



TAUD
Water Loss Presentation
August 5, 2010

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Authority of Wilson Co

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Loss Control Committee

Timeline

- August, 2003 – Committee Report: Applying worldwide BMPs in water loss control; published in Journal AWWA
- 2006 – AWWA Water Loss Control Committee's Free Water Audit Software
- 2007 – AWWA Research Foundation Project 2811 – Evaluating Water Loss and Planning Loss Reduction Strategies
- 2007 – AWWA Research Foundation Project 2928 – Leakage Management Technologies

Timeline

- 2007 – TN House Bill 743 introduced with term unaccounted for water loss
- 2009 - AWWA Manual M36, *Water Audits and Loss Control Programs*, Third Edition, 2009 & EPA 816-D-09-001, *Review Draft Control and Mitigation of Drinking Water Losses in Distribution Systems*, November 2009
 - They recommend that the term unaccounted for water no longer be used
- October 7, 2010 – UMRB & WWFB plan to set the acceptable level of unaccounted for water %

AWWA Guidance Document

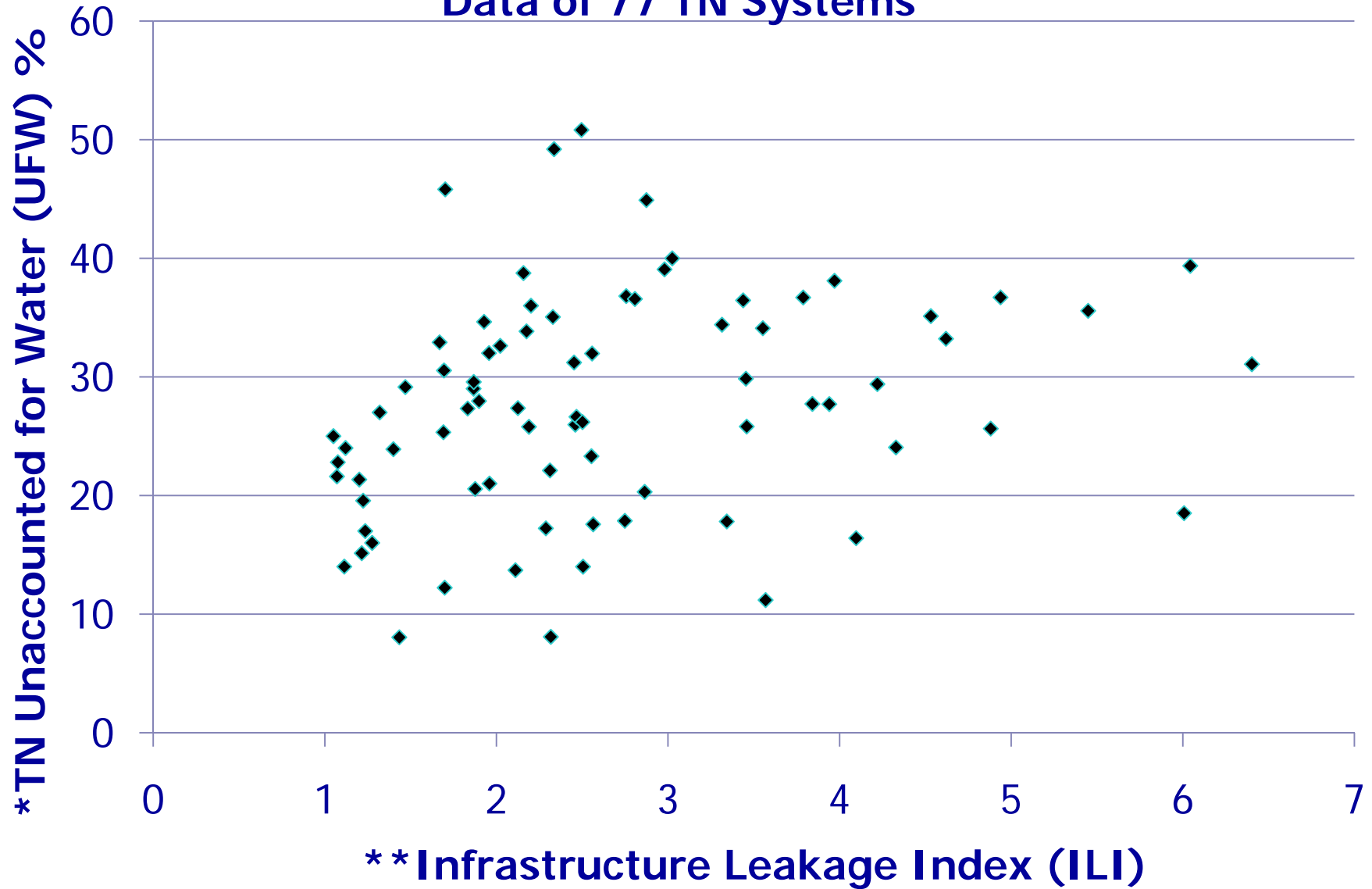
- AWWA Manual M36, *Water Audits and Loss Control Programs*, Third Edition, 2009, Page 55
 - “The infrastructure leakage index (ILI) is a performance indicator designed for benchmarking of leakage standings among water utilities.”
 - “The ILI is the ratio of the level of current annual real losses (CARL) from the water audit, to the unavoidable annual real losses (UARL).”
 - “The UARL is a reference minimum level of leakage that is calculated in a system-specific manner for a water utility.”

Guidelines for Setting a Target Level Infrastructure Leakage Index

Target ILI Range	Water Resources Considerations	Operational Considerations	Financial Considerations
1.0-3.0	Available resources are greatly limited and/or environmentally unsound to develop	Leakage above this level requires expansion to existing infrastructure and/or new water resources	Water resources are costly to develop or purchase; ability to raise revenue (rates) is limited
3.0-5.0	Water resources believed sufficient for long term needs, using good leakage control	Existing infrastructure capability sufficient, with good leakage control	Water resources can be developed or purchased at reasonable expense; rates can be raised
5.0-8.0	Water resources are plentiful, reliable and easily extracted	Superior reliability capacity and integrity of infrastructure	Low water purchase cost; customer affordability no issue
Greater than 8.0*			

*Operational and financial considerations may allow long term ILI, but this is not an effective utilization of water as a resource. This is discouraged.

Comparing ILI to TN UFW% Data of 77 TN Systems



* Data source from Unaccounted Water Report, TCA Filing Date: February 1, 2010

** ILI calculations based on number of service connections & length of mains provided by others. AWWA Water Audit default values of 1.25% for unbilled unmetered & 0.25% for unauthorized consumption. 2% used for customer metering inaccuracies & 60 psi for average operating pressure.

AWWA Audit Data Required

- Same data as required for Schedule UFW
- Additional data required for TN systems
 - Miles of water main
 - Number of service connections
 - Average system pressure
 - Annual cost of operating water system
 - Customer retail unit rate
 - Variable production & purchase cost
- Download software: AWWA.org
 - Professional and Technical Resources; WaterWiser; Read all about....new version 4.2 free Water Audit Software; etc.

Components of Managing Real Losses



Contact Information

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