Overview for GIS Technologies Assisting with Mapping and Asset Management for Small Systems

This course is designed to go over the basics of GIS mapping and how it can help small systems plan for future needs. In this course, attendees will learn how GIS technologies can assist with in the planning process for assets management, capital improvements, and day to day operations. Attendees will take the conceptual knowledge gained and learn how they can apply these concepts with interactive mapping software. Trainers will overview how operators can use technology to more efficiently manage and plan for their drinking water and wastewater systems.

Outcomes – Participants will learn:

- The basics of GIS and available software
- Common tools used within GIS programs
- How to import GPS coordinates
- How to add and utilize attribute information attached to the systems components
- How to edit, save, and share your maps with team members and the public
- How to create an asset inventory for planning capital improvement projects

Agenda and Timeline

9:00 – 9:15 a.m.   Introductions, GTT Resources, Pre-test

9:15 – 9:45 a.m.Overview of GIS technologies

- ESIR GIS platform
- Google Earth Pro
- QGIS
- Other mapping sources

9:45 – 10:15 a.m.   Benefits from using GIS

- Asset management and the 5 core components
- Capital Improvement Planning
- Flushing/Exercising programs
- Asset Inventory
- Digital twin

10:15 – 10:30 a.m.   Break

10:30 – 11:30 a.m.   GIS Mapping Basics

- Basic tools in ArcGIS online for mapping
- Demonstration of Field Maps App for collecting data
- Overview of collected data and created map

11:30 – 12:15 a.m.   Hands on GIS Mapping

- Allow participants to create their own system

12:15 – 12:30 a.m.   Resources – Links to Materials and Post Test