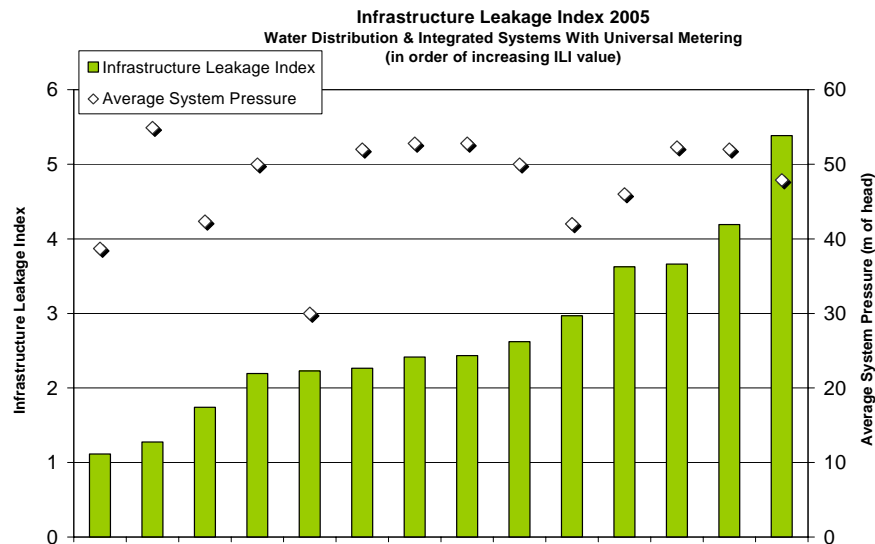


## National Water and Wastewater Benchmarking Initiative: Water Loss Management Task Force ([www.nationalbenchmarking.ca](http://www.nationalbenchmarking.ca))



Earth Tech developed an ongoing benchmarking initiative that more than 35 Canadian cities and regional organizations are participating in today. The project began as a pilot project in 1997 with 4 participant cities and has grown to the point where the initiative serves as the national standard for water and wastewater utility benchmarking in Canada and is considered to be the world's most advanced public sector metric benchmarking exercise.

Water loss management and reduction is currently seen by some as the greatest new source of untapped water in North America, yet it is only recently that Canadian cities have come to realize the benefits of managing their water losses to reduce operational costs, reduce treated water demands and to prove to their customers and other stakeholders that they are responsible custodians of the region's water sources.

At the 2006 Benchmarking Summary Workshop in Banff, a breakout session was held on "Global Trends in Water Loss Reduction". This session presented a summary of international progress in water loss reduction from the Leakage 2005 conference along with progress made to date through the benchmarking initiative. Until 2006, the Benchmarking initiative had used the basic technical performance measure of Non-revenue water, measured in L/connection/day for distribution and integrated systems and in m<sup>3</sup>/km/day for transmission systems.

The outcome of the 2006 breakout session was an agreement for the Benchmarking initiative to move forward on collecting data for the Infrastructure Leakage Index (ILI), the international best practice performance measure advocated by the International Water Association (and the American Water Works Association). The Water Loss Management Process Benchmarking Task Force was formed in 2006, with active participation from 15 cities from across Canada.

The goals of the Water Loss Management Task Force include data collection for the ILI and comparing estimates for unmetered water consumption volumes with the aim to develop standard methods for these estimates. The next step will be to investigate the water loss management measures of the benchmarking participants and leverage this practical experience and related cost and benefit data to determine which initiatives provide the best results per dollar spent.

### PROJECT DETAILS

Client: 15 municipalities throughout Canada  
 LOCATION: Canada Wide

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### PROBLEM

The benchmarking performance measure of Non-Revenue Water in L/connection/day did not accurately represent the level of leakage and the impact of system pressure on leakage.

### CHALLENGES

To develop and collect accurate input data to determine the real loss (leakage) for each City, including the estimation of unmetered volumes such as main flushing and fire fighting.

### SOLUTION

Data collection for the international best practice performance measure for water loss, the Infrastructure Leakage Index (ILI).

Interested cities work together as a group to share their methodologies for estimating unmetered consumption and other input parameters required for the ILI.

Facilitated workshop session attended by utility managers to consolidate the results.

### BENEFITS

Utility managers are able to compare their water loss performance using more advanced performance measures such as the ILI and Real Loss in L/connection/day.

Utility managers are able to leverage from each others' experiences in implementing water loss reduction strategies.