

# Disaster Prevention Hazard Map

Yokkaichi City BOSAI Hazard MAP



Floods



Landslide  
disasters



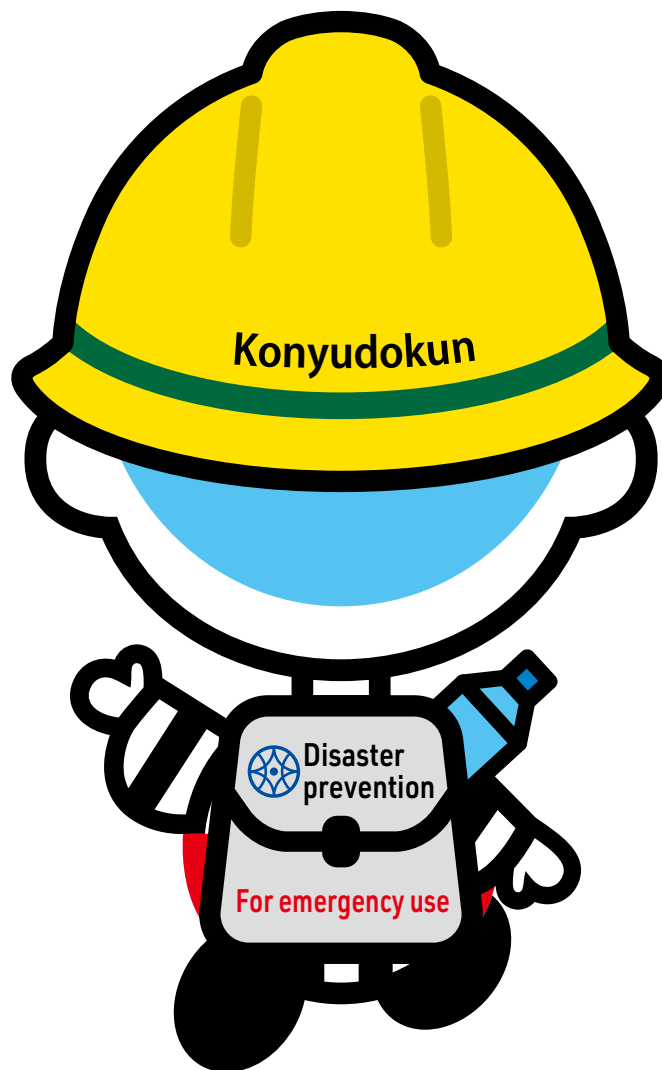
Storm  
surges



Inland  
flooding



Earthquakes



Tsunamis



Yokkaichi City

July 2023



# **Start from now** to protect your own life. **Know. Think. Prepare.**

## Step 1: Know

### Know disaster risks.

Yokkaichi City is also at risk of disasters, such as wind and flood damage (floods, landslide disasters, storm surge, and inland flooding), earthquakes, and tsunamis.



### Know about the measures and information to protect lives.

The response to protect lives is different for each type of disaster, such as wind and flood damage (floods, landslide disasters, storm surges, inland flooding), earthquakes, and tsunamis.



## Step 2: Think

### Consider measures to protect your life and those of your family members.

Wind and flood damage (floods, landslide disasters, storm surges, and inland flooding) is a disaster that can be prepared for by obtaining information in advance.

On the other hand, earthquakes occur suddenly.

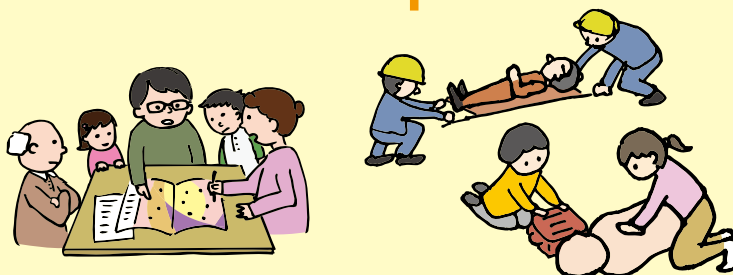
Using the hazard map, think about what you can do to protect yourself and your family.



**On a regular basis**

**Know on your own, with your family, and in your community.  
Think. Prepare.**

**Occurrence of disasters**



It is important to learn about the disasters that are expected to occur around you, consider the necessary responses according to the individual situation, and prepare on a daily basis to respond to them in order to protect your life from disasters.

## Step 3: Preparation

### Preparing necessities including food

Supplies in the evacuation shelter are limited.

In the event of a disaster, lifelines such as electricity, water, and gas may be cut off.



### Preparation in your home

Check for dangerous areas in your home and what you can do to prepare for flooding, and take countermeasures.



## Take action to save lives



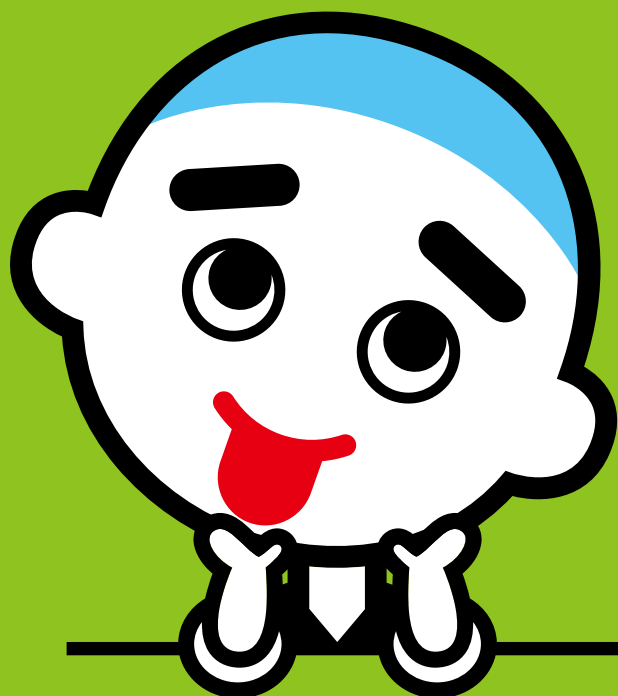
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**Step  
1**

**Know**



## Q What disaster risks are expected in Yokkaichi City?

Yokkaichi City is also at risk of disasters such as wind and flood damage (floods, landslide disasters, storm surge, and inland flooding), earthquakes, and tsunamis.

Awareness map

→ Pages 5 to 6

## Q When and where to evacuate?

Appropriate evacuation methods vary depending on the type of disaster and the circumstances of you, your family, your home, and the surrounding area.

Know what to do to save lives

→ Pages 7 to 8

## Q What information is available to save lives?

Information that will trigger evacuation, such as information urging evacuation, weather information, and river water level information, will be announced by various organizations. Let's actively collect information and take action.

Information to save lives

→ Pages 9 to 10

How to obtain information

→ Pages 11 to 12

## Q What kind of disaster is wind and flood damage?

Wind and flood damage is a disaster caused by typhoons, heavy rain, etc. Floods, landslide disasters, storm surge, and inland flooding are expected in Yokkaichi City.

Basic knowledge of wind and flood damage

→ Pages 13 to 14

## Q How to protect your life from wind and flood damage?

Wind and flood damage (floods, landslide disasters, storm surge, inland flooding) is a disaster that can be prepared for by obtaining information in advance.

Check the disaster risk around your home to confirm where to evacuate and what information to use to begin your evacuation.

Know about floods

→ Pages 15 to 16

Know about landslide disasters

→ Pages 17 to 18

Know about storm surge

→ Pages 19 to 20

Know about inland flooding

→ Pages 21 to 22

## Q How to protect your life from earthquakes and tsunamis?

Since it is not possible to obtain information in advance in case of an earthquake, it is important to learn how to protect yourself from the shaking.

Tsunamis can also occur due to earthquake shaking.

Learn the actions to take to protect your life from a tsunami and the information that will be announced.

Basic knowledge of earthquakes and tsunamis

→ Pages 23 to 24

Know about earthquakes

→ Pages 25 to 26

Known about tsunamis

→ Pages 27 to 28

## Awareness map

This map shows what kinds of assumed disaster risks exist in Yokkaichi City, based on the estimated flood inundation zone map, landslide disaster warning zone map, tsunami flooding zone map, storm surge flooding zone map, and reservoir hazard map.

Find out what types of disasters your district is susceptible to.



Disasters often involve the unexpected. In addition to the disasters listed on this map, there are also dangers in areas that are not colored, such as water that cannot be drained due to heavy rain and accumulates.

**Don't be bound by assumptions and act at your own discretion if you feel unsafe.**

Areas marked with this color...

Areas with a risk of

**landslide disasters**

Areas marked with this color...

Areas with a risk of flooding due to overflowing

**reservoirs**

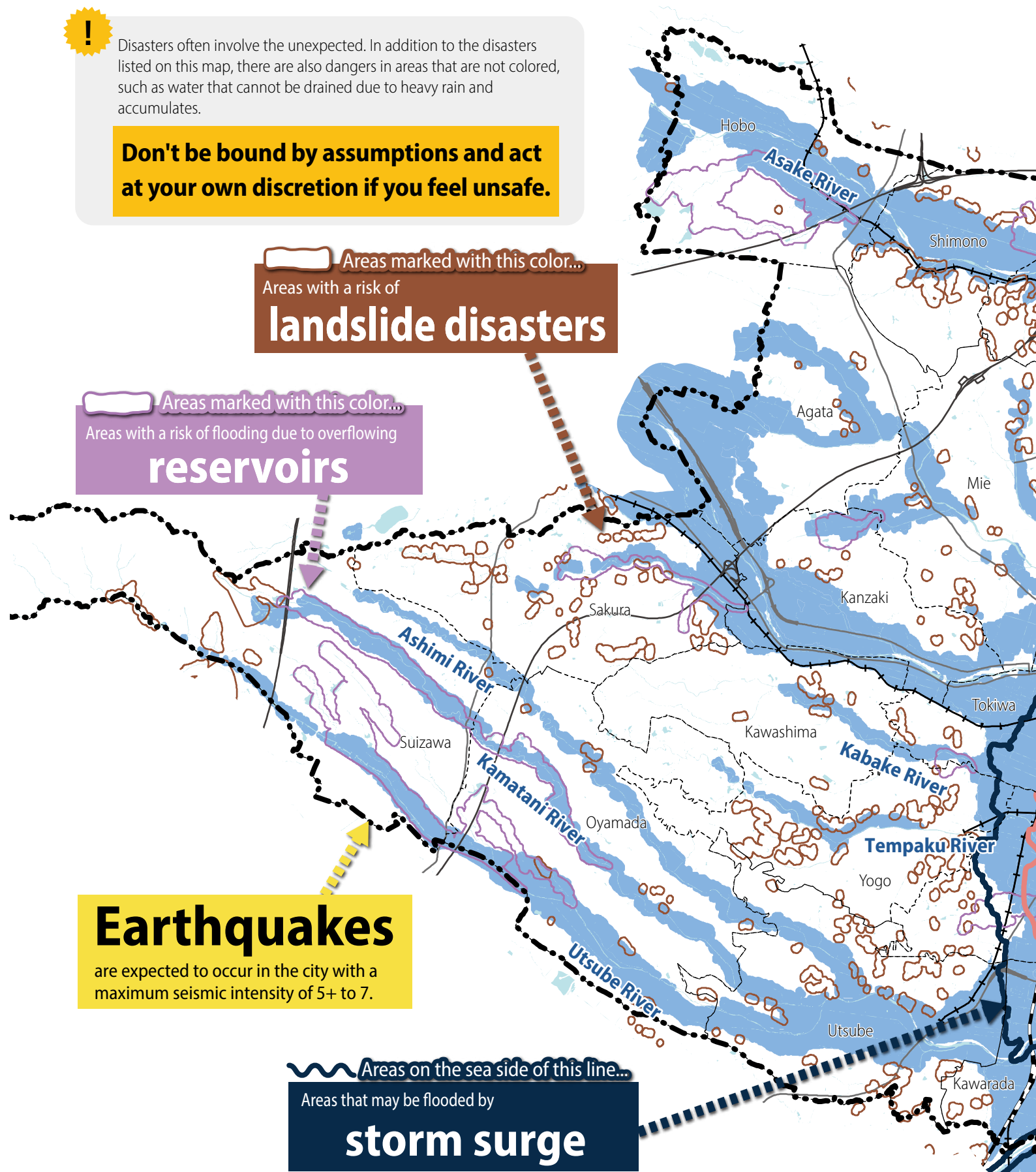
**Earthquakes**

are expected to occur in the city with a maximum seismic intensity of 5+ to 7.

Areas on the sea side of this line...

Areas that may be flooded by

**storm surge**





There are many rivers in Yokkaichi City, and each river has a different area of flooding.

Areas marked with this color...  
Areas with a risk of

**flooding**



#### Asake river system

Flooded areas of Asake River, Tabika River, Sugitani River and Taguchi River

#### Mitaki River system and Kaizo River system

Flooded areas of Mitaki River, Kanatani River, Yago River, Mitaki Shinkawa, Kaizo River, Taketani River, and Aka River

#### Tempaku River system

Flooded areas of Tempaku River and Kabaka River

#### Suzuka River system

Flooded areas of Suzuka River, Suzukagawa-hagawa River, Utsube River, Kamatani River, Ashimi River, Harusame River, Koike River, and Tani River

Areas on the sea side of this line...

Areas that may be flooded by

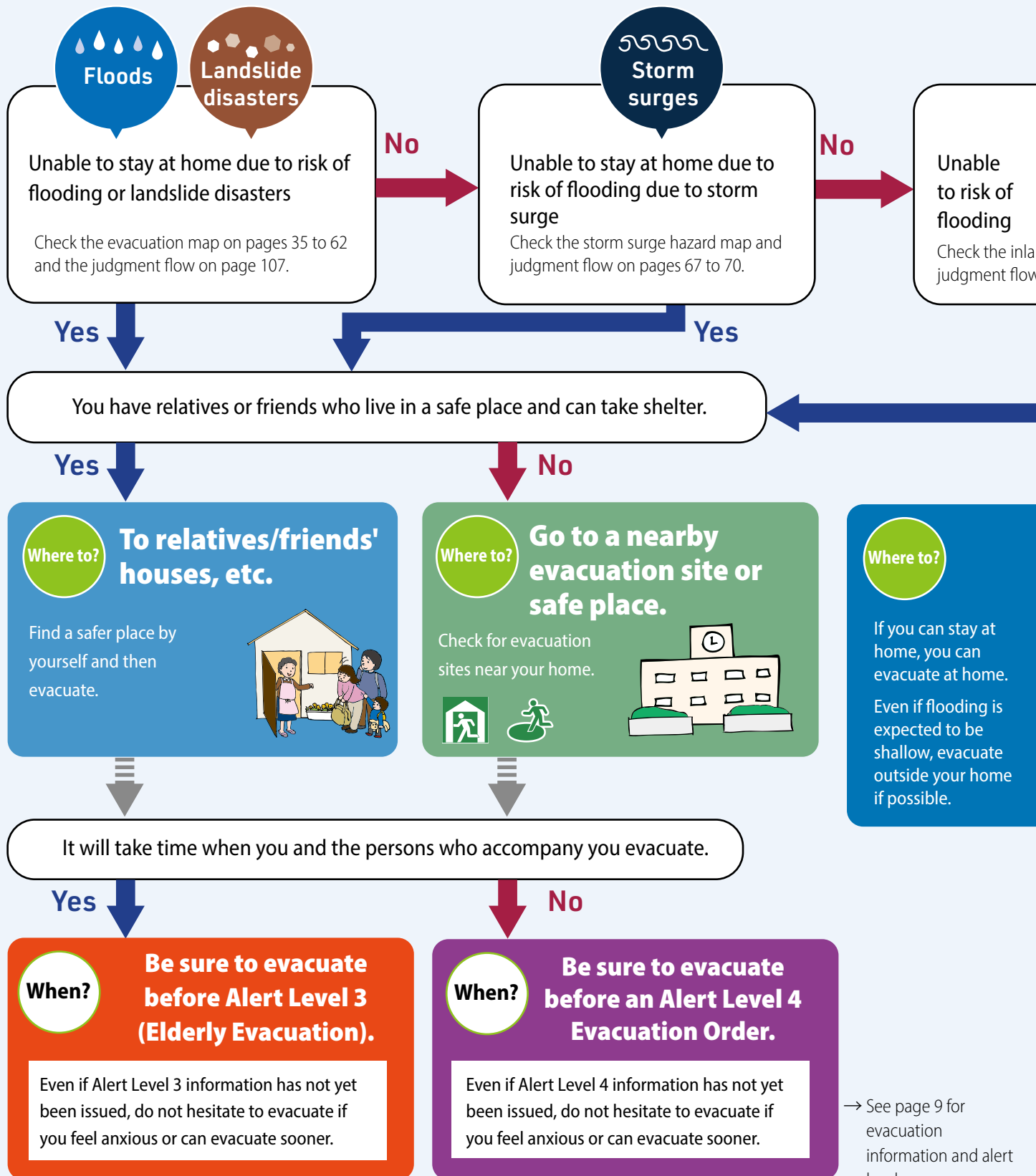
**tsunami**

When to evacuate?  
Where?

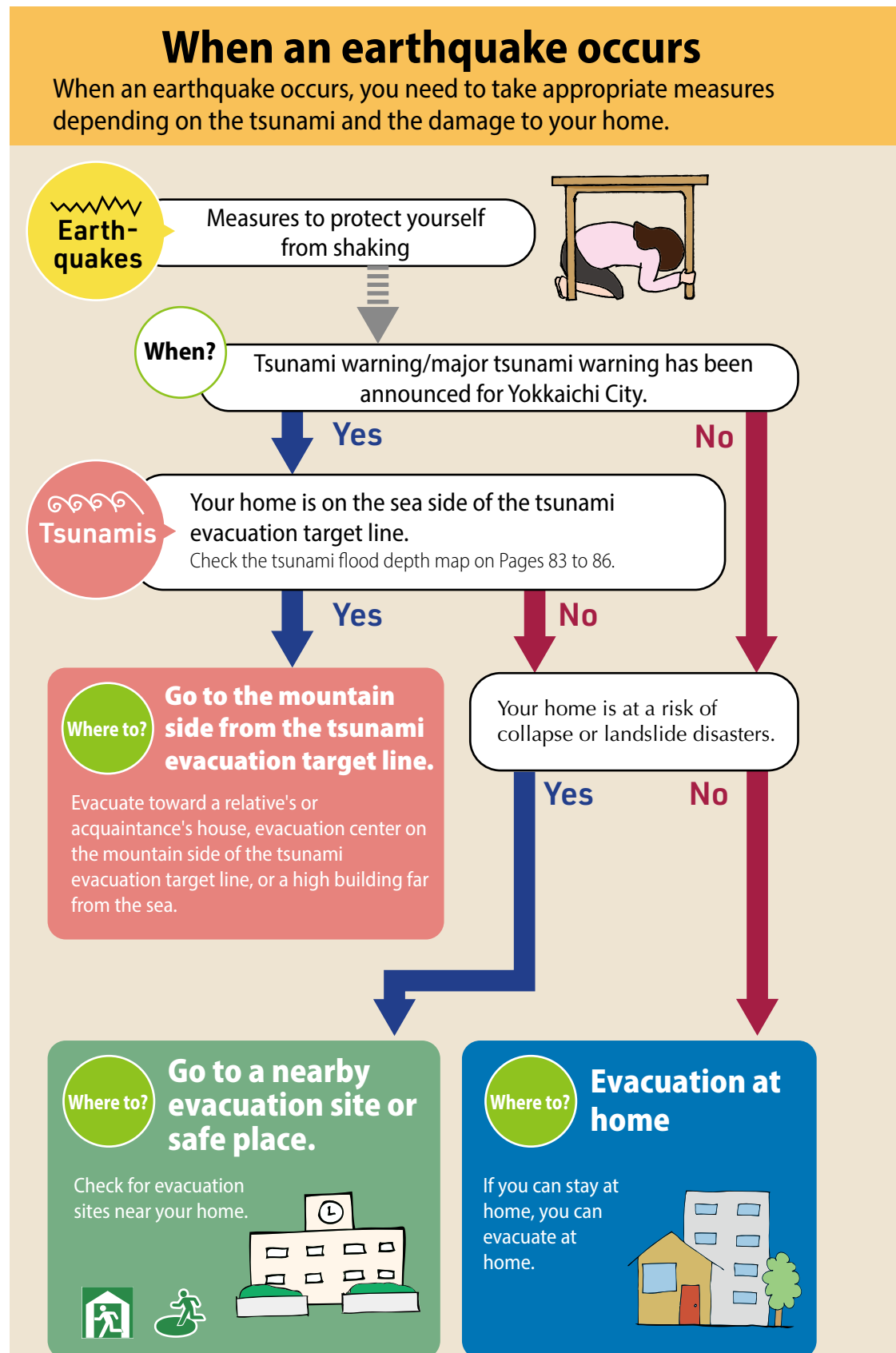
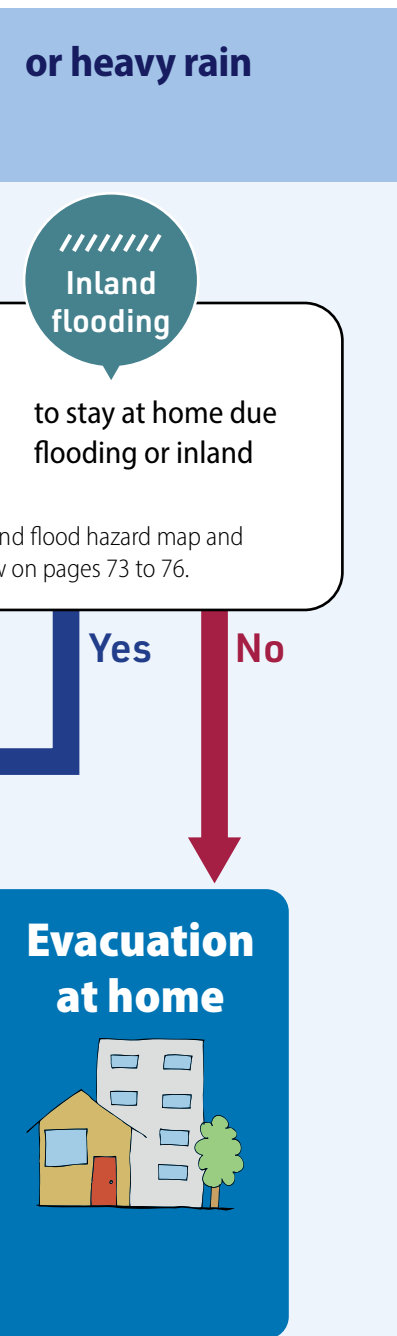
# Know what to do to save lives

## When there is a risk of wind and flood damage due to a typhoon

Those who are living in areas where there is a risk of flooding, landslide disasters, or storm surge need to evacuate during typhoons or heavy rain.



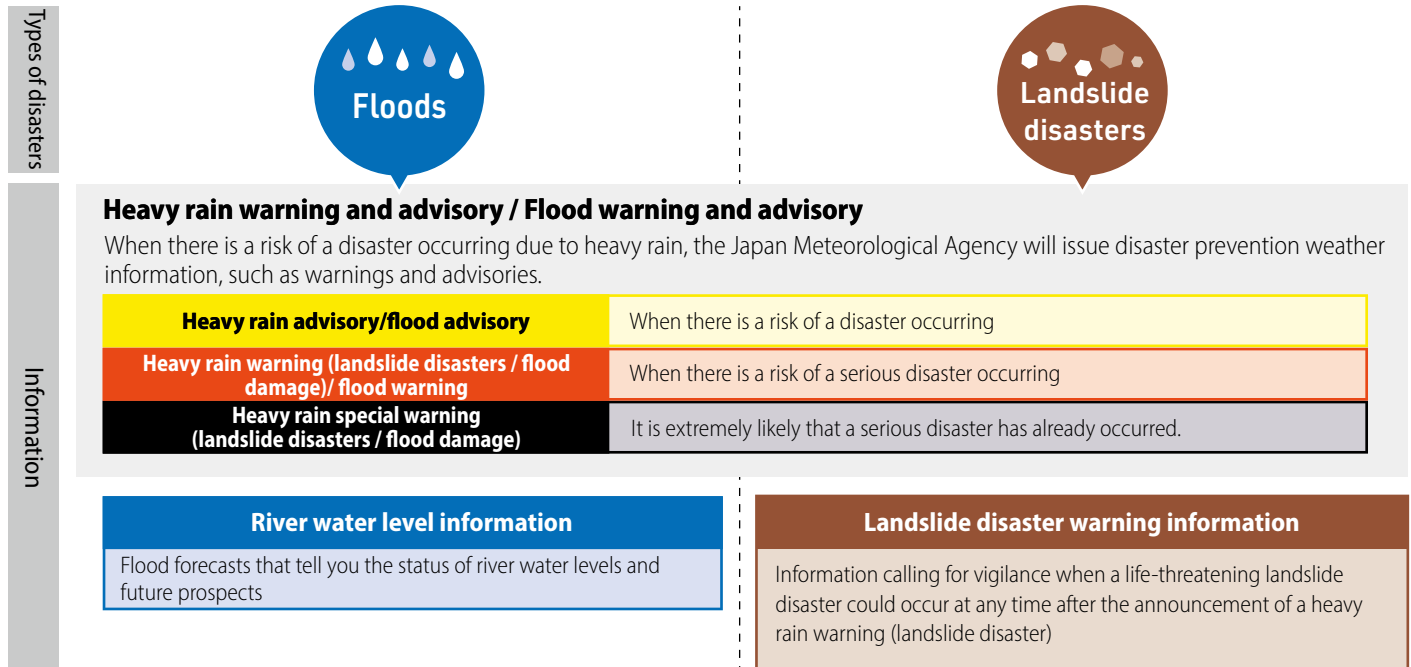
The timing and destination of evacuation will vary depending on the disaster situation.  
Look at the hazard map and check your evacuation response.





# Information to save lives

## Types of disasters and disaster prevention information

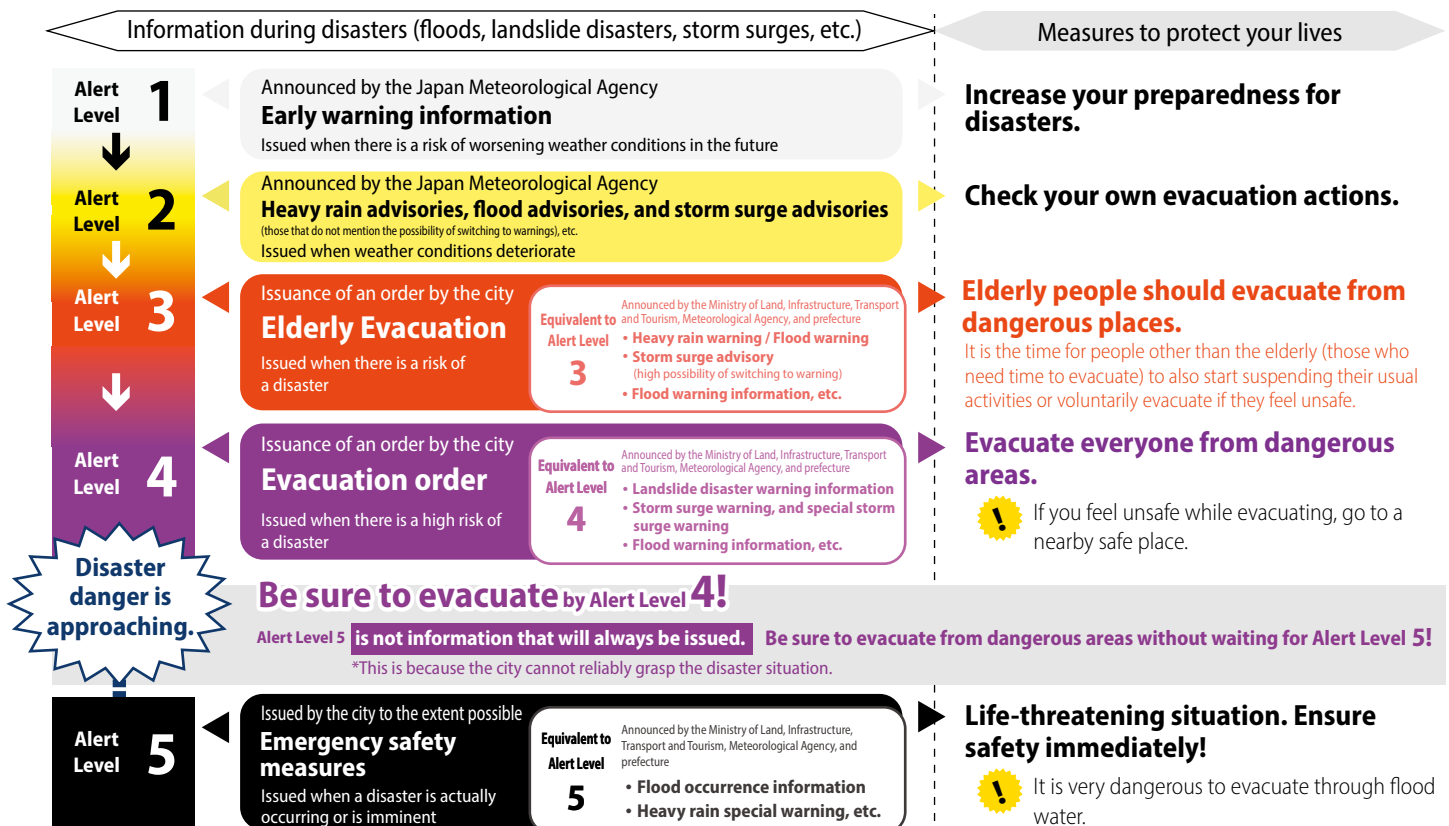


## Evacuation information

When evacuation is necessary, the city will issue evacuation information.

