

JPIASource

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ACWA JPIA Risk Management for the Water Industry

Call 811 Before You Dig!





In 2022, the Common Ground Alliance (CGA) reported that underground utility lines are damaged every six minutes nationwide because someone digs without first calling 811. This is the most common cause of underground utility strikes, and why agencies must know what is underground before excavating.

California Law defines “excavation” as any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced by means of tools, equipment, or explosives in any of the following ways: grading, trenching, digging, ditching, drilling, auguring, tunneling, scraping, cable or pipe plowing, and driving, or any other way ([California Government Code 4216](#)).

If a utility owner has underground utilities, they must become a member of 811. Utility owners must respond to locate requests within two working days to mark their utility lines accurately, so excavators know where it is safe to dig. Marking can be done using spray paint or flags, with the color representing the utility. Line locators must be properly trained and “qualified” by their employer as underground utility locators. The [JPIA Qualified Underground Line Locator Form](#) can be utilized as a template.

Five Steps to Excavating Safely

1. Pre-Mark the Proposed Dig Area

Anyone who digs (DIYer, contractor, or professional excavator) must pre-mark the excavation area using white

stakes, white paint, white flags, white chalk, or baking flour. Pre-marking the dig area allows utility owners to easily identify your planned excavation area and understand the project’s size and scope.

The type of pre-markings depends on the type of work:

- Large Area
 - o Use bracket corners with distance
- Continuous Line
 - o Use dash marks
- Single Point
 - o Enclose with dash marks



2. Contact 811 Before You Dig

Excavators must follow California law and contact their local 811 service ([USA North 811](#) or [DigAlert](#)) at least two business days, not counting the date of request, before digging to ensure they dig safely and avoid damaging underground utilities. Tickets should not be submitted more than 14 days in advance. Excavators can contact their local 811 service by calling 811 or submitting an eTicket online. This service will notify utility owners to mark underground utilities, such as gas, water, electric, telecommunications, and sewage lines in the designated area.



An emergency notification is a sudden or unexpected occurrence involving a clear and imminent danger that requires immediate action to prevent or mitigate a loss or damage to life, health, property, or essential public service.

If an excavator needs to excavate in an emergency, every attempt should be made to mark lines before excavation, including submitting an emergency ticket. Having emergency contact numbers for local utilities is also a Best Management Practice (BMP). This allows for quick notification communication and response during emergencies.

3. Wait and Follow the Required Times

Excavators may not begin digging before the start date and time listed on their 811 ticket, unless all utilities have fulfilled their response obligation.

An 811 ticket is active in California for 28 calendar days from the date of issuance. Excavators must have an active ticket for the entire duration of their excavation. If work is continued beyond the 28th day, and markings on

the ground are still clearly visible, the 811 ticket can be renewed online or by calling by the end of the 28th day.

If markings are no longer visible, contact your local 811 service to request re-marks from the utility owners. They have two working days to re-mark their underground utilities. The excavator's delineation must also be re-marked if it is no longer visible.

4. Confirm All Utility Owners Have Responded

If a utility owner has failed to respond to your ticket after two working days of submitting a ticket, and the start date and time on your ticket have passed, contact your local 811 service to submit a "no response" notification. This process should be continued every hour. Excavators are encouraged not to dig until all utility owners have responded to the ticket.

If a utility owner does not have any underground utilities in the proposed excavation area, they are required to communicate this before the start date and time on the ticket.



5. Respect the Markings and Dig with Care

Hand tools should be used when digging within the tolerance zone (24 inches from underground utilities outside edge) until the marked facilities are located/exposed. Utility flags, stakes, or paint should be left alone until the project is finished. Reference the Color Code for marking excavation sites below.



If all utility owners agree, excavators working within the tolerance zone may use a hydro-excavator to expose underground utilities. However, additional precautions must be taken to avoid damaging the utilities, such as using the appropriate oscillating nozzle, correct pounds per square inch (psi), and tools with a rubberized coating. Hydro-excavators should be operated by an “Authorized Operator” and used in accordance with the manufacturer’s operating instructions. The JPIA has a sample [Industrial Vacuum Truck and Equipment Operator Authorization](#) form that can be used.

Consequences of Unsafe Digging

According to the CGA, California had 8,994 reported damages to underground utility lines in 2022. Roughly 60 percent of those reported incidents were caused by a backhoe, and the primary root causes were poor excavation practices or no 811 ticket submitted.

