Session Number	Session Title	Session Description	Date	Start Time	End Time	Total Credits Avail.	Mgmt -Bus - Financial	Tech - Engin
01	Innovation	This session is intended to introduce participants to some of the latest technologies and innovations being used in wastewater collection. This includes utilizing real-time remote monitoring and web-based GIS systems to track and prevent sanitary sewer overflows (SSOs), introducing tool like SmartCover and other remote sensing technology into their CMOM programs, and an example from overseas where the city of Kolding, Denmark enabled real time controls to model predictive controls to minimize the cities flood risks. In essense this session takes the participant through an array of case studies, that show how utilities are "turbocharging" their collection systems with the latest technologies to optimize operations in a more efficient and predictive manner.	3/23/2021	11:00 AM	12:00 PM	1.0		1.0
02	Flooding Dynamics	This session focuses on flood mitigation and how utilities have utilized their existing collection systems to control flooding due to storms and sea/water level rise. This includes case studies from Kenosha (WI) who in seven (7) months after initial concept installed a 70 MGD pump station to help mitigate potential flooding risks from the nearby risking Lake Michigan, and others from cities around the Great Lakes and Southeastern Massachusets in which multiple types of flood resilence measures were evaluated and implemented to mitigate flooding risks.	3/23/2021	1:00 PM	2:00 PM	1.0		1.0
03	Rehabilitation	This session introduces participants to innovative sewer rehabilitation methods, with case studies in unique situations including location, type of pipes rehabilitated, methodology, and difficult access. This is shown through case studies which provide details on an in-place pipe emergency rehabilitation, cured in-place pipe (CIPP) in large diameter gravity sewers in tropical ares, and the assessment and rehabilitation of 60+ year old infrastructure in difficult locations.	3/23/2021	3:00 PM	4:00 PM	1.0		1.0
04	Planning	Master planning of sewer rehabilitation projects can stretch beyond just the collection systems infrastructure. This session explores how utilities "got creative" and integrated their collection systems planning into revitalizing and improving the communities they serve. One of the presentations covered in this session includes a case study in Newark (NJ), where a sewer replacement project transformed into a strategic development initiative to enhance the image, character, and economic vitality of an urban center.	3/24/2021	11:00 AM	12:00 PM	1.0	0.5	0.5
05	Asset Management	This session explores the importance of asset management in different aspects of operations and maintenance. This session takes a deep dive not only into case studies about evaluating existing assets to cost effectively prioritize inspection and rehabilitation but also looks at the latest research into fats, oils, and grease (FOG) formation and mitigation methods in collection systems assets as well as enhanced monitoring methods of the humidity within gravity sewers, to help utlies better mitigate H2S corrosion in concrete gravity sewers.	3/24/2021	1:00 PM	2:00 PM	1.0		1.0
06	Wet Weather Issues	Climate change and the likelihood of extreme rain events have lead utlities to explore more sanitary sewer overflow (SSO) and combined sewer overflow (CSO) mitigation alternatives. This session looks at three case studies in Jefferson County (AL), King County (WA), and Christchurch City Council (New Zealand) in which utilities utilized modeling and predicitive analytics to optimze collection systems operations, but also reduce the significant impact of SSO/CSOs during a wet weather event.	3/24/2021	3:00 PM	4:00 PM	1.0		1.0
07	Infiltration & Inflow	With aging infrastructure, inflow and infiltration (I/I) has been a top area of interest for those in the collection systems realm. This session looks at three case studies in which utilities utilized real time controls, modeling, and data analytics to detect and mitigate their I/I intrusions throughout the collection systems. In one case study done by Stantec, they analyzed both the dry weather flows (DWF) and rainfall derived inflow and infiltration (RDII) into a manifold sanitary sewer force main system with 87 contributing pumping station. This allowed them to look at the pump station inflows, without having to install expensive flow meters upstream of each pumping station.	3/25/2021	11:00 AM	12:00 PM	1.0		1.0

08	Data Analytics	The Internet of Things (IoT) and data analytics has opened up a wide range possibilites for collection systems personnel to monitor, optimize, and remotely operate their collections sytems. This session explores different "smart" approaches that utilities have taken to optimize their collections systems operations. This includes case studies from the Great Lakes Water Authority (MI) who have utilized real-time analysis and remote modeling to build their digital twin, Raleigh Water (NC) who used machine learning to optimize their wet-weather operations, and Jefferson County (AL) who share best practices that they learned when implementing "digital" and "smart" tools into their decision making strategies.	3/25/2021	1:00 PM	2:00 PM	1.0		1.0
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W01	Smart Flow Monitoring and Data Analytics to Drive Effective Sewer System Management	This workshop is intended to offer participants an opportunity to learn about or expand your knowledge of advancements in flow monitoring and data analytics to support effective management of wastewater collection systems and continuous digital transformation. This workshop will be hosted via Zoom and include a diverse group of speakers and interactive break-out groups.	3/18/2021	11:00 PM	2:30 PM	3.0	1.0	2.0

Water	Wastewater	Industrial	Disposal	Collections	Stormwater-Weather-Watershed Mgmt	Supplemental
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