Be sure to register in advance with the **Yokkaichi City S-Alert** and **Yokkaichi City Safety and Security Disaster Prevention Emails** to receive information.

→ For the registration method, refer to Page 11.



\* Information may not necessarily be released in this order depending on the target river and the progress of the disaster situation. It is important to respond flexibly depending on the situation.



### Storm surge warning/advisory

The Japan Meteorological Agency will issue an announcement when a typhoon causes sea levels to rise and there is a risk of coastal disasters.

<b>Storm surge advisory</b> What is not mentioned in the possibility of switching to a warning	When there is a risk of a disaster occurring
<b>Storm surge advisory</b> What is mentioned in the possibility of switching to a warning	When there is a risk of a disaster occurring
<b>Storm surge warning</b>	When there is a risk of a serious disaster occurring
<b>Storm surge special warning</b>	It is extremely likely that a serious disaster has already occurred.

### Tide level observation information

Information that instantly displays the latest real conditions from 6 days ago and forecasts until tomorrow at tide level observation points across the country



### Earthquake early warning

Immediately after the occurrence of an earthquake, information to be provided as quickly as possible to predict the arrival time and intensity of strong shaking in various places



### Information about tsunamis

If a tsunami disaster is expected to occur after an earthquake, warnings and advisories will be issued.

#### <Actions to be taken by everyone>

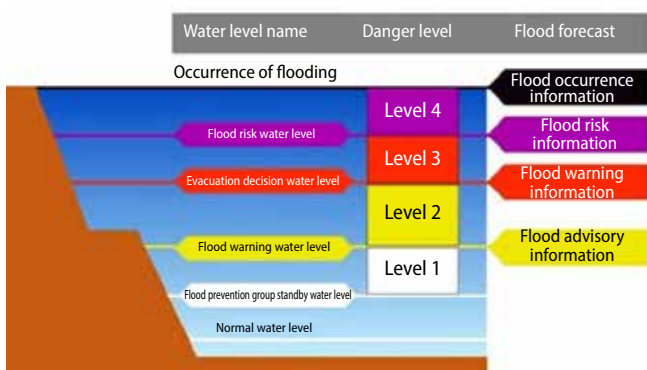
<b>Tsunami advisory</b>	Anyone in the sea must immediately get out of the sea and move away from the shore.
<b>Tsunami warning</b>	People in coastal areas or along rivers must immediately evacuate to safe locations, such as higher ground and evacuation buildings.
<b>Major tsunami warning (special warning)</b>	People in coastal areas or along rivers must immediately evacuate to safe locations, such as higher ground and evacuation buildings.

## Information on river water level, rainfall, and tide level

River water levels, rainfall, and tide levels are monitored In Yokkaichi City.

If there is a high possibility of river flooding or flooding, confirm the river water level.

→ How to obtain information is on Pages 11 to 12.



Flood risk water level:

Water level that serves as a guideline for issuing an "evacuation order"

Evacuation judgment water level:

Water level that serves as a guideline for issuing an "Elderly Evacuation" order

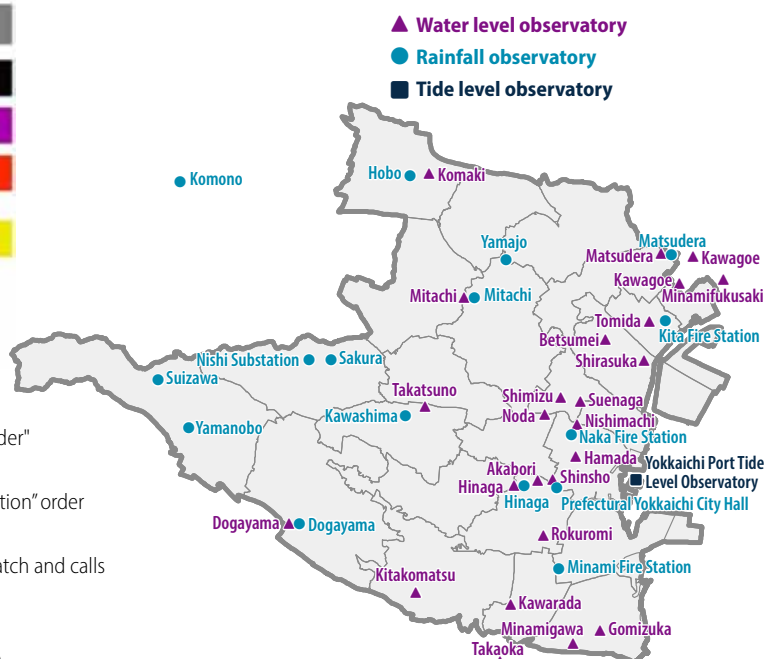
Flood warning water level:

Water level at which the flood prevention group prepares for dispatch and calls attention to flooding

Flood prevention group standby water level:

Water level at which the flood prevention group prepares at home

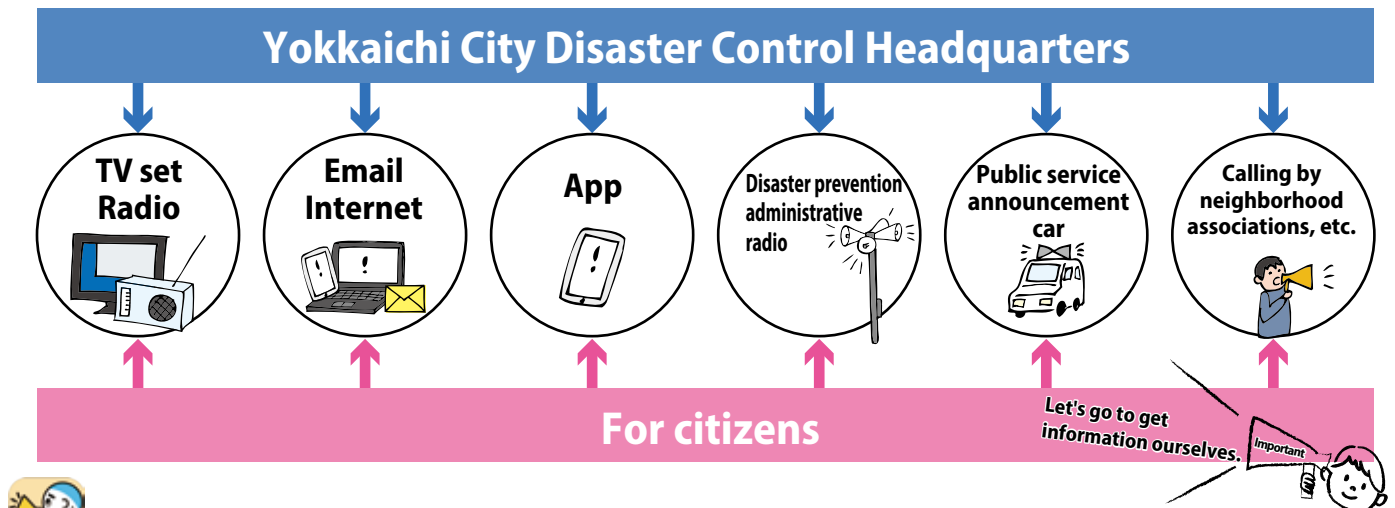
→ Check Page 12 for confirmation method.



# How to obtain information

## How to convey information

Information about evacuations and disasters can be obtained in many ways. Be proactive in obtaining information yourself.



### Receive by app

#### Yokkaichi City S Alert

Download the app with a QR code.

You can obtain evacuation information etc. provided by Yokkaichi City.



iPhone, iPad



Android



### Receive by email

#### Yokkaichi City Safety and Security Disaster Prevention Mail

Let's pre-register.

You can obtain disaster prevention information etc. provided by Yokkaichi City.

To register, please read the QR code on the right, click "Send blank email", and follow the instructions in the email you receive.



Smartphone, PC



Feature phone

**URL** <https://plus.sugumail.com/usr/yokkaichi/home>

[Click here for feature phones (flip phones).]

**URL** <https://m.sugumail.com/m/yokkaichi/home>



### Check by phone

#### Disaster prevention siren / audio broadcast confirmation dial

Automatic telephone answering is available to check the contents of sirens and audio broadcasts.

**TEL 059-351-4004**

#### Emergency alert email (area mail)

No registration required

Information such as evacuation orders is sent to compatible mobile phones via "Emergency alert email (area mail)."

\*Some models may not be compatible. Please contact your mobile phone company for details.



### Check on TV/Radio

#### TV set

**Terrestrial digital**

NHK 3 ch

**Cable TV**

CTY \*Subscription required  
TV's **d** Button (data broadcast)

#### Radio

**AM**

NHK Nagoya 1 729kHz

**FM**

CTY-FM 76.8MHz  
NHK-Tsu FM 81.8MHz  
Radio Cube FM Mie 78.9MHz



### Check via the Internet

#### Yokkaichi City disaster prevention information

You can see disaster prevention information etc. provided by Yokkaichi City.



**URL** <https://bousai2.city.yokkaichi.mie.jp/>



## Check via the Internet

### Weather information, rainfall, river water level, tide level information

#### Yokkaichi City disaster prevention weather information

Weather in Yokkaichi City, announcement status of various advisories and warnings, rainfall, river water level observation data, etc.

URL <https://yokkaichi-city.bosai.info/>



#### Disaster Prevention Mie.jp

Weather in Mie Prefecture, announcement status of various advisories and warnings, rainfall, river water level observation data, etc.

URL <https://www.bosaimie.jp>



#### CTY-NET Online

Live camera footage of Mitaki River, Kaizo River, Kabake River, etc. (updated every minute)

URL <https://www.cty-net.ne.jp/> \*An app is required for smartphones. Download the app with a QR code.



#### Japan Meteorological Agency

Weather advisories and warnings, typhoon information, earthquake and tsunami information, etc.

URL <https://www.jma.go.jp>



#### River disaster prevention information by the Ministry of Land, Infrastructure, Transport and Tourism

Weather advisories and warnings, typhoon information, earthquake and tsunami information, etc.

URL <https://www.river.go.jp>



#### River water level information (crisis management type water level gauge) (Foundation of River & Basin Integrated Communications, JAPAN)

Observed values of crisis management water level gauges, etc.

URL <https://k.river.go.jp>



#### Environment of Yokkaichi Port (Yokkaichi Port Authority)

Current tide level of Yokkaichi Port, etc.

URL <http://www.yokkaichi-port.or.jp/yp-environment/index.html>



#### Check the surrounding rain and danger level using Kikikuru (risk distribution).

When a warning is announced, you can check where the risk of landslide disasters, food damage, and flood disasters is increasing.



#### Public GIS (disaster prevention information)

This system can provide a variety of digitized map information in an easy-to-understand manner.

URL <https://bousai2.city.yokkaichi.mie.jp/hazard-map/hm-03/>



#### Evacuation center congestion information site "VACAN"

You can check the availability and congestion status of each designated evacuation shelter.

URL <https://vacan.com/area/yokkaichi-city-evacuation/evacuation-center/11>



#### Yokkaichi City Regional Disaster Prevention Plan [Data collection]

You can check a list of designated emergency evacuation sites, facilities for people requiring special consideration, underground shopping malls, etc. in zones expected to be flooded due to wind and flood damage.

URL <https://bousai2.city.yokkaichi.mie.jp/plan-document/local-disaster-prevention-plan/etc-04/>



## Check with the app.

#### Yokkaichi City AR disaster prevention learning app "ARLook" Download the app with a QR code.

If you "walk" and "look at" areas by holding up your camera or smartphone, you can see nearby evacuation shelters and the flood depth at the current location displayed using AR technology.



iPhone, iPad



Android

# Basic knowledge of wind and flood damage

In recent years, unprecedented disasters caused by typhoons and heavy rain have frequently occurred across the country. This situation is expected to increase further in the future due to factors such as global warming.



Ise Bay Typhoon in 1959 (Showa 34)  
Tomitaishiki coastal area destroyed by wind and storm surge



Localized torrential downpours in July 1974 (Showa 49)  
Near Hinaga 1-2-chome

## How do typhoons and heavy rain occur?

When a low pressure system accompanied by a typhoon or a front passes near Japan, or when the front is stationary, it can cause heavy rain over a wide area. In addition, it is necessary to pay attention not only to rain but also to strong winds and storm surge during typhoons.

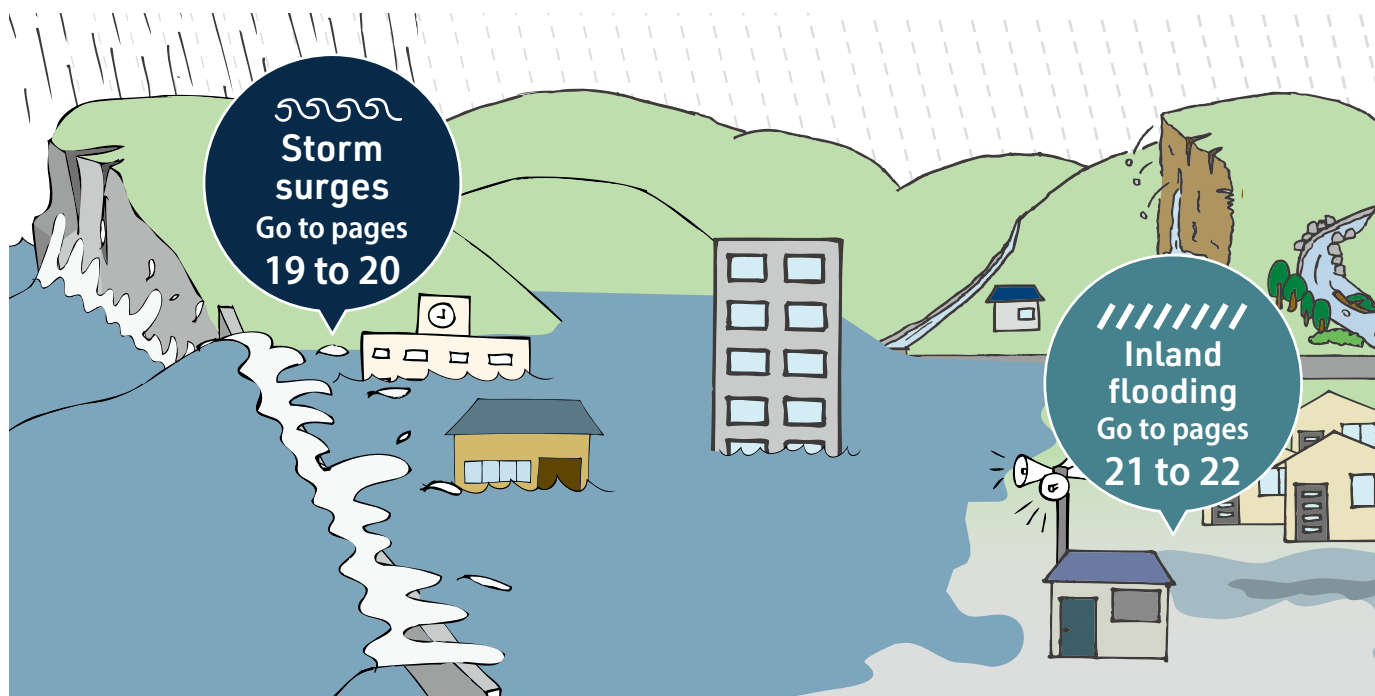
### Typhoon

Since rising air currents are likely to occur over tropical oceans with high sea surface temperatures, these air currents cause many cumulonimbus clouds to form one after another and to form a vortex. When such a vortex has developed, it is called a typhoon. Typhoons often occur over the ocean near the equator.

### Heavy rain due to a front

The place where warm air and cold air meet is called a front. At a front, clouds form due to rising air currents due to temperature differences, making it easier for rain to fall near the front. Clouds form at a front due to rising air currents caused by temperature differences, making it easier for rain to fall near the front. During the rainy season, etc., the forces of warm air and cold air become equal and stay in the same position, making it easier to experience long periods of rain.

## Types of wind and flood damage (disasters caused by typhoons and heavy rain)





## Rain intensity and how it falls

Rain intensity  
(forecast term)

### Somewhat heavy rain

Hourly rainfall (mm/hour)  
Less than 10 to 20 mm



- Puddles form all over the ground.

### Heavy rain

Hourly rainfall (mm/hour)  
Less than 20 to 30 mm



- Get wet even with an umbrella
- Difficult to see even with the wipers at high speed

### Torrential rain

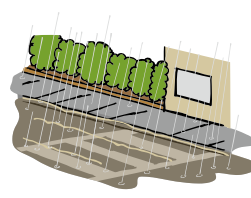
Hourly rainfall (mm/hour)  
Less than 30 to 50 mm



- The road becomes like a river.
- Rain like an overturned bucket

### Very heavy rain

Hourly rainfall (mm/hour)  
Less than 50 to 80 mm



- Umbrellas are completely useless.
- Driving a car is dangerous.
- Rainwater flows underground.

### Torrential downpour

Hourly rainfall (mm/hour)  
80 mm or more



- Feeling pressure or fear that makes it difficult to breathe

## Wind strength

Wind strength  
(forecast term)

### Slightly strong wind

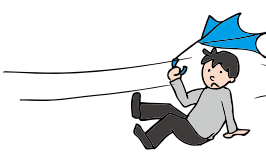
Average wind speed (m/s)  
Less than 10 m to 15 m



- Difficult to walk against the wind
- When driving at high speed, you feel like you are being swept away by a crosswind.

### Strong wind

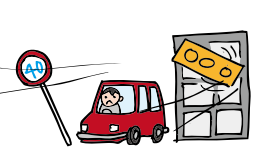
Average wind speed (m/s)  
Less than 15 m to 20 m



- Some people cannot walk towards the wind and fall down.
- Difficult to drive on expressways

### Very strong wind

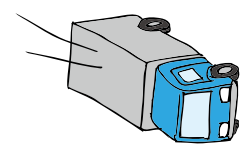
Average wind speed (m/s)  
Less than 20 m to 25 m



- Cannot stand without holding onto something
- There is a risk of injury from flying objects.
- Difficult to drive at normal speed

### Very strong wind

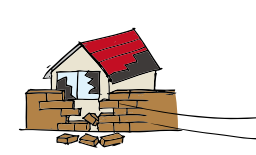
Average wind speed (m/s)  
Less than 25 m to 30 m



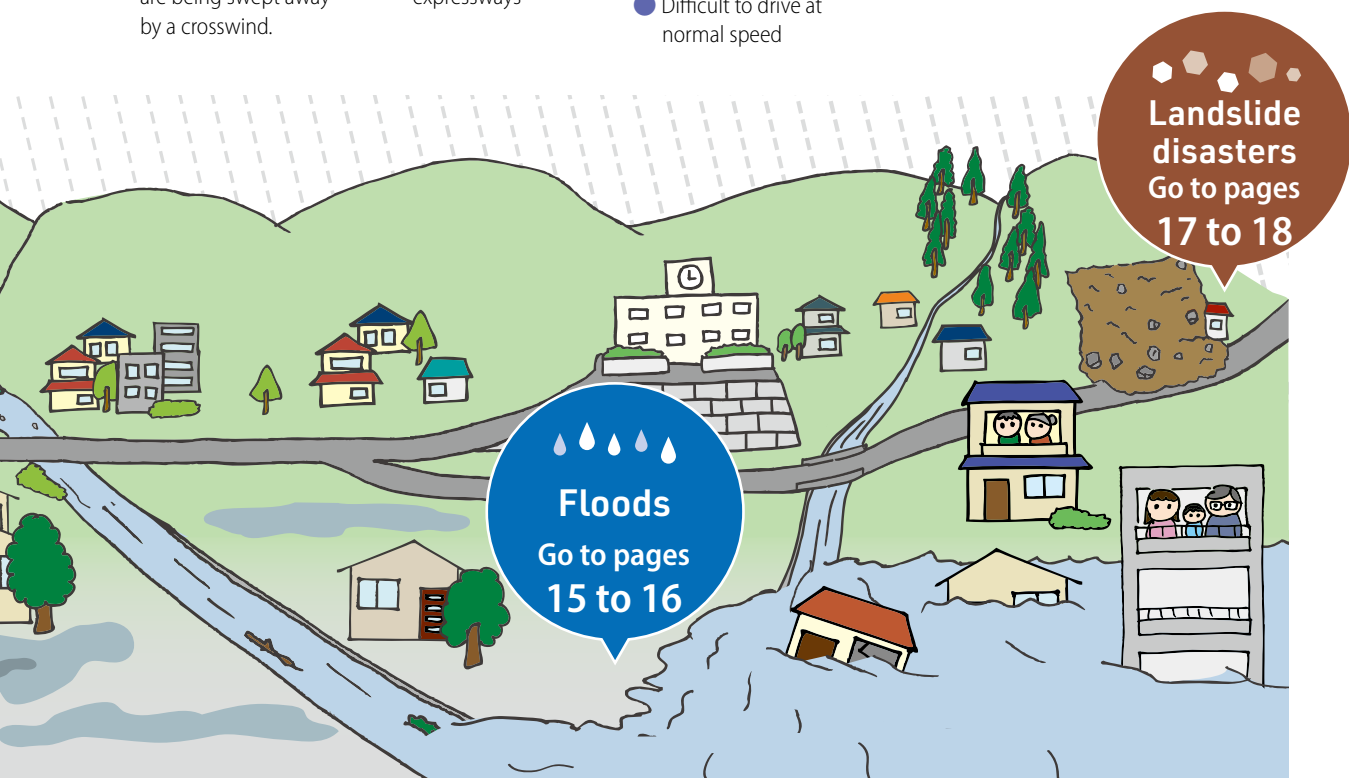
- Activities outdoors are extremely dangerous.
- A running truck rolls over.

### Fierce wind

Average wind speed (m/s)  
30 m or more



- Many trees fall down.
- Block walls and houses begin to collapse.



# Know about floods

## What is a flood?

Heavy rain falls due to a typhoon or a stagnant front, causing river embankments to break or rivers to overflow.

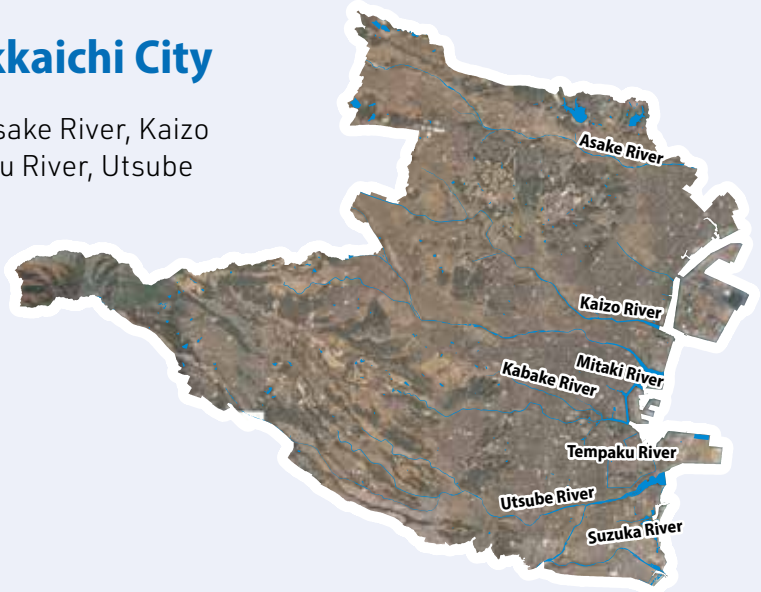


## Rivers flowing through Yokkaichi City

Yokkaichi City has many rivers, such as Asake River, Kaizo River, Mitaki River, Kabake River, Tempaku River, Utsube River, and Suzuka River.

In the past, the city has suffered from many flood disasters, including river flooding due to typhoons and heavy rain.

Since there is a risk that rivers may flood due to the effects of climate change, etc., estimated flood inundation zone maps have been published for many of the city's rivers.



Actions to save lives

## Early evacuation

**Be sure to evacuate from dangerous places at**

**Alert Level 3 (Elderly Evacuation) or at Alert Level 4 (evacuation order) !**

If heavy rain is expected due to the approach of a typhoon or a low-pressure system, avoid approaching dangerous areas and evacuate to areas with less risk of flooding as soon as possible. Evacuation to a relative's or friend's house is also an option.



Look for

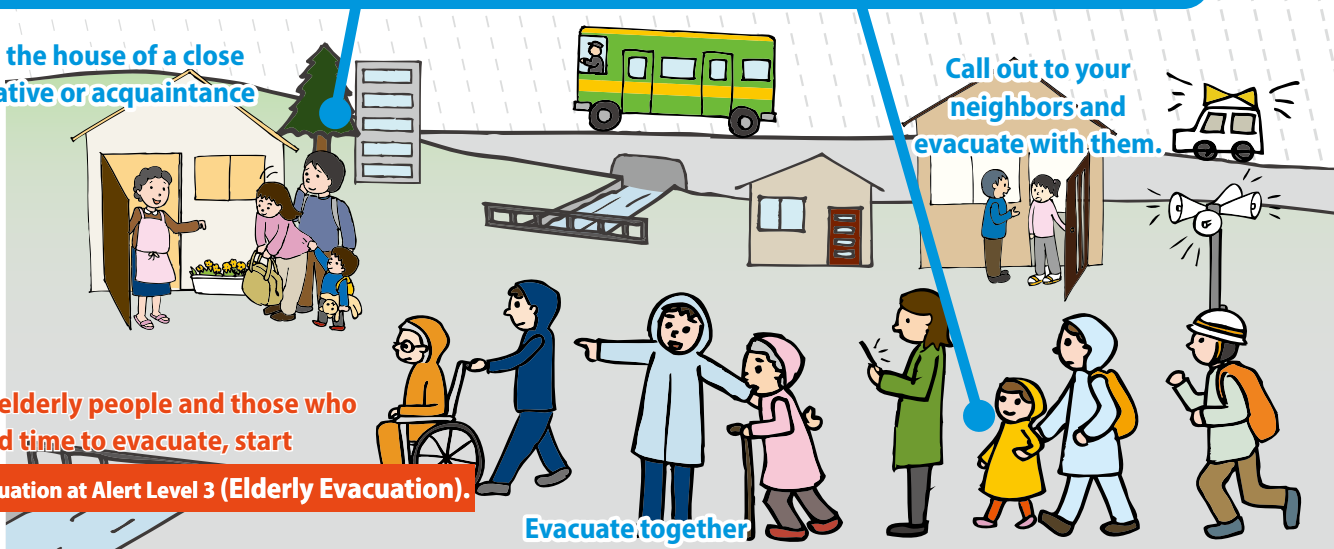
**a relative's house, acquaintance's house, or an evacuation center outside the flooded area as an evacuation shelter.**

**To the house of a close relative or acquaintance**

**For elderly people and those who need time to evacuate, start evacuation at Alert Level 3 (Elderly Evacuation).**

**Evacuate together**

**Call out to your neighbors and evacuate with them.**



## Points for evacuation

### Evacuate early and give yourself a lot of time to spare.

It is dangerous at night because visibility is poor and sounds are difficult to hear. If a typhoon is approaching or heavy rain is expected to continue, evacuate early before it gets dark.



### Consider the dispersion of evacuation by evacuating to places other than evacuation centers.

The number of people that can be accommodated at the evacuation center is limited. From the perspective of preventing infectious diseases, each person should secure an evacuation site, such as a relative's or acquaintance's house or a private accommodation facility, in an area with a low risk of flooding.



### What has to be taken care of during evacuation



The water becomes muddy and it is difficult to see your feet. It is dangerous to fall into manholes or gutters with lids removed.



Avoid driving on roads that are lower than the surrounding area and prone to flooding, such as underpasses under elevated tracks.



In some zones, the force of the floodwaters is so strong that buildings may be destroyed or washed away. Evacuate as soon as you hear evacuation information.

Actions to  
save lives

### If it is too late to evacuate...

Go to a **tall and durable building** where you can stay in even after flooding, or a high place in your home.

