

# Trenching & Excavation

DigAlert

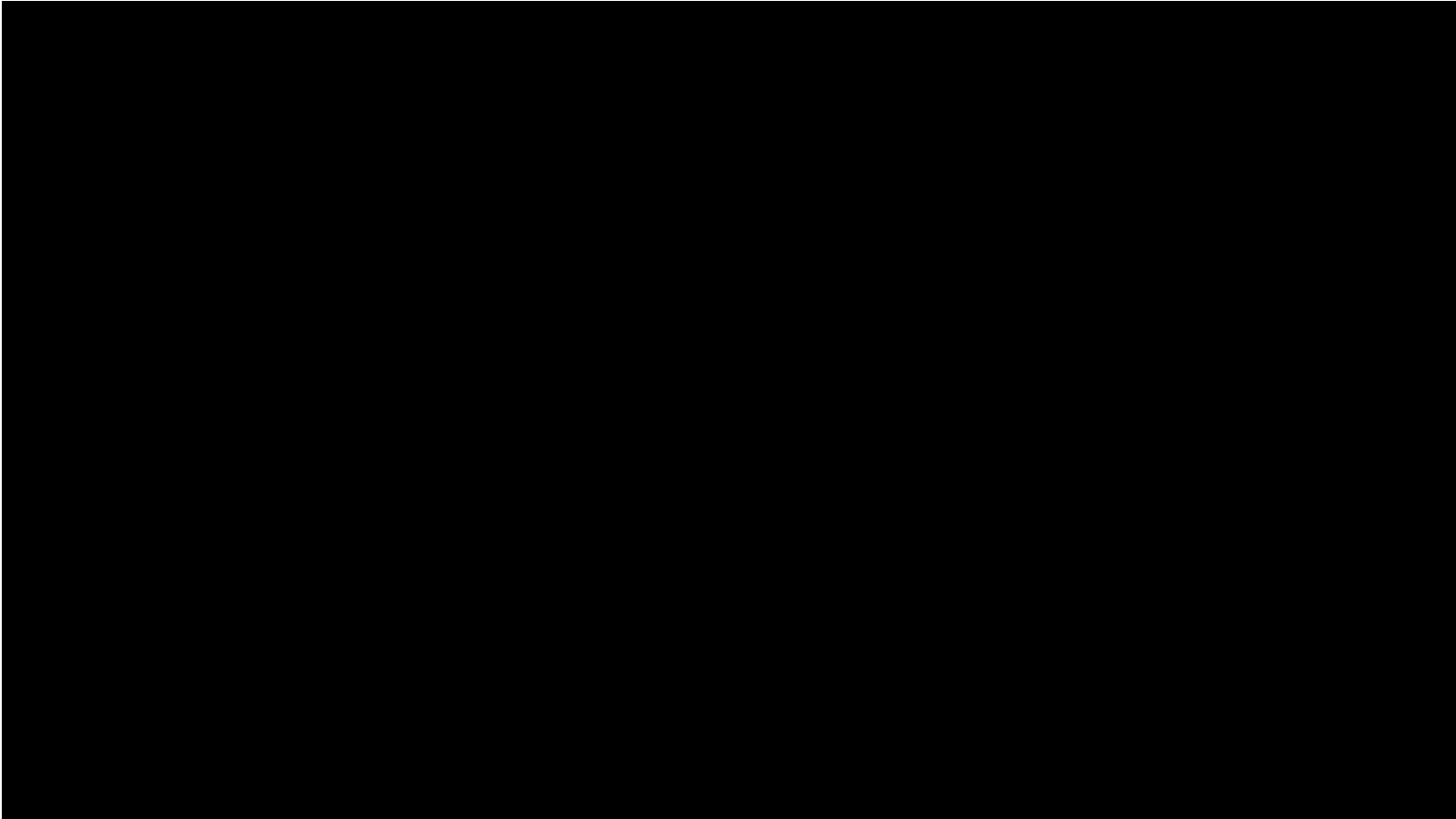
## Notification Requirements

Pacific Safety Fest

Cal State Dominguez Hills

Presenter: Enrique (Henry) Miranda

# Trenching & Excavation Safety



# How Bad Can It Really Get

Infrastructure disruption

Environmental hazards

Major financial loss

Injuries and fatalities



# Regulatory Bodies

## **Coordinates underground utility notification**

Receives excavation notices from Excavators

Alerts Utility Owners to locate marks

## **Facilitates communication between parties**

Connects excavators with utility operators

Helps prevent damage to buried infrastructure



# Regulatory Bodies



## **Regulates excavation safety practices**

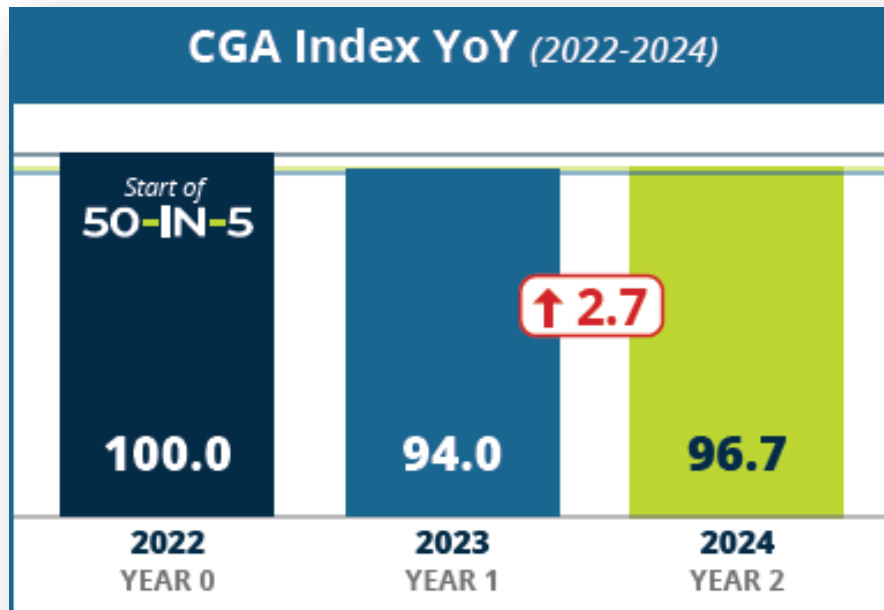
- Establishes safety requirements
- Focuses on protecting workers

## **Enforces workplace safety laws**

- Conducts inspections & verifies compliance
- Issues citations if requirements aren't met

# Industry Data

**Common Ground Alliance Built A Damage Prevention Index  
Which Measures Industry Progress In Reducing Underground Utility Damages**



2023's Index of 94.0  
Increased to 96.7 in 2024

This represents a 2.7 increase  
(utility damages have gone up)

*Metric is not a percent – Index Calculation Accounts  
For State Size, Rain Fall, Number of Reports, etc...*

