
California Underground Facilities Safe Excavation Board

February 9-10, 2026

Agenda Item No. 17 (Information Item) – Staff Report

Unmarked Lines Update

PRESENTER

Tiffany Wynn, Policy Specialist

SUMMARY

At the Underground Safety Board’s (Board) July 2025 meeting, the Board determined that the scope of unmarked lines safety standards should include operators’ responses to notifications of unmarked lines and directed staff to conduct a workshop and survey to gather stakeholder input for the content of those safety standards. Staff conducted a workshop and a survey, the results of which helped inform safety standards concepts for operator responses and raised additional issues beyond the issues identified by the Board in July. Based on the results of stakeholder outreach, staff recommend that the Board direct staff to develop safety standards for operator responses (who should respond to notifications, when they should respond, and how operators should respond) and explore the additional issues raised during stakeholder outreach.

STRATEGIC PLAN

2020 Strategic Plan Objective: Improve Accessibility of Buried Infrastructure Location Knowledge and Understanding

Strategic Activity: Develop Processes to Assist Excavators in Identifying Unmarked and Abandoned Lines

BACKGROUND

Government Code Section 4216.18 requires the Board to “develop a standard or set of standards relevant to safety practices in excavating around subsurface installations and procedures and guidance in encouraging those practices.” These standards should be “informed by publicly available data” and are not intended to replace “other relevant standards, including the Best Practices of the Common Ground Alliance [(CGA)], but are to inform areas currently without established standards.”¹

The Board’s vision includes effecting a California in which excavators and operators know and understand how to identify the locations of subsurface installations and how to resolve

¹ [Gov. Code Section 4216.18](#)

unexpected situations that arise.²

In July 2022,³ the Board was informed that a primary stakeholder concern is the “lack of standard communication practices between excavators and operators” upon discovery of an unmarked subsurface installation. This concern was further explored in January 2023,⁴ when the Board discussed the importance of distinguishing unmarked subsurface installations from abandoned subsurface installations and noted that much of the problem with “abandoned” lines actually stems from the fact that these subsurface installations are not located and marked. Much of the Board’s discussion since then has focused on long-term solutions for how to increase information sharing about unmarked or unclaimed subsurface installations.⁵ In December 2024, the Board defined the issues with unmarked subsurface installations even further, including that abandoned lines are not the problem when they are marked; rather, the issues for excavators stem from lines that go unmarked, regardless of their operational status.⁶ The Board further explored ways that solutions differ depending on whether lines are claimed by an operator or whether they remain unclaimed.

In July 2025,⁷ the Board examined the Dig Safe’s directive that the Board’s safety standards should not replace other relevant standards, including the CGA Best Practices. The Board looked at where the gaps are in the CGA’s Best Practices. The Board reviewed the existing CGA Best Practices for communication practices about unmarked lines, analyzed the standards for gaps, and identified operator responses to notifications of unmarked lines as a gap in the CGA Best Practices that would be appropriate to include in the scope of the Board’s safety standards. The Board directed staff to further develop the content of safety standards for unmarked subsurface installations by conducting a survey and hosting a workshop to learn more about gaps in the current process.

On September 17, 2025, staff held a hybrid (virtual and in-person) workshop⁸ at Underground Service Alert of Southern California’s (DigAlert’s) headquarters in Corona, California. Thirty-three people attended the workshop virtually and 6 attended in-person; 10 attendees actively participated in the workshop, with those participants representing stakeholders such as water districts, oil and gas, engineers, municipal utility districts, professional locators, and a regional notification center (RNC). Attendees were asked about their experiences with unmarked lines, including how unmarked lines are reported, how operators respond to notifications of unmarked lines, and the timing involved.

² [Underground Safety Board Policy B-03: Vision Statement](#)

³ [Item 14: Abandoned Lines Standards Development Update](#), Staff Report entitled “*Abandoned Lines Standards Development Update*,” July 11-12, 2022

⁴ [Item 7: Distinctions Between Unmarked and Abandoned Lines](#), Staff Report entitled “*Distinctions Between Unmarked and Abandoned Lines*,” January 9-10, 2023

⁵ See, e.g., [Item 27: Unmarked Lines – Ticket Data](#), Staff Report entitled “*Unmarked Lines – Ticket Data*,” April 14-15, 2025

⁶ [Item 14: Abandoned Lines Standards Development Update](#), Staff Report entitled “*Abandoned Lines Standards Development Update*,” July 11-12, 2022

⁷ [Item 26: Unmarked Lines – Scope of Safety Standards Update](#), Staff report entitled “*Unmarked Lines – Scope of Safety Standards Update*,” July 14-15, 2025

⁸ [Unmarked Lines Workshop](#), September 17, 2025

Staff also conducted a statewide survey that was open from September 2 – October 2, 2025. Over 100 stakeholders responded to the survey. The survey answers and comments are presented in Attachment A.

DISCUSSION

Stakeholder feedback from both the survey and the workshop provided insights into the communication gaps that the Board has previously identified as being within the appropriate scope of safety standards for unmarked lines. Stakeholder feedback also shined a light on issues that fall beyond the previously identified scope of safety standards, specifically highlighting issues with current communication practices and shortcomings of the existing 811 ticketing and notification system and the policy overlap between problems excavators face when encountering unmarked lines and the abandonment practices of operators.

Problem Statement: Safety Concerns of Unmarked Lines

An excavator who encounters an unmarked line in the field must presume it is active, and can conclude only one thing about that line: that it is unmarked.⁹ The excavator is required to report to the RNC that an operator has failed to identify the line.¹⁰ One of the challenges excavators have previously expressed is that there is no standard process for how operators should respond to a notification of an unmarked subsurface installation.¹¹ The problem for excavators lies in the process to determine the active, inactive, or abandoned status of the line.¹²

The Dig Safe Act and CGA’s Best Practices provide guidance for the communication practices of excavators¹³ who encounter unmarked lines, as well as what RNCs should do if they receive a notification from an excavator about the discovery of an unmarked line. As the Board discussed in July 2025, however, CGA’s Best Practices are silent as to how operators should respond once they are notified that an excavator has discovered an unmarked line.¹⁴

Analysis of Stakeholder Input: Content of Safety Standards for Communication Practices of Operators

Input from stakeholders during public comment echoes the absence of a CGA Best Practice for operator responses to notifications of unmarked lines. Key elements that are missing from safety standards that emerged from stakeholder public comment, Board discussion, workshop feedback, and survey data include:

- whether all operators who are notified of an unmarked line must respond to the notification;

⁹ [Item 7: Distinctions Between Unmarked and Abandoned Lines](#), Staff report entitled “*Distinctions Between Unmarked and Abandoned Lines*” January 9-10, 2023, p. 3

¹⁰ Id.; See also [Gov. Code Section 4216.3\(d\)](#)

¹¹ [Item 7: Distinctions Between Unmarked and Abandoned Lines](#), Staff report entitled “*Distinctions Between Unmarked and Abandoned Lines*” January 9-10, 2023, p. 3

¹² Id.

¹³ Under [CGA’s Best Practice 5-21](#), excavator’s should either report an unmarked line to the RNC or to the operator directly. CGA does not specify the type of information that should be conveyed.

¹⁴ For a full discussion of what CGA’s Best Practices and the Dig Safe Act say about excavator, operator, and RNC responsibilities regarding unmarked lines, see [Item 26: Unmarked Lines – Scope of Safety Standards Update](#)

- when, or how quickly, operators who are notified of an unmarked line must respond to the notification; and
- how operators who are notified of an unmarked line should respond to the notification (e.g., is it sufficient to reply via Electronic Positive Response? Should an operator do something more, such as conduct a site-visit? And under what circumstances would a particular type of response be appropriate?)

Who Should Respond to Notifications of Unmarked Lines

No operators stated that they do not respond to notifications of unmarked lines; however, excavators indicated through their survey responses that, in their experience, some operators do not answer notifications of unmarked lines. Based on current stakeholder engagement and responses, staff have found that public safety would benefit from all operators providing a response to being notified about the existence of an unmarked line, even if only to indicate receipt of the notification or that the line is not theirs. Staff have not identified any need for exemptions from this practice. Therefore, staff proposes that the Board's safety standards for operator responses to unmarked lines provide that all operators who are notified of discovery of an unmarked line should respond to that notification in some way, even if only to indicate that the line is not theirs.

