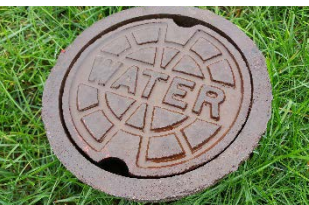




DIG SAFE BOARD

2019 RESULTS REPORT



For a hard copy of this report, please contact the California Dig Safe Board at the Office of the State Fire Marshal at (916) 568-3800. The report may also be accessed on the Board's website: <http://digsafe.fire.ca.gov>.



California Dig Safe Board

2019 RESULTS REPORT



January 13, 2020



ABOUT THE BOARD

The California Dig Safe Board was created by the Dig Safe Act of 2016 to investigate accidents, develop safety standards, and coordinate the state's education and outreach programs.

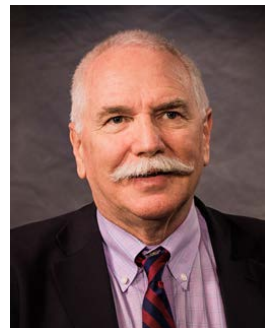


The Board is made up of nine members appointed by the Governor and Legislature, and supported by a team of staff based in Sacramento and Long Beach. Members are charged with overseeing the safety of excavations around buried utilities.



2019 BOARD MEMBERS

(listed in order of appearance)



Carl Voss, Chair

Jessica Arden, Vice Chair

Ron Bianchini

Randy Charland

Marjorie Del Toro

William Johns

Marshall Johnson

Amparo Muñoz



MISSION

(Policy B-02)

The Dig Safe Board improves public and worker safety by facilitating communication and learning among excavators and the operators of subsurface installations and by investigating accidents to determine their causes. The Board strives to be a model regulatory and investigatory board for other states to emulate.

VISION

(Policy B-03)

The Dig Safe Board seeks to effect a California in which the state's excavators and subsurface installation owners know and understand:

- how to identify the locations of subsurface installations,
- how to protect against dangerous contact with those installations,
- how to resolve unexpected situations that may arise, and

in which the state's excavators and subsurface installation owners exercise that knowledge and understanding to promote a culture of mutual respect and dedication to the cause that everyone goes home safe.

VALUES

(Policy B-04)

The actions and decisions of the Dig Safe Board members and staff will be guided and informed by their commitments to:

- Respect for and attentiveness to the expression of differing backgrounds and perspectives of the Board's members, the public, and stakeholders, as well as for the missions of excavators, operators of subsurface installations, and other federal, state, and local agencies.
- A culture of continuous learning based on the development and free exchange of ideas.
- Inquiry into the facts of and context behind accidents, near misses, and latent safety-related conditions in the field.
- Accessibility to the public and stakeholders, within the bounds of the law, constitutional principles of due process, and ethical conduct.
- Integrity in serving in the public interest and devotion to maintaining the public's trust.

The background of the entire page is a photograph of several hard hats of different colors (white, yellow, orange, blue) hanging on a dark wooden wall. A semi-transparent blue rectangle is overlaid on the upper portion of the image, containing the text.

ENFORCEMENT PHILOSOPHY

The Board, in exercising its statutory responsibility to enforce, and recommend enforcement to other state agencies, does so pragmatically, with the goal of improving the safety of excavations in the vicinity of subsurface installations in the state. The Board has many enforcement tools, and sets forth the following enforcement philosophy to communicate how it intends to use those tools. Though the details of its application will necessarily vary based on case-specific circumstances, this philosophy applies to all persons and entities subject to enforcement of the state's one-call law (Article 2 of Chapter 3.1 of Division 5 of Title 1 of the Government Code).

1. **Given evidence of unintentional error and lack of evidence of reckless or willful non-compliance, the Board's enforcement should focus on assisting violators in correcting non-compliances.** The effectiveness of an intervention method in effecting behavior change is dependent on the cause of the misbehavior. All else being equal, most persons in regulated industries want to be both safe and compliant with the law, and for those people, requiring a corrective action—be it education, procedure change, or otherwise—will be more effective in eliciting improvement than financial penalties. Furthermore, punishing unintentional errors can cause companies and—more importantly—people within those companies, not to share safety-related errors. The more localized the penalty to an individual, the greater the negative effect on communication. Increased communication about safety leads to improved safety. Cultures that limit communication limit safety performance.

2. Given lack of evidence of unintentional error and evidence of reckless or willful non-compliance, the Board should use fines as an enforcement tool.

The effectiveness of an intervention method in effecting behavior change is dependent on the cause of the misbehavior. Safety performance in a production focused industry is determined by how internal personnel interact with external forces, and the Board is but one of these external forces. Directing an entity to correct intentional or reckless non-compliances will not elicit behavior change, but is instead more likely to create surface-level compliance without addressing the underlying cause of the reckless or willful noncompliance. Repeated violations and failure to implement corrective actions may be indicators of reckless or willful non-compliance. In this case, monetary penalty is the Board's most effective tool in creating compliance.

3. Board investigative staff should develop procedures to actively limit the influence of liability in determining what accidents and complaints to investigate. The Board's statutory mission is to oversee safety performance, not determine liability in accidents. Persons and companies may make reports and complaints of one-call law violations at little to no cost to themselves. The Board, on the other hand, has limited investigatory resources. Board investigation of complaints made for liability purposes will encourage further complaints for liability purposes, straining Board resources. Furthermore, a perception that the Board can be a tool by parties to collect damages from each other will undermine trust in the Board's interest and ability in pursuing its safety mission and reduce communication about safety. Board investigations initiated to serve liability purposes can undermine safety communication, thus undermine safety culture in the state.



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CHAPTER ONE

INTRODUCTION

The Dig Safe Board's 2019 Results Report is its eighth publication¹ designed to increase visibility into the Board's planning and operations and create accountability to the Legislature and the public. This report is produced every year in the Board's effort to create a foundation of self-evaluation as outlined in the Government Performance and Results Act² and details the work done by the Board to execute its 2019 Plan. The report also includes the work the Board performed in response to unexpected challenges the year presented.

The 2019 Results Report is the second document of its kind produced by the Board, with the first written and published as a follow up to the Board's 2018 Plan. The 2018 Results Report identified several activities required to establish the Board that had not been fully understood at the time the 2018 Plan was drafted. As a start-up agency, the Board laid much of the groundwork for administering the statutorily required safety programs under development in 2018³, including hiring, finding office space, and preparing to support its investigative function.

¹ The Board has previously released its 2018 Plan, First Report to the Governor and Legislature, 2018 Results Report, 2019 Plan, Second Report to the Governor and Legislature, 2019 Cost Report, and 2019-2020 Education and Outreach Plan. All Board publications can be found on the Dig Safe Board's website: <http://digsafe.fire.ca.gov>

² The Government Performance and Results Act (GPRA), passed in 1993 and amended in 2010, outlines the basic strategic planning requirements for federal agencies, including a Strategic Plan developed every three to five years, an annual plan, and a results report developed annually.

³ Under GOV 4216, the Dig Safe Board is required to establish a funding source by July 1, 2019, develop minimum standards for onsite meetings in areas of continual excavation by January 1, 2020, and begin enforcement of Board-jurisdictional actors by July 1, 2020.

The Board kept these organizational activities and the challenges they presented in mind when drafting its 2019 Plan, which addressed the continuation of three strategic objectives from the year before and created a fourth objective designed to incorporate the work needed to establish a well-functioning government organization.

The strategic objectives are as follows:



CREATE AN AREA OF CONTINUAL EXCAVATION PROCESS

Create and approve regulations for an annual ticket process for everyday farming activities and certain flood control operations that facilitates effective communication between operators and excavators and minimizes the impact to farming operations on land where no subsurface installations exist.

DEVELOP AN EDUCATION AND ENFORCEMENT PROGRAM

Create and approve regulations for an enforcement program that allows Board staff to investigate accidents and the Board to enforce safe excavation laws through direction to relevant education and citations, including a Board-created educational course.

DEVELOP PROCESSES FOR CONTINUAL LEARNING

Use data and other information to develop a framework for continual learning through the development of regulations, standards, self-assessment tools, and the adoption of a periodic review process.

ESTABLISH A FOUNDATION FOR BOARD OPERATIONS

Develop internal and external policies to continue to establish a well-functioning government organization that promotes safe excavation throughout the state.

Each strategic objective incorporated several strategic activities undertaken by the Board. While the strategic objectives were intended to span multiple years, strategic activities were designed to be completable within the one-year plan horizon. Additionally, the Board worked to address issues encountered with the implementation of its fee on members of the regional notification (or “one-call”) centers⁴. The Board also worked closely with the Legislature to consult on the development of Assembly Bill 1166 (Levine), designed to require underground facility owners to provide electronic positive response⁵ to the one-call centers by January 1, 2021. These items were outside the scope of the Board’s 2019 Plan.

Currently, the Board is developing methods for measuring its success in improving safety through the regulations and standards it is tasked with creating, the investigations and enforcement it is charged with performing, and the education and outreach it is responsible for coordinating. Because of this, the Board will determine measurement strategies for activities under each of its strategic objectives to assess and understand the whole system and determine its progress and success improving safety.

The Board underwent its scheduled legislative review at the end of 2019, ahead of the January 1, 2020 statutory operative date.⁶ During this review, the Board demonstrated its progress to the Legislature and discussed the challenges it faces in carrying out its mission (*Policy B-02, SEE PAGE 2*). The results presented in this report aided the Board in demonstrating its success to lawmakers, while highlighting the challenges it faced in 2019.

⁴ GOV 4216.16

⁵ “Electronic positive response” describes a system where utility locators record and transmit their responses electronically to the excavator through the one-call center. For example, a locator, upon marking the location of a buried utility, will transmit the response code “10 – Locate Area Marked” to the one-call center, and this response will be available to the excavator when he or she looks up his or her ticket online. Similarly, if an operator determines that none of their facilities are present within the area of proposed excavation, the locator will transmit the code “1 – Clear, No Conflict.”

⁶ GOV 4216.12(c)



CHAPTER TWO

AREA OF CONTINUAL EXCAVATION

Under the direction and authorization of the Legislature, the Board is required to establish regulations by January 1, 2020⁷ that create minimum elements for an onsite meeting for everyday farming and flood control operations around high priority subsurface installations like gas transmission and petroleum pipelines. The process will allow farmers and flood control operators to call the appropriate one-call center once a year, at their convenience, to request a ticket for normal farming practices or flood control operations on an engineered basin. When a high priority⁸ line is present, an onsite meeting between the excavator and operator will occur and both sides will discuss and agree on the safe excavation practices to be used when operating over the line.

In directing the Board to establish this process for areas of continual excavation, lawmakers acknowledged that existing law had not been suitable for agricultural activities. Creating this new type of notification process⁹ required considerable outreach to farming communities and flood control districts to understand the current process, along with sizeable data collection and analysis by Board staff to evaluate the existence of underground facilities on agricultural land. Prior to the regulations taking effect, the Board will need to spend time creating educational materials and conducting outreach to teach farmers, flood control operators, subsurface installation owners of different varieties, and the one-call centers about the new process.

⁷ GOV 4216.11

⁸ “High Priority” is defined as petroleum pipelines, natural gas transmission pipelines, pressurized sewer pipelines, high-voltage (≥ 60 kV) electric lines, and hazmat pipelines.

⁹ Connecticut is the only other state that allows a year-long ticket for areas of continual excavation. See: <https://www.ct.gov/pura/lib/pura/regs/16-345-1to9.pdf>

Managing One Call Law safety in the agricultural community will prove difficult for the Board due to the low frequency-high consequence nature of farming accidents with buried infrastructure.

Data from the Common Ground Alliance (or “CGA”) and the Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (or “PHMSA”) show damage excavation on agricultural land is rare. CGA’s 2017 Damage Information Reporting Tool (or “DIRT”) reported¹⁰ a total of 9,565 dig-in accidents with unique damages in the state, nine of which were associated with farming (*see Figure 1*). A review of natural gas incident reports from PHMSA¹¹ found there were only 21 ag-related dig-in accidents between 2005 and 2016. However, the potentially high consequences of an ag-related damage, as seen in the deadly 2015 dig-in on a farm outside Bakersfield¹², underscore the need for Board education and engagement.

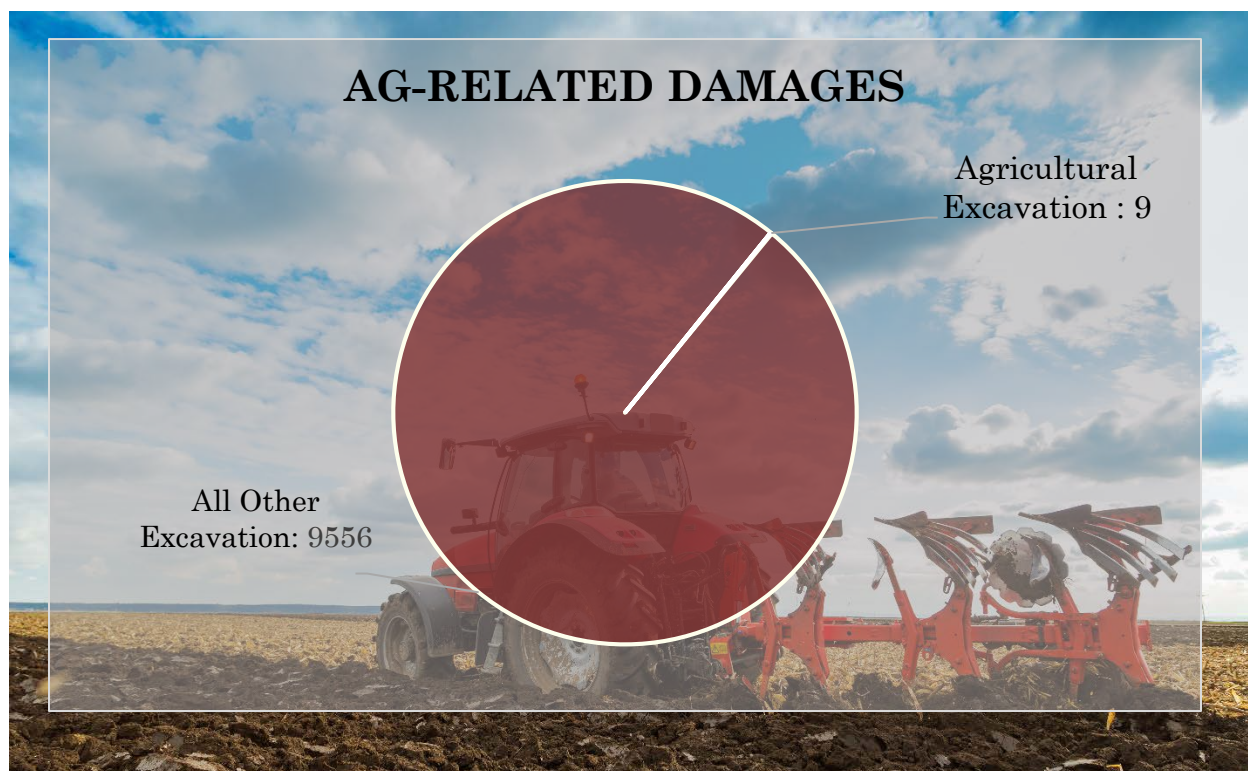


Figure 1: CGA 2017 Damage Information Reporting Tool showing unique damages in California
Damages reported to the CGA Damage Information Reporting Tool (DIRT) are generally submitted by the infrastructure owner, not the excavator, and submitters are limited to identifying a single root cause. In the case of multiple root causes, failure to notify the one call center is generally listed as the sole root cause.

¹¹ A reportable incident is defined by CFR 191.3 as: 1.) An event that involves the release of gas from a pipeline, and results in one of the following: death, personal injury, estimated property damage of \$50,000 or more, unintentional gas loss of 3,000,000 cubic feet. 2.) An event that results in an emergency shutdown of an LNG facility or underground natural gas storage facility. 3.) An event that is significant in judgement of the operator.

¹² On November 13, 2015, a piece of farming equipment hit a gas main causing an explosion that killed the equipment operator and severely injured three others in a nearby home that caught fire following the blast.

The Board will measure its success in improving safety for areas of continual excavation using the strategic activities outlined in its 2019 Plan, monitoring excavation ticket data, and identifying whether it met its legislative demands. The Board will continue to work toward developing other methods for measuring success as it moves forward with implementing its regulations.

Strategic Activity: Creating Minimum Standards for Onsite Meetings

This activity continued from the Board's 2018 Plan. Per section 4216.11 of the Government Code, the Board is required to create minimum standards for what should be discussed at an onsite meeting between farmers and operators on or before January 1, 2020.

At the Board's final 2018 meeting at the State Capitol in December, staff presented a set of proposed draft regulations that addressed minimum standards for onsite meetings around high priority infrastructure, including: field mark and locate requirements, the personnel rank for both the farm and underground facility representative required to attend the onsite meeting, the information that must be discussed at the onsite meeting, and the shared responsibility among both parties for employing safe excavation practices around high priority infrastructure.

RULEMAKING PROCESS

To meet its statutory deadline, the Board needed to approve its proposed draft regulations in early 2019 to allow enough time for the rulemaking process which includes a 45-day public written comment period and review and approval by the Office of Administrative Law (or "OAL")¹³. The Board presented the following timeline in its 2019 Plan:



¹³ The Office of Administrative Law gives a detailed description of the state of California's rulemaking process on its website: https://oal.ca.gov/rulemaking_process/

In January, Board members, staff, and the public discussed the proposed draft regulation language, including updates to the Board's definition of a flood control operator¹⁴ in an effort to clarify which flood control projects are eligible to request an Area of Continual Excavation (or "ACE") Ticket.



Board Members Discuss the Proposed Draft Regulation Text for Areas of Continual Excavation at the February Meeting at the Kern Agricultural Pavilion in Bakersfield

In February, the Board voted to approve the draft regulation text regarding areas of continual excavation and authorized rulemaking proceedings to begin. Following the Board's vote, staff prepared to notice the proposed rulemaking and proceed with the public comment period. In May, the draft regulation language was posted for a 45-day public comment period that closed on July 1, 2019. The Board did not receive any written comments regarding the proposed area of continual excavation language, and at its July meeting at the Office of the State Fire Marshal (OSFM) Headquarters in Sacramento the Board voted to approve the language and authorized rulemaking proceedings to continue.

Following the July vote, staff submitted the regulation package to OAL for approval. To respond to issues raised by OAL unrelated to the area of continual excavation provisions, staff pulled the regulation package for resubmission and OAL approval in early 2020, to take effect on July 1, 2020.

¹⁴ Section 4000, Title 19, California Code of Regulations defines "Flood Control Facility" as an engineered basin operated by a state or local agency, used for temporary slowing or storing of storm water runoff and for which regular removal of debris is required.

Strategic Activity: Eliminating or Modifying the Renewal Requirement

In addition to creating minimum standards for on-site meetings, the legislature also tasked the Board with creating regulations that minimize or eliminate the impact of an annual ticket process to farm operations on land where no subsurface installations exist. To do this, the Board needed to identify those parcels of land through data collection and create regulations for the one-call center ticket renewal process for farmland absent of subsurface installations. This activity required knowledge of Geographic Information Systems (or “GIS”)¹⁵ and learning about how this process could work from farmers, operators of different varieties, and the one-call centers. While the Legislature did not set a statutory deadline to complete these regulations, the Board decided it would be best to create this process in conjunction with its efforts to create minimum standards for on-site meetings regarding ACE Tickets. Because of this, the Board needed to finalize its regulations by the end of the year to allow enough time for the regulation implementation process.

RENEWAL ELIMINATION OR MODIFICATION RESEARCH

Research into ways to exempt agricultural and flood control facility excavators operating on land without buried facilities present from ticket renewal requirements began in January 2019. Staff began by utilizing statewide parcel data from the National Land Cover Database¹⁶, and the locations of high priority facilities covering transmission lines for oil, gas, and hazardous waste with a target accuracy of +/- 500 feet and found that as few as an estimated 5% of farmland parcels have high priority facilities present, leaving 95% of farmland parcels potentially eligible for an automatic renewal process.

Given there are other types of subsurface infrastructure, the 95% figure is a theoretical upper limit. To find a more realistic figure, USA North 811 and DigAlert provided staff with anonymized service area polygons. Each operator of subsurface infrastructure provides the appropriate one-call center with a shapefile¹⁷ containing one or more polygons defining the areas for which operators want to be notified of excavation tickets, also known as an operator’s “service area polygon.” The one-call centers combined these service area polygons into one large continuous service area for each region, removed the ability for any portion to be tied to any specific operator, and provided the information to the Board (*see Figure 2*).

¹⁵ Geographic Information Systems are used to gather, manage, and analyze data and can organize layers of information into visualization using maps and 3D scenes.

¹⁶ The National Land Cover Database (NLCD) produces current, nationally consistent, land cover data sets for all 50 states, and for thousands of applications nationwide that require information on landcover. The NLCD is updated every five years.