# Who Is C.G.A.

**An association of nearly 4,000 members**

Damage prevention professionals in every facet of the underground utility industry.

**Established in 2000**

Designed to preventing damage to our underground infrastructure by promoting effective damage prevention practices.

**Membership is open to stakeholders with a genuine interest in damage prevention**



# Common Ground Alliance

## MISSION

The Common Ground Alliance is dedicated to preventing damage to underground utility infrastructure and protecting those who live and work near these important assets through the shared responsibility of our stakeholders.

## GOALS

### *Information and Analysis*

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Develop information and analysis designed to enhance our members' ability to implement effective damage prevention processes and programs.

### *Education*

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Increase education of the industry, public and policymakers about the importance of the damage prevention process.

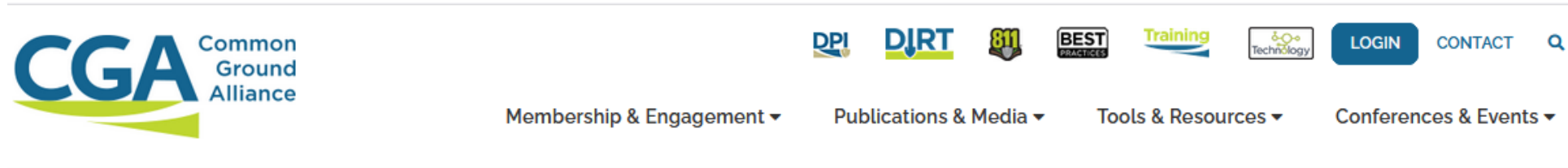
### *Stakeholder Engagement*

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Provide a collaborative forum for stakeholders to identify and highlight effective damage prevention practices and programs.

