



DIRT Reporting

Benefits & Understanding Why not submitting

British Columbia
BCCGATM
Common Ground Alliance

Description and Purpose

The Common Ground Alliance (CGA) started the DIRT (Damage Information Reporting Tool) initiative and describes it as “a way to gather data regarding damage and near-miss events related to buried facilities from excavation activities”. They started this initiative as a way for industry stakeholders to submit data anonymously.

The purpose of DIRT is to “analyze data, learn **why** events occur and determine **what** actions by industry can prevent them in the future, thereby ensuring the safety and protection of people and infrastructure”.

Benefits

- Improve industry best practices.
- Identify root causes
- Perform trend analyses, and ultimately help educate all stakeholders so damages can be reduced.
- All data collected is anonymous and is confidential.
- Provides access to damage DATA for the entire industry.
- Higher education and awareness to help prevent recurrences.
- Don't have to be a CGA member to input data.
- The more DATA we gather the better the reporting we can provide

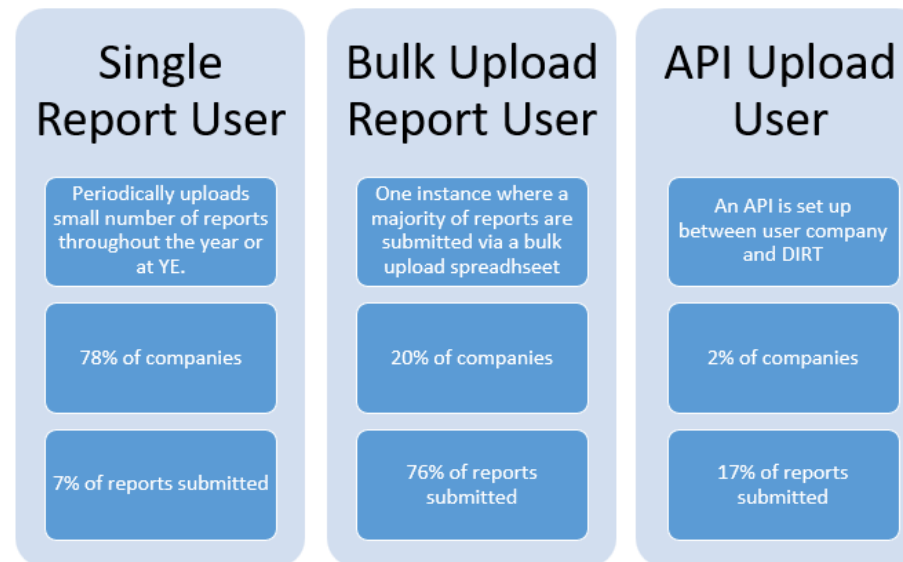


Why people aren't Reporting

- It is not mandatory.
- It is a hassle to create an account and to make a voluntary submission?
- Inability to gather all relevant data for submission.
- Small companies with no use for the data / results find it an inconvenience to report and don't understand the value.
- Not legislated to report.
- Unaware of it at all.

Deep Dive into each User Type

- By Behavior pattern for DIRT submissions
 - How, When, Average
- By Stakeholder Groups
- By Location/Region
- Participation in CGA efforts
- Job role



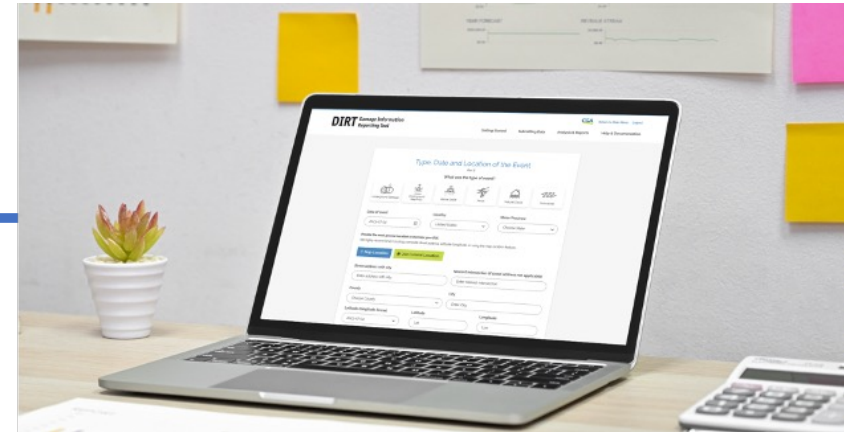
Project Phases



Phase One: Single Sign On (SSO)

Users will have the ability to sign in securely one time and have access to the CGA websites, Nimble, DIRT and any other additional third-party platforms.