When Should Operators Respond

When the scope of safety standards was discussed at the July 2025 Board meeting, public comment from a stakeholder discussed the lack of enforcement mechanism around triaging the importance of unmarked or exposed ticket notifications. When workshop participants were asked about what response time would be reasonable, all operators agreed that if they have sufficient information about the unmarked line, including material, location (including depth), diameter, direction, and color of the unmarked facility, they can respond quickly to identify whether the line is theirs. One participant further indicated that, if they needed to conduct a site visit to visually inspect the line, two business days should be enough time, absent extraordinary circumstances.

Workshop participants representing engineering and excavation stated that project delays are a substantial concern when it comes to unmarked lines. Survey respondents indicated that unmarked lines cause most projects to be delayed anywhere from 1-4 hours up to more than 1 week. The concerns about project delays, the safety risks that respondents indicated can occur when projects become significantly delayed (including excavators potentially "hot tapping" a line to determine its status), and operators' feedback that their primary hindrances to responding to unmarked line notifications immediately are based on workload and location of the excavation, suggest that the Board should include a triage system in the standard for ticket intake and processing for operators that prioritizes responding to notifications of unmarked lines.

However, as discussed below, the ability of operators to promptly identify the line depends on the information they have about the line itself and whether the operator needs to conduct a

site visit in order to identify the line. In cases where operators have sufficient information to identify a line without a site visit (for example, if a photograph, location, and depth information are provided to the operator), operators at the workshop indicated that they would be able to almost immediately tell the excavator whether the line belonged to them or not. Because the quality of information an operator has about an unmarked line impacts the timeliness of their ability to identify the line, the Board's safety standards about when an operator should respond to a notification should take into consideration what quality of information the operators were provided before providing specific timelines for a response.

By recommending that operators respond more quickly to notifications of unmarked lines than to standard ticket types, the Board would work to address the safety concerns associated with project delays and down time indicated by survey respondents. Putting forward a safety standard that prioritizes operator responses to notifications of unmarked lines would encourage operators to respond quickly enough that excavation crews are not faced with the choice of proceeding unsafely or risking the time and monetary losses associated with unknown and possibly unbounded time delays for a project.

How Should Operators Respond

Operators discussed cases in which they would respond to the notification of an unmarked line over the phone or by conducting a site visit and the circumstances that determined which was appropriate. All operators at the workshop indicated confidence in their ability to discern when a site visit was necessary, and all stated that they would conduct a site visit if they were unsure about the identity of the line. However, operators also indicated that their preference for how to respond was to be able to resolve the matter over the phone or through some other means without conducting a site visit. The preference for not conducting a site visit was largely based on ticket and workload volume and the time involved in driving to an excavation site a second time (after the initial locate and mark).

Stakeholder feedback provides some insight into what is appropriate for a safety standard about how operators should respond, including what type of response excavators need and what types of responses tend to lead to positive identification of an unmarked line. Operators at the workshop indicated that they could successfully identify whether an unmarked line belongs to them without conducting a site visit if they have sufficient information about the line, such as size, depth, materials, location, and color.

Excavators responding to the survey indicated that, in their experience, operators were most likely to identify an unmarked line if operators did respond by conducting a site visit of the excavation location. All the operators at the workshop indicated that, if they were unable to get sufficient information about the line to identify it without responding via a site visit, they would all ultimately conduct a site visit, but that responding with a site visit could take a few days, depending on the operator's daily ticket volume.

As ticket volume is part of the Board's [2026 Workplan](#) – as a result of the newly passed Senate Bill 254 – feedback from operators about the impact of ticket volume on their ability to conduct

a site visit in response to a notification of an unmarked line should be incorporated into safety standards along with future Board direction regarding daily ticket volume.

Analysis of Stakeholder Input: Issues Outside the Scope of Operator Responses

In addition to information about operator responses to notifications of unmarked lines, additional common themes emerged from the workshop and survey that may warrant further exploration. These themes include the current use, and potentially expanded role, of the 811 ticketing system for communication and documentation about unmarked lines. These themes include increasing the amount and quality of information provided to operators about the unmarked line at the initial notification, delays in the current 811 system, and issues all parties experience with inaccurate contact information.

Additionally, multiple stakeholders mentioned issues with unmarked lines that seem to touch on operators' abandonment processes, and why lines may be unmarked to begin with. These issues include mention of "quitclaimed" lines, "willed" lines, and "abandoned" lines. As discussed below, quitclaim processes for utility easements can involve multiple levels of government action and oversight. Furthermore, there remains a lack of process for the (colloquial) "abandonment" of utilities for locate-and-mark purposes, which the Board may wish to further explore.

Gaps and Room for Improvement to the Current Ticket Process

Although statute requires excavators to report an unmarked line to the RNC as an operator's failure to identify their lines,¹⁵ stakeholder feedback shows that there is a lack of consistency in how unmarked lines are reported by excavators. Operators at the workshop indicated they receive notifications regarding unmarked lines via phone or other direct contact and through the 811 ticketing system but prefer to be notified through a ticket for documentation and record-keeping. Survey results confirm what staff heard from operators at the workshop: excavators do not report unmarked lines in a consistent manner. Many excavators will contact utilities through the 811 ticket system and many will also contact utilities directly; however, more respondents indicated that they contact the utility directly than those who replied that they use the 811 system, even when respondents were asked to check all answers that apply.

Participants in the workshop also expressed a desire for a more robust ticket system to facilitate operators receiving the information they need to be able to identify a line without going to the excavation site for a field inspection. Workshop participants representing operators stated that receiving a ticket with all of the information they need to identify the line, ideally including a picture of the unmarked line, would make operators' jobs substantially easier and allow them to respond more promptly to notifications of unmarked lines. Promptness of response was a consistent theme in the comments provided in the survey. It should be noted, however, that DigAlert indicated at the workshop that their system is not currently capable of receiving photographs from excavators or sharing them with operators.

¹⁵ [Gov. Code Section 4216.3\(d\)](#); see also [Item 7: Distinctions Between Unmarked and Abandoned Lines](#),

Participants in the workshop shared that, when they receive ticket notifications of unmarked lines, one of the challenges faced by operators is getting in touch with someone who has first-hand knowledge of the unmarked line being reported. Participants noted that the ticket may be put in by someone at an office instead of someone in the field. One of the primary concerns about doing a field inspection was the ability or inability to have a site meeting with someone who had knowledge of the project and the unmarked line. This sticking point was echoed in survey results, with one respondent indicating that dispatch is the party who contacts 811 and another stated that, when trying to contact a utility through the phone numbers provided by 811, “it can be difficult to get a hold (sic) of a person.” Another survey respondent stated that often when they contact the utility or the call center, nobody from the utility responds. This respondent indicated that their crews and supervisors get discouraged and may avoid reporting unmarked lines.

Stakeholder feedback indicates a clear gap in the 811 ticket process: inability to get contact information for someone who has relevant knowledge. Excavators reported difficulty getting direct contact information about the locator who has knowledge to identify the unmarked line, while operators reported struggling to get direct contact information for the excavator in the field who has personal knowledge of the unmarked line. Both operators and excavators had concerns around attempting to contact the other party and reaching only someone at dispatch or reception and explained the difficulty and time delay of navigating phone tree menus to reach the correct party.

Causes of Unmarked Lines: Overlap with Issues Related to Abandonment Practices of Operators and RNC Membership

Stakeholder feedback indicated multiple possible causes for lines going unmarked by operators. During public comment at the Board’s July 2025 meeting, one commenter indicated that some lines are going unmarked and unclaimed by operators because the owners of those subsurface installations are not members of DigAlert, and therefore are not on the receiving end of any tickets sent by DigAlert – either to mark the subsurface installations in the first place, or to be notified that an excavator found an unmarked line during excavation. In the example cited, an excavator discovered an unmarked line, which turned out to be related to traffic signals. However, no traffic signal operators were listed on the ticket because the operator of the line was not a member of DigAlert at the time of the excavation.

In this case, and because the Dig Safe Act already requires all operators be members of an RNC,¹⁶ there is not a policy solution readily available to ensure that all utilities in the area of proposed excavation are receiving notifications of the excavation or the unmarked lines. The Board could therefore consider actions such as enforcement audits or education and outreach efforts to reach non-compliant utilities, encourage those utilities to follow the Dig Safe Act and become members of the applicable RNC, and therefore receive (and respond to) notifications of proposed excavation and discovery of unmarked lines.