¹⁷ A shapefile is a computer file containing information on the location of shapes, namely lines, points, and polygons

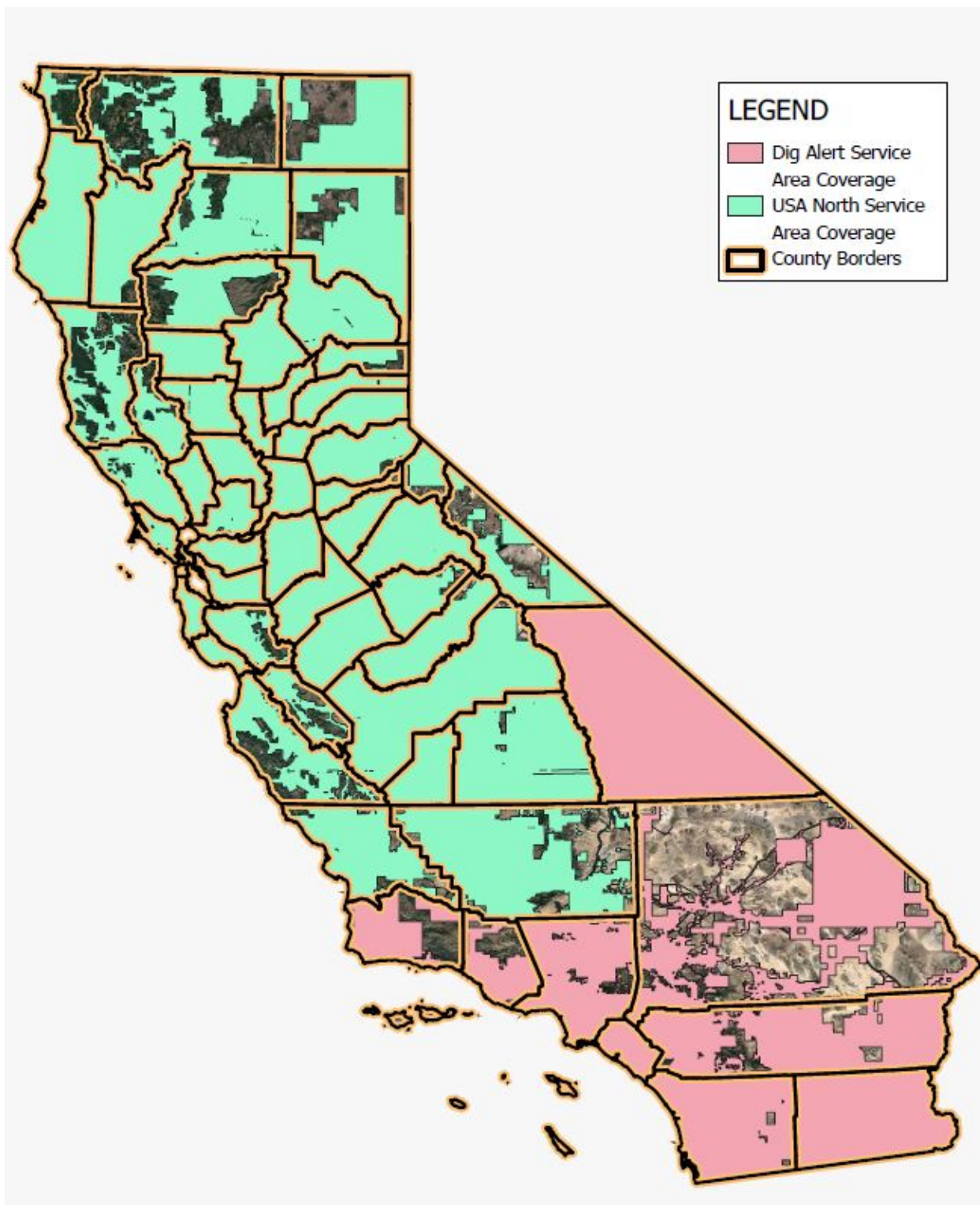


Figure 2: Map Illustrating One-Call Center Service Areas for the Northern and Southern California Regions

Staff conducted a second analysis using the same approach as performed previously but substituting the high priority transmission line location data with the anonymized continuous service area polygons to determine the number of farmland parcels where a ticket request would result in zero transmissions to an operator. Staff found 0.082%, or 454 of almost 556,000, of parcels with farmland to be outside all service area polygons.

Following the presentation of these results at the Board's April meeting at DigAlert Headquarters in Corona, the Board determined that pre-approving agricultural areas outside of service area polygons for automatic renewal would not be an effective process for implementing subdivision (e) of subsection 4216.10 of the Government Code.



Dig Safe Board Members Review Examples of Potential ACE Candidate Parcels and Discuss "No Conflict" at the April Meeting in Corona

Due to the low number of parcels falling outside all service area polygons, the Board cannot currently use technology to identify areas in which no buried infrastructure is present from a back office. Because of this, any modified or eliminated ticket renewal process for ACE would require an initial excavation ticket request. In theory, if an initial ACE ticket received positive responses indicating "no conflict" from all operators receiving notification it would be a candidate for automatic renewal.

Defining what "no conflict" would mean was discussed during the Board's April meeting. Factors such as the clarity of excavation area delineation, the buffering of excavation areas by the one-call centers, decision-making authority of locate and mark staff, the lack of mandated electronic positive response, and the lack of more nuanced positive response codes capable of capturing situations like "Clear – facilities located across the street from area of excavation" combined to make an automatic renewal ticket process impractical at this time. Instead, the Board focused its

regulation development on creating a modified ticket renewal process rather than an automatic renewal process¹⁸.

To supplement previous research on this topic, staff conducted an analysis to estimate the number of excavation tickets being submitted by farmers for common agricultural practices. The analysis looked at excavation ticket locations in Kern County submitted from January 1st, 2016 to December 31st, 2018 (see *Figure 3*). This included approximately 250,000 tickets. Of these 250,000 tickets, roughly 50,000 overlapped farmlands based on data from the Farmland Mapping and Monitoring Program of California's Department of Conservation¹⁹.

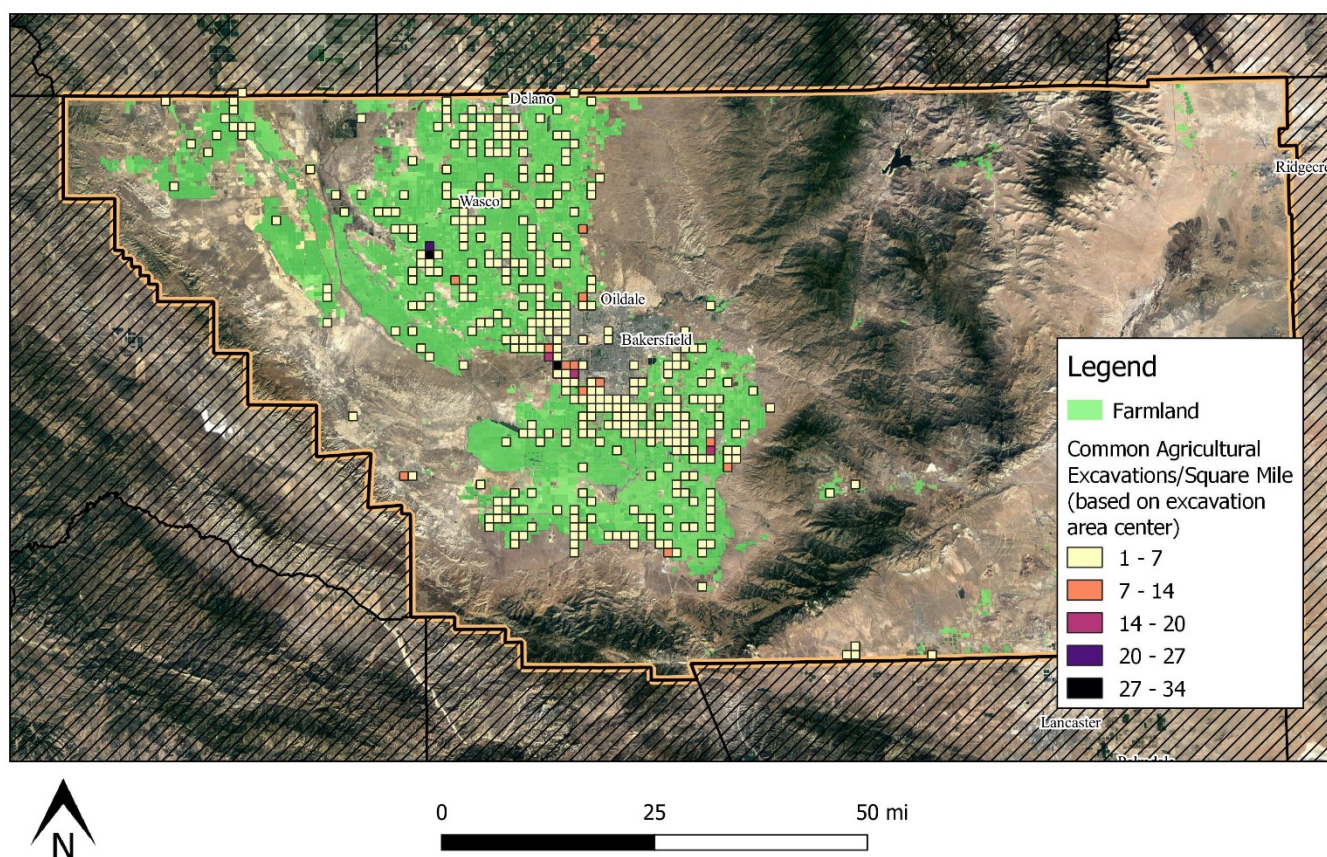


Figure 3: Estimated Volume of Excavation Tickets for Common Agricultural Practices from 2016-2018 in Kern County

By mining the text within the 'work type' field of the ticket data available to the Board approximately 900 tickets were identified as potential common agricultural tickets. A review of the 191 excavators accounting for these 900 excavation tickets identified 84 who were unlikely to be farmers. These 84 excavators accounted for approximately

¹⁸ The complete research into potential ACE ticket renewal requirements can be found on the Dig Safe Board website: <http://digsafe.fire.ca.gov> under February, April, and May 2019 Meeting Materials.

¹⁹ The California Department of Conservation's Farmland Mapping and Monitoring Program produces maps and data used for analyzing any impacts on the state's agricultural resources.

500 of the remaining 900 tickets, leaving only 400 tickets submitted over three years for common agricultural practices, roughly 133 tickets per year, in a county that had 1,731 farms²⁰ covering approximately 42,000 parcels.

Given the low level of compliance these findings suggest, and that it is currently impractical for continual excavation tickets to automatically renew in areas with no subsurface installations, the Board's proposed regulation language focuses on allowing all ACE tickets access to a modified renewal process. This approach promotes greater awareness of subsurface installations in the agricultural and flood control communities to reduce the risks associated with excavating and to minimize the regulatory burden on farmers and flood control operators.

DRAFT REGULATIONS DEVELOPMENT

Draft regulatory language regarding the ACE renewal process was first presented to the Board for discussion at the May meeting, held in San Francisco at the headquarters of the California Public Utilities Commission (CPUC). Representatives from Shell Pipeline, the CPUC, and the one-call centers offered comment on the proposed provisions, generating discussion among the Board members on details of the draft language.

Revised language was presented at the Board's June meeting, held in Sacramento at OSFM Headquarters. In addition to the stakeholders who participated in May, the California Farm Bureau Federation and Sprint offered comments to the Board on the provisions related to areas of continual excavation. At its July board meeting, again held in Sacramento at OSFM headquarters, the Board adopted proposed regulatory language and authorized rulemaking proceedings to begin. Following the Board's vote, staff prepared to notice the proposed rulemaking and proceed with the public comment period. In November, the draft regulation language was posted for a 45-day written public comment period that closed on December 24, 2019.

The Board will review any comments received regarding the proposed language, and make any changes if necessary before voting to approve the language and authorizing rulemaking proceedings to continue. The language will need to be approved in early 2020 in order to go through the regulation implementation process with enough time to take effect July 1, 2020 (*see Figure 4*). This timeline reflects the shortest amount of time an agency can take to move a regular rulemaking through the process per the Administrative Procedure Act (APA)²¹. Though the APA does not account time for stakeholder outreach, the Board recognized the importance of workshopping its ideas to get stakeholder feedback, as outlined in its Values Statement (*Policy B-04, SEE*

²⁰ 2017 Census of Agriculture. Volume 1, Geographic Area Series. Part 5, [Washington, D.C.] :United States Department of Agriculture, National Agricultural Statistics Service, 2019.

²¹ The Administrative Procedure Act is the California law that governs procedures for state administrative agencies to propose and issue regulations. The Office of Administrative Law provides more information about the APA on its website: <http://oal.ca.gov> under Publications.

PAGE 2), which discusses the Board’s commitment to: “Respect for and attentiveness to the expression of differing backgrounds and perspectives of the Board’s members, the public, and stakeholders.”

Engaging stakeholders in the regulation development process helped ensure the Board created rules that were consistent with common sense and experience, and allowed farmers and flood control operators the opportunity to provide feedback on a process that will ultimately impact how they do their jobs on a day-to-day basis.

TICKET RENEWAL OUTREACH

To learn how practical considerations for the future renewal ticket process will play out, staff traveled to Bakersfield in June to facilitate a meeting between representatives from the one-call centers and several central valley farms to discuss the future annual ticket process for areas of continual excavation. Farmers shared issues they are running into with the current system, their needs when creating a ticket, and the common licensing and certification practices they participate in that may help the one-call centers create accurate excavation polygons when farmers call for a ticket. The one-call center representatives discussed the development and availability of their apps and their mapping limitations.

The issues discussed will help inform the Board’s development of future educational materials and outreach strategies as it works to implement its area of continual excavation regulations.

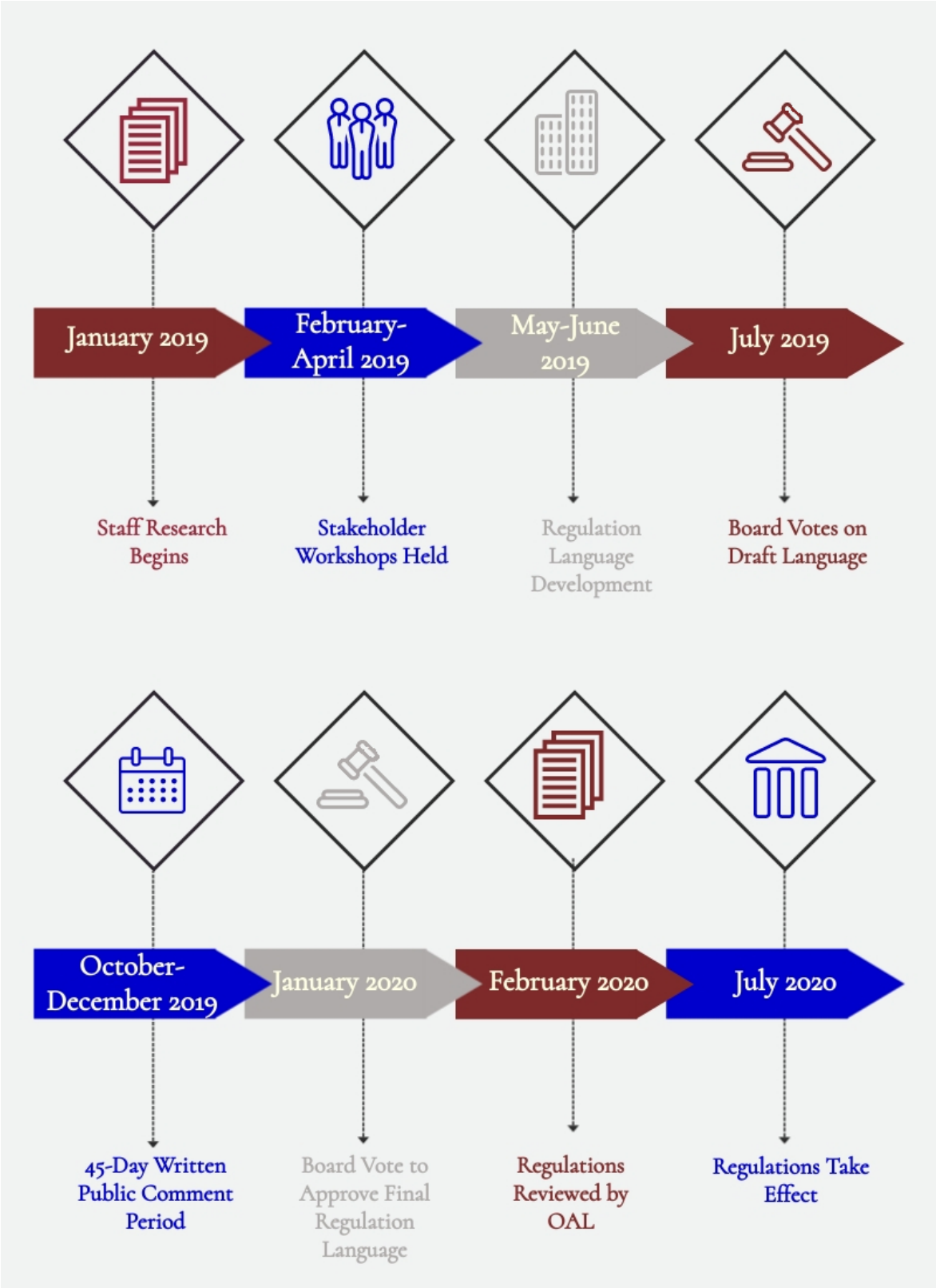


Figure 4: Timeline Illustrating the Research, Outreach, and Development of the Board's ACE Renewal Ticket Draft Regulations and the Proposed Rulemaking Timeline



CHAPTER THREE

EDUCATION & ENFORCEMENT

The Board is responsible for enforcing the state's one-call law, by investigating accidents to determine their causes and ordering education, corrective action, or fines for those found in violation. In passing the Dig Safe Act of 2016, the Legislature directed the Board to enforce the law progressively, providing an opportunity to educate violators about safe digging practices where appropriate, and using citations where education is deemed inadequate. The magnitude of this task requires the Board to build an education and enforcement program from the ground-up, which began in 2018 and will continue through 2020.

To establish and manage a successful education and enforcement program, the Board created an Investigations Division made up of twelve investigators who are charged with examining dig-in accidents to determine their causes and acting as education ambassadors to front-line employees unaware of their legal requirements. The Board also identified the need to create an affordable and relevant educational course to serve as a step in its graduated enforcement program, and hired an Education and Outreach Officer to build an educational program that teaches stakeholders and the public about the state's safe digging laws and the regulations established by the Board.

As a start-up agency, the Board will need to spend a meaningful amount of time introducing itself to the industry and building relationships with the industry's other enforcing agencies to build a knowledge base about its authority among excavators, operators, its partner agencies, and other investigating agencies. Because the Dig Safe Act and subsequent regulations developed by the Board impact anyone who owns or works around an underground facility, the number and diversity of actors excavating in the state is far-reaching and will require significant Board outreach to ensure all parties receive sufficient education about excavation safety (*see Figure 5*).



Figure 5: Dig Safe Act and Board Regulations Apply to a Diverse Number of Actors

The Board will measure its success in improving safety through the development of its education and enforcement program using the strategic activities outlined in its 2019 Plan and identifying whether it met its legislative demands. The Board will continue to work toward developing other methods for measuring success as it works to implement its course, standards, and regulations.

Strategic Activity: Creating an Education In-Lieu of Fines Course

Consistent with the graduated approach expressed in the Board's Enforcement Philosophy (*Policy B-05, PAGE 4*)²² and in subdivision (e) of section 4216.19 of the Government Code, the Board must ensure the opportunity for relevant, affordable education in-lieu of fines. To meet this requirement, the Board is in the process of creating an in-house educational course. The Board directed staff to develop this

²² Dig Safe Board Policy B-05 can be found on its website: <http://digsafe.fire.ca.gov> under Board Policies

course in late 2018, after it was unable to find an existing affordable and relevant course.

At the direction of the Board's Education Committee²³, the course curriculum will focus on human factors and motivating a safety culture change as a framework for presenting the One Call Law. Videos will introduce three case studies of three past dig-in accidents (*see Figure 6*). The videos will be followed by classroom discussion and lessons that emphasize the importance of communication, and the safety impacts all parties operating in the excavation space can have.



Figure 6: Three Case Studies to be Used in Dig Safe Board Education in-lieu of Fines Course

The case studies were chosen because they each embody a unique set of circumstances that allow the Board an opportunity to discuss the shared responsibility for safety from all parties involved including project owners, excavators, utility locators, and underground infrastructure owners. Course instructors will lead a discussion on lessons learned, the importance of safety awareness, and the violations of Government Code 4216.

²³ Dig Safe Board Members Marjorie Del Toro and Marshall Johnson sit on the Board's Education Committee

Throughout the year staff worked diligently to create an education in-lieu of fines course by the July deadline outlined in the 2019 Plan. However, unforeseen challenges forced the course completion timeline to be adjusted, as discussed below.

