

Nankai Trough Megaquake Scenario Maximum-class tsunami

The tsunami hazard map shows the estimated inundation depth caused by a maximum-class tsunami that is expected to have a major impact on Amagasaki City if a Nankai Trough megaquake occurs.
* Depending on the scale of the earthquake and the damage to coastal facilities, areas not shown on this map may also be flooded, and the inundation depth may become even greater. Also, tsunamis strike repeatedly, not only as a first wave, so do not relax your vigilance and continue evacuating until tsunami warnings and advisories are lifted.

This map shows the following assumed inundation area maps:
Tsunami Inundation Assumption Map for the Nankai Trough Megaquake (December 2013)
(Amagasaki City)
(Prepared by) Hyogo Prefecture

Assumed occurrence
Tsunami conditions used for this map:
Within the next 30 years
Nankai Trough Megaquake
Estimated probability of occurrence:
Approximately 80%
Magnitude class M8-9

Amagasaki City has designated the following evacuation sites in case a disaster occurs.

- A tsunami temporary evacuation area** is a place where people can evacuate temporarily when a tsunami, storm surge, or flood occurs, and a tsunami warning or evacuation information is issued. These sites include public facilities as well as privately owned buildings provided through cooperation with their owners.
- A designated evacuation shelter** is a place where people can stay for a medium to long period if they lose their homes due to a disaster, or until the danger has passed after a disaster occurs.
- A welfare evacuation shelter** is a shelter intended for people who need special assistance during disasters. (This is a secondary shelter opened only when necessary during a disaster and is generally not available for use from the beginning.)

Check in advance which evacuation sites are easy for you to reach.



Walking guide

Use a coin to estimate the approximate distance and time on the map.

Measure the approximate distance and time on the map.

One 10-yen coin
≈400 m
23.5m

One 10-yen coin
≈14 minutes

People who have difficulty walking/Infants, etc.
Approx. 0.5 m per second

Approx. 7 minutes
Approx. 1.0 m per second

* Walking speeds are based on the "Report of the Committee for Examining Tsunami Evacuation Measures" by the Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications.

Legend

- Tsunami temporary evacuation area
- Designated evacuation shelter
- Welfare evacuation shelter
- City Hall
- Community Promotion Center
- Police station
- Fire station
- Designated emergency medical facility
- Helicopter landing site
- Water gate
- Flood control warehouse
- Pump Station, etc.
- Sewage treatment plant
- Water level observation station
- Disaster management radio system
- Underground areas (parking lots, commercial facilities)
- Underground passages/Underpasses
- Elevation

Estimated inundation depth

- 10.0 m to less than 20.0 m
- 5.0 m to less than 10.0 m
- 3.0 m to less than 5.0 m
- 1.0 m to less than 3.0 m
- 0.5 m to less than 1.0 m

Estimated inundation depth

Depth of inundation

- 5 m to 10 m (Flooding above the second floor roof)
- 3 m to 5 m (Flooding up to the second floor level)
- 1 m to 3 m (Flooding up to the first floor level)
- 0.5 m to 1 m (Above-ground flooding)
- Less than 0.5 m (Even evacuation floor elevations)

Even areas without color may still be flooded. Be cautious and evacuate early.

Key characteristics of tsunamis to watch out for

- Speed and height of tsunamis**
Tsunamis travel faster in deeper water and become higher as the water becomes shallower.
- Tsunamis can even arrive without an initial drawback**
It is often said that a tsunami begins with a drawback, but depending on how the earthquake occurs and the topography near the epicenter, a drawback may not occur.
- Second and third waves**
Tsunamis strike repeatedly. The first wave is not always the largest.
- Tsunami heights are greater than expected**
Tsunami height varies greatly depending on coastal topography. Shallow gradients and V-shaped bays tend to produce particularly high waves.
- Upstream surge from rivers (backflow)**
A tsunami can enter from a river mouth and travel several kilometers upstream. A surging tsunami may overtop river embankments and cause severe damage to communities along the river.

Horizontal evacuation

Evacuate to areas north of the JR Kobe Line and away from rivers such as the Mukogawa, Kanzakigawa, Mogawa, and Inagawa Rivers.

Areas requiring particular attention when evacuating before the tsunami's arrival

*Refer to the "Evacuation Actions to Protect Your Life" below and evacuate early to a safe location.

- 1. Tsunami evacuation target areas**
A tsunami evacuation target area is an area where evacuation is considered necessary if a tsunami occurs.
- 2. Tsunami evacuation caution areas**
A tsunami evacuation caution area is an area where, based on the shortest estimated tsunami arrival time of 117 minutes after a Nankai Trough megaquake, horizontal evacuation outside the tsunami inundation assumption zone is expected to be difficult, and particular attention is required when evacuating, including vertical evacuation.

Evacuation action to protect your life (1)

Move away from the sea and rivers and head north of the JR Kobe Line!

Horizontal evacuation

Evacuation action to protect your life (2)

Go to the third floor or higher of a sturdy building, such as a designated temporary tsunami evacuation site!

Vertical evacuation

Evacuation action to protect your life (3)

If you are already on the third floor or higher of a reinforced concrete building, secure safety indoors at that location!

Shelter-in-place evacuation

Regarding the tsunami generated by the Nankai Trough megaquake (magnitude 9.1) assumed for Amagasaki City
[Assumption] It is assumed that the tsunami arrives at high tide, and crustal deformation and subsidence of river and coastal structures caused by the earthquake are considered. Floodgates and other storm-surge barriers are assumed to have seismic resistance, and facilities that are automated or normally closed remain closed, while others are considered open. The coastal levee is assumed to fail if overtopped by the tsunami.

Accompanied by shaking of up to seismic intensity 6 upper

Maximum tsunami water level: 4.0m
Height above elevation 0 m

Tsunami (1 m) arrives 117 minutes after the earthquake

*From "Hyogo Prefecture Nankai Trough Megaquake and Tsunami Damage Assumptions" (June 2014)

Scale: 1 : 17,000
0 500 1,000m
The grid spacing is 1 km (1,000 m).