Guidelines for Setting a Target Infrastructure Leakage Index (ILI)

(without a full economic analysis of leakage control options*)

Once data has been entered into the Water Audit Worksheet, the performance indicators are automatically calculated. The Water Loss Control Committee of the American Water Works Association provided the following table to assist water utilities in gauging an approximate infrastructure leakage index that is appropriate for their water system and local conditions. The lower the amount of leakage and real losses that exist in the system, the lower the infrastructure leakage index will be.

Target Infrastructure Leakage Index Range	Financial Considerations	Operational Considerations	Water Resources Considerations
1.0 - 3.0	Water resources are costly to develop or purchase; ability to increase revenues via water rates is greatly limited because of regulation or low ratepayer affordability.	Operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand.	Available resources are greatly limited and are very difficult and/or environmentally unsound to develop.
>3.0 - 5.0	Water resources can be developed or purchased at reasonable expense; periodic water rate increases can be feasibly imposed and are tolerated by the customer population.	Existing water supply infrastructure capability is sufficient to meet long-term demand as long as reasonable leakage management controls are in place.	Water resources are believed to be sufficient to meet long-term needs, but demand management interventions (leakage management and water conservation) are included in the long-term plan.
>5.0 - 8.0	Cost to purchase or obtain/treat water is low, as are rates charge to customers.	Superior reliability, capacity, and integrity of the water supply infrastructure make it relatively immune to supply shortages.	Water resources are plentiful, reliable, and easily extracted.
Greater than 8.0	Although operational and financial considerations may allow a long-term infrastructure leakage index greater than 8.0, such a level of leakage is not an effective use of water as a resource. Setting a target level greater than 8.0 other than as an incremental goal to a smaller long-term target is discouraged.		
Less than 1.0	If the value of the infrastructure leakage index for your system is 1.0 or less, two possibilities exist: 1) You are maintaining your leakage at low levels in a class with the top worldwide performers in leakage control; or 2) A portion of your data may be flawed, causing your losses to be greatly understated. This is likely if you calculate a low value but do not employ extensive leakage control practices in your operations. In such cases, it is beneficial to validate the data by performing field measurements to confirm the accuracy of production and customer meters or to identify any other potential sources of error in the data.		

*Note: This table offers an approximate guideline for setting leakage reduction targets. The best means of setting such targets include performing economic assessments of various loss control methods. However, this table is useful if such assessments are not possible or a preliminary target is desired.