# The CGA Web Portal

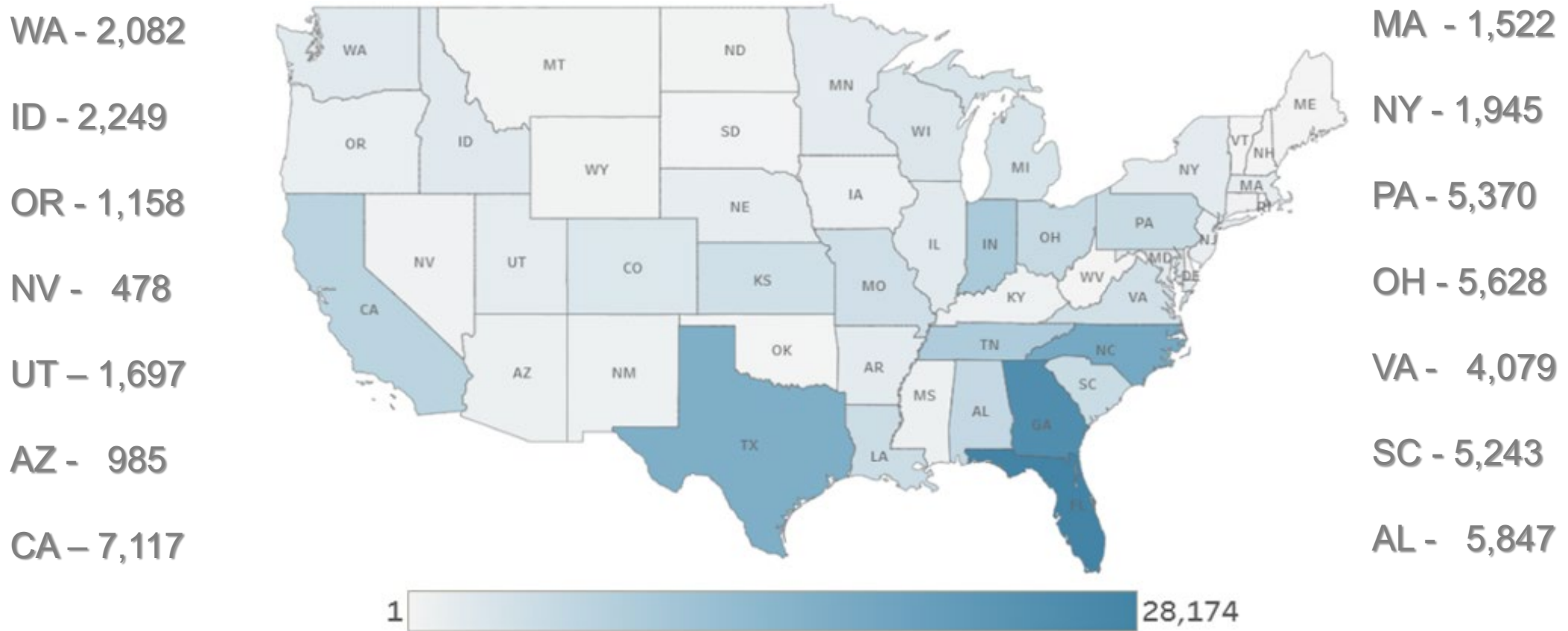
<https://commongroundalliance.com/DIRT-Dashboard>



**State & Province Guidance:** This tab provides information on the geological intensity of reported unique damages, incoming tickets, and transmissions. Users can filter and control the metric populating the map by selecting the desired dimensions in the filters & controls section of the dashboard. Hover over visualizations to see additional details.