Target Launch: Mid February 2024



Phase Two: Homepages & Incident Event Form

Enhanced user experience for reporting incidents in
DIRT tool

Target Launch: Mid February 2024

Project Phases



Phase Three: Full Website Deployment

Enhanced user experience on all pages including new dashboards, business insights, and streamlined API set-up.

Target Launch: Early Fall 2024

Incident/Event Individual Entry Form



Individual Incident / Event Form

Vivamus risus orci, tristique ac nulla non, fermentum vehicula felis

1

Do you have an incident to report? Gather all of your details.

2

Be as detailed as possible to earn DQI points for your submission.

3

Complete your submission to something and earn DQI points

Field / Mobile Friendly

Enter Incident Reports on the go! —

Having a mobile-friendly incident report form can significantly improve the efficiency and accuracy of incident tracking, especially for field workers. It allows for quick and convenient data entry while on-site, reducing the chances of errors and delays in reporting.

- Improved Accessibility
- Real-time Reporting
- Enhanced Data Accuracy

Quick & Easy Location Tracking

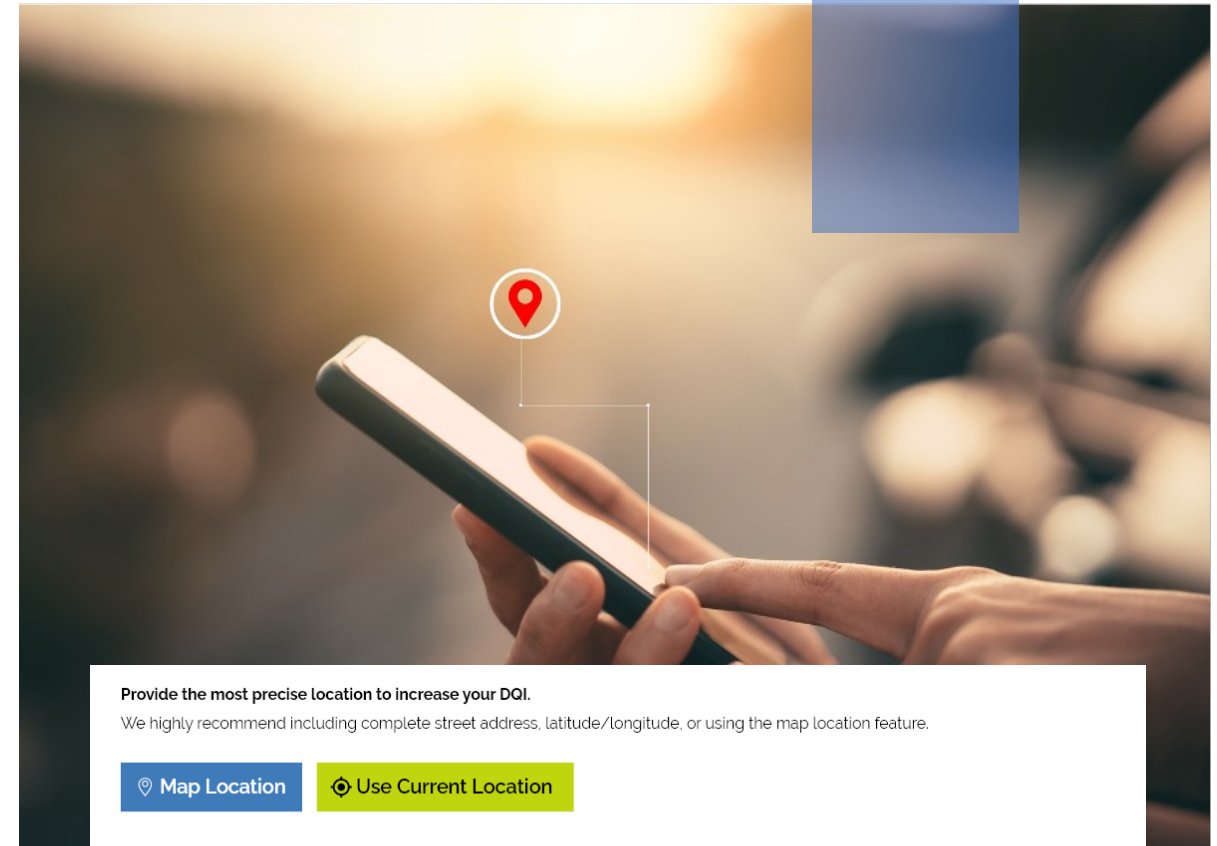
Save time using geolocation on your device —

Use your device's location

Geolocation tracking provides precise location data, allowing for the accurate pinpointing of where an incident or event occurred.

Ensure accuracy

This dedicated geolocation feature streamlines the process and minimizes the chances of errors in providing location details, enhancing the overall effectiveness of incident management.



