

2011 DIRT REPORT

version 5.0

ORCGA Damage Information Reporting Tool
Analysis & Recommendations

Published April 2012

DRIG
SAFE

What is the ORCGA?

The Ontario Regional Common Ground Alliance (ORCGA) is a non-profit organization promoting efficient and effective damage prevention for Ontario's vital underground infrastructure. Through a unified approach and stakeholder consensus, the ORCGA fulfils its motto of "Working Together for a Safer Ontario".

We are a growing organization with over 440 organizations as active members and sponsors, and represent a wide cross section of stakeholders including:

Oil & Gas Distribution
Transmission Pipeline
Road Builders
Safety Organization
Homebuilder
Engineering
Land Surveying

Equipment & Suppliers
One-Call
Insurance
Regulator
Locator
Railways

Landscape/Fencing
Telecommunications
Excavator
Municipal & Public Works
Electrical Distribution
Electrical Transmission

For over a decade these stakeholder groups have been active in promoting "Call Before You Dig" and other good damage prevention practices individually, or through smaller separate organizations. In 2003, these groups amalgamated under the ORCGA name to provide a single voice representing the damage prevention community in the province. The ORCGA is a regional chapter of the Common Ground Alliance (CGA) based in Alexandria, Virginia, which was formed in 2000 to further damage prevention efforts in North America.

The ORCGA welcomes comments and new members on its various committees. In order to submit a suggestion, or to join a meeting, please visit orcga.com to learn about the scope of the various committees. General inquiries about the ORCGA can be made at:

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To learn more about ORCGA's Dig Safe Campaign, visit digsafe.ca

Introduction

The Damage Information Reporting Tool (DIRT) is the result of the efforts made by the Ontario Regional Common Ground Alliance (ORCGA) to gather meaningful data about the occurrence of facility events. An “event” is defined by the DIRT User’s Guide as “the occurrence of downtime, damages, and near misses.” Gathering information about these types of events gives the ORCGA the opportunity to perform analyses of the contributing factors and recurring trends, as well as identify potential educational opportunities with the overall goals of reducing damages and increasing safety for all stakeholders.

The Annual DIRT Report provides a summary and analysis of the known events submitted during the prior year, and as additional years of data are collected, also provides the ability to monitor trends over time. The 2011 Report focuses on the data gathered throughout Ontario during the three year period between 2009 and 2011. This data can be helpful for all stakeholders to use as a benchmark for their damage prevention performance. It identifies current issues facing industry region and province wide.

In addition to the number of records submitted, another important factor is the completeness of those records. Complete records allow for better overall analysis and provide for a more inclusive review of the contributing factors behind the events themselves. Each submitted record contains numerous data elements that are vital to understanding and interpreting the incidents reported in DIRT. The majority of the submitted events for the 2011 Report were missing one or more data elements, either using “Unidentified” or “Data Not Collected” for a required field, or leaving blank a non-required field. When there are small percentages of known data for a specific field, it becomes difficult to perform a meaningful analysis. It is of vital importance that stakeholders align their data collection and reporting practices with those found on the DIRT form. As a way to gauge the overall level of completion for the records submitted, the Data Quality Index, or DQI, was implemented in 2009 and has been reported again in 2011. The DQI provides a quantitative benchmark for stakeholders or organizations to review the quality of the facility event records that they submit on an ongoing basis. More complete event records lead to a higher overall DQI, and therefore a better, more complete analysis.

In 2010, the Reporting and Evaluating (R&E) committee better defined the different root causes included in the DIRT – Field Form. The Root Cause Tip Card can be found within the Annual DIRT Report. This is an attempt to improve the consistency of how events are reported through DIRT and in turn the data quality.

With the 2009 addition of the DQI and the 2010 addition of the Root Cause Tip Card, it is hoped that stakeholders will be lead to better identify opportunities to improve their data collection and reporting practices. The R&E committee hopes that improved data collection and reporting practices will lead to quality data that can be better used by other ORCGA committees to create best practices and educational programs that prevent damage to underground infrastructure and create a safer Ontario.

When reviewing the statistics published in this report, it is important to note that records with missing data were filtered out, leaving only the events with complete data. Events that are incomplete are illustrated as “Unidentified” and are located separately to the left of the main chart.

The potential exists that more than one report may be submitted for the same event, such as one by the excavator and one by the facility owner. There can be a benefit to this scenario. For example, data may be included on one submission that was omitted on the other. In addition, the way that different Stakeholders interpret the Root Cause of the same event may yield interesting insights. The DIRT system compares each field within each report submitted against the fields of all other reports in DIRT, and calculates the probability that it matches an already submitted event. It becomes more difficult to determine if the DIRT system includes multiple reports for the same event as fewer fields are completed.

When reviewing statistics published in this report, it is also important to note that due to retroactive submission by DIRT users, the volume of facility events submitted by year will be changing with each report.

Data Analysis Disclaimer: Industry stakeholders have voluntarily submitted their underground facility event data into DIRT. The data submitted is not inclusive of all facility events that occurred during the Report year. The analysis of said data may not be representative of what is actually occurring in any particular geographic area(s) or for any particular industry group(s). Please use caution when drawing conclusions based upon the data or the Report.

Questions in regards to registering and/or inputting data into DIRT may be forwarded to orcga@cogeco.ca.

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Data Element Analysis

1. Facility Element Analysis

In previous years, the DIRT report has shown a continuous decrease in the number of facility events submitted between 2005 and 2008. In Figure 1, which is a measure of DIRT use, it can be seen that this trend has changed. This change could be a result of retroactive submission from newly registered stakeholders. As a result, some statistics here within will be different than those previously reported as well as trends may differ year-to-year.

Figure 1 Facility Events Submitted by Year

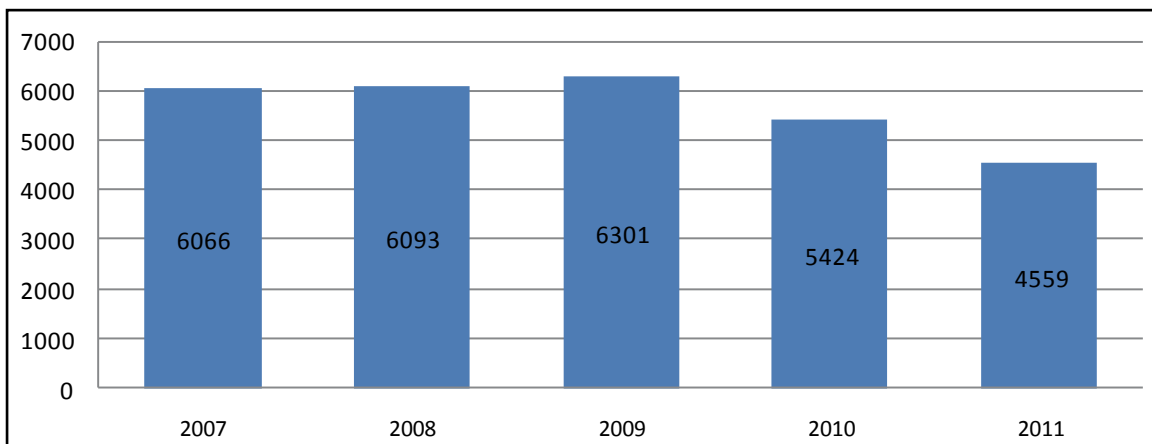
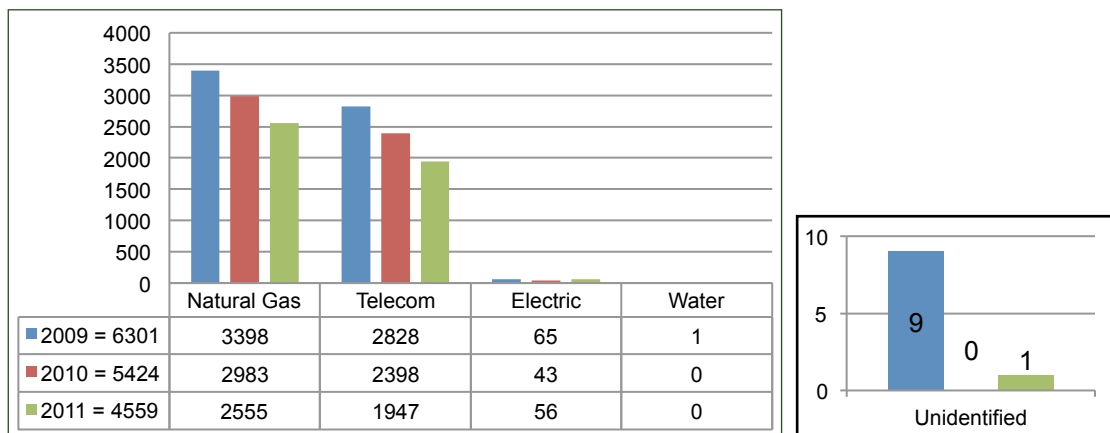


Figure 2: Submitted Facility Events by Type of Facility Affected



In 2010 it was suspected that the decrease in the number of events submitted could have been due to a decrease in the number of the events that occurred or in the number of the stakeholders reporting the events. In 2011 the number of stakeholders submitting increased by 7.7%, ruling out a decrease in stakeholders as the cause for this year's 19% decrease in damages. Figure 2 is a measure of the volume of damages occurring.