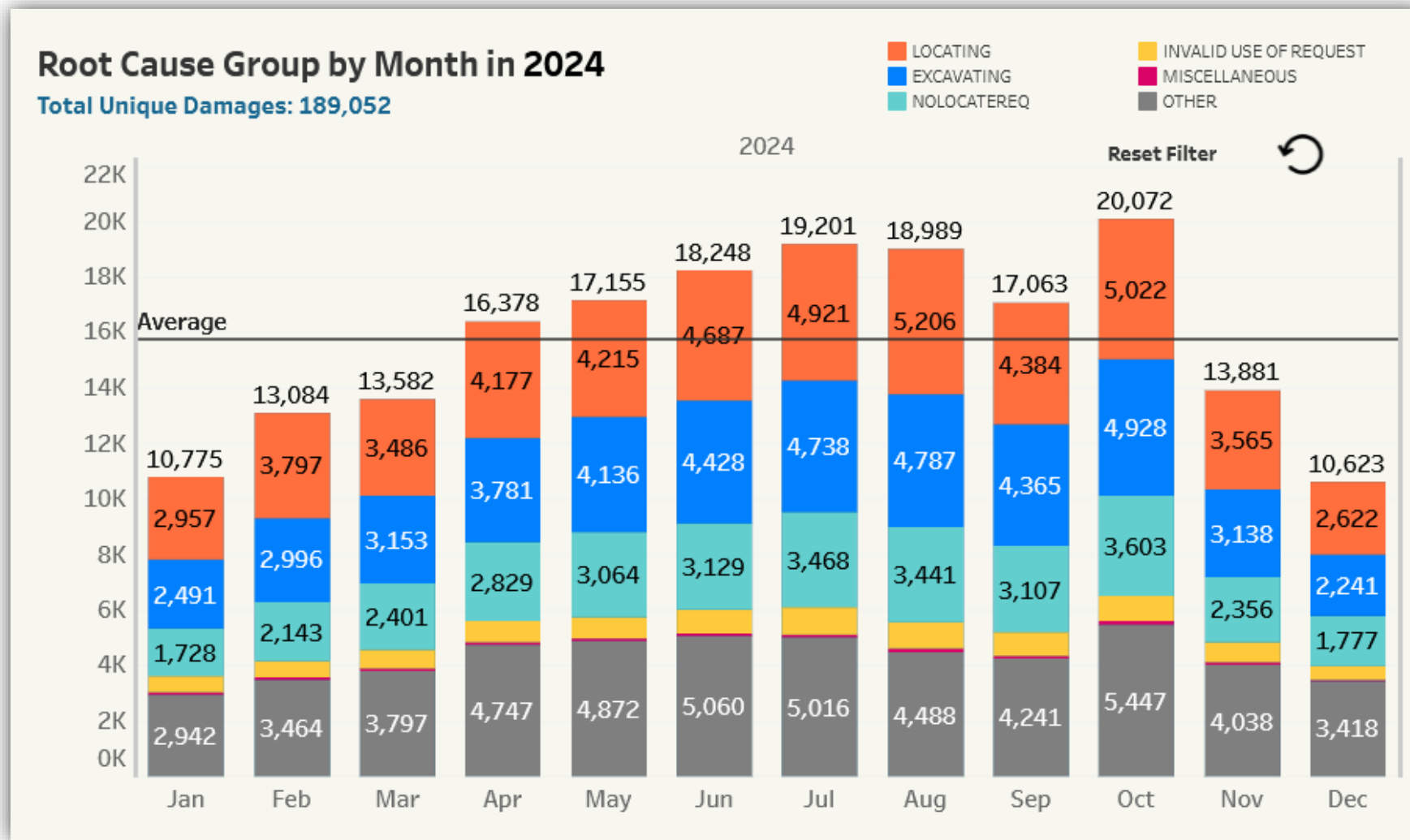
# Industry Data CGA DIRT Report

In 2024 United States Reported 189,502 Damages



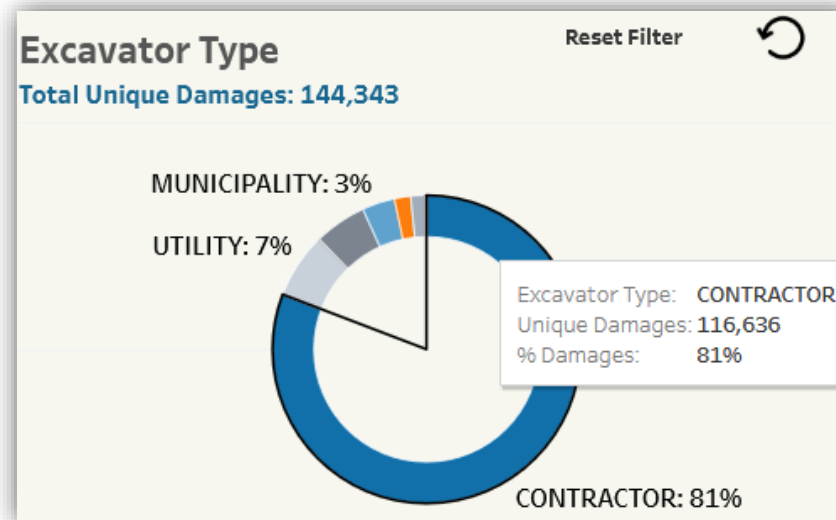
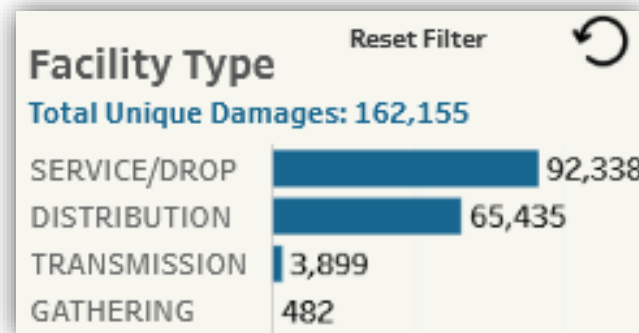
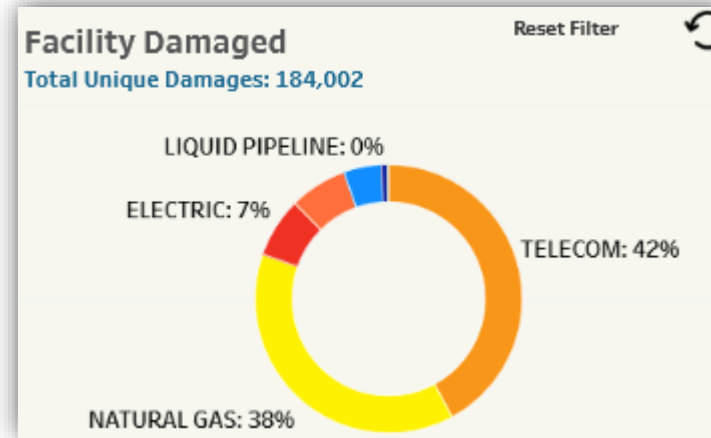
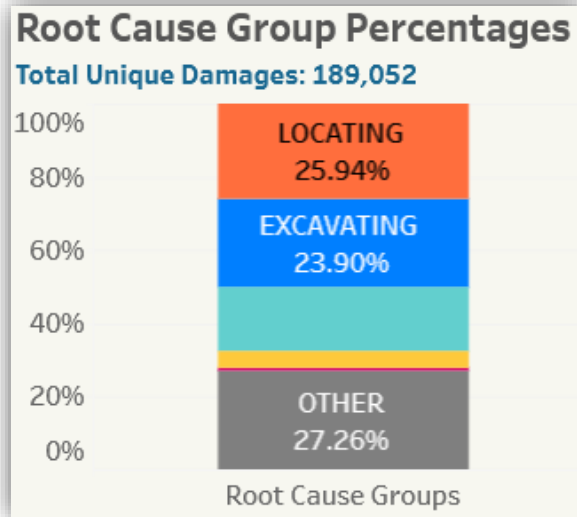
**TX - 15,988 \* NC - 17,524 \* GA - 24,955 \* FL - 28,174**

