


# Calculation Conditions for Rain and Tsunami Scenarios

Disaster	River	Scenario conditions	Released	Contact Information	Telephone number	
River flooding	① Yodogawa River	24-hour total rainfall: 360 mm/hour	Probable maximum precipitation (Likelihood: about 1/1,000 years)	Jun. 2017	Yodogawa River Office, Kinki Regional Development Bureau, MLIT	072-843-2861
	Yamato River	12-hour total rainfall: 316 mm/hour	Probable maximum precipitation (Likelihood: about 1/1,000 years)	May 2016	Yamatogawa River Office, Kinki Regional Development Bureau, MLIT	072-971-1381
	② Higashiyoko and Nishiyoko Rivers	24-hour total rainfall: 904.1 mm/hour Maximum rainfall: 102.5 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Nov. 2019	Tondabayashi Civil Engineering Office, Osaka Prefecture	0721-25-1131
	Ishikawa River	24-hour total rainfall: 724 mm/hour Maximum rainfall: 195.5 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Jan. 2021		
	Kanzaki River	24-hour total rainfall: 737 mm/hour Maximum rainfall: 81.1 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Jan. 2020	Nishi Osaka Flood Control Office, Osaka Prefecture	06-6541-7771
	Tenjiku River	24-hour total rainfall: 1,150 mm/hour Maximum rainfall: 142.6 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Jan. 2020	Ikeeda Civil Engineering Office, Osaka Prefecture	072-752-4111
	③ Taka River	24-hour total rainfall: 1,150 mm/hour Maximum rainfall: 145.4 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Jan. 2020	Ikeeda Civil Engineering Office, Osaka Prefecture Ibaraki Civil Engineering Office, Osaka Prefecture	072-752-4111 072-627-1121
	Ai River	24-hour total rainfall: 776 mm/hour Maximum rainfall: 189 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Mar. 2020	Ibaraki Civil Engineering Office, Osaka Prefecture	072-627-1121
High tide	④ Neyagawa, Daini-Neyagawa and Hirano Rivers, Hirayogawa-bunairo Channel, Furukawa River	24-hour total rainfall: 683 mm/hour Maximum rainfall: 138.1 mm/hour	Probable maximum precipitation (Likelihood: 1 more than 1,000 years)	Mar. 2019	Neyagawa River Basin Flood Control Office, Osaka Prefecture	06-6962-7661
	⑤ High tide	Scenario in which the central pressure is 910 hPa (Muroto Typhoon level), radius of maximum cyclogenetic wind speed is 75 km (Isewan Typhoon level), travelling speed is 73 km/h, and the path is the same as that of Muroto Typhoon		Aug. 2020	Person in charge of emergency management, Port & Harbor Bureau, Osaka City	0725-21-7246
Inland flooding	⑥ Inland flooding	24-hour total rainfall: 549 mm/hour Maximum rainfall: 147 mm/hour	Probable maximum precipitation (Likelihood: about 1/1,000 years)	Mar. 2021	Coordination Section, Sewer Department, Public Works Bureau, Osaka City	06-6615-7594
Tsunami	⑦ Tonankai and Nankai earthquake and tsunami	Scenario in which an earthquake with a magnitude of around 8.6 occurs, causing flooding due to a tsunami, and tide gates (those open at night), etc. did not close (high tide assumed)		Mar. 2004	Planning Section, Port & Harbor Bureau, Osaka City	06-6615-7782
	⑧ Nankai Trough mega earthquake and tsunami	Scenario in which an earthquake with a magnitude of around 9.1 occurs, causing flooding due to a maximum class tsunami (breakwater and opening/closing of tidal barriers taken into account) (high tide assumed)		Aug. 2013	Disaster Prevention Planning Division, Office of Emergency Management, Osaka Prefecture	06-6944-6487

Creator of this pamphlet: Office of Emergency Management, Osaka City (Tel: 06-6208-7384)

This pamphlet is also available for view on the official website of the Office of Emergency Management, Osaka City.

