

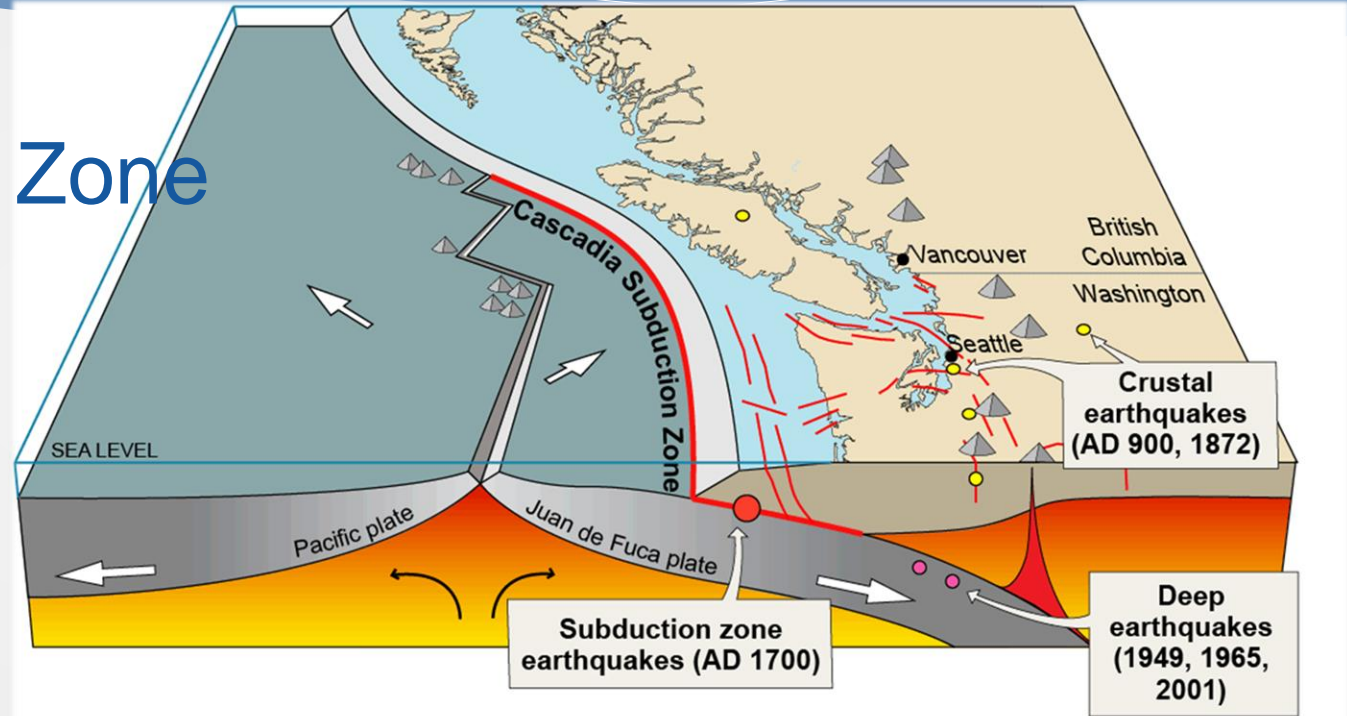
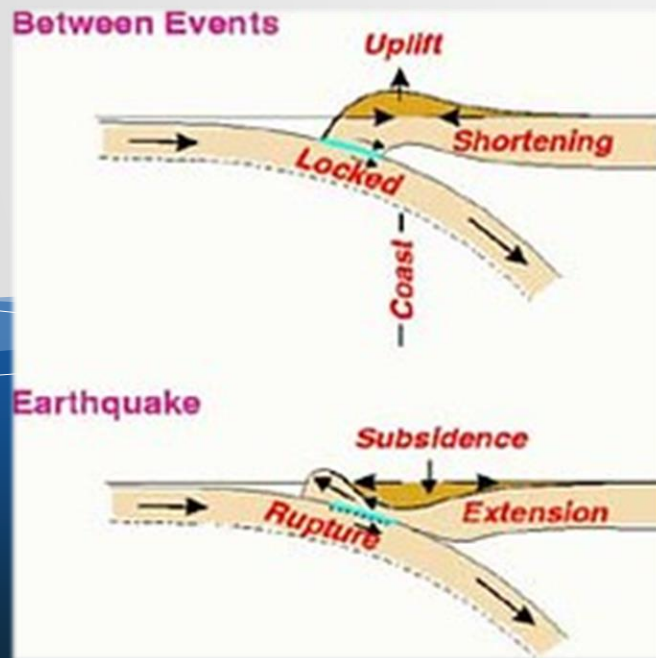
Earthquakes, Tsunami, Outreach MNAC Overview

Bellingham Fire Department
Office of Emergency Management



Earthquake Risk

- We're not like CA
- Cascadia Subduction Zone
- SFZ, others



Source	Max. Size	Recurrence
● Subduction zone	M 9+	200–600 years
● Deep Juan de Fuca plate	M 7+	30–50 years
● Crustal faults	M 7+	Hundreds of years?

