

OREGON OFFICE OF EMERGENCY MANAGEMENT

Communication Toolkit: Earthquakes and Tsunamis

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Introduction

The intent of the **Communication Toolkit: Earthquakes and Tsunamis** is to assist messaging during and after an earthquake event in Oregon. This toolkit contains information on communications with the media, partners and the public. During an emergency or disaster, the need for timely and accurate information, regarding what happened and what is being done, skyrockets. This toolkit will help coordinate messages.

This toolkit contains templates and suggested talking points. Areas highlighted in yellow are meant to be edited to your specific agency.

Messages to the Public

Key Messages

- Drop, Cover and Hold On.
- Know your tsunami evacuation route.
- Have a family plan and an emergency kit with necessary supplies for at least two weeks.
- Heed the advice of emergency officials regarding evacuations.
- Opt into emergency notification systems.
- Donate cash (not supplies) only to official non-profits organizations.

Expanded Messages

Preparing for an earthquake

- Look for safe places to take cover in areas at home and at work.
- Practice getting to those safe places with practice drills and exercises. Build muscle memory so when an earthquake hits, your body will remember what to do.
- Secure items that could fall during an earthquake. This will increase safety and protect personal property.
 - Fasten large appliances or furniture like refrigerators and bookshelves to the walls.
 - o Put locks inside cabinets to keep them from opening and items falling out.
- Have an emergency kit with necessary supplies for at least two weeks.
- Have a family plan with meeting places near and far, and multiple communication plans.
 - Designate an out-of-state contact. Local phone lines will likely be bogged down but a long distance call may go through.
 - o Text messages may go through easier than a phone call.

During an earthquake

- Drop, Cover and Hold On.
 - o If you are unable to Drop, Cover, and Hold On, get as low as possible and move away from windows or other items that can fall on you.
 - o Do not try to transfer from your wheelchair, recliner, or bed during the shaking. Wait for the shaking to stop before transferring.
 - o If you use a wheelchair, lock your wheels and remain seated until the shaking stops; always protect your head and neck with your arms, a pillow, a book, or whatever is available.
 - Stay away from glass, windows, outside doors and walls.
 - Most earthquake injuries are caused by falling objects such as lamps, furniture, appliances, ceiling tiles, etc.
 - Get under a table and away from windows.
 - o In coastal areas, earthquakes can cause tsunamis. When shaking stops assess if you are able to safely evacuate and get to higher ground.
- If it is nighttime:
 - Stay in bed; this is safer than trying to walk around in the dark.
 - o Cover yourself with blankets and pillows for protection.
- If you are in a vehicle:
 - Stop the vehicle safely and stay inside.

- o Avoid parking on a bridge, near trees or utility wires.
- If you are outside:
 - If you are in a rural area, get away from buildings, trees, wires or any potential falling objects.
 - If you are in an urban area, duck into a building as quickly as possible to avoid falling debris.

After an earthquake

- Once the shaking stops, determine if you are in a safe area. If you are not, look for a clear path to safety.
 - o If you are in a building, determine if the building is damaged. If the building is damaged, evacuate and head for an open space away from damaged areas.
 - Use stairs to exit buildings or structures. Do not use elevators.
 - o If you are trapped, do not move around and kick up dust.
 - i. If possible, attempt to call for help with a cell phone.
 - ii. Tap on a pipeline or wall to alert others of your whereabouts.
 - Move away from unstable buildings, utility wires, sinkholes, and fuel and gas lines.
 - o In order to avoid electrocution, avoid contact with down power lines.
- Be aware that electricity, fire alarms and sprinkler systems may go on or off.
- If you are in a tsunami inundation zone (Oregon Coast), head for higher ground. If possible, try to get 100 feet above sea level or two miles inland.
 - A tsunami can occur in as little as 15 minutes after an earthquake. Do not wait for a warning to evacuate after an earthquake.
 - A tsunami is a series of waves that may continue for hours. Do not assume that the danger is over after one wave. The next wave may be larger than the first one.
- Examine yourselffor injuries and administer first aid if necessary.
- Check on the wellbeing of your neighbors. Apply first aid as needed.
- Once safe, monitor news sources (radio, TV, social media, etc.) for emergency information.
- If there are aftershocks, be prepared to Drop, Cover, and Hold On again.
- Do not consume water that has not been treated, water should be boiled for 1 minute, to ensure safety.
- Do not consume salt water. Be aware rivers and lakes near the tsunami affected area that normally contain fresh water, may now have salt water.
- Do not consume food that can spoil or food that has damaged packaging.
- Do not store water in containers used to hold toxic substances like gasoline and pesticides.
- Avoid placing water containers in areas where toxic substances such as, pesticides and gasoline are present.