2. Facility Events Submitted Across Ontario

Trends in record submissions remain fairly similar to previous years and do not indicate any significant differences. Table 1 shows the number of submitted events for each geographical area. Figure 3 illustrates that over the past three years, no geographic area has fluctuated greatly in the percentage of records submitted.

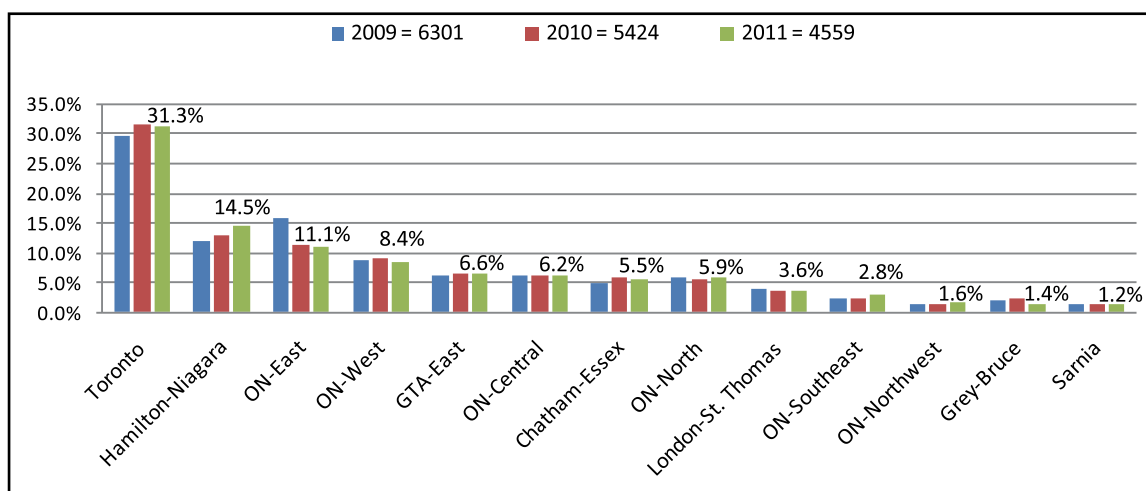
Table 1: Submitted Events per Geographical Area

Geographic Area	Events	%
Toronto	1425	31.3%
Hamilton-Niagara	662	14.5%
ON-East	505	11.1%
ON-West	383	8.4%
GTA-East	300	6.6%
ON-Central	282	6.2%
Chatham-Essex	249	5.5%
ON-North	269	5.9%
London-St.Thomas	164	3.6%
ON-Southeast	129	2.8%
ON-Northwest	74	1.6%
Grey-Bruce	64	1.4%
Sarnia	53	1.2%
Grand Total	4559	100%

Table 2: Geographical Area Breakdown by City

Geographical Area	Cities
Toronto	Peel Toronto York
Hamilton-Niagara	Halton Hamilton Niagara Haldimand-Norfolk
ON-East	Lanark Prescott Renfrew Stormont, Dundas & Glengarry Ottawa
ON-West	Brant Huron Oxford Perth Waterloo/Wellington Wellington County
GTA-East	Durham Kawartha Lakes Northumberland Peterborough
ON-Central	Dufferin Simcoe
Chatham-Essex	Chatham-Kent Essex
ON-North	Algoma Cochrane Greater Sudbury Haliburton Manitoulin Muskoka Nipissing Parry Sound Sudbury District Timiskaming
London-St.Thomas	Elgin Middlesex
ON-Southeast	Frontenac Hastings Leeds & Grenville Lennox & Addington Prince Edward
ON-Northwest	Kenora Rainy River Thunder Bay
Grey-Bruce	Bruce Grey
Sarnia	Lambton

Figure 3: Percentage of Records Submitted per Geographical Area



3. Submitted Facility Events by Stakeholder Group

As in 2010, some stakeholders chose not to submit to DIRT. In 2011 however, there was an approximate 40% increase in the number of events submitted by the Electric stakeholder as compared to 2010.

Figure 4: Submitted Facility by Events by Stakeholder Group

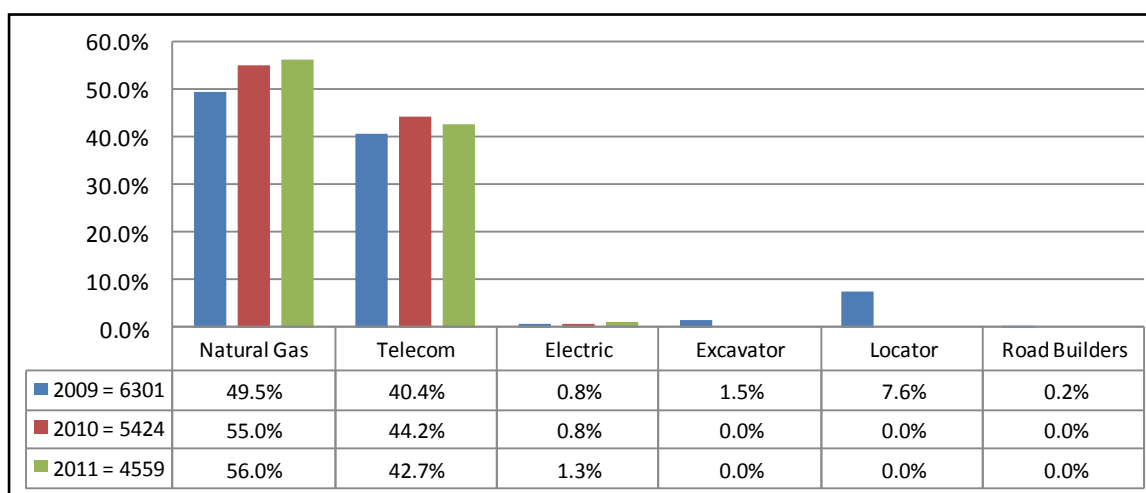


Table 3: Events Submitted by Stakeholder Group

Stakeholder Group	2009 Events	2010 Events	2011 Events
Natural Gas	3199	2983	2555
Telecommunications	2548	2398	1947
Electric	53	43	57
Excavator	95	0	0
Locator	476	0	0
Road Builders	10	0	0
Grand Total	6301	5424	4559

4. Submitted Facility Events by Type of Facility Operation Affected

Natural Gas and Telecommunication facilities continue to be identified as the facility operation affected in the majority of events reported in DIRT. This aligns with the fact that Natural Gas and Telecommunication stakeholders continue to submit the majority of events

Figure 5: Submitted Facility Events by Type of Facility Affected

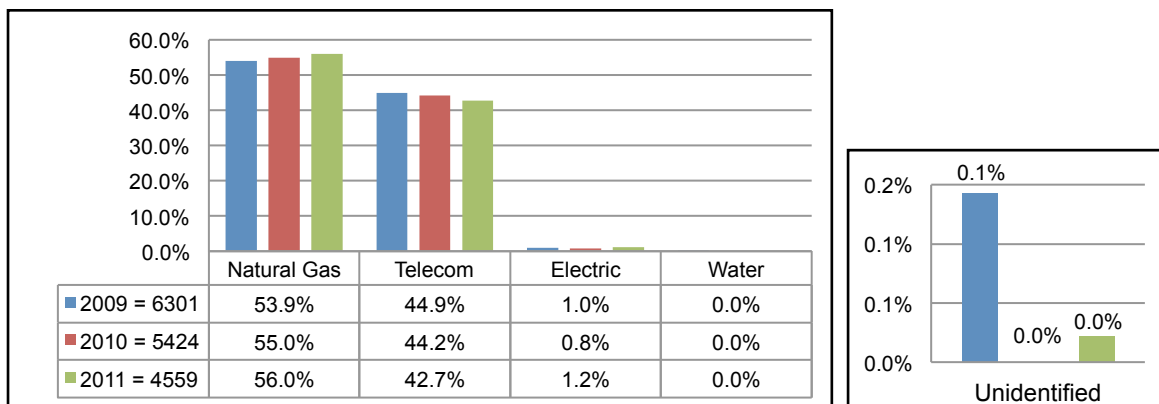


Table 4: Events by Affected Facility

Facility Affected	2009 Event	2010 Events	2011 Events
Natural Gas	3398	2983	2555
Telecommunications	2828	2398	1947
Electric	65	43	56
Water	1	0	0
Unknown/Other	9	0	1
Grand Total	6301	5424	4559

5. Frequency of Events by Excavation Equipment Group

In 2011, the Hoe/Trencher group accounts for the largest percent of damages in the Excavation Equipment Type category, as seen in Figure 6. However, this percentage is decreasing and being replaced by increasing damages involving Drilling. It is encouraging to see that excavators are more often adhering to Best Practices for digging in close vicinity of underground facilities.

