Large Diameter Leak Detection and Water Main Condition Assessment
In this presentation we will cover how general leak detection works and is performed. We will discuss what types of materials and sizes are conducive to a successful pin point. We will then transition into discussing a non-intrusive pipeline condition assessment. How this type of service is performed, the features and benefits of the data that will be collected, limitations on pipe materials and pipeline distances. We will make sure to describe situations where intrusive condition assessment may be a best option. This end of the presentation is to lay out what options are available in the industry and how to go about choosing a service type based on a number of different factors.

Pipeline Cleaning Technologies
This presentation will present innovative approaches and technologies that can be used to extend the life expectancy of a water distribution system’s network by making use of condition assessment and cleaning tools. The information presented will provide advice on the best tools, application, and practices to optimize the condition of a system’s critical assets.
The presentation will help you to: Determine what condition assessment tools are available to perform condition assessments and which tools are required for various pipe materials and sizes; Determine what cleaning tools are required to clean various types of buildup inside pipelines; Recognize advantages and limitations of pipeline inspection and cleaning technologies; Realize condition assessment helps extend water infrastructure life expectancy; and Appreciate that prevention is better than cure. Topics to be covered include why pipe cleaning and diagnostics are important, the most typical forms of cleaning technologies, pigging and jetting, and specific pipeline diagnostic tools including how the technologies are selected and applied and what the resultant data helps you to decide.

Is “Find then Fix” Always the Right Approach for Pressure Pipe Asset Management?
Failed pressure pipes can be very costly to budgets and community services. Knowing asset conditions is a key factor in effective asset management. While pressure pipe inspection technologies have advanced significantly, it important to understand assessment risks. Beginning an assessment with a failure mode analysis focuses on understanding access and inspection technology limitations, total costs for inspection preparation, support, and assessment, and rehabilitation, repair and ongoing lifecycle costs. When total assessment costs approach projected replacement costs, it may be judicious to just replace. This presentation will review ways to develop a sensible approach to pressure pipe inspection and asset management.

Water Hammer – Fundamentals, Protection Equipment and Modeling
Water hammer, though it is present daily in pumping and piping systems, only rarely does it become a catastrophic problem. In practice water hammer protection equipment can be neglected due to the frequency of required maintenance, and the challenge of understanding the role the equipment plays in protecting the system. This presentation attempts to address these problems by teaching the fundamentals of water hammer. Throughout the presentation I will describe the operation and maintenance level roles and responsibilities required to protect the pumping and piping system from destructive transient pressures.

Public Works vs. Engineer (It Doesn’t Have to Be This Way!)
Water Operators and Engineers do not always agree or have the same ideas or perspectives. Collaboration during the design phase of capital projects is critical to ensure the designed improvements
meet the needs of the Operator in order for him/her to adequately maintain and operate the system. Asking the right questions and having an open communication line between the design team and operations staff is paramount. These discussions will build trust and lead to more successful, under budget, projects that will exceed the overall goals of the capital improvement.

**AMI Technology Trends, Value of Cellular Network**
As technology evolves, many utilities would like to know if the trends they are seeing are just that, or if it will have meaningful impact on their city. The presentation will discuss technology & trends, what it is currently available and how it might be impacting your utility. It will also look at the technology around IoT (Internet of Things). We will look at what constitutes an IoT device, how they interface with existing systems, and why you might want to consider them in your next purchase decision.

**Water Distribution Maintenance Techniques without System Shutdown**
Line Tapping, Line Stopping, and Valve Insertion’s are maintenance techniques done under pressure to reduce associated risks and provide a more productive method of maintaining and repairing distribution systems without complete system shutdown. The information provided on this technology can prove to be invaluable when designing a new service or maintaining an existing one. The benefits of Line Tapping, Line Stopping and Valve Insertion include: Uninterrupted hydrant and valve replacement; No loss of treated water; Elimination of back siphoning; Elimination of boil orders; Safer working conditions for the operator; and increased water conservation with no discharge. The proper application of these techniques and other benefits will be discussed in this presentation.