- ▲ Volcano
- Active crustal fault
- Active plate boundary fault

*figure modified from USGS Cascadia earthquake graphics at <http://geomaps.wr.usgs.gov/pacnw/pacnweq/index.html>

Conquering the Instinct to Run

- We learn to counter the human tendency to run by **practicing** doing the safe thing.
- Studies show that people tend to be hurt by falling objects, not collapsing structures.
- Facades of buildings or glass from windows can be falling and injure those running out during an event.

Conquering the Instinct to Run



<https://www.youtube.com/watch?v=RKCd9l14dD0> (0:40)

Anchorage, AK, (2018), M7.0

<https://www.youtube.com/watch?v=fBShRLxVZpA> (1:26)

Wellington, NZ, (2016), M7.8

Drop, Cover, Hold On

- **DROP**

Where you are, onto your hands and knees.

- **COVER**

Your head and neck with one arm and hand.
If a sturdy table or desk is nearby, crawl underneath it for shelter.

- **HOLD ON**

Until shaking stops. Be ready to move with your shelter if it shifts.
No shelter: hold on to your head and neck with both arms and hands.



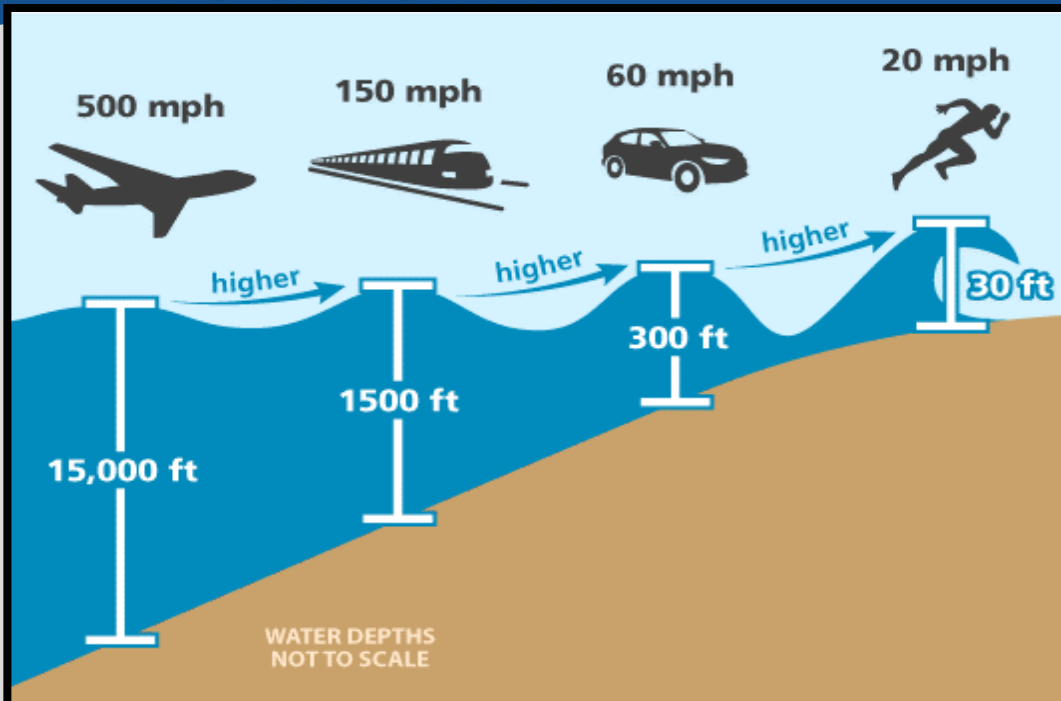
If no shelter is nearby, crawl next to an interior wall away from windows.
Stay on your knees; bend over to protect vital organs.