Cascadia Subduction Zone Earthquake

- Oregon's greatest threat is a Cascadia Subduction Zone earthquake and tsunami resulting in significant loss of life, widespread injuries and major property and critical infrastructure destruction.
- The Cascadia Subduction Zone runs from Northern California into Southern British Columbia.
- The Cascadia Subduction Zone is a region off the Northwest coast where the Juan de Fuca tectonic plate is pushing beneath the North American plate.

- The Cascadia Subduction Zone has a history of rupturing along the entire subduction zone resulting in massive magnitude 9.0 or higher earthquakes.
- The last Cascadia megathrust earthquake was on January 26, 1700 and was a 9.0 event that submerged and flooded coastal forests in Oregon and Washington, and resulted in tsunamis in Japan and North America.
- A recent Oregon State University study indicates there is a 40 percent chance a major earthquake will strike Oregon within the next 50 years.
- A magnitude 9.0 earthquake will damage cities and towns between the Cascades and the coasts, from California to Canada.
- The tsunami following the Cascadia earthquake could hit the coast in as little as 15 minutes.
- A study that came out of Oregon State University in 2012 on the Cascadia Subduction Zone showed that the region has had numerous earthquakes over the past 10,000 years, and suggests that the southern Oregon coast may be most vulnerable for a major quake.
- A Cascadia subduction Zone earthquake could approach the intensity of the Japanese Tohoku Earthquake of 2011.
- During the past 10,000 years, there have been 19 earthquakes caused by full ruptures of the Cascadia Subduction Zone. An additional 22 earthquakes involved a partial rupture of the Cascadia Subduction Zone, involving only the southern end of the fault. All earthquakes are thought to have been a magnitude 8.0 or higher.
- By the year 2060, if we have not had an earthquake, we will exceed 85 percent of all the known intervals of earthquake recurrence in 10,000 years.
- Expected Impacts of a Cascadia earthquake and tsunami include:
 - o Ground shaking for 4-6 minutes
 - Massive critical infrastructure damage
 - Liquefaction and landslides
 - Disruption of transportation routes
 - Tsunami inundation to coastal areas
 - Up to 25,000 fatalities
 - o 10,000 or more damaged structures including businesses and homes
 - o 10,000 or more people in need of shelter
 - o \$50 billion or more in economic losses

Preparing for a tsunami

- Find out if your home, work, school, etc., are in a tsunami inundation zone.
- Know the designated evacuation routes for your area or plan a route best suited for your family.
 - o If possible, pick areas 100 feet above sea level or go as far as two miles inland, away from the coastline. If you cannot get this high or far, go as high or far as you can. Every foot inland or upward may make a difference. You should be able to reach your safe location on foot within 15 minutes.
 - o Plan to take your pets with you.
- Find out the evacuation plan of your local school(s). Find out if the plan requires you to pick up your children from school or from another location.
- If you are a tourist, familiarize yourself with local tsunami evacuation protocols. You may be able to safely evacuate to the third floor or higher in reinforced concrete hotel structures.

Press Releases

Templates

MEDIA RELEASE

Date NR 1

MEDIA CONTACT:

<u>Name</u>

<mark>Phone Number</mark>

<u>Email</u>

Title

Subtitle (as needed)

Location, Ore. –The State of Oregon Office of Emergency Management Coordination Center is coordinating the statewide response to the DATE earthquake that struck list impacts.

Status of emergency declaration.

Roads and bridges sustained massive damage and destruction up and down the coast and in the Willamette Valley. Damage to roads, bridges, dams and buildings is being assessed statewide.

If you are in a safe place, stay there. Oregon DOT urges people to not travel unless absolutely necessary. If you need to travel to shelter please drive slowly. Watch for debris and damage on roads. Do not cross a damaged bridge. The condition of roads and bridges will be assessed as soon as possible.