Provide the most precise location to increase your DQI.
We highly recommend including complete street address, latitude/longitude, or using the map location feature.

Street address with city	Nearest intersection (if street address not applicable)	
<input type="text" value="Enter address with city"/>	<input type="text" value="Enter nearest intersection"/>	
County	City	
<input style="border: 1px solid #ccc; border-radius: 10px; padding: 5px; width: 100%;" type="text" value="Choose County"/>	<input style="border: 1px solid #ccc; border-radius: 10px; padding: 5px; width: 100%;" type="text" value="Enter City"/>	
Latitude/longitude format	Latitude	Longitude
<input style="border: 1px solid #ccc; border-radius: 10px; padding: 5px; width: 100%;" type="text" value="2023-07-24"/>	<input style="border: 1px solid #ccc; border-radius: 10px; padding: 5px; width: 100%;" type="text" value="Lat"/>	<input style="border: 1px solid #ccc; border-radius: 10px; padding: 5px; width: 100%;" type="text" value="Lon"/>

New Icons for Enhanced Usability

Visually identify details for the incident event

Improved Comprehension

-
-
-
-

Icons provide a visual representation of actions or information, making it easier for users to understand the purpose and function of different elements in the form. This enhances the clarity of the form and reduces the need for extensive textual explanations.















Consistency

When used consistently, icons create a familiar and predictable interface, which can improve user experience by making the form feel intuitive and user-friendly.

Original Source of Event Information

Part A

What is the original source of event information?










 Electric	 Engineer/Design	 Equipment Manufacturer	 Excavator	 Liquid Pipeline	 Locator
 Natural Gas	 Private Water	 Public Works	 Railroad	 Road Builders	 Federal/State Regulator
 Telecommunications		 Unknown/Other			

Continue →

Affected Facility Information

Part C

What facility was affected?

 Cable TV	 Electric	 Natural Gas	 Liquid Pipeline	 Sewer	 Steam
 Telecommunication		 Water	 Unknown/Other		

Did this event involve a cross bore?

Measured depth from grade
(Approximate facility depth below grade, inches)

Bite sized forms for a more simple user experience

Focusing on one set of information at a time

Using a multipage format enhances user experience, data accuracy, and the overall effectiveness of incident management. It makes the process more user-friendly and ensures that we receive comprehensive, well-structured data.

Data Accuracy

Users can focus on one set of information at a time, making it easier to complete the form accurately without feeling overwhelmed by a large, complex form.

Improved User Engagement

Users can navigate back and forth between pages to review or edit their entries as needed. This flexibility allows for corrections and ensures that the submitted data is as accurate as possible.

Excavation Information

Part D

Type of excavator

 Contractor	 County	 Developer	 Farmer	 Municipality	 Occupant
 Railroad	 State	 Utility	 Unknown/Other		

Was the excavation performed by a direct employee of your organization? Yes No Unknown

PROGRESS: 

DQI: 0/20

< Go Back

Continue →

Address Verification

Increase the integrity of your data with address verification

The address verification feature enhances data accuracy by cross-referencing the provided address with a national database to confirm its validity. This ensures that the reported location is correct and reduces errors in incident reporting.

- Allowing users to manually input their location offers flexibility in cases where geolocation tracking may not be available or accurate.
- By offering both geolocation tracking and manual input with address verification, the incident report form ensures that organizations receive comprehensive location data.



01

Tool Tips

Help icons and tooltips maintain consistency in how users interact with the form, ensuring that everyone receives the same level of support and information.

Attachments 

The following are acceptable file formats:
JPG, PNG, PDF, WBEP

02

Progress Bar

A progress bar with a scoring system makes the incident reporting process more engaging. Users are incentivized to maximize their score, which can lead to more detailed reporting.

PROGRESS: 

DQI: 0/20 

Tools to Help Improve Consistency

Guiding users through a seamless journey

Training and Standardization

Combining tooltips, a progress bar with a scoring system, and the ability to revisit and improve the score creates a comprehensive user-friendly incident reporting system that encourages users to provide as much data as possible.