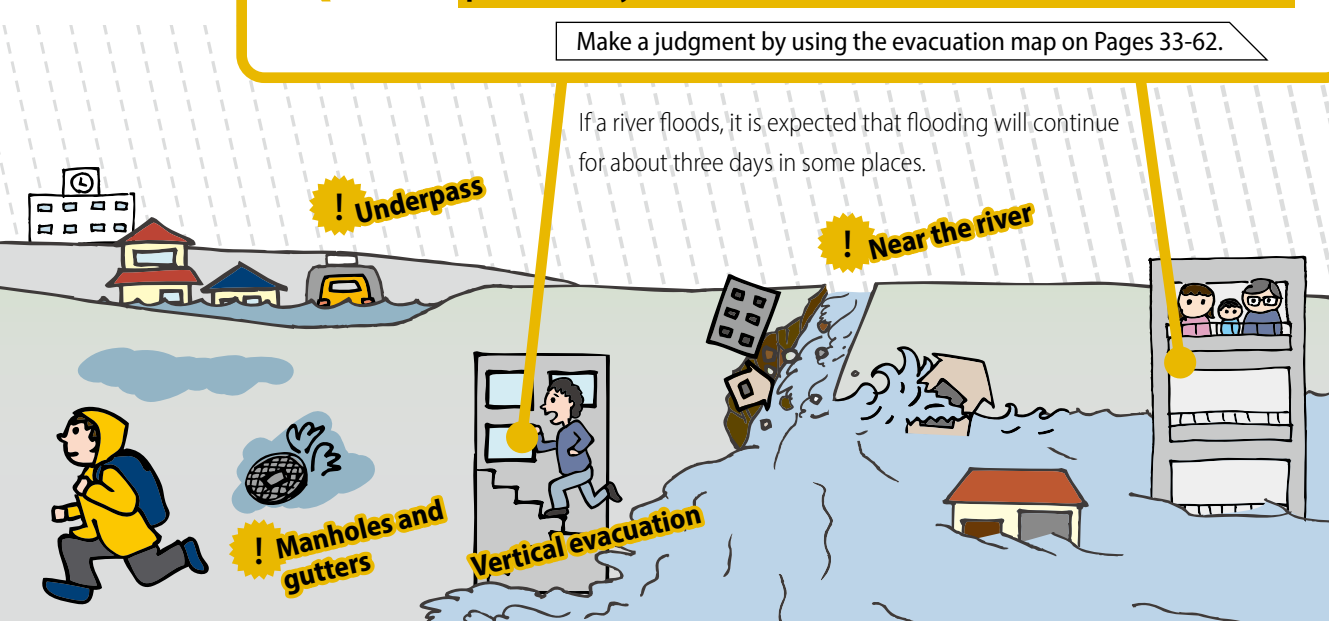
Walking through flood water is dangerous. If it is too late to evacuate, protect yourself in the safest place depending on the situation.



**Look for tall buildings, high places outside, high places in your home, or safe places nearby to evacuate.**

Make a judgment by using the evacuation map on Pages 33-62.

If a river floods, it is expected that flooding will continue for about three days in some places.





# Know about landslide disasters

## What is a landslide disaster?

Disasters triggered by heavy rain or earthquakes that cause mountains and cliffs to collapse and soil and stones mixed with water to flow out through rivers

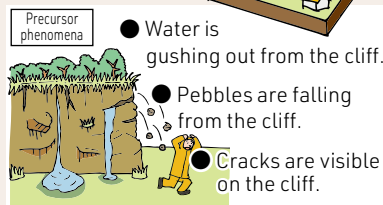
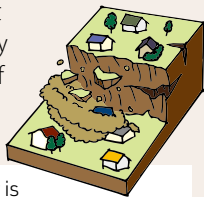


### Types of landslide disasters

Landslide disasters are divided into three types. If precursor phenomena of a disaster are seen before it occurs, it is important to evacuate to a safe place as soon as possible.

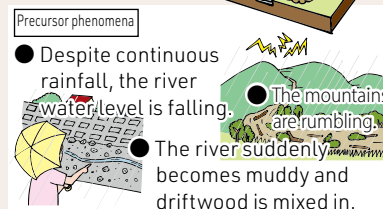
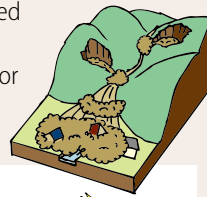
#### Landslip (collapse of steep slope)

Water seeping into the ground loosens the slope, causing it to collapse suddenly due to the effects of rain, earthquakes, etc.



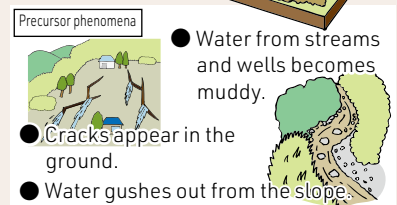
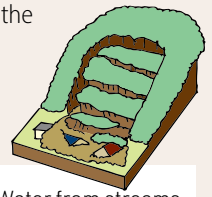
#### Debris flow

Rocks and soil on mountainsides and riverbeds are washed downstream all at once by long rains or localized torrential downpours.



#### Landslide

Slow sliding of the ground over a wide area due to the influence of groundwater, etc.



Actions to save lives

### Early evacuation

**Be sure to evacuate from dangerous places at**

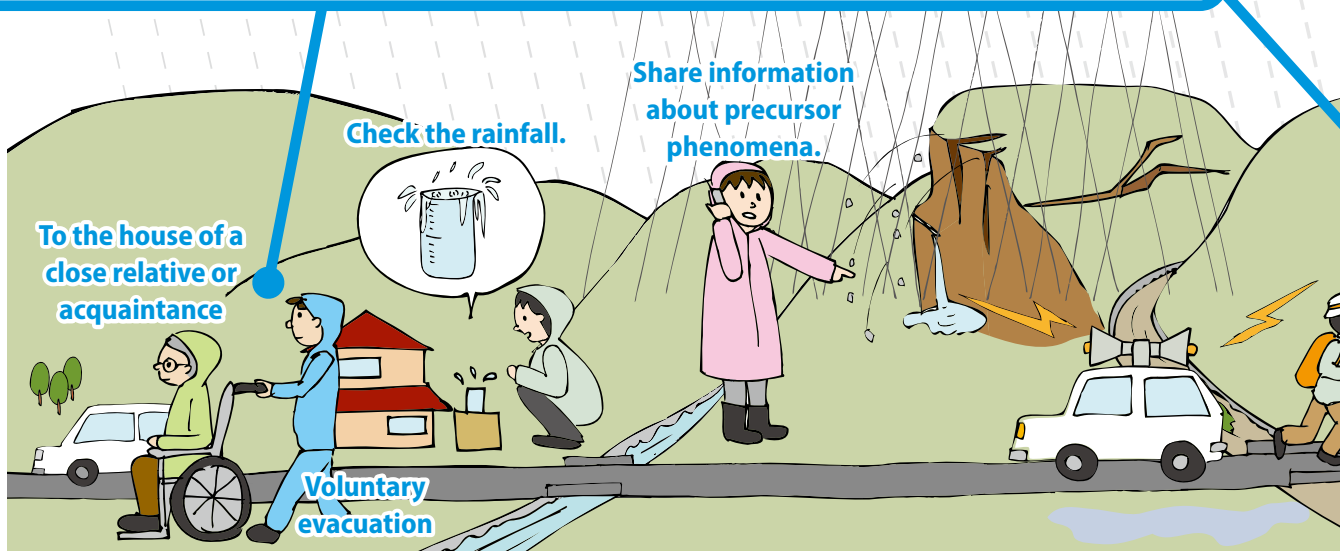
**Alert Level 3 (Elderly Evacuation) or at Alert Level 4 (evacuation order) !**

Landslide disasters are a phenomenon in which it is extremely difficult to issue evacuation information. Pay attention to rain and precursor phenomena, and seize an opportunity to voluntarily evacuate even if there is no information.



Look for

**a relative's house, acquaintance's house, or an evacuation center in an area with low risk of floods and landslide disasters as an evacuation shelter.**



## Points for evacuation

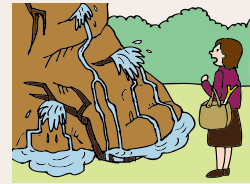
### Decide on evacuation rules in your community and family.

If you discover signs of a landslide, it is important to share information with those around you and begin evacuation. Be sure to decide where to evacuate and how to share information.



### You need to be careful even after the rain has stopped.

The rain that has fallen so far remains in the soil. Even if the rain has stopped, be careful while a heavy rain warning is issued, as landslides may occur.



## Landslide disaster warning zone and landslide disaster special zone

As zones where landslides are likely to occur, Mie Prefecture has designated landslide disaster warning zones and landslide disaster special warning zones depending on the degree of risk. In addition, zone designation is being carried out sequentially.

### Landslide disaster warning zone (yellow zone)

This is a zone where there is a risk of landslide disasters, and it is recognized that landslide disasters may cause a risk of danger to the lives or bodies of residents.

### Landslide disaster special warning zone (red zone)

This is a zone where there is a risk of landslide disasters, and it is recognized that landslide disasters may cause a risk of damage to buildings and serious harm to the lives or bodies of residents.

Actions to  
save lives

### If it is too late to evacuate...

### Move to sturdy buildings or the 2nd floor or higher away from slopes.

If you fail to escape, protect yourself in the safest place depending on the situation.



**Look for** tall buildings, high places outside, high places in your home, or safe places nearby to evacuate.

Make a judgment by using the evacuation map on Pages 33 to 62.

Escape together.

Vertical evacuation

# Know about storm surge

## What is storm surge?

A phenomenon in which the sea level rises and the sea surges due to a typhoon, low pressure, etc.



## Typhoon size and impact on storm surge

When a typhoon approaches and the atmospheric pressure decreases, the sea level will rise by approximately 1 cm for every 1 hPa of pressure drop. For example, when a typhoon approaches and the atmospheric pressure goes from 1000 hPa to 950 hPa, the sea level rises by 50 cm. In particular, when a typhoon moves northward on the west side of a bay that opens to the south, strong winds blow from the south, which can cause major damage by storm surge.

(hPa: Hectopascal)

### Typhoon strength

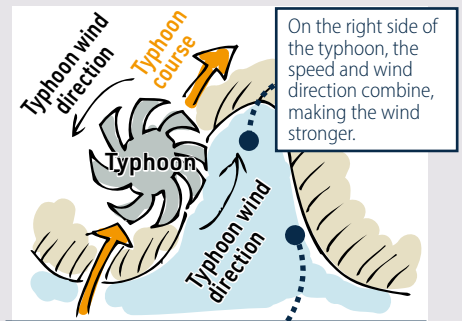
Typhoon strength is classified by maximum wind speeds.

Class	Maximum wind speed
Strong	33 m/sec to 44 m/sec
Very strong	44 m/sec to 54 m/sec
Fierce	54 m/sec or more

### Typhoon size

The size of typhoons is classified by the radius of wind speeds of 15 m/s or more.

Class	Radius with wind speed of 15 m/s or more
Large type (large)	500 km to less than 800 km
Super large type (very large)	800 km or more



On the right side of the typhoon, the speed and wind direction combine, making the wind stronger.

High waves from storm surges are more likely to hit south-facing bays and deep bays.

Actions to save lives

## Early evacuation

**Before the typhoon approaches and the winds get stronger, be sure to evacuate from dangerous places at**

**Alert Level 3 (Elderly Evacuation) or at Alert Level 4 (Evacuation order) !**

When typhoon winds are strong, going outdoors can be very dangerous. Evacuate early before the wind gets stronger.



**Look for an evacuation place, such as a relative's house, an acquaintance's house, an evacuation shelter, or a tall building far from the sea as an evacuation shelter.**



## Points for evacuation

### Do not approach the coast or river mouth unnecessarily.

When the tide level is high due to a storm surge, waves may rush into areas where they would normally not reach. River levels may also rise.



### Evacuate early before the wind and rain get stronger.

Violent winds may be expected before the tide rises. Once a violent wind starts to blow, going outdoors can be life-threatening.



## Mechanism of storm surge generation

### ① Sea level rise (suction) due to atmospheric pressure

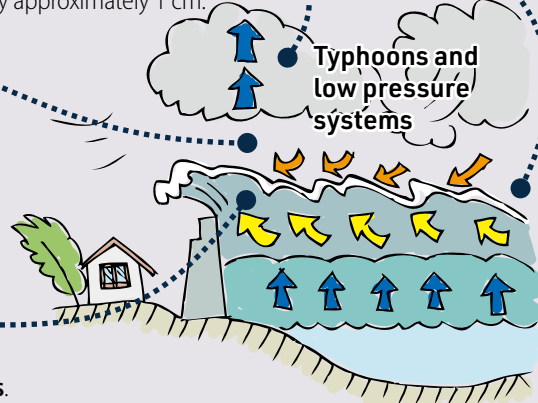
An atmospheric pressure decrease of 1 hPa causes the sea level to rise by approximately 1 cm.

### ② Waves pushed by the wind (blown)

Strong winds from typhoons blow seawater onto the coast, causing sea levels to rise. The waves cannot return offshore and accumulate near the coast, causing sea levels to rise.

### ③ Overlapping with high-water time

From summer to autumn, the tide level is the highest of the year. When a typhoon approaches, pay attention to **storm surge times**.



Actions to save lives

## If it is too late to evacuate...

### Move to a taller, stronger building

after strong winds or flooding.

If you fail to escape, protect yourself in the safest place depending on the situation.



Look for

**tall buildings, high places outside, high places in your home, or nearby safe places to evacuate.**

Make a judgment by checking the storm surge hazard map on pages 67 to 70.

**Vertical evacuation**

**! Be careful of storm surge!**

# Know about inland flooding.

## What does inland flooding mean?

It means that when a lot of rain falls in and around the city, water that cannot drain to the river accumulates in low places.

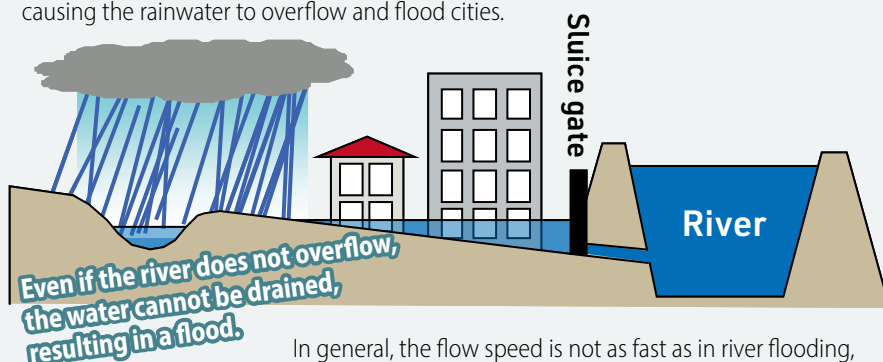


## Types of flood damage

Flood damage includes "outside water flooding" and "inland water flooding." Large-scale floods can be caused by outside water flooding of rivers. However, since inland flooding can also occur due to localized torrential downpours or localized heavy rain, care must be taken.

### Inland flooding

It means that when localized heavy rains, such as localized torrential downpours, fall in a short period of time, drainage canals and sewers are unable to drain away the rainwater, causing the rainwater to overflow and flood cities.



In general, the flow speed is not as fast as in river flooding, but in localized low-lying areas or places with steep slopes, the flow speed may increase, and even shallow flooding depths can be dangerous.

### Outside water flooding (river flooding)

It means that heavy rains due to typhoons or localized torrential downpours cause river water levels to rise, causing rivers to overflow due to levees breaking or overflowing.



For outside water flooding (river flooding), refer to Pages 15 to 16.

## Points for evacuation

### Be proactive in obtaining information yourself.

Pay attention to evacuation information and weather conditions, and if there is no risk of river flooding and you can ensure your safety on the second floor or higher of your home, do not force yourself to go out or move.



### It is dangerous to walk even if flooding is shallow

Even if flooding is shallow, it is dangerous to walk if the water is flowing quickly. You may become stranded even in ankle-deep water.





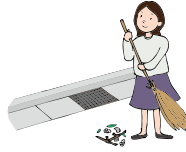
# How to reduce flood damage

## On a routine basis,

let's start with what you can do.

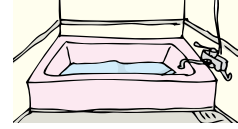
### Cleaning gutters and drains

When rainwater does not flow smoothly, it accumulates and causes flooding. Clean your gutters and drains on a regular basis to ensure good drainage.



### Securing water for living use

Let's collect water in the bathtub without draining it. It can prevent the backflow of sewage and can be used as water for living.



## Stage where heavy rain is expected

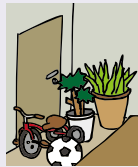
Take all possible measures 3 days to 1 and a half days before flooding occurs.

### Work outdoors before heavy rain.

#### Check around the house.

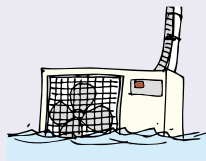
Reinforce your windows and roof as soon as possible!

Lay out clotheslines and bring flower pots, garbage cans, and other items indoors that could be blown away by the wind.



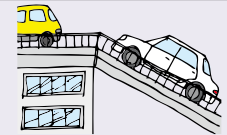
#### Turn off the breaker.

There is a risk of electrical leakage from the air conditioner's outdoor unit and wiring. Turn off the breaker.



### Private car movement

Move your car to a safe location as soon as possible.



### Checking the septic tank

Make sure that the septic tank lid is tightly closed to prevent dirt and mud from entering the septic tank. Also, turn off the power to the blower (septic tank pump) and move it to a higher location.



### Prevent water from entering from unexpected places.

#### Preventing water from gushing up

Sewage may flow backward and water may come out of the toilet.

Weight it down with a plastic bag filled with water, etc.



Underfloor flooding may open the lid of the underfloor storage, causing water to enter.

Weight it down to prevent it from flooding.



### Move important things to a higher place.

Move your belongings and family mementos to a higher location where they will not be flooded.

Passbooks, seal impressions, etc.



Clothes etc. for the time being



Home appliances



Mementos such as albums



### Prevent flooding with simple flood prevention methods.

The simple flood prevention method prevents water from flooding or flowing into a house using household items.

Effective when the water is shallow. It is important to prevent water from seeping not only at doorways, such as entrances, but also under floors.

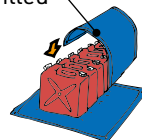
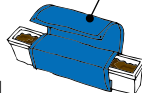
#### Simple water bags using household items

Double up the trash bags and fill them half full with water.



Put them in a cardboard box and connect it to use.

A plastic container filled with water and a planter filled with soil



Wrap it up with a leisure sheet.

#### Water stop plate

Install boards etc. at doorways to prevent flooding.



# Basic knowledge of earthquakes and tsunamis

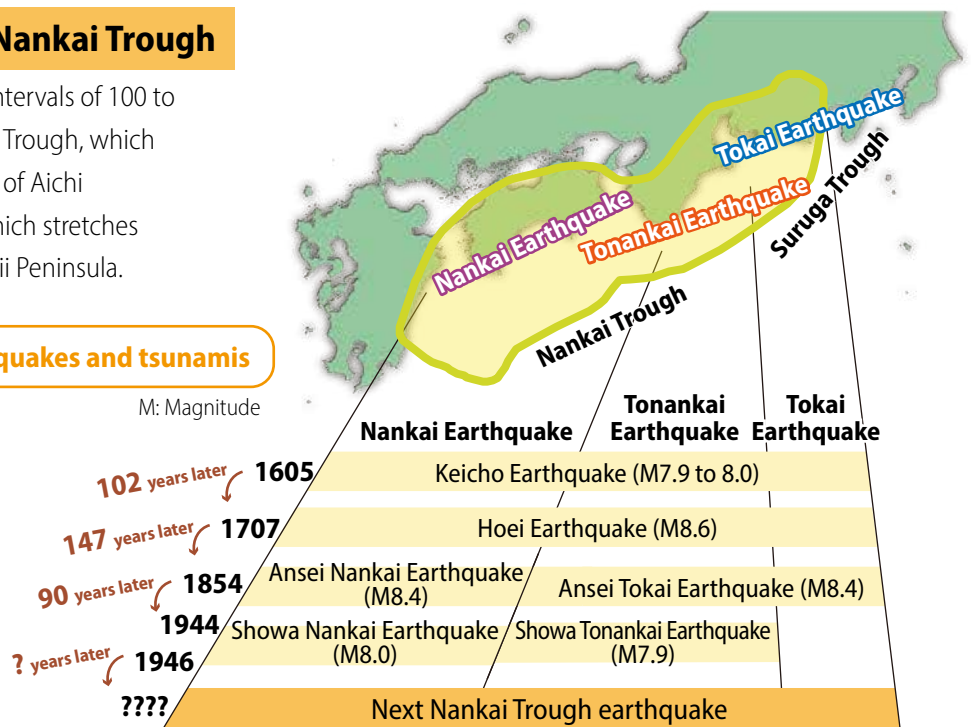
## Earthquake expected in Yokkaichi City

### Huge earthquake in the Nankai Trough

Huge earthquakes have occurred at intervals of 100 to 150 years in the vicinity of the Suruga Trough, which extends from Suruga Bay to the coast of Aichi Prefecture, and the Nankai Trough, which stretches along the coasts of Shikoku and the Kii Peninsula.

#### Past earthquakes and tsunamis

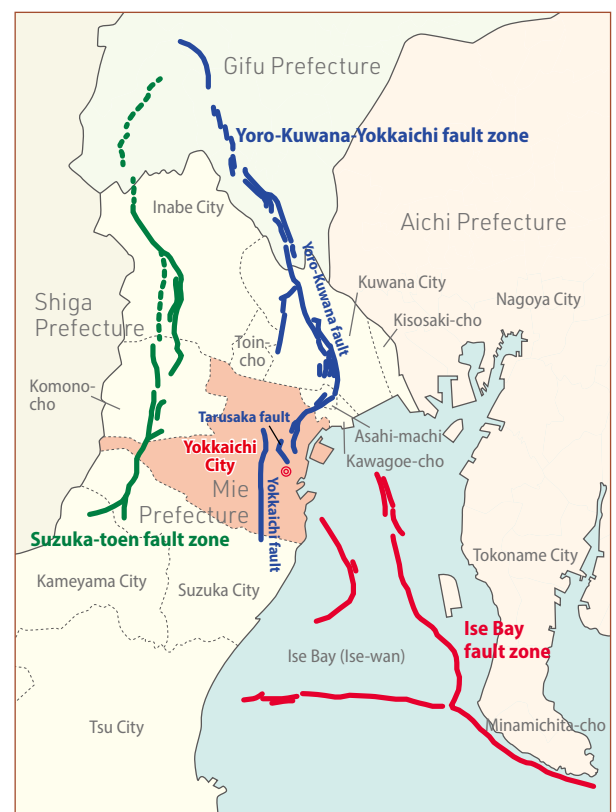
M: Magnitude



Added to the materials of the Central Disaster Prevention Council (June 28, 2001)

### Earthquakes caused by active faults

There are many active faults around Yokkaichi City, and historically, the Iga Ueno Earthquake (1854) and the Nobi Earthquake (1891) occurred, causing much damage. Ise Bay also has the Ise Bay Fault Zone, which can be a source of tsunamis.



#### Active fault map in Mie Prefecture (Hokusei Area)

[https://www.bosaimie.jp/static/X\\_MIE\\_mhc00](https://www.bosaimie.jp/static/X_MIE_mhc00)



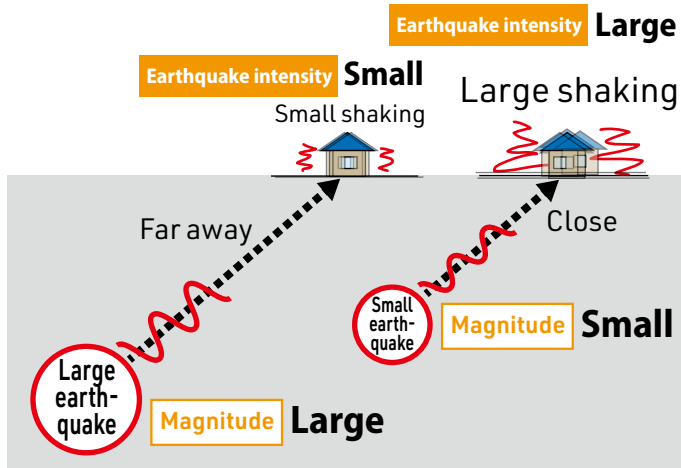
Created based on Mie active fault (revised in March 2012)

## Earthquake intensity and magnitude

Earthquake intensity represents the magnitude of shaking, and magnitude represents the size (scale) of the earthquake itself. Earthquake waves travel underground and cause the ground to shake. So if an earthquake is large but far away, the shaking will be small; conversely, if a small earthquake is close, the shaking will be large.

**Earthquake intensity** Magnitude of shaking

**Magnitude** The size (scale) of the earthquake itself



## What kind of earthquakes have occurred in the past?

The Showa Tonankai Earthquake occurred in December 1944 (Showa 19), and the Showa Nankai Earthquake occurred two years later in 1946 (Showa 21). In the Yokkaichi area, it is recorded that 1,263 buildings were wholly or partially destroyed, and 22 people were killed. One-third of the large chimney at the Yokkaichi Factory of Ishihara Sangyo Kaisha, Ltd., which was the world's tallest at that time, collapsed.

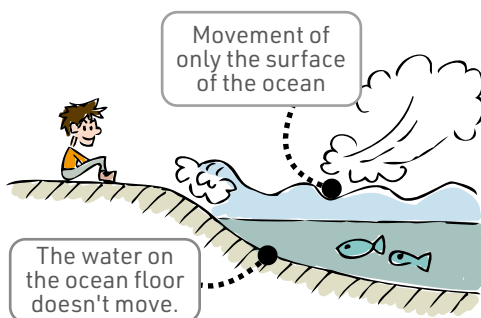


Photo provided by:  
Yokkaichi Factory of Ishihara Sangyo Kaisha, Ltd.

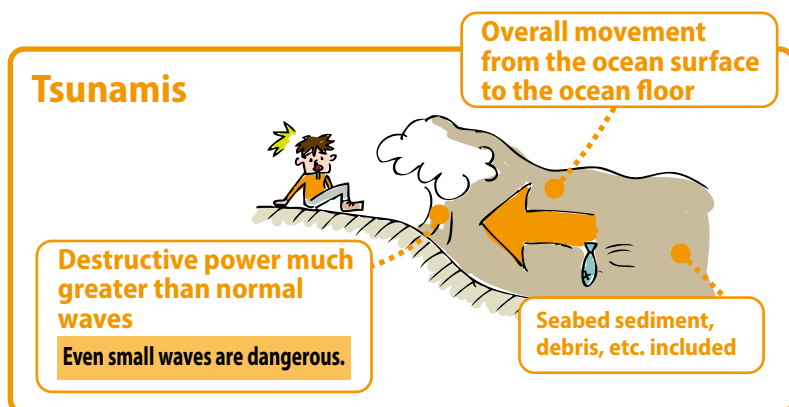
## Characteristics of tsunami

Tsunamis have great destructive power regardless of their sizes. Understand their characteristics from the differences from normal waves.

### Normal wave

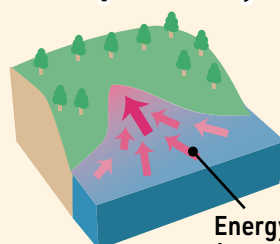


### Tsunamis

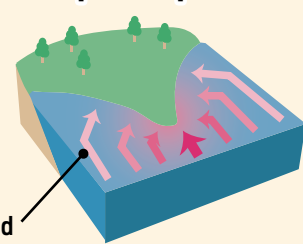


Since waves concentrate and become high in the inner parts of bays and the tips of capes, special attention needs to be paid.

### Inner parts of bays



### Tips of capes



Energy concentrates and the waves become higher.