According to [California Government Code 4216.4](#), if an excavator causes or discovers damage to an underground utility, the excavator must immediately notify the utility owner or their local 811 service **within 48 hours**, even if the damage looks insignificant. Damages can include breaks, leaks, dents, or nicks.

In the event of a utility line strike:

- Evacuate the area and call emergency services if necessary.
- Notify the utility owner and/or your 811 service.
- Notify the Regional Notification Center within 48 hours of discovering or causing damage to any subsurface installation.
- Avoid touching or repairing the damage.
- Report the incident to the [Damage Information Reporting Tool \(DIRT\)](#).

Underground Safety Board Damage Notification

Report within two hours if the utility damage was:

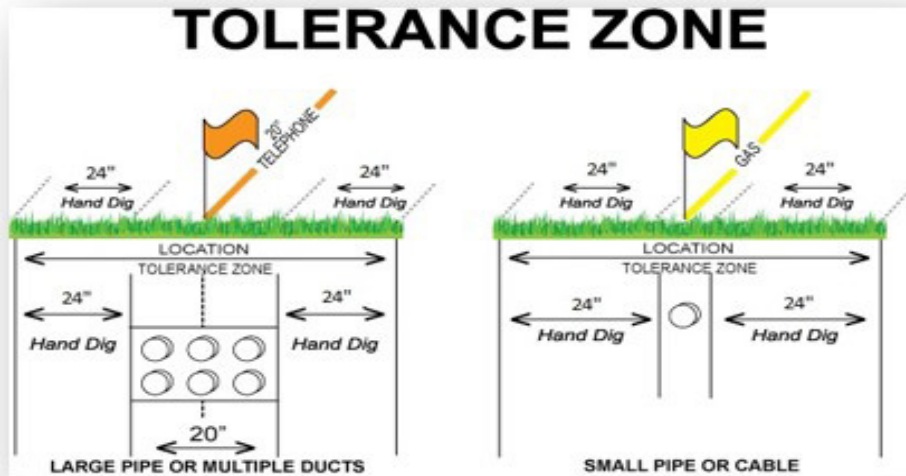
- To underground natural gas or hazardous liquid infrastructure.
- To high priority underground utility infrastructure.
- Caused an injury that requires treatment at a medical facility.
- Caused a fatality.

JPIA Commitment to Excellence Program (C2E) and Best Management Practices and California Law

USA/Underground Line Location is an emphasis in the JPIA’s C2E *Construction* Loss Reduction Focus Category and offers the following best management practices:

- Always contact 811 before digging, even in an emergency.
- Take pictures of markings before excavating.
- Before digging, confirm that the ticket has not expired.
 - o [California Government Code 4216.7](#) states if an excavator digs without a valid ticket and damages a line that hasn’t been identified, they can be responsible for the repair costs.
- All underground utilities must join 811 as a utility owner.
 - o According to [California Government Code 4216.7](#), if an excavator strikes an underground line that the utility owner has not identified, the utility owner can be responsible for repair costs.

By incorporating 811 services into the planning process, excavators can dig safely and efficiently. Following [California Law](#) reduces the potential risk of hitting



underground utilities and protects workers and public safety. If you have any questions or concerns, contact your Risk Control Advisor.

QUIZ

1. **How long is a ticket good?**
 - a. 28 business days
 - b. 28 calendar days
 - c. 14 calendar days
 - d. 2 working days
2. **What is the distance of the tolerance zone from the utilities outside edge?**
 - a. 16 inches
 - b. 18 inches
 - c. 24 inches
 - d. 28 inches
3. **How long do you wait before excavating after submitting a ticket?**
 - a. Two full business days
 - b. After all utilities have responded
 - c. Once my ticket is valid
 - d. All of the above
4. **At what excavation depth must I call 811?**
 - a. Any depth
 - b. 6 inches
 - c. 12 inches
 - d. What is 811?

5. **What is the yellow color code for an underground utility?**
 - a. Communication
 - b. Electric
 - c. Gas
 - d. Sewer

Additional Resources

- JPIA's [Risk Control Manual](#) – Section 12
- JPIA's [Commitment to Excellence \(C2E\)](#) – Construction
- [Common Ground Alliance Best Practices Guide](#)
- [USA North 811](#)
- [DigAlert](#)

P.O. Box 619082 | Roseville | CA 95661-9082
(800) 231-5742 | www.acwajpia.com