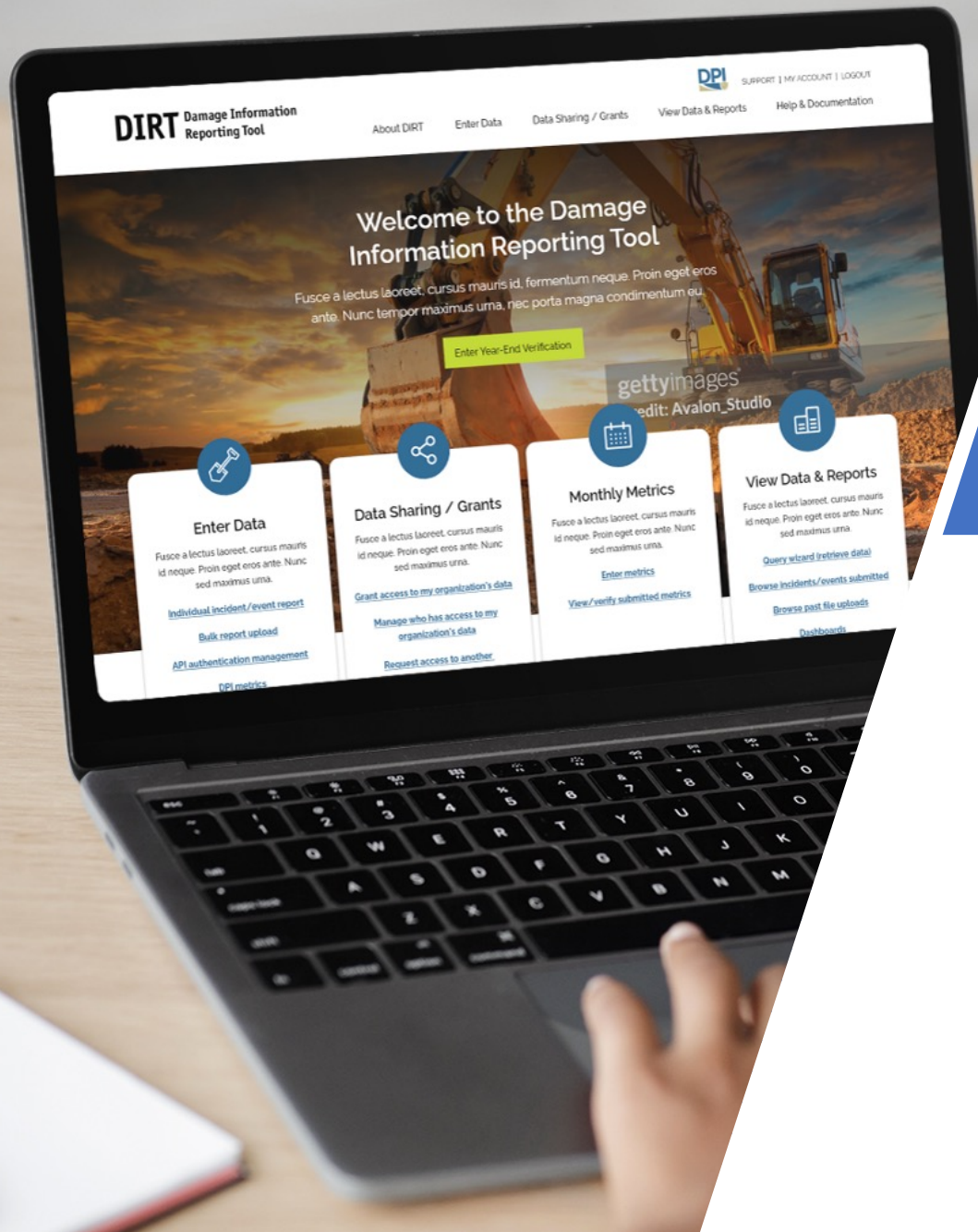
These features can also serve as training tools for new users or employees who may not be familiar with the incident reporting process. They can learn about the form's requirements as they go, making the onboarding process more efficient.

Wire
Frame



DIRT Homepage

Enhanced and Streamlined



A Redesigned Experience Built with the User in Mind

Superior user experience

Industry Standard

Redesigning the homepage and site navigation based on industry standards in UX benefits users by providing a more intuitive and efficient interface. It ensures easy access to essential tools, reduces the learning curve, and can lead to increased user engagement and satisfaction, ultimately contributing to the success of the system and the overall website.

A Redesigned Experience Built with the User in Mind

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New Hero Image

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urna nunc id. Maecena s acc umsan
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Language Shifts

