

ARTICLE 2: The First Comprehensive Municipal DIRT Report is In!

Each year, many of Ontario's utility owners submit their Damage Investigation Reporting Tool (DIRT) findings to the ORCGA. This information is used to compile the annual DIRT report, published each spring. Historically, no medium or large municipal utility has completed the voluntary reporting, which has limited knowledge and awareness across the industry. Halton Region is the first municipality to submit information which will be included in the 2018 report. This article takes a closer look at their findings for water system damages.

Municipalities own the majority of infrastructure buried within roadway corridors. In Ontario, this typically includes water systems, wastewater and storm sewers, street lighting, traffic control systems, and some small fiber optic communications. While a small percentage of municipalities voluntarily became members of Ontario One Call, most did not until June 19, 2014, when it became required under the Ontario Underground Infrastructure Notification System Act.

Since then, municipal membership in ORCGA has grown from 27 municipalities to 46. Despite ORCGA membership including over 10% of the province's 444 municipalities, the current members reflect many medium and large municipalities, representing the majority of Ontario's population. These members have increased their attendance and participation in ORCGA events, including a dedicated panel discussion at the most recent 2019 Damage Prevention Symposium in Niagara Falls.



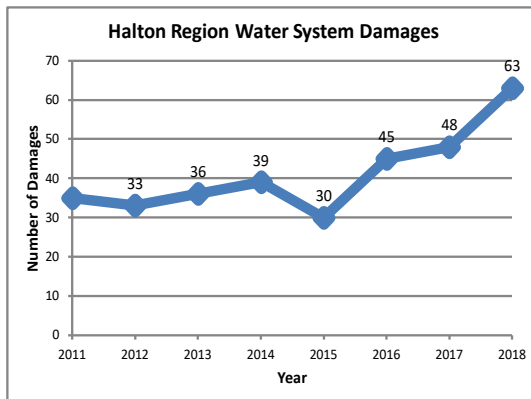
As relatively new ORCGA members, municipalities had not yet participated in the annual voluntary DIRT reporting.

As a new member, Halton Region wanted to contribute to the organization's goals by submitting the first comprehensive reporting done by a municipality.

Halton Region is an excellent candidate to submit information because, just like Ontario itself, it has a mix of large and growing cities, small towns and hamlets, and a considerable rural area.

Water system reporting was selected as the first submission because system damages always require Halton Region to be informed of the incidents and attend all repairs. In preparing their submission, Halton Region wanted to provide data for as many years as possible, to show trends.

Fortunately, they were able to mine the data within their computerized maintenance management system that went live in 2010. The system was used to examine every water system damage work order record from 2011 to 2018 and complete a DIRT report for each damage incident. The incident details were then entered into ORCGA's shared system at the end of the year. This eight-year review period allowed Halton Region to consider damages pre-and-post Halton Region's June 19, 2014 membership to Ontario One Call.



Generally, the findings show that between 2011 and 2018, the number of damage incidents did not improve. The review also made it clear that, like other industries, water system damages are mostly caused by contractor hoes/trenchers. However, unlike other reporting utilities, water system damages were almost exclusively caused by water/sewer jobs and rarely by other types of work performed.

The DIRT reporting program then allowed Halton Region to compare themselves to other types of utility owners for the first time using an 'apples-to-apples' approach to gain a better understanding of their damage prevention program. In doing so, they discovered that their damages per notification ratio has been 'best-in-class' for several years. Halton Region's locates program can already be considered successful, and the DIRT reporting now provides them with strategic information to shift to a more proactive model for damage prevention.

While all utility owners are now mandated to be members of Ontario One Call, Halton Region observes that most ORCGA participants tend to be excavators, operations, dedicated damage prevention teams, or LSPs. Project designers and project owners do not yet have a notable presence or engagement. At the same time, the DIRT report shows that the ratio of damages per notification has stalled industry-wide since 2014. This stalled momentum may be the best that can be expected given that project owners delegate the majority of damage prevention responsibility through their contractors to an assembly of locators under a 5-day response constraint.



The CCGA Best Practices V3.0 outline many proactive damage prevention measures that could be done by project designers and project owners prior to tendering and construction. The industry may need to consider that damage per notification ratios will remain flat until more design-stage practices are voluntarily undertaken, or provincially required.

About the authors: Eric Boere is the Manager of Water & Wastewater System Services at Halton Region. Shweta Salil is a Civil Engineering, Honours, Co-operative Program student at the University of Waterloo.