Table 5 defines the types of excavation equipment included in each equipment group.

Table 5: List of Equipment Groups

Group	Excavation Equipment Type
Hoe/Trencher	Backhoe/Trackhoe Trencher
Hand Tools	Hand Tools Probing Device
Drilling	Auger Boring Directional Drilling Drilling
Other	Farm Equipment Grader/Scraper Milling Equipment Vacuum Equipment

Figure 6: Percent Frequency by Excavation Equipment Group

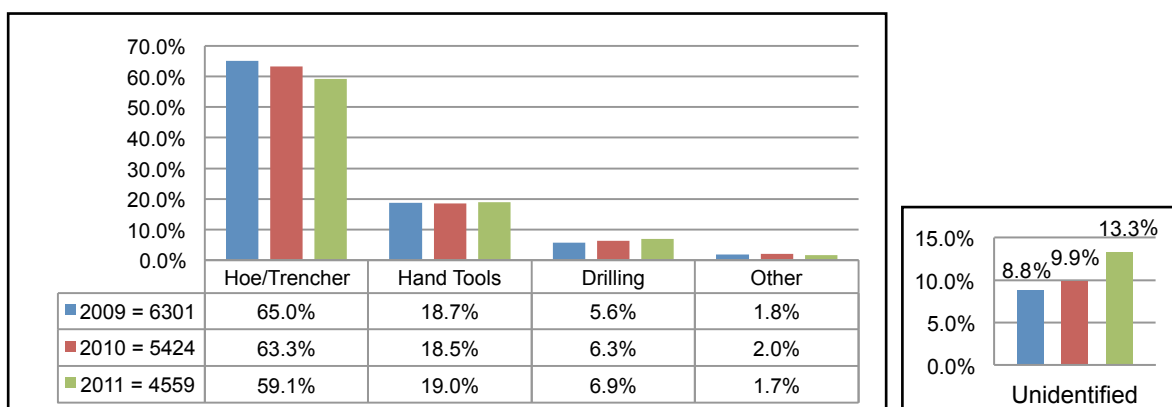


Table 6: Volume of Events by Excavation Equipment Group

Root Cause Group	2009 Event	2010 Events	2011 Events
Hoe/Trencher	4097	3432	2696
Hand Tools	1180	1003	866
Drilling	356	344	316
Other	112	107	76
Unidentified	556	538	605

6. Facility Events Reported by Root Cause Group

Table 7 explains the detailed root causes included in each root cause category. Refer to the Root Cause Tip Card (pg 26) for a more detailed breakdown of the meaning of each root cause group. Depending upon which reporting stakeholder submits data for a facility event, the root cause percentages can vary significantly as indicated in Figure 7.

Table 7: List of Root Causes

Group	Root Cause Type
Excavation practices not sufficient	Failure to maintain clearance Failure to maintain the marks Failure to support exposed facilities Failure to use hand tools where required Failure to verify location by test-hole (pot-holing) Improper backfilling Unknown Subcategory
Locating practices not sufficient	Facility marking or location not sufficient Facility was not located or marked Unknown Subcategory
Miscellaneous root causes	Abandoned facility Data Not Collected Deteriorated facility Other
Notification NOT made	No notification made to the One-Call center
Notification practices not sufficient	Notification to One-Call center made but not sufficient Wrong information provided
Incorrect facility records/maps	Incorrect facility records/maps

In order to develop useful education and marketing tools to improve the Damage Prevention Performance of Ontario, it is important to examine the cause of reported events. To further understand the most common reasons for facility events, the distribution of root cause subcategories can also be examined.

Figure 7: Percent Facility Events by Root Cause Group

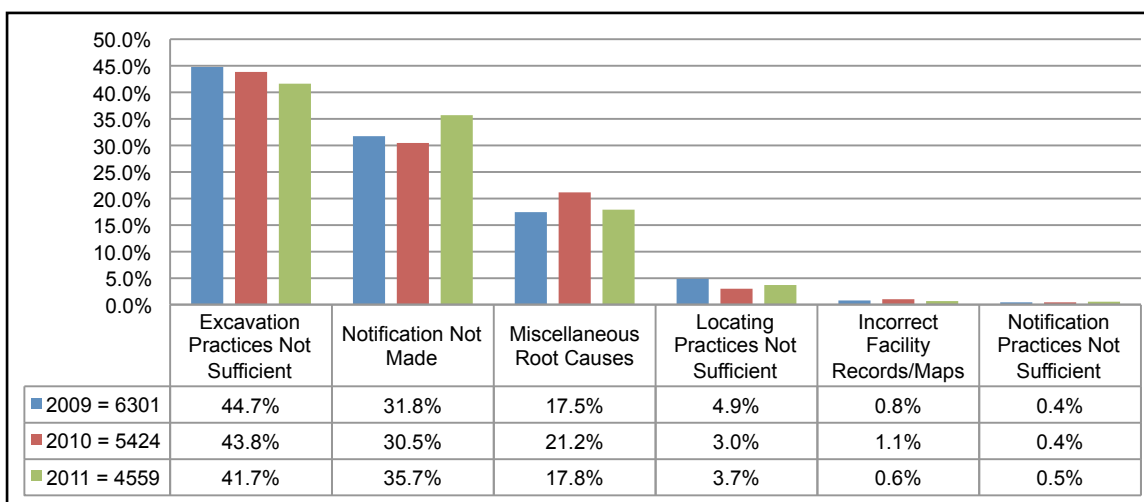


Table 8: Root Cause Category Volumes

Root Cause Group	Excavation Practices Not Sufficient	Notification Not Made	Miscellaneous Root Cause	Locating Practices Not Sufficient	Incorrect Facility Records/Maps	Notification Practices Not Sufficient
2009	2817	2003	1101	307	49	24
2010	2367	1654	1149	164	57	24
2011	1899	1626	813	170	28	23

Figure 7 and Table 8 indicate that the most common cause of facility events is that excavators are using insufficient practices. Percent contributions to No Locate damages have increased in 2011; however the volume of damages caused by no locates has decreased. Over the past three years, insufficient notification practices have contributed increasingly to the overall percentage of facility events. Excavators need to be educated on the importance of waiting for locates once requested and incorporating locate turnaround times into their work schedules. The use of white lining could also be better advertised in order to better communicate to locators where the excavation is intended to occur. In 2011, no locate events accounted for 6% less of the submitted events than insufficient excavation practices.

Figure 8 through Figure 10 illustrate the breakdown of each root cause group over the past three years.