# Industry Data CGA DIRT Report



# Industry Data CGA DIRT Report

In 2024 United States Reported 189,502 Damages



# Industry Data CGA DIRT Report

## 2024 Top 10 Root Causes

1. No locate request
2. Excavator failed to maintain clearance after verifying marks
3. Facility not marked due to locator error
4. Marked inaccurately due to locator error
5. Improper excavation practice not listed elsewhere
6. Excavator dug prior to verifying marks by potholing
7. Facility not marked due to no response from operator/contract locator
8. Excavator failed to shore excavation/ support facilities
9. Marks faded, lost or not maintained
10. Facility not marked due to incorrect facility record/map

**Top 10 damage root causes drive 85% of all damages.**

**The #1 Cause of Damages**

**Failure to Notify 811**

**As a Result**

**CGA Developed 5 Priorities In**

**Their 2024 Report**

# The 2024 DIRT Report



**Identifies damage prevention opportunities**

Key takeaways:

- *Damage reduction has plateaued*
- *The same root causes persist every year*
- *Response reliability for locators is inconsistent*
- *The process is not predictable for excavators*

**The industry is underserved**

**It needs structural & technological improvements to support safer excavations**

# The 5 Priorities

- 5: Accelerate Data-Driven Decision-Making
  - DIRT contains large amounts of data - but:
    - Root cause reporting is inconsistent & Many reports are incomplete



***RECOMMENDATION: Expand these programs across the industry***

# The 5 Priorities

- 4: Implement Systematic Enforcement Across All Stakeholders
  - Historically, enforcement focused on excavators
    - Damage prevention also depends on:
      - Utilities + Locators + Regulators + Facility Owners



**RECOMMENDATION:** *Balance accountability at large*

# The 5 Priorities

- 3: Scale Successful Programs Based on DPI Findings
  - Damage Prevention Institute (DPI)
    - Studied high-performing organizations & found they consistently had:
      - Strong safety culture – Consistent training
      - Formal damage prevention programs & procedure



**RECOMMENDATION:** *Expand these programs across the industry*

# The 5 Priorities

- 2: Target Wet Utility & Telecommunications Work

- These sectors dominate damage statistics because:
  - Locating is inconsistent + work frequency is high
  - There's limited / low quality mapping + older infrastructure



**RECOMMENDATION:** *Create specific interventions to address operational challenges*

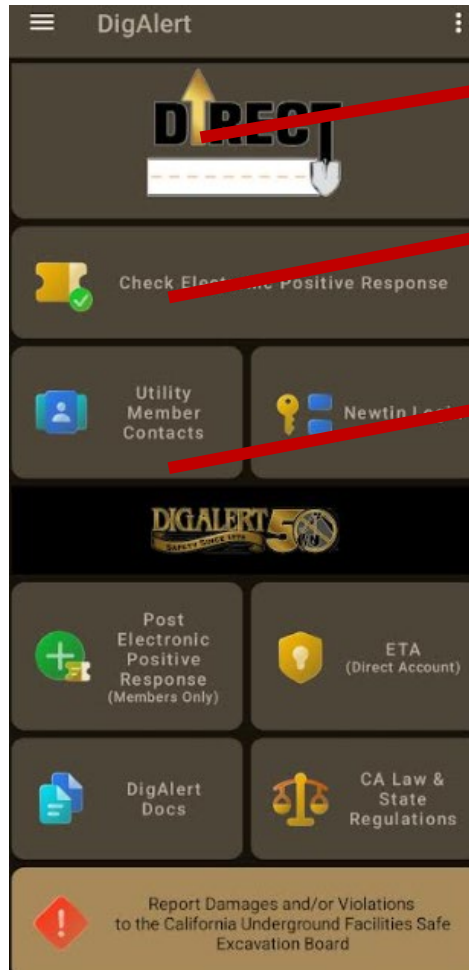
# The #1 Priority From CGA



# In Practice

- **Current software requires deep knowledge of the system**
- **Response codes are not always intuitive**
- **Contact information may be outdated or wrong**