FUEL & OTHER SUPPLIES

The state has ordered fuel for emergency responders and other critical life-saving and life-sustaining operations. These operations will receive priority.

POWER OUTAGES

The region is experiencing extensive power outages and natural gas disruptions. Residents and community members should prepare for long-term lack of service.

SAFETY

Strong aftershocks are expected to continue to cause additional damage during the days, weeks, and even months after the earthquake.

When shaking occurs: Drop, Cover and Hold On. If you are unable to Drop, Cover, and Hold On: get as low as possible and move away from windows or other items that can fall on you; do not try to transfer from your wheelchair, recliner, or bed during the shaking, wait for the shaking to stop before transferring; if you use a wheelchair: lock your wheels and remain seated until the shaking stops; always protect your head and neck with your arms, a pillow, a book, or whatever is available. Stay away from glass, windows, outside doors and walls.

SHELTERS

Shelters have been established and continue to be established in communities. Look for additional information from local and county officials, community and faith-based leaders, and Red Cross and other volunteer agencies. People can find shelter locations by texting SHELTER and their Zip Code to 43362 (4FEMA).

Red Cross has set up ## shelters and ## respite centers in Oregon. Shelters provide information, resources, and are for overnight stays. Respite Centers offer a place to access services and information, including snacks and water. Red Cross reports people may bring their pets to shelters and respite centers.

LIST OF RESPITE Centers (Snacks, Water, ShelterInfo)

LIST OF SHELTER LOCATIONS (### person Capacity)

REUNIFICATION

Affected individuals, or those seeking information about friends and family, can visit the Red Cross Safe and Well site: www.redcross.org/safeandwell.

FOOD & WATER

The State of Oregon continues to work regional and federal responders on procuring materials – including food and water – for the state.

- Do not consume water that has not been treated, water should be boiled for 1 minute, to ensure safety.
- Do not consume salt water. Be aware rivers and lakes near the tsunami affected area that normally contain fresh water, may now have salt water.
- Do not consume food that can spoil or food that has damaged packaging.
- Do not store water in containers used to hold toxic substances like gasoline, and pesticides.
- Avoid placing water containers in areas where toxic substances such as, pesticides and gasoline are present.

VOLUNTEERING & DONATIONS

Agency(s) remind people that the best way to help with recovery after a disaster is to support the voluntary organizations working in the disaster area with monetary donations. A list of trusted voluntary organizations can be found at www.orvoad.org. At this time, we encourage you to make monetary donations to trusted voluntary organizations actively responding to the event and resist sending physical goods.

We understand that individuals would like to come volunteer time and skills in this time of need for the State of Oregon. We strongly recommend that if you live outside of the impacted area, to for specific requests for help through member organizations of National VOAD. Remember the area is still unsafe. Volunteers will be utilized once areas are stabilized and the need for volunteers is identified. As your help is requested by our response organizations, we will communicate those needs and how to safely respond to the call and engage with the response. You may learn how to help by going to the National Voluntary Organizations Active in Disaster website at www.nvoad.org.

Locally, contact your local volunteer agencies such as the Red Cross, Oregon Food Bank, local churches and other trusted organizations and ask how you can help.

MEDIA RELEASE

Date
NR 1

MEDIA CONTACT:

Name Phone Number Email

Extent of Damages to Jurisdiction Under Investigation

On DATE, a magnitude ## earthquake resulted from a Cascadia Subduction Zone rupture affecting Oregon, Washington and Northern California. After the initial shaking, aftershocks continued to impact Oregon, some as powerful as ##. Approximately ## minutes after the initial shaking a series of seismically generated tsunami waves, some reaching approximately ## feet, reached the Oregon coast. Tsunami waves continued for approximately timeframe.

The Agency's Emergency Operations Center (EOC) is active and continues to receive reports. Due to disrupted communications systems, the full extent of damages is unknown at this time.

The current extent of known damages:

Agency continues to identify damages and respond to requests.

Samples

Press release posted by the Oregon Office of Emergency Management on January 26, 2015.

Anniversary of Great Cascadia Earthquake

Salem, Ore. - January 26 marks the anniversary of the last major Cascadia Subduction Zone earthquake that shook the Pacific Northwest 315 years ago. Scientists predict the next major Cascadia Subduction Zone earthquake could strike our state at any time.