Figure 8: Excavation Practices Not Sufficient Facility Events

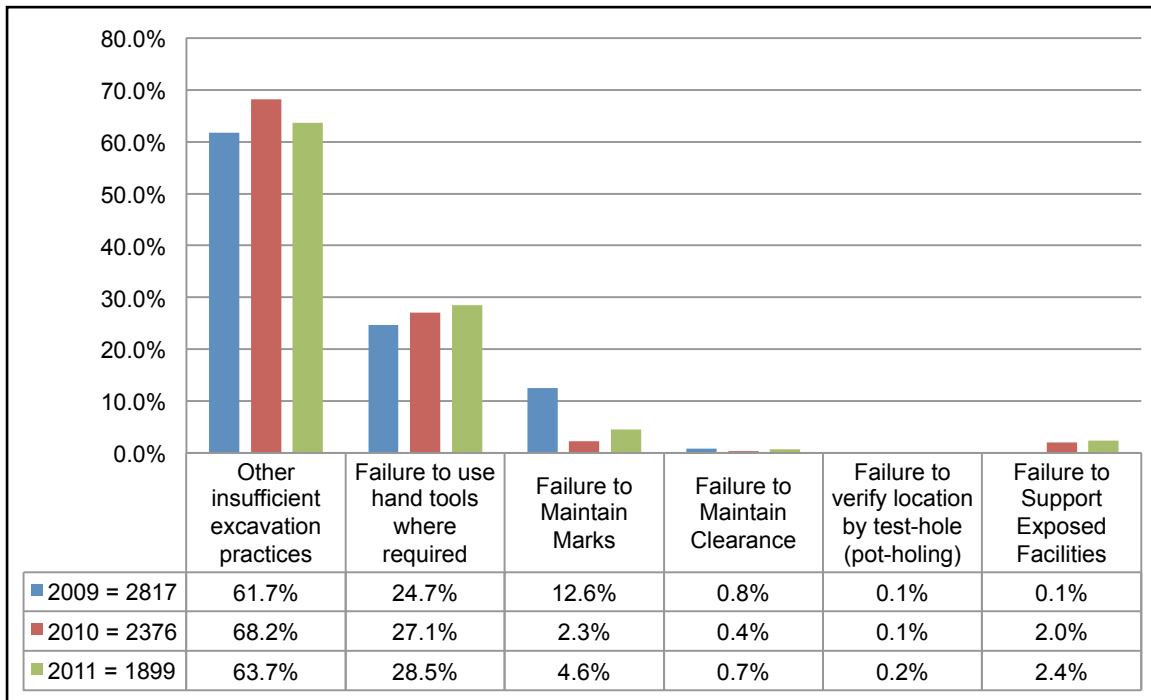


Table 9: Excavation Practices Not Sufficient Subcategory Volumes

Root Cause Subcategory	2009 Events	2010 Events	2011 Events
Other insufficient excavation practices	1293	1118	809
Failure to use hand tools where required	518	444	362
Failure to maintain marks	263	37	58
Failure to maintain clearance	17	6	9
Failure to verify location by test-hole (pot-holing)	2	1	2
Failure to support exposed facilities	2	33	31

As can be seen in Figure 8 and Table 9, the Excavation Practices Not Sufficient Root Cause Group is made up mostly of events caused by “Other insufficient excavation practices”. This Root Cause Subcategory is any other excavation error which cannot be classified as one of the other five root cause subcategories within the Excavation Practices Not Sufficient Root Cause Group. Figure 8 also discloses that excavators need to be better educated on when to use hand tools and to maintain the locate marks during the valid lifetime of a locate.

Figure 9: Locating Practices Not Sufficient Facility Events

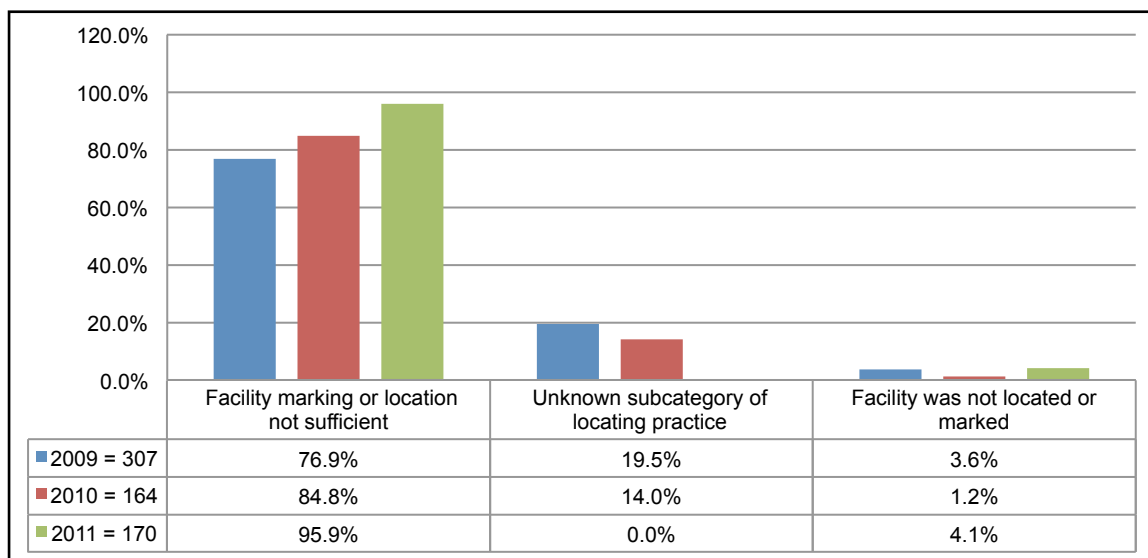
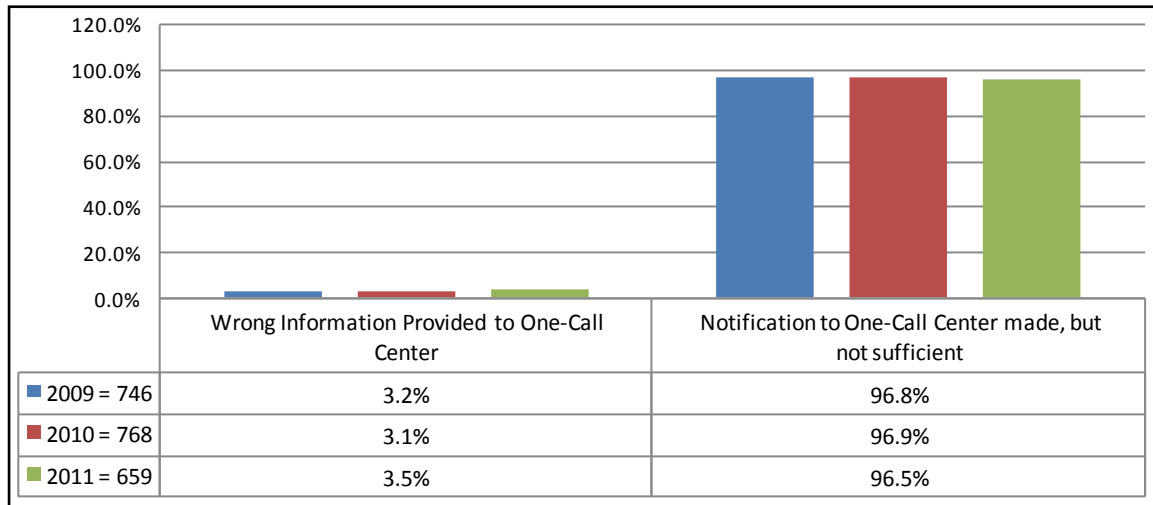


Table 10: Locating Practices Not Sufficient Root Cause Subcategory Volumes

Root Cause Subcategory	2009 Events	2010 Events	2011 Events
Facility marking or location not sufficient	236	139	163
Unknown subcategory of locating practice	60	23	0
Facility was not located or marked	11	2	7

Figure 9 and Table 10 indicate that DIRT submitters are better classifying events caused by locating practices not sufficient. It is likely that the drop in “Unknown subcategory of locating practice” events has been distributed among “Facility marking or location not sufficient” and “Facility was not located or marked”. If this is the case, it is possible that events due to “Facility marking or location not sufficient” didn’t necessarily increase in 2011, but remained the same. These events are caused, for example, by a locator marking a zone, but missing a service, by misinterpreting or not using utility records, or incorrectly toning facilities.

Figure 10: Notification Practices Not Sufficient Facility Events



The distribution of Notification Practices Not Sufficient root cause subcategories remains fairly stagnant from year to year. Although calls are being placed, further effort must be made to educate stakeholders on the correct information to provide to One-Call so that we can see a significant decrease in the subcategory volumes.

Table 11: Notification Practices Not Sufficient Root Cause Subcategory Volumes

Root Cause Subcategory	2009 Events	2010 Events	2011 Events
Wrong information provided to One-Call Center	24	24	23
Notification to One-Call Center made, but not sufficient	722	744	636

Figure 11 and Table 12 represent root causes that have no classification. Data not collected subcategory accounts for 17% of the total events. It is a measure of all events where a root cause was not selected. Although this has decreased from 20% from 2010, further effort must be applied to categorize each event.

