Are Ye a Screecher?

At the eastern-most part of North America is a historic port city in Newfoundland named St. John’s. Visitors wishing to become a “Newfoundlander”—and who would not wish that, at least in spirit—can take part in a voluntary and yet somewhat unsavory ceremony known as Screeched In. It involves a voluntary sip of a local rum called Screech, a pledge made in the local dialect, and an unpleasant kiss on the lips of a dead cod.

Approximately 350 miles south and west of St. John’s, as the crow flies, is Halifax, the capital city of the province of Nova Scotia. The local utility, Halifax Water, recently had its own voluntary experience, guided by its pledge and requiring it to face an unpleasant reality—all of which has made the utility a model for all other utilities.

Halifax has concerns about lead in its water. Health Canada is the organization that produces the guidelines for Canadian drinking water quality, but it is up to each province to adopt the guidelines (or not). And in Nova Scotia, other than ensuring water is noncorrosive to lead, there is almost no lead regulation.

Halifax stopped allowing lead service lines (LSLs) in the 1950s and had an active LSL removal program starting in the 1970s until 2012. Like many utilities, Halifax Water was mostly replacing the “public” portion of the LSLs because it did not own the “private” portion and access to private LSLs was controlled by property owners. Halifax once had approximately 13,000 LSLs, and now the number is in the range of approximately 2,500. But again, that is only the public portion; there isn’t a reliable estimate of the remaining private LSLs.

What happened in 2012 that made Halifax Water stop replacing public LSLs? The answer is research that was significant enough to make the utility reaffirm its pledge to its customers. In 2007 Halifax Water voluntarily and strategically started a research partnership with Dalhousie University and Graham Gagnon, an expert in distribution system water quality. In 2012 Dr. Gagnon’s research confirmed that replacement of only the public portion of an LSL (a partial replacement) could cause an increase in the lead concentration in drinking water for a period of days to months after the replacement. Armed with this new research, Halifax Water realized the unpleasant reality: its operational approach of removing the public LSLs had resulted in a direct, unintentional conflict with its pledge to protect the public’s health. This new reality was unacceptable, so Halifax Water stopped performing partial LSL removals. At the same time, Halifax Water also realized that the only real solution was to remove the entire LSL, but how could it motivate property owners to remove their portion?

Then, in 2015, the National Drinking Water Advisory Council (NDWAC), which advises the US Environmental Protection Agency, called on US utilities to work in partnership with their customers and commit to replacing all public and private LSLs by 2050. In 2016, AWWA endorsed the NDWAC recommendations. The combination of Dr. Gagnon’s research, the NDWAC recommendations, and AWWA’s support of the recommendations spurred Halifax Water to pursue a new approach to LSL replacement.

Halifax Water’s new approach is modeled after the NDWAC recommendations and includes five key elements. The first is removing full LSLs and includes several conditions in which the utility bears the entire replacement cost. The second element is a multipronged communication strategy with customers that includes literature, web applications, web links, and targeted customer outreach. Knowing that one of Halifax Water’s great challenges is determining the number of private LSLs, the third component includes strategies that allow the utility to consistently develop an inventory of existing public and private LSLs. The fourth element is continued corrosion control—now and after all the LSLs are removed. The final element is water quality sampling.

In February 2017, to remove the largest barriers for its customers, Halifax Water appealed to the Nova Scotia Utility and Review Board to change regulations to allow the utility to (1) perform full LSL replacements in the event of an unplanned disturbance to an existing LSL, with the entire cost paid by the utility and (2) provide a 25% rebate (up to $2,500) to utility customers who have planned removal of LSLs and to work with the regional municipality to develop a loan program for the remaining 75% of the costs for the customer. The review board granted the request.

The approach developed by Halifax Water is a model for all utilities that want to fully remove LSLs to protect their customers. Above all, it is the strategic tenacity with which Halifax Water pursued its goal that I find so impressive. According to regulations, it did not have to but they did so voluntarily because the utility’s pledge to its customers was more powerful than any regulation. And the result, well it is certainly more pleasant than kissing a dead cod—trust me, I know—because I am a Screecher.

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