¹⁶ [Gov. Code Section 4216.1](#)

Another concern raised by stakeholders is the creation of new unmarked, unclaimed lines through various processes related to what the Board and stakeholders have colloquially called “abandonment” or “abandoned lines.” Stakeholders at both the workshop and in responses to the survey indicated that problems with unmarked, unclaimed lines can often be the result of utilities’ relinquishment of their legal rights, such as utilities “quitclaiming” or “willing” their lines to the local jurisdiction. The primary concern indicated by these stakeholders was that utility companies are transferring ownership of their subsurface installations to local cities or counties, and those entities may not know that they have assumed ownership and may not have any records about the locations of these lines. Excavators indicated that, as a result of this quitclaim process, these lines may be encountered in the field as unmarked lines in future excavations. Excavators also indicated that many of the unmarked, unclaimed lines they encounter in the field are lines that have been previously “abandoned” by the utility or operator and therefore there is nobody to claim these unmarked lines.

When utilities want to relinquish their ownership or access rights related to their assets – including those assets include subsurface installations – the California Public Utilities Commission (CPUC) has a process for CPUC-regulated utilities relinquishing all or part of their utility easements to the landowner via quitclaim deed. Under a utility easement, a utility company has a limited right to make use of property owned by another, which is documented in a written and publicly recorded easement. Often the easement permits the utility to access the property to maintain, inspect, and safely operate utilities within the easement area, and may restrict the types of buildings or landscaping permitted within the easement. When a utility operator wishes to relinquish its right to use or access another’s property (i.e., give up its easement), the utility company could do so by executing and recording a quitclaim deed.

This cannot be done in a regulatory vacuum, however. Regulated utilities are required to seek the permission of the CPUC before relinquishing or transferring any property rights necessary or useful in the performance of the utility’s duties to the public, and the process differs somewhat based on the value of the property right involved.¹⁷ For property valued at more than \$5,000,000, the utility must secure an order from the CPUC authorizing the transaction; for property valued at \$5,000,000 or less, the utility must file an advice letter with the CPUC and obtain permission from the commission or executive director for the transaction.¹⁸ It is not clear at this time whether or how a utility’s obligations under Gov. Code Section 4216 et seq. are factored into the CPUC’s decision, and there is currently no uniform, statewide method of tracking all quitclaims for all utility easements.

This CPUC process, however, is only triggered when the property rights sought to be quitclaimed are “necessary or useful in the performance of the utility’s duties to the public.”¹⁹ In one example that staff found of a quitclaim deed that included buried assets, a city relinquished an easement allowing access to a sewer line that had previously been abandoned. In this instance, the quitclaim process included a vote by the city council to relinquish the

¹⁷ [Public Utilities Code Section 851](#)

¹⁸ [Public Utilities Code Section 851](#)

¹⁹ [Public Utilities Code Section 851](#)

easement by quitclaim deed.²⁰

Regardless of the mechanism by which utilities forfeit property rights related to subsurface installations, it is clear from stakeholder feedback and the complexities involved with relinquishment of property rights – especially for utility companies – that issues related to utility forfeiture of rights of way, easements, and potentially affected subsurface installations should be revisited by the Board as it develops standards for safe excavation practices.

While these lines may often present as unclaimed lines, one stakeholder offered a potential solution: that USA North could be a repository for geospatial data about unclaimed lines and “confirmed abandoned” lines.²¹ While the RNCs have no statutory obligation to hold and share this type of information, this solution has some merit and should be investigated further.

RECOMMENDATION

Staff recommend that the Board direct staff to draft language for the safety standards about operator responses to notifications of unmarked lines, including who should respond, when they should respond, and how they should respond. Staff recommends that the safety standards for operator responses should provide that all operators: 1) respond to notifications of unmarked lines, 2) respond as quickly as possible, and 3) specify that operators may determine whether conducting a site visit is necessary in every case, based on whether they have sufficient information to identify the line without a site visit.

Staff also recommend that the safety standards for unmarked lines encourage excavators to provide as much information as possible when reporting the unmarked line, including accurate contact information and information about the line itself such as size, depth, location, material, or color of the unmarked facility.

Given the extensive requirements in Senate Bill 254 and the associated statutory deadlines, staff recommend continuing the work on standards related to unmarked lines after the completion of the SB 254 regulatory effort. This topic should be revisited in 2027.

²⁰[Los Angeles City Clerk: Quitclaim Deed of Easement, November 11, 2013](#)

²¹ See Attachment A, answers to question 18: What else do you want the Underground Safety Board to know about the process for identifying the owner of unmarked lines?

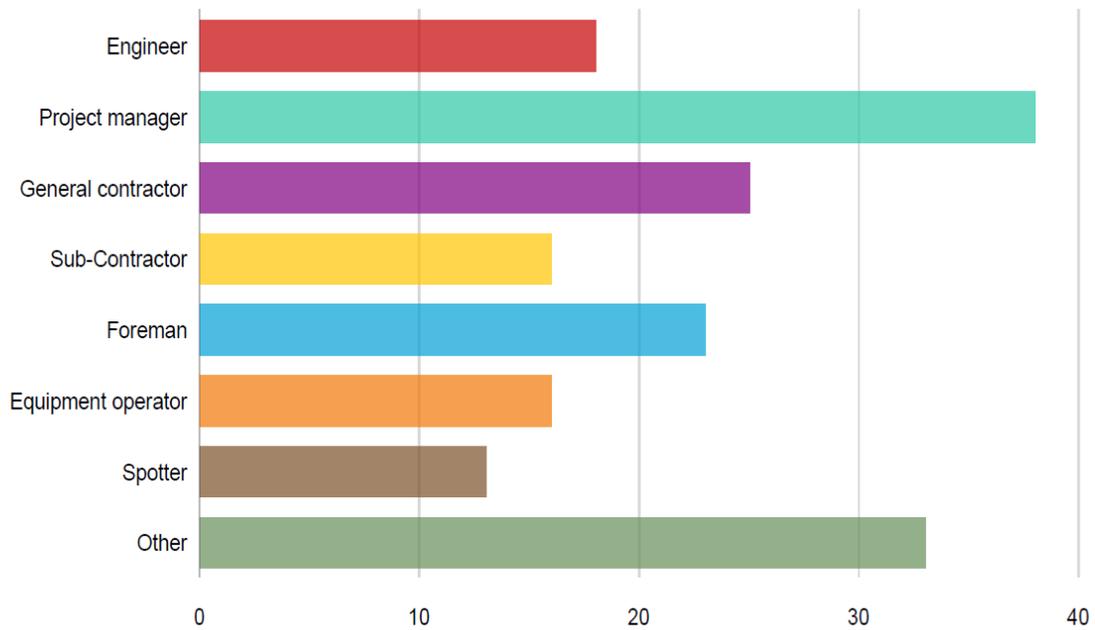
ATTACHMENT A: SURVEY QUESTIONS AND ANSWERS

The following questions were asked in the statewide survey of stakeholders. Staff received 113 total responses to the survey, the answers to which are provided here:

1. Which best describes your role in excavation? Check all that apply.
 - Engineer
 - Project manager
 - General contractor
 - Sub-Contractor
 - Foreman
 - Equipment operator
 - Spotter
 - Other

Answer	Count	Percentage²²
Engineer	18	15.93%
Project manager	38	33.63%
General contractor	25	22.12%
Sub-Contractor	16	14.16%
Foreman	23	20.35%
Equipment operator	16	14.16%
Spotter	13	11.5%
Other	33	29.2%

²² Note: for all questions, the “percentage” column reflects the percentage, as calculated by dividing the total number of respondents who responded with the answer indicated in same row of the left-most column by the total number of survey respondents (114). For example, in question 1, 18 survey respondents indicated they are engineers out of 113 total survey respondents; 18 respondents indicating “engineer” divided by 113 total respondents equals 15.93%. Some questions, such as question 1, permitted respondents to check all answers that apply. Because the “percentage” column reflects only the percentage of total survey respondents that indicated a particular answer, the percentages in each column may not sum to 100% for each question.



