

Earthquake Warning California For Public Safety Organizations and First Responders

Don't Get Caught Off Guard

Earthquakes can happen in California at any time. Public safety organizations and first responders (including but not limited to police, fire fighters, EMTs, and search & rescue) should be appropriately prepared to react and respond quickly when an earthquake occurs, including using earthquake warnings as part of their preparedness efforts.

The California Governor's Office of Emergency Services (Cal OES) invites the public safety sector and first responders to learn about important resources that can help them to prepare and respond when an earthquake happens. This fact sheet outlines some of the resources available through "Earthquake Warning California," California's statewide earthquake warning system, and how they can be applied in various public safety settings and situations.

This document is meant to supplement existing emergency preparedness procedures and help all Californians to learn about available earthquake warning tools and resources to help ensure their safety. Public safety personnel and first responders should review earthquake preparedness plans specific to their organization for full information on what to do in an emergency situation.

Earthquake Warning California

Scientists are still unable to predict earthquakes, but thanks to new technology, individuals and organizations can potentially receive a few seconds notice to take appropriate safety precautions before an earthquake strikes. Earthquake Warning California is the first statewide earthquake warning system in the nation, and includes tools such as:

- **Wireless Emergency Alerts (WEAs)** that deliver no-cost text messages for emergency situations for earthquakes magnitude 5.0 and higher;
- **MyShake App**, a free smartphone application that provides users with an audio and visual warning for earthquakes magnitude 4.5 and higher; and
- **Android Alerts** that use the same ground sensor technology as the MyShake App and are automatically included in Android phones with updated operating systems.

Earthquake Warning California uses technology to detect earthquakes that have already started and ground motion sensors to estimate the earthquake size, location, and impact. When the estimate predicts a strong enough magnitude, the Earthquake

Warning California quickly issues a warning through its various communication channels (MyShake App, etc.) to warn mobile device users nearby that shaking is about to occur. When users receive a warning, they should immediately take steps to protect themselves, such as to drop to the ground, cover their heads with their arms, and hold onto their necks with both hands until shaking stops.

Benefits and Applications

Firefighters and Fire Stations

Earthquake Warning California can give firefighters time to drop, cover, and hold on and decrease the likelihood of injury from falling equipment. Firefighters in the field may enter a dangerous environment and be susceptible to intense shaking, either from an earthquake or an aftershock, that could result in injury or fatality. Additionally, without an automatically activated garage door system, there is the potential for a firetruck to be struck in the station if the doors sustain damage during an earthquake. This would prevent firefighters from responding effectively to an emergency.

A fire station can incorporate Earthquake Warning California resources as follows:

- Install automatic activation system for garage doors to open upon receiving an earthquake warning
- Connect earthquake warnings to station alarm systems to provide immediate warning to firefighters to drop, cover, and hold on
- Install an automatic activation system for backup generators if loss of power occurs
- Add Earthquake Warning California technology to mobile devices for first responders in the field
- Integrate Earthquake Warning California technology into dashboards for firefighters in transit to give drivers time to slow down fire trucks and stop until shaking subsides

Earthquake Warning California Benefits

- Allow firefighters to avoid injuries and death
- Provide time for fire stations to open garage doors and deploy personnel quickly to respond to emergencies post-shaking
- Save others by enabling firefighters to avoid injury
- Educate firefighters to instruct others in the community about Earthquake Warning California

Earthquake Warning California Costs

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- Costs associated with adding a fire station earthquake warning system and automatic activation for fire house garage doors and backup system (estimated ~\$32,000)
- Staff time to add earthquake warnings and response to firefighter routine training

Getting Prepared

When earthquakes happen, rapid reporting allows public and emergency managers to assess potential impacts, determine what type of emergency response will be most effective, and coordinate emergency response efforts. Community preparedness is a key priority in lessening the impact of earthquakes and other natural disasters. Below are five tips that can aid in the preparation process:

- 1. Understand Local Hazard Vulnerabilities.** Assess the community's vulnerability to hazards and prioritize preparedness measures for specific areas. Identify specific infrastructure that could pose a risk in an earthquake, such as overpasses, bridges, gas lines, communication systems, utilities, water services, or construction sites. Damage to infrastructure along transit pathways may severely restrict the abilities of police, fire, and emergency medical services to move quickly after an earthquake.
- 2. Assess Current Earthquake Response Plans.** Determine what day-to-day operations involve and how an earthquake might affect these functions. For example, earthquakes may occur in conjunction with a wildfire, public health crisis, heat wave, or other emergency event. During an emergency, normal communication lines may be interrupted or inundated. Have a plan in place to keep communication lines open during a natural disaster with a mass impact and how to deploy the appropriate teams to provide assistance following an earthquake.
- 3. Download or Enable Earthquake Warning California Resources.** The MyShake App, Android Alerts, and WEAs can supplement existing warning systems and give first responders time to take cover before shaking starts. Organizations should demonstrate to employees what an earthquake warning sounds and looks like. Ensure staff knows how to enable mobile devices to get earthquake warnings, such as turning phone location settings to "always on." Warnings do not override silent and "Do Not Disturb" settings.
- 4. Incorporate Earthquake Warnings into Emergency Training.** Public safety officers and first responders should be familiar with earthquake warning systems and how to use them. Determine what actions are appropriate for each public safety

sector to take if a warning is issued, such as opening fire doors or safely pulling over a police car to take cover.

- 5. Educate the Public on Preparedness.** Public safety organizations and first responders are often on the forefront of community relations efforts and can have an outsized impact in helping the public learn about and adopt resources that can keep them safe in an emergency. Consider adding Earthquake Warning California resources to community presentations on public safety, including how to install or enable mobile technology, and actions to take if they receive an earthquake warning.

For More Information

Earthquake Warning California is a comprehensive program of earthquake warning services managed by the California Governor's Office of Emergency Services (Cal OES). The goal of the program is to provide individuals, organizations, and communities with direct and easily accessible emergency preparedness information and resources to keep individuals and families safe in an emergency situation. Visit the Earthquake Warning California website for the latest tools, news, information, and resources: www.earthquake.ca.gov.

For information, questions, or comments relating to this fact sheet, email Cal OES at: earthquakeinfo@caloes.ca.gov