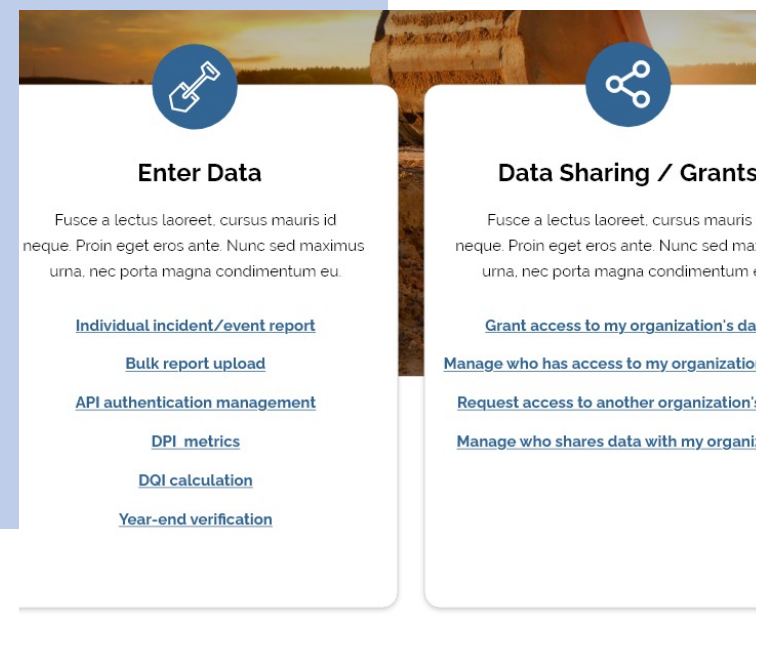
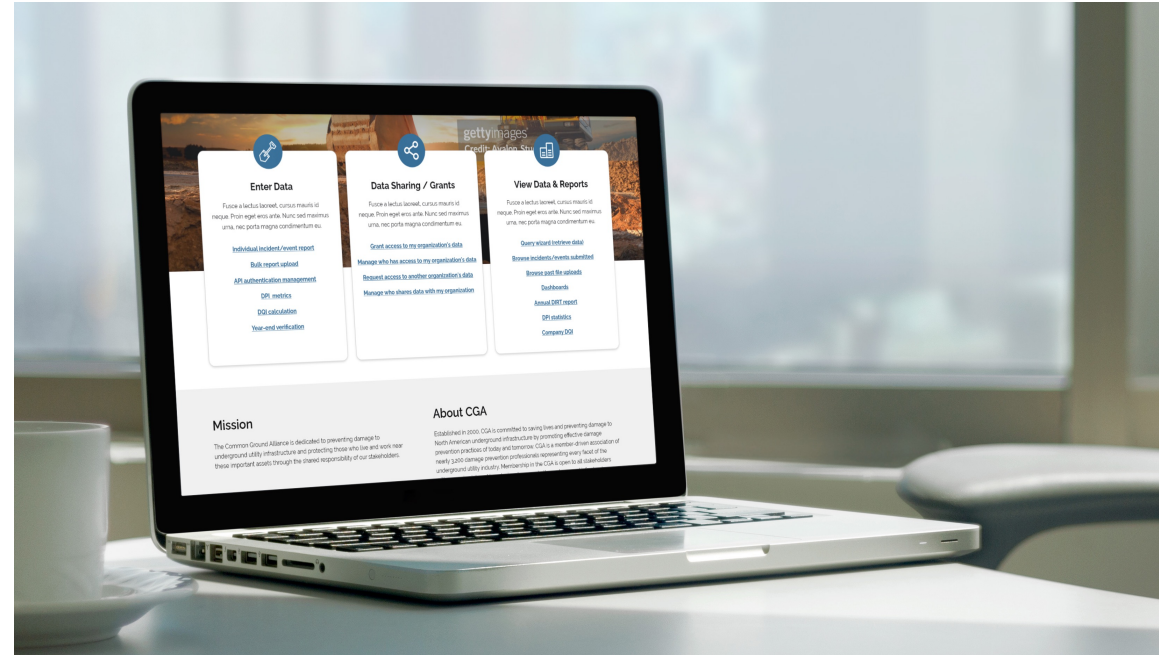
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Quick Links

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Intuitive Navigation

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Enter Data

Fusce a lectus laoreet, cursus mauris id neque. Proin eget eros ante. Nunc sed maximus urna, nec porta magna condimentum eu.