Figure 11: Miscellaneous Root Cause Facility Events

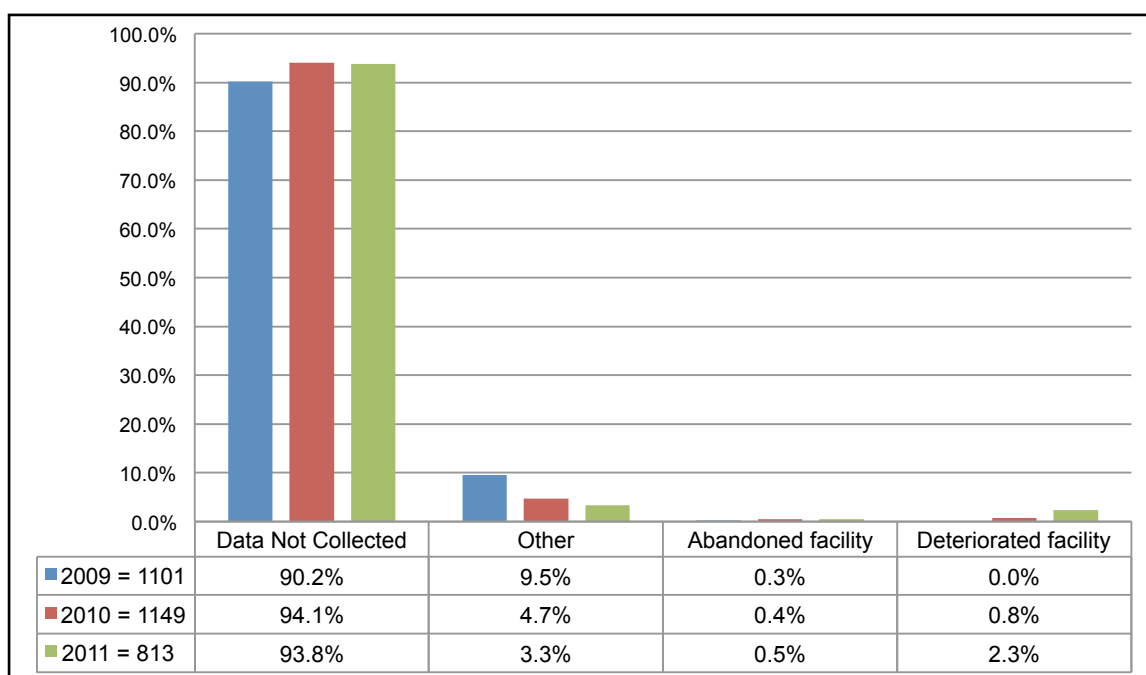


Table 12: Miscellaneous Root Cause Subcategory Volumes

Root Cause Subcategory	2009 Events	2010 Events	2011 Events
Data Not Collected	993	1081	763
Other	105	54	27
Abandoned Facility	3	5	4
Deteriorated Facility	0	9	19

7. Frequency of Events by Excavator Group

Figure 12 and Table 13 shows that contractors and developers continue to be involved in the majority of the reported facility events. Additional analysis of these groups is provided within the Multiple Field Analysis portion of this report where it can be observed that the number of events submitted with the Homeowner listed as the excavator decreased by 11% in 2011.

Figure 12: Facility Events by Type of Excavator

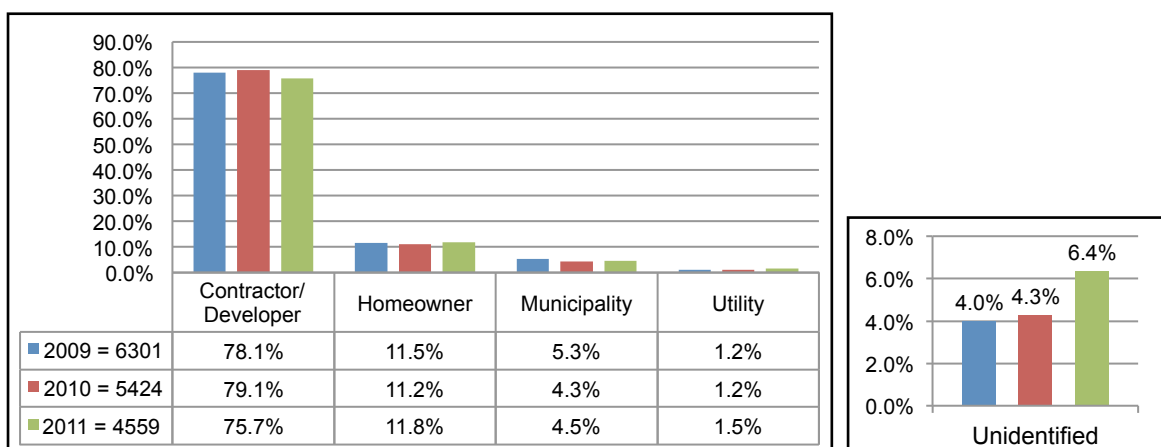


Table 13: Facility Events by Type of Excavator Volumes

Facility Events by Type of Excavator	2009 Events	2010 Events	2011 Events
Contractor/Developer	4919	4291	3453
Homeowner	725	606	539
Municipality	333	232	207
Utility	73	63	69

8. Facility Events by Type of Work Performed

The Sewer & Water and Utility work type groups continue to be involved in the majority of the facility events as seen in Figure 13 and Figure 14. There was a significant decrease in the number of events for all types of work performed with the exception of Utility where we see a slight increase. Overall, the number of total events is down by 16% over last year and 28% over 2009. Table 14 indicates which types of work are included in each group.

Table 14: List of Work Included in Each Work Group

Group	Type of Work Performed
Construction	Bldg. Construction Bldg. Demolition Driveway Grading Irrigation Site Development
Green	Agriculture Fencing Irrigation Landscaping Waterway Improvement
Sewer & Water	Drainage Sewer (Sanitary/Storm) Water
Street & Road	Curb/Sidewalk Milling Pole Public Transit Authority Railroad Maintenance Road Work Storm Drain/Culvert Street Light Traffic Sign Traffic Signal
Utility	Cable TV Electric Liquid Pipeline Natural Gas Telecommunications
Unknown/Other	Data Not Collected Unknown/Other

Figure 13: Percent Facility Events by Type of Work Performed

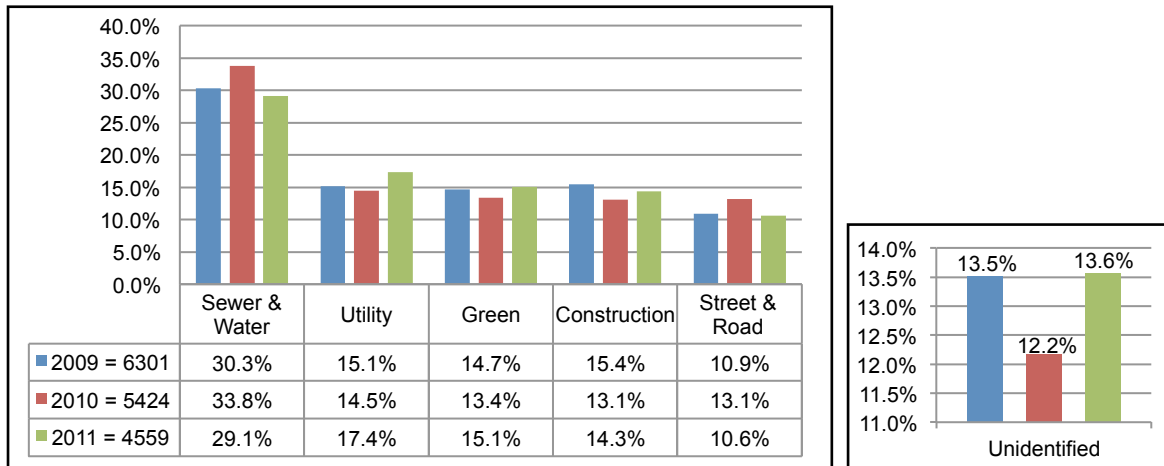


Figure 14: Volume of Facility Events by Type of Work Performed



Multi-Field Analysis

1. Analysis of Root Cause and Facilities Affected For Five Types of Work Groupings

The following charts illustrate the known root causes of events for the five work groups of Sewer & Water, Green, Construction, Utility, and Street & Roadwork for the years 2010 and 2011. The data presented in Figure 15 and Figure 16 indicates that the construction industry's events are caused mostly by the fact that locate requests are not being made. These industries mostly cause damages due to insufficient excavation practices. Figure 15 displays the percentage of events by known root cause group and industry.