# Current Technology



Start here to ensure you are on legal start time

Go here to check utility responses

Go here to find contact numbers

## *The Challenge*

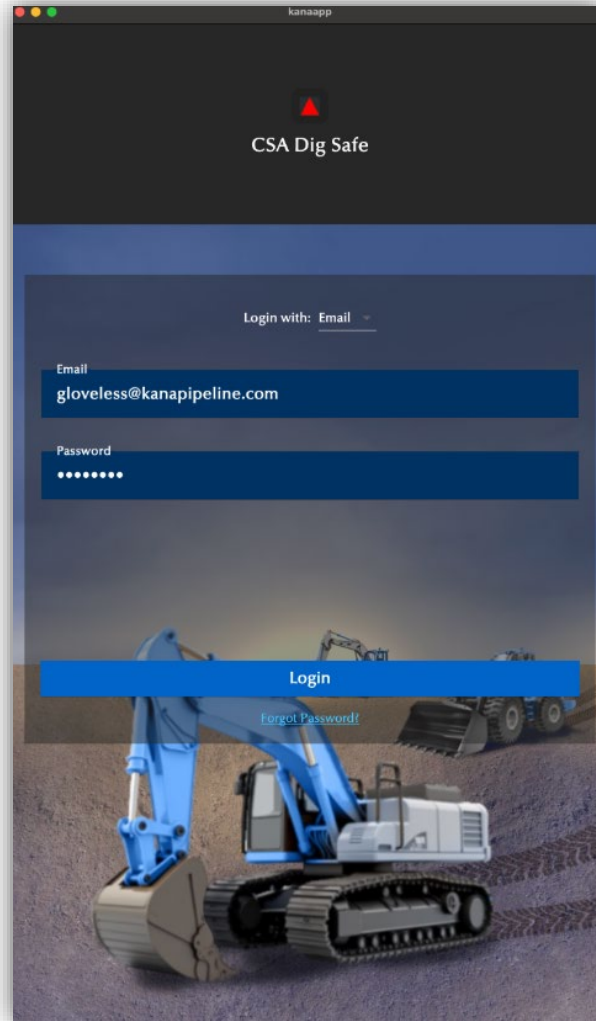
- Hopping back and forward from screen to screen
- EPR responses are not intuitive
- Phone numbers are located separately & often outdated

**With phone numbers in hand – additional challenges arise**

# In Practice

- **Utility owners use different response systems**
- **Third-party locators' training capacity varies**
- **Some responses require follow-up action that take hours**
- **Certain DigAlert actions can trigger 3-day delays**

# New Solution



**Contractors taking matters into their own hands**

➤ **Creating their own software**

➤ **Single point repository**

➤ **Unified interface across all platforms**  
➤ **(Android, iPhone, Webapp)**

➤ **Offering a variety of tools**

➤ **Ticket creation**

➤ **Automatic renewals**

➤ **Streamlined utility management**

➤ **Risk prevention (color codes)**

➤ **User workflows (simplified for workers)**

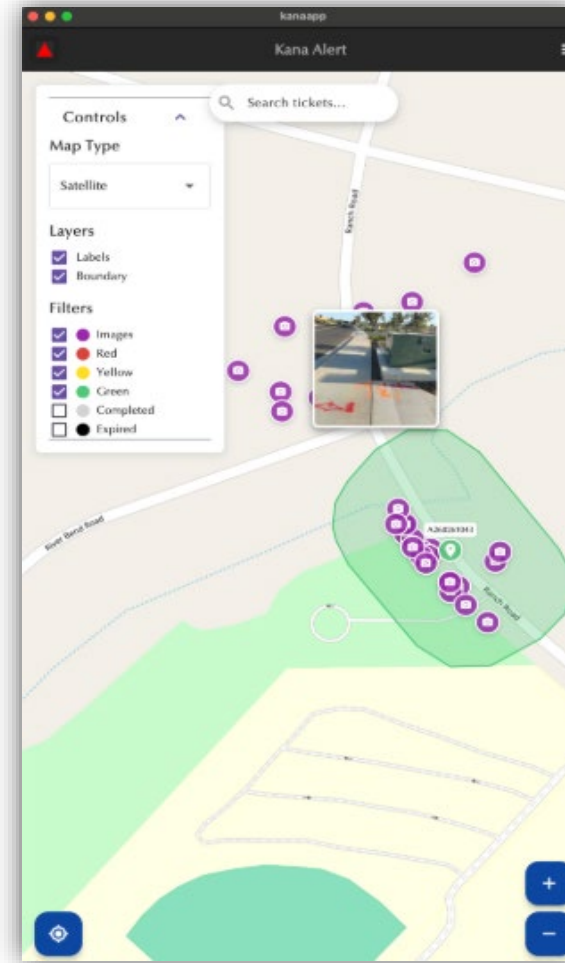
➤ **Claims management (after damages occur)**

