I&I eliminATION

IDENTIFYING THE CAUSES, CONSEQUENCES, AND CORRECTIVE ACTION

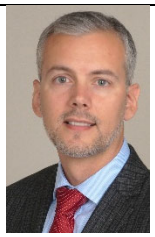
Workshop Date: Monday, July 12, 2021 NEW DATE

Location: Music City Center, Nashville, TN
Room: TBA

Agenda (as of Dec. 15, 2020)

Time	Topic	Presenter
1:00-1:10	Welcome Why this event is important	 Robert Carpenter Editor-in-Chief Underground Construction
1:10-1:20	Moderator	 Don Rigby Logiball
PART A: The Cause & Consequences of I&I		
1:20-1:40	Asset Owner Perspective: **What's working and why in Naperville** The population of the City of Naperville, IL is growing yet the flow to the WWTP is down 30%. This is made possible by a series of policy and procedure mandates on how things get done in this city of 150,000 residents. I&I reduction is engrained in every collection system improvement such as injection grouting prior to CIPP Lining and 2-year testing to validate new technologies. Water migration is pervasive, but customer complaints and maintenance requirements are down.	 Tony Conn City of Naperville, IL

1:45-2:05	Consultant Perspective: **What's the Big Deal with I&I?** Does your collection system have I/I? How much? How does it compare to other systems' benchmarks? If your system has I/I problems, then what are the prospects for achieving measurable reduction with sewer rehabilitation? This presentation gives the results from measuring I/I in more than 500 collection systems in 9 states. Application of a simple 10-step approach for detection, targeting, rehabilitation, and follow-up verification of effectiveness will be explained.		George Kurz, PE Independent Expert
2:10-2:30	State (Tennessee) Regulatory Perspective: **Moratorium Metrics and the Cost and Consequences of I/I** The presentation describes the application of NPDES permit language unique to the State of Tennessee relative to self-imposed moratoriums and the metrics used to remove a permittee from a moratorium. The cost and consequences of I/I are also discussed using the evaluation metrics which include project life cycle cost analyses.		Robert O'Dette, PE TN Department of Environment and Conservation
2:35-2:55	Engineer Perspective: **Key to Achieving Significant I&I Reductions** This presentation will discuss the importance of selecting technologies that work together to seal out I&I for a definable timeline. No single technology will achieve this, and understanding how to couple technologies is key to achieving significant I&I reductions. Similarly, the manner in which each technology is implemented is critical to ensuring that the technology works, and works over its intended life time. Finally, understanding technology limitations, or perhaps more importantly, where a less expensive technology might achieve the same		Jim Shelton, PE ARCADIS

	effectiveness goal, is important when considering the cost/benefit ratio of any given suite of solutions.		
3:00-3:20	**REFRESHMENT BREAK/PROFESSIONAL NETWORKING**		
PART B: Corrective Action--TOOLBOX			
3:20-3:40	**Injection Grouting— Your First Defense for I&I into the Collection System** Infiltration is relentless. According to the EPA, infiltration and inflow represent almost 50% of flow to treatment plants nationwide. Left unaddressed, infiltration will continue to overwhelm system assets which can lead to costly emergency repairs or total system failure. The solution? The most economical way to stop infiltration in structurally sound pipes is with injection grouts. Injection grouts are specifically designed to seal leaks, stabilize soils, and eliminate infiltration in sewer collection systems – manholes, mainlines, laterals and lateral connections.		Britt Babcock, PE Avanti International
3:45-4:05	**Devices to Mitigate I&I in Sanitary Sewer Manholes** We will discuss a range of “devices” that can be used to stop inflow and infiltration in existing sanitary sewer manholes as well as prevent it in new manholes. These “devices” are proven to be cost effective and relatively easy to install for contractors and sewer maintenance personnel.		Lee Haessig Cretex Specialty Products
4:10-4:30	**Restoring Manholes Reduces I&I** When looking to make a reduction in overall collection system inflow and infiltration (I&I), one of the most cost-effective approaches can be through the rehabilitation of manholes and other collection structures. This presentation will address several systems for rehabilitation that not only help eliminate costly I&I, but also provide structural reinforcement and varying levels of corrosion protection against biogenic corrosion that will		Jeremy Sukola Madewell Products Corp.

	ultimately extend the service life of the structure.	
4:35-4:55	**CIPP Lining of Mains & Laterals** As part of the sewer rehabilitation toolbox, CIPP is one of many rehab technologies available. Deciding the proper course to rehabilitate a sewer pipe depends upon the problems found within. Cured-In-Place Pipe (CIPP) is a well-established pipe renewal process. This final segment will define what CIPP is, the different types of installation, and when this pipe rehab method would be preferred. Wrapping up the day's events, this segment will bring together the previously discussed technologies and how they relate to one another in the holistic approach to I&I elimination.	 John Manijak Michels Corp
5:00-6:00	**CLOSING COMMENTS & NETWORKING MIXER**	

Note: Five minutes will be added to each session for panel discussions.

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