Figure 15: Percent Facility Events by Root Cause Group and Industry

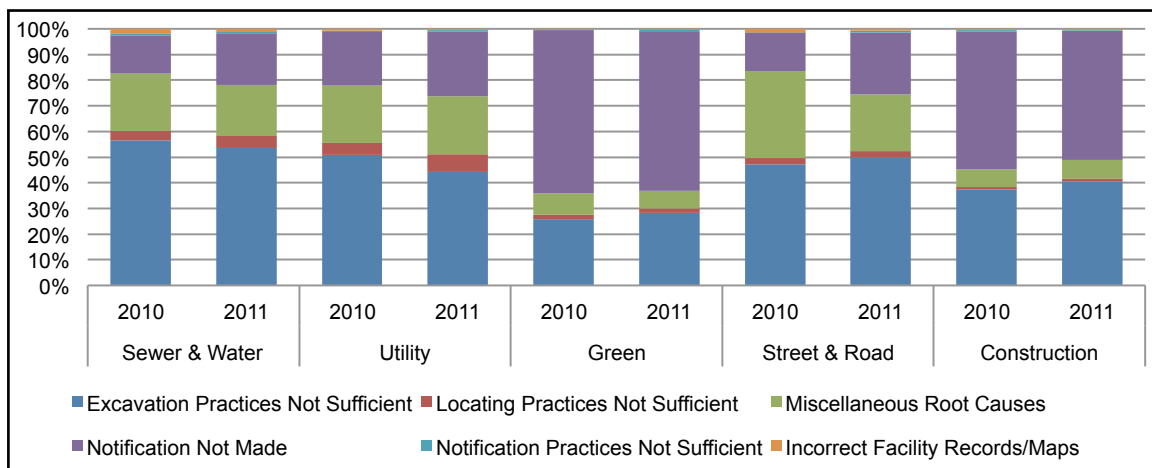


Figure 16: Volume of Facility Events by Root Cause Group and Industry

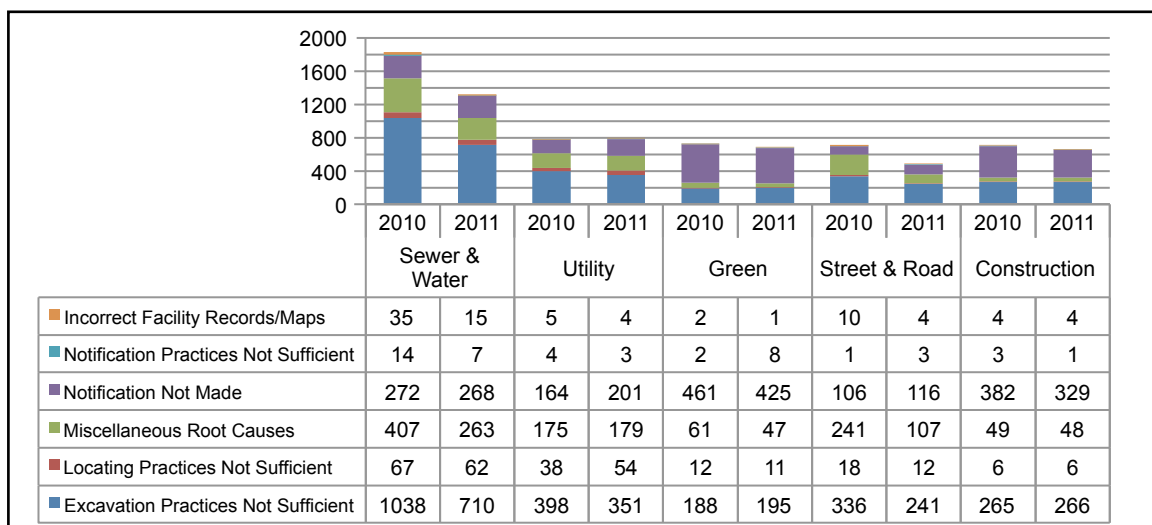


Figure 15 and Figure 16 indicate that the Green and construction industry has caused the greatest number of damages than other industries due to “Notification NOT made”. This shows that we need to target this industry and aggressively promote the “Call Before You Dig” message. We do see decreases in most industries for excavation practices not sufficient, which may indicate that that best practice guidelines are being more closely followed.

Apart from Utility who experienced a 63% increase in volume of No Locate events, all excavator groups decreased their volume as can be seen in Figure 17 and Figure 18.

Figure 17: Percent Facility Events by Root Cause Group and Excavator Type

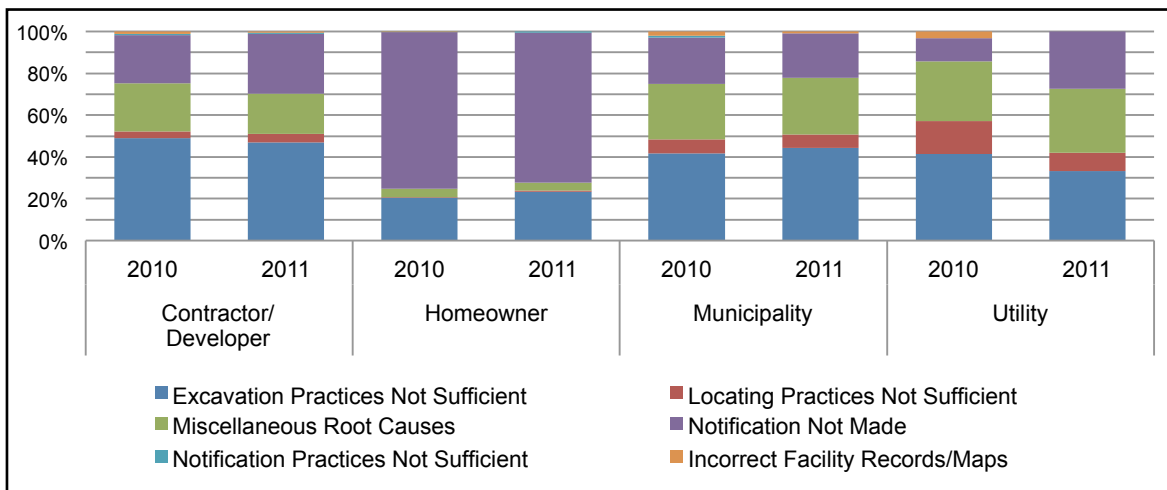
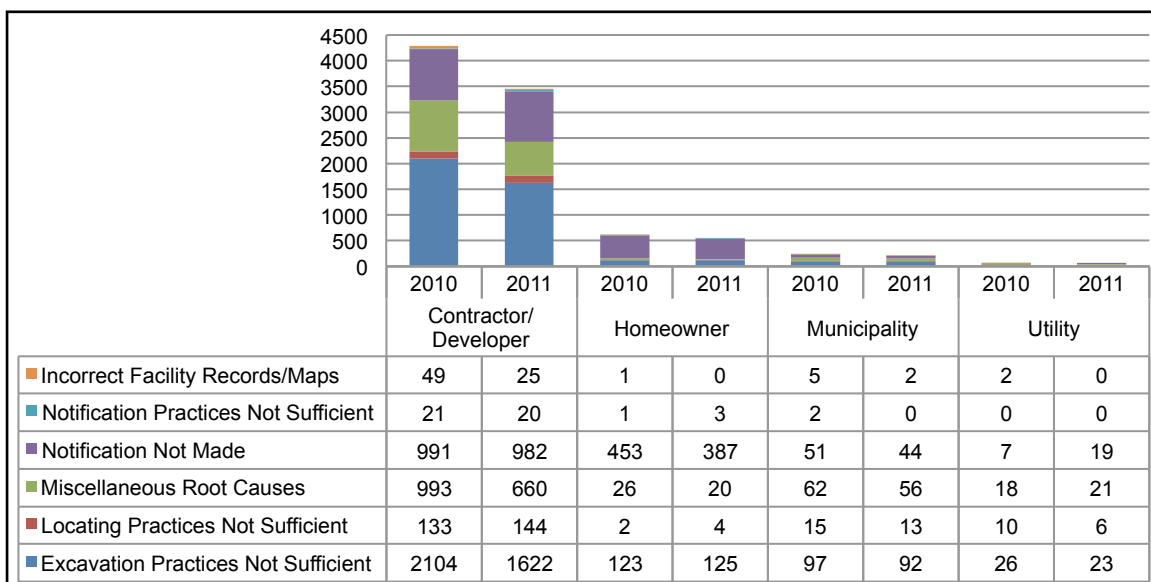


Figure 18: Facility Events by Root Cause Group and Excavator Type



Industry practice is to measure damage prevention performance by the volume of damages per thousand locates requested. Figure 19 shows the damage ratio of damages reported through DIRT over the past 4 years against the number of locates called in to Ontario One Call.