"Scientists believe Oregon is in the average window of time during which another massive, destructive quake could occur," said Althea Rizzo, Geologic Hazards Program Coordinator.

Oregon is located in the Cascadia Subduction Zone, a fault line stretching from offshore British Columbia to Northern California. Experts say a rupture on the Cascadia fault line will likely result in a 9.0 or higher earthquake with the potential to devastate the area.

"A quake of this size will produce severe damage - buildings will be so damaged that restoring full utility service could take months to years," said Rizzo. "We are taking steps right now to prepare our state for a potential Cascadia earthquake."

Rizzo said new guidelines recommend individuals prepare an emergency kit for at least two weeks; prior recommendations were for a three day kit.

"Highways may be down and electricity out for weeks making it critical for you to have enough supplies to sustain yourself for weeks," said Rizzo.

State and local government, private businesses and non-governmental organizations are doing much to prepare for the next Cascadia quake but individual preparedness is critical. There are many actions you can take to prepare for the next earthquake. Review the information below for more information:

- Check out "Living on Shaky Ground: How to Survive Earthquakes and Tsunamis in Oregon" published by Oregon Office of Emergency Management.
- Read the "Without Warning Comic Book" produced by Dark Horse Comics.
- Visit Ready.gov for resources on how you can be prepared before, during and after an earthquake.

Social Media Messaging

The following are suggested social media engagement tools and can be posted directly or edited to suit your agency's needs. When posting on Twitter and Facebook, use the event hashtag, other commonly used hashtags or combinations.

Commonly used hashtags:

#OregonEM #Earthquake #EQ #CascadiaEQ #ORTsunami #Tsunami

Videos and Multimedia

It is best to accompany social media posts with photos and videos whenever possible.

Videos:

When the Ground Shakes
Earthquake Preparedness by The Rock
Cascadia Subduction Zone

Twitter Messages

The following messages can be posted to your agency's local twitter account. We encourage you to retweet messages from @OregonOEM and tag OEM in your tweets.

Twitter accounts to watch and retweet:

<u>@OregonGovBrown</u> – Oregon Governor Kate Brown <u>@OregonDOT</u> – Oregon Department of Transportation <u>@PBOTinfo</u> – Portland Bureau of Transportation <u>@RedCrossCasc</u> – American Red Cross Cascades Region <u>@PNSN1</u> – Pacific Northwest Seismic Network

Scripted Tweets

Agency is located in a seismically active area. Have a family plan and emergency kit ahead of time

Earthquakes happen without warning so be prepared ahead of time, learn more at www.ready.gov/earthquakes

What do you do during an earthquake? Drop, Cover and Hold On. #CascadiaEQ https://www.youtube.com/watch?v=vRdTaLWrpTE

The best way to prepare for a #CascadiaEQ is to practice. Participate in the Great ShakeOut http://shakeout.org/oregon/

Tsunamis can happen in as little as 15 min after the shaking stops. Know your evacuation route and get to higher ground.

Know what to do during a #ORTsunami? Find your evac route and more at http://oregontsunami.org

Facebook Messages

The following messages can be posted to your agency's local Facebook account. We encourage you to share posts from the <u>Oregon Office of Emergency Management</u> and tag OEM in your posts.

Facebook Accounts to watch and share:

Oregon Department of Transportation
Portland Bureau of Transportation (PBOT)
Red Cross Cascades Region
The Great ShakeOut
Pacific Northwest Seismic Network
US Geological Survey
The Tsunami Zone

Scripted Posts

- 1. Agency is located in a seismically active area. Oregon is located in the Cascadia Subduction Zone, an offshore fault line stretching from British Columbia to Northern California. Scientists say a 9.0 or larger earthquake could strike Oregon and the rest of the Cascadia region at any time. Help prepare your family by having an emergency kit and a communication plan.
- 2. Tsunamis can happen in as little as 15 minutes after an earthquake. Depending where you are on the Oregon coast, it could take from five to 30 minutes to get to high ground. Know your evacuation route and start as soon as shaking stops.
- 3. Do you know what to do during an earthquake? Drop, Cover and Hold On! Drop to the ground and take Cover under something like a table. Hold On until the shaking stops. When the shaking stops see if you can safely evacuate. https://www.youtube.com/watch?v=vRdTaLWrpTE