D-C-H for Everyone

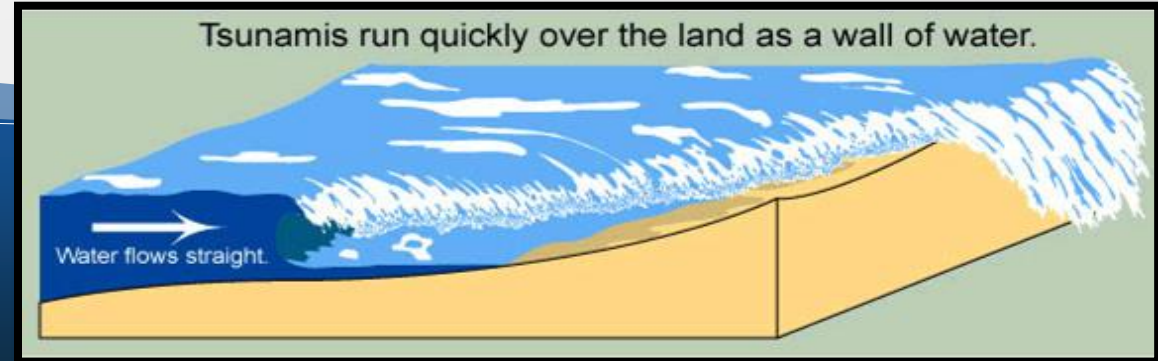
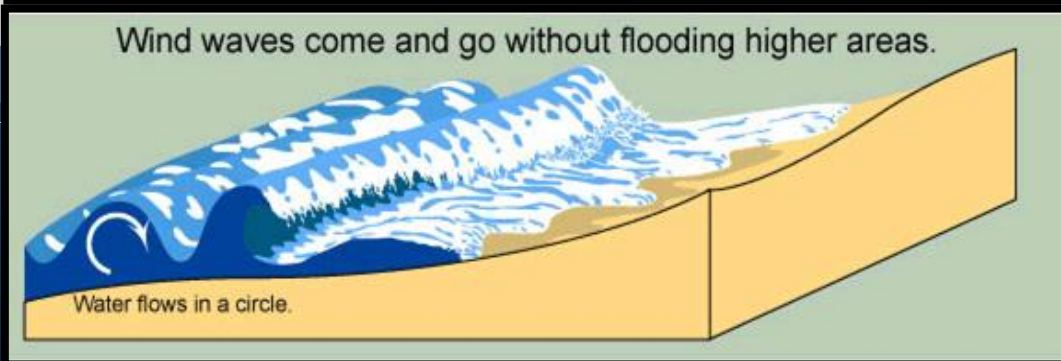
- If at home in bed, face down, cover head with pillow.



Tsunami



- Caused by the **displacement of a column of water** in an **ocean, sea, or lake**
- A series of long, multiple waves **lasting for 12-24+ hours**
- The **first wave is often not the highest or most destructive wave**
- Very fast and powerful; **like a moving wall of cement**
- Leave tons of **mixed and hazardous debris** behind







AHAB Tsunami Siren Network Completion

- Physical, pole-mounted, modular sirens that alert those within range to danger by emitting a **voice, tone, and intense blue light alert**. The sirens are **not intended to be heard indoors**.
- **Audible range of ~1 mile**; varies depending on environmental factors like topography, wind direction, and physical barriers.
- The siren system is **tested on the first Monday of every month at noon**; the sirens play the Westminster Chimes followed by an audio message in English and Spanish.
- The sirens are also **tested once a year with the actual tsunami warning wail sound** on the third Thursday in October in conjunction **with the Great Washington ShakeOut**.



Tsunami Alerts

Alert Name	Actions	Potential Hazards
 WARNING	Get to high ground or inland IMMEDIATELY Follow tsunami evacuation signage	DANGER! TSUNAMI IMMINENT! Flooding/powerful currents Wave heights > 3 ft. or unknown
 ADVISORY	Stay out of the water and away from the shore	STRONG CURRENTS AND DANGEROUS WAVES in or very near coastal water Wave heights of 1 - 3 ft.
 WATCH	Be prepared to take action Stay tuned to local radio/TV/ NOAA "alert" weather radios	TSUNAMI IS POSSIBLE Alert level <i>will</i> change once more information is known
 INFORMATION STATEMENT	No action needed	NO TSUNAMI IMPACT EXPECTED Alert level may change once more information is known

THREAT Message: Intended to alert international partners only. Not applicable to U.S. coasts

**THE NATIONAL TSUNAMI WARNING CENTER ISSUES OFFICIAL TSUNAMI ALERTS FOR WASHINGTON.
CHECK TSUNAMI.GOV OR WEATHER.GOV WEBSITES FOR TSUNAMI ALERT DETAILS.**

ARE YOU IN THE ZONE?