<https://www.city.osaka.lg.jp/kikikanrishi/>



Mar. 2021

## Transmission of information

Receiving Information

Bosai Information Mail

Must preregister

Emergency Warning E-mail

Yahoo! disaster prevention bulletin app

Finding Information

- If outdoor emergency speaker broadcasts could not be heard: call the Government Disaster Wireless Telephone Service (06-6210-3899), charges apply.
- In times of disaster, switch your TV to NHK and press the "d" button for data broadcasting to view evacuation advisories, if evacuation shelters are open, and other information.

Osaka Disaster Prevention Net

Disaster Information for River (Ministry of Land, Infrastructure, Transport and Tourism)

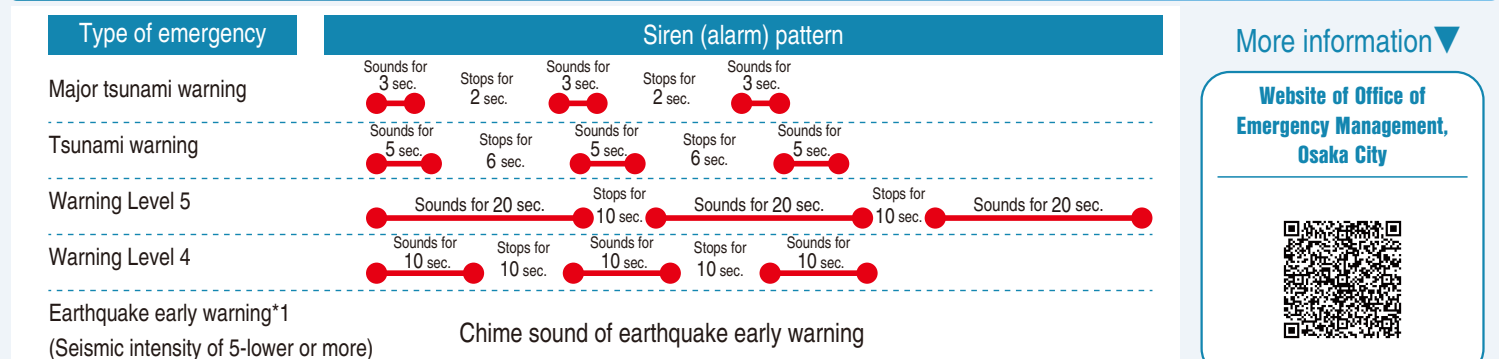
River Disaster Management Information (River Office, Osaka Prefecture)

Japan Meteorological Agency

Osaka City Rainfall Information

Osaka Safe Travels

## Emergency Siren Patterns(Outdoor emergency speaker)



## Safety Confirmation Message Services

Disaster Emergency Message Dial 171

You can record or play messages in times of disaster.

Call

Press 1

Press 2

Disaster Emergency Message Board

It can be accessed if internet connection is available in times of disaster.

Web171(NTT)

SoftBank/Y!mobile

au(KDDI)

NTT docomo

J-anpi for one-stop searches of all safety status information

\* Disaster Emergency Message Boards become available when a major disaster occurs. For service details, please see the explanation provided by NTT and the respective mobile phone companies.

## What is My Timeline?

My Timeline provides an opportunity to prepare for wind and flood disasters, such as heavy rains and typhoons, and plan in advance how to escape using your own evacuation route while giving due consideration to the circumstances or evacuation behavior of each family member. Creating a schedule that summarizes who does what and when will help you act in an appropriate manner in the event of an emergency.

### Family Evacuation Plan When heavy rain could cause river flooding

1 Evacuation place

Determine where you will evacuate to and write it down. Determine all ① to ③ evacuation places that you will evacuate to depending on the situation.

In principle:

Place for early evacuation

Home, relative's home, friend's home, workplace, etc. (the closest safe place that will not flood)

Closest evacuation shelter (the closest safe place that will not flood)

Evacuation place ①

Evacuation place ②

Evacuation place ③

2 Plan what to do until you start evacuating.

Collect information

Check weather and evacuation information

Prepare for evacuation

Check emergency kit and stockpile

Buy necessary items

Begin moving household items to 2F, etc.

