

Understanding Tsunamis

The National Flood Insurance Program (NFIP) works to educate the public about tsunamis, including their risk of flooding, warning signs and coverage under a flood insurance policy.

What Is a Tsunami?

A tsunami is a series of ocean waves that sends surges of water (potentially reaching heights of over 100 feet) onto land. Tsunamis are primarily caused by underwater earthquakes. The earthquake's impact displaces the body of water above it, causing a tsunami. Other causes of tsunamis include landslides, volcanic activity, certain types of severe weather and—potentially—near-Earth objects like asteroids or comets that collide with or explode above the ocean.

They can be unpredictable, continue for hours and cause severe damage along coastal communities. Most of the damage found in the aftermath of a tsunami is due to the surge of water, wave impacts, strong currents, erosion and debris. This leads to the destruction or damage of structures; disruption of transportation, power and communications; and more.

Tsunami Conditions

Tsunamis are not surf, wind-driven or breaking waves but a surge of water moving inland through the ocean with the ocean's full force. Tsunamis are considerably powerful and can appear on shore as a quickly surging tide that inundates coastal regions.

A tsunami's trough (the low point beneath the wave's crest) may reach the shore first, producing a vacuum-like effect that sucks water out to sea to expose harbor and sea floors. This is a tsunami's most noticeable natural warning sign that signals a danger to life and property is imminent.



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Tsunamis can look and behave differently. Local tsunamis pose the greatest threat as they originate close to coastal areas with little-to-no warning or evacuation time. In comparison, distant tsunamis have sources far off the coast and can sometimes be on the other side of the ocean. While this results in more response time, they can race across the ocean at up to 500 mph, potentially crossing the entire Pacific Ocean in less than a day.

Tsunamis are also possible if an earthquake is felt near the coast. The NFIP recommends at-risk coastal areas—particularly the West Coast, Alaska and islands—stay alert to tsunami warning signs.

Does the NFIP Cover Damage Caused by Tsunamis?

Yes, NFIP flood insurance policies typically cover flood damage caused by a tsunami. As defined by the NFIP, a flood is:

1. “A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (one of which is your property) from:
 1. Overflow of inland or tidal waters;
 2. Unusual and rapid accumulation or runoff of surface waters from any source;
 3. Mudflow.*
2. Collapse or subsidence of land along the shore of a lake or a similar body of water due to erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood from the overflow of inland or tidal waters, as defined above.”

**Mudflow is defined as, “A river of liquid and flowing mud on the surface of normally dry land areas, as when earth is carried by a current of water. Other earth movements such as landslide, slope failure or a saturated soil mass moving by liquidity down a slope, are not mudflows.”*

Since tsunamis push water inland when they reach a coast (also known as tsunami inundation), the damage they cause is covered by flood insurance. Damage caused by debris floating in floodwaters—also known as debris flow—is also covered as long as floodwaters are carrying the debris flow. Debris being



carried by a landslide caused by a tsunami is not covered.

For more information on what flood insurance covers, refer to the [NFIP Summary of Coverage](#) or visit [FloodSmart](#). Consumers are encouraged to purchase both building and contents flood insurance coverage in advance of a flood event to protect the lives they've built.

There is generally a 30-day waiting period before NFIP flood insurance policies become effective making it crucial to act early. To purchase an NFIP flood insurance policy, [find a flood insurance provider](#) or contact the FEMA Mapping and Insurance eXchange (FMIX). You can also [chat](#) live with a specialist from 9 a.m. to 5 p.m. ET Monday-Friday, email FEMA-FMIX@fema.dhs.gov or call 877-336-2627.

Related Resources

- [NFIP Flooding & Related Weather Events Publication](#): This publication educates all audiences on the different types, causes and warning signs of flooding, how to stay safe and how flood insurance can financially protect property from flood damage.
- [Tsunami Information on Ready.gov](#): Review how to prepare for, survive during and be safe after a tsunami.
- [National Oceanic and Atmospheric Administration \(NOAA\)/the National Weather Service's \(NWS\) Tsunami Warning System](#): Review tsunami statements, advisories, alerts, watches and warnings that can keep your community safe.



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