CASE STUDY RESEARCH

Once the case studies were identified, staff began researching the facts, gathering information in the form of investigations, news articles, and reports, and identifying the violations of Government Code 4216. Research began in late 2018 and continued through late summer 2019. Staff identified multiple city, county, and state agencies who responded to each incident and requested investigation documents and reports. The process to obtain these reports has proven challenging and time-consuming, as some agencies were slow to respond, and others had trouble locating the information as outlined below:

- In one instance, a police department had the case marked as confidential, even though it had been closed. It took staff months of calling and talking to different departments to finally get the information request approved.
- In another case, the agency had trouble locating the relevant reports because they were split up between several regional offices, and some had been destroyed when a roof collapsed during a rain storm. The report is still pending approval to be provided to the Board.
- In a third case, staff had to wait for a detective to review and approve the release of the information. That detective was in the middle of responding to multiple homicide cases and couldn't review the material until he returned to the office several weeks after the request was made.
- In the final case, staff only received the information requested after sending a follow up email to the agency in question a month after the request was made. It turns out, the request never reached the right person's desk.

During the information gathering process, staff also spent time reading through each report and mapping the facts of the case to identify the who, what, when, where, why, how, and sequence of events for each case. The fact-mapping process was necessary for staff to develop a narrative for the course videos.

COURSE VIDEO DEVELOPMENT

The decision to use video to introduce the facts of each case came from the desire to create a course that not only presented students with important safety information, but kept them engaged. Each video will use graphics and a descriptive narrative to introduce students to the relevant incidents.

Creation of the narrative for each case study took up to several weeks. First, the scripts were written, then went through several rounds of internal staff review and

editing prior to being presented to the Board's Education Committee for edits and approval. Prior to script development, staff spent significant time working to gather relevant visuals to tell the stories of these incidents. For each case, requests for images and video have been made to the appropriate news organizations and investigating agencies. This process began in early 2019:



In some cases, staff have received photographs, maps, and diagrams included in reports requested during the information gathering process. In other cases, staff have struggled to obtain permission to use certain photographs or video from news organizations and even investigating agencies. The process took months of outreach, and left staff with only enough photographs, maps, and diagrams to cover about 40-percent of the scripted narrative.

As a solution to this problem, staff will use audio, sound effects, and graphics to illustrate the facts of the case in each video, and will incorporate the gathered visuals in the classroom discussion and activities to reinforce the information presented in each video. Video production is ongoing, and expected to be completed in early 2020.

CURRICULUM DEVELOPMENT

At a Board Education Committee Meeting in April, members and staff discussed the course outline in detail, identifying specific content to be discussed in each section of the course, including a review of the Board's Mission (*Policy B-02, PAGE 2*) and Enforcement Philosophy (*Policy B-05, PAGE 4*) in the course introduction and an overview of Government Code 4216 prior to introducing the specific case studies. Inclusion of this material will allow course instructors to contextualize the various incidents within California's regulatory environment and provide students an opportunity to identify potential violations.

The Board's course curriculum development is linked with the development of the course video narratives. Staff have begun identifying engagement points in the completed scripts to be referenced in the classroom discussion and are developing the course curriculum for the introduction, Government Code 4216 Overview, and Paso

Robles and Kansas City Case studies. The remainder of the curriculum development depends on the final report staff is waiting to receive.

COMPLETION TIMELINE

Per the 2019 Plan, the Board was expected to have its course operational by summer 2019. While staff has managed to overcome the unforeseen obstacles, the amount of work that remains to complete this course will push the Board's completion date back.

The following timeline details the work ahead, and when the Board's course will be released:

Education In-Lieu of Fines Course Development Needs																										
OBJECTIVE	2019													2020												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
Phase One: Case Study Videos Development																										
Case Study One: Paso Robles																										
Gather Information & Available Visuals																										
Create Narrative Script																										
Shoot Generic B-Roll																										
Choose Host & Record Audio Track																										
Create Graphics																										
Edit Case Study Video																										
Case Study Two: Kansas City																										
Gather Information & Available Visuals																										
Create Narrative Script																										
Shoot Generic B-Roll																										
Choose Host & Record Audio Track																										
Create Graphics																										
Edit Case Study Video																										
Case Study Three: Walnut Creek																										
Gather Information & Available Visuals																										
Create Narrative Script																										
Shoot Generic B-Roll																										
Choose Host & Record Audio Track																										
Create Graphics																										
Edit Case Study Video																										
Phase Two: Curriculum Development																										
Line Employee Curriculum Development																										
Introduction																										
4216 Overview																										
Paso Robles Case Study																										
Kansas City Case Study																										
Walnut Creek Case Study																										
Review																										
Create Student Handouts																										

[illegible]

Per statute, Board enforcement begins July 1, 2020²⁴. The Board's education course will be ready in time to be applied as an enforcement action by the Board.

Strategic Activity: Develop Standards for Demonstrating Compliance

The Board is developing a process for determining the facts surrounding an incident to complete investigations in an efficient and timely manner. The Legislature anticipated the need for this in requiring the Board to develop a standard for subsurface installation owners, excavators, and utility locators to demonstrate compliance with one call notification, delineation, and locate and mark requirements²⁵.

In August, compliance standards development began. At the direction of the Board's Investigations and Reporting Committee²⁶, investigations staff formed teams to address each major actor in the excavation process: excavators, operators and locators, and the standards those groups must meet to demonstrate their compliance with Government Code 4216. Currently, staff is working to develop the standards and determine how best to package the information to target the different audiences

²⁴ GOV 4216.6

25 GOV 4216.18

²⁶ Dig Safe Board members Jessica Arden and Randy Charland sit on the Investigations and Reporting Committee.

in the most effective ways. Work to develop standards for demonstrating compliance will continue in 2020.

Strategic Activity: Board Notification of Incidents

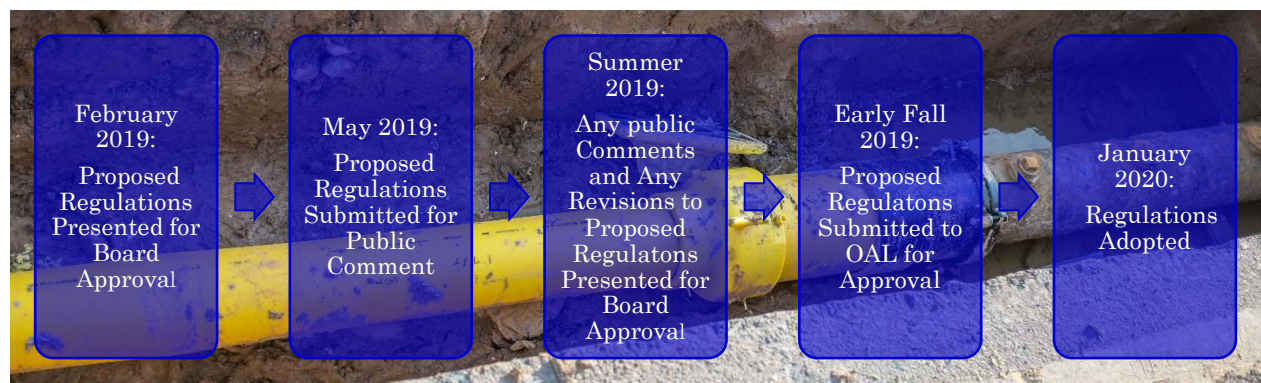
This activity continued from the Board's 2019 Plan, and establishes an incident notification process to allow the Board to conduct investigations in a timely manner. At the Board's 2018 meetings in June and December, members and staff presented proposed draft regulations that addressed how soon incidents should be reported to the Board and who should make the notification.



Photo shows natural gas migrating, escaping, and road bubbling following a natural gas line strike by a directional bore in 2019, an incident the Board did not receive a notification for as it happened prior to the Board's notification regulations taking effect. Credit: Sacramento Metro Fire

RULEMAKING PROCESS

In order to establish an incident notification process in a timely manner, the Board needed to approve its proposed draft regulations in early 2019 to allow enough time for the rulemaking process which included a 45-day public written comment period and review and approval by OAL. The Board presented the following timeline in its 2019 Plan:



In February, the Board voted to approve the draft regulation text regarding the incident notification process and authorized rulemaking proceedings to begin. Following the Board's vote, staff prepared to notice the proposed rulemaking and proceed with the public comment period. In May, the draft regulation language was posted for a 45-day written public comment period that closed on July 1, 2019.

The regulations are expected to be approved in early 2020, and will take effect in the spring.

COMPLAINT PROCESS

While notification of incidents will be required under the Board's new regulations, the Board wanted to provide a way for Californians to notify it of potential violations of the state's safe digging law.

At the Board's April meeting at DigAlert Headquarters in Corona, staff proposed creating a complaint process in which complainants are encouraged to submit written complaints via the Board's website, email, or U.S. mail. Board members, staff, and stakeholders discussed how the Investigation Division would keep records of the complaints and whether the parties involved would receive information about the outcome of any subsequent investigation.



April 16, 2019: Board Discusses Future Complaint Process with Staff and Stakeholders at DigAlert Headquarters in Corona

Staff is currently developing the Board's public complaint process, a project that will continue into 2020.

Strategic Activity: Further Develop Investigations and Enforcement Rulemaking

In passing the Dig Safe Act of 2016, the Legislature directed the Board to create a series of regulations to address enforcement of the state's safe excavation laws. To

achieve this goal, the Board must create an enforcement program that allows staff to investigate incidents and the Board to enforce the law through direction to relevant education and/or citations.

At the Board's final 2018 meeting at the State Capitol in December, staff presented a set of proposed draft regulations that addressed requirements for damage notifications, defined the role of Board investigators when a dig-in occurs, and outlined the Board's enforcement abilities including the procedures for sanctions and hearings before the Board.

RULEMAKING PROCESS

In order to meet its statutory requirement to begin enforcement by July 1, 2020²⁷, the Board needed to approve its proposed regulations in early 2019 to allow enough time for the rulemaking process which includes a 45-day public written comment and review and approval by OAL. The Board presented the following timeline in its 2019 Plan:



In February, the Board voted to approve the draft regulation text regarding investigations and enforcement and authorized rulemaking proceedings to begin. Following the Board's vote, staff prepared to notice the proposed rulemaking and proceed with the public comment period. In May, the draft regulation language was posted for a 45-day written public comment period that closed on July 1, 2019. At its July meeting at OSFM Headquarters in Sacramento the Board voted to approve the language and authorize rulemaking proceedings to continue. Following the July vote, staff submitted the regulation language for internal review prior to sending it to OAL for approval. The regulations are expected to be approved in early 2020, and will take effect in the spring.

²⁷ GOV 4216.6

Strategic Activity: Continue Building the Investigations Division

To build an investigations program from the ground up, the Legislature authorized the Board to hire 13 investigative personnel, including a Chief of Investigations, three Supervising Special Investigators, and nine Special Investigators. The Chief of Investigations was authorized for hiring beginning July 1, 2017, with the remainder authorized on July 1, 2018 to begin work in early 2019. In mid-2018, the Board recognized the need for an Education and Outreach Officer, and reclassified one investigator position to accommodate the need.



*Left: Southern California Investigators Participate in Mock-Strike Event in Irvine.
Right: Northern California Special Investigators Observing Dig-In Investigation During Training*

The Dig Safe Board Investigations Division advertised its twelve positions in Sacramento and Los Angeles. The Chief of Investigations, one Supervising Special Investigator, and four Special Investigators were hired and comprise the Southern California team located in Lakewood. One Supervising Special Investigator and three Special Investigators were hired in Sacramento and now comprise the Northern California team, located in Sacramento. One Supervising Special Investigator and one Special Investigator position remain vacant in the Southern California office, and are expected to be filled before the end of 2020.

As the Investigations Division took shape in 2019, staff began investigations, and continued work setting up the Board's enforcement program by creating incident investigation protocol, a policy and procedure manual, a case intake and distribution process, a reporting format and guidelines, form letters, and a violation and penalty matrix. The division also continued building working relationships with the Board's partner agencies: Contractors State Licensing Board (CSLB), CPUC, and OSFM's Pipeline Safety Division through face-to-face interaction.

Since “No Ticket” and “No Response” investigations began, staff have conducted 257 investigations from Crescent City to San Diego. In addition to “No Ticket” and “No Response” incidents, the Investigations Division has also responded to several high-consequence incidents and complaints sent to the Board. A full list of Board investigations is included at the end of this report (*SEE APPENDIX A: INVESTIGATIONS, PAGE 76*).

Strategic Activity: Investigations Division Startup Support

The basis of the Investigations Division is the core operation of the organization and its designed functions. Board staff are responsible for planning, organizing, coordinating, and controlling all the resources needed to produce the goods and services for the investigations department. Throughout the year, staff worked diligently to procure the following:

CASE MANAGEMENT SYSTEM

In the Fall of 2018, Board staff heard proposals for an investigation case management system (CMS) and after not finding the appropriate vendor, heard a second round of proposals in March 2019. In June, the Board awarded the case management system development contract to MERP Systems, Incorporated²⁹. The system will allow the Investigations Division to store records, interviews, and other information needed for investigative purposes. Data stored via the CMS will also be used to identify trends, leading to a better understanding of contributing factors to incidents (*SEE “TOOL DEVELOPMENT FOR ASSESSMENTS, PAGE 39*).

Configuration of the system, along with training, testing, and policy writing is currently taking place to bring the new system online as soon as possible, a process that is expected to continue into 2020.

SOUTHERN CALIFORNIA OFFICE SPACE

Board staff is in the process of securing a permanent office space to house two-thirds of its investigative staff. Currently, the Southern California Investigations Division is renting temporary office space in the former Office of the State Fire Marshal Pipeline Safety Division facility in Lakewood. Staff moved into the space on June 6, 2019. The team is currently working with the California Department of General Services (DGS)³⁰ to procure a permanent office space, a process that is expected to continue in 2020.

²⁹ MERP Systems Inc. is a Virginia-Based company with experience creating management systems for Government agencies, non-profits, and private sector businesses.

³⁰ The Department of General Services serves as a business manager for the state, providing services like real estate management. DGS provides more information on its website: <http://dgs.ca.gov>

VEHICLES

Board staff purchased vehicles for its Investigations Division in 2018, and spent much of the year going through the state process of marking and registering the vehicles prior to picking them up on May 1, 2019. Once staff picked up the vehicles, they were entered into service.



Dig Safe Board Fleet of Cars at CAL FIRE Mobile Equipment Facility in Davis Ready for Pick Up by Board Staff

The Board's vehicle fleet have been essential in staff carrying out field investigations and outreach efforts.

UNIFORMS, BADGES, AND FIELD EQUIPMENT



*Image of Dig Safe Board
Badge One*

In 2018, Board staff started the process of designing and purchasing uniforms and badges for its Investigations Division. The process extended into 2019 and taken longer than first expected. In November, the Board received approval for its uniforms from CAL FIRE's Executive Office, and expects to issue them by early 2020. Meanwhile, badges were received in 2019 and have been assigned to individual investigators.

Much of the Division's field equipment was purchased and received in 2018, however the electronics will need to be configured for data collection and case management, which will largely depend on the creation and roll out of the Board's case management system (*SEE "CASE MANAGEMENT SYSTEM, PAGE 34"*), a process that is expected to be

completed in 2020.

TRAINING

Training for the Investigations Division has been ongoing throughout the year, and will continue through 2020 as staff acquires industry-specific knowledge and experience.

Investigative staff completed the following training in 2019:

TYPE OF TRAINING	DESCRIPTION
State & Department Mandated	These trainings encompass a combination of annual and one-time trainings that address Information Technology (IT) Safety, General Employee Safety, Equipment Policies and Procedures, Department Policies and Procedures, and Human Resources (HR) topics.
OSHA 10-Hour Construction	Training provides entry-level construction worker with general knowledge to recognize and prevent hazards on a construction site and includes a segment on excavation safety.
OSHA Incident Investigation	Training introduces basic accident investigation procedures and describes accident analysis techniques to give participants the basic skills necessary to conduct an effective investigation at their workplace.
OSHA Excavation Safety for Competent Person	Training provides an awareness of existing and predictable hazards in and around an excavation site, and teaches participants the appropriate corrective measures according to federal safety standards.
OSHA 24-Hour Hazardous Waste Operations and Emergency Response (HazWOpER)	Training introduces participants to hazardous waste and emergency response according to federal safety standards and is required for any employee prior to beginning work on an uncontrolled hazardous waste operation.
Tactical Communication & De-Escalation	Training is provided by the California Hazardous Materials Investigator Association and provides participants with communication tools for safely and effectively communicating with potential violators in the field.

Utility Locate and Mark	Training provided overview of utility locate and mark procedures. As part of the training, investigators were provided locating equipment and performed locating in a practical field exercise.
One-Call Center Visits	Visits provided an in-depth orientation to the work done by the one-call centers along with facility tours. Staff learned how to read an Underground Service Alert (USA) Ticket and where to view the important details that would pertain to future Board investigations.
Industry Ride-Alongs	Ride-alongs were conducted with multiple industry actors including underground facility operators, excavators, and locators and provided investigators the opportunity to observe a variety of job sites and work practices in the industry.
Industry Site Visits	Site visits were conducted with multiple industry actors including underground facility operators, excavators, and locators and provided investigators the opportunity to observe a variety of job sites and work practices in the industry.

OUTREACH



*Left: Northern California Special Investigators Conduct Outreach at Cosumnes River College in Sacramento
Right: Southern California Investigations Division Conduct Outreach at Orange County Fire Authority in Irvine*



Investigations staff is currently developing an introductory letter to send to police departments, fire departments, underground facility owners, and the excavation community outlining the Board's mission and regulatory authority and expects to distribute the letter by the end of 2019. This letter will introduce the Board and its investigators to those they will often encounter while conducting investigations, as outlined in the Board's 2019-2020 Education and Outreach Plan (*SEE "2019 EDUCATION & OUTREACH MEETING," PAGE 58*).

Throughout 2019, staff attended and presented at a number of industry events in 2019. A full list of all Board outreach opportunities is included at the end of this report (*SEE APPENDIX B: EDUCATION & OUTREACH OPPORTUNITIES," PAGE 82*).



CHAPTER FOUR

CONTINUAL LEARNING

The Dig Safe Act of 2016 directed the Board to develop standards, create regulations, and make recommendations to the Legislature on policies to improve safety and promote communication between operators, excavators, locators, and the one-call centers. The Board's efforts on tasks related to continual learning are fundamental to evolving a healthy safety culture with a capacity for reflective improvement, shared safety knowledge, and open dialogue. Fostering such a culture will position the Board to measure its success, while advancing its safety mission and maintaining the confidence of lawmakers and the people of California.

To develop a strong process for continual learning, the Board identified three tasks in its 2019 Plan, designed to meet its Legislative mandates and identify metrics by which to measure the Board's success in improving safety:



TOOL
DEVELOPMENT
FOR
ASSESSMENTS

REASONABLE
CARE
STANDARDS

POWER TOOL
USE IN THE
TOLERANCE
ZONE

The broad scope of the Board's work to create standards and rulemakings based on direction it receives from the Legislature is constantly developing and has required members and staff to remain flexible in their work to address competing priorities. Throughout the year, the Board has chosen to focus its efforts on statutory deadlines. Until Board resources can be directed toward a robust standards development process that appropriately engages the industry's diverse stakeholder groups and includes development of improved safety performance measures, staff must rely on existing safety standards, anecdotal feedback from stakeholders, and analysis of existing dig-in data to guide its policy development efforts.

The Board will measure its success in improving safety by developing a process for continual learning using the strategic activities outlined in its 2019 Plan and identifying whether it met its legislative demands. The Board will continue to work toward developing other methods for measuring success as it works to implement its standards and regulations.

Strategic Activity: Tool Development for Assessments

The main result of the Board's 2018 Baseline Safety Assessment was that no existing statewide metrics or set of metrics would be useful in analyzing initiatives. The Board concluded that an index aside from "damages per thousand tickets³¹" is required to effectively evaluate state programs, safety indicators, and the progress of the Board in effecting safer excavation procedures.

Tools such as event trees³² can be used to integrate these individual safety outcomes into an understanding of the whole system, but these tools need to be customized for Board use. Throughout the year, staff spent significant time identifying, creating, and developing a handful of tools that could help the Board develop metrics for assessments.

ASSESSMENT AND DATABASE TOOL DEVELOPMENT

Research into assessment tool development began in January, when staff started putting past data collected by the Board into event trees and working to create a method for processing information accessed from the one-call centers. This information allowed staff the opportunity to start considering the categories found on USA Tickets to the design of its future case management system (*SEE "CASE*

³¹ "Damages Per Thousand Tickets" refers to the number of excavation damage incidents per 1,000 tickets is an established benchmark within the damage prevention industry, and often used as an indicator of damage prevention program performance. The Common Ground Alliance (CGA) uses this metric in its annual DIRT Report.

³² "Event Tree" refers to an analytical diagram in which an event is analyzed using mathematical logic to examine a chronological series of events or consequences.

