The following list was compiled for presentation at a panel on “Water Loss Impacts and Opportunities” held on December 8, 2015 as part of the first North American Water Loss Conference (NAWL) in Atlanta, Georgia.

The benefits of analyzing apparent and real losses in a utility system are so clear as to be irrefutable. Utilities can recover significant revenue as well as cost-effective supply from fixing their leaks. So why are utilities not flocking to examine NRW?

Here is our take on this problem:

1. **We have a historical tradition of ignoring water loss in North America.** The assumption has always been that our modern utilities are “system tight” and have no need of further detailed analysis. In fact, most utilities have largely fabricated numbers in the past on their unaccounted for water percentages, and they have a history of sticking to those numbers.

2. **Distribution system managers are now embarrassed to admit that their prior numbers were actually wrong.** This is a political as well as an HR problem. Admitting the true state of the water utility system is a negative message to a water utility board, as well as a HR performance problem for distribution system managers. No one wants to now come clean -- for fear of reprisals.

3. **Employee performance appraisals don’t currently encourage seeking better accuracy in water loss reporting.** There are no incentives for distribution system managers to now work hard on NRW. Upper utility managers need to encourage and even reward this brave behavior. Adopting water loss policies within the utility would help this tremendously.

4. **General Managers and Board Members assume that the NRW solutions are too costly and unaffordable, and therefore better evaluation of NRW is pointless.** Water sales revenues are down in most utilities because of declines in per capita consumption, and there is no easy discretionary money anymore. There is a fear on the part of many finance directors that the NRW solutions will be extremely costly (new meters, new pipes) and thus unaffordable. So why go look for NRW and let Pandora out of the box?

5. **There is fear of letting the ratepayers know the truth.** As many utilities are facing drought and asking their consumers to reduce their water use, they are reluctant to now admit that their leakage might be excessive. It is a
utility messaging problem to its own customers. If leakage was really so serious, the beleaguered consumer might legitimately ask, why didn’t the utility do this FIRST?

6. **Lack of dedicated utility funding for NRW is a perceived barrier to progress.** The irony is that NRW reduction actions don’t have to be funded out of stressed operating budgets where funds may be already tight; they can be funded out of capital improvement programs (capex) or performance based loans. The payback is excellent: money saved by recovering and selling lost water more than pays for the cost of its recovery.

7. **There is little perceived connection of NRW management to overall sustainability/climate change resiliency goals that the utility may have.** Nothing makes a utility system more resilient than controlling its wanton leakage. Being in control of all of its assets enables a better response when water shortages occur due to climate change and other factors. Being sustainable means managing water resources responsibly, and controlling NRW should be part of that needed response but so far is not.

8. **There is a little government regulation of water loss in most states.** Where state policies do exist, they are based on the antiquated “unaccounted for water” percentages, which are not often accurate (see point #1) and can mask the true impact of leakage in different sized water systems. Managing NRW should be a matter of government and regulatory concern. Bond rating agencies are now starting to look at NRW as a way to measure utility system efficiency, but so far government policies and guidance are mostly nonexistent.

9. **A true Business Case analysis of NRW is not a prevalent practice nor even perceived as a necessary undertaking.** Thus, the benefits of reducing leakage in a utility system are not even examined. Clear payback on NRW reduction investment is not analyzed, which is an antiquated way of managing a business, let alone a precious natural resource.

10. **The Value of Water is taken for granted, both by the utility system managers and the consumers that they serve.** The “value” of water is not what the utility might have paid back in 1910 when they acquired the water supply, it is the marginal cost of acquiring new water; recovering leaks then becomes the cheapest source of new supply. And when a customer is willing to pay 10,000 times more for water in a bottle versus from the tap, we clearly have a problem with the customer not valuing the incredible investment in drinking water that they now enjoy for very little money. Until we change this fundamental perception problem at both the utility and customer levels, NRW management will not reach the priority that it should.