“Other” Answers:²³

- Damage Prevention
- Safety
- Environmental Health & Safety Specialist
- Safety
- Locate Manager
- Site documentation and utility locator
- Superintendent
- Utility
- Safety Department
- Public Utility
- Facility owner
- Water Community District Supervisor
- Maintenance Supervisor
- Utility Operator
- Manager
- District Manager
- Superintendent
- Private Locate Company Owner
- Utility Company (Owner)
- Safety Director
- Utility employee

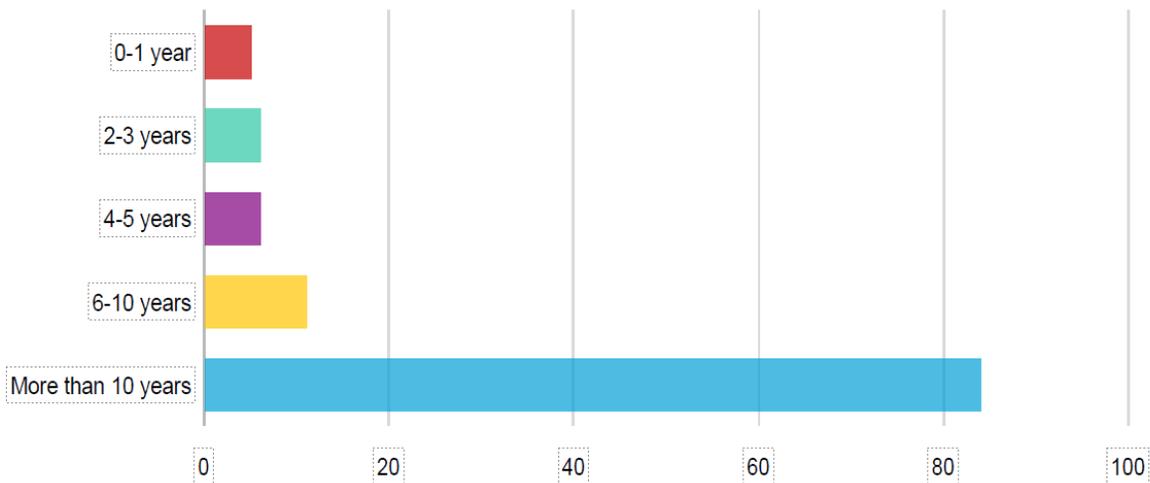
²³ All answers are copied and pasted verbatim from the survey responses, including any spelling or other errors. The only exception is that limited portions of some answers may be redacted as appropriate.

- General manager
- representative of site owner (CCWD)
- Safety/DOT
- USA North 811 executive director

2. How long have you been working in excavation?

- o 0–1 year
- o 2–3 years
- o 4–5 years
- o 6–10 years
- o More than 10 years

Answer	Count	Percentage
0-1 year	5	4.42%
2-3 years	6	5.31%
4-5 years	6	5.31%
6-10 years	11	9.73%
More than 10 years	84	74.34%

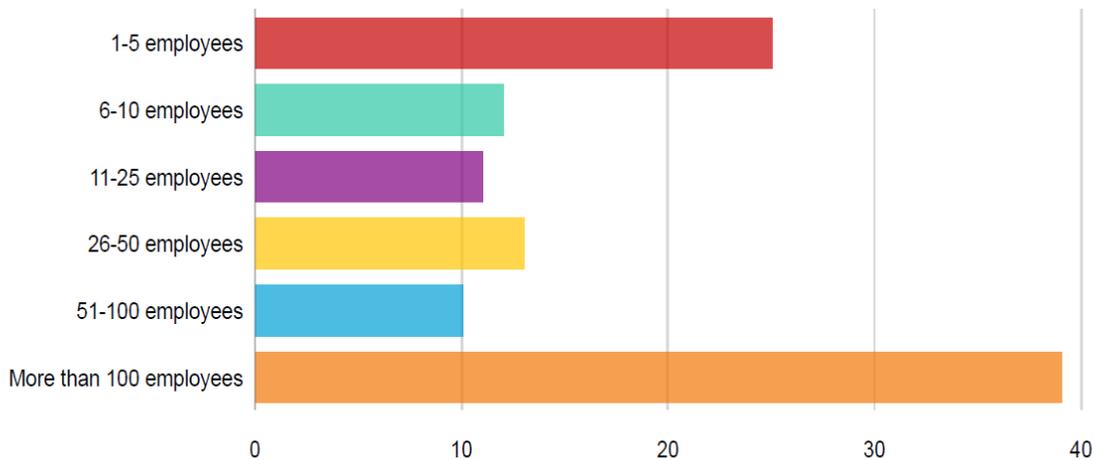


3. How many employees are in your company?

- o 1–5 employees
- o 6–10 employees

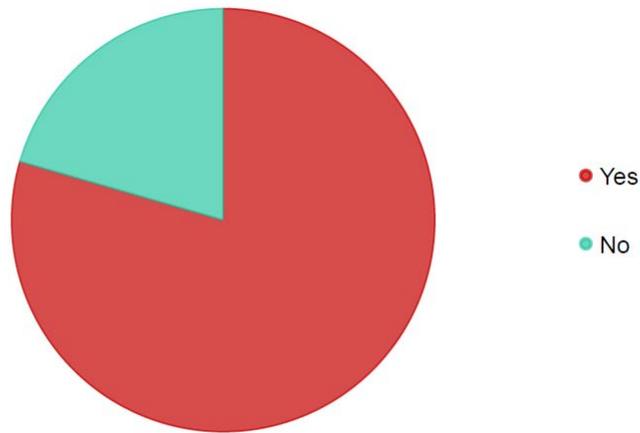
- o 11–25 employees
- o 26–50 employees
- o 51–100 employees
- o More than 100 employees

Answer	Count	Percentage
1-5 employees	25	22.12%
6-10 employees	12	10.62%
11-25 employees	11	9.73%
26-50 employees	13	11.5%
51-100 employees	10	8.85%
More than 100 employees	39	34.51%



4. Have you encountered an unmarked line (i.e., a buried facility that was not marked after an 811 ticket was created)?
- o Yes
 - o No

Answer	Count	Percentage
Yes	89	78.76%
No	23	20.35%

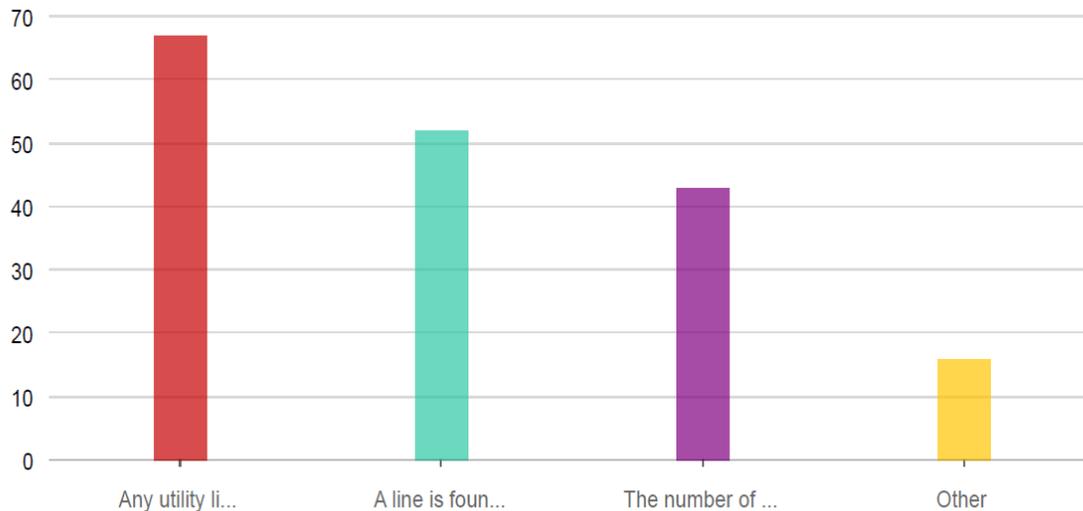


5. The Board wants to understand, from an excavator’s perspective, what happens when excavation needs to be stopped because the excavator finds a line that was not located and marked, or which the excavator did not expect to find based on the responses to the 811 ticket. Which of the below situations describes a scenario in which you would stop excavation because of an unmarked line? Please check all that apply.

