

# What You Can Do Before the Next Tsunami:

## BE PREPARED

- Know the best evacuation route — practice walking your route at night and in stormy weather.
- Keep a “grab and go” kit by the door with what you need to survive for a day.
- Create emergency plans and discuss with family, coworkers and neighbors.
- Consider how to evacuate pets — such as dogs on leashes and cats in crates.
- Prearrange assistance from neighbors if you need help evacuating.
- Time is of the essence! The largest tsunami will come from an earthquake you will feel. Evacuate as soon as you can safely move.

## GET NOTIFIED

To sign up for County alerts and learn about other methods visit: [weather.gov/eureka/alerts](https://www.weather.gov/eureka/alerts)

## Questions or want more information?

National Weather Service in Eureka • (707) 443-6484

Humboldt Co. Sheriff’s Office of Emergency Services (OES) • (707) 268-2500

Del Norte County OES • (707) 464-7255

Mendocino County Sheriff’s OES • (707) 467-6497

National Weather Service: Tsunami Warnings and Information • [tsunami.gov](https://tsunami.gov)

Redwood Coast Tsunami Workgroup  
[humboldt.edu/rctwg](https://humboldt.edu/rctwg) and [facebook.com/rctwg](https://facebook.com/rctwg)

Cal OES My Hazards • [myhazards.caloes.ca.gov](https://myhazards.caloes.ca.gov)

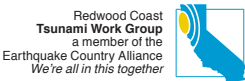
Tsunami preparedness activities • [tsunamizone.org](https://tsunamizone.org)

Great California ShakeOut • [shakeout.org](https://shakeout.org)

U.S. Geological Survey  
[earthquake.usgs.gov/learn/preparedness.php](https://earthquake.usgs.gov/learn/preparedness.php)

California Geological Survey  
[conservation.ca.gov/cgs/geohazards](https://conservation.ca.gov/cgs/geohazards)

**HUMBOLDT**  
STATE UNIVERSITY



# How to survive a TSUNAMI

in MANILA, CALIFORNIA

A component of *Living on Shaky Ground*



# What is a Tsunami?

A tsunami is a series of water surges usually caused by an earthquake beneath the sea floor.

## TSUNAMIS CAN TRICK YOU!

- **The first surge is not the largest.**
- **It is not unusual for tsunami surges to last at least 12 hours and in some cases much longer.**
- **Just when you think it is all over, another very large surge may come.**

## What areas are at risk?

Beaches, harbors, bays, and river mouths are at the greatest risk. If you are in the **YELLOW** areas on the map (inside), you should leave after feeling an earthquake that lasts a long time. If you are in the green area, stay where you are.

## How do I know if an earthquake is big enough to cause a tsunami?

- If you are on the beach and feel an earthquake, no matter how small, **move inland or to high ground immediately.**
- If you are in a tsunami hazard zone and feel an earthquake that lasts a long time, evacuate as soon as it is safe to move. Not sure if the earthquake is long enough? When in doubt, **DRILL IT OUT.** Every earthquake is an opportunity to practice evacuating.
- **GO ON FOOT.** Roads and bridges may be damaged by strong ground shaking. Avoid downed power lines. If evacuation is impossible, go to the upper floor of a sturdy building or climb a tree — but only as a last resort.

2011–JAPAN in Kesennuma, cars and other debris were swept away by tsunamis.



2004–THAILAND When the water rushed in, it looked like a river in flood.

# Two Ways to Know if a Tsunami is Coming:

## Natural Warnings

GROUND SHAKING, a LOUD OCEAN ROAR, or the WATER RECEDING UNUSUALLY FAR exposing the sea floor are all nature’s warnings that a tsunami may be coming. If you observe any of these warning signs, **immediately walk to higher ground or inland.** A tsunami may arrive within minutes and damaging surges are likely to occur for at least 12 hours or longer. **Stay away from coastal areas** until officials permit you to return.

## Official Warnings

You may not feel a large earthquake from far away. Notifications that a Tsunami Warning has been issued may come via reverse calling (make sure to sign up for County alerts), Wireless Emergency Alerts, TV, radio stations, door-to-door contact by emergency responders, NOAA weather radios, or in some cases, by outdoor sirens and announcements from airplanes. Move away from the beach and seek more information without using a phone. Tune into local radio or television stations for more information. Follow the directions of emergency personnel who may ask you to evacuate low-lying coastal areas.

**NATURAL AND OFFICIAL WARNINGS ARE EQUALLY IMPORTANT. RESPOND TO WHICHEVER YOU HEAR OR OBSERVE FIRST!**

# How to use this Map:

Locate where you live, work, and play. Use this map to plan a safe evacuation route. **If you are in the yellow area and need to evacuate, go immediately on foot as soon as it is safe to do so.** Practice evacuating so that you and your family know what to do during a real tsunami. Remember — **GO ON FOOT**. Roads are likely to be impassable.

**Tsunami Zone signs** are placed within the yellow zone as a reminder to evacuate this area when an earthquake occurs. **Entering** and **Leaving Tsunami Zone Signs** are placed on roads near where you cross from the green safe area into the yellow hazard zone. Take note of where these signs are located. If a large earthquake occurs, return at least as far as this point to be in a safe area. If you cannot reach this point, go as far or as high as you can. Every foot inland or upwards can make a difference.

Outside the map area? Use signs to guide you to safe areas. If there are no signs, head to high ground or inland, without re-entering the tsunami zone, and keep moving until you feel safe. Every foot inland or upwards can make a difference. An interactive hazard map for Northwest California is posted at [weather.gov/eureka/tsunami\\_map](https://weather.gov/eureka/tsunami_map)

## Other beach hazards:

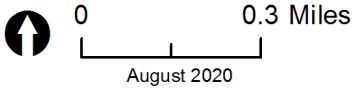
Sneaker waves can wash over rocks, levees, and far up beaches without warning. There can be more than twenty minutes of small waves between sneaker waves. Don't be fooled by an ocean that looks calm – stay back from the surf and never turn your back on the ocean.

Rising tides can cut off your route or force you to walk dangerously close to the surf. Know the tides and plan for rising water.

**SAMOA, CA–Residents practice tsunami evacuation in an annual drill.**



**MANILA**  
*Tsunami Hazard Map*



**This map is to help you protect yourself from the worst-case tsunami expected along our coast.** It is based on the Relative Tsunami Hazard Maps developed by Humboldt State University and tsunami inundation mapping by the California Geological Survey. It uses the best currently available information and may be changed or updated as

additional scientific information becomes available. It includes no information about the probability of a tsunami hitting our area and does not reflect how an actual tsunami may impact the region. **It is intended to support tsunami evacuation planning and should not be used for any other purposes.**