Inspect area around the house

Put away items that may blow away

Check window locks

Charge mobile phone

Check opening of evacuation shelter

Contact and call out

Call out to neighbors

To evacuate To evacuate together

Contact

To evacuate To evacuate together

Contact

Communicate with family (If you're not together)

Contact the person who will assist your evacuation (If you cannot evacuate by yourself)

Miscellaneous

3 Fill in when you will start evacuating and when you will do what.

Determine when you will take the actions you identified in ②.

Write down when you will evacuate.

Family Evacuation Plan

Heavy rain is forecasted

Warning Level 1 Early advisory information

Warning Level 2 Flood advisory Heavy rain advisory

Warning Level 3 Evacuation of the elderly from a dangerous area

Warning Level 4 Evacuation of all people from a dangerous area

Warning Level 5 Ensuring safety during an emergency

High

Fill in When will you evacuate? When will you do what?

Ex: Double check emergency grab-and-go bag (mom)

Ex: Double check evacuation shelter (everyone)

Ex: Grandma and mom evacuate to a relative's house by car

Likely evacuation place at this stage

Evacuation place ①, ②

Ex: Evacuate to XX Elementary School (dad and children)

Likely evacuation place at this stage

Evacuation place ①, ②

Likely evacuation place at this stage

Evacuation place ③

After evacuating

Contact method

Family meeting place

It is extremely dangerous to leave or relocate from your evacuation place before the evacuation information is lifted.

## When a record typhoon is approaching(High tide)

Disaster Information(Warning Level)

Warning Level 1

Warning Level 2

Warning Level 3

Warning Level 4

Warning Level 5

Actions to Protect Yourself

Be on heightened alert

Stay alert of weather information

Stay alert of the rainfall situation in your hazard map

Double check your emergency grab-and-go bag in preparation for Warning Level 4 (evacuate everyone)

Evacuate quickly to an evacuation site

Go to a safer place that will not flood (incl. 3F or higher), e.g., a relative's home, friend's home, workplace

To your closest evacuation shelter

To a tall building or other elevated place

It is very dangerous to evacuate in a flood. Your life is in danger. Immediately secure your safety!

To your closest evacuation shelter

To your closest evacuation shelter (to a flood/tsunami evacuation building)

To a tall building or other elevated place

How Will You Evacuate?

If you can stay at home due to shallow flooding, etc.

Do not go outside if it is unwise

Depending on the wind and rain situation, it may be safer to stay at home. Evacuate to a safe place in your home that will not flood.

If you cannot stay at home due to deep flooding, etc.

Evacuate early

Evacuate early to a place that is unlikely to flood. Your options may include evacuating to a relative's home, a friend's home, or workplace, incl. outside Osaka City.

Evacuation Precautions

Go to a place higher than flood level

Driving or evacuating in strong wind is dangerous

The strength of the wind affects evacuation. When strong wind gusts are blowing due to a typhoon, etc., a traveling truck may flip over, or block walls and houses may begin to collapse.

Higher than flood level

When a tsunami strikes

How Will You Evacuate?

Move to an inundation-free place as soon as possible.

Upon feeling earthquake tremors or receiving a tsunami warning, evacuate to an inundation-free place as soon as possible.

Outside the assumed flood inundation zone

Safe, inundation-free floors of the nearest tsunami evacuation building

Safe, inundation-free floors of the nearest tall building or on high places

Tsunami (higher than 1 m) caused by a massive Nankai Trough earthquake is expected to reach Osaka City within 110 minutes after the occurrence of the earthquake.

Tsunami Information

Quantitative expression (indication)	Qualitative expression	Warning name	Your responses
Over 10 m			
10 m	5m-Height≤10m	Huge	Major tsunami warning (Emergency warning)
5 m	3m-Height≤5m		As quickly and high as possible
3 m	1m-Height≤3m	High	Tsunami warning
1 m	20cm≤Height≤1m	N/A	Tsunami advisory

\* Depending on the situation of the river(s) and the disaster, information may not necessarily be released in this order. It is necessary to respond flexibly to the situation.