- Any utility line is found in a place that should be just dirt
- A line is found where marks indicated there would be a line, but the line found is different from what was indicated by the marks
- The number of lines found in a location is different from the number of lines indicated by marks
- Other

Answer	Count	Percentage
Any utility line is found in a place that should be just dirt	67	59.29%
A line is found where marks indicated there would be a line, but the line found is different from what was indicated by the marks	52	46.02%
The number of lines found in a location is different from the	43	38.05%

number of lines indicated by marks		
Other	16	14.16%



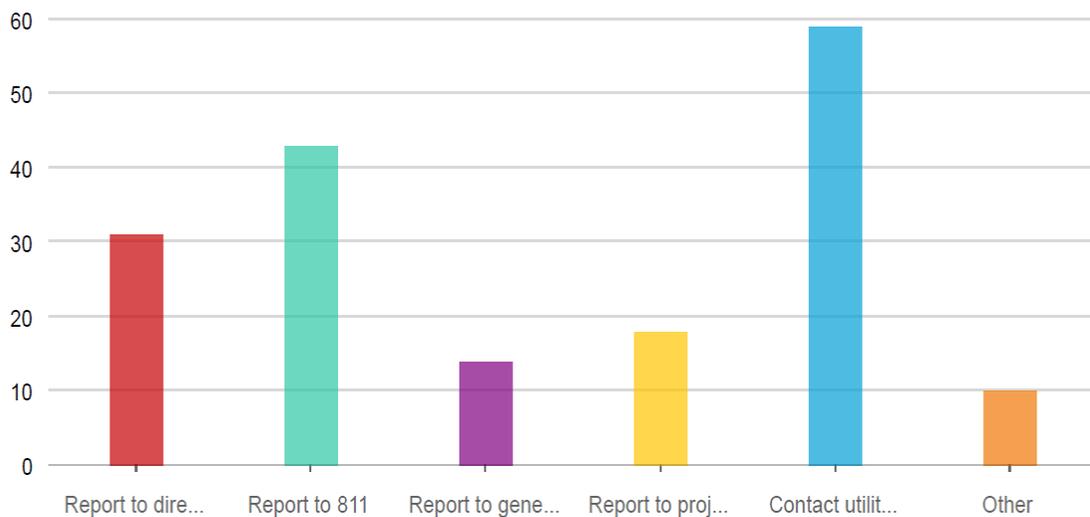
“Other” Answers:

- I’m not personally responsible for excavation operations.
- We identify a mark on site, pothole it and think it’s live, but it’s actually abandoned. A live line is buried just below it (that one is not marked) - then, believing we cleared the line, we dig with equipment and hit the live one.
- Abandoned lines found and marked as live lines and vice versa
- Unmarked lines were found numerous time
- Line was exposed by a leak.
- Direct bury power lines not straight. Unmarked fiber conduit with unknown owner.
- Abandoned gas line
- SD and SS lines were not marked
- bored
- Indications of a substructure facility after crew sweeps area and no marks are visible.
- when an excavation is stopped due to unknown, unmarked lines costs are incurred by the excavator.
- when a utility marks a line 26 ft off the line and tells its your fault.
- In most cases, excavation would only pause temporarily to investigate the line. However, if the line does not impact the installation, excavation would likely continue.

6. When you find an unmarked line and stop excavation, what steps do **you personally** take to identify the owner? (check all that apply)
 - o Report to direct supervisor

- o Report to 811
- o Report to general contractor
- o Report to project manager
- o Contact utility operator directly
- o Other (text box)

Answer	Count	Percentage
Report to direct supervisor	31	27.43%
Report to 811	43	38.05%
Report to general contractor	14	12.39%
Report to project manager	18	15.93%
Contact utility operator directly	59	52.21%
Other	10	8.85%

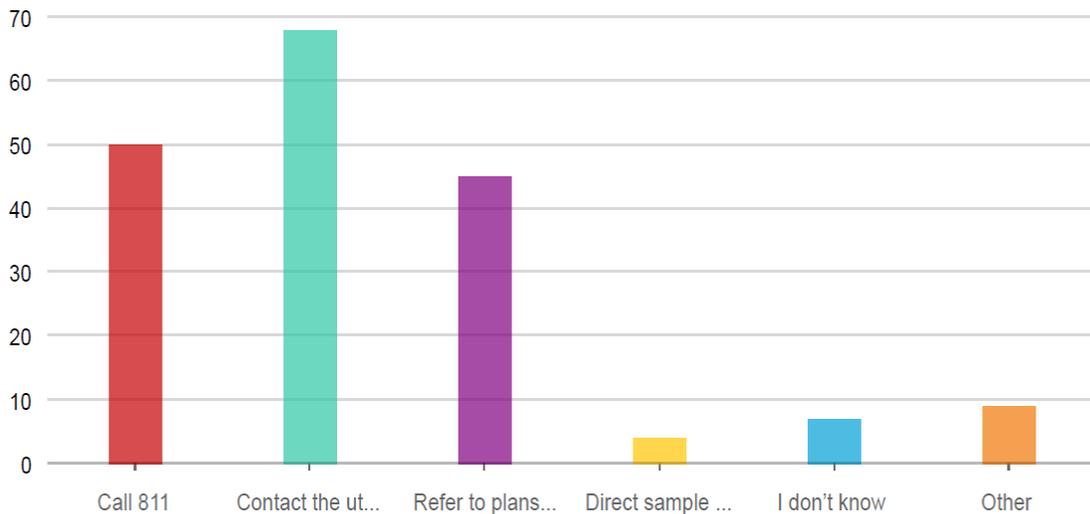


“Other” Answers:

- As the safety manager foreman, supers, or PM's let me know when they have found an unmarked line. If they need help reporting then I get more involved.
- Report to the owner/Construction manager that we need to identify a found utility
- I (sic) personally take NO action. I am the DIRT investigator.

- Document in the CGA DIRT Report
 - often times we call both the utility and teh (sic) call center - and nobody comes. So our crews get discouraged and we find that they feel like reporting it is not important so they sometimes dont (sic) say anything.
 - Observe and note.
 - got lucky didn't hurt it
 - Report the discovery to the contracting party and the engineer of record.
 - 8/10 times these are abandoned lines. This still take multiple man hours to verify if utilities or active or de commissioned, which puts marked strain on deadlines and budget.
 - Log it into company log, report it to our customer
7. When unmarked lines are encountered, based on your experience, what steps in general do excavators take to identify the owner? (check all that apply)
- o Call 811
 - o Contact the utility directly
 - o Refer to plans, site maps, or other records provided by an operator or locator
 - o Direct sample or tap the line
 - o I don't know
 - o Other (text box)

Answer	Count	Percentage
Call 811	50	44.25%
Contact the utility directly	68	60.18%
Refer to plans, site maps, or other records provided by an operator or locator	45	39.82%
Direct sample or tap the line	4	3.54%
I don't know	7	6.19%
Other	9	7.96%



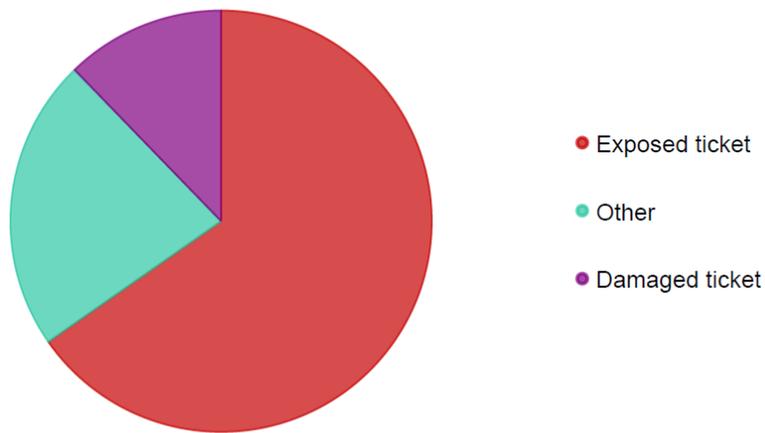
“Other” Answers:

- Protect in place.
- Crew immediately stops work, turns off equipment, secures job site, contact our Dispatch who then (as appropriate) contacts owner, emergency response, and 811.
- Contact their office/supervisor
- carefully keep working as this is often an old and abandoned pipe, not part of any active infrastructure.
- Observe and note.
- Ive been doing it so long you just know by looking at it
- You can usually tell what utility it is.
- Drag them out to the end of the field because most utility (oil companys)say there abandon and they they dont know whos it might be.

