

Georgia Water System Audit and Water Loss Control Training

*GA Water System Manual and Hands-on
Workshop with AWWA Free Water Audit Software*



Georgia
Association of
Water
Professionals

Georgia Water System Audits and Water Loss Control Manual

- Welcome
- Instructor Introductions



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Logistics for the Day

- Gold LEED Meeting Facility
 - Facilities, meals, phone calls, breaks
- Workshop materials
 - **AWWA Free Software** and your own paper ledger
 - Binder contents, additional handouts, resources
 - Online presentations
 - How to ask questions
- What to expect from us today
 - Interactive, breakout groups, hands-on!
 - Raise your comfort level with water audits
 - Tentative agenda review

Water Audit Background and Regulatory Drivers

- FIRST things first!
- What systems are in our meeting?
 - Over 10,000 pop served
 - Under 10,000 pop served
- Which systems are “Metro-District” members?
- Who has completed a water system audit before?
- Who has used the *AWWA/IWA methodology*?

GA Water Stewardship Act/SB 370 - 2010

The true reason we are here!

- For public water systems serving populations greater than 10,000 (125 systems)
 - WSA requires annual water audit report to be **submitted** to EPD by March 2012 (**That means March 1st, 2012!**)
 - Report period covers **12 month calendar year** (close as possible). **Page 6**
- For public water systems serving populations greater than 3,300 to 10,000 (125 systems)
 - WSA requires water audit reports **submitted** to EPD by March 2013 (**That means March 1st, 2013!**)
 - Report period covers **12 month calendar year**

Specific Requirements for Water Suppliers

- Phased in approach for public water systems to conduct **standardized annual water loss audits**.
- Development of technical assistance program
 - *Georgia Water Systems Audit and Loss Control Manual*
 - *Supporting Workshops* (you are in one!)
- Water audits to be done in accordance with International Water Association/ American Water Works Association (IWA/AWWA) methods
 - *Free AWWA Water Audit Software*
- Minimum Guidelines (*Rule Making*) which will **require** the above for specific water providers.

GA EPD Pending Rules

- DNR Board Rule Making is anticipated in Winter of 2011/2012!
- ***Rules*** will include minimum standards and *best management practices* for:
 - Monitoring and improving water efficiency and effectiveness of water use by public water systems
 - Improving water conservation by water systems
 - Implementing water loss control programs
- What will the *rules* look like?
 - The *GA Manual* will surely influence the *rules*.

Documents Required for Submittal to GA EPD (page 6)

- AWWA Free Water Audit Software © *Reporting Worksheet tab*
- AWWA Free Water Audit Software © *Water Balance tab*
- AWWA *Entire* Excel *Water Audit Workbook*
- All reports will **only** be accepted electronically to EPD
 - Contact email: Lebone.Moeti@dnr.state.ga.us
- **Remember:**
 - GWSA **requires** EPD to **post audit results online**
 - What will EPD post online about your water system?

EPD Posted Information On Your Water System

- Information to be posted on EPD Web Site
 - For *large* systems (ILI and **Validity Score**)
 - For *medium* systems (ILI or Op24 **and** Validity Score)
 - For *all* systems – **top 3 areas needing improvement**
- System-Specific Top 3 Areas in Need of Improvement
 - Performance Indicators **not** intended for comparison between systems
 - Focus is on **specific water system improvements over time**
 - **Trends are indeed important!**

Impact of Water Audit Results

- Your water audit and water loss results *may* impact your future:
 - » Water Withdrawal permits
 - » Water Plant Production Increases
 - » Drinking Water State Revolving Fund/Georgia Environmental Facilities (DWSRF/GEFA) Loans
- Remember!
 - The GA Manual does **NOT** set specific benchmarks or uniform water loss parameters. It refers to **individual** performance.

THE Most Critical Water Loss Performance Indicators

- Establishment of **Infrastructure Leakage Index (ILI)** as a Performance Indicator
 - Definition of **ILI** = CARL/UARL
 - CARL – Current Annual Real Loss
 - UARL – Unavoidable Annual Real Loss
- Requirements to obtain a valid ILI
 - Minimum Number of service connections (3,000) **and** service connection density per mile (32/mi) for a valid UARL calculation.
- What if my system is **below** this size?

The Limits of ILI

- For some medium-sized systems (3,300 to 10,000 in population).
 - They have a *limitation* of using a valid ILI value, thus they should use:
 - » *Op24 - Real Losses as a Performance Indicator*
 - » *Definition of Op24 – gal/service connection/day*
- This will be very meaningful to many systems in the medium-sized category next year!

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