

## **Conducting Water Audits According to the AWWA M36 Methodology**

**NEW: Part of the NJWater Association series of Asset Management seminars**

**Presented by the New Jersey Water Association and the National Resources Defense Council**

**June 20, 2018, Monroe Township Utilities, 143 Union Valley Road, Monroe, Middlesex County**

### **Course Description:**

Many drinking water systems in New Jersey deliver water to customers through aging distribution systems; withdrawing, treating, and supplying some water that does not reach customers, and some water for which they may not be receiving full revenue. The first step in controlling non-revenue water (due to leakage, meter or billing inaccuracies, or theft) is to compile the best practice water audit to quantify loss levels and cost impacts. This 6.5-hour course will provide participants with hands-on instruction in using the AWWA Free Water Audit Software to compile and utilize the standard water audit. This training will help participants understand:

- Water audit basics: the purpose, benefits, systematic method, and key terms.
- Why, how and where leakage and main breaks occur in water distribution systems.
- How a portion of utility revenue can be missed due to inaccurate metering, billing errors, and unauthorized consumption.
- How to use the AWWA Free Water Audit Software for your system, including assessing data validity and planning for data collection improvements.
- How to interpret performance indicators calculated by the Software and how these values range across a spectrum of New Jersey water utilities.
- How the results of the water audit can serve as the basis for the design of a water loss control program at your utility, and the means to save water and improve the financial standing of the utility.

Attendees should bring a personal computer to the training and have the AWWA Free Water Software loaded on their computer. The Software can be downloaded from the AWWA website at:

<https://www.awwa.org/resources-tools/water-knowledge/water-loss-control.aspx>.

**The attendees will employ their personal computer to conduct an interactive water audit exercise during the course.**

### **Agenda:**

8:00 - 8:30 AM	Sign-in
8:30 - 10:00 AM	Water Supply Systems Water Supplied and Lost: The Standard Water Balance Drivers for Improved Water Accountability and Efficiency The AWWA Standard Water Audit Method and Free Software Tools
10:00 – 10:15 AM	<b>Break</b>
10:15 – 12 Noon	Water Audit Data Grading and the Data Validation Process The Performance Indicators and Data Comparisons Production Flowmetering and Supply Data Management
12 Noon – 12:30 PM	<b>Lunch (A complimentary lunch will be provided)</b>
12:30 – 2:45 PM	Compiling the Water Audit using the AWWA Free Water Audit Software: An Interactive Exercise
2:45 – 3:00 PM	<b>Break</b>
3:00 – 4:00 PM	Water Audit Data Collection Organizing the Water Loss Control Team Overview of New Jersey and North American Water Audit Data Using the Results of the Water Audit to Set Loss Reduction Goals

### **Instructor**

Mr. Kunkel is Principal of Kunkel Water Efficiency Consulting and has over 38 years of water utility and consulting experience, and led the successful water loss control program in Philadelphia for over 20 years. He is active in the American Water Works Association (AWWA) and is currently chair of the sub-committee that publishes AWWA's M36 guidance manual on water loss control and is a co-author of the AWWA Free Water Audit Software. He conducts trainings on water loss control for AWWA and the Pennsylvania Department of Environmental Protection and works directly with water utilities. He was the recipient of the 2010 Water Star Award from the Alliance for Water Efficiency, and the AWWA Peak Performance Award in 2016.

### **Accreditation:**

6.5 Training Contact Hours for NJ-Licensed Water Operators. TCH Course Number 04-051801-10

6.5 Hours toward license renewal for NJ Certified Public Works Managers: DLGS-NJWA-147 (3.0 Mgt., 3.5 Tech.)

**Registration at [www.njwater.org](http://www.njwater.org) is required.**

**The New Jersey Water Association**