8. If you marked “Call 811,” how is the line reported?

- o Exposed Ticket
- o Damaged Ticket
- o Other (text box)

Answer	Count	Percentage
Exposed Ticket	32	28.32%
Damaged Ticket	11	9.73%
Other	6	5.31%



“Other” Answers:

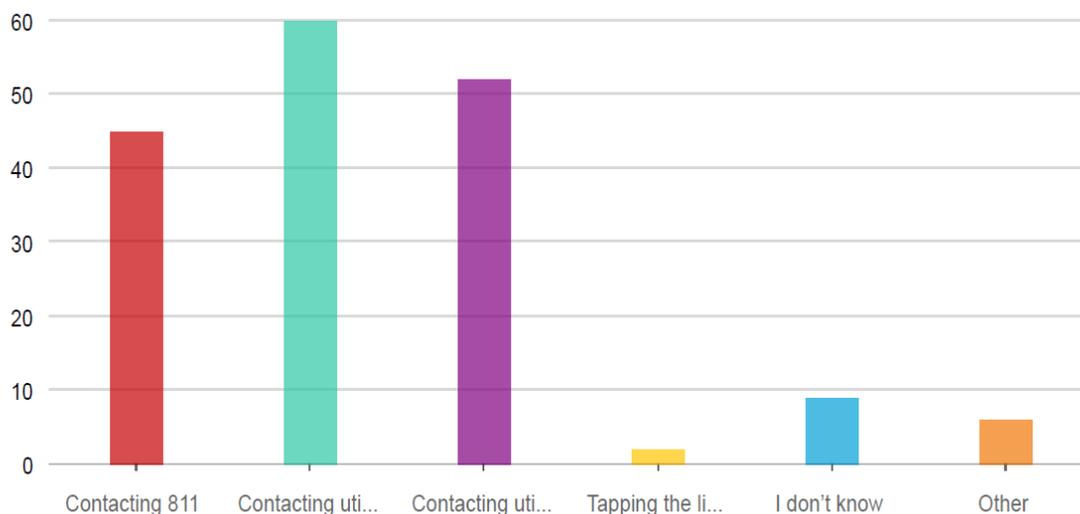
- Unmarked pipe or conduit
- Dispatch contacts 811. i do not personally contact 811.
- It could be either or depending on if I simply exposed it or damaged it while finding it.
- UNKNOWN UTILITY FOUND NEED REMARKS
- Inform engineering group
- it just depends what we found.
- Question is unclear
- Phone call
- Do not understand this question.

9. In your experience, what action(s) is most likely to result in successfully identifying the owner of an unmarked line? Check all that apply.

- o Contacting 811
- o Contacting utility company via ticket contact info
- o Contacting utility company or locator via other means (e.g., personal relationship)
- o Tapping the line
- o I don't know
- o Other (text box)

Answer	Count	Percentage
Contacting 811	45	39.82%

Contacting utility company via ticket contact info	60	53.1%
Contacting utility company or locator via other means (e.g., personal relationship)	52	46.02%
Tapping the line	2	1.77%
I don't know	9	7.96%
Other	6	5.31%



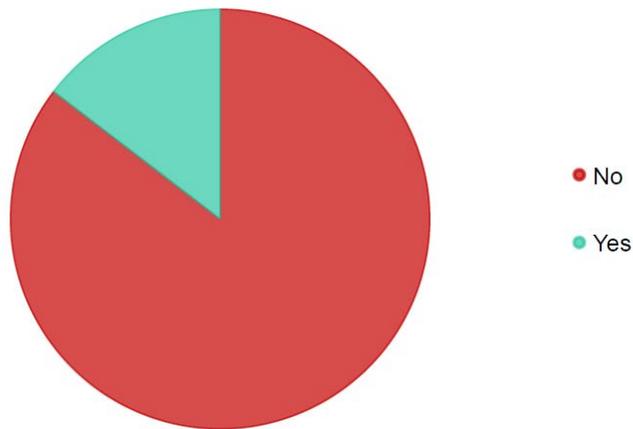
“Other” Answers:

- locating the line and taking the signal to an expected above ground facility to identify the owner.
- When calling numbers listed on 811 it can be difficult to get a hold of a person
- again - there are supervisors out there who feel ignored when they report an unmarked/unknown line - so some of them have stopped letting us know because they feel like it doesnt [sic] make a difference
- Looking at it
- Contact utility if known.
- fire department, [company name - redacted], News,

10. Do you have any experience with tapping an unmarked line to try and identify its owner?

- Yes
- No

Answer	Count	Percentage
Yes	76	67.26%
No	13	11.5%

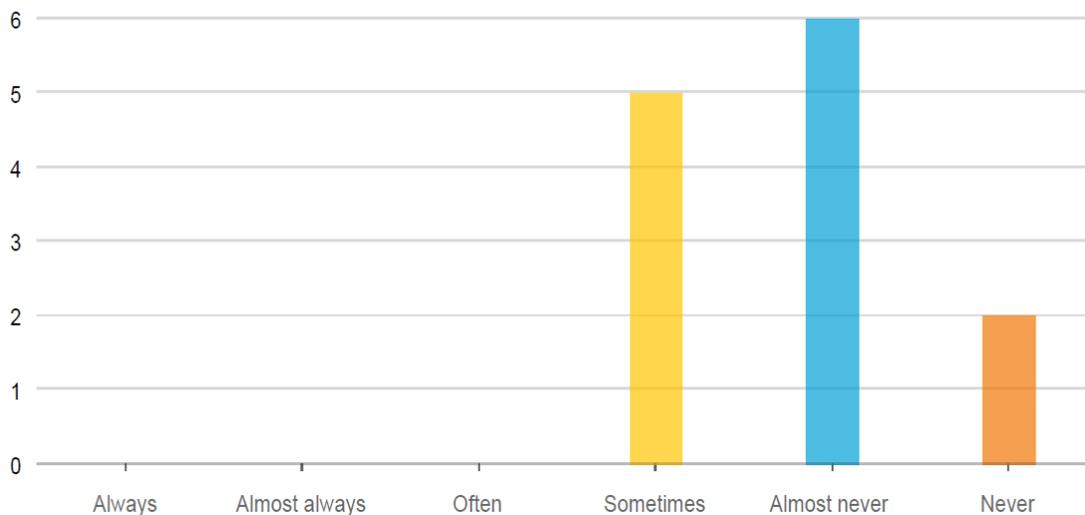


11. (if yes) Based on your experience, how likely is it that an unmarked line is tapped?

- Always
- Very often
- Often
- Sometimes
- Rarely
- Never

Answer	Count	Percentage
Always	0	0%
Very Often	0	0%
Often	0	0%

Sometimes	5	4.42%
Rarely	6	5.31%
Never	2	1.77%



12. Is there anything else the Underground Safety Board should know about tapping a line? (text box)

Answers:

- Tapping the line is only performed when experienced workers are confident that line is dead or abandoned
- If a line is going to be tapped, it should be done with all potential facility owners, or all qualified personnel capable of handling uncontrolled release of a facility.
- Some utility companies do not mark their lines, period. They only come out to mark their line after we exposed unknown facilities or damage the unknown utilities. It is our last result to tap the line due to risk remains as no one know what is in the line. Even after we tap the line, and there are wires or other, we still don't know if they are abandoned in place or live.
- This is only done after all resources exhausted and you still have no answers to whose structure it is.
- Unsure who owns them and is responsible for repairs.
- We worked under what I'd describe as ultra-safe conditions where one f*** up could kill us all. No ignition sources, no spark sources, fully sealed hot tap equipment with a nitrogen purge, etc. It turned out to be an old 6" oilfield lead-line-collection-line and was depressurized. We had our own people follow the line and pothole it for a half