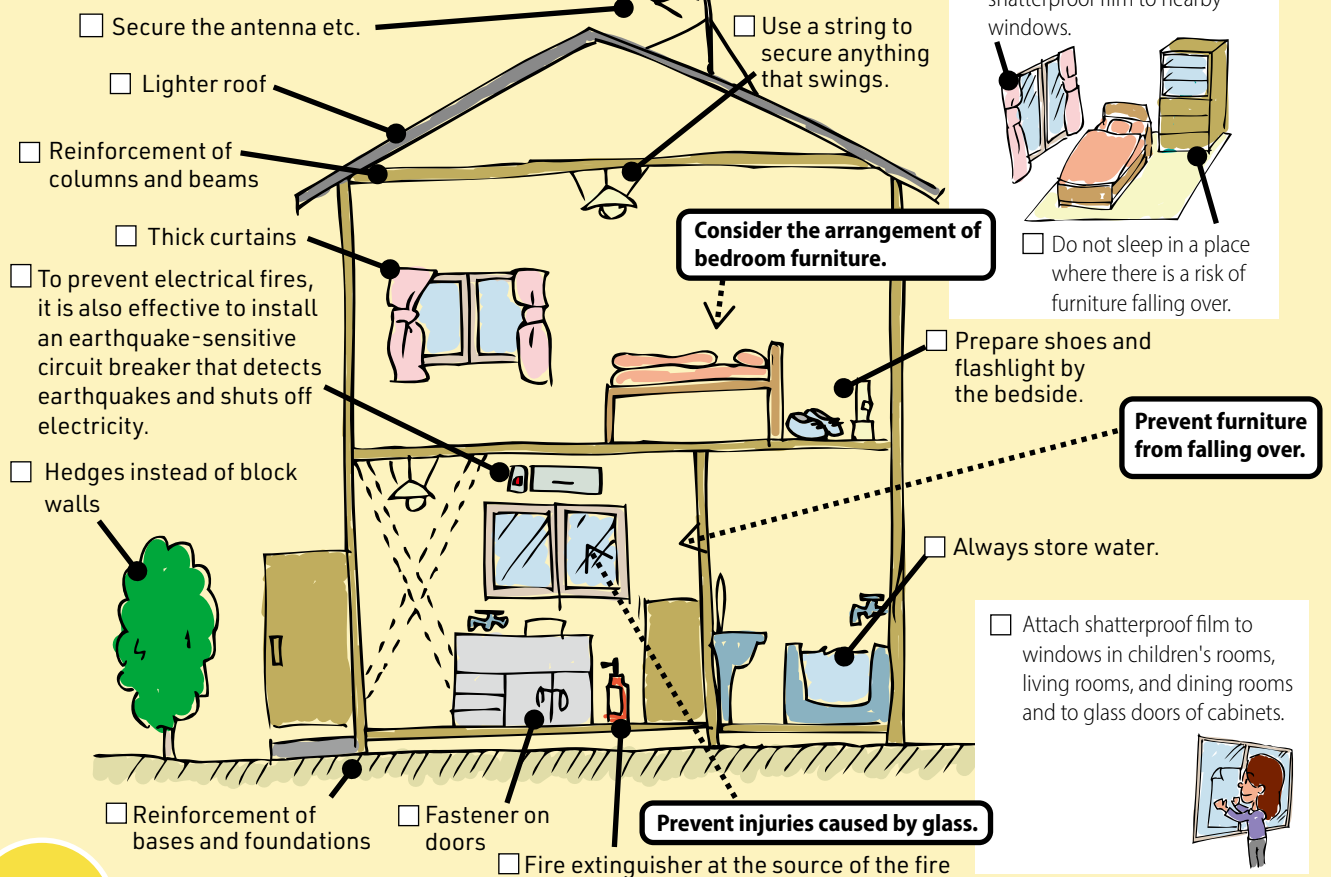
# Know about earthquakes

## What is an earthquake?

Shaking of the ground due to a sudden shift of an underground rock when it is pushed or pulled from its surroundings



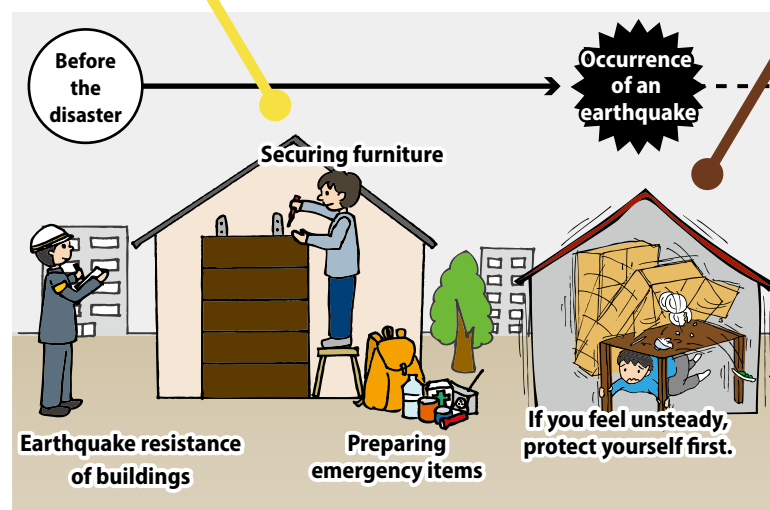
## Measures to protect yourself from shaking



Actions to save lives

## Make your building earthquake resistant and secure your furniture.

Since an earthquake instantaneously brings damage, it is best to prepare before it happens. In particular, if you have a wooden house built before 1981, make sure to have it seismically reinforced as necessary.



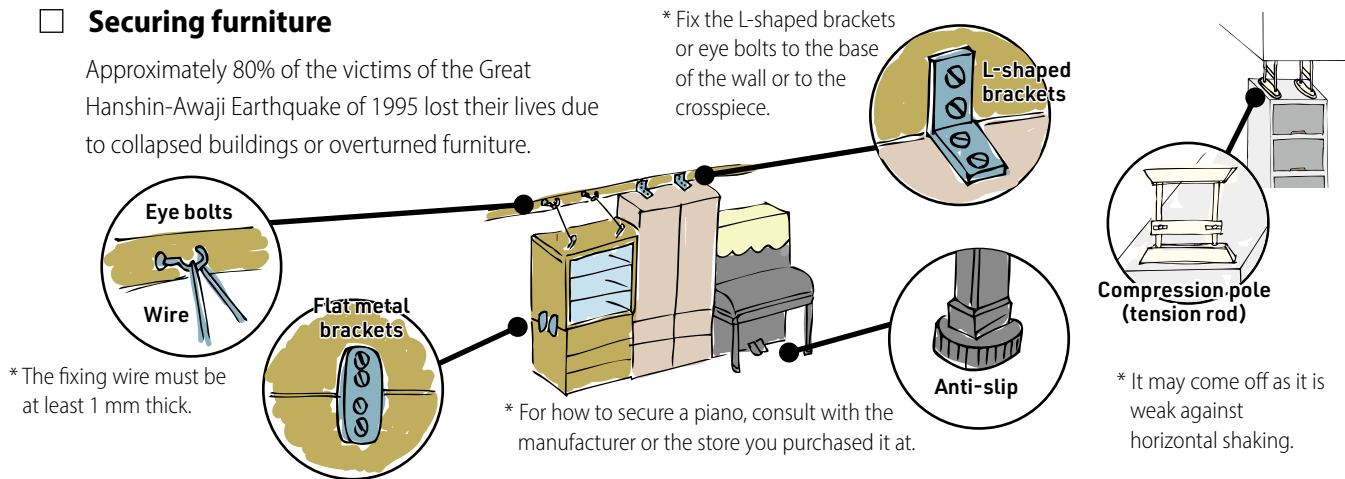
# Earthquake countermeasures in the workplace



- ☐ Preventing office furniture from falling over
  - Secure bookshelves, etc. to the wall or floor.
  - Also secure OA equipment.
- ☐ Preventing objects from falling
  - Do not place equipment on shelves.
  - Store items that are at risk of flying out, due to shaking on shelves, in a cabinet with doors.
- ☐ Securing an evacuation route
  - Do not place large furniture near doorways.
  - The aisle width needs to be at least 120 cm.

## ☐ Securing furniture

Approximately 80% of the victims of the Great Hanshin-Awaji Earthquake of 1995 lost their lives due to collapsed buildings or overturned furniture.



Actions to save lives

## If you feel unsteady, protect yourself first.

If you feel shaking, take cover under a sturdy table or desk to protect your head. When outdoors, be careful of objects falling from above or walls falling over.

## Earthquake early warning is the only advance information.



If you see or hear an earthquake early warning, do not panic and ensure your own safety by avoiding objects that may fall or overturn in the short period before strong shaking occurs.

\* Breaking news may not be delivered in time. When you feel the shaking of an earthquake, take actions to protect yourself.

## If shaking occurs, take immediate action to protect yourself.

If you see or hear an earthquake early warning or feel the shaking of an earthquake, protect yourself immediately.

### When indoors

Protect your head by getting under a desk or table and wait for the shaking to subside.



- If you are in a building with low earthquake resistance, open the door, secure an evacuation route, and get out.
- Once the shaking has subsided, calm down and put out any fires.

### When outdoors

Stay away from buildings, trees, and utility poles, protect your head with a bag, etc., and wait until the shaking subsides.



After the disaster

**!** Be careful of aftershocks and fire!



# Known about tsunamis.

## What is a tsunami?

It is a very large wave of seawater rushing onto the land due to an earthquake that occurs mainly on the ocean floor.



## The maximum tsunami height and flood depth are different.

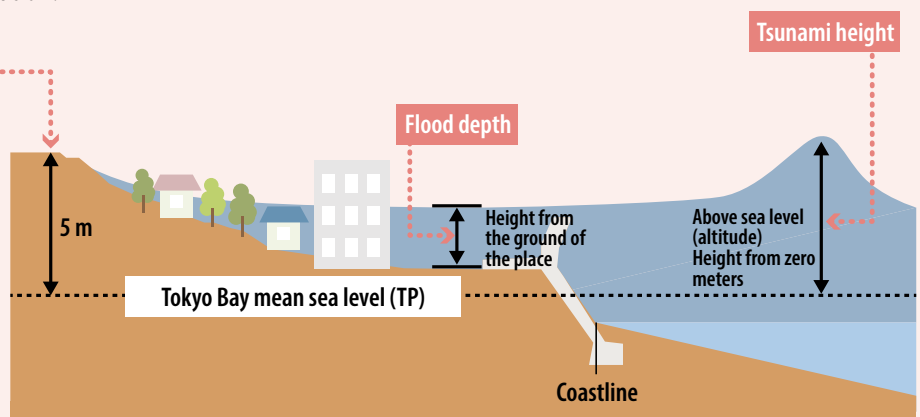
The maximum tsunami height is different from flood depth. Tsunami height is the height offshore from sea level (altitude) zero meters, and flood depth is the height of the flooded surface from the ground. Therefore, the flooding depth varies depending on the location.

### Tsunami evacuation target line

A line connecting points 5 m above sea level in inland areas

**In the event of a tsunami, evacuate to the mountain side of this line.**

→ Check the tsunami hazard map on Pages 81 to 90.



Actions to save lives

## Early evacuation

**If you feel a large tremor or a long-lasting tremor, go as soon as possible to a place far and high on the mountain side of the tsunami evacuation target line!**

Continue to evacuate while a tsunami advisory or warning is in effect.

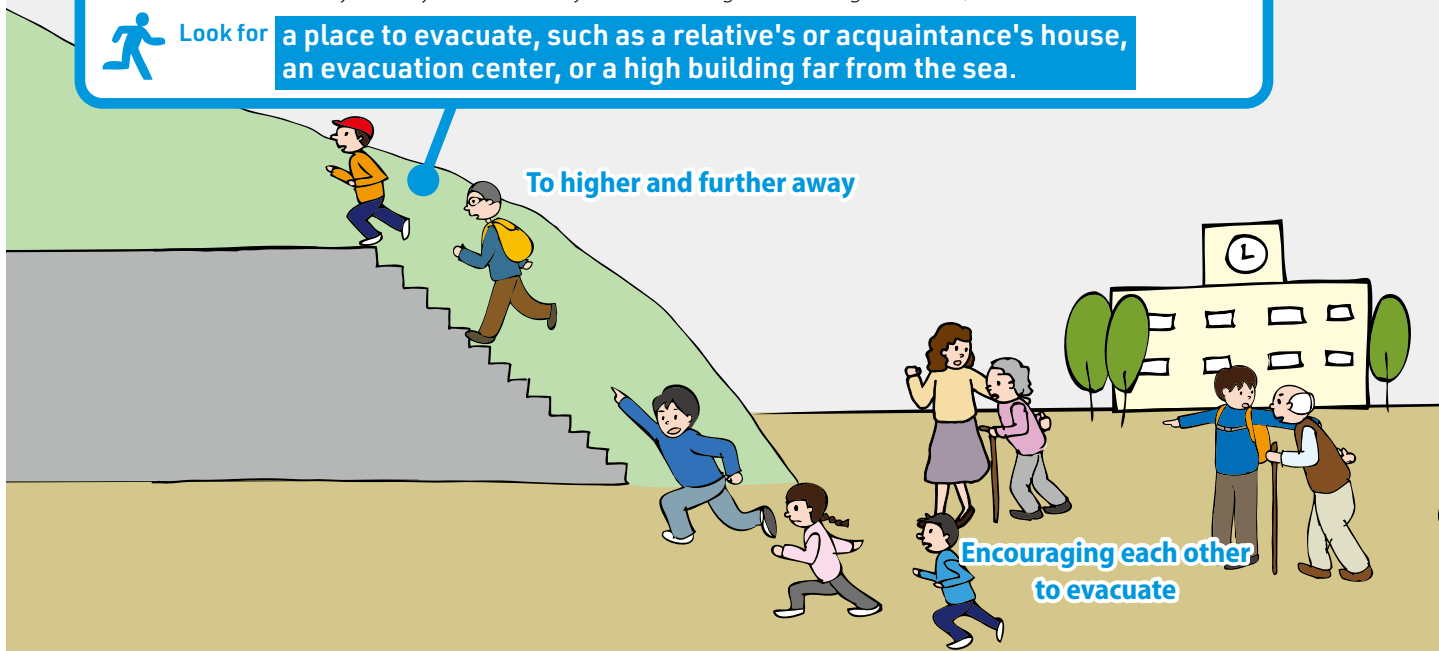
Evacuation by car may cause a traffic jam due to congestion. As a general rule, evacuate on foot.



**Look for a place to evacuate, such as a relative's or acquaintance's house, an evacuation center, or a high building far from the sea.**

**To higher and further away**

**Encouraging each other to evacuate**



## Tsunami evacuation points

### Do your best.

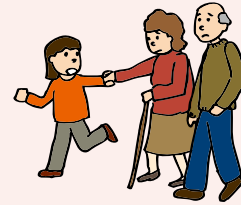
When evacuating from a tsunami, don't panic, call out to each other, and evacuate together. Please note that the place to evacuate does not have to be a tsunami evacuation building. It is important to do your best to save lives.

→ For Tsunami evacuation buildings, refer to Pages 101 to 102.



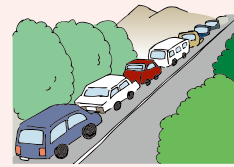
### Take the initiative to call out and evacuate.

It is difficult to take appropriate action in case of emergency. First of all, if you take the initiative, people nearby who see you will also evacuate, and as a result, you can help many people.



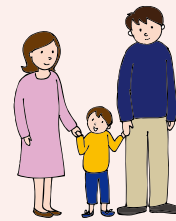
### Evacuate on foot.

Evacuation by car may cause roads to become impassable due to damage from shaking or liquefaction, resulting in a traffic jam due to congestion. As a general rule, evacuate on foot.



### Make it a habit to evacuate.

If the adults around children do not respond to calls to evacuate, they will grow up without taking their evacuation for granted. Making it a habit to evacuate no matter how many times you fail is a form of tsunami disaster prevention education you can do at home.



Actions to  
save lives

## If it is too late to evacuate...

If you cannot evacuate far away, go to a

**nearby high place.**

If you fail to escape, protect yourself in the safest place depending on the situation.



Look for

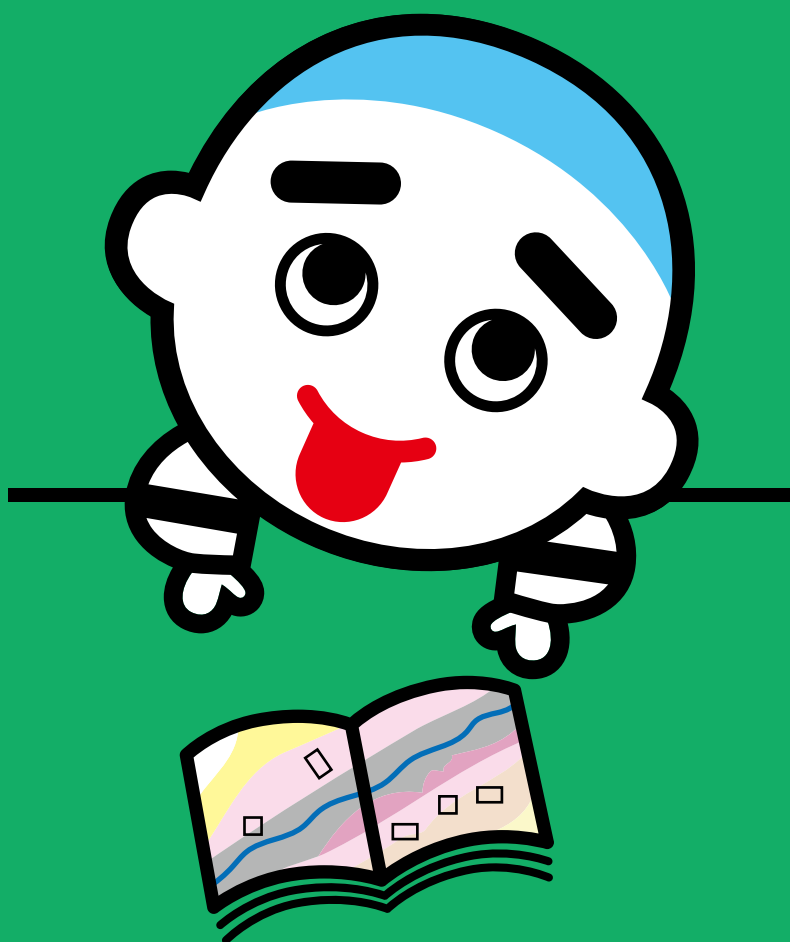
**a nearby tsunami evacuation building, tall building, or high place as an evacuation site.**

Make a judgment by checking the tsunami hazard map on Pages 81 to 90.



Step  
2

Think








# Look at the hazard map and discuss it with your family.



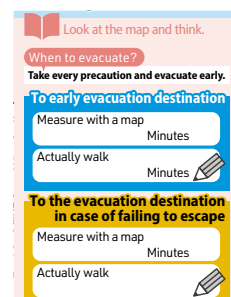
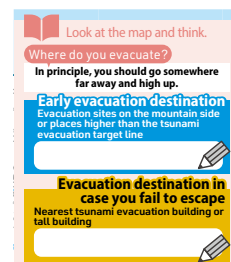
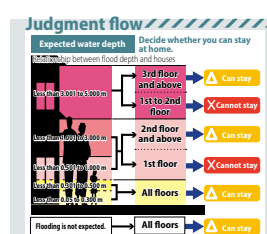
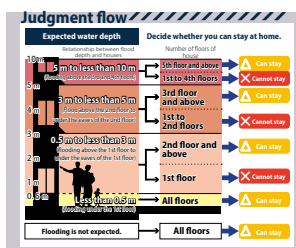
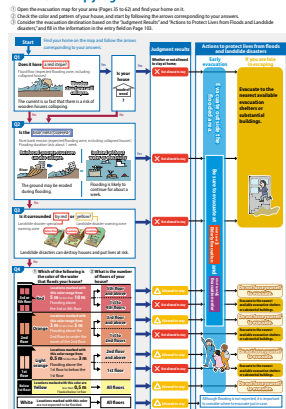
Open the map for your district.

Map page/index drawing → Pages 31 to 32

Determine whether you can stay at home based on the flow of each map and consider where to evacuate.

 <b>Floods</b>	 <b>Landslide disasters</b>	 <b>Storm surges</b>	 <b>Inland flooding</b>	 <b>Tsunamis</b>
<b>Evacuation map</b> → Pages 33 to 62 → (Judgment flow) Page 107		<b>Storm surge hazard map</b> → Pages 65 to 70	<b>Inland flooding hazard map</b> → Pages 71 to 76	<b>Tsunami hazard map</b> → Pages 81 to 90

## Evacuation map judgment flow



Based on the judgment results, confirm your and your family's evacuation actions and write them in your "Family evacuation plan."

Family evacuation plan (wind and flood damage)

→ Pages 103 to 104

Family evacuation plan (earthquake and tsunami)

→ Page 105

Family contact information

→ Page 106

Please enter your family's contact information in the entry field.



# Map page/index drawing



Floods



Landslide  
disasters



Storm  
surges



Inland  
flooding



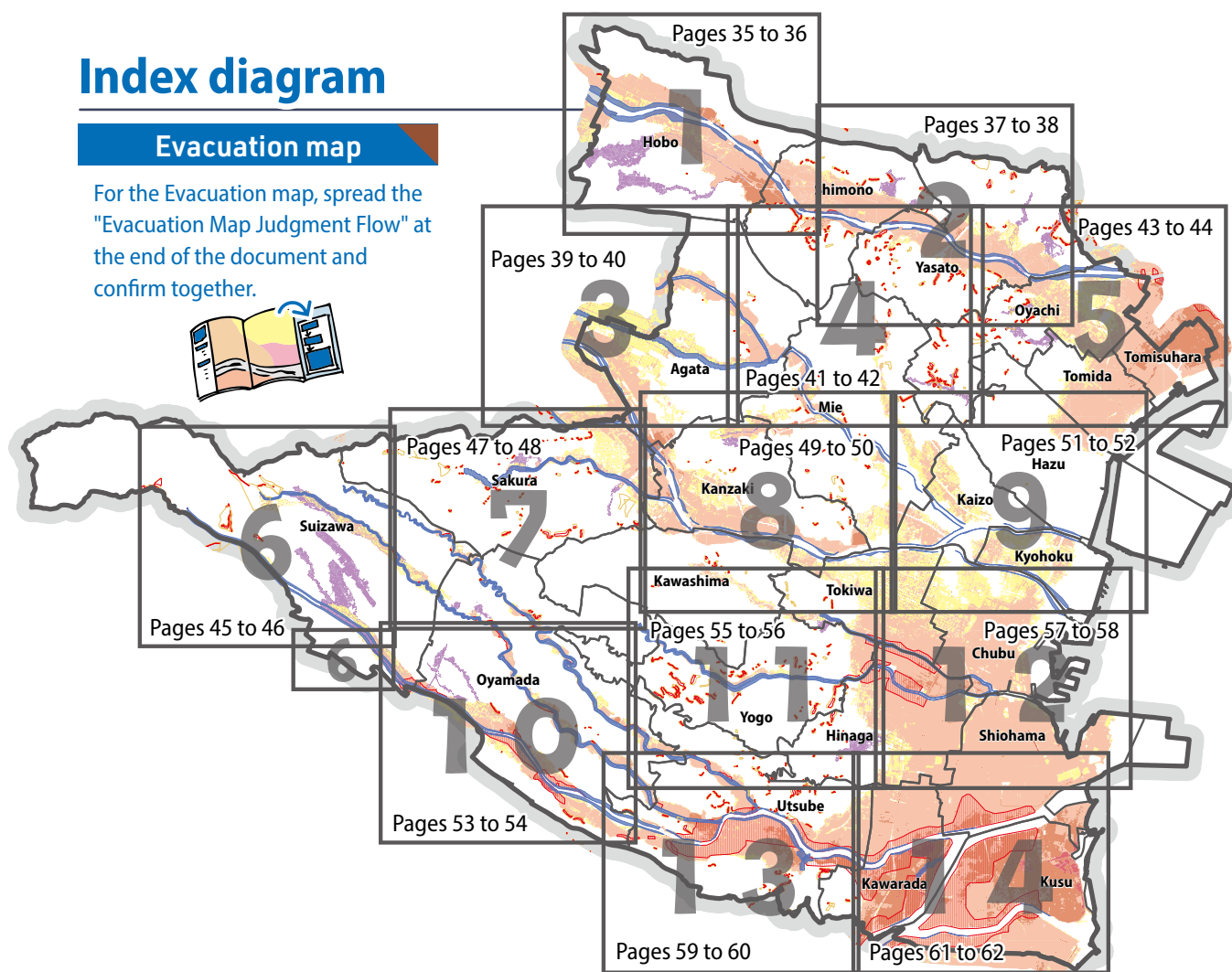
Tsunamis

	Evacuation map (flood/landslide disasters)		Storm surge hazard map		Inland flooding hazard map		Tsunami hazard map			
							Flood depth		Arrival time	
Chubu District	Map 9/12	Published on Pages 51 to 52 and 57 to 58	Map 1/2	Published on Pages 67 to 70	Map 1/2	Published on Pages 73 to 76	Map 1/2	Published on Pages 83 to 86	Map 1/2	Published on Pages 87 to 90
Tomisuhara District	Map 5	Published on Pages 43 to 44	Map 1	Published on Pages 67 to 68	Map 1	Published on Pages 73 to 74	Map 1	Published on Pages 83 to 84	Map 1	Published on Pages 87 to 88
Tomida District	Map 5/9	Published on Pages 43 to 44 and 51 to 52	Map 1	Published on Pages 67 to 68	Map 1	Published on Pages 73 to 74	Map 1	Published on Pages 83 to 84	Map 1	Published on Pages 87 to 88
Hazu District	Map 5/9	Published on Pages 43 to 44 and 51 to 52	Map 1	Published on Pages 67 to 68	Map 1	Published on Pages 73 to 74	Map 1	Published on Pages 83 to 84	Map 1	Published on Pages 87 to 88
Tokiwa District	Map 8/9/ 11/12	Published on Pages 49 to 52 and 55 to 58	Map 1/2	Published on Pages 67 to 70	Map 1/2	Published on Pages 73 to 76	Map 2	Published on Pages 85 to 86	Map 2	Published on Pages 89 to 90
Hinaga District	Map 11/12	Published on Pages 55 to 58	Map 2	Published on Pages 69 to 70	Map 2	Published on Pages 75 to 76	Map 2	Published on Pages 85 to 86	Map 2	Published on Pages 89 to 90
Yogo District	Map 10/11	Published on Pages 53 to 56	Map 2	Published on Pages 69 to 70	Map 2	Published on Pages 75 to 76				
Utsube District	Map 11/13/ 14	Published on Pages 55 to 56 and 59 to 62			Map 2	Published on Pages 75 to 76				
Shiohama District	Map 12/14	Published on Pages 57 to 58 and 61 to 62	Map 2	Published on Pages 69 to 70	Map 2	Published on Pages 75 to 76	Map 2	Published on Pages 85 to 86	Map 2	Published on Pages 89 to 90
Oyamada District	Map 7/8/ 11	Published on Pages 47 to 50 and 55 to 56								
Kawashima District	Map 7/10/ 11/13	Published on Pages 47 to 48, 53 to 56, and 59 to 60								
Kanzaki District	Map 8	Published on Pages 49 to 50								
Sakura District	Map 6/7/8	Published on Pages 45 to 50								
Mie District	Map 4/8/9	Published on Pages 41 to 42 and 49 to 52			Map 1	Published on Pages 73 to 74				
Agata District	Map 3/4/8	Published on Pages 39 to 42 and 49 to 50								
Yasato District	Map 2/5	Published on Pages 37 to 38 and 43 to 44			Map 1	Published on Pages 73 to 74				
Shimono District	Map 1/2/4	Published on Pages 35 to 38 and 41 to 42								
Oyachi District	Map 4/5	Published on Pages 41 to 44	Map 1	Published on Pages 67 to 68	Map 1	Published on Pages 73 to 74				
Kawarada District	Map 13/14	Published on Pages 59 to 62	Map 2	Published on Pages 69 to 70	Map 2	Published on Pages 75 to 76				
Suizawa District	Map 6/7/ 10	Published on Pages 45 to 48 and 53 to 54								
Hobo District	Map 1	Published on Pages 35 to 36								
Kaizo District	Map 9	Published on Pages 51 to 52	Map 1	Published on Pages 67 to 68	Map 1	Published on Pages 73 to 74				
Kyohoku District	Map 9/12	Published on Pages 51 to 52 and 57 to 58	Map 1/2	Published on Pages 67 to 70	Map 1	Published on Pages 73 to 74	Map 1	Published on Pages 83 to 84	Map 1	Published on Pages 87 to 88
Kusu District	Map 14	Published on Pages 61 to 62	Map 2	Published on Pages 69 to 70	Map 2	Published on Pages 75 to 76	Map 2	Published on Pages 85 to 86	Map 2	Published on Pages 89 to 90

## Index diagram

### Evacuation map

For the Evacuation map, spread the "Evacuation Map Judgment Flow" at the end of the document and confirm together.