MANAGEMENT SYSTEM,” PAGE 34). It also helped staff organize the non-binary data types the Board is looking to collect through the CMS.

A binary answer to a question is a yes or no, an x or a y, as a sole and singular answer. Everyday life and the practices in the field do not necessarily unfold in such a fashion, where there are often multiple factors and contributing causes to safe and unsafe outcomes. The Board requires tools that can demonstrate a certain practice is safer than another or that multiple points of failure contribute to dig-ins and their associated damages. This is consistent with the Board’s Enforcement Philosophy (Policy B-05, PAGE 4), that it is not necessarily the case that the assignment of individual blame and fines will improve safety.

To that end, the Board’s future case management data system will help Board members and staff better understand the causes and effects of dig-ins, and eventually, the impacts of Board regulations on such occurrences. With a greater data set, these categories and new data types will give a ground to assess Board outcomes and safety culture in general.

EXCAVATION TICKET HOTSPOT MINING

While work progressed on the development of the Board’s case management system, staff explored new ideas for data use to inform the Board’s work.

In April, staff began development on an excavation ticket hotspot mapping tool to visualize changes in the density of USA Tickets across a given area over a specified timeframe. That approach was then taken a step further to visualize the acceleration, deceleration, or stability of ticket density across a given area over time. With GIS scripting tools, staff demonstrated the approach using the number of tickets per square mile in San Francisco County from February to April of 2018 (*see Figure 8*). This type of spatial analysis can help the Board understand geographic components of ticket activity trends and eventually, as data is gathered through investigations and the forthcoming damage reporting process, how those trends relate to other variables. Conclusions drawn through such analysis can ultimately be used to both strategically target and assess the effectiveness of Board activities.

In addition to the above research, staff produced a ticket location visualization tool for the investigations unit. The tool reads the text of an individual excavation ticket and produces a KML file that investigators can immediately view in Google Earth to see the ticket area mapped. Likewise, they can view the output file on iPad tablets in the field. The tool has been tested in the Sacramento office. In the future, this type of ticket visualization tool could be developed to include historic ticket, damage, or complaint information for the geographic area of interest, potentially shedding light on patterns which might not otherwise be apparent.

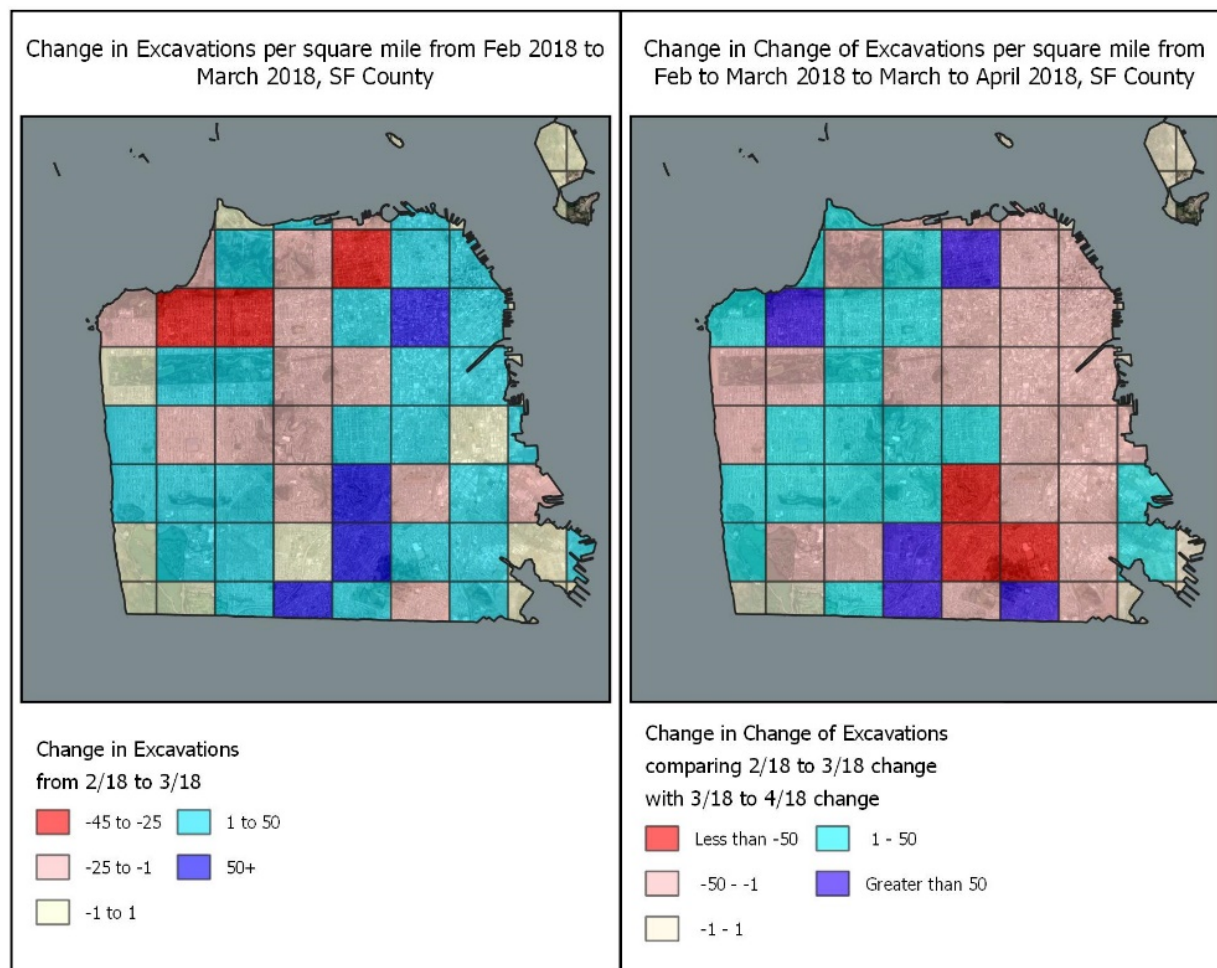


Figure 8: GIS Scripting Map Created by Dig Safe Staff to Show the Change in Excavations from February to March 2018 in San Francisco County

Strategic Activity: Reasonable Care Standards

The Legislature tasked the Board with developing reasonable care standards in the Dig Safe Act of 2016. While lawmakers did not limit the standards the Board may develop, those listed in section 4216.18 of the Government Code are required:

- What constitutes reasonable care, when excavating using hand tools within the tolerance zone of a subsurface installation.
- What constitutes reasonable care in determining depth of underground facilities in grading activities.

At the request of the Board, the California Regional Common Ground Alliance (CARCGA) held stakeholder discussions during its Subsurface Safety and Incident Prevention (SSIP) Committee meetings to address standards related to reasonable

care, and was asked to put together a draft of their findings to present to the Board in 2019.

CARCGA COMMITTEE MEETINGS & DECISION

The decision was made to give CARCGA a role in the standards development process both in recognition of their status as the state's only non-profit entity devoted to damage prevention and open to participation by operators and excavators and to promote participation in CARCGA by both excavators and operators. In April, CARCGA's SSIP Committee provided their recommendations to Board staff. These recommendations will be taken into consideration by the Board's Standards Development Committee³³ as the Committee moved forward in the Standards development process.

PUBLIC WORKSHOP

On April 24, 2019, the Board held a public workshop to solicit comments regarding development of reasonable care standards. The workshop was promoted at the Board's April meeting at DigAlert in Corona, at the two-day Sacramento Regional Builder's Exchange (SRBX) Expo where the Board had a booth set up, and via the Board's stakeholder email list. Representatives from utilities, labor, contracting firms, and engineering firms attended the workshop. The discussion highlighted the differences in what various stakeholder groups are looking for in standards put forth by the Board and the difficulty the Board faces in limiting the role liability plays in shaping the standards discussion.

Progress on reasonable care standards development has been slow, mainly due to the need to direct staff resources toward production of regulations subject to statutory deadlines. However, stakeholders have consistently emphasized standards as an area in need of the Board's attention, and the Board and staff are poised to push forward on this strategic activity in 2020.

Strategic Activity: Power Tool Use in the Tolerance Zone

Assembly Bill 1914 (or "AB 1914") was signed into law on September 23, 2018, amending Section 4216.4 of the Government Code to allow for the use of power-operated or boring equipment within the tolerance zone prior to determining the exact location of subsurface installations. This exception to hand tool use is to take effect beginning July 1, 2020 under circumstances and conditions to be determined by the Board through regulations.

³³ Dig Safe Board Members Ron Bianchini and Amparo Muñoz sit on the Standards Development Committee

ONLINE SURVEY & PUBLIC WORKSHOP

In March, the Board held a public workshop to solicit comments from stakeholders regarding the implementation of AB 1914. The primary goal going into the workshop was to generate productive conversation among a representative cross-section of industry stakeholders.



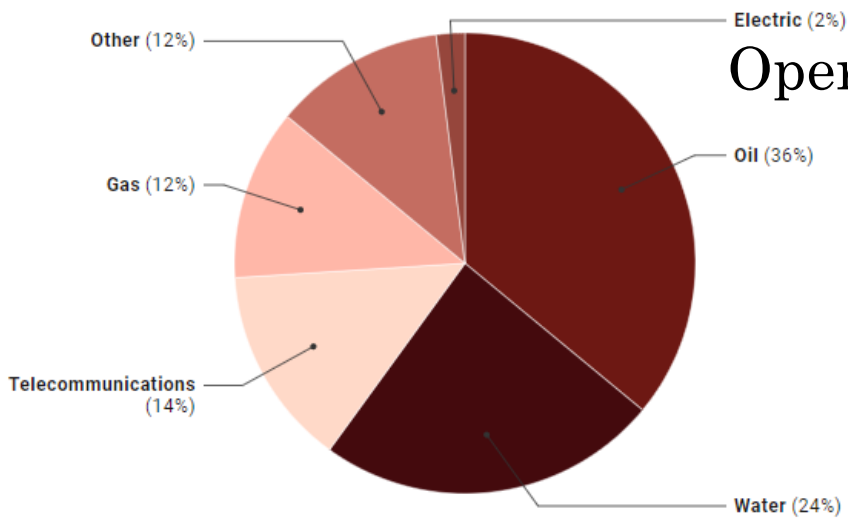
Stakeholders Gathered at the East End Complex in Sacramento for the Dig Safe Board's AB 1914 Workshop

That goal was accomplished, with 75 participants, at least 25 of whom participated via the Board's webcast. Attendees included third party excavators, representatives from all utility operator segments, as well as engineering and design professionals. Although the workshop was held in Sacramento, a significant number of attendees travelled from Southern California to participate. The open and candid discussion enhanced the Board's ability to generate power tool regulations that address excavator needs while remaining mindful of safety, protecting the facilities in the ground, and the need to continually improve excavator-operator communications.

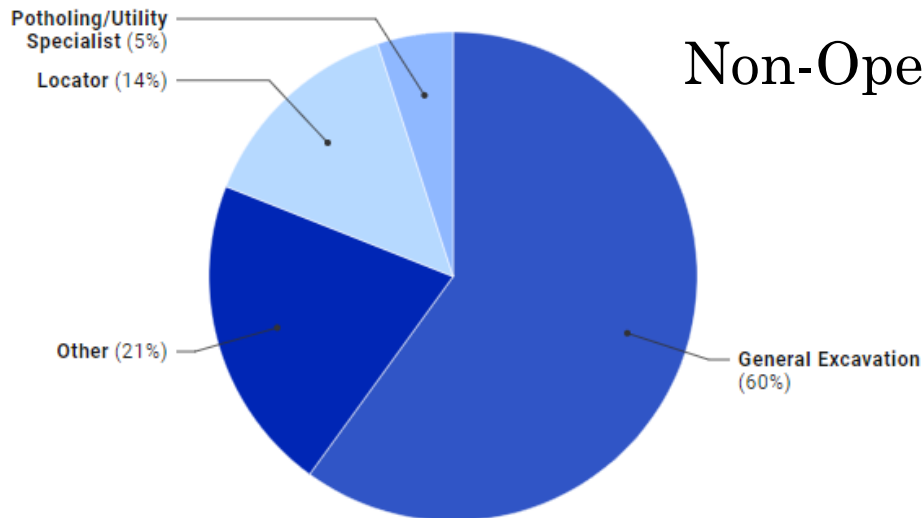
Beginning in March and running through April, the Board held two online surveys—one directed toward utility operators and the other toward all other industry stakeholders—to gather feedback on a range of potential factors related to power tool use in the tolerance zone, such as tool types, soil conditions, and mutual agreement. The Board received 99 total survey responses: 42 on the operator side and 57 from a mix of excavators, locators, and design/engineering professionals (*SEE PAGES 44 & 45*). The survey results captured safety insights from industry professionals with decades of experience, pointed to areas of agreement between operators and excavators, and highlighted points where the Board would need to work to resolve conflicting concerns between stakeholder groups.

AB 1914 Implementation Survey Respondents:

Operators



Non-Operators



Power Tool Use in the Tolerance Zone Prior to Positively Locating Subsurface Installations:

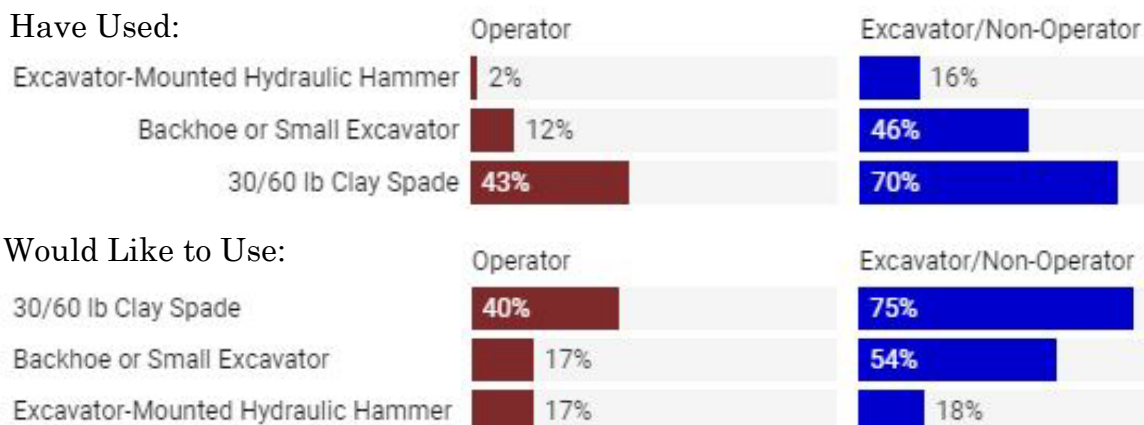
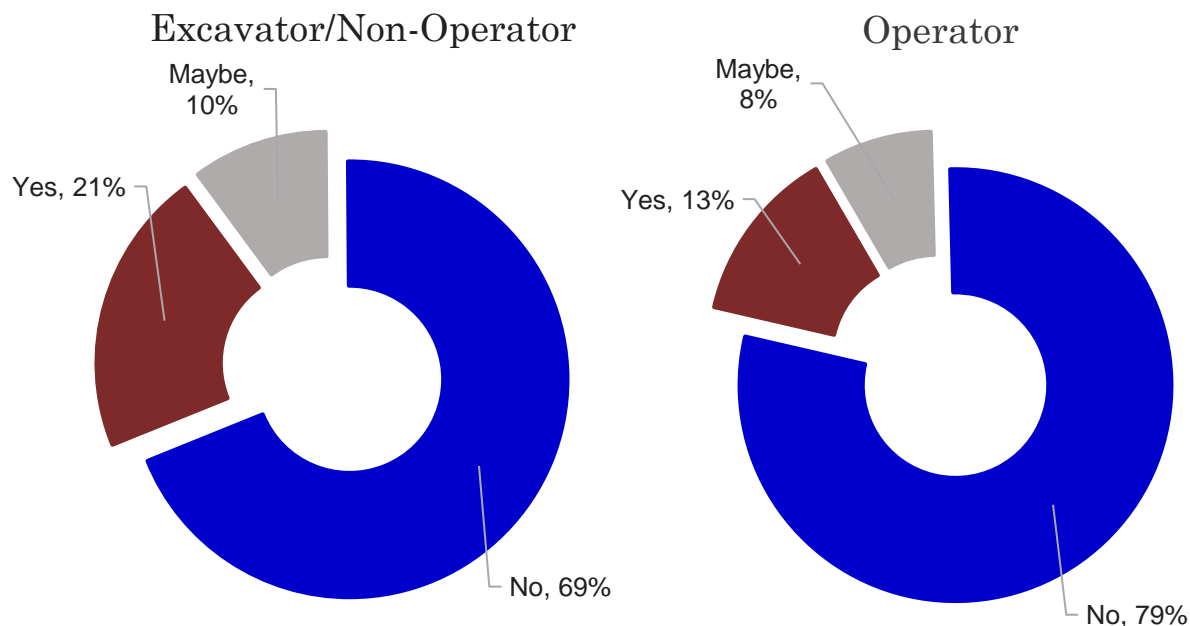


Figure 9: Infographic illustrates a breakdown of who responded to the survey and respondents past use of power tool use in the tolerance zone prior to locating subsurface installations and how they would like to use power tools in the future.

Figure 10: Infographic illustrates a breakdown of responses to the Board's AB 1914 implementation survey regarding use of boring equipment in the tolerance zone prior to locating subsurface installations and the soil conditions that require power tools.

When asked about soil conditions respondents were given the option to free-type their answers. The word cloud represents the answers received, with the largest words meaning they were mentioned most, and the smallest words meaning they were mentioned least.

Q: Can boring equipment be used safely in the tolerance zone, prior to positively locating subsurface facilities?



Q: In your experience, what soil conditions require power tools to positively locate subsurface installations?



TOOL SPECIFICATION RESEARCH

Feedback received via the survey results, public workshop, and Board meeting discussions pointed toward the handheld powered clay spade as the most appropriate candidate tool for use in determining the exact location of a subsurface installation. Specifically, the “30-pound weight class” was identified as the minimum tool weight able to consistently provide the necessary enhancement to excavation capability and protection of worker physiology in difficult soil conditions.

With this information, staff conducted research on the specifications of available tools within the identified weight class, for use in further defining the allowable tool. Through this effort, it was discovered that the “30-pound” label is used by the industry to describe tools ranging in weight from 21 to 37 pounds (*see Table 2*). Of these, the upright ergonomic handle style was found, when present, to contribute approximately five-pounds of the tool’s total weight.

POWER TOOL SPEC RESEARCH



Sample Tool	lb	kg	in	mm
Electric 1	27.56	12.5	4.75	120.7
Electric 2	27.1	12.3	4.5	114.3
Pneumatic 1.a	30	13.6	4.9	125
Pneumatic 1.a(ex)	34.8	15.8	4.9	125
Pneumatic 1.b	31.3	14.2	4.9	125
Pneumatic 2.a	22	10	5	127
Pneumatic 2.b	23	10.5	5	127
Pneumatic 3.a	31	14.1	5	127
Pneumatic 3.a(ex)	37	16.8	5	127
Pneumatic 3.b	21	9.5	5	127
Pneumatic 4.aa	22	10	5.5	139.7
Pneumatic 4.ab	21	9.5	5.5	139.7
Pneumatic 4.ac	23	10.4	5.5	139.7
Pneumatic 4.ba	27	12.3	5.5	139.7
Pneumatic 4.bb	28	12.7	5.5	139.7
Pneumatic 4.bc	30	13.6	5.5	139.7
Hydraulic 1	34.2	15.5	4.9	125
Hydraulic2	27.8	12.6	5	127

Table 2: Research into Clay Spades Available on the Market, Their Weights in Pounds and Kilograms, and Spade Widths in Inches and Millimeters.

To accommodate these practical considerations, the Board determined that a 40-pound weight limit was an appropriate tool parameter. Blunt bits capable of moving

soil in the manner desired and compatible with the tool type identified were found to range from 4.5 to 5.5 inches in width, pointing the Board toward establishing a minimum bit width of 4.5 inches.

Additionally, the Board was able to confirm that appropriate electric, pneumatic, and hydraulic tool options are widely available within the identified weight and bit width limitations, leaving excavators with a fair amount of discretion in selecting a tool most appropriate to their working conditions. By validating Board expertise and stakeholder input against a broad sampling of real tool specifications, the Board was able to establish tool parameters that are clear and enforceable, while also providing practical options for excavators in the field.

DRAFT REGULATION LANGUAGE DEVELOPMENT

Draft regulatory language was first presented to the Board for discussion at the May meeting, held in San Francisco at the headquarters of the CPUC. Public comment offered by a cross-section of stakeholders, including representatives from SCCA, West Valley Construction, Pacific Gas & Electric Company (PG&E), Los Angeles Department of Water & Power (LADWP), Sprint, Shell Pipeline, the CPUC, and the one-call centers generated discussion among the Board members on details of the draft language.

Revised language was presented at the June Board meeting, held in Sacramento at OSFM Headquarters. In addition to the stakeholders who participated in May, United Contractors (UCON) was present and offered comments to the Board. At its July Board meeting, again held in Sacramento at OSFM headquarters, the Board adopted proposed regulatory language and authorized rulemaking proceedings to begin.