Prepare for and survive an earthquake and tsunami with these simple steps:

- Create a go-bag & be "2 Weeks Ready."
- Know your tsunami evacuation routes & practice walking them.
- Sign up for local alerts & purchase a NOAA Weather Radio.
- Identify your out-of-area contact & talk to loved ones about your disaster plan.
- Register for the Great Washington ShakeOut at ShakeOut.org/Washington & practice your drop, cover, & hold on skills on 10/17 at 10:17 AM.



The Great Washington ShakeOut

Need help checking off your list? Talk to your local emergency management office or visit mil.wa.gov/tsunami

DON'T FORGET!

Tsunami sirens will be tested on **October 17th** at **10:17 AM** with the actual wailing sound. This is only a test. Do not call 911.

Sign up for tsunami alerts



mil.wa.gov/alerts



Find your tsunami maps



mil.wa.gov/tsunami

On 10/17 at 10:17 AM all tsunami sirens will be tested with the actual wailing sound.

Squalicum Harbor
Cruise Terminal
11 more along Whatcom
County Shoreline

Do you hear tsunami sirens?

Don't freak out, it's...



Meet Me at the Siren!

Join us at Squalicum Harbor on the path toward the Fisherman's Pavilion
Google map link: <https://tinyurl.com/MeetMeAtTheSiren>

Thursday, October 17, 9:00am - 12:00pm

Learn about earthquakes, tsunami, and the sirens along our shoreline!

Questions about the sirens? Check out mil.wa.gov/tsunami.

<https://cob.org/emergencies>



Outreach in the Community in 2024

- Bellingham Public Library (monthly)
- Bellingham Senior Activity Center (monthly)
- Bellingham Kids Fest (August)
- Safe Kids Whatcom County (August)
- Bellingham SeaFeast (October)

Serving our Neighborhoods in 2024

- Birchwood
- Cordata
- Edgemoor
- Sehome
- Sunnyland
- York
- Affinity Senior Independent Living
- Darby Estates
- Larrabee Springs
- Sunrise Condominiums
- Woodrose Senior Apartments

Two Weeks Ready

- Preparing to shelter in place *(think back to the beginning of the pandemic)*
- Preparing for the entire household
- The shopping is often the easy part *(but not for everyone)*





Make a
Communications Plan



Create an
Action Plan



Store Water



Build Grab & Go
Kits



Secure Important
Documents



Be 2 Weeks Ready



Learn Fire Safety



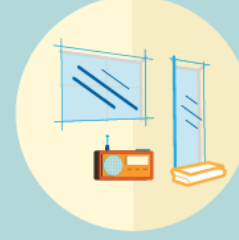
Perform Home
Maintenance



Practice Drop
Drills



Prepare to
Work from Home



Conduct a Home
Inspection

Prepare in a Year

- One topic per month
- A comprehensive approach to becoming:
 - 2 Weeks Ready
 - Ready to go (evacuation)
 - Ready for routine emergencies

Map Your Neighborhood

What: A 90-minute structured gathering and discussion among close neighbors to share information and develop their shared plan for the immediate hours after disaster.

Results: A shared plan and a greater sense of mutual reliance.

Cost: \$0

Community Emergency Response Team (CERT)

What: An 8-week course that meets 3 hours per week with assigned reading and videos, culminating in a simulated disaster exercise with live role players.

Results: Acquisition of new skills, practice working in teams, a greater sense of confidence and self-reliance.

Cost: \$50



oem@cob.org



whatcomcert.org

Whatcom Auxiliary Communications Service

What: Whatcom ACS provides emergency communications throughout the county in support of fire departments and emergency operations.

Results: Acquisition of new skills, practice working in teams, a greater sense of confidence and self-reliance.

Cost: \$0

Volunteer Mobilization Center

What: Whatcom VMC registers spontaneous volunteers as temporary emergency workers and matches their skills with emergency needs.

Results: Enhancement of emergency response capacity and community resilience.

Cost: \$0



[whatcomcounty.us/4319/
auxiliary-communications-
service-whatcom](https://whatcomcounty.us/4319/auxiliary-communications-service-whatcom)



whatcomvmc.org

Reaching Further in 2025

- More Bellingham Neighborhoods!
- Faith Based Organizations
- Schools (I hope)

Bellingham Office of Emergency Management

cob.org/emergencies

Disaster Ready Washington

mil.wa.gov/preparedness

Emergency Preparedness Reading List

bellingham.bibliocommons.com/list/share/110058314/1138561567