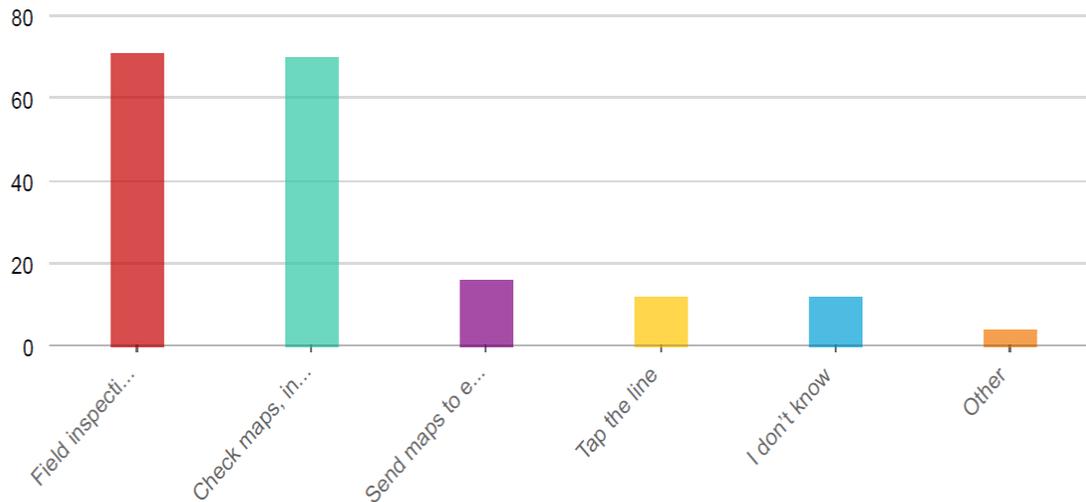
mile in each direction before we punched it. So we had a high degree of confidence in what we were dealing with. Still, it tied up six men for most of the day ... huge waste of our resources.

- it is dangerous. when a line is tapped it is often without the knowledge of ownership, contents, or in conflict with current design.

13. In your experience, what steps do utility operators take to determine whether an unmarked line is theirs? Check all that apply.

- o Field inspection
- o Check maps, including as-builts
- o Send maps to excavator
- o Tap the line
- o I don't know
- o Other (text box)

Answer	Count	Percentage
Field Inspection	71	62.83%
Check maps, including as-builts	70	61.95%
Send maps to excavator	16	14.16%
Tap the line	12	10.62%
I don't know	12	10.62%
Other	4	3.54%



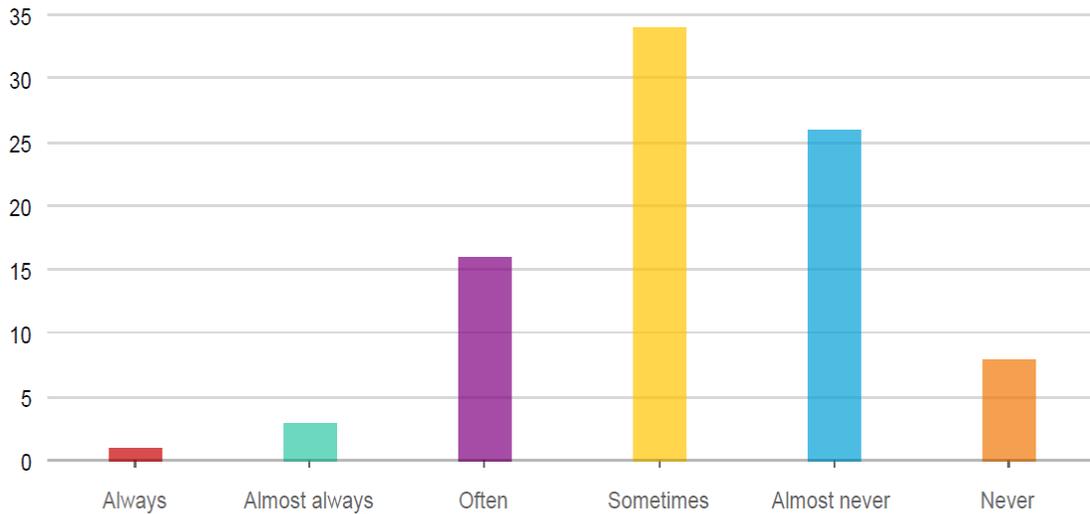
“Other” Answers:

- Field inspection, but with ambiguous arrival times. We sometimes want them to be onsite when we dig, but it is near impossible to schedule this
- If its abanded [sic] they dont [sic] know, If it blows up your man and tractor its are fault because we should have known it was there because of above ground markers that where off by 68 ft.

14. How often is the operator of an unmarked line never identified?

- Always
- Very often
- Often
- Sometimes
- Rarely
- Never

Answer	Count	Percentage
Always	1	0.88%
Very Often	3	2.65%
Often	16	14.16%
Sometimes	34	30.09%
Rarely	26	23.01%
Never	8	7.08%

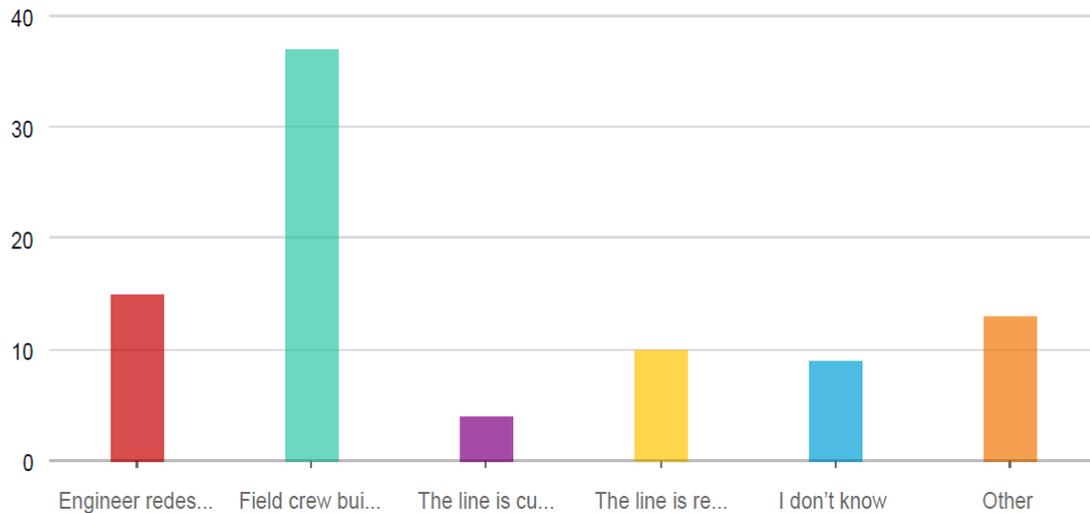


15. For the following question, consider this hypothetical scenario: you are working on an excavation project and encounter a line that was not indicated on the maps or markings that you received from utility companies. Excavation stops while you try to figure out who the line belongs to and what to do next. Despite doing everything in your power, no utility company ever claims ownership of the line. In your experience, what would happen next?

- Engineer redesigns the project to go around the line
- Field crew builds around the line
- The line is cut and capped
- The line is reburied
- I don't know
- Other (text box)

Answer	Count	Percentage
Engineer redesigns the project to go around the line	15	13.27%
Field crew builds around the line	37	32.74%
The line is cut and capped	4	3.54%
The line is reburied	10	8.85%
I don't know	9	7.96%

Other	13	11.5%
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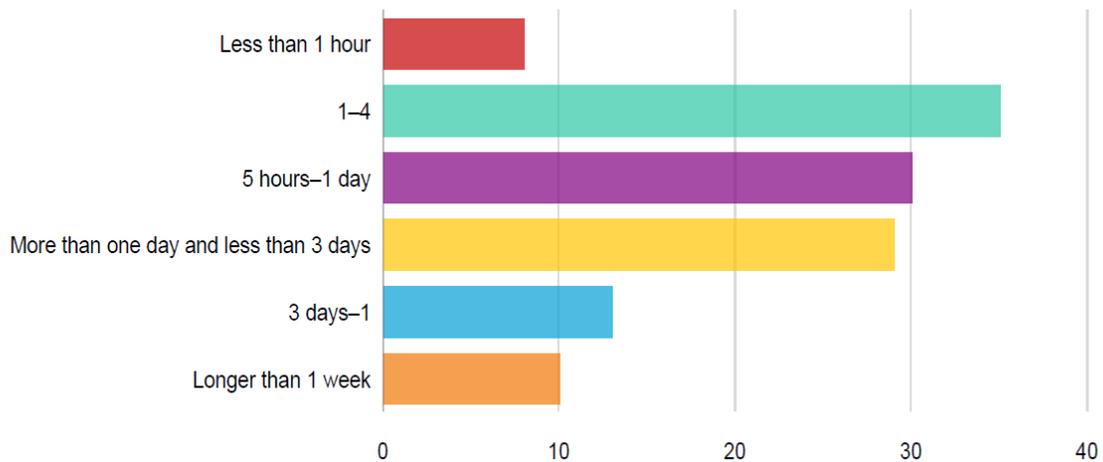
“Other” Answers:

