analysis, six sigma) • CMMS program management, software selection and best practices • Building in resiliency for climate changes and the new normal • How to recover more resources through operations 	Field Crews Operators Maintenance Engineers Managers
Co-digestion and Energy Resource Recovery	Audience
<ul style="list-style-type: none"> • Organics, FOG and food waste co-digestion – case histories for challenges and successes • Regulatory challenges for co-digestion of organics and food waste • Receiving and pre-conditioning of food waste and organic waste • Odor control challenges for food waste and organics waste receiving and processing • Biogas management and use (gas treatment, gas storage, co-gen, vehicle fuel, energy storage/batteries) • Financial models and tracking hidden costs • Manage risks and challenges 	Operators Engineers Managers

Leadership Training, Workforce Development and Succession Planning	Audience
<ul style="list-style-type: none"> • Training for new supervisors and front-line leaders • Workforce development • Staff development, succession planning and training program success stories • Outreach for the next generation • SOP and training material development • Internship and apprenticeship program success stories • Developing/assessing trainee programs • Alternative project delivery and risk management • Fiscal responsibility and communicating the value of agencies • Targeting grants to make innovation cost effective (case studies) 	<p>Operators Engineers Managers</p>
Nutrient Management and Removal	Audience
<ul style="list-style-type: none"> • Emerging technologies in mainstream nitrogen removal • Side stream nutrient removal • Phosphorus removal/recovery • Operational tactics for nutrient removal • Creative ideas and case histories in nutrient management 	<p>Operators Engineers Managers Regulators</p>
Regulators and the Regulated Can Succeed Together	Audience
<ul style="list-style-type: none"> • SSS-WDR (Sanitary Sewer Systems – Waste Discharge Requirements) regulations today and future • Nutrient management • Toxicity policy and toxicity control • Reuse/IPR/DPR regulations • Preparing for the biosolids landfill ban and new food waste recycling requirements • Air quality regulations • Water/wastewater/AWT operator regulations • OSHA and worker safety regulations • Navigating regulations to implement innovative and environmentally sound projects 	<p>Engineers Managers Regulators</p>
Water Reuse Operations & Technology	Audience
<ul style="list-style-type: none"> • Advanced Water Treatment (AWT) operations, maintenance and optimization <ul style="list-style-type: none"> ○ Operator certification updates • Indirect and direct potable reuse (IPR/DPR) technologies and regulations • Advances in membrane technologies and innovations • Residuals management • Disinfection operations • Ozone/biologically active filtration • Advanced oxidation processes • Managing the impacts of declining flows • Developing local water resources / One Water 	<p>Operators Maintenance Engineers Managers Regulators</p>

<ul style="list-style-type: none"> • Innovative partnerships 	
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PROFESSIONAL CHALLENGE AREAS	
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Biosolids	Audience
<ul style="list-style-type: none"> • Advances in digestion • Dewatering optimization, polymers and technologies • Obtaining Class A • Land application and disposal alternatives • New technologies in biosolids management • Regulatory updates for biosolids 	Managers Engineers Operators
Collection Systems	Audience
<ul style="list-style-type: none"> • Resiliency and preparing for big storms • Pipeline inspection, cleaning and management • Sewer lateral management • Managing inflow and infiltration (I/I) • Gravity sewers, force mains and pump station design and maintenance • SSO management success stories, spill estimating • Optimizing cleaning frequencies 	Field crews Engineers Managers
Laboratory	Audience
<ul style="list-style-type: none"> • ELAP (Environmental Laboratory Accreditation Program) • TNI (The NELAC Institute) Module 2 • Method update rule • Creating thorough SOPs and data sheets • Nutrients and the laboratory: science behind analysis and reporting involved 	Laboratory staff
Plant Maintenance – Best Practices	Audience
<ul style="list-style-type: none"> • Pumps, pump stations and valves • Reliability centered maintenance (RCM) • Cathodic protection • Condition monitoring tools - vibration/thermal analysis/other • CMMS success stories • Instrumentation and controls innovations 	Field crews Operators Managers
Plant Operations – Challenges, Opportunities and Basic Training	Audience
<ul style="list-style-type: none"> • Preliminary (fine screening) • Primary Treatment • Secondary Treatment • Tertiary Treatment 	Operators Managers Engineers Managers

<ul style="list-style-type: none"> • Energy management • Disinfection • Odor Control • SCADA/instrumentation and process control 	
Pretreatment & Stormwater	Audience
<ul style="list-style-type: none"> • Pretreatment program case studies • Stormwater as a resource/LID/green design • Emerging contaminants and microplastics • Pretreatment standards for water reuse • Stormwater inspections • Collection system crews involved in stormwater maintenance 	Pretreatment (P3S) Engineers Managers
Safety	Audience
<ul style="list-style-type: none"> • Confined space entry/rescue • Commercial truck safety/regulations • Fall protection • Trenching and shoring • Lock-out tag-out procedures • Electrical safety for non-electricians 	Field crews Operators
Other	