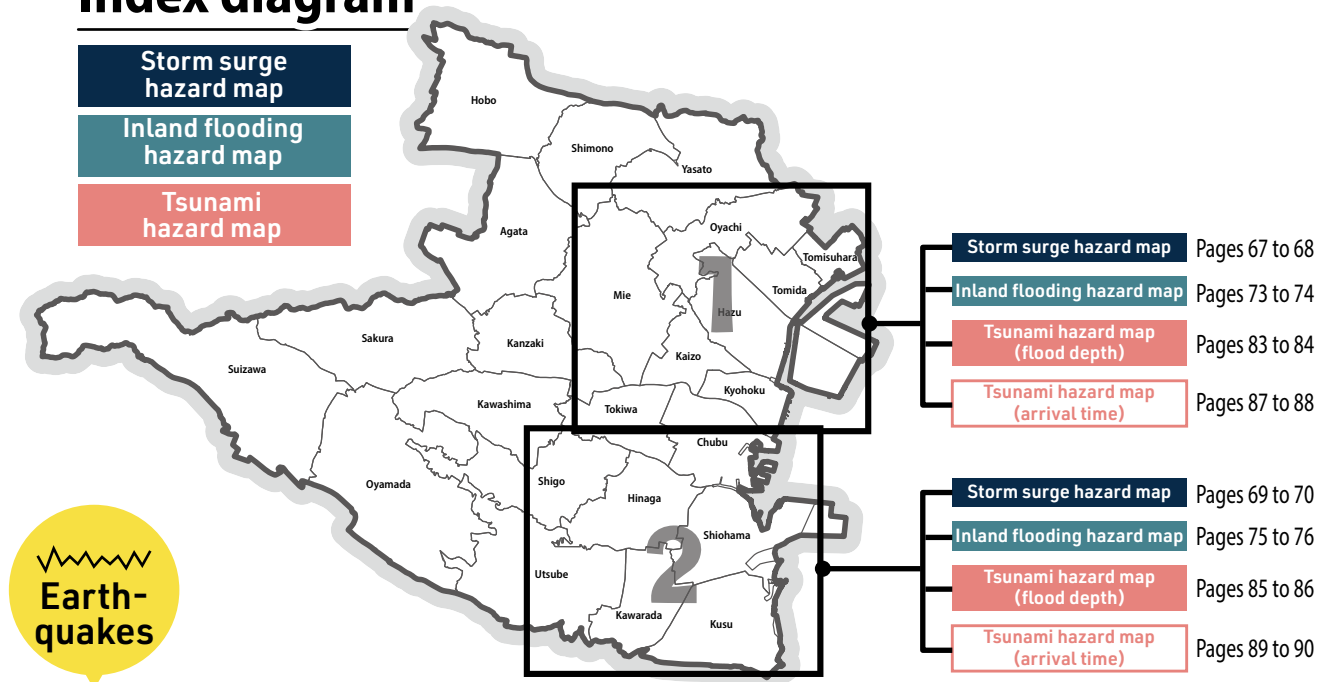
Think

## Index diagram

Storm surge hazard map

Inland flooding hazard map

Tsunami hazard map



Earth-quakes

Earthquake hazard map

Citywide Pages 79 to 80





# Evacuation map (Floods/landslide disasters)

Look at the map, consider a possible disaster situation for your home and where to evacuate, and fill out your family evacuation plan (wind and flood damage) on Pages 103 and 104.



Entry example



Check the "Awareness map" on Pages 5-6.

Which river floods, affecting your house?

☐ Suzuka River ☐ Utsube River ☒ Mitaki River ☒ Kaizo River ☐ Asake River ☒ Tempaku River ☒ Kabake River



Check the "Evacuation map" on Pages 35 to 62 and the judgment flow at the end of the document.

Judgment results based on the evacuation map judgment flow (at the end of the document)

☐ Can stay at home ☒ Cannot stay at home

Reasons why you cannot stay at home

- ☐ There is a risk of the wooden house collapsing.
- ☐ There is a risk that the ground will be eroded during floods.
- ☐ There is a risk of landslide disasters.
- ☒ There is a risk of flooding up to the floor where you live.



Consider the evacuation destination by referring to the "Judgment Results" and "Actions to Protect Lives from Floods and Landslide disasters."

Decide where to evacuate (consider the possibility of flooding due to storm surge).

Actions to save lives

### Early evacuation

Evacuation information and places to evacuate before the rain and wind get stronger

Relatives' houses, acquaintances' homes, and evacuation shelters in areas where flooding and landslide disasters are not anticipated

**Aunt's house on a hill**

Actions to save lives

### If it is too late to evacuate...

A place to evacuate when it is dangerous to evacuate far away or go out

A tall and durable building where you can stay in even after flooding, or a high place in your home away from a slope

**○○ Elementary School**

### Damage estimation used for evacuation map

#### Estimated flood inundation zone map (estimated maximum scale)

\*For more details, please check the estimated flood inundation zone map on Pages 63 to 64.

- ☐ Target rivers: Suzuka River system (Suzuka River, Suzukagawa-hagawa River, Utsube River, Kamatani River, Ashimi River, Harusame River, Koike River, Tani River)  
Tempaku River system (Tempaku River, Kabake River), Asake River system (Asake River, Tabika River, Sugitani River, Taguchi River)  
Mitaki River system (Mitaki River, Kanatani River, Yago River, Mitaki Shinkawa, Aka River), Kaizo River system (Kaizo River, Taketani River)

#### Landslide (special) warning zone

- ☐ Created by: Mie Prefecture  
☐ Publication date: March 2020  
[https://www.pref.mie.lg.jp/HOZEN/HP/06770006284\\_00003.htm](https://www.pref.mie.lg.jp/HOZEN/HP/06770006284_00003.htm)



#### Reservoir hazard map

\*Only the flood range is shown on the evacuation map.

- ☐ Published information: Flood depth and arrival time in the event that the reservoir body collapses  
☐ Created by: Yokkaichi City  
☐ Publication date: September 2022  
<https://www.city.yokkaichi.lg.jp/www/contents/1661993893908/index.html>



Spread the "Evacuation Map Judgment Flow" at the end of the document and take a look at the Evacuation Map.

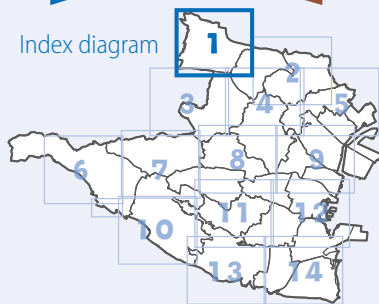


Think

Floods

Landslide disasters

Index diagram



#### Legends

Evacuation facility for **flood** and **landslide** disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Fire station**

**Police station**

**Underpass**

**Disaster prevention administrative radio**

**Disaster prevention warehouse**

**Waterproof warehouse**

**Water level observatory**

**Rainfall observatory**

**Post office**

**Evacuation direction**

#### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

#### Zones with a risk of landslide disasters

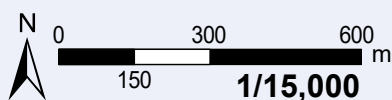
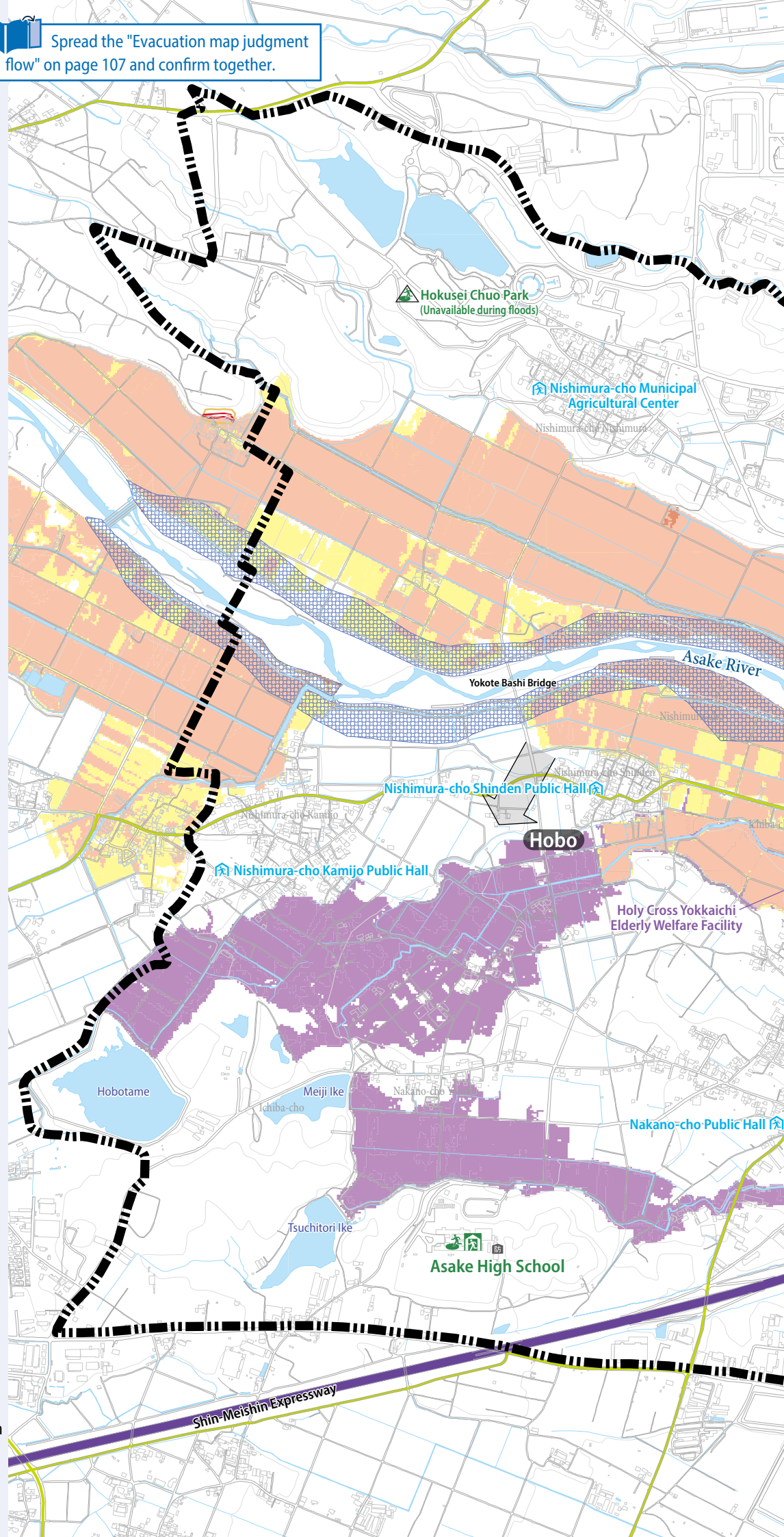
**Landslide disaster special warning zone**

**Landslide disaster warning zone**

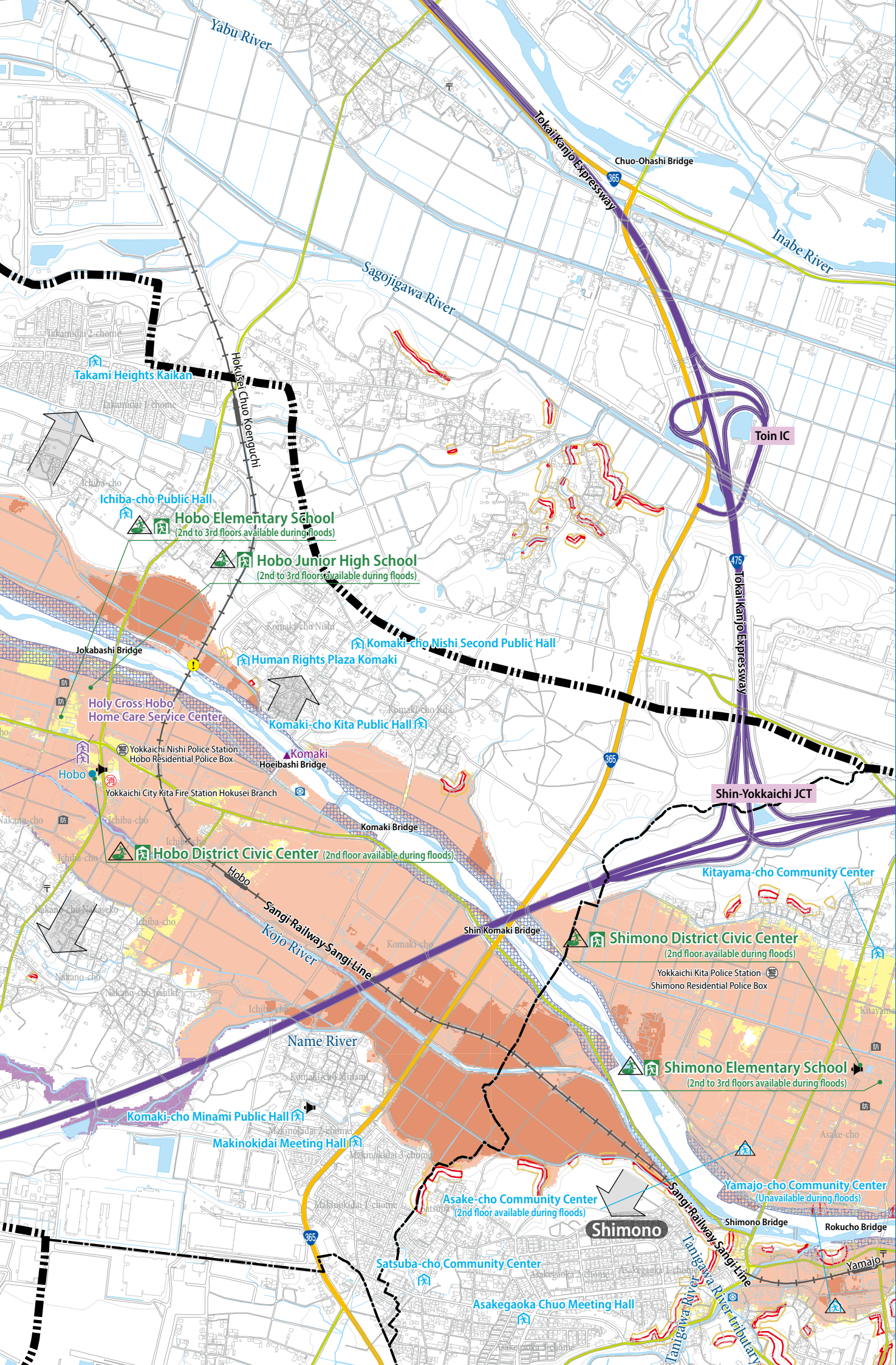
#### Flood range due to reservoir burst

**Flood range when reservoir bursts**

Spread the "Evacuation map judgment flow" on page 107 and confirm together.





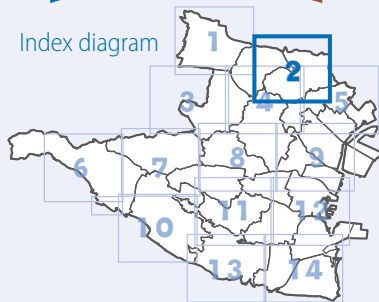




# Floods/landslide disasters

## Evacuation map 2

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(The city will decide whether to open the facility depending on the disaster situation.)

→ For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

Government offices

Disaster prevention warehouse

Fire station

Waterproof warehouse

Police station

Water level observatory

Underpass

Rainfall observatory

Disaster prevention administrative radio

Post office

Evacuation direction

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

Zones where the flow velocity is so high that there is a risk of wooden houses collapsing

Zones where the ground is likely to be eroded during flooding

— or —

Zones where flooding is likely to continue for about a week

### Zones with a risk of landslide disasters

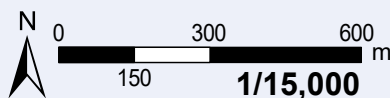
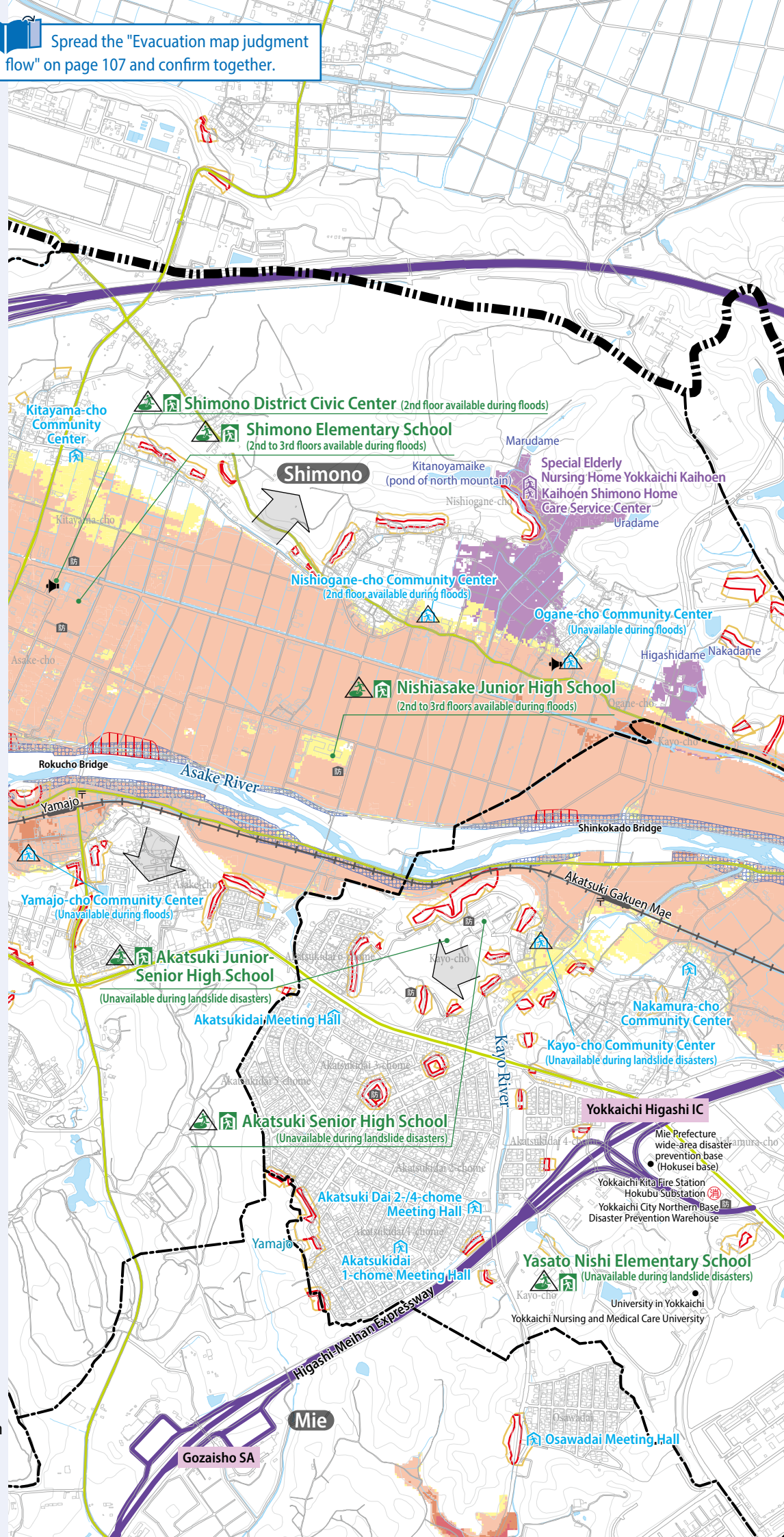
**Landslide disaster special warning zone**

**Landslide disaster warning zone**

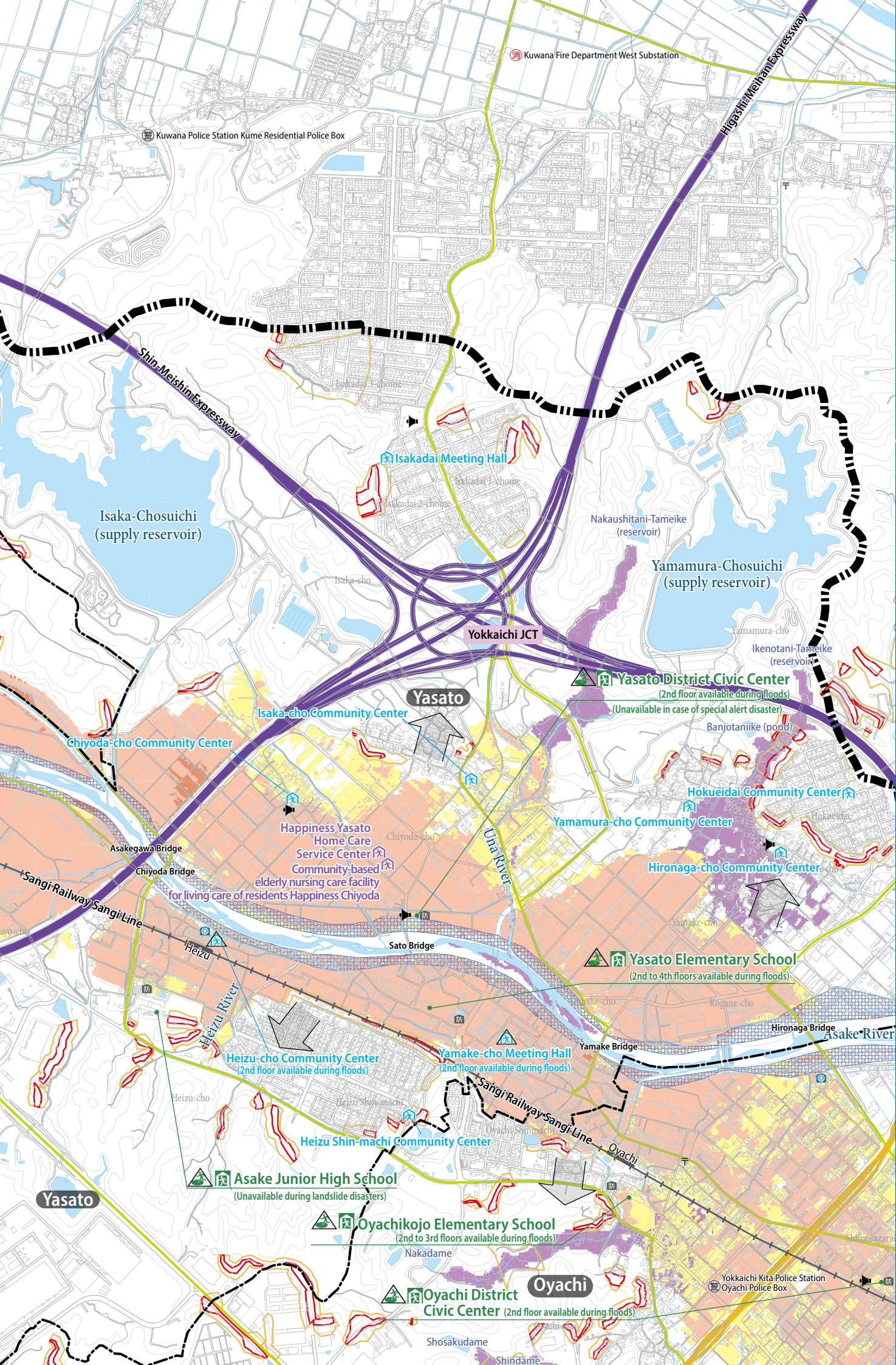
### Flood range due to reservoir burst

**Flood range when reservoir bursts**

Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map 3

Index diagram



### Legends

Evacuation facility for **flood** and **landslide** disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Disaster prevention warehouse**

**Fire station**

**Waterproof warehouse**

**Police station**

**Water level observatory**

**Underpass**

**Rainfall observatory**

**Disaster prevention administrative radio**

**Post office**

**Evacuation direction**

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

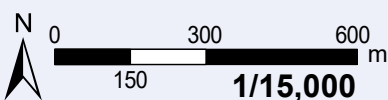
### Zones with a risk of landslide disasters

**Landslide disaster special warning zone**

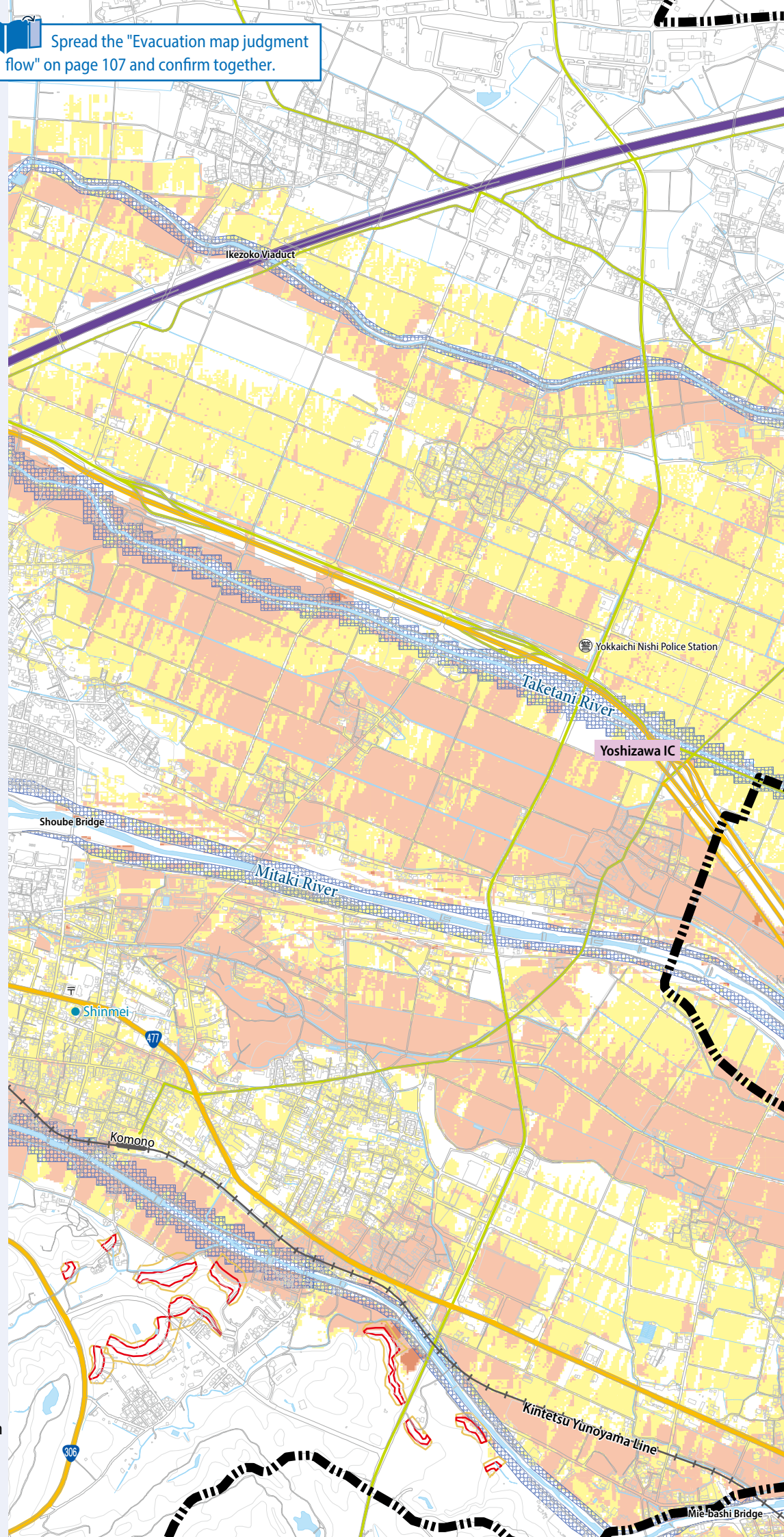
**Landslide disaster warning zone**

### Flood range due to reservoir burst

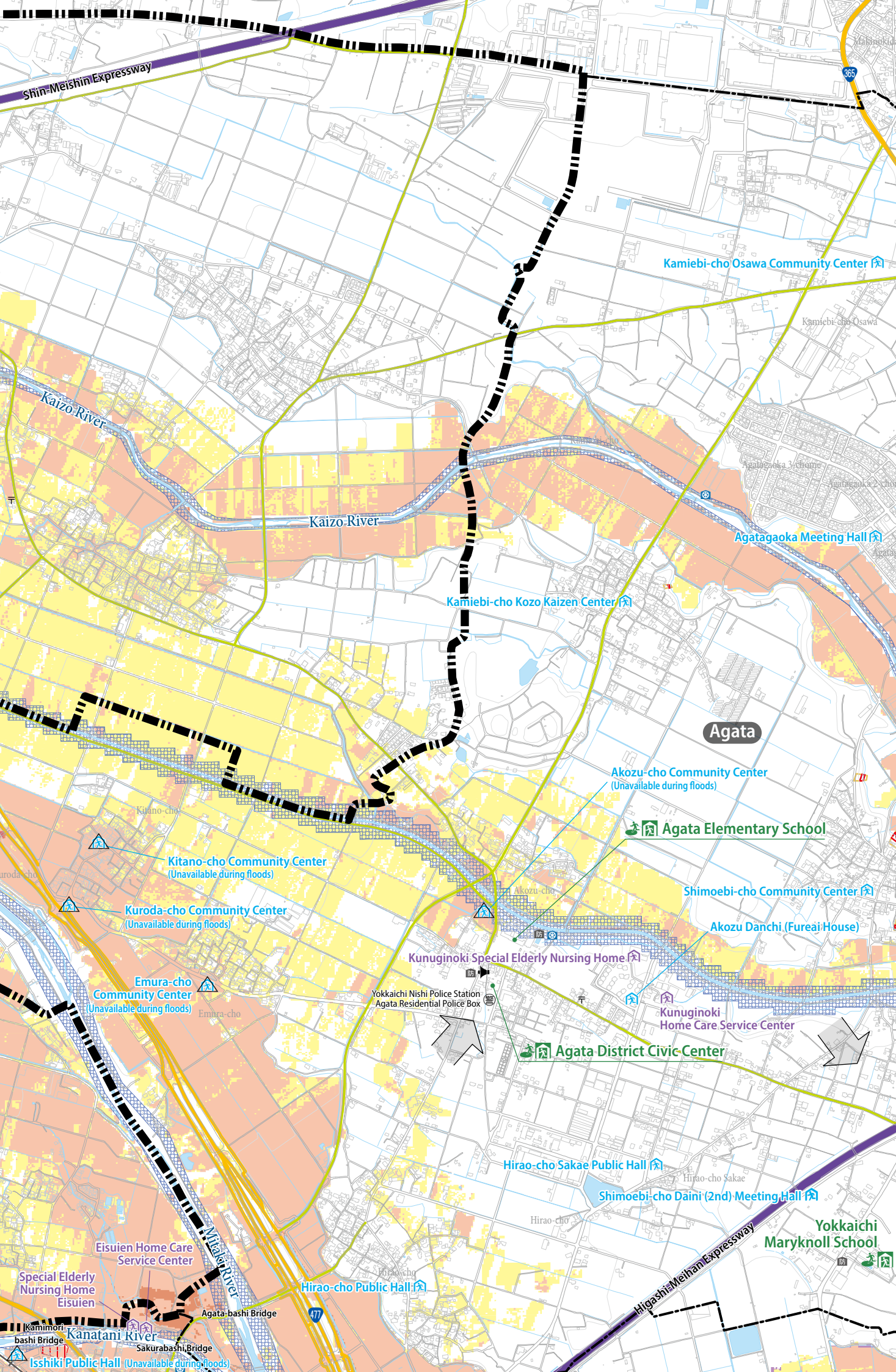
**Flood range when reservoir bursts**



Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map 4

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

Designated emergency evacuation site

Designated emergency evacuation site (With terms of use)