Ikuno Ward Save

How to Use this Hazard Map

Check the disaster risks for your neighborhood

Use this hazard map to check risks, including which river will cause flooding and whether you will be affected by high tide in times of heavy rain or typhoon, and whether your area is subject to tsunami damage following an earthquake.

Determine when and where to evacuate to for each type of disaster

Your evacuation actions to protect yourself will be different depending on the situation of the disaster and the situation you are in. Determine when and where you will evacuate to for protecting yourself from each type of disaster: heavy rain; typhoon; and tsunami.

Check your daily preparedness by making use of the information in here and My Timeline to protect yourself

A variety of information is released in times of disaster. Take daily preparedness measures by making use of the information in here which will facilitate immediate actions in an emergency, as well as My Timeline which you can fill out.

Evacuation and meeting place

Determine and write down the evacuation and meeting places by type of disaster.

Heavy rain Flooding

Contact

Emergency contact information

Ikuno Ward Office	06-6715-9734	Road (Tajima Construction and Maintenance Office)	06-6751-5000
Ikuno Ward Public Health and Welfare Center	06-6715-9882	Electricity (common to all branches of Kansai Electric Power)	0800-777-8810
Police Station	110	Gas leak (Osaka Gas)	0120-0-19424
Fire Department	119	Telephone trouble (NTT)	113
Sewer (Tajima Sewer System Maintenance Center)	06-6751-5048	When using a fiber optic telephone or mobile phone	0120-444113
Water Service (Southern Water Service Center)	06-6627-9511		

## When heavy rain could cause river flooding

Disaster Information(Warning Level)

Warning Level 1

Warning Level 2

Warning Level 3

Warning Level 4

Warning Level 5

Actions to Protect Yourself

Be on heightened alert

Stay alert of weather information

Check evacuation actions

Double check evacuation route on the hazard map

Stay alert of the rainfall situation in your hazard map

Evacuate quickly to an evacuation site

Go to a safer place that will not flood (incl. 3F or higher), e.g., a relative's home, friend's home, workplace

To your closest evacuation shelter

To a tall building or other elevated place

It is very dangerous to evacuate in a flood. Your life is in danger. Immediately secure your safety!

To your closest evacuation shelter

To your closest evacuation shelter (to a flood/tsunami evacuation building)

To a tall building or other elevated place

How Will You Evacuate?

If you can stay at home due to shallow flooding, low risk of house collapse, etc.

Do not go outside if it is unwise

Depending on the wind and rain situation, it may be safer to stay at home. Evacuate to a safe place in your home that will not flood.

If you cannot stay at home due to deep flooding, high risk of house collapse, etc.

Evacuate early

Evacuate early to a place that is unlikely to flood. Your options may include evacuating to a relative's home, a friend's home, or workplace.

Evacuation Precautions

Do not use flooded roads

The water will be muddy, and you will have a hard time seeing where you are going. It is dangerous as you can fall into a manhole, drain, or other openings.

Manhole

Danger

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### How Will You Evacuate?

If you can stay at home due to shallow flooding, low risk of house collapse, etc.

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Depending on the wind and rain situation, it may be safer to stay at home. Evacuate to a safe place in your home that will not flood.

If you cannot stay at home due to deep flooding, high risk of house collapse, etc.

Evacuate early

Evacuate early to a place that is unlikely to flood. Your options may include evacuating to a relative's home, a friend's home, or workplace.

### About flood disaster evacuation buildings

Image

Osaka City is working to secure flood disaster evacuation buildings, which will serve as temporary or emergency facilities for protecting people's lives from river flooding and tsunami. Know where your closest flood disaster evacuation buildings are in case of an emergency.

水害時避難ビル

Flood Disaster Evacuation Bldg.

水災時避難ビル / 수해시 대피 빌딩

避難可能時間 「24時間」