In November, the language was posted for a 45-day public comment period. The Board will review any comments received, and make needed. The language will need to be finalized and approved in early 2020 in order to go through the regulation implementation process with enough time to take effect July 1, 2020.



CHAPTER FIVE

BOARD OPERATIONS

The Dig Safe Board is a government start-up and as such, is required to perform a variety of tasks to establish a well-functioning government organization that promotes safe excavation throughout the state. The Board's efforts on tasks related to Board operations are fundamental to evolving a healthy government agency that supports the Board's strategic goals, objectives, and activities. Fostering such an agency will position the Board to advance its safety mission and maintain the confidence of lawmakers and the people of California.

To develop a well-functioning government organization, the Board identified two tasks in its 2019 Plan, designed to advance its efforts to establish a strong foundation for Board operations:



BOARD
STARTUP
SUPPORT



EDUCATION
AND
OUTREACH

The broad scope of the Board's work to establish a foundation for Board operations is constantly developing based on the administrative, policy, and staffing needs of the Board, and developments that were not fully understood at the time the 2019 Plan was drafted. Education and outreach is another significant component of the Board's work to establish a new government agency, as it cannot rely on established industry familiarity and communication pathways in implementing any of its objectives. At this stage, every Board activity carries implications for education and outreach, and those efforts will play an integral role in the Board's promotion of safe excavation across the state.

The Board will measure its success in improving safety through establishing a foundation for Board operations using the strategic activities outlined in its 2019 Plan and identifying whether it accomplished the activities identified. The Board will continue to work toward developing other methods for measuring success as it works to successfully establish its operations and implement its policies and procedures.

Strategic Activity: Board Startup Support

As a government start-up, the Dig Safe Board is required to perform a variety of tasks to establish a well-functioning government organization that promotes safe excavation throughout the state. Many of the administrative startup tasks were complete in 2018, but some were just beginning and required a considerable time investment in 2019.

INTERNAL AND EXTERNAL POLICIES

In 2019, staff continued work developing policies and procedures for how the Board will operate internally and externally. These policies are an essential component of any organization and address specific tasks performed by Board members and staff like travel, training, vehicle fleet maintenance, uniforms, equipment, and more. Work to develop policies has progressed throughout the year with staff identifying the top policies and procedures that need to be created and beginning the process of writing the physical documents. This process is taking place in concurrence with the Board's other work, and will continue into 2020.

STAFF HIRING

As a growing organization, the Board continued to hire new staff in 2019 to support its Legislative directive. Currently, Board staff consists of 17 people who are split up into the following positions:

- **Executive Director:** This position assures implementation of the Board's decisions and policies while working closely with the Board Members. The Executive Director and his team of managers and staff work closely with

other state agencies, the Legislature, the Governor's Office, and all external stakeholders to anticipate regulatory needs and develop and implement appropriate strategies to meet those needs.

- **Attorney:** The Board's attorney supervises the development of regulations, the Board's enforcement hearing process, and compliance with Open Meeting Act, Public Records Act, and Administrative Procedures Act requirements.
- **Policy:** The policy unit develops regulations to implement the Dig Safe Act of 2016, along with subsequent legislation as it arises. Develops a public education campaign to inform stakeholders and the public of safe excavation practices, develops and analyzes relevant data, and maintains all scheduling of Board hearings, meetings, and workshops.
- **Investigations:** The enforcement unit conduct investigations into violations of Government Code 4216 as well as the Board's regulations, and makes recommendations for sanctions for violations of the Act.

STAFF TRAINING

Once hired each staff member must undergo the required state training, position-specific training either through the state or other industry-specific organizations, and industry training to learn more about the climate in which the Board regulates. Trainings are scheduled based on availability and take place in concurrence with the Board's other work.

TYPE OF TRAINING	DESCRIPTION
OSHA Excavation Safety for Competent Person	Training provides an awareness of existing and predictable hazards in and around an excavation site and teaches participants the appropriate corrective measures according to federal safety standards.
Industry Site Visits	Site visits were conducted with multiple industry actors including underground facility operators, excavators, and locators and provided investigators the opportunity to observe a variety of job sites and job practices in the industry.
One-Call Center Visits	Visits provided an in-depth explanation about the work done by the one-call centers along with a facility tour. Staff learned how to read an Underground Service Alert (USA) Ticket and the important details that would pertain to future Board investigations.
Office of Administrative Law Rulemaking Training	Course provides instruction on rulemaking under the Administrative Procedure Act, including procedures, when regulations need to be adopted, how regulations

	are adopted, and what OAL looks for when reviewing a regulation for compliance with the APA.
CAL FIRE Legislative Training	Course offers information about the legislative process and CAL FIRE's role in the process, as well as a hands-on tutorial on how to complete a bill analysis.
CAL FIRE S-203 Intro to Incident Information	Course provides skills and knowledge needed to serve as a public information officer, including lessons on establishing and maintaining an incident information operation, communicating with internal and external audiences, working with the media, handling special situations, social media strategies, and long-term planning and strategy.
CAL FIRE Basic Purchasing Certification	Course offers an introduction to the basic fundamentals of procuring Non-IT goods and services, and provides training on procedures required when purchasing as a State Official.
CalHR Interpersonal Skills Training	Course provides participants with insights and skills that helps them maximize their productivity as they interact with others to effectively accomplish workplace goals and objectives and is provided to any state employee who wishes to increase their effectiveness through improved interpersonal skills.
CalHR Presentation Skills Training	Course empowers participants to deliver better presentations in terms of capturing, keeping, and motivating the audience and teaches skills in writing succinct and purposeful presentations, identifying and practicing verbal and nonverbal elements of effective delivery style, overcoming common presentation blunders, and controlling nerves and presentation jitters.
CalHR Microsoft Power BI	Course provides participants an overview of Microsoft Power BI's PowerPivot program to connect to multiple different sources of data, how to create tables within the program, how to combine data and build visuals.
State & Department Mandated	These trainings encompass a combination of annual and one-time trainings that address Information Technology (IT) Safety, General Employee Safety, Equipment Policies and Procedures, Department Policies and Procedures, and Human Resources (HR) issues.

The industry trainings, visits and ride-alongs listed above familiarized staff with industry practices and professions. The state agency trainings helped advance staff abilities to maximize their skills in generating work products for the Board. Training is ongoing and will continue into 2020.

BOARD MEMBERS AND MEETINGS

The Board is comprised of nine members, seven of which are appointed by the Governor, one appointed by the Speaker of the Assembly, and one appointed by the Senate Committee on Rules³⁴. The term of a member of the Board is four years.

Going into 2019, the Board had four vacancies. On January 2, 2019, Members Del Toro, Johnson, and Voss were reappointed. Currently the Board has one vacancy which it hopes to fill in 2020. The members who served on the Board during 2019 are as follows:



CARL VOSS, CHAIR

Member Voss was reappointed January 2, 2019, by Governor Edmund G. Brown Jr. He is from Bakersfield and has been a land manager at Grimmway Enterprises Inc. since 1995. Voss was elected Chair on February 11, 2019, and serves on the Board's Area of Continual Excavation Committee.



JESSICA ARDEN, VICE CHAIR

Member Arden was appointed December 18, 2017, by Governor Edmund G. Brown Jr. She is from Woodland Hills and has been city engineer for the City of Westlake Village since 2017. Arden was elected Vice Chair on February 11, 2019 and serves on the Board's Investigations and Reporting Committee



RON BIANCHINI, MEMBER

Member Bianchini was appointed December 18, 2017, by Governor Edmund G. Brown Jr. He is from Livermore and has been the chief operations officer at Preston Pipelines Inc since 2011, and prior to that was an area manager from 2009 to 2011. Bianchini serves on the Board's AB 1914 and Reasonable Care Standards Committees.

³⁴ GOV 4216.13



RANDY CHARLAND, MEMBER

Member Charland was appointed on September 19, 2017, by the Senate Rules Committee. He is from Camarillo and has been the director of risk management for UtiliQuest since 2003. He has held several positions there for the past 27 years, going back to when the company was known as Underground Technology, Inc. in California. Charland serves on the Board's Investigations and Reporting and AB 1166 Committees.



MARJORIE DEL TORO, MEMBER

Member Del Toro was reappointed January 2, 2019, by Governor Edmund G. Brown Jr. She is from Foothill Ranch and is the President and CEO of ehs International Inc., a nationally recognized company specializing in environmental health and safety education. Del Toro currently serves on the Board's Education In-Lieu of Fines Committee.



BILL JOHNS, MEMBER

Member Johns was appointed December 18, 2017, by Governor Edmund G. Brown Jr. He is from Huntington Beach and has been the vice president at Utility Coordinating Inc. since 2014. Before that, Johns served as principal project manager at SPEC Services, Inc. from 1990 to 1994. He currently serves on the Board's Area of Continual Excavation Committee.



MARSHALL JOHNSON, MEMBER

Member Johnson was reappointed January 2, 2019, by Governor Edmund G. Brown Jr. He is from Inglewood and has been an area manager of network process, quality compliance, and damage prevention at AT&T since 2000. Prior to that, Johnson held several positions at Pacific Bell from 1979 to 2000. He currently serves on the Board's AB 1914 and Education In-Lieu of Fines Committees.



AMPARO MUÑOZ, MEMBER

Member Muñoz was appointed April 11, 2018 by Speaker of the Assembly Anthony Rendon. She is from Fontana and currently works as a Maintenance Planner at Steelscape. Before that, Muñoz worked as an asset manager for the City of Rialto and a maintenance planner for Gilead Sciences and Aspect Solutions USA. She currently serves on the Board's AB 1166 and Reasonable Care Standards Committees.

The Board is required to meet at least once every three months³⁵, holds business meetings and workshops at least every other month to meet its stringent statutory requirements. Meetings are held throughout the state. In 2019, the Board held ten meetings and eight public workshops (See Figure 11).³⁶



Figure 11: Map Showing the Locations of the Dig Safe Board's 2019 Meetings and Workshops and the Number of Each Held in Those Locations

³⁵ GOV 4216.15

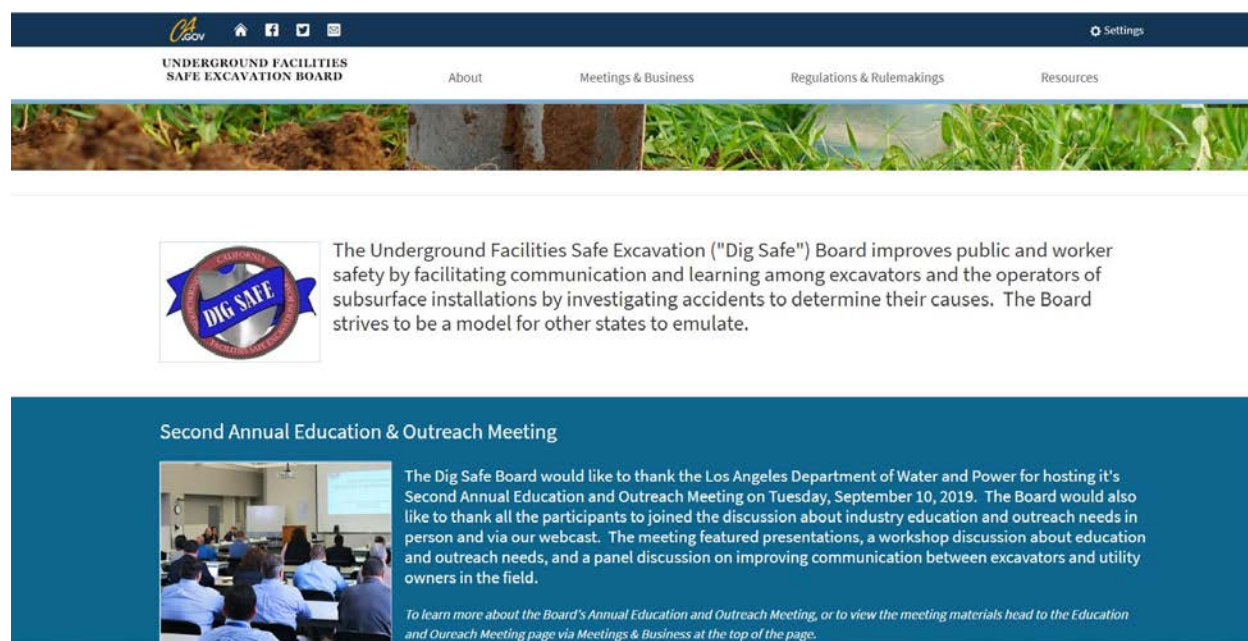
³⁶ Notices, Agendas, Materials, and Minutes for all the Dig Safe Board's 2019 Meetings can be Reviewed on the Board's Website: <http://digsafe.fire.ca.gov> under Meetings and Business.

At the beginning of 2019, the Board published its meeting schedule for the upcoming year on its website. The Board was scheduled to host a public meeting in March and November, however the decision was made not to hold those meetings due to Board staff's heavy workload. The Board did host a public workshop in the month of March.

Board meetings are held statewide to allow for stakeholder participation in all areas of the state. The Board held meetings and workshops in Sacramento, Bakersfield, Corona, San Francisco, Long Beach, and Los Angeles. Scheduling monthly Board meetings throughout the state creates a challenge for Board staff to find meeting locations. However, the value of conversing with the Board's diverse stakeholder groups far outweighs the challenge of trying to secure meeting facilities in varying cities and counties up and down the state.

BRAND DEVELOPMENT THROUGH WEB & SOCIAL MEDIA

To build communication networks with the public and interested stakeholders, the Board recognized the importance of enhancing its website and developing a social media presence. Per the 2019 Plan, "A strong online presence will allow the Board to establish itself as a regulator among stakeholders and the public and improve its efforts to conduct education and outreach on safe excavation practices throughout the state." In February, following the release of the Board's 2019 Plan, staff endeavored to make all elements of the Board's website accessible per Assembly Bill 434³⁷, including all online documents.



New Dig Safe Board Website Layout in Accordance with Requirements Outlined in Assembly Bill 434

³⁷ Assembly Bill 434 (Chapter 780, Statutes of 2017) took effect in July of 2018, and requires all state websites to be accessible to people with disabilities before July 1, 2019.

The accessibility process required staff to attend informal training with the CAL FIRE Communications Office and the CAL FIRE Department of Information Technology to learn the website accessibility requirements regarding text, tables, and pictures and the process for creating accessible documents to post to the website. This process can take 15 minutes to an hour per document or webpage depending on the complexity. Following training, staff spent the next five months updating existing webpages and documents to ensure they met accessibility standards. Staff met the required July 1, 2019 deadline to create a fully accessible website and has spent the remainder of the year ensuring all new Board documents posted online are accessible.

Because meeting the accessibility requirements is required by law, it took precedence over the Board's goal of enhancing its website and developing a social media presence. Staff is currently working to develop a plan to build the Board's online presence and will continue this activity in 2020.

Strategic Activity: Education and Outreach

In passing the Dig Safe Act of 2016, the Legislature directed the Board to meet annually to discuss and learn from stakeholders and the public, about the education and outreach needs around the state.³⁸ However, the Board is not limited to its annual meeting and may choose to participate in other outreach opportunities throughout the year. In 2019, the Board took advantage of several opportunities to conduct outreach and engage stakeholders in the process.

2019 SPRING OPEN FORUM

In March, the Board held its Second Annual Spring Open Forum. The annual forum is an effort by the Board to allow for the free exchange of safety information per its Values (*Policy B-04, SEE PAGE 2*), by giving the Board's diverse stakeholders an opportunity to discuss their issues outside of the Board's rigorous work to achieve its legislative requirements.

This year, the Board asked stakeholders to share their feedback with the following questions:

- What are the big industry issues the Board needs to address?
- Where would you like the Board to focus its education efforts?
- Do you have any questions or concerns about everyday work practices like how to handle delayed start times or what to do if you don't receive a response from an operator?

³⁸ GOV 4216.17

The questions asked of stakeholders were designed to gather information that could help guide the Board's work in the future, once its legislative deadlines were met³⁹.

The Spring Open Forum opened on March 19, 2019 and closed on May 1, 2019. During that time, the forum was advertised on the Board's website and a link to the open forum was sent via email to the Board's stakeholder email list. The forum was also promoted through a flyer at the Board's April meeting at DigAlert headquarters in Corona, the Board's April Reasonable Care Standards Workshop at OSFM headquarters in Sacramento, and through outreach at the DigAlert Annual meeting in Corona, the Pipeline Safety Conference in Long Beach, the Sacramento Regional Builders Exchange, and the CARCGA Mock Strike Event at Cosumnes River College in Sacramento.



Dig Safe Board Members Discuss 2019 Spring Open Forum Responses at May meeting in San Francisco

The Board received five Spring Open Forum entries, which members discussed at its May 13-14, 2019 meeting held at the CPUC headquarters in San Francisco. Issues discussed ranged from questions about everyday work practices like legal start times, requirements for marking, and concerns over lack of education about USA Ticket requirements, to comments about the Board's implementation of AB 1914 (*SEE POWER TOOL USE IN THE TOLERANCE ZONE, PAGE 42*).

³⁹ To meet its legislative requirements, the Board has identified the following milestones: begin investigations in early 2019, establish a funding source by July 1, 2019, develop regulations for minimum standards in areas of continual excavation by January 1, 2020 (GOV 4216.11), begin enforcement of Board-jurisdictional actors by July 1, 2020 (GOV 4216.6), and develop regulations for power tool use to find subsurface installations by July 1, 2020 (GOV 4216.4)

2019 EDUCATION & OUTREACH MEETING

To meet its statutory requirement to coordinate the state's education and outreach about safe digging practices, the Board held its Second Annual Education and Outreach Meeting on September 10, 2019 at the LADWP Central District Yard in Downtown Los Angeles. The purpose of the meeting was to better understand the industry's existing education and outreach needs, and to facilitate a discussion on how to coordinate existing education and outreach efforts with state and local government agencies, utility owners, the one-call centers, and trade associations.



Member Del Toro and Staff Ask Panel of Operators Questions Generated by Excavators About Improving Communication in the Field During Board's First-Ever Panel Discussion

Prior to the meeting, the Board reached out to stakeholders on the specific topics they wanted covered, as outlined in the 2019 Plan. Staff worked with UCON and SCCA to gather feedback from their members, who discussed wanting more opportunities to ask operators questions about safe excavation practices. After receiving this feedback, staff worked with underground facility owners who represent telecommunications, cities and/or municipalities, natural gas, petroleum, and electricity to organize a panel discussion on improving communication in the field. Staff solicited questions from UCON and SCCA members to ask the panel.

Questions addressed:

- Dispatching locators to a ticket and how to improve communication if a facility owner is unable to respond within the mandated two working days.
- Contacting a knowledgeable person with an organization if they have questions about an underground facility.
- Facility owner expectations regarding pothole frequency.
- Managing facilities embedded in the pavement and how facility owners help the excavator avoid them.
- How excavators can demonstrate reasonable care prior to the Board creating standards.
- The technologies facility owners are using to improve safety in the field.

The panel questions were designed to expand excavator knowledge about how to better interact with facility owners and to show that in some cases, owners have different processes for doing things, highlighting the importance of communication.

In addition to the panel, the Board's Education and Outreach Meeting agenda included a presentation and discussion of the results of the Board's second education and outreach survey (*see Figures 10 & 11*). The survey asked questions designed to gather information about groups with the highest awareness needs, training methods and information retention, favored education material formats, and how excavation materials are received. This information will help the Board better understand where and how to target its education and outreach efforts, while collecting feedback that can be referenced in the future development of its educational materials.

The survey was promoted at Board, one-call center, and CARCGA meetings, in addition to on the Board's website and through the Board's stakeholder email list. Promotion of the survey resulted in a total of 61 survey responses from a variety of stakeholders. Respondents told the Board contractors, subcontractors, homeowners, and landscapers need the most outreach because they were the most likely to have a utility strike. Respondents also told the Board to focus education efforts on delineation, locating and marking, power tool use in the tolerance zone, lessons learned from past dig-ins, project planning, abandoned lines, and USA ticket requests because these issues affect safety the most⁴⁰.