Designated evacuation shelter

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

Welfare evacuation shelter (secondary evacuation shelter)

Emergency evacuation shelter

Emergency evacuation shelter (with conditions added)

Government offices

Disaster prevention warehouse

Fire station

Waterproof warehouse

Police station

Water level observatory

Underpass

Rainfall observatory

Disaster prevention administrative radio

Post office

Evacuation direction

### Expected water depth

5 m to less than 10 m  
(Flooding above the 3rd/4th floor)

3 m to less than 5 m  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

0.5 m to less than 3 m  
(Flooding above the 1st floor to under the eaves of the 1st floor)

Less than 0.5 m  
(Flooding under the 1st floor)

Zones where the flow velocity is so high that there is a risk of wooden houses collapsing

Zones where the ground is likely to be eroded during flooding

— or —

Zones where flooding is likely to continue for about a week

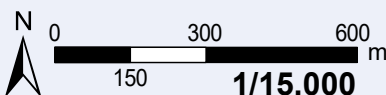
### Zones with a risk of landslide disasters

Landslide disaster special warning zone

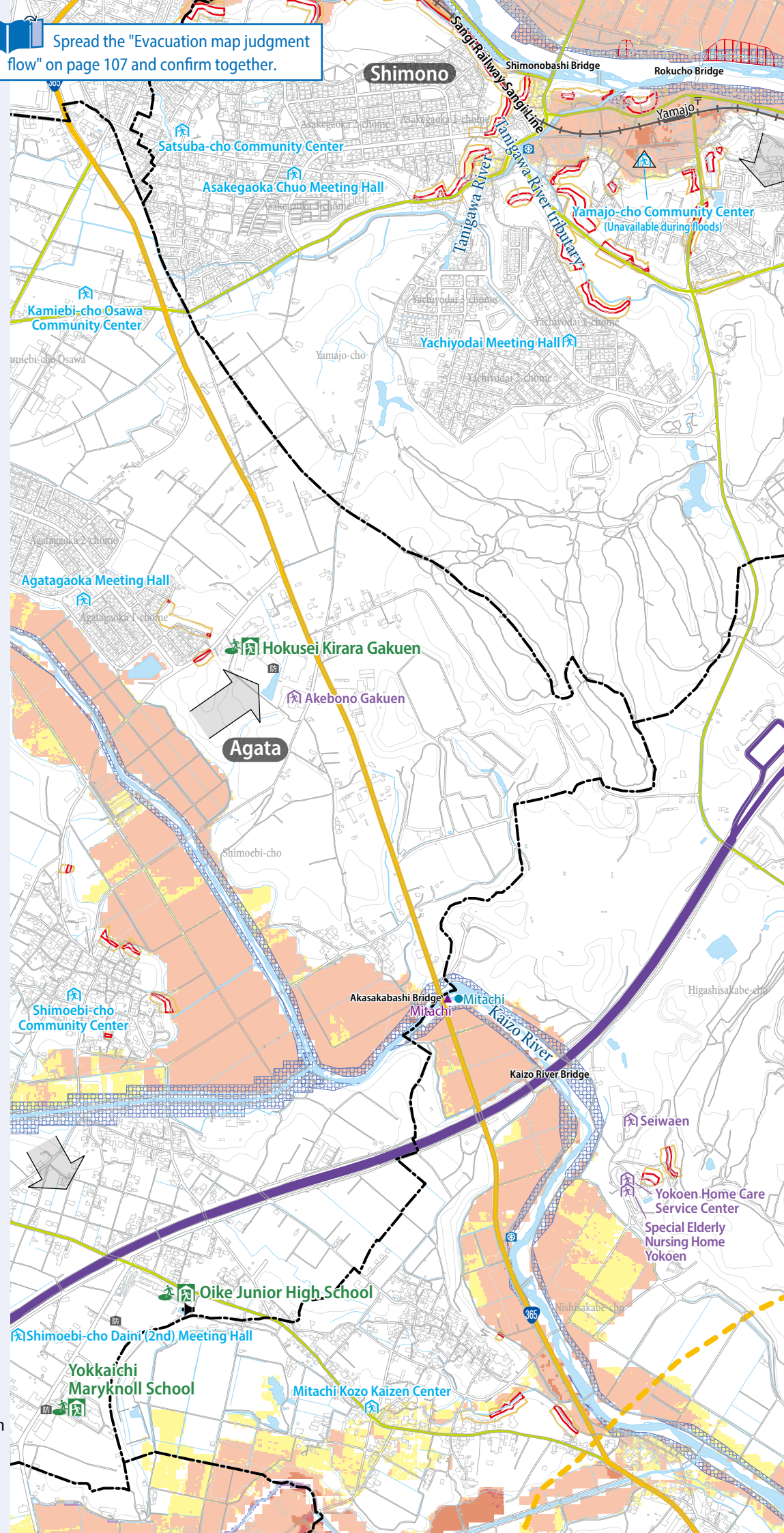
Landslide disaster warning zone

### Flood range due to reservoir burst

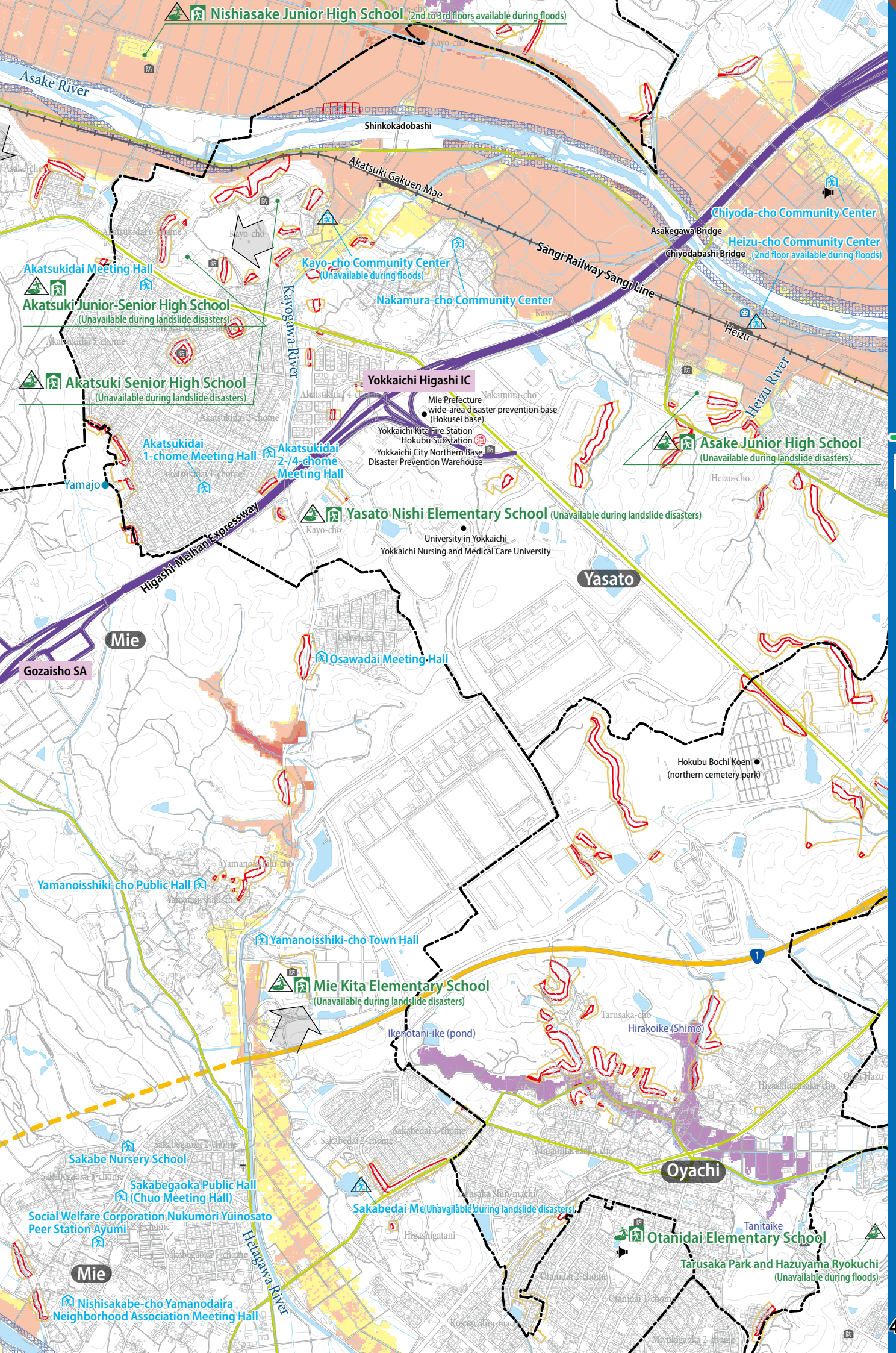
Flood range when reservoir bursts



Spread the "Evacuation map judgment flow" on page 107 and confirm together.





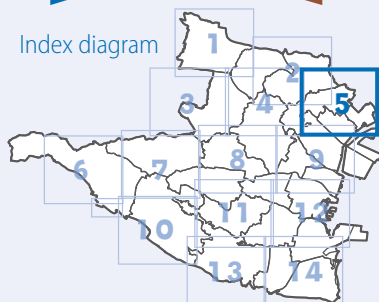




# Floods/landslide disasters

## Evacuation map 5

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Fire station**

**Police station**

**Underpass**

**Disaster prevention administrative radio**

**Disaster prevention warehouse**

**Waterproof warehouse**

**Water level observatory**

**Rainfall observatory**

**Post office**

**Evacuation direction**

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

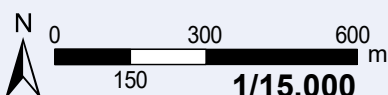
### Zones with a risk of landslide disasters

**Landslide disaster special warning zone**

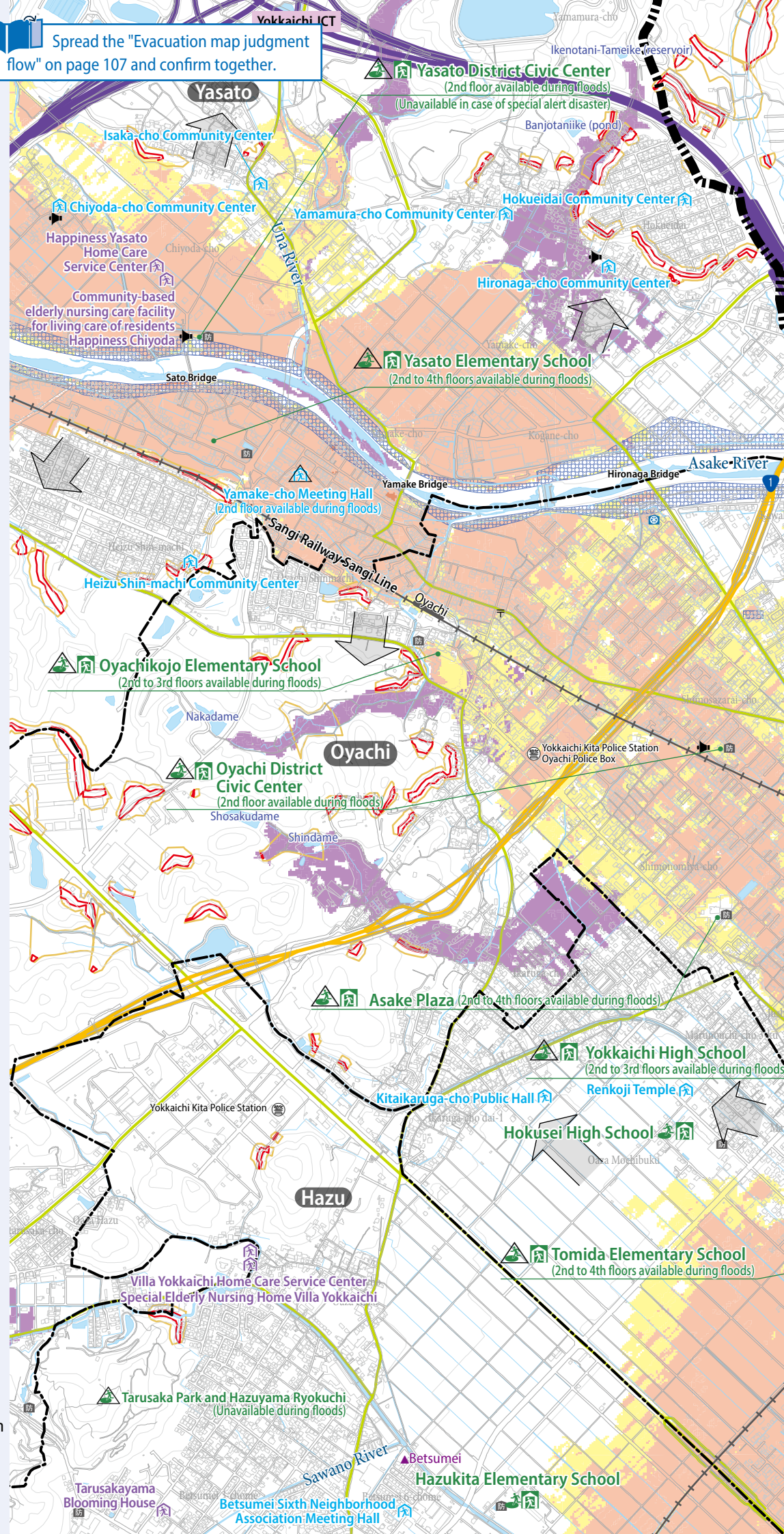
**Landslide disaster warning zone**

### Flood range due to reservoir burst

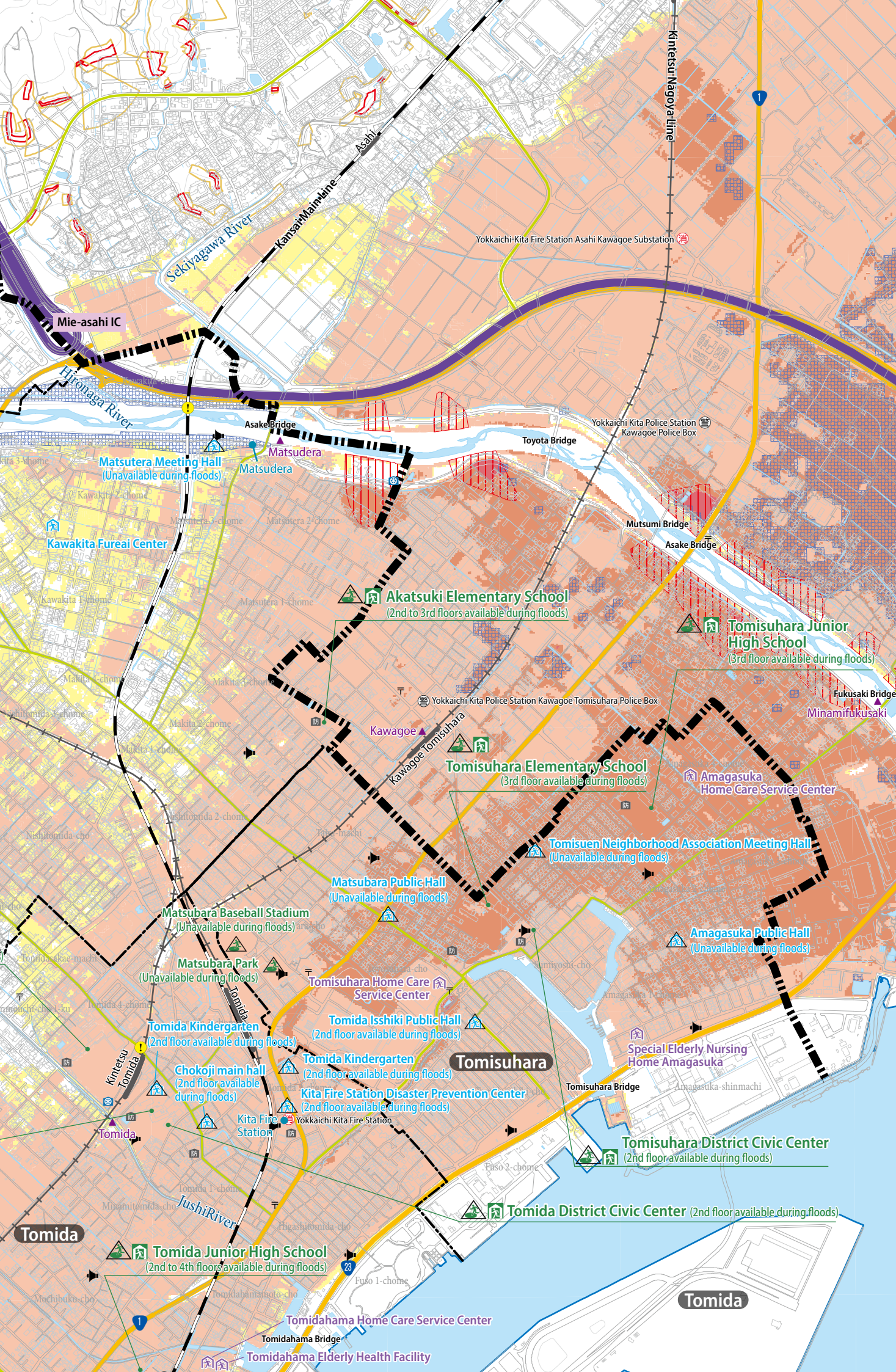
**Flood range when reservoir bursts**



Spread the "Evacuation map judgment flow" on page 107 and confirm together.





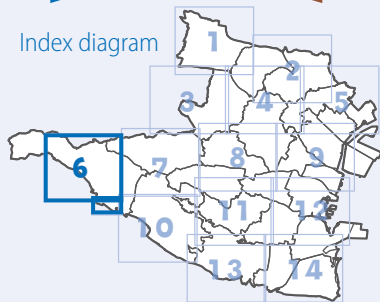




# Floods/landslide disasters

## Evacuation map 6

Index diagram



### Legends

Evacuation facility for **flood** and **landslide disasters**

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Fire station**

**Police station**

**Underpass**

**Disaster prevention administrative radio**

**Disaster prevention warehouse**

**Waterproof warehouse**

**Water level observatory**

**Rainfall observatory**

**Post office**

**Evacuation direction**

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

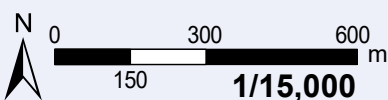
### Zones with a risk of landslide disasters

**Landslide disaster special warning zone**

**Landslide disaster warning zone**

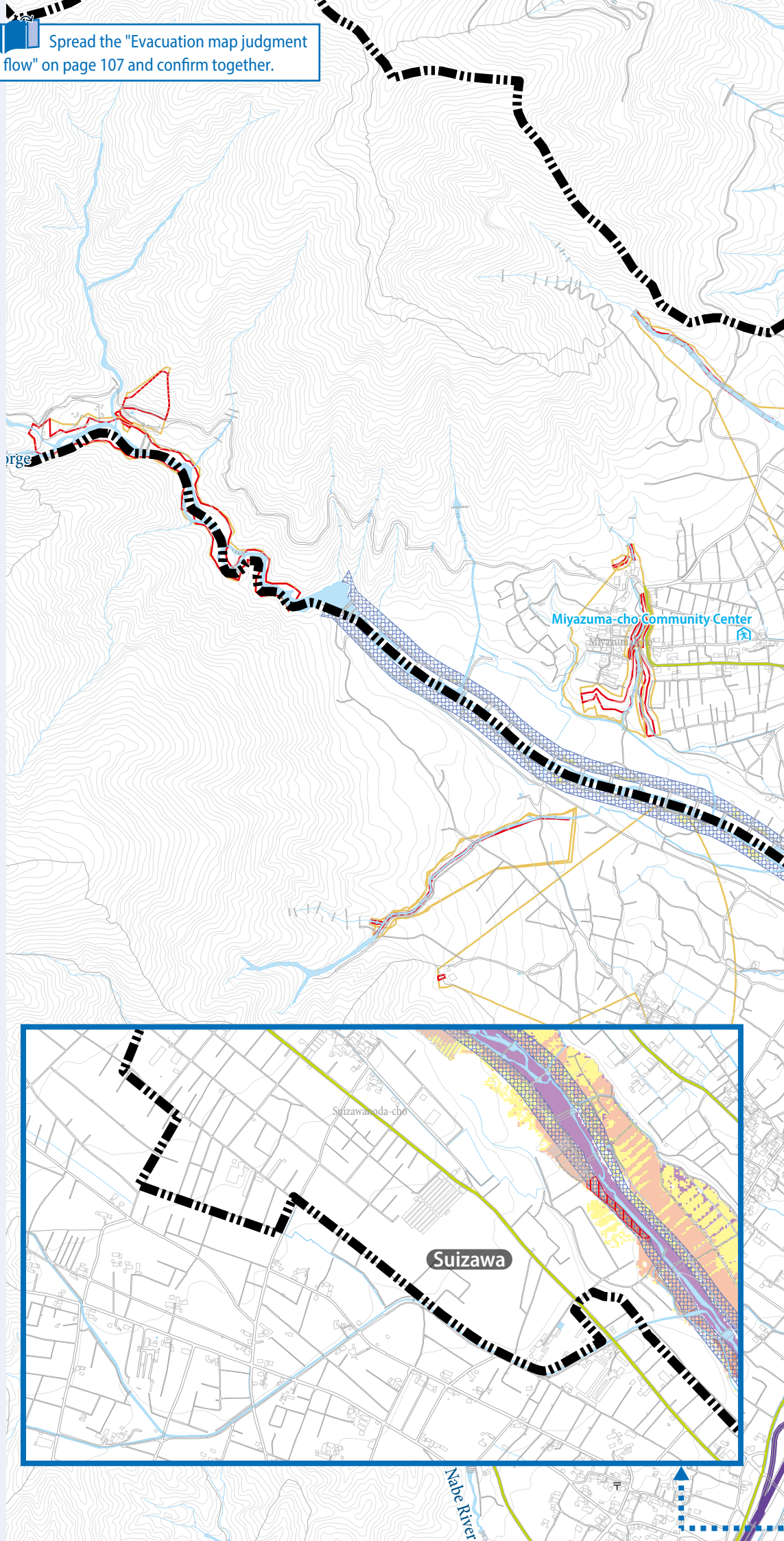
### Flood range due to reservoir burst

**Flood range when reservoir bursts**

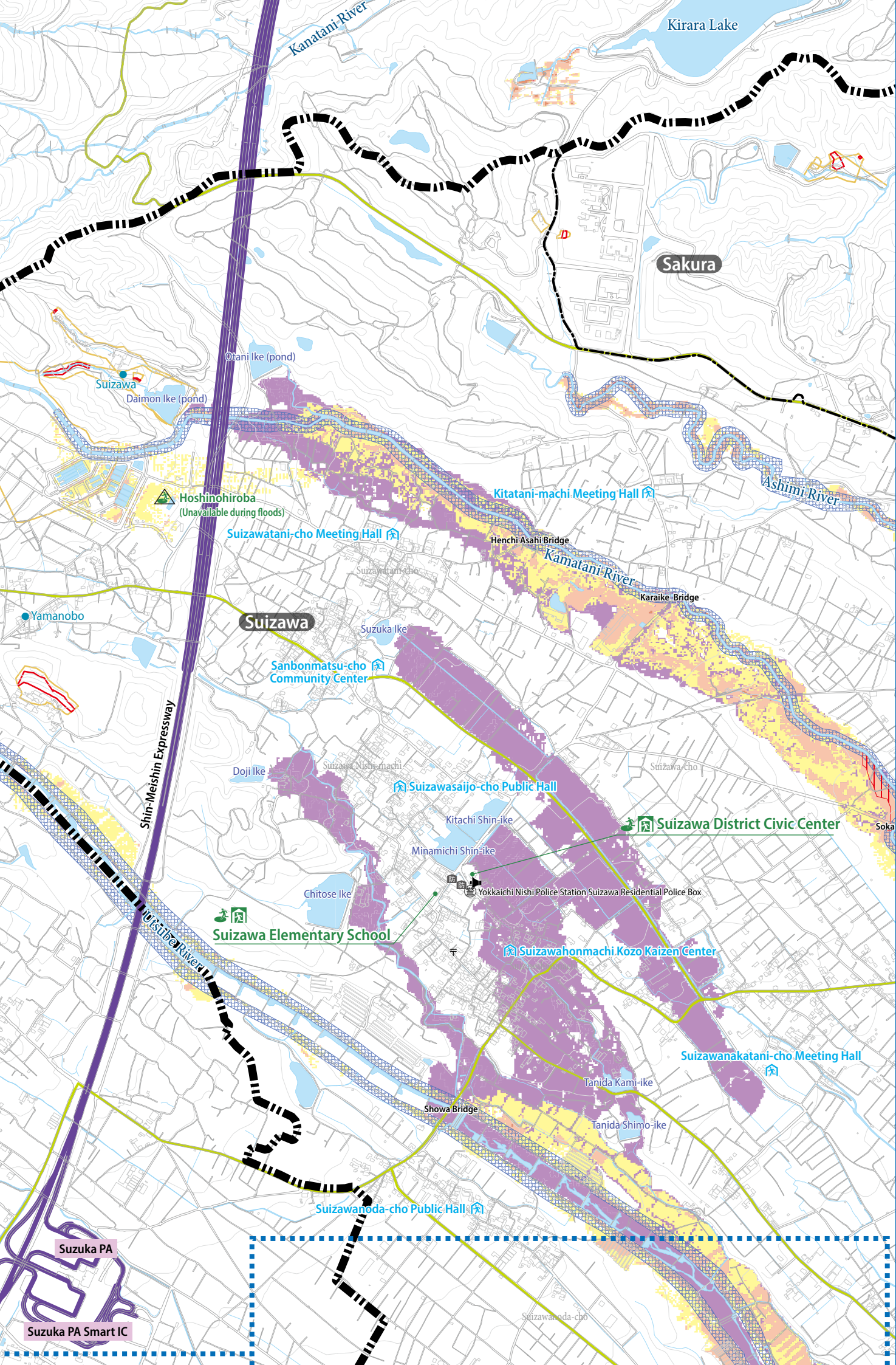


1/15,000

Spread the "Evacuation map judgment flow" on page 107 and confirm together.









Index diagram



### Legends

Evacuation facility for flood and landslide disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(The city will decide whether to open the facility depending on the disaster situation.)