Figure 19: Damage Ratio

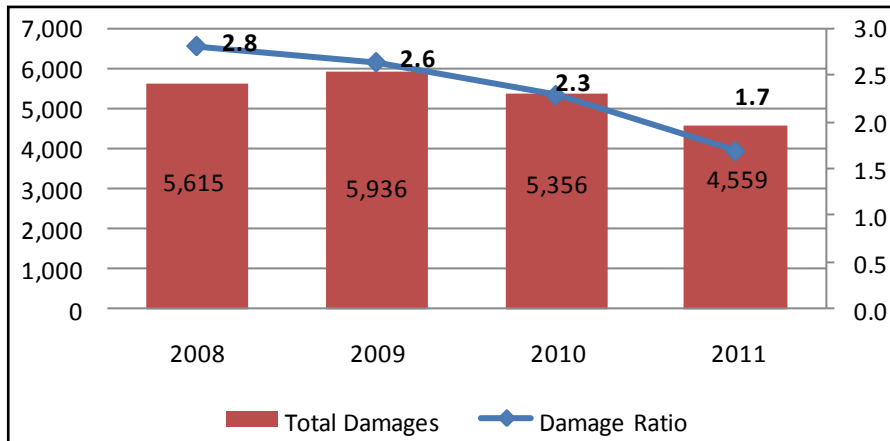
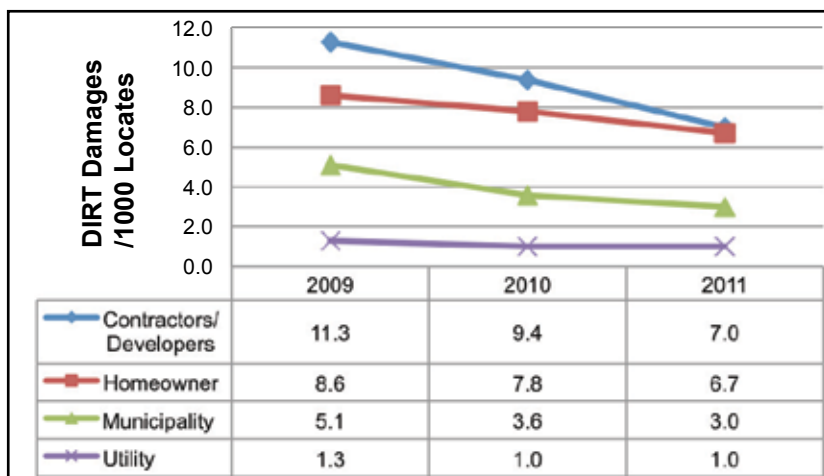


Figure 20 shows that the damage ratio has been decreasing from year to year over a three year span. It also shows the damage ratio for each excavator type based on damage volumes collected through DIRT and locate requests to Ontario One Call.

Figure 20: Damage Ratio by Excavator Type



Report Findings Summary

1. Data Quality Index Indications

The DQI is a measure of data quality and consists of the evaluation of each organization that submitted records, in addition to the evaluation of each record submitted to DIRT. The overall average DQI is 73.6. The breakdown of DQI for each individual part of the DIRT field form is illustrated in Table 15 below. The weight assigned to the various DIRT parts varies based upon its value in analyzing the event for damage prevention purposes, with root cause receiving the largest weight. The DQI for a set of records can be obtained by averaging the individual DQI of each record. The “2011 DQI” column in the table below represents the average of all 4559 submitted events in the 2011 data set.

Table 15: DIRT Submission Parts and DQI

DIRT Parts	Relative Weight	2009 DQI	2010 DQI	2011 DQI
A: Who is submitting this information?	5%	100.0	100.0	100.0
B: Date and Location of the event	12%	83.9	76.3	73.0
C: Affected Facility Information	12%	93.4	93.3	93.4
D: Excavation Information	14%	91.4	91.4	89.1
E&F: Notification, Locating and Marking	12%	85.8	88.9	91.6
G: Excavator Downtime	6%	2.0	11.6	11.9
H: Description of Damage	14%	38.7	32.8	27.5
I: Description of the Root Cause	25%	81.6	78.3	81.9
Total Weighted DQI	100%	75.4	73.8	73.6

Of the various parts of the damage report, parts G and H are often not included as most of the organizations inputting data into DIRT do not track this information. The DQI for part G has increased between 2010 and 2011. The DQI for Part I was 78.3 in 2010 and have increased to 81.9 in 2011.

2. Status & Recommendations

DIRT Data Integrity

In order to increase confidence and clarity in the data, the R&E Committee has created a Root Cause Tip Card (Refer to pg 26). This includes more clear descriptions and examples of events that should be considered under each root cause category when reporting events in DIRT. Moving forward, the R&E Committee will encourage new users to follow the committee guidelines for inputting data and are aware of the Root Cause Tip Card. The R&E Committee will also be targeting municipalities and utilities by requesting their participation in DIRT.

This ORCGA initiative has stressed the importance of digging safely, a message that has been brought to the general public through Dig Safe events held all across Ontario.

Root Cause Tip Card

LOCATING PRACTICES NOT SUFFICIENT

Facility could not be found or located

Type of facility or lack of records prevented locating of facility.

Example: Plastic pipelines installed without tracer wire.

Facility marking or location not sufficient

Includes all areas where marking was insufficient.

Example: Locator marked the work zone, but missed a service.

Locator misread the ticket and did not locate the entire work zone.

Locator did not use records or interpreted the records incorrectly.

Locator did not tone correctly.

Facility was outside the tolerance zone.

Facility was not located or marked

No locating or marking was completed prior to excavation activities.

Example: The company received a valid ticket but did not mark, locate, or communicate with the excavator prior to start of work.

Incorrect facility records/maps

Incorrect facility records or maps led to an incorrect locate.

Example: Records show the facility located on the wrong side of the street, and ticket was cleared.

Records do not accurately reflect current plant status.

ONE-CALL NOTIFICATION PRACTICES NOT SUFFICIENT

No Notification made to the One-Call Center

Excavator did not call the one-call center.

Notification to one-call center made, but not sufficient

The Excavator contacted the notification center, but did not provide sufficient information, or the excavator did not provide sufficient notification time according to requirements and guidelines.

Example: Excavator did not wait for the locate to be completed prior to digging.

Excavator was excavating with an expired locate.

Excavator was excavating outside of the located area.

Excavator was excavating without the locate onsite.

Wrong information Provided to the one-call center

Damage occurred because an excavator provided the wrong excavation information to the notification center.

Example: Excavator indicated the wrong dig site.

After speaking with the excavator, the locator incorrectly cleared a ticket.

EXCAVATION PRACTICES NOT SUFFICIENT

Failure to maintain marks

The marks deteriorated or were lost and the excavator failed to request that they be restored/refreshed.

Failure to support exposed facilities

Facility damage due to lack of support in accordance with generally accepted engineering practices or guidelines.

Failure to use hand tools where required

Failure to test-hole (pot-hole)

Failure to verify physical location of the facility when working within tolerance zone as defined by accepted practices or guidelines.

Improper backfilling practices

Damage caused by improper materials (ex. Large/sharp rocks) in the backfill or improper compaction of the backfill.

Failure to maintain clearance

Excavator failed to maintain clearance (defined by applicable guidelines, law, and facility owners) from underground facilities when using power/mechanical equipment.

Other insufficient excavation practices

Excavator errors that do not fall under one of the above.

MISCELLANEOUS ROOT CAUSES

One-Call Center Error

Includes all issues related to the center such as incorrectly entered data, ticket transmission failures, et al.

Example: This would include damages that occurred because the center's database registry had not been updated to reflect correct location of underground facilities.
The one-call center system crashed and failed to deliver the ticket.

Abandoned Facility

Damage related to abandoned facilities. Select a more specific root cause.