⁴⁰ The complete 2019 Education and Outreach Survey results can be found on the Board's website: <http://digsafe.fire.ca.gov>

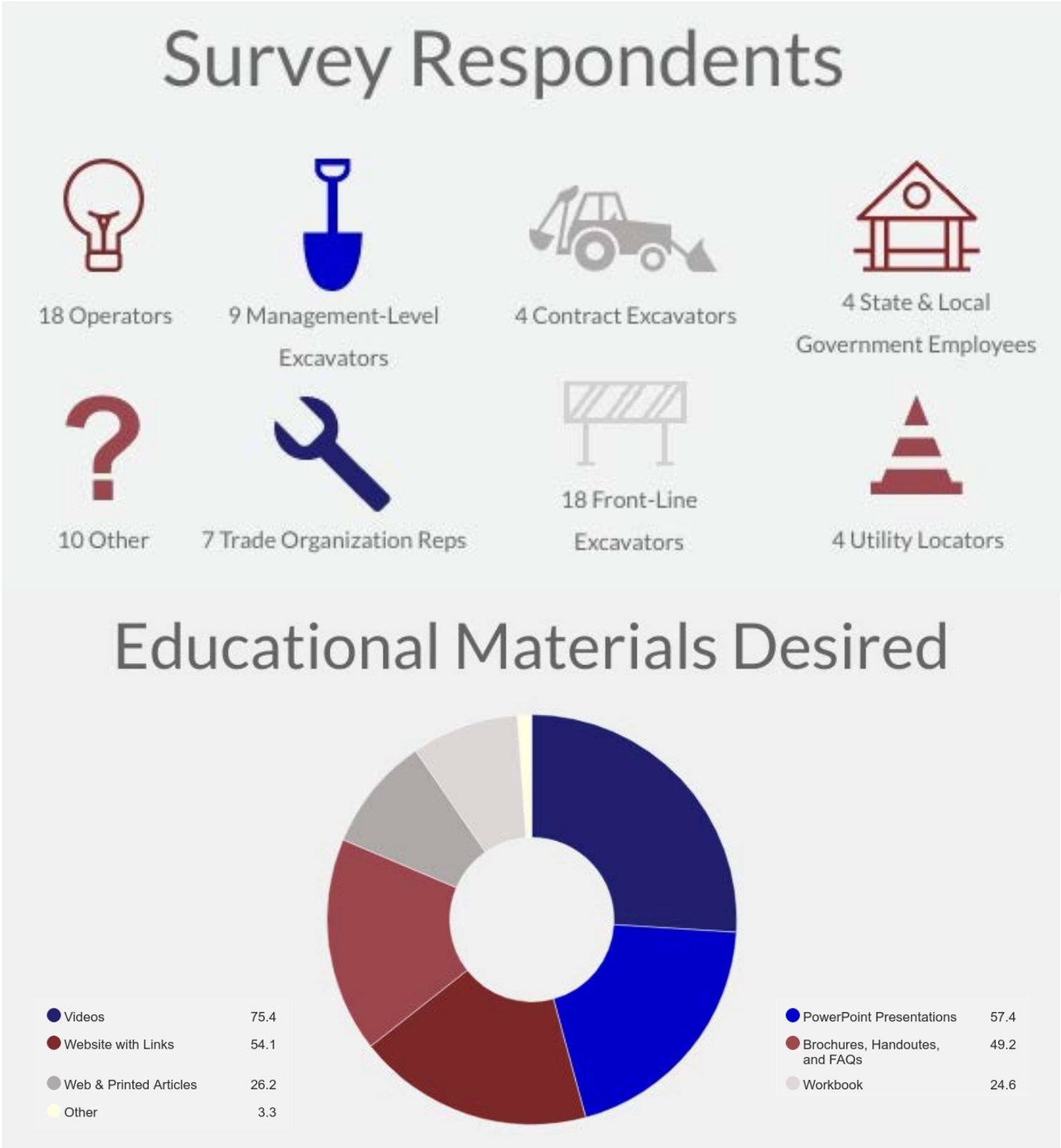
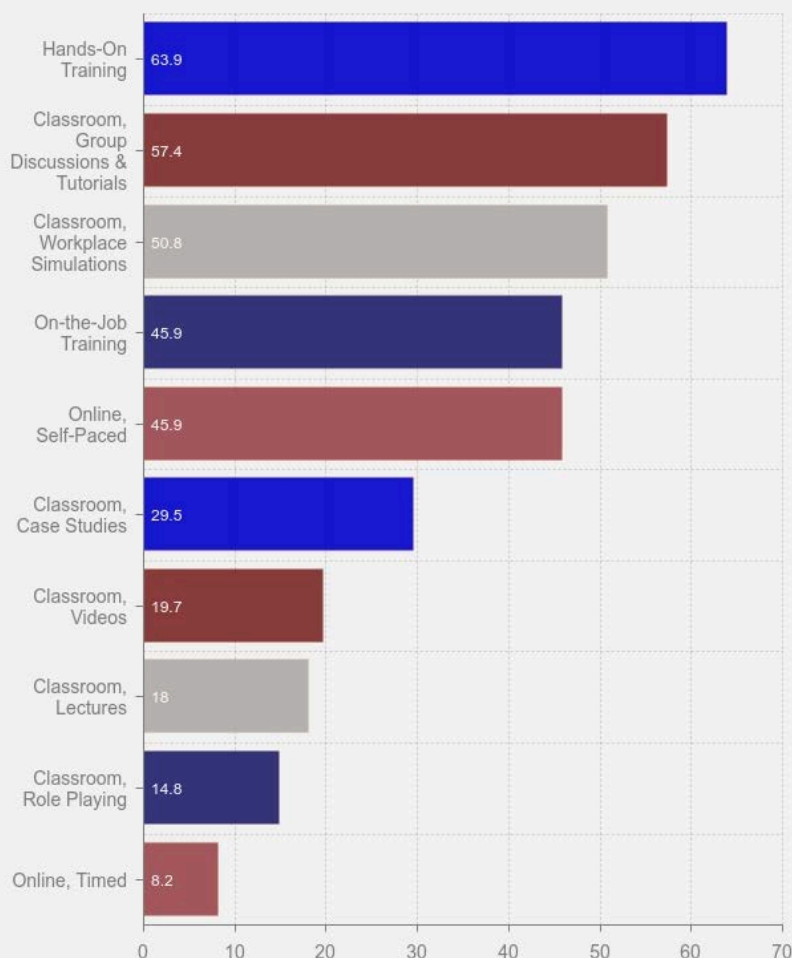


Figure 12: Infographic illustrates a breakdown of who responded to the survey and the educational materials respondents desire. Under Survey Respondents, the field marked other includes one-call center employees, insurance company safety consultants, and safety managers.

Training Methods Desired



Top Areas Identified for Board to Direct Outreach Efforts

72% of respondents said Delineation, Locate & Mark

59% of respondents said Power Tool Use in the Tolerance Zone

47% of respondents said Lessons Learned from Past Dig-Ins

43% of respondents said Project Planning

39% of respondents said Abandoned Lines

39% of respondents said USA Ticket Requests

Top Groups Identified with Highest Awareness Needs



Contractors & Subcontractors



Homeowners



Landscapers



Fencers



Utility Companies



Cities, Counties & Municipalities



Farmers



Handypeople

Figure 13: Infographic illustrates a breakdown of responses to the Board's education and outreach survey regarding training methods, the top groups survey respondents identified with the highest awareness needs, and the top areas identified for the Board to direct outreach

Following the presentation on the survey results, the Board asked stakeholders to discuss the following questions:

- What is your organization currently doing to provide education on excavation safety?
- How can the industry better coordinate current education and outreach efforts to be more effective?
- Where can the Board add to existing education and outreach efforts to improve the understanding of excavation safety?

The questions asked of stakeholders were designed to gather information that could help the Board understand the current climate for education and outreach and guide its work in determining where to direct the Board's education and outreach efforts and resources.

In addition to a presentation and discussion of the Board's survey results, the Board's Education and Outreach Meeting agenda included a presentation on the Board's first-ever Education and Outreach Report, designed to be an update on the activities Board members and staff have participated in since the last Education and Outreach Meeting. The report also discussed the Board's upcoming outreach opportunities and the best ways for stakeholders to engage the Board.



Staff Presenting the Education and Outreach Report at the Board's Second Annual Education and Outreach Meeting in Los Angeles

The agenda also included a presentation of the top five educational needs the Board's Investigations Division identified through investigations. This presentation provided the Board an opportunity to examine its current education and outreach efforts and identify any needs for targeted outreach.

And finally, the agenda included the introduction of the Board's first-ever Education and Outreach Plan⁴¹, designed to outline the Board's goals for creating an effective education and outreach program. This presentation provided the Board an opportunity to review all the activities it needs to complete to build a strong foundation for its education program. The Board will use the feedback received at this year's meeting to guide its education and outreach efforts around the state, as well as the development of its future Education and Outreach meetings.

INDUSTRY OUTREACH OPPORTUNITIES

As outlined in the Board's 2019 Plan, staff worked throughout the year to identify opportunities to conduct outreach through established industry channels and used those opportunities to inform stakeholders and the public about the Board, its rulemaking activities, investigations, enforcement efforts, and safe excavation practices. Board members and staff used these opportunities to build name recognition and encourage stakeholder participation in Board activities. The Board was featured in a handful of news articles and safety publications, and Board members and staff made presentations at various industry conferences, meetings, seminars, and symposiums (*SEE APPENDIX B: EDUCATION & OUTREACH OPPORTUNITIES, PAGE 82*).



January 30, 2019: Member Marjorie Del Toro Presents Overview of Dig Safe Board to Attendees of the Santa Ana River Basin Section of California Water Environment Association's Winter Seminar in Orange

⁴¹ The Dig Safe Board's 2019-2020 Education and Outreach Plan can be found on its website: <http://digsafe.fire.ca.gov> under Annual Plans

The Board will continue its work to identify relevant industry outreach opportunities in 2020, using the criteria outlined in the Board's 2019-2020 Education and Outreach Plan:

1. **Target Board Stakeholders:** The Board regulates at the intersection of multiple distinct industries. It is important that the events the Board participates in target specific groups, including hard to reach stakeholders.
2. **Promotes the Board's Message:** The Board works to improve public and worker safety around subsurface installations, and it is important the events members and staff participate in are in line with the safety mission the Board is committed to advancing.
3. **Helps the Board Meet its Strategic Goals and Objectives:** The four strategic objectives outlined in the Board's 2019 Plan will be considered when the Board decides to participate in events. This applies to the strategic goals the Board outlines in its forthcoming Strategic Plan, as well.

These criteria will help staff identify outreach opportunities that best serve the Board's Mission (*Policy B-02, SEE PAGE 2*), in an effort to maximize its limited resources.



CHAPTER SIX

FEE IMPLEMENTATION

In creating the Dig Safe Board, the Legislature outlined sources to fund its operations. Specifically, it identified members of the state’s two one-call centers, USA North 811 and DigAlert, as the primary feepayers. To implement the statute, the Board adopted a regulation⁴² in 2018 to require the one-call centers to collect the fee from their members, which took effect on January 1, 2019. The fee was meant to be collected using the one-call centers’ established invoicing and billing schedules, and members who failed to pay the fee by the due date would be charged a 5% late fee.

To comply with the regulation, DigAlert and USA North 811 each developed an invoice for the fee and began invoicing their members on February 1, 2019 and March 1, 2019 respectively, which led to multiple questions and some confusion. Board staff worked closely with one-call center staff to clear up the confusion, a task that was outside the scope of the strategic objectives and activities outlined in the 2019 Plan.

Invoicing and Billing Schedule

The Board’s fee regulation specifies the required information that must be reflected on invoices issued from USA North 811 and DigAlert to feepayers⁴³ (*see Figure 14*). The regulation was intended to make payment simple and straightforward to one-call center members, and had initially envisioned—but did not require—that the fee be assessed as a line item on one-call center members’ existing invoices. The

⁴² Section 4010, Title 19, California Code of Regulations

⁴³ Subsection (a)(1), Section 4010 , Title 19, California Code of Regulations

regulation's Initial Statement of Reasons⁴⁴ states that: "The regional notification centers will apply the fee on bills sent to their members. Using the existing billing system prevents confusing regional notification center members with sending two payments to two different sources. It allows members to pay using their accustomed payment method and billing cycle."

$$\text{Fee} = \frac{\text{member located request transmissions (previous year)}}{\text{statewide locate request transmissions (previous year)}} \times \text{Board operational expenses}$$

Figure 14: Dig Safe Board Fee Calculated Using the Number of Member Locate Requests, The Number of Statewide Locate Request Transmissions, and the Board's Operational Expenses

In March, staff began working with the one-call centers to assist them in providing clarity and simplicity of the invoices for feepayers.



Dig Safe Board members review and discuss Board Fee implementation at April Meeting in Corona

At the Board's April meeting at DigAlert Headquarters in Corona, members discussed the implementation of the Board's fee and when the Board would begin assessing the five-percent late payment penalty on its feepayers who miss a payment, or do not pay the fee. Currently, staff is developing a timeline for rolling out the late payment penalty, but has yet to implement it. This is expected to take place in 2020.

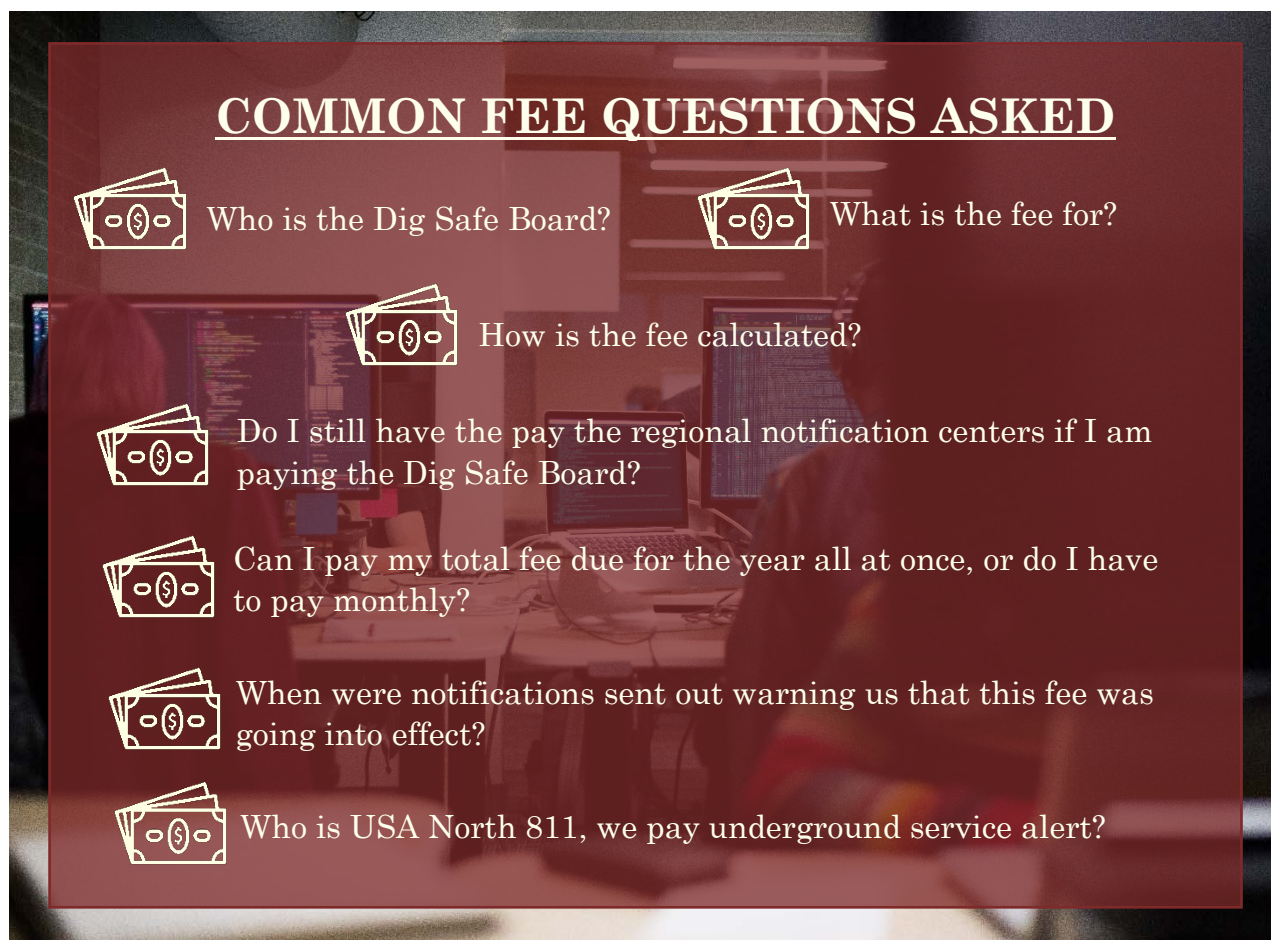
The Board continues to work with the one-call centers on educating feepayers about the fee, though inquiries from feepayers have dramatically decreased as they became accustomed to receiving an invoice for the Board's fee.

⁴⁴ A digital copy of the Initial Statement of Reasons for the Dig Safe Board's Fee Regulation can be found on its website: <http://digsafe.fire.ca.gov> under Regulations and rulemakings.

Education and Outreach

Both one-call centers, based on their experience and their difficulties in being provided up-to-date contact information from their members, counseled the Board that many members would be surprised by the fee regardless of the outreach efforts. During past outreach via email to the 2100 members of USA North 811 and DigAlert in 2018, staff received approximately 400 bounce-backs. It is not clear, however, the extent to which out-of-date contact information was a contributing cause to the subsequent feepayer confusion, as approximately 35% of the 2,100 members do not receive at least 200 ticket transmissions a year⁴⁵.

From February to April, staff received over 170 phone calls and emails from feePAYERS with questions regarding the fee:



Common Questioned FeePAYERS Asked Dig Safe Board Staff About its Fee

⁴⁵ “200 Ticket Transmissions” is the threshold for whether a one-call center member is assessed a fee from the Dig Safe Board as outlined in subsection (a)(1) of section 4010 of Title 19 of the California Code of Regulations.

Staff created a Frequently Asked Questions (FAQs) Sheet, which was posted to the Board's website⁴⁶, and a link distributed to members of the one-call centers via their billing invoices. The document addressed the questions most frequently asked by feepayers. Staff spoke to feepayers via telephone and email and directed them to the Dig Safe Board's website to review the FAQs sheet, the Board's 2019 Cost Report⁴⁷, and the fee regulation text, which provides purpose, reference and authority, and written guidance on fee calculation and prediction. Staff also provided an update to the Board on the implementation of the fee, including background on past outreach efforts prior to the fee taking effect⁴⁸, at its April meeting at DigAlert headquarters in Corona.

Since the initial deluge of calls from one-call center members, the Board received a handful of new calls regarding questions about the fee from feepayers who were just receiving their invoices based on their billing schedule (*SEE "INVOICING AND BILLING SCHEDULE", PAGE 65*). Those callers were directed to the Board's website to review the educational materials created. To continue educating one-call centers members about the fee, and provide them information on the Board's projected expenses paid for by said fee, the Board will produce an annual Cost Report which will be posted on its website and distributed to the one-call centers. The 2020 Cost Report is expected to be released in Mid-January, following the release of the Governor's Budget.

⁴⁶ A digital copy of the Dig Safe Board's Fee Frequently Asked Questions Sheet can be found on its website: <http://digsafe.fire.ca.gov> under Resources.

⁴⁷ A digital copy of the Dig Safe Board's 2019 Cost Report can be found on its website: <http://digsafe.fire.ca.gov> under Resources.

⁴⁸ The complete fee implementation outreach background and update can be found on the Dig Safe Board website: <http://digsafe.fire.ca.gov> under April 2019 Meeting Materials

A photograph of the California State Capitol building in Sacramento, featuring its iconic dome and classical architecture, framed by green trees. The text 'CHAPTER SEVEN' is overlaid in white on the left side of the image.

CHAPTER SEVEN

ASSEMBLY BILL 1166

The Dig Safe Act of 2016 required the one-call centers to be equipped to receive electronic positive response⁴⁹ from underground facility owners and utility locators by January 1, 2018.⁵⁰ Currently, operators are required to provide positive response⁵¹ and have the option to also provide electronic positive response.

California’s “call before you dig” law requires excavators to contact USA North 811 or DigAlert two or more business days before digging. In turn, the call center provides the excavator information and a “locate request” to the operators of underground facilities that may be present at the work site. Operators are required to respond by marking facility locations on the ground at the work site within the two-business-day period. Excavators cannot break ground until the waiting period has passed. Often excavators don’t receive information about the status of an operator’s response apart from marks on the ground at the work site. However, when an operator does not locate and mark on time, an excavator’s work may be delayed while the excavator contacts the call center and waits for the operator to provide markings or clarify their response. Or worse, the excavator may proceed digging, unaware of a buried facility.

In 2019, the Legislature passed Assembly Bill 1166 (AB 1166), which requires operators to begin providing electronic positive response through the one-call centers by January 1, 2021. Most operators currently use an electronic ticket management

⁴⁹ An electronic positive response is a utility operator’s communication to the one-call center that provides the status of an operator’s response to a locate request.

⁵⁰ GOV 4216.3 (b)

⁵¹ A positive response is a utility operator’s communication to the excavator using paint on the ground or other markings to provide information regarding the existence of underground facilities in the excavators’ work zone.

system, but many of those systems are not configured to provide electronic positive response codes. Implementing the requirements of AB 1166 will require many operators to either acquire new ticket management systems or to significantly alter existing systems both to provide response codes and to interface appropriately with the one-call centers. To allow sufficient time for those changes, the bill directs the Dig Safe Board to develop a process for extending the compliance deadline, up to an additional year, for operators who demonstrate good cause.