→ For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Fire station**

**Police station**

**Underpass**

**Disaster prevention administrative radio**

**Evacuation direction**

**Expected water depth**

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

**Zones with a risk of landslide disasters**

**Landslide disaster special warning zone**

**Landslide disaster warning zone**

**Flood range due to reservoir burst**

**Flood range when reservoir bursts**

**Disaster prevention warehouse**

**Waterproof warehouse**

**Water level observatory**

**Rainfall observatory**

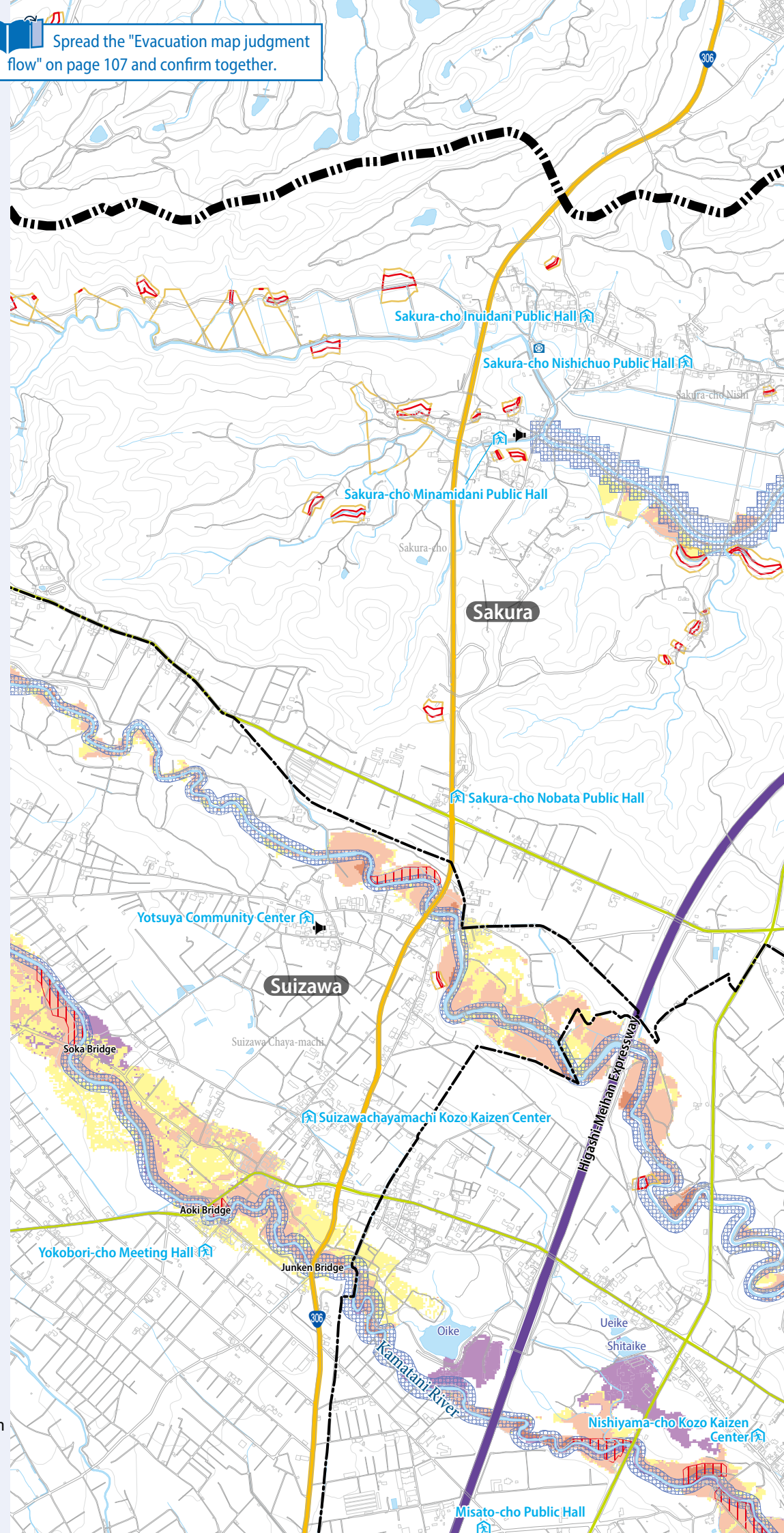
**Post office**

**Scale**

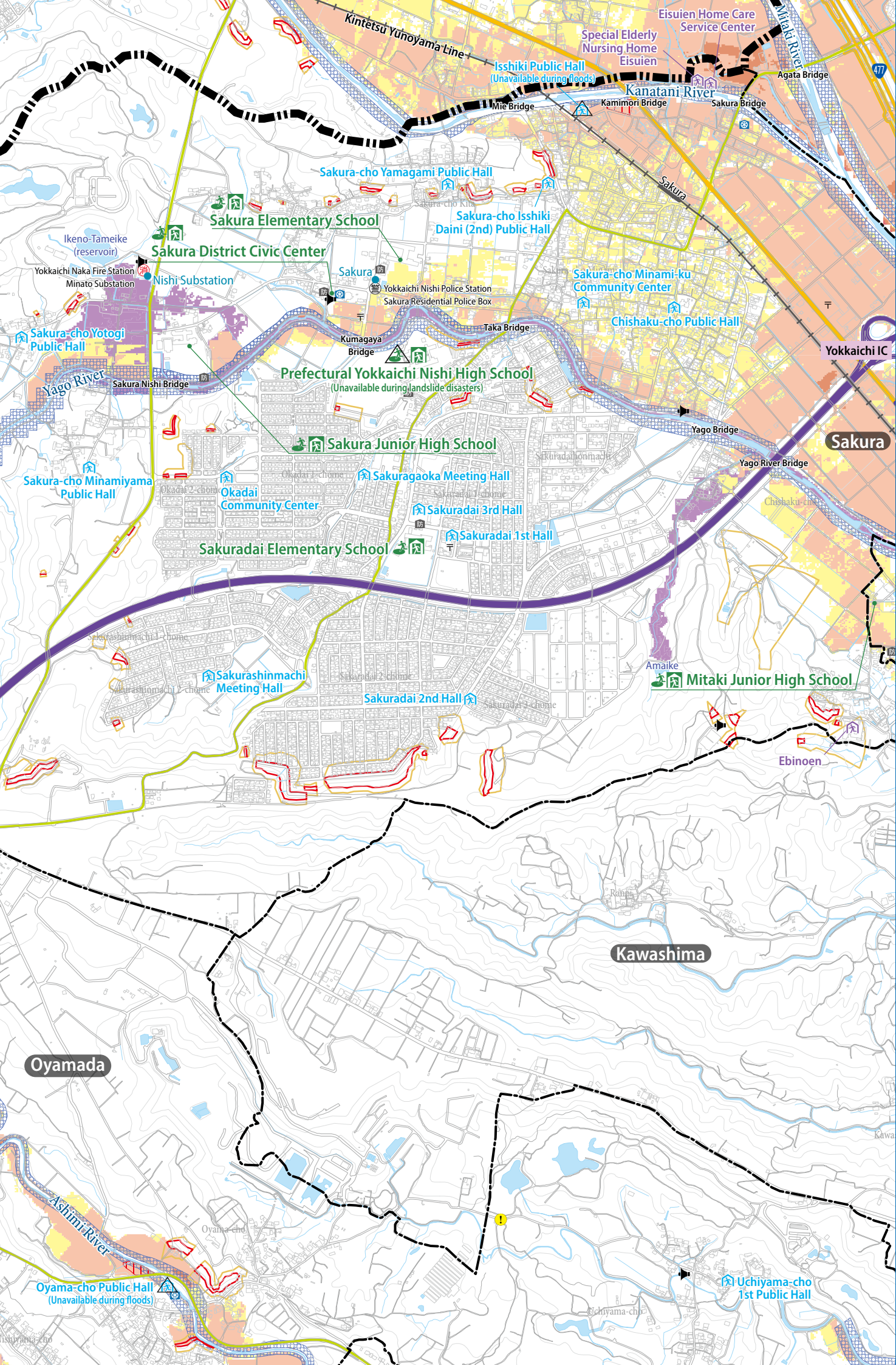
**1/15,000**

**North arrow**

Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map 8

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Fire station**

**Police station**

**Underpass**

**Disaster prevention administrative radio**

**Evacuation direction**

**Expected water depth**

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

**Zones with a risk of landslide disasters**

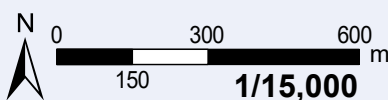
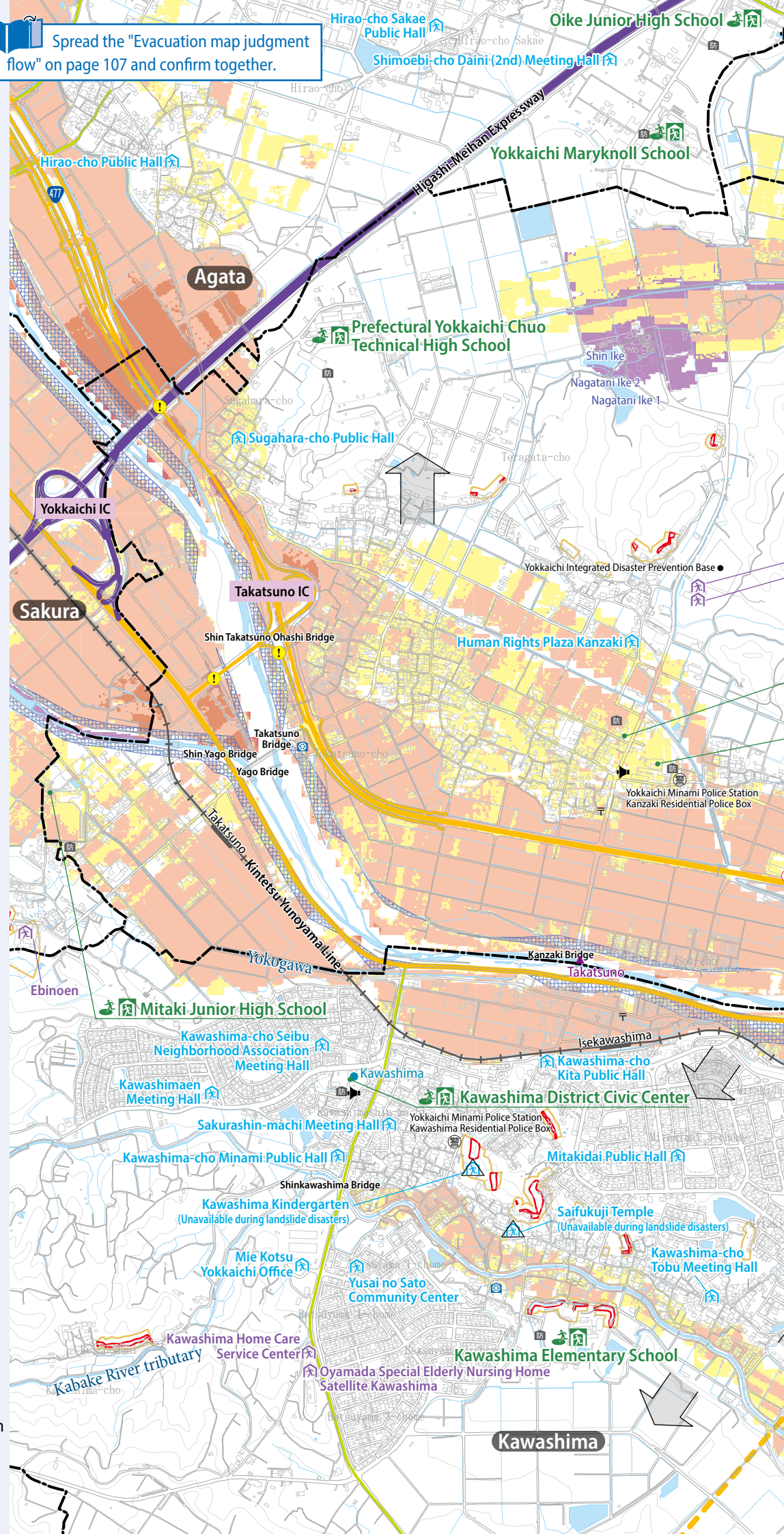
**Landslide disaster special warning zone**

**Landslide disaster warning zone**

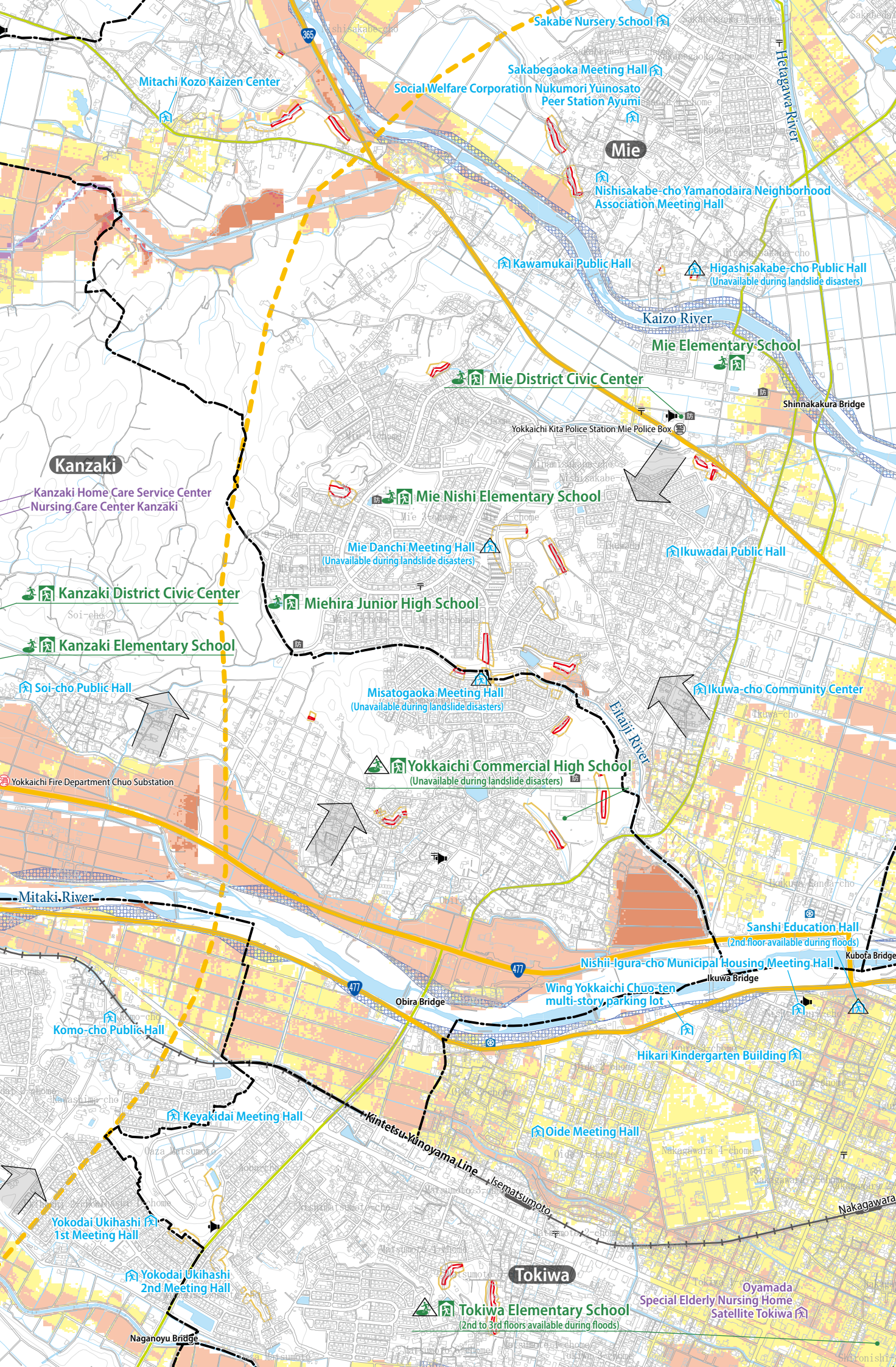
**Flood range due to reservoir burst**

**Flood range when reservoir bursts**

Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map 9

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

\*The city will decide whether to open the facility depending on the disaster situation.

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Fire station**

**Police station**

**Underpass**

**Disaster prevention administrative radio**

**Disaster prevention warehouse**

**Waterproof warehouse**

**Water level observatory**

**Rainfall observatory**

**Post office**

**Evacuation direction**

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

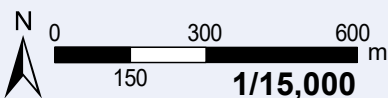
### Zones with a risk of landslide disasters

**Landslide disaster special warning zone**

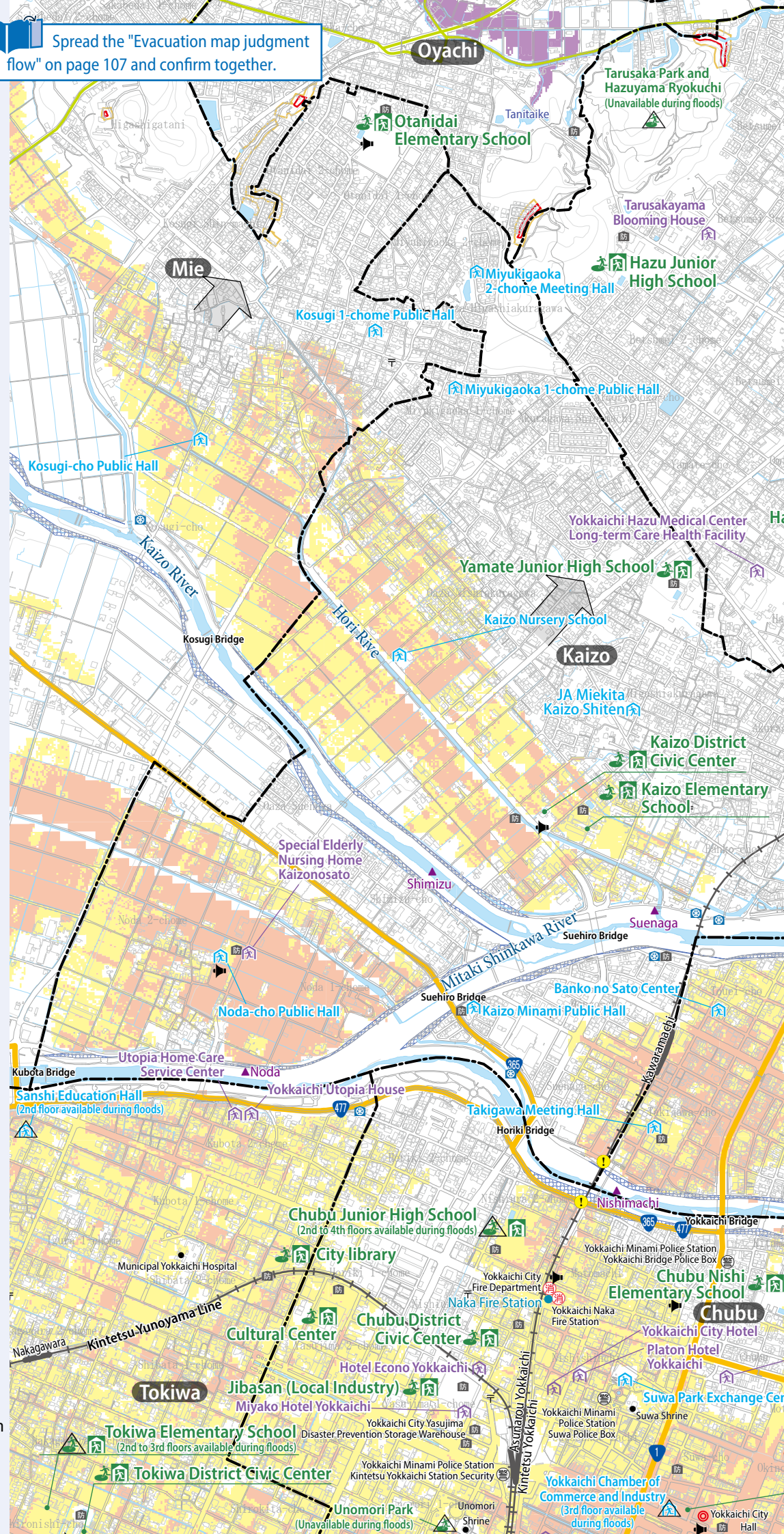
**Landslide disaster warning zone**

### Flood range due to reservoir burst

**Flood range when reservoir bursts**



Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map 10

Index diagram



### Legends

Evacuation facility for **flood** and **landslide** disasters

Designated emergency evacuation site

Designated emergency evacuation site (With terms of use)

Designated evacuation shelter

(The city will decide whether to open the facility depending on the disaster situation.)

→ For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

Welfare evacuation shelter (secondary evacuation shelter)

Emergency evacuation shelter

Emergency evacuation shelter (with conditions added)

Government offices

Disaster prevention warehouse

Fire station

Waterproof warehouse

Police station

Water level observatory

Underpass

Rainfall observatory

Disaster prevention administrative radio

Post office

Evacuation direction

### Expected water depth

5 m to less than 10 m  
(Flooding above the 3rd/4th floor)

3 m to less than 5 m  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

0.5 m to less than 3 m  
(Flooding above the 1st floor to under the eaves of the 1st floor)

Less than 0.5 m  
(Flooding under the 1st floor)

Zones where the flow velocity is so high that there is a risk of wooden houses collapsing

Zones where the ground is likely to be eroded during flooding

— or —

Zones where flooding is likely to continue for about a week

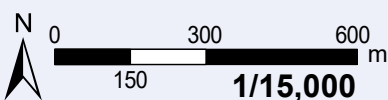
### Zones with a risk of landslide disasters

Landslide disaster special warning zone

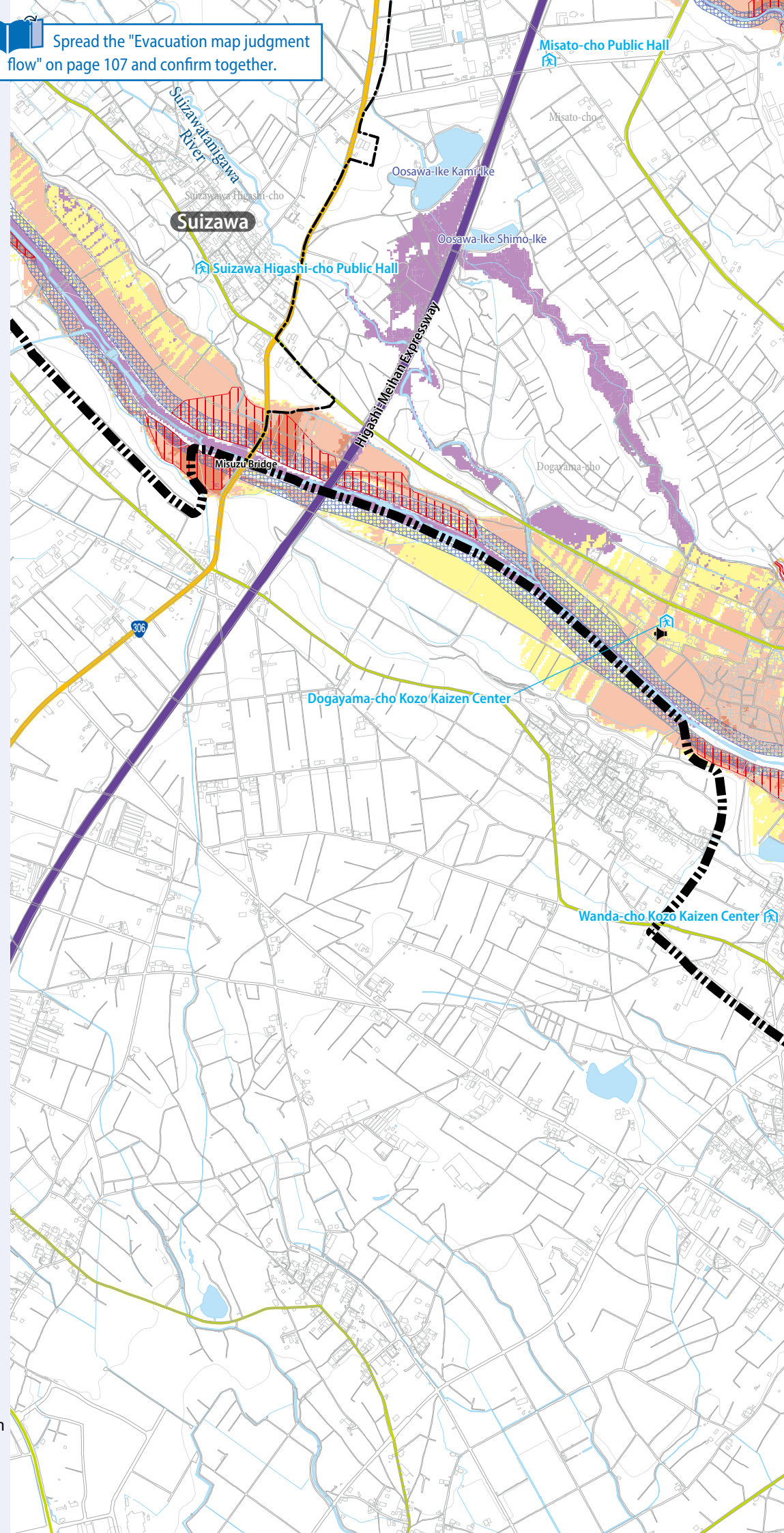
Landslide disaster warning zone

### Flood range due to reservoir burst

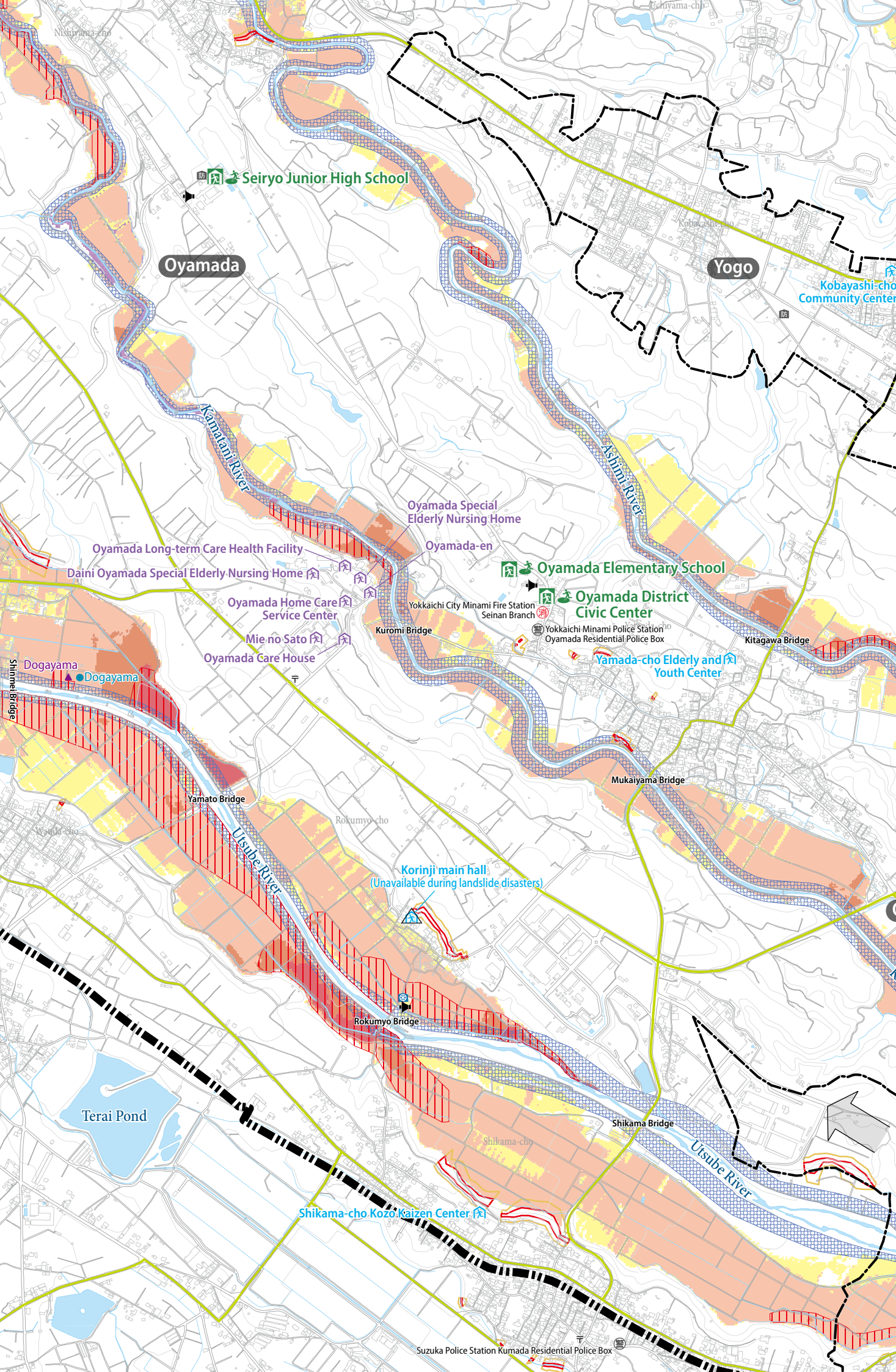
Flood range when reservoir bursts



Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map

11

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

Designated emergency evacuation site

Designated emergency evacuation site (With terms of use)

Designated evacuation shelter

(The city will decide whether to open the facility depending on the disaster situation.)

