

## what is a tsunami

A tsunami is a series of waves most commonly caused by an earthquake beneath the sea floor. As tsunamis enter shallow waters, such as Bellingham Bay, they increase in height causing potential for great loss of life and property damage as they reach the shore. Research suggests tsunamis have struck the Washington coast on a regular basis. Tsunamis can happen regardless of time of day, weather conditions or time of year.

## distant vs local tsunami

When a tsunami has been generated by a distant earthquake, such as in Alaska or Japan, it will not reach the Washington coast for more than three hours, allowing time for a tsunami warning to be issued.

If a tsunami has been generated by a nearby offshore earthquake, the first wave could reach Bellingham within several minutes to two hours depending on the generation point of the tsunami. Knowing the signs of a tsunami could be your only warning.

## tsunami warning signs

Bellingham currently has one tsunami warning siren located at Squalicum Harbor. **It is not guaranteed that you will hear this siren if it goes off.** It is important to know alternative warning signs.

- Once an earthquake has occurred, that is your first sign to **evacuate!**
- If you are near the ocean and see the water level quickly drop or recede, **evacuate!**
- If you are near the ocean and hear a distant rumbling, **evacuate!**



immediately! Although walk times are indicated on the map, they may vary depending on road or weather conditions. Know your abilities, as well as alternative routes not indicated on the map, for an earthquake can damage infrastructure such as bridges and roads.

## who should evacuate

If an earthquake has occurred everyone within the tsunami inundation zone should evacuate. Keep in mind that roads and bridges may be damaged and evacuation by foot may be the only option. Children, pets, individuals with impaired mobility and tourists who are unfamiliar with the area may need additional assistance with evacuating.

## where to evacuate

The evacuation map is intended for those evacuating on foot. Following an earthquake you should begin to evacuate to higher ground as soon as possible. Higher ground is indicated by the gray areas on the map — or at least 50 ft above sea level.

## what to bring

It is likely you will not be able to return to the inundation zone for an extended period of time. Essential items such as medications, important documents and your emergency go-kit should be taken with you when you evacuate. Make sure these items are easily accessible before a disaster occurs.



## when to evacuate

If you feel the ground shake, drop where you are, and crawl to shelter, cover your head and neck with an arm and hold on until the shaking stops. Following the shaking, evacuate inland or to high ground



## ADDITIONAL RESOURCES

[www.mil.wa.gov/preparedness](http://www.mil.wa.gov/preparedness)

[www.whatcomready.org](http://www.whatcomready.org)

[www.mil.wa.gov/tsunami](http://www.mil.wa.gov/tsunami)

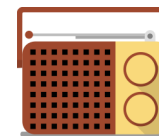
## SIGN UP FOR PUBLIC ALERTS

<http://www.whatcomready.org/public-alerts/>

## TSUNAMI EVACUATION MAP

For a larger version of the evacuation map, please visit:

<https://www.dnr.wa.gov/programs-and-services/geology/geologic-hazards/tsunamis#preparation-and-evacuation.6>