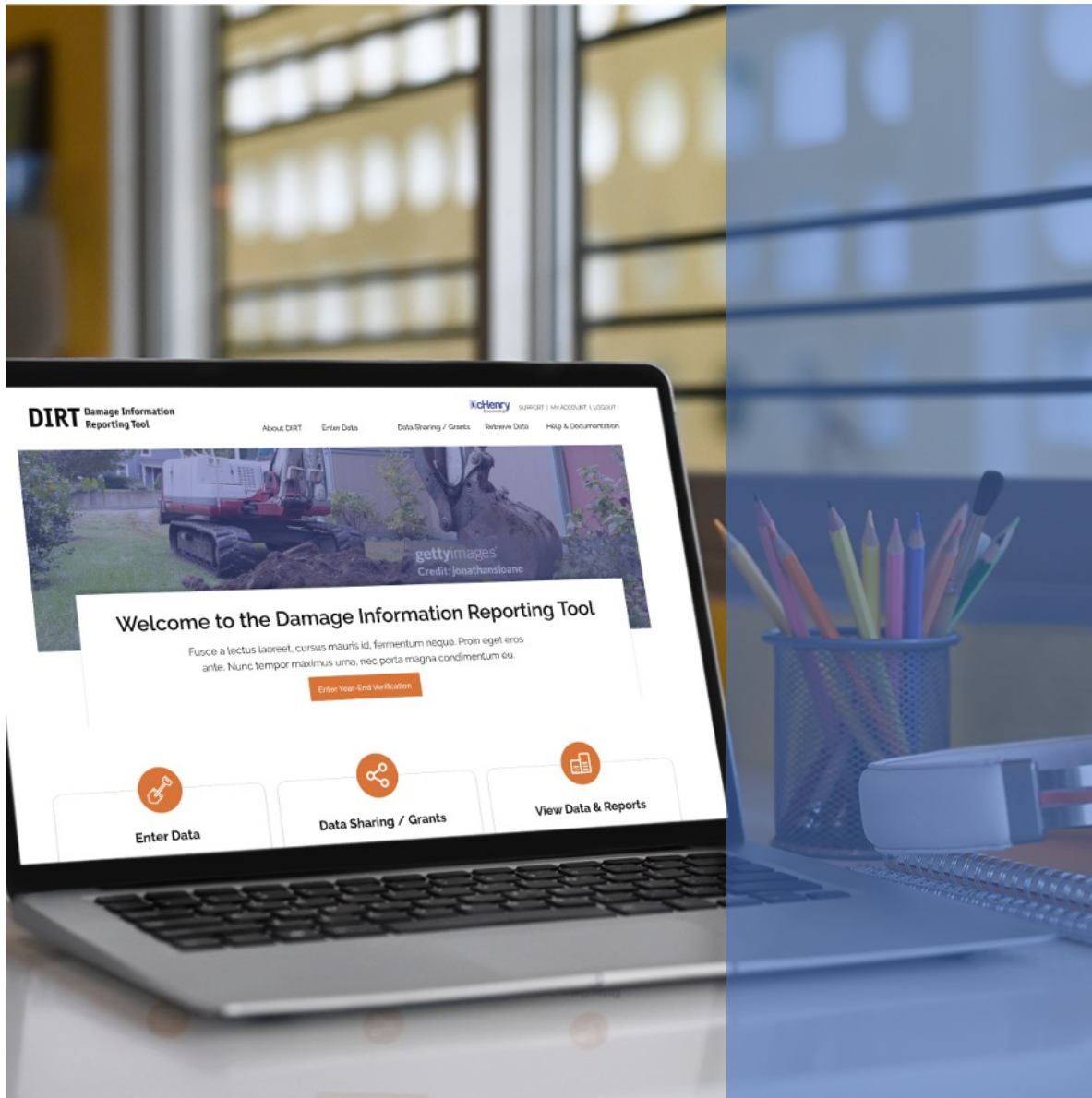
- [Individual incident/event report](#)
- [Bulk report upload](#)
- [API authentication management](#)
- [DPI metrics](#)
- [DQI calculation](#)
- [Year-end verification](#)



Data Sharing / Grants

Fusce a lectus laoreet, cursus mauris id neque. Proin eget eros ante. Nunc sed ma urna, nec porta magna condimentum e

- [Grant access to my organization's da](#)
- [Manage who has access to my organizatio](#)
- [Request access to another organization'](#)
- [Manage who shares data with my organi](#)