Example: The abandoned facility may have been located, instead of the active facility.
This does NOT include when an abandoned facility is thought to have been located, but it is found to be active after the excavation exposed the facility or damaged it.

Deteriorated Facility

Those situations in which an excavation disrupts the soil around the facility resulting in damage, failure or interruption of service. However, the deterioration and not the excavation caused the facility damage.

Previous Damage

Damage occurred during previous excavation.

Example: Pipe coating was damaged during a previous excavation and was not reported.
Subsequently, a corrosion leak occurred, or subsequent excavation at the site revealed the damage to the pipe.

Data Not Collected

Damage occurred, but Root Cause was not identified.

Example: Damage Investigator did not indicate a Root Cause.

Check the Appropriate Response on the Form
** indicates a Required Field

Damage Information Reporting Tool (DIRT) - Field Form

Part A – Who is Submitting This Information

Who is providing the information?

- | | | | | | |
|-----------------------------------|--|---|---|--|---|
| <input type="checkbox"/> Electric | <input type="checkbox"/> Engineer/Design | <input type="checkbox"/> Equipment Manufacturer | <input type="checkbox"/> Excavator | <input type="checkbox"/> Insurance | <input type="checkbox"/> Liquid Pipeline |
| <input type="checkbox"/> Locator | <input type="checkbox"/> Natural Gas | <input type="checkbox"/> One Call Center | <input type="checkbox"/> Private Water | <input type="checkbox"/> Public Works | <input type="checkbox"/> Telecommunications |
| <input type="checkbox"/> Railroad | <input type="checkbox"/> Road Builders | <input type="checkbox"/> State Regulator | <input type="checkbox"/> Telecommunications | <input type="checkbox"/> Unknown/Other | |

Name of the person providing the information:

Part B - Date and Location of Event

***Date of Event:** (MM/DD/YYYY)
***Country** ***State** ***County** **City**
Street address **Nearest Intersection**

***Right of Way where event occurred**
Public: ☐ City Street ☐ County Road ☐ State Highway ☐ Interstate Highway ☐ Federal Land
Private: ☐ Private Business ☐ Private Land Owner ☐ Private Easement ☐ Pipeline ☐ Railroad
☐ Power /Transmission Line ☐ Dedicated Public Utility Easement ☐ Data not collected ☐ Unknown/Other

Part C – Affected Facility Information

***What type of facility operation was affected?**
☐ Cable Television ☐ Electric ☐ Natural Gas ☐ Liquid Pipeline ☐ Sewer (Sanitary Sewer)
☐ Steam ☐ Telecommunications ☐ Water ☐ Unknown/other

***What type of facility was affected?**
☐ Distribution ☐ Gathering ☐ Service/Drop ☐ Transmission ☐ Unknown/Other

Was the facility part of a joint trench?
☐ Unknown ☐ Yes ☐ No

Was the facility owner a member of One Call?
☐ Unknown ☐ Yes ☐ No

Part D – Excavation Information

***Type of Excavator**
☐ Contractor ☐ Developer ☐ Occupant ☐ Farmer ☐ Railroad
☐ State ☐ County ☐ Municipality ☐ Utility ☐ Data not collected ☐ Unknown/ Other

***Type of Excavation Equipment**
☐ Auger ☐ Backhoe/Track hoe ☐ Boring ☐ Drilling ☐ Directional Drill
☐ Explosives ☐ Farm Equipment ☐ Grader/Scraper ☐ Hand Tools ☐ Milling Equipment
☐ Probing Device ☐ Trencher ☐ Vacuum Equipment ☐ Data Not Collected ☐ Unknown/Other

***Type of Work Performed**
☐ Agriculture ☐ Bldg. Construction ☐ Bldg. Demolition ☐ Cable Television ☐ Curb/Sidewalk
☐ Drainage ☐ Driveway ☐ Electric ☐ Engineering/Survey ☐ Fencing
☐ Grading ☐ Irrigation ☐ Landscaping ☐ Liquid Pipeline ☐ Milling
☐ Natural Gas ☐ Petroleum Pipeline ☐ Pole ☐ Public Transit Auth. ☐ Railroad Maint.
☐ Road Work ☐ Sewer (Sanitary/ Storm) ☐ Site Development ☐ Steam ☐ Street Light
☐ Storm Drain/Culvert ☐ Telecommunications ☐ Traffic Sign ☐ Traffic Signal
☐ Water ☐ Waterway Improvement ☐ Data Not Collected ☐ Unknown/Other

Part E – Notification

***Was the One-Call Center notified?**
☐ Yes ☐ No
 If Yes, which One Call center?
 If Yes, please provide the One Call ticket number

Visit DIRT at www.cga-dirt.com

Check the Appropriate Response on the Form
** indicates a Required Field

Part F - Locating and Marking

***Type of Locator**
☐ Utility Owner ☐ Contract Locator ☐ Data Not Collected ☐ Unknown/other

***Were facility marks visible in the area of excavation?**
☐ Yes ☐ No ☐ Data Not Collected ☐ Unknown

***Were facilities marked correctly?**
☐ Yes ☐ No ☐ Data Not Collected ☐ Unknown

Part G – Excavator Downtime

Did Excavator incur down time?
☐ Yes ☐ No

If yes, how much time?
☐ Unknown ☐ Less than 1 hour ☐ 1 hour ☐ 2 hours ☐ 3 or more hours Exact Value _____

Estimated cost of down time?
☐ Unknown ☐ \$0 ☐ \$1 to 500 ☐ \$501 to 1,000 ☐ \$1,001 to 2,500 ☐ \$2,501 to 5,000
☐ \$5,001 to 25,000 ☐ \$25,001 to 50,000 ☐ \$50,001 and over Exact Value _____

Part H – Description of Damage

***Was there damage to a facility?**
☐ Yes ☐ No (i.e. near miss)

***Did the damage cause an interruption in service?**
☐ Yes ☐ No ☐ Data Not Collected ☐ Unknown

If yes, duration of interruption
☐ Unknown ☐ Less than 1 hour ☐ 1 to 2 hrs ☐ 2 to 4 hrs ☐ 4 to 8 hrs ☐ 8 to 12 hrs ☐ 12 to 24 hrs
☐ 1 to 2 days ☐ 2 to 3 days ☐ more than 3 days ☐ Data Not Collected Exact Value _____

Approximately how many customers were affected?
☐ Unknown ☐ 0 ☐ 1 ☐ 2 to 10 ☐ 11 to 50 ☐ 51 or more Exact Value _____

Estimated cost of damage / repair/restoration
☐ Unknown ☐ \$0 ☐ \$1 to 500 ☐ \$501 to 1,000 ☐ \$1,001 to 2,500 ☐ \$2,501 to 5,000
☐ \$5,001 to 25,000 ☐ \$25,001 to 50,000 ☐ \$50,001 and over Exact Value _____

Number of people injured
☐ Unknown ☐ 0 ☐ 1 ☐ 2 to 9 ☐ 10 to 19 ☐ 20 to 49 ☐ 50 to 99
☐ 100 or more Exact Value _____

Number of fatalities
☐ Unknown ☐ 0 ☐ 1 ☐ 2 to 9 ☐ 10 to 19 ☐ 20 to 49 ☐ 50 to 99 ☐ 100 or more
 Exact Value _____

Part I – Description of the Root Cause

<input type="checkbox"/> No notification made to the one call center	<input type="checkbox"/> Excavation practices not sufficient (other)
<input type="checkbox"/> Notification to one-call center made, but not sufficient	<input type="checkbox"/> Failure to maintain clearance
<input type="checkbox"/> Wrong information provided to one call center	<input type="checkbox"/> Failure to maintain marks
<input type="checkbox"/> One call center error	<input type="checkbox"/> Failure to support exposed facilities
<input type="checkbox"/> Facility could not be found or located	<input type="checkbox"/> Failure to use hand tools where required
<input type="checkbox"/> Facility marking or location not sufficient	<input type="checkbox"/> Failure to test-hole (pot-holing)
<input type="checkbox"/> Facility was not located or marked	<input type="checkbox"/> Improper backfilling practices
<input type="checkbox"/> Incorrect facility records/maps	<input type="checkbox"/> Previous damage
<input type="checkbox"/> Abandoned facility	<input type="checkbox"/> Data Not Collected
<input type="checkbox"/> Deteriorated facility	<input type="checkbox"/> Other

Part J – Additional Comments

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