## EMERGENCY RADIO FREQUENCIES

NOAA Blaine, 162.525 MHz

Local News Updates, KGMI 790 AM

# TSUNAMI EVACUATION MAP



## North Bellingham

### Bellingham Office of Emergency Management



**Physical Address:**  
Whatcom Unified Emergency Coordination Center  
3888 Sound Way  
Bellingham, WA 98226

**Phone:** (360) 778-8440  
**Email:** [oem@cob.org](mailto:oem@cob.org)

# PEDESTRIAN EVACUATION WALK TIMES

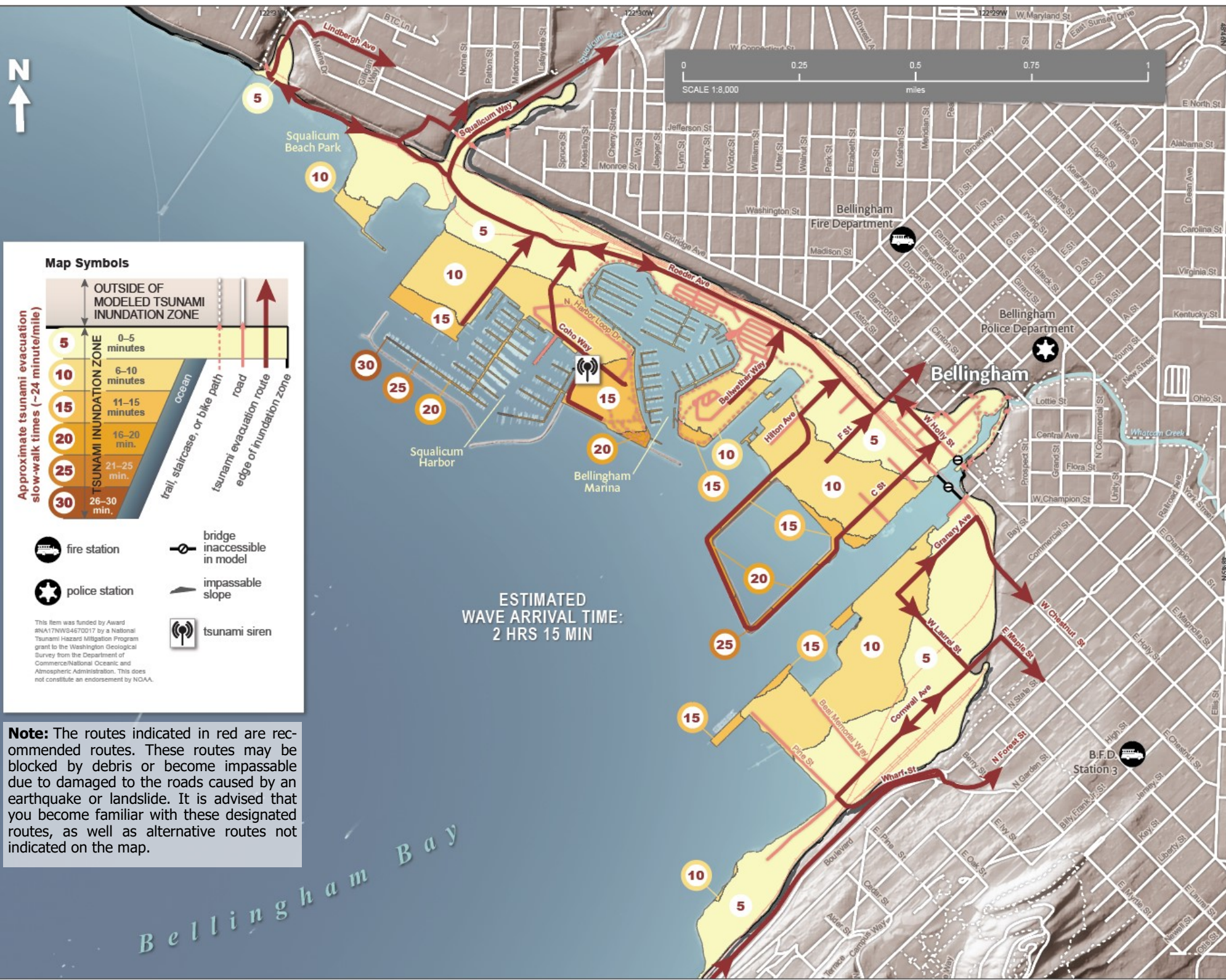
This map is a planning and preparation tool. Learn the evacuation routes for you and your family where you live, work, and play—evacuation maps may not be on hand during an actual emergency.

This evacuation walk time map for the City of Bellingham provides an estimate of the amount of time it would take to evacuate from within the modeled inundation zone of a Cascadia-sourced subduction zone earthquake. This map provides inundation extent for the L1 scenario, defined as the ~2,500-year event from which seismic and tsunami codes are locally derived. Time estimates on this map are modeled assuming a slow walking pace of 2.46 mph (~24 minute/mile), equivalent to the pace used for the timing of cross walks. Estimated wave arrival times shown on the map indicate the time between the beginning of the earthquake and modeled wave arrival at that location.

- Evacuation should begin as soon as earthquake shaking stops and it is safe to move from your drop, cover, and hold position or as directed by a tsunami warning siren, NOAA weather radio, or other official announcements.

- You should make your way uphill and follow the designated evacuation routes shown on this map. These routes were selected for pedestrian evacuation, but may be affected by post-earthquake hazards, such as collapsed bridges, landslides, and downed power lines. Use situational awareness when evacuating and be prepared to take alternate paths if necessary.

- Do not re-enter or cross back into the inundation zone until instructed to do so by local officials. Tsunamis are multi-wave events. The first wave may not be the highest, and danger of tsunami inundation may persist for many hours after the initial wave has subsided.



**Map Symbols**

5	0-5 minutes	OUTSIDE OF MODELED TSUNAMI INUNDATION ZONE
10	6-10 minutes	
15	11-15 minutes	
20	16-20 min.	
25	21-25 min.	
30	26-30 min.	
30	26-30 min.	

	fire station		bridge inaccessible in model
	police station		impassable slope
	tsunami siren		

This item was funded by Award #NA17NWS4570217 by a National Tsunami Hazard Mitigation Program grant to the Washington Geological Survey from the Department of Commerce/National Oceanic and Atmospheric Administration. This does not constitute an endorsement by NOAA.

ESTIMATED WAVE ARRIVAL TIME:  
2 HRS 15 MIN

**Note:** The routes indicated in red are recommended routes. These routes may be blocked by debris or become impassable due to damaged to the roads caused by an earthquake or landslide. It is advised that you become familiar with these designated routes, as well as alternative routes not indicated on the map.