



CITY OF CANNON BEACH

Emergency Operational Guideline for Earthquakes / Tsunami:

Objective: Identify actions within the community in the event of an earthquake.

This document is designed to identify the operational guidelines for actions for the City representatives and members of the community.

An earthquake on the Cascadia Subduction Zone, a 960-kmlong (600 mile) earthquake fault zone that sits off the Pacific Northwest coast, can create a Cascadia tsunami that will reach the Oregon coast within 15 to 20 minutes. Massive earthquakes of magnitude 9 or greater that can last for several minutes have been generated on the fault zone. A destructive tsunami can follow moments later.

A distant tsunami produced by an earthquake far from Oregon can take 4 or more hours to travel cross the Pacific Ocean, usually allowing time for an official warning and evacuation, if necessary. A distant tsunami will be smaller in size and much less destructive, but it can still be very dangerous

Definitions:

- **Distant Earthquake Tsunami**
 - Distant Tsunami from an earthquake far away from the Oregon Coast.
- **Local Cascadia Earthquake and Tsunami**
 - Local Tsunami from an earthquake at the Oregon coast.

Categories of Tsunami events

- **Tsunami Warning –**
 - **Dangerous Costal Flooding – Move to high ground and inland**
 - A tsunami warning is issued when a tsunami with the potential to generate widespread inundation is imminent, expected, or occurring, dangerous coastal flooding accompanied by powerful currents is possible and may continue for several hours after initial arrival.
 - Warnings alert emergency management officials to take action for the entire tsunami hazard zone. Warnings may be updated, adjusted geographically, downgraded, or canceled based on updated information and analysis.
- **Tsunami Advisory –**
 - **Strong currents and waves – Stay out of the water and off the beaches**
 - A tsunami advisory is issued when a tsunami with the potential to generate strong currents. The threat may continue for several hours after initial arrival, but **significant inundation is not expected for areas under an advisory**.

- Appropriate actions to be taken by local officials may include closing beaches, evacuating harbors and marinas, and the repositioning of ships to deep waters when there is time to safely do so.
- **Tsunami Watch** –
 - ***Not yet known – Stay tuned, be prepared to act***
 - A tsunami watch is issued when a tsunami may later impact the watch area. The watch may be upgraded to a warning or advisory or canceled based on updated information and analysis. Emergency management officials and the public should **prepare to take action**.
- **Tsunami Information Statement** –
 - ***No Threat or very distant – No action suggested***
- A ***cancellation*** is issued after an evaluation of water-level data confirms that a destructive tsunami will not impact an area under a warning, advisory, or watch or that a tsunami has diminished to a level where additional damage is not expected.

Actions for the City of Cannon Beach:

Local Cascadia Earthquake and Tsunami:

Assumptions for evacuation focus on two characteristics of an earthquake and subsequent tsunami.

- **Localized Shaking**
 - Drop, take cover and hold on.
 - Once shaking stops immediately follow the tsunami evacuation routes to high ground.
 - ***Do not expect to be notified by alerting agencies during the first earthquake event.***

Distant Earthquake and possible Tsunami:

- **No Localized Shaking Distant earthquake reported.**
 - State, County and City authorities will be notified of a relevant distant tsunami event.
 - The event will be communicated to residents and visitors through multiple methods (emergency notification via (Clatsop Alerts, NOAA, USGS, radio, social media, siren)
 - Events are categorized: Tsunami -WARNING – ADVISORY – WATCH – STATEMENT – CANCELLATION

Move staff directly to the Emergency Operations Center Public Works building (EOC PW)

- Activate the EOC PW and establish Unified Command
 - (City Staff, CBPD, CBRFPD)
- Declare a City wide Emergency
 - City Manager or designee to make proper notifications (Clatsop County EOC)
- Contact Clatsop County EOC, establish communications
 - Update communications with primary and secondary methods, local and statewide resources
 - Primary – Cellular, Satellite, Internet capability, public safety radio frequencies
 - Secondary – Auxiliary communications frequencies, (HAM, GMRS, MRC, Intranet)

- Provide accountability for
 - Staff, Council accountability – City Manager, Department Heads
 - Public Safety Members – Police, Fire, CERT
 - Citizen's accountability – Police, Fire, CERT
- Provide Public removal to safety locations- including partial or full city wide evacuation
 - Police, Fire, CERT
- Locate reported missing community members
 - Police, Fire, CERT
- Triage the city scope of survivability
 - Infrastructure review – Public Works, CERT
 - Ongoing process
- Update County and State on resource needs
- Define which category of Tsunami / Earthquake level
 - (Warning, Advisory, Watch, Statement, Cancellation)
- Establish operational period
- Institute sustained command operations
- Open up and staff city survival cache site locations – CERT, volunteers
 - OSCAR, ECHO, TANGO, ALPHA (Arch Cape – Falcon cove)