- Determine if in use- Sometimes its abandoned and already cut by the utility nearby
- Notify the construction manager/owner there is a conflict with an unknown utility.
- Crew continues their other jobsite tasks. Depending on the extent of damage, eventually, the supervisor may instruct to backfill.
- Any of these scenarios takes place. Typically if it's empty conduit, the field crew either cuts and caps or goes around. If it's a live facility, they build around it unless it's a sewer line job, in which case the facility is expeditiously moved.
- Carfully hand excavate around it and keep working
- Tap to see if its active. If not then cut and cap. If active call the utility back to triple check their work.
- Depending on scope of project answer could be re-engineering plans or build around existing line.
- the line is worked around, or the project sits idle until ownership is identified. this creates a nuisance and safety hazard for the public.
- drag it to the end of the field if you would like to see pics of this give me a call [phone number redacted]
- If work can continue and line is not in direct conflict, work continues. Redesign if necessary
- The Line would be reburied, provided it does not impact the installation location. Other- wise the line may be cut out. unless a new installation location can be identified.

16. How long is a project delayed when you encounter an unmarked line? Check all that apply.

- Less than 1 hour
- 1-4 hours
- 5 hours-1 day
- More than one day and less than 3 days
- 3 days-1 week
- Longer than 1 week

Answer	Count	Percentage
Less than 1 hour	8	7.08%
1-4 hours	35	30.97%
5 hours-1 day	30	26.55%
More than one day and less than 3 days	29	25.66%
3 days-1 week	13	11.5%
Longer than 1 week	10	8.85%



17. What type(s) of unmarked utility do you encounter most often?

- Gas
- Electric
- Telecoms

- o Water lines
- o Unknown
- o Other (text box)

Answer	Count	Percentage
Gas	10	8.85%
Electric	7	6.19%
Telecoms	31	27.43%
Water Lines	13	11.5%
Unknown	20	17.7%
Other	8	7.08%



“Other” Answers:

- water on private property.
- old, abandoned gas lines
- Abandoned
- Private owned oil/gas distribution flow lines. Private owned water lines (agriculture)
- Storm drain and sanitary sewer
- Oil and Gas
- gas, oil, water
- Electric and Telecom

18. What else do you want the Underground Safety Board to know about the process for identifying the owner of unmarked lines? (text box)

Answers:

- a lot of unmarked lines are abandoned
- Be realistic on expectations on what we can do regarding old abandoned lines
- [company name - redacted] always denies responsibility, even when they make errors. Last month we had a buried live electric line feeding a business adjacent to our jobsite. The line travelled through our work area and was not marked.
- We uncovered the line. [company name - redacted]'s locator came and told us they don't mark on private property. Only on the street/sidewalk.
- There are many lines out there that might have been abandoned decades ago, and owners are no longer in business, specifically in the gas gathering areas. Unfortunately, there is not always an easy way to further identify and confirm those lines.
- Unmarked lines are disruptive and inefficient. A stronger practice and program has to be established to identify and manage unmarked/abandoned lines prior to excavation. This will help prevent extended downtime (of crew and affected utility customers) and unnecessary risk (if it were a live gas or electric) to the crews and community.
- The request for all members to respond to identify the unmarked line works really well in my experience.
- It is most often telecom companies or any company that has buried empty conduit and never kept a record of it that are typically the most often unmarked.
- Utilities must fulfill their obligation to mark their facilities. From my experience, only 2 or 3 utilities will mark their utilities as 1st request, and some companies just keep sending excuses to delay or not marking their utilities (either marking area is too big, or not identified correctly, etc..). Some utilities companies do not mark their facilities even we submitted remark. Construction is delayed and cost much more due to lacking of positive responses.
- I feel as though more Contractors need to be educated as to the correct steps that needed to be followed. I have met to many contractors that would rather just keep going on with their project than report. They don't have time to do things right.
- None at the time there doing a good job
- In our area we often encounter unmarked lines from old water systems that may or may not be charged
- Property Owners name would be helpful
- A few times where there are no real roads, directions are not always correct.
- I've learned over time that [company name - redacted] marks their poles with no ground markings or at least some flagging would be helpful rather than just put some paint on a pole?
- Ill bet on average [company name - redacted] marks are left out intentionally about 33 percent of the time. My job is to repair and find [company name - redacted] lines so I need them marked everything but I have to call in a remark 1/3 of the time

- Most responsible companies that use 811 will build relationships with local utilities which helps create a good system of networking for quicker responses.
- Marking of storm drain and sanitary sewer lines should be required just like other utilities.
- Not a common problem and the times that it has, has typically been on private property with subcontractor surveyor or owner not marking or mismarking.
- If we got maps with our 811 tickets, we'd be a lot safer and move a lot faster!
- JUST GETTING A QUICKER RESPONSE WOULD BE GREAT
- TIME IS MONEY FOR A SMALL UNDERGROUND UTILITY COMPANY
- California has thousands of abandoned oil and gas wells, and they all have lines running to God knows where. This is a problem that will plague the state for another century. Working near abandoned mining operations presents some of the same issues with old water lines that ran to springs that were two miles away. A lot of the mercury mining carried out during WWII left ghosts behind, and these ghost lines are part of that issue throughout the coastal range.
- Unmarked lines should not be reported as a NO RESPONSE. Need standard response as Exposed or Return to be a requirement.
- N/A
- this problem can be avoided if it is identified in the design [sic] process prior to any excavation occurring.
- More private property land owners need to know about 811. Marketing should be ramped up and on all social media platforms to spread the word. A lot of people don't [sic] know about it or that it's free.
- when I speak [sic] about some of the lines we have encountered [sic] most were pre 2016. Every one has stepped [sic] up their game 100%. I just wish [sic] they would have done it before my man and two ladies [sic] were [sic] hurt.
- State (Caltrans) and cities, who often have underground electrical and telecom for traffic signals, street lights, etc.) are allowed to exempt themselves from 811. These lines are not marked and cause safety concerns and delays for excavators.
- There are often inconsistencies between gas utility drawings and their USA markings, leading to confusion during excavation.
- Private lines can often be difficult to find the owner or operator of. In most cases the only way to identify the owner of a private line is through City or County drawings. Determining the asset responsibility can be a difficult process often times resulting in no notification or no follow up. There should be a process of identifying, reporting and documenting these assets and operators.
- In the case of an unmarked line, how it is handled may depend on several factors, whether the unknown line impacts the installation. If there is no impact, the excavator may quickly decide on the next step, such as installing deeper or going over the line. Since most projects I am familiar with are paid per unit and focused on production, typically the crew will choose the option that allows trenching to continue. In my

experience, contractors will usually proceed with their work unless an inspector is on-site. Notifications are most often made once an inspector arrives, which could be hours later. Lastly, this answer varies- How long is a project delayed when you encounter an unmarked line? Check all that apply. My first thought is it depends, such as my previous comment.

- Good luck. I applaud your efforts regarding this is. God Bless
- we report all unmarked and miss marked line to Gold Shovel.
- I would like USA North 811 to host GIS data for abandoned lines (confirmed abandoned), and unclaimed lines (could be abandoned, could be owned but not marked or claimed) as these are discovered in the field by excavators. Ideally the excavator would capture the location with a GNSS device and submit that data to USA North 811 so we can share it with the next excavator who submits a ticket or a planning & design request in that area. Good Faith/Good Samaritan agreements are needed to protect the data submitter, previous asset owner (if known), USA North 811, and the next excavator consuming the data. Same thing for pothole data captured by excavators as they cross marked utilities, and also privately-owned assets located by a private locator that don't qualify as subsurface installations (e.g., storm drain and lighting cables in a private parking lot). USA North 811 is a logical repository to host and serve this data so it doesn't get lost or stuck on a shelf somewhere and never used.