Customize Elements to Reflect your Members Brand

Increased partner engagement —

Customized Experience

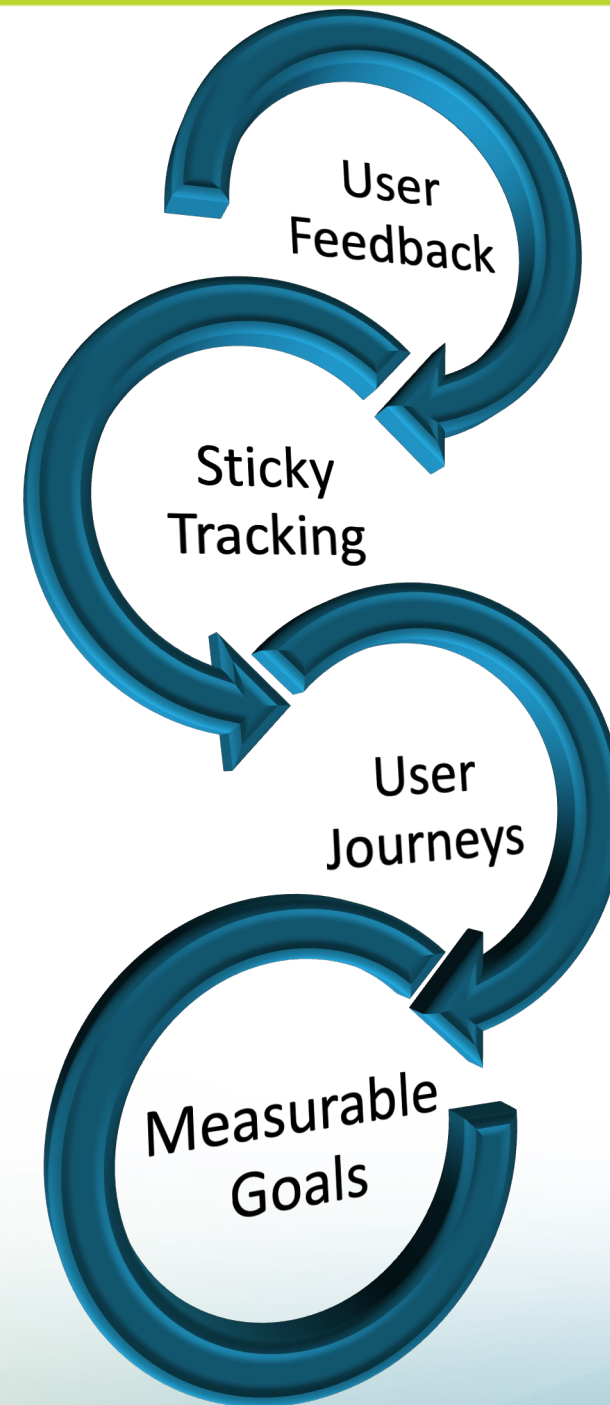
Partners can maintain consistent branding across the VPD, ensuring that their logos, colors, and imagery align with their established brand identity.

Partners can easily update their branding assets as needed, ensuring that the VPD is always up to date.