**Built by Contractors – For Contractors**

# New Solution



**Full list overview**

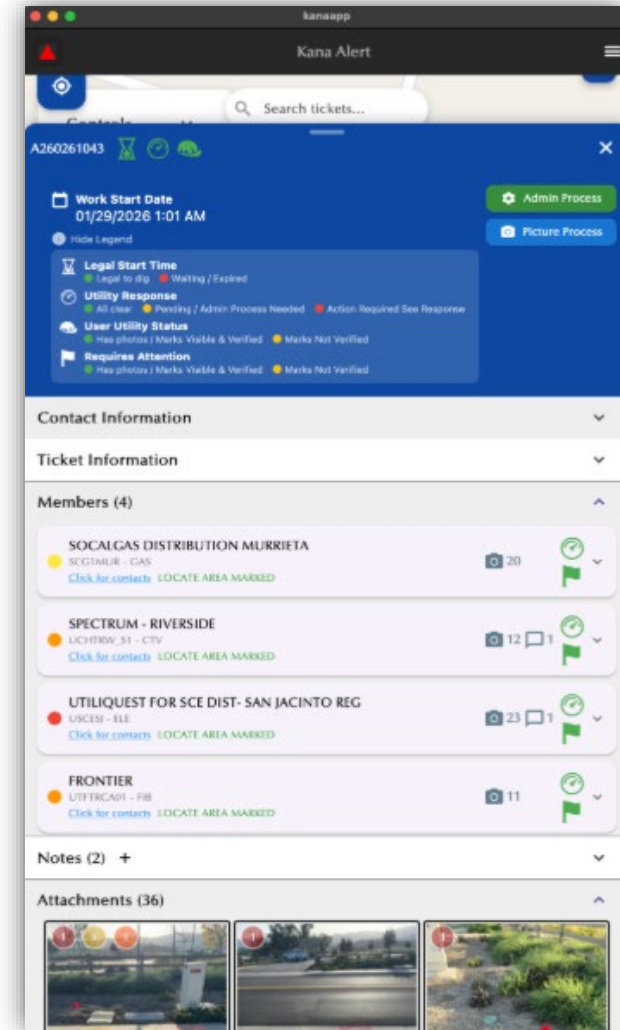


**Single ticket management**

# New Solution

**Risk Management  
Color System**

**Central Image Repository**

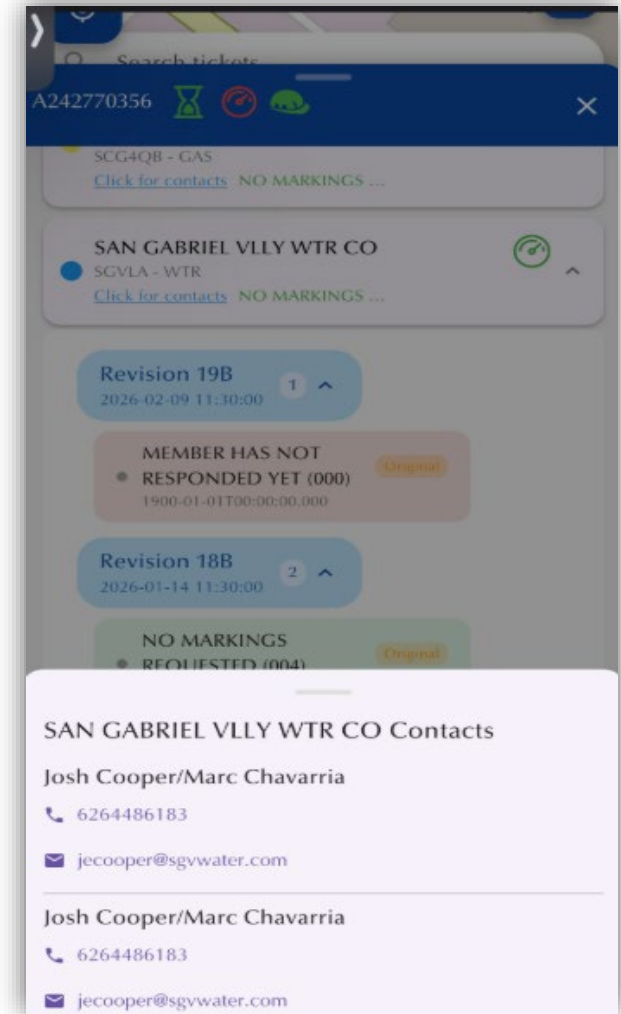


# New Solution

**Ticket Revision History Log**

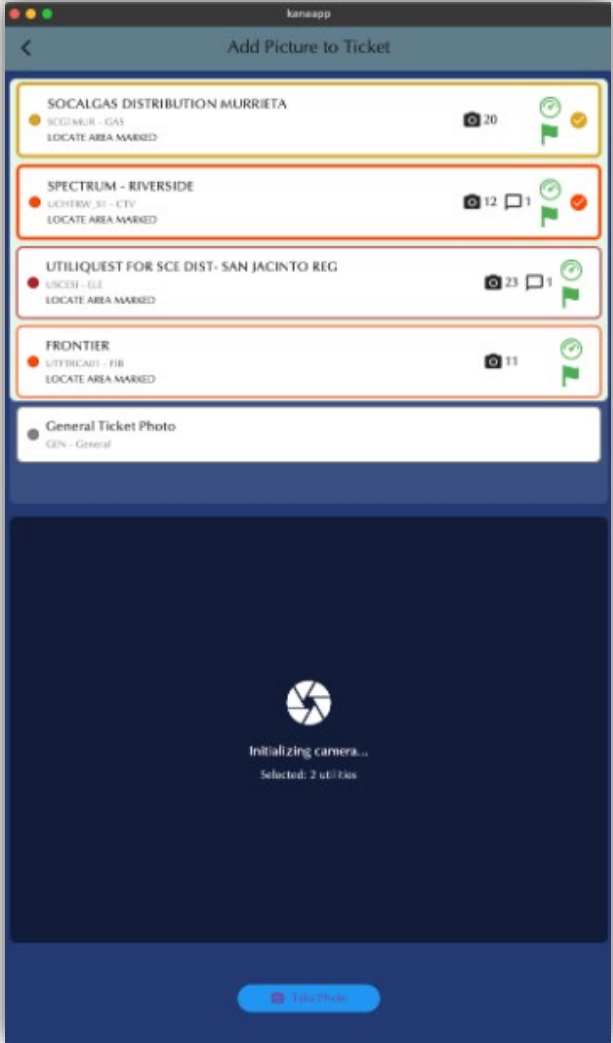
**Centralized Contact List**

**Emails  
&  
Phone Number**



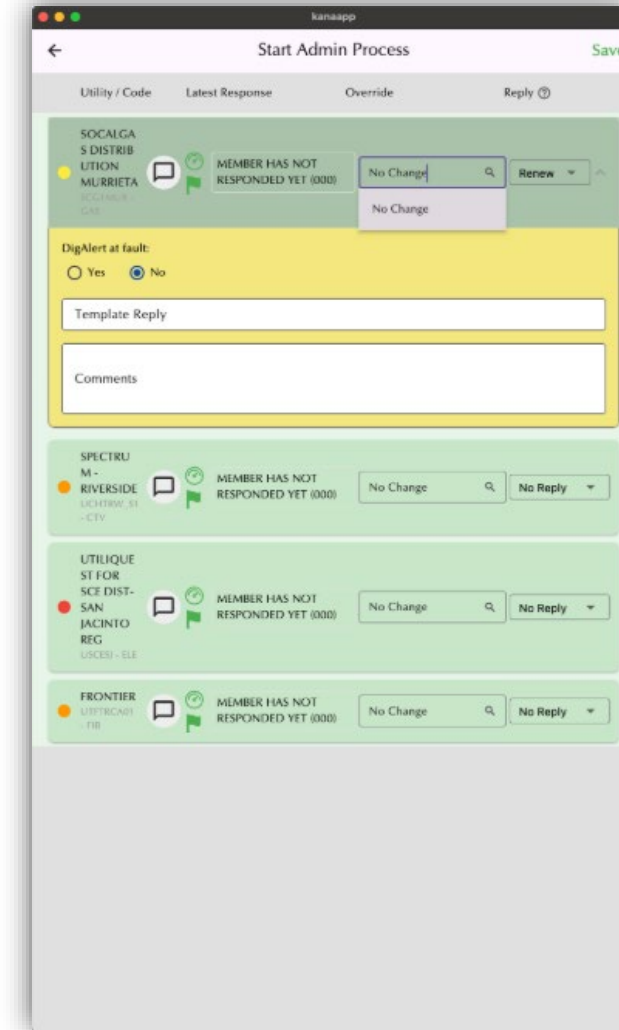
# New Solution

**GPS Time Stamped Images  
For Utility Marks**



# New Solution

**Digalert Reply Capability  
From Within The App  
&  
Allows Response Overrides**



# New Solution

With New Technology You Now Have Real Time Updates



- Simplifying The Process With Software
- Risk Management & Damage Prevention
- With Dig / No-Dig Controls
- Providing Evidence To Support Your Rights Against Claims

# New Solution

With New Technology You Now Have Real Time Updates



- **CSA DigSafe App**
- **Spotter**
- **Excav8**

# QUESTIONS?

# Links

## **WHO IS CGA**

<https://commongroundalliance.com/Membership-Engagement/What-We-Do>

## **DASHBOARD**

<https://commongroundalliance.com/DIRT-Dashboard>

## **2024 DIRT REPORT**

<https://dirt.commongroundalliance.com/#mainContentAnchor>

## **BEST PRACTICES**

<https://commongroundalliance.com/Publications-Media/Best-Practices-Guide>

## **TRAINING**

<https://training.commongroundalliance.com/curriculum/english/#intro>



# Trenching & Excavation

DigAlert

Notification Requirements

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