Legislation Introduced & Passed

On February 21, 2019, Assembly Member Marc Levine (D-North Bay) introduced AB 1166 to address record falsification allegations made by the CPUC in its recently-opened adjudicatory proceeding (I.18-12-007), in which PG&E employees purportedly represented that they had performed their buried utility marking responsibilities within the statutory timeframe, when those employees had not done so. The CPUC alleges, and the bill's author expresses concern, that a failure to properly respond to tickets within the statutory timeframe poses a safety risk, as excavators might begin digging prior to receiving a response from all operators, putting employees and the public at risk.



Timeline Illustrating the Introduction, Amendment, and Passage of Assembly Bill 1166 in the Legislature

On April 15, 2019, the Dig Safe Board held its first discussion on AB 1166. Members and staff discussed the date when operators would be required to use electronic positive response and whether the Board should make a recommendation to the Legislature about the date. Members also discussed the Board taking control of the process for determining the date and rules surrounding implementation of electronic positive response.

At a July 15th meeting at OSFM headquarters in Sacramento, the Board discussed a proposed amendment to AB 1166 that would grant the Board authority to provide limited extensions to operators beyond the January 1, 2021 implementation deadline. This process would provide operators with a reasonable timeframe to make business changes necessary to comply with statute as long as they provide good cause for needing an extension. By providing limited extensions to operators, the Board's proposed amendment would also preserve the author's intent to promote accountability in locate and mark activities as soon as reasonably possible.

On August 30th, the Senate amended AB 1166 to include the Board's proposed changes and voted to pass the bill ten days later. The Assembly voted to pass the bill on September 10th, sending it to the Governor's desk, where he signed it into law on October Third.

Emergency Rulemaking Package

In order to establish a process for extending the compliance deadline for operators who demonstrate good cause the Board needed to draft and approve an emergency regulations package once the Governor signed AB 1166 into law. Draft regulatory language was first presented to the Board for discussion at the December Meeting, held in Sacramento at the State Capitol. The proposal outlined a timeframe and method for operators to make extension requests to the Board, a timeframe for the Board to issue a decision. During the meeting the Board began to discuss and decide on the facts and circumstances that may constitute good cause.

Revised language will be presented in early 2020 for the Board to discuss and approve, with the goal of having the regulation language go through the emergency rulemaking process and in place by summer 2020.



CHAPTER EIGHT

LEGISLATIVE REVIEW

As stated in its 2018 Plan: “The Board is scheduled to undergo legislative review any time after January 1, 2020,⁵² at which time the Legislature is expected to ask the Board to account for its progress, and which is an opportunity for the Board to recommend statutory changes, should the Board be able to justify such recommendations.”

Traditionally the Assembly Business and Professions Committee and the Senate Business, Professions and Economic Development Committee hold joint oversight hearings each year to review the different boards and bureaus, providing an opportunity for the agency, the Legislature, and interested stakeholders to discuss a board’s performance and make recommendations for improvements. As part of its participation in the hearing, a board is required to submit a background paper that provides a background on the board, its history, function, regulatory activity, budget, public engagement, investigations and enforcement activity, and the challenges it faces. The Dig Safe Board submitted its 2019 Legislative Review Report to the Senate Business, Professions and Economic Development Committee and Senate Subcommittee on Gas, Electric and Transportation Safety on October 18, 2019⁵³ ahead of its November review hearing.

⁵² GOV 4216.23

⁵³ A digital copy of the Dig Safe Board’s 2019 Legislative Review Report can be found on its website: <http://digsafe.fire.ca.gov> under Meetings & Business.

Senate Committee Hearing

On November 8, 2019, Board members Marjorie Del Toro and Carl Voss and staff appeared before the Senate committees to review the actions taken by the Board in its first two-plus years of operation to meet its Legislative mandates. Members and staff were also asked to discuss the Board's successes and discuss any challenges to its operation.



Dig Safe Board members and staff discuss Board progress and challenges at November 8, 2019 Legislative Review Hearing

During the hearing representatives from USA North 811, the CPUC, SoCalGas, and United Contractors were also asked to discuss their organizations and the safety challenges they see.



APPENDIX A: INVESTIGATIONS

An overview of the investigations conducted by the Dig Safe Board's Investigations Division from January 1, 2019 to December 31, 2019, includes incidents opened and reported in 2019.

Case Number: This number reflects the year (19), Investigative Division location (LA for Southern California and SA for Northern California), and the case number.

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19LA1011	Gas	Damage	Abandoned Line	Closed
19LA1012	Water	Exposed	Abandoned Line	Closed
19LA1013	Water	No Ticket	Expired Ticket, Exposed Line	Closed
19LA1014	Gas	Not Ticket	Expired Ticket, Exposed Line	Closed
19LA1015	Fiber	No Ticket	Damage Line	Closed
19LA1022	Communication	No Ticket	Exposed Line	Closed
19LA1023	Gas	No Ticket	Exposed Line	Open
19LA1025	Water	No Ticket	Exposed Line	Closed
19LA1028	Unidentified	Damage	Damage Line When Repairing Sewer	Open
19LA1024	Water	No Ticket	Exposed Line	Closed
19LA1030	Unidentified	Damage	Conduit Damaged During Repair	Open
19LA1043	Gas	Damage	Unmarked Line	Open

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19LA1000	Gas	Damage	Unmarked, Abandoned Line	Closed
19LA1001	Water	Exposed	Exposed Water Pipe	Closed
19LA1002	Gas	Damage	Abandoned Property Line Hit	Closed
19LA1003	Gas	Damage	No Operator Response	Open
19LA1004	Gas	No Ticket	Exposed	Open
19LA1005	Gas	Exposed	No Operator Response	Open
19LA1006	Gas	Exposed	Sewer Line Exposed Prior to Excavation	Closed
19LA1007	Gas	No Ticket	Damage Prior to Excavation	Closed
19LA1008	Multiple	No Ticket	Damage Prior to Excavation	Closed
19LA1009	Electric	Damage	Line Hit	Closed
19LA1010	Communication	Exposed	Unmarked	Closed
19LA1016	Gas	Exposed	Exposed While Installing Sewer	Closed
19LA1017	Gas	No Ticket	Damage Prior to Excavation	Closed
19LA1018	Water	Exposed	Hit Property Side of Line	Closed
19LA1019	Unidentified	Exposed	Work on Private Property	Closed
19LA1020	All	Exposed	Work on Private Property	Closed
19LA1021	Sewer	Damage	Work on Private Property	Open
19LA1029	Water	No Ticket	Damage Prior to Excavation	Closed
19LA1031	Sewer	Exposed	Work on Private Property	Closed
19LA1035	All	No Response	No Operator Response	Closed
19LA1036	All	No Response	No Operator Response	Closed
19LA1037	All	No Response	No Operator Response	Open
19LA1038	Gas	Damage	No Operator Response	Open
19LA1039	Gas	Exposed	No Operator Response	Closed
19LA1041	All	No Response	No Operator Response	Closed
19LA1042	Gas	Damage	Failed to Delineate	Open
19LA1062	Gas	No Ticket	Fatality-Damage, Did Not Mark	Open
19LA1044	Gas	Incident	Safety Procedures Not Followed, Resulted in Hit	Closed
19LA1052	Sewer	Exposed	Exposed Line	Closed

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19LA1053	Gas	Exposed	Exposed During Installation of Parking Lot Driveway	Closed
19LA1054	Gas	Exposed	Exposed During Tree Trunk Removal	Closed
19LA1055	Unidentified	Exposed	Abandoned Line Exposed During a Retaining Wall Retrofit	Closed
19LA1056	Unidentified	No Response	Guard Rail Installation on I-5	Closed
19LA1057	Gas	No Response	No Response	Open
19LA1058	Gas	No Response	No Response	Open
19LA1063	Unidentified	Exposed	Exposed an Unknown Wire Working on School Parking Lot Driveway	Closed
19LA1064	Street Lights	No Ticket	No Ticket Prior to excavation	Closed
19LA1065	Electric	Exposed	Homeowner Exposed an During Yard Work	Closed
19LA1066	Unidentified	Exposed	Abandoned Line	Closed
19LA1067	Gas	Exposed	Facility Damaged	Open
19LA1068	Gas	Exposed	Facility Damaged	Open
19LA1069	Gas	Exposed	Facility Damaged	Open
19LA1070	Gas	No Ticket	No Ticket Prior to excavation	Closed
19LA1045	Unknown	Exposed	Exposed Lines	Closed
19LA1046	Unknown	Exposed	Exposed Lines	Closed
19LA1047	Gas/Water	Exposed	Exposed Lines	Closed
19LA1048	Unidentified	Exposed	Exposed Lines	Closed
19LA1050	Gas	No Response	No Response	Closed
19LA1051	Water	Exposed	No Response	Closed
19LA1059	Unidentified	Exposed	Exposed Lines	Closed
19LA1060	Gas/Water	Exposed	Exposed Lines	Closed
19LA1061	Gas	No Response	No Response	Closed
19SA1000	Gas	Damaged	Unmarked Damaged Line	Closed
19SA1001	Gas	Damaged	Unmarked, Abandoned Line	Closed
19SA1002	Telecom	Damaged	Conduit Damaged	Closed
19SA1003	Sewer Line	Exposed	Unmarked Exposed Line	Closed
19SA1004	Water	Exposed	Abandoned Line	Closed
19SA1005	Gas	Exposed	Unmarked Exposed Line	Closed
19SA1006	Gas	Exposed	Abandoned Line Damaged	Closed
19SA1007	Water	Exposed	Unmarked Line	Closed

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19SA1008	Water	Exposed	Unmarked Line	Closed
19SA1009	Gas	Exposed	Unmarked Line	Closed
19SA1010	Unknown	Exposed	Unmarked Line	Closed
19SA1011	Telecom	Damaged	Unmarked Line	Closed
19SA1012	Gas	Exposed	Unmarked Line	Closed
19SA1013	Gas	Exposed	Unmarked Line	Closed
19SA1014	Telecom	Damaged	Unmarked Line	Closed
19SA1015	Pool Line	Exposed	Abandoned Line	Closed
19SA1016	Gas	Exposed	Unmarked Line	Closed
19SA1017	Gas	Damaged	Unmarked Line	Closed
19SA1018	Sewer	Exposed	Unmarked Line	Closed
19SA1019	Water	Exposed	Unmarked Line	Closed
19SA1020	Gas	Exposed	Unmarked Line	Closed
19SA1021	Unidentified	Exposed	Unmarked Line	Closed
19SA1022	Telecom	Damaged	Unmarked Line	Closed
19SA1023	Gas	Exposed	Damaged Line Failed to Use Hand Tools in the Tolerance Zone	Closed
19SA1024	Gas	Damaged	Unmarked Line	Closed
19SA1025	Unidentified	Exposed	Unmarked Line	Closed
19SA1026	Telecom	No Response	No Response Mediated	Closed
19SA1027	Unidentified	Exposed	Unmarked Line	Closed
19SA1028	Unidentified	Damaged	Unmarked Line	Closed
19SA1029	Telecom	Damaged	Unmarked Line	Closed
19SA1030	Water	Damaged	Unmarked Line	Closed
19SA1031	Telecom	Exposed	Unmarked Line	Closed
19SA1032	Gas	Exposed	Unmarked Line	Closed
19SA1033	Telecom	Exposed	Unmarked Line	Closed
19SA1034	Water	Damaged	Unmarked Line	Closed
19SA1035	Telecom	Damaged	Unmarked Line	Closed
19SA1036	Private Well Line	Damaged	Unmarked Line	Closed
19SA1037	Gas	Exposed	Unmarked Line	Closed
19SA1038	Telecom	Damaged	Abandoned Line	Closed
19SA1039	Telecom	Damaged	Unmarked Line	Closed
19SA1040	Telecom	Damaged	Abandoned Line	Closed
19SA1041	Telecom	Damaged	Unmarked Line	Closed
19SA1042	Gas	Exposed	Unmarked Line	Closed
19SA1043	Telecom	Damaged	Unmarked Line	Closed
19SA1044	Gas	Exposed	Unmarked Line	Closed
19SA1045	Gas	Exposed	Abandoned Line	Closed
19SA1046	Gas	Damaged	Marked Line	Closed
19SA1047	Telecom	Damaged	Marked Line	Closed
19SA1048	Water	Exposed	Unmarked Line	Closed
19SA1049	Telecom	Damaged	Unmarked Line	Closed
19SA1050	Electric	Exposed	Unmarked Line	Closed

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19SA1051	Water	Exposed	Unmarked Abandoned Line	Closed
19SA1052	Gas	Exposed	Unmarked Abandoned Line	Closed
19SA1053	Gas	Exposed	Unmarked Abandoned Line	Closed
19SA1054	Unidentified	Exposed	Concrete Encasement Exposed	Closed
19SA1055	Telecom	Exposed	Unmarked Line	Closed
19SA1056	Water	Exposed	Abandoned Line	Closed
19SA1057	Water	Damaged	Unmarked Line	Closed
19SA1058	Telecom	Damaged	Unmarked Line	Closed
19SA1059	Water	Damaged	Unmarked Line	Closed
19SA1060	Unidentified	Exposed	Unmarked	Closed
19SA1061	Unidentified	Exposed	Unmarked	Closed
19SA1062	Electric	Damaged	Abandoned Line	Closed
19SA1063	Gas	Exposed	Abandoned Line	Closed
19SA1064	Telecom	Damaged	Marked Line	Closed
19SA1065	Gas	No Response	No Response Mitigated	Closed
19SA1066	Water	Exposed	Unmarked Line	Closed
19SA1067	Unidentified	Exposed	Unmarked	Closed
19SA1067	Gas	Damaged	Unmarked Line	Closed
19SA1068	Water	Exposed	Unmarked Line	Closed
19SA1069	Telecom	Damaged	Unmarked Line	Closed
19SA1070	Private Irrigation	Exposed	Damaged Line	Closed
19SA1071	Unidentified	Exposed	Exposed Marked Line	Closed
19SA1072	Unidentified	Exposed	Unmarked Line	Closed
19SA1073	Water	Exposed	Unmarked Line	Closed
19SA1074	Unidentified	Exposed	Unmarked Line	Closed
19SA1075	Gas	Damaged	Private Gas Service	Closed
19SA1076	Water	Exposed	Private Irrigation Line	Closed
19SA1077	Telecom	Exposed	Exposed Unmarked Telecom Line	Closed
19SA1078	Water	Exposed	Unmarked Line	Closed
19SA1079	Gas	Exposed	Abandoned Line	Closed
19SA1080	Telecom	Exposed	Unmarked Line	Closed
19SA1081	Water	Damaged	Private Water Line	Closed
19SA1082	Sewer	No Show	No Show Mediated	Closed
19SA1083	Electric	No Show	No Show Mediated	Closed
19SA1084	Electric	Damaged	Abandoned Line	Closed
19SA1085	Gas	Exposed	Private Gas Service	Closed
19SA1086	Unidentified	Exposed	Abandoned Line	Closed
19SA1087	Gas	Damaged	Coating on Marked Gas Line Damaged	Closed
19SA1088	Telecom	Exposed	Unmarked Line	Closed

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19SA1089	Gas	Exposed	Unmarked Line	Closed
19SA1090	Telecom	Exposed	Unmarked Line	Closed
19SA1091	Telecom	Damaged	Unmarked Line	Closed
19SA1092	Unidentified	Damaged	Unmarked Line	Closed
19SA1093	Unidentified	Exposed	Unmarked Line	Closed
19SA1094	Telecom	Damaged	Unmarked Line	Closed
19SA1095	Telecom	Damaged	Unmarked Line	Closed
19SA1096	Gas	Damaged	Unmarked Line	Closed
19SA1097	Gas	Damaged	Unmarked, Abandoned Line	Closed
19SA1098	Gas	Damaged	Unmarked Line	Closed
19SA1099	Telecom	Exposed	Unmarked Line	Closed
19SA1100	Electric	Exposed	Unmarked Line	Closed
19SA1101	Gas	Damaged	Marked Line	Closed
19SA1102	Telecom	Damaged	Unmarked Line	Closed
19SA1103	Unidentified	Exposed	Unmarked Line	Closed
19SA1104	Private Irrigation	Exposed	Unmarked Line	Closed
19SA1105	Gas	Exposed	Unmarked Line	Closed
19SA1106	Water	Damaged	Marked Line	Closed
19SA1107	Telecom	Damaged	Unmarked Line	Closed
19SA1108	Gas	No Response	No Response Mediated	Closed
19SA1109	Gas	Damaged	Marked Line	Closed
19SA1110	Gas	Damaged	Marked Line	Closed
19SA1111	Telecom	Damaged	Unmarked Line	Closed
19SA1112	Gas	Damaged	Marked Line	Closed
19SA1113	Electric	Damaged	Unmarked Line	Closed
19SA1114	Electric	Damaged	Unmarked Abandoned Line	Closed
19SA1115	Gas	Damaged	Unmarked Line	Closed
19SA1116	Multiple	No Response	No Response Mediated	Closed
19SA1117	Telecom	No Response	No Response Mediated	Closed
19SA1118	Water	Damaged	Unmarked Line	Closed
19SA1119	Gas	Damaged	Unmarked Line	Closed
19SA1120	Telecom	Damaged	Unmarked Line	Closed
19SA1121	Gas	Damaged	Unmarked Line	Closed
19SA1122	Gas	Damaged	Unmarked Line	Closed
19SA1123	Gas	Damaged	Unmarked Line	Closed
19SA1124	Telecom	No Response	No Response Mediated	Closed
19SA1125	Electric	Damaged	Unmarked	Closed
19SA1126	Sewer	Exposed	Excavator Did Not Have a Ticket	Closed
19SA1127	Cable	Damaged	Unmarked Line	Closed
19SA1128	Water	Exposed	Excavator Did Not Have a Ticket, Unmarked Line	Closed

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19SA1129	Rock	Exposed	Struck a Buried Rock Thought to be a Utility	Closed
19SA1130	Sewer	Exposed	Unmarked Line	Closed
19SA1131	Diesel	Damaged	Unmarked Abandoned Line	Closed
19SA1132	Telecom	Damaged	Unmarked Line	Closed
19SA1133	Telecom	Damaged	Marked Line	Closed
19SA1134	Gas	Damaged	Marked Line	Closed
19SA1135	Telecom	Damaged	Marked Line	Closed
19SA1136	Gas	Damaged	Marked Line	Closed
19SA1137	Gas	Damaged	Marked Line	Closed
19SA1138	Telecom	Damaged	Unmarked Line	Closed
19SA1139	Gas-Private Property	Damaged	Unmarked Line	Closed
19SA1140	Gas-Private Property	Exposed	Unmarked Line	Closed
19SA1141	Water-Private Property	Damaged	Unmarked Line	Closed
19SA1142	Electric	Damaged	Unmarked Line	Closed
19SA1143	Electric	Damaged	Unmarked Line	Closed
19SA1144	Water	Damaged	Unmarked Line	Closed
19SA1145	Gas	Damaged	Unmarked Line	Closed
19SA1146	Telecom	Damaged	Unmarked Line	Closed
19SA1147	Telecom	Damaged	Unmarked Line	Closed
19SA1148	Unknown	Damaged	Unmarked Line	Closed
19SA1149	Gas	Damaged	Unmarked Line	Closed
19SA1150	Gas	Damaged	Unmarked Line	Open
19SA1151	Electric	Exposed	Unmarked Line	Open
19SA1152	Gas	Damaged	Unmarked Line	Open
19SA1153	Gas	Damaged	Unmarked Line	Open
19SA1154	Telecom	Exposed	Unmarked Line	Open
19SA1155	Electric	Damaged	Unmarked Line	Open
19SA1156	Water	Damaged	Unmarked Line	Open
19SA1157	Gas	Exposed	Unmarked Line	Open
19SA1158	Gas	Exposed	Unmarked Line	Open
19SA1159	Gas	Exposed	Unmarked Line	Open
19SA1160	Telecom	Damaged	Unmarked Line	Open
19SA1161	Electric	Exposed	Unmarked Line	Open
19SA1162	Unknown	Damaged	Unmarked Line	Open
19SA1163	Gas	Exposed	Unmarked Line	Open
19SA1164	Telecom	Damaged	Unmarked Line	Open
19SA1165	Water	Damaged	Unmarked Line	Open
19SA1166	Water	Exposed	Unmarked Line	Open
19SA1167	Unknown	Exposed	Unmarked Line	Open
19SA1168	Electric	Exposed	Unmarked Line	Open

Case #	Facility Type	Reason for Investigation	Brief Description	Status
19SA1169	Gas	Exposed	Unmarked Line	Open
19SA1170	Telecom	Damaged	Unmarked Line	Open



APPENDIX B: EDUCATION & OUTREACH

An overview of the Board’s work to create awareness about its existence, its mission, and its work to create regulations, policies, and standards from January 1, 2019 to December 31, 2019.

This section is broken down into four sections: “Materials, Publications & Media,” “Regulations & Standards Development,” “Presentations, Meetings & Forums,” and “Exercises & Events.”