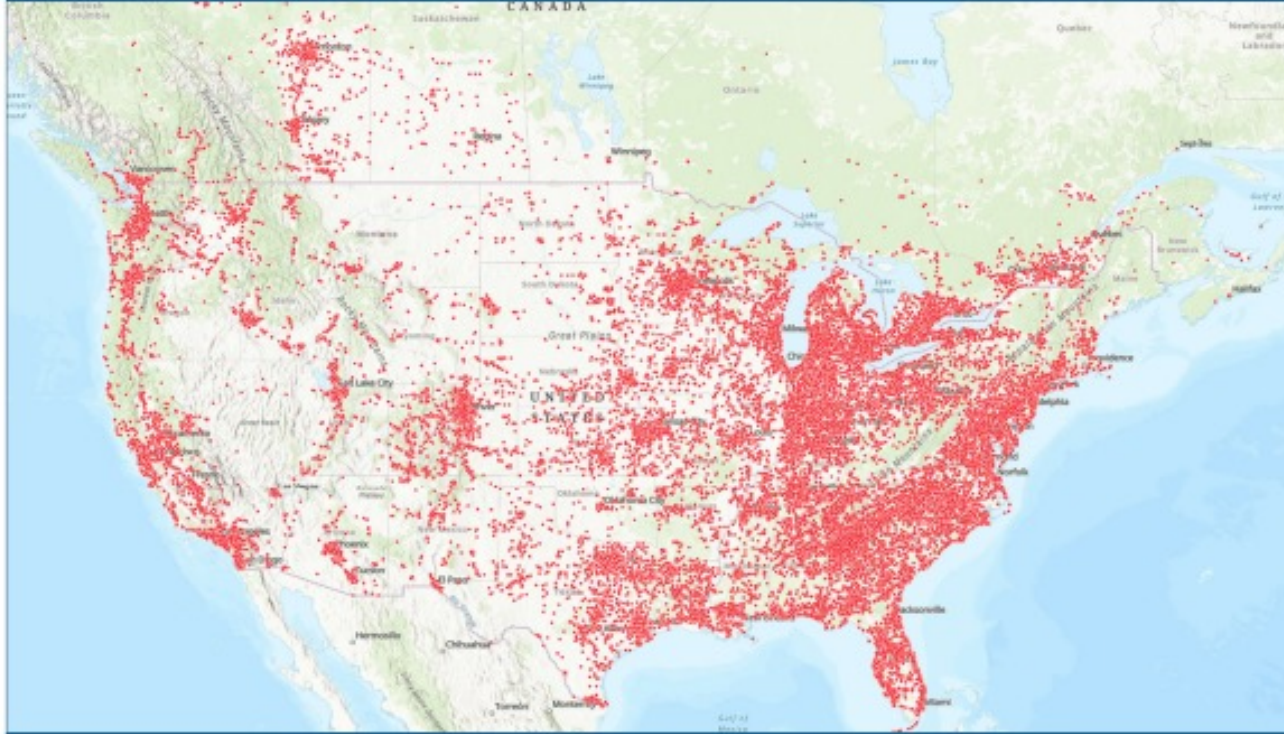
Continuous Feedback

Contact: Brooke Konopacki at
bkonopacki@commongroundalliance.com



Committee Meetings

Map of Unique Reported DIRT Damages in 2022



Incoming Locate Requests / Outgoing Transmissions



Committee Meetings

Damage Trends

↑ **9.34%**

Increase in
damages/811 center
transmissions

↑ **12.35%**

Increase in
damages/construction
spending

3-year trending using a comparable dataset showed increases in key metrics between 2021-2022.

U.S. damage counts from consistently reporting organizations have increased over the past 3 years

146,038

2020

153,886

2021

163,726

2022



Half a trillion+ dollars are being allocated to new infrastructure in the U.S. over 5 years

Conclusions and Action in Canada

DIRT is an extremely powerful, but limited tool.

The data represented in this report is voluntarily submitted by stakeholders within each Regional CGA, and does not fully represent all damages or utility strikes that occur within each Region.

Each analysis comes with notable caveats relative to the nature of DIRT:

- not all damages are submitted
- the submissions are restricted to which stakeholders have chosen to submit (which can lead to overrepresentation by certain industry/facility owners)
- the methodology can vary from region to region, steps are being taken to normalize this

- No Notification to the One-Call Centre No Notification to the One-Call Centre again leads the identifiable Known Root Causes. Steps have been taken to increase usage of the various One-Call services. Simplifying the process, increasing accessibility via software and online services, promotion of ease of use and reliable locator turnarounds.
- Regional CGA's should be focusing awareness through the use of their Ambassador or Communication Programs to encourage to ensure consistent usage and notification to the One-Call Centre.
- Increasing Data Quality in DIRT Each region tends to take a different approach to DIRT; some are relatively handsoff, while others work closely with submitters.
- Each region is focused on increasing their submitters into the DIRT tool. With this increase in submitters, we are finding a continual decrease in data quality due to the overuse of Unknown/Other.
- In the Root Cause Category we notice that 45% of submissions use Unknown/Other which make actionable items difficult.
- Regions should be following up with submitters, to identify the issue in assigning a Known Root Cause. Should Unknown/Other be chosen, Comment Required is requested.
- We encourage submitters to follow up with their previous entries to ensure they have the most up-to-date data possible.

British Columbia

	2018	2019	2020	2021	2022
PROFILE					
Population	5,016,322	5,071,336	5,145,785	5,249,635	5,368,266
Land area	922,503	922,503	922,503	922,503	922,503
Population density	5.4	5.5	5.6	5.7	5.8
Housing starts*	40,857	44,932	37,734	47,609	46,821
Employment in construction	238,400	236,600	213,200	173,121	183,201
Construction GDP (\$ millions)	20,294	22,110	23,033	25,371	27,000
SUMMARY					
Locate requests	203,758	202,052	212,056	241,374	234,372
Notifications	821,445	679,203	609,367	687,075	664,384
Locate requests to notifications ratio	1:4.03	1:3.36	1:2.87	1:2.85	1:2.83
Damages	1,408	1,304	1,228	1,277	1,099
Damages per work day	5.6	5	4.9	5.1	4.4
Damage ratio per 1,000 notifications	1.7	1.92	2.02	1.86	1.62
Damage ratio per 1,000 locate requests	6.9	6.45	5.79	5.29	5.44



DAMAGES BY TYPE OF WORK					
Green (Landscaping)	143	135	175	299	246
Construction	184	435	345	228	218
Water/Sewer	397	415	358	323	267
Road/Street	130	117	86	75	64
Utilities	168	109	127	166	125
Unknown/other	386	93	137	186	179
DAMAGES BY FACILITY TYPE					
Electric	0	0	0	0	0
Natural Gas	1,228	1,139	1,032	1,085	956
Liquid Pipeline	36	22	32	6	9
Telecommunications	106	111	112	128	98
Unknown/Other	38	32	52	58	36
ROOT CAUSE					
Excavation Issue	660	447	426	498	338
Notification Issue	616	720	620	597	628
Locating Issue	4	4	1	3	3
Miscellaneous Root Causes	128	133	181	179	130



Committee Meetings

Links

- [DIRT – BC Common Ground Alliance \(commongroundbc.ca\)](http://commongroundbc.ca)
 - Obtain current and past Canadian versions of the DIRT Reports
- [DIRT North America - Login \(cga-dirt.com\)](http://cga-dirt.com)
 - Data submission portal