MATERIALS, PUBLICATIONS & MEDIA ATTENTION

Name	Date Published	Brief Description	Audience Targeted
“O” Magazine Article	01/2019	Article featured an interview with Member Del Toro in which she discussed the Board and its safety mission.	Public
“Entrepreneur” Magazine Article	01/2019	Article featured an interview with Member Del Toro in which she discussed the Board and its safety mission.	Public
2018 Results Report	01/09/2019	Report details the work done by the Board in 2018, and includes the activities performed to execute the Board’s annual plan.	Lawmakers, Stakeholders, and the Public

Name	Date Published	Brief Description	Audience Targeted
2019 Plan	01/09/2019	Report acts as a guide for the Board's activities and decisions throughout the year by outlining the work planned to meet the Board's strategic goals.	Lawmakers, Stakeholders, and the Public
2019 Cost Report	01/15/2019	Report discusses the Board's projected expenses, which are funded by a fee paid by members of the one-call centers.	One-Call Center Members, Stakeholders, and the Public
Second Annual Report to the Governor & Legislature	02/01/2019	Report provides an overview of the Board's Results Report and Annual Plan, and is required by all state agencies per GOV 10231.5.	Lawmakers & Stakeholders
"San Diego Grown" Magazine Article	03/2019	Article discussed the Board's area of continual excavation regulation development and the impact the requirements will have on farmers once they take effect.	Farmers
Dig Safe Board Fee FAQs	04/09/2019	Document answered frequently asked questions staff received from one-call center members once they started receiving their fee notices in February and March.	One-Call Center Members
Excavation Safety Guidelines for Wildfire Cleanup	04/11/2019	Document discussed guidelines for safe excavation during disaster cleanup, and addressed delineation requirements, the need to call 811 prior to excavation, who is required to have a ticket, and the importance of communicating with utility operators.	Contractors and Subcontractors
"American Society of Safety Professionals Journal" Article	06/2019	Article featured an interview with Member Del Toro in which she discussed the Board and its safety mission.	Safety Professionals

Name	Date Published	Brief Description	Audience Targeted
Fox 5 San Diego Web Article	06/18/2019	Article the station's website that discussed SDG&E's push to get homeowners and construction crews to call 811 prior to digging and included information about the newly formed Dig Safe Board, and the enforcement measures that will begin July 1, 2020.	Public
KABC Los Angeles Saturday Morning News and Website	08/10/2019	On August 9, 2019 the Board's Chief of Investigations, Jason Corsey was interviewed by a reporter from KABC at CARCGA's Mock Strike Event in Irvine. The interview discussed the importance of excavation safety and information about the Board and was included in a story that aired the next morning.	Public
"dp-PRO" Magazine Article	Winter 2019	Article discussed the Board's area of continual excavation regulation development and the impact the requirements will have on farmers once they take effect.	All Stakeholders, National
DigAlert Annual Newsletter Article	December 2019		Excavators & Operators
USA North 811 Annual Newsletter Article	December 2019		Excavators & Operators

REGULATION & STANDARDS DEVELOPMENT

Regulation or Standard	Type of Outreach	Date of Outreach	Brief Description	Audience Targeted
Reasonable Care	Stakeholder Engagement	08/2018-02/2019	The Board asked CARCGA's SSIP committee to provide their perspective on standards development regarding road grading.	Excavators, Operators, & Locators
AB 1914 Implementation	Surveys	03/2019-04/2019	Two surveys designed to solicit feedback from excavators and utilities regarding power tool use in the tolerance zone prior to positive location of underground facilities.	Excavators & Utilities
AB 1914 Implementation	Workshop	03/28/2019	Workshop held in Sacramento inviting open discussion regarding power tool use in the tolerance zone prior to positive location of underground facilities	Excavators & Utilities
Reasonable Care	Workshop	04/24/2019	Workshop held in Sacramento inviting open discussion regarding the Board's development of reasonable care standards for hand tool use in the tolerance zone and road grading activities	Excavators & Utilities
Area of Continual Excavation	Conversation Facilitation	06/18/2019	Board staff facilitated a conversation between a group of farmers and the one-call centers in Bakersfield regarding the area of continual excavation ticket format.	Farmers, One-Call Centers

PRESENTATIONS, MEETINGS & FORUMS

Name	Type of Outreach	Date of Outreach	Brief Description	Audience Targeted
SARBS of CWEA Winter Seminar	Presentation	01/30/2019	Member Del Toro made a presentation to members of the Santa Ana River Basin Section of the California Water Environment Association in Orange where she discussed the creation of the Dig Safe Board and its purpose and function to improve safety.	Excavators & Safety Professionals
2019 Safety Symposium	Presentation	02/07/2019	Staff made a presentation at the Safety Center's 2019 Safety Symposium regarding excavation safety in wildfire recovery areas.	Excavators, Utilities, & the Public
OSFM 2019 Pipeline Safety Seminar	Presentation	04/18/2019	Staff made a presentation at the Office of the State Fire Marshal's 2019 Pipeline Safety Seminar in Long Beach about the Board and its safety mission.	Utilities
Kern Co. Farm Bureau Meeting	Presentation	04/18/2019	Member Voss made a presentation at the Kern County Farm Bureau updating farmers about the development of the Board's area of continual excavation regulations.	Farmers
2019 Spring Open Forum	Forum	04/01/2019-05/13/2019	Staff organized an open forum for Board stakeholders to ask questions, voice concerns, and share safety issues with the Board. The responses were discussed at the Board's May meeting in San Francisco	All Board Stakeholders

Name	Type of Outreach	Date of Outreach	Brief Description	Audience Targeted
NAPSR Western Region Conference	Conference	04/15/2019-04/19/2019	Staff attended the National Association of Pipeline Safety Representatives Western Region Conference in San Diego. The annual conference is an opportunity for pipeline safety regulators from around the country to discuss damage prevention and how to better promote safety.	Safety Regulators
DigAlert-SDG&E Safety Awareness Event	Presentation	06/26/2019	Staff attended Dig Alert and San Diego Gas and Electricity's underground safety awareness breakfast in Escondido and gave a short presentation about the Board and its safety mission.	Excavators
USA North 811-PG&E Safety Breakfast	Meeting	08/15/2019	Member Voss attended USA North 811's Safety Breakfast in Bakersfield. The event discussed the 811 process and safe digging practices.	Contractors, Utilities, Locators, and Farmers
Senator Hill Field Office Visit	Presentation	08/22/2019	Staff visited Senator Hill's Field Office in San Mateo to provide a presentation about the Board's mission and role in improving safety in California.	Lawmakers
2019 Education & Outreach Meeting	Meeting	09/10/2019	Staff planned, executed, and organized the Board's Second Annual Education and Outreach meeting in Los Angeles. The meeting featured presentations, a workshop discussion about education and outreach needs, and a panel discussion on improving communication between excavators and utilities.	All Board Stakeholders

Name	Type of Event	Date	Brief Description	Audience Targeted
USA North 811-PG&E Safety Breakfast	Presentation	09/19/2019	Staff attended USA North 811 & PG&E's Safety Breakfast in Salinas and gave a short presentation about the Board and its safety mission.	Contractors, Utilities, and Locators
DigAlert Safety-SoCalGas Awareness Event	Presentation	09/25/2019	Staff attended DigAlert & SoCalGas' underground safety awareness breakfast in Chino and gave a short presentation about the Board and its safety mission.	Excavators
USA North 811-PG&E Safety Breakfast	Presentation	10/10/2019	Staff attended USA North 811 and PG&E's Safety Breakfast in South San Francisco and gave a short presentation about the Board and its safety mission.	Contractors, Utilities, and Locators
USA North 811-PG&E Safety Breakfast	Presentation	10/17/2019	Staff attended USA North 811 & PG&E's Safety Breakfast in Santa Rosa and gave a short presentation about the Board and its safety mission.	Contractors, Utilities, and Locators
34 th Annual Northern Safety Day	Presentation	10/23/2019	Staff made a presentation at the California Water Environment Association's 2019 Safety Day in Woodland regarding the Board's creation and its purpose and function to improve safety.	Excavators & Safety Professionals
DigAlert-SoCalGas Safety Awareness Event	Presentation	10/30/2019	Staff attended DigAlert and SoCalGas' underground safety awareness breakfast in Northridge and answered questions about the Board and its safety mission.	Excavators

Name	Type of Outreach	Date of Outreach	Brief Description	Audience Targeted
USA North 811-PG&E Safety Breakfast	Presentation	10/31/2019	Staff attended USA North 811 and PG&E's Safety Breakfast in San Ramon and gave a short presentation about the Board and its safety mission	Contractors, Utilities, and Locators
USA North 811-PG&E Safety Breakfast	Presentation	11/19/2019	Staff attended USA North 811 and PG&E's Safety Breakfast in Stockton and gave a short presentation about the Board and its safety mission	Contractors, Utilities, and Locators
SMUD-PG&E Safety Breakfast	Presentation	11/20/2019	Staff attended SMUD and PG&E's Safety Breakfast in Sacramento and gave a short presentation about the Board and its safety mission	Contractors, Utilities, and Locators
United Contractors Insurance & Safety Committee	Presentation & Discussion	12/04/2019	Member Bianchini and staff participated in a discussion about upcoming Board regulations and investigations. They also discussed the importance of UCON member participation in Board meetings and answered questions about damage reporting requirements.	Contractors
USA North 811-PG&E Safety Breakfast	Presentation	12/04/2019	Staff attended USA North 811 and PG&E's Safety Breakfast in Milpitas which included a Spanish session and an English session. Staff gave a short presentation about the Board and its safety mission	Contractors, Utilities, and Locators
DigAlert-SDG&E Annual Seminar	Presentation	12/11/2019	Staff attended DigAlert and SDG&E's Annual Safety Seminar for excavators in Catalina Islands and made a presentation about the Board and its safety mission.	Excavators

Appendix A: Education & Outreach

Name	Type of Outreach	Date of Outreach	Brief Description	Audience Targeted
LiUNA Underground Economy Enforcement Task Force Meeting	Networking	04/23/2019, 05/29/2019, 07/17/2019, 10/22/2019	Staff attended the Laborers' International Union of North America's Underground Economy Enforcement Task Force Meeting in Sacramento to network and share the Board's mission with its allied partners who share a common interest in safety.	Labor Union
DigAlert Annual & Board Meetings	Presentation	04/17/2019, 07/17/2019, 10/16/2019	Staff attended DigAlert's Annual Meeting in Corona, and its Board Meetings via phone to provide an update about the Board and answer any questions from the organization's members.	One-Call Center Members
USA North 811 Annual & Board Meetings	Presentation	05/01/2019, 07/31/2019, 10/30/2019	Staff attended USA North 811's Annual and Board Meetings in Concord to provide an update about the Board and answer any questions from the organization's members.	One-Call Center Members
CARCGA Meetings	Presentation	06/13/2019, 08/08/2019, 10/10/2019, 12/12/2019	Staff attended CARCGA's August meeting in Winters, and the remaining meetings via phone to provide an update about the Board and answer any questions from the organization's members.	Excavators, Utilities, & Locators

EVENTS & EXERCISES

Name	Type of Event	Date	Brief Description	Audience Targeted
SCCA 16 th Annual Legislative Day	Meeting & Networking	03/25/2019	Staff attended the Southern California Contractors Association's annual event in Sacramento to meet with attendees and introduce them to the Board and its safety mission.	Lawmakers, Trade Councils, Labor Unions, and Contractors
SRBX Safety Expo	Training & Expo	04/17/2019-04/18/2019	Staff attended the Sacramento Regional Builder's Exchange's two-day safety expo in Sacramento where they had a booth set up to introduce attendees to the Board and its safety mission, and attend several of the training sessions offered.	Construction Industry
CARCGA Mock-Strike	Demonstration	04/18/2019	Staff attended and participated in CARCGA's 2019 Northern California Mock Strike Demonstration at Cosumnes River College in Sacramento. Staff demonstrated how the Board would respond to future dig-in accidents, and delivered a speech about the Board and its safety mission.	Construction Industry
UCON 2019 Scholarship Cornhole Tournament	Networking	05/09/2019	Staff attended the United Contractors 2019 Cornhole Tournament in Livermore. The event is attended by representatives from over 500 contractor, vendor, engineering, and design firms.	Contractors

Appendix A: Education & Outreach

Name	Type of Event	Date	Brief Description	Audience Targeted
SMUD 2019 Gas Pipeline Exercise	Safety Exercise	06/06/2019	Staff attended the Sacramento Municipal Utility District's annual exercise in Sacramento, designed to develop and maintain relationships between first responders, investigating agencies, and gas pipeline owners.	Utilities & First Responders
CARCGA Mock-Strike	Demonstration	08/09/2019	Staff attended and participated in CARCGA's 2019 Southern California Mock-Strike Demonstration at the Orange County Fire Authority Training Facility in Irvine. Staff demonstrated how the Board would respond to future dig-in accidents, and delivered a speech about the Board and its safety mission.	Excavators, Utilities, & Locators



GLOSSARY

ABANDONED LINE

Refers to a subsurface installation that is no longer in service and has been physically disconnected from a portion of the underground utility line that is in use for storage or conveyance of service.

ADMINISTRATIVE PROCEDURE ACT

Also referred to as ACA, this California law governs procedures for state administrative agencies to propose and issue regulations.

ANNUAL TICKET

Also referred to as an Area of Continual Excavation Ticket or ACE Ticket for short. This ticket can involve either a flood control or an agricultural facility and expires after one year, rather than 28 days.

CALIFORNIA PUBLIC UTILITIES COMMISSION

Also referred to as the PUC or CPUC, this state agency regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies.

COMMON GROUND ALLIANCE

Also known as CGA, this national non-profit was formed in 2000 and is dedicated to preventing damage to underground infrastructure by promoting effective damage prevention practices and shared responsibility among all stakeholders

CGA BEST PRACTICES

An annual guide released by the Common Ground Alliance used as a resource in the industry for underground damage prevention.

CALIFORNIA REGIONAL COMMON GROUND ALLIANCE

Also known as CARCGA, this non-profit organization is a Regional Partner of the Common Ground Alliance.

SUBSURFACE SAFETY AND INCIDENT PREVENTION COMMITTEE

Also known as the SSIP Committee under CARCGA, this committee is responsible for discussing safety and incident prevention issues around subsurface installations, and making recommendations to CARCGA and the Dig Safe Board.

CONTRACTORS STATE LICENSE BOARD

Also referred to as CSLB, this State agency works to protect California consumers by licensing and regulating the California's construction industry.

CROSS BORE

The intersection of an existing underground utility or underground structure by a second utility installed using trenchless technology, directional bore. This results in an intersection of the utilities, compromising the integrity of either or both utility/underground structure.

DAMAGE

Any impact on or removal of support from a subsurface installation as a result of excavation or demolition which according to the operating practices of the facility operator would necessitate the repair of such.

DELINEATE

This term is used to describe when an excavator must mark the proposed work zone with white paint prior to an operator locating and marking any underground facilities within the work zone.

DIG-IN

This term was coined by the industry to describe when an underground facility is struck by a machine or tool during excavation.

EXCAVATION

Any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced, in any way, by means of tools, or explosives.

GEOGRAPHIC INFORMATION SYSTEM

Also referred to as GIS, this system is used to gather, manage and analyze data and can organize layers of information into visualizations using maps and 3D scenes.

GROUND-PENETRATING RADAR

Also referred to as GPR, this is a tool that uses electromagnetic radiation to detect and create images of subsurface installations, and can measure the length, width and depth of these installations.

HAND TOOL

Refers to a piece of excavation equipment that uses human power, and is not powered by any motor, engine, hydraulic, or pneumatic device.

HIGH-PRIORITY SUBSURFACE INSTALLATION

A term used to refer to certain types of utility installations, including petroleum pipelines, certain high-pressure natural gas pipelines, pressurized sewage pipelines, and certain high-voltage electric supply lines, conductors, or cables.

LOCATE & FIELD MARK

At the location to be excavated, to find and mark the locations of subsurface utility installations before work begins. Methods for marking are outlined in Appendix B, “Uniform Color and Marking Guide” in the Common Ground Alliance publication “Guidelines for Operator Facility Field Delineation.”

LOCATOR

A representative from a utility or third-party contractor who locates and marks underground infrastructure in a proposed excavation zone, using colored paint.

NOTIFICATION

The completed delivery of information to the person or entity to be notified, and the receipt of same by such person in accordance with this chapter. The delivery of information includes, but is not limited to, the use of any electronic or technological means of data transfer.

OFFICE OF THE STATE FIRE MARSHAL

Also referred to as OSFM, this State agency is a part of the California Department of Forestry and Fire Protection, and works to protect life and property through the development and application of fire prevention, engineering, training and education, and enforcement.

PIPELINE SAFETY DIVISION

This division is housed within the Office of the State Fire Marshal, and its staff is responsible for ensuring hazardous liquid pipeline operators comply with

federal and state pipeline safety laws and regulations. They are also responsible for investigating ruptures, fires, or accidents.

OPERATOR

Also referred to as a subsurface installation owner or utility owner, is any person, corporation, public agency, or other entity that owns, operates, or maintains a subsurface installation.

PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION

Also referred to as PHMSA, this Federal Agency under the Department of Transportation is responsible for enforcing regulations on the operation of pipeline transportation.

POSITIVE RESPONSE

Required by law, and allows the excavator to know whether an underground facility owner has marked the requested area prior to the beginning of the excavation, and may include the following: markings or documentation left at the job site, callback, fax, or automated response system.

ELECTRONIC POSITIVE RESPONSE

A utility operator's communication to an excavator, through a regional "811" call center, that indicates the status of an operator's response to a locate request.

ENHANCED ELECTRONIC POSITIVE RESPONSE

Refers to a system that allows underground facility owners to provide additional information like photographs, maps, and other documentation to excavators electronically via the one-call centers. This information is usually attached to the ticket.

POTHOLE

A test hole to expose a subsurface installation to determine the horizontal and vertical location of the facility.

PROBE ROD

Steel or fiberglass rod used to locate soft zones under compacted areas, footings, and buried facilities.

QUALIFIED PERSON

A person who completes a training program in accordance with the requirements of Section 1509 of Title 8 of the California Code of Regulations Injury and Illness Prevention Program, that meets the minimum locators training guidelines and practices published in the most recent version of the Best Practices guide of the Common Ground Alliance.

REGIONAL NOTIFICATION CENTER

Also referred to as a “one-call center,” this is a non-profit association of operators that provides warning of excavations or other work close to existing facilities to protect them from damage, removal, relocation, or repair. California has two regional notification centers: USA North 811, Located in Concord, CA and covers Northern California from the Oregon border to Bakersfield. Underground Service Alert of Southern California (DigAlert) covers Southern California from Bakersfield to the Mexican border.

SUBSURFACE INSTALLATION

Also referred to as an “underground facility, or underground infrastructure,” this is any underground pipeline, conduit, duct, wire, or other structure, except non-pressurized sewer lines, non-pressurized storm drains, or other non-pressurized drain lines.

TOLERANCE ZONE

Refers to a set distance from a subsurface installation that an excavator may dig without having to use hand tools. This is usually 24-inches, or two feet on either side of the subsurface installation, and is marked by the operator.

USA TICKET

More commonly known as a “ticket”, this is a locate request submitted by an excavator through the regional notification centers prior to any excavation. Each locate request is issued a number. USA stands for Underground Service Alert.

UNDERGROUND FACILITIES SAFE EXCAVATION BOARD

The legal name by which the Dig Safe Board was founded. However, in the first quarter of 2018 Board members and staff recognized that the Board’s name was hard for people to remember, and created confusion among other government agencies, stakeholders, and the public. For this reason, the Board chose to describe itself as “The Dig Safe Board.”

VACUUM EXCAVATION

Vacuum excavation equipment uses high-pressure air or water to remove the soil, which is sucked through a vacuum hose and deposited into a debris tank for later disposal or backfilling the hole.

WORKING DAY

Used for the purposes of determining excavation start date and time, means a weekday Monday through Friday, from 7:00 a.m. to 5:00 p.m., except for federal and state holidays, as defined in Section 19853, or as otherwise posted on the website of the regional notification center.

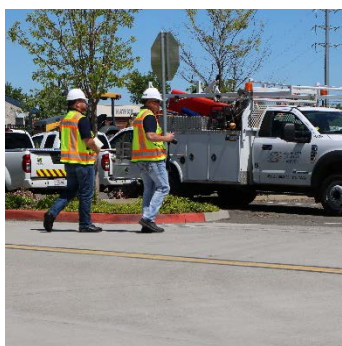


BOARD STAFF

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Jeff Brooks, Attorney

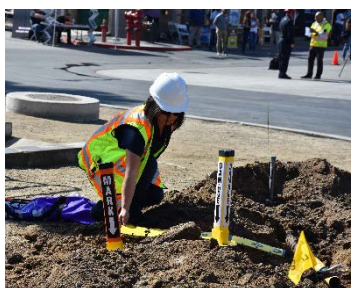
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