→ For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

Welfare evacuation shelter (secondary evacuation shelter)

Emergency evacuation shelter

Emergency evacuation shelter (with conditions added)

Government offices

Disaster prevention warehouse

Fire station

Waterproof warehouse

Police station

Water level observatory

Underpass

Rainfall observatory

Disaster prevention administrative radio

Post office

Evacuation direction

### Expected water depth

5 m to less than 10 m (Flooding above the 3rd/4th floor)

3 m to less than 5 m (Flooding above the 2nd floor to under the eaves of the 2nd floor)

0.5 m to less than 3 m (Flooding above the 1st floor to under the eaves of the 1st floor)

Less than 0.5 m (Flooding under the 1st floor)

Zones where the flow velocity is so high that there is a risk of wooden houses collapsing

Zones where the ground is likely to be eroded during flooding

— or —

Zones where flooding is likely to continue for about a week

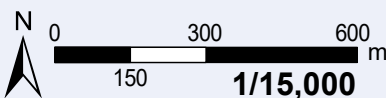
### Zones with a risk of landslide disasters

Landslide disaster special warning zone

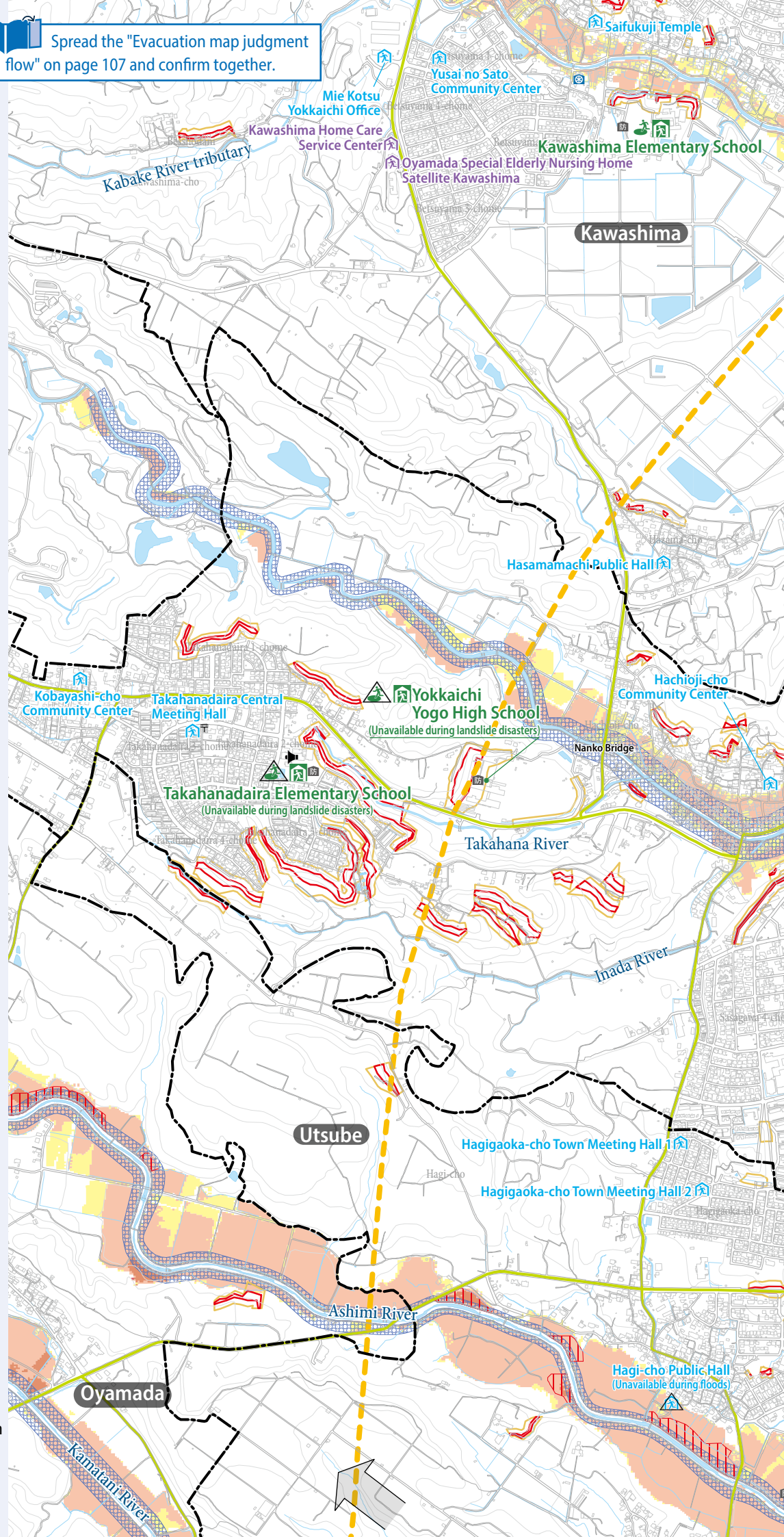
Landslide disaster warning zone

### Flood range due to reservoir burst

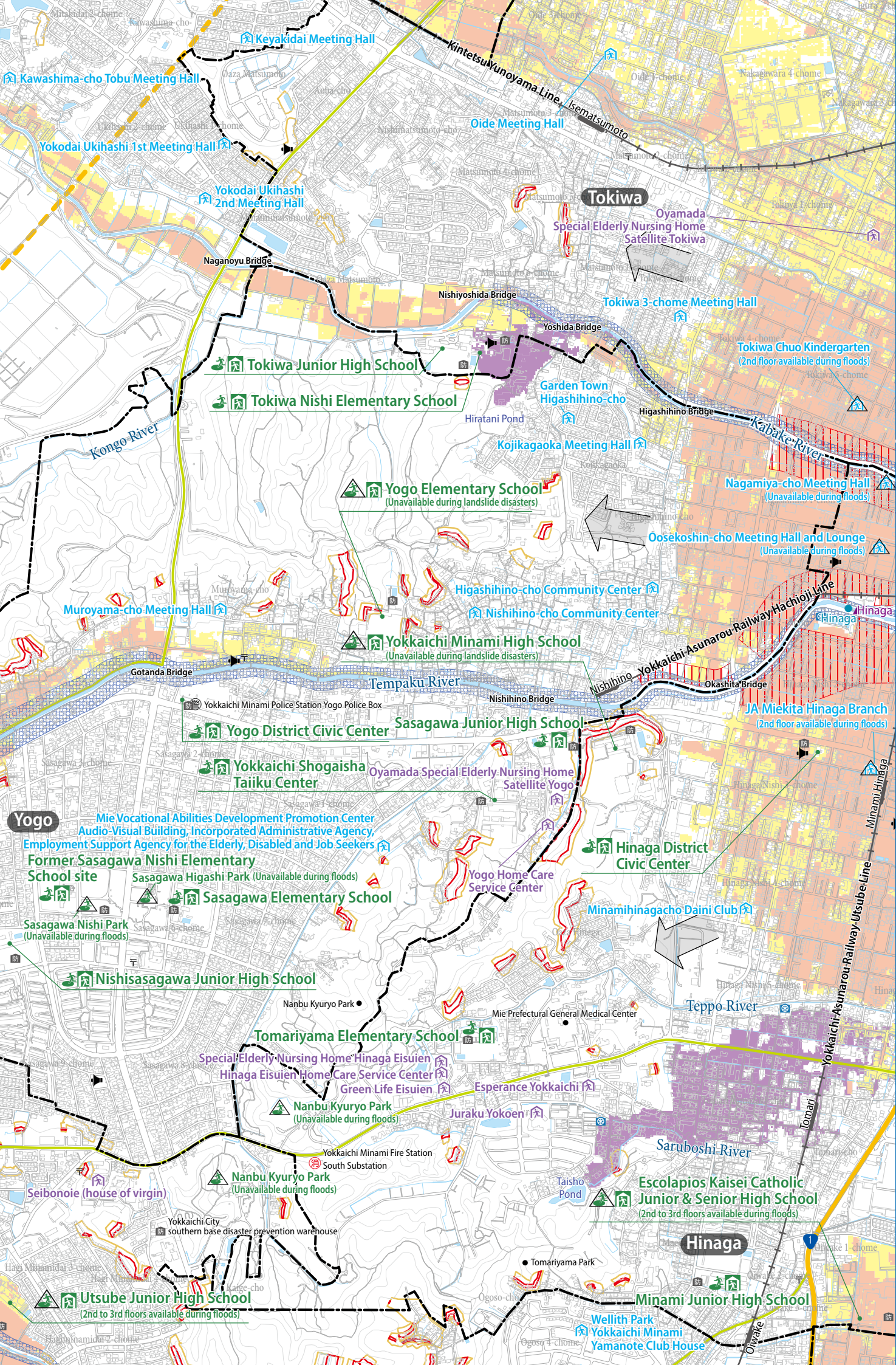
Flood range when reservoir bursts



Spread the "Evacuation map judgment flow" on page 107 and confirm together.









# Floods/landslide disasters

## Evacuation map 12

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

- Designated emergency evacuation site
- Designated emergency evacuation site (With terms of use)
- Designated evacuation shelter

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

- Welfare evacuation shelter (secondary evacuation shelter)
- Emergency evacuation shelter
- Emergency evacuation shelter (with conditions added)

- Government offices
- Fire station
- Police station
- Underpass
- Disaster prevention administrative radio
- Disaster prevention warehouse
- Waterproof warehouse
- Water level observatory
- Rainfall observatory

Evacuation direction

### Expected water depth

- 5 m to less than 10 m (Flooding above the 3rd/4th floor)
- 3 m to less than 5 m (Flooding above the 2nd floor to under the eaves of the 2nd floor)
- 0.5 m to less than 3 m (Flooding above the 1st floor to under the eaves of the 1st floor)
- Less than 0.5 m (Flooding under the 1st floor)

- Zones where the flow velocity is so high that there is a risk of wooden houses collapsing
- Zones where the ground is likely to be eroded during flooding

— or —

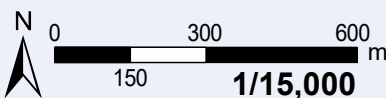
Zones where flooding is likely to continue for about a week

### Zones with a risk of landslide disasters

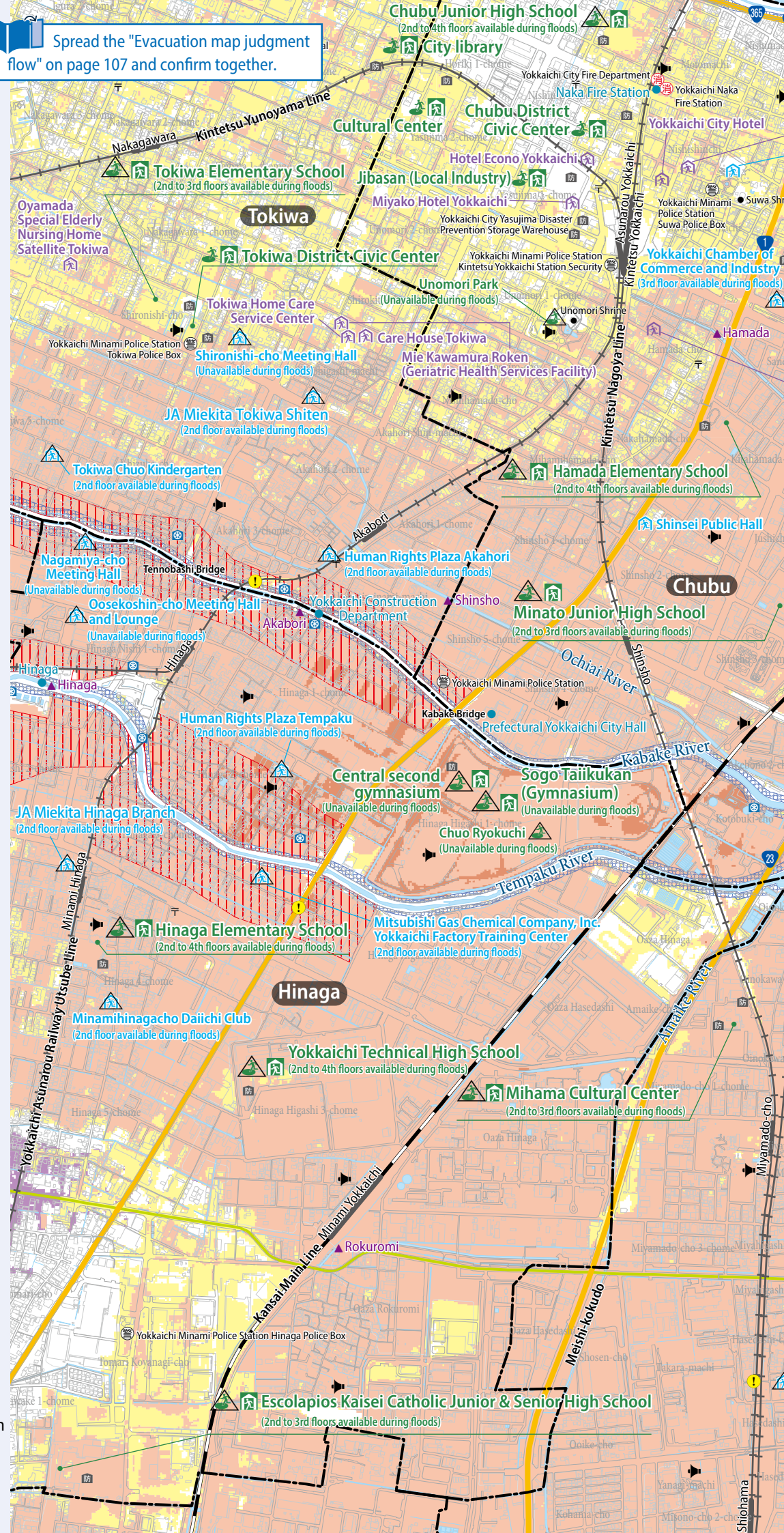
- Landslide disaster special warning zone
- Landslide disaster warning zone

### Flood range due to reservoir burst

- Flood range when reservoir bursts



Spread the "Evacuation map judgment flow" on page 107 and confirm together.





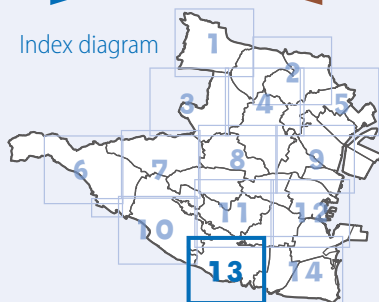




# Floods/landslide disasters

## Evacuation map 13

Index diagram



### Legends

Evacuation facility for **flood** and **landslide** disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(The city will decide whether to open the facility depending on the disaster situation.)

→ For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Disaster prevention warehouse**

**Fire station**

**Waterproof warehouse**

**Police station**

**Water level observatory**

**Underpass**

**Rainfall observatory**

**Disaster prevention administrative radio**

**Post office**

**Evacuation direction**

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

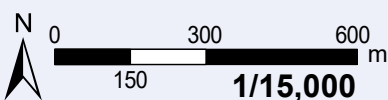
### Zones with a risk of landslide disasters

**Landslide disaster special warning zone**

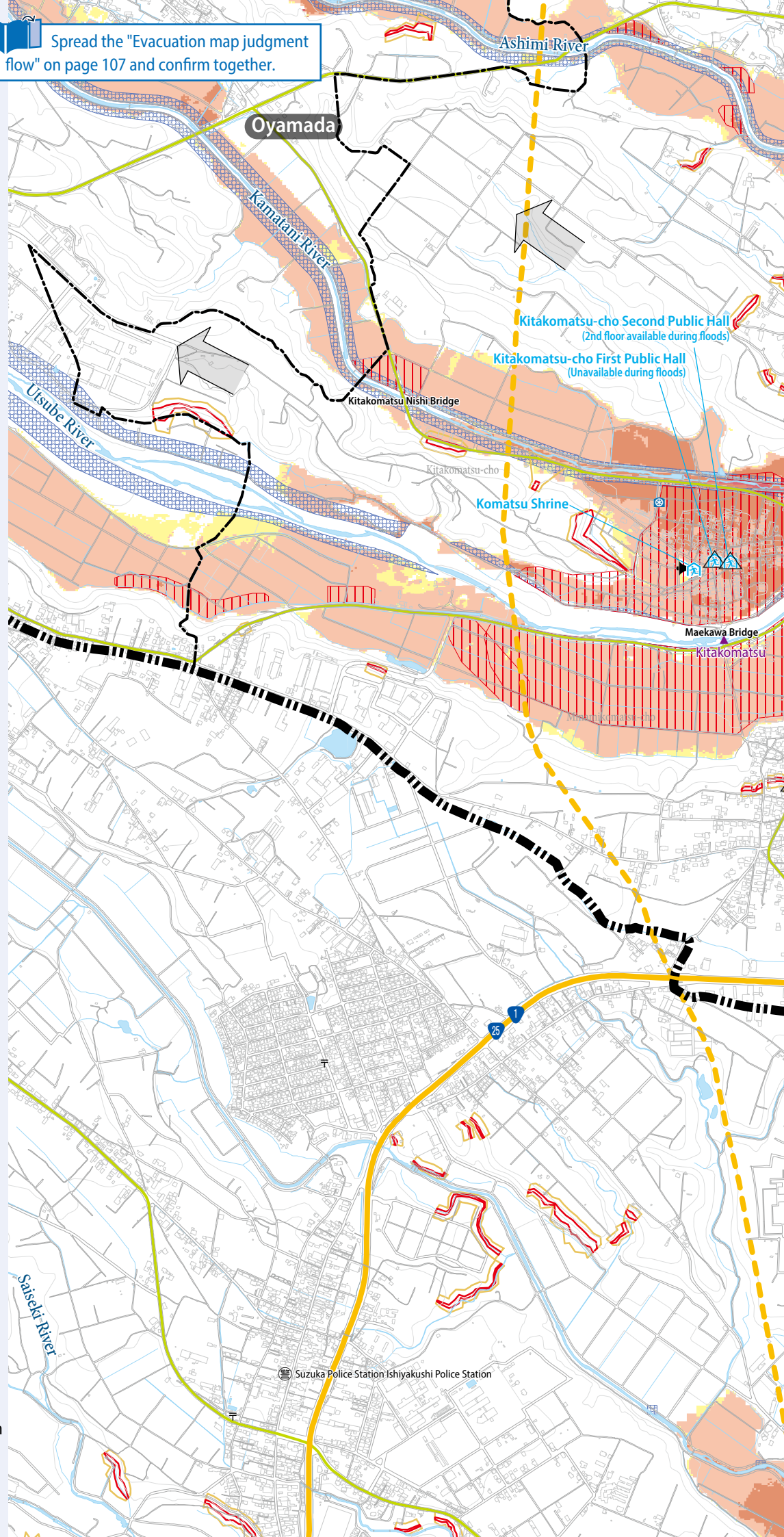
**Landslide disaster warning zone**

### Flood range due to reservoir burst

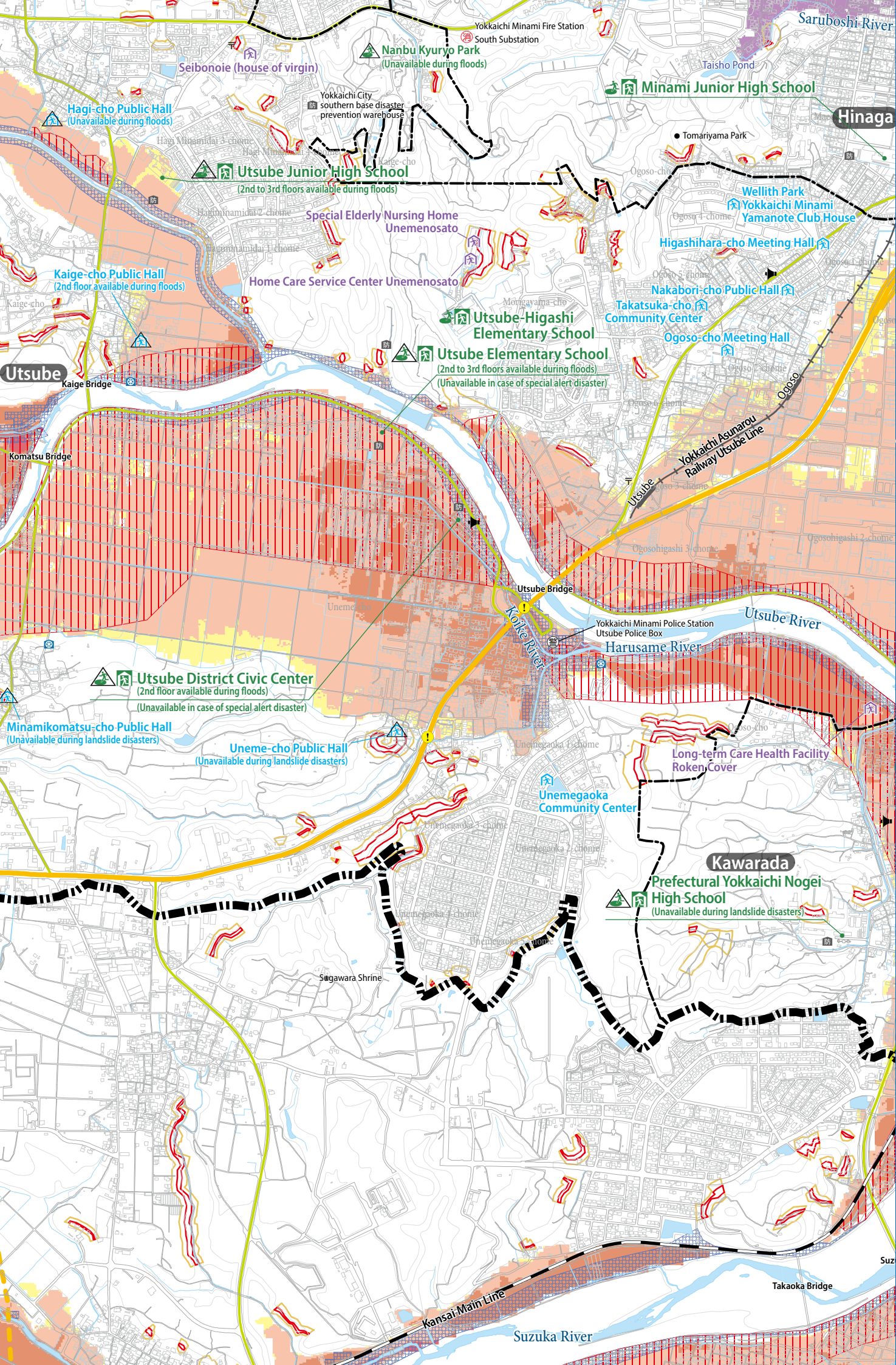
**Flood range when reservoir bursts**



Spread the "Evacuation map judgment flow" on page 107 and confirm together.





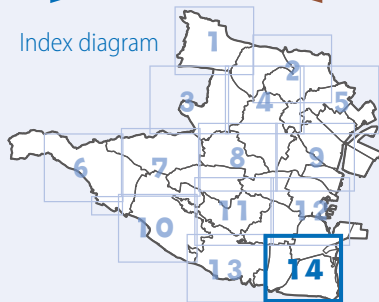




# Floods/landslide disasters

## Evacuation map 14

Index diagram



### Legends

Evacuation facility for flood and landslide disasters

**Designated emergency evacuation site**

**Designated emergency evacuation site (With terms of use)**

**Designated evacuation shelter**

(\*The city will decide whether to open the facility depending on the disaster situation.)

→For a list of designated emergency evacuation sites (designated evacuation shelters), refer to Pages 97 to 100.

**Welfare evacuation shelter (secondary evacuation shelter)**

**Emergency evacuation shelter**

**Emergency evacuation shelter (with conditions added)**

**Government offices**

**Disaster prevention warehouse**

**Fire station**

**Waterproof warehouse**

**Police station**

**Water level observatory**

**Underpass**

**Rainfall observatory**

**Disaster prevention administrative radio**

**Post office**

**Evacuation direction**

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

— or —

**Zones where flooding is likely to continue for about a week**

### Zones with a risk of landslide disasters

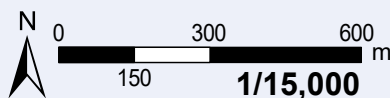
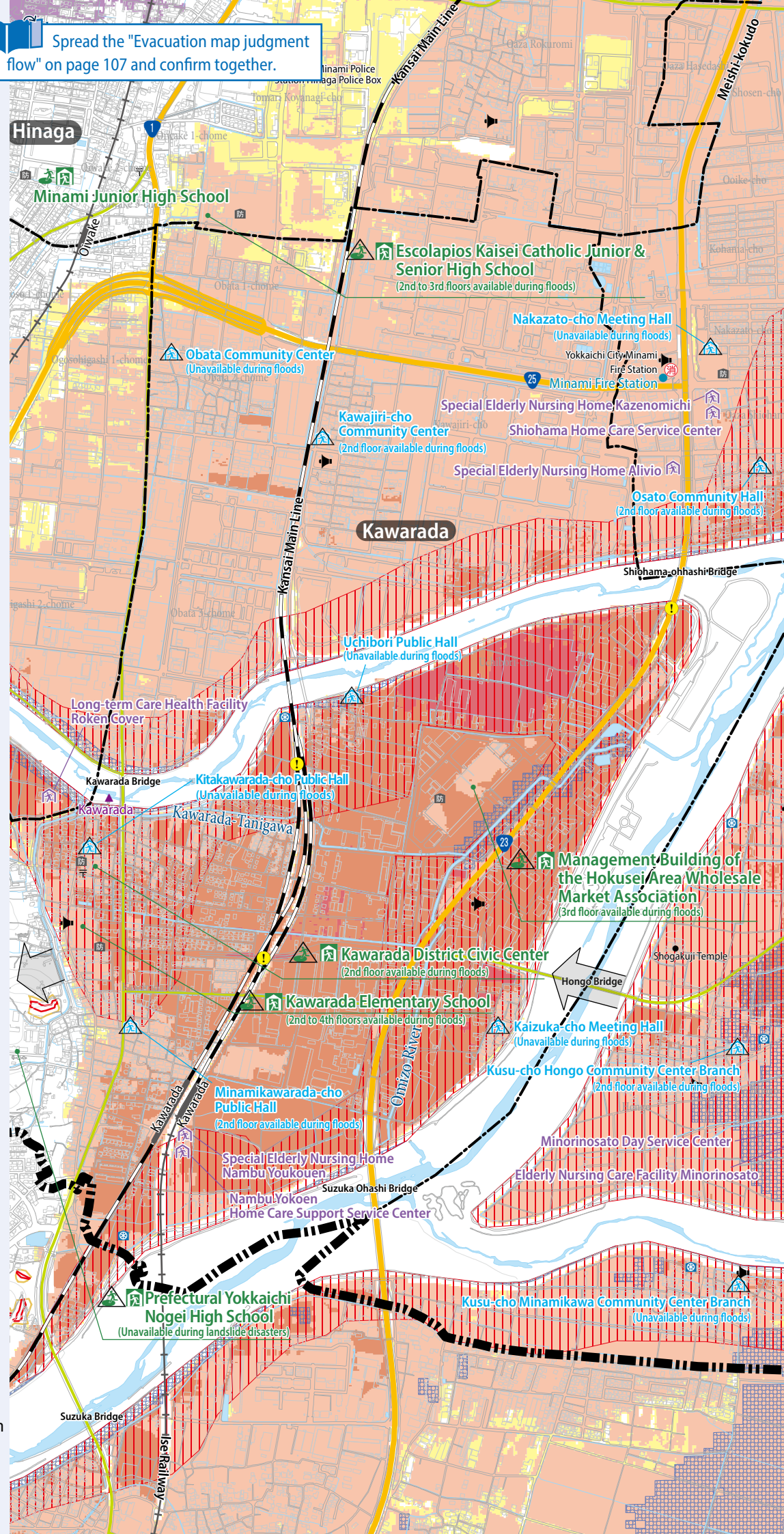
**Landslide disaster special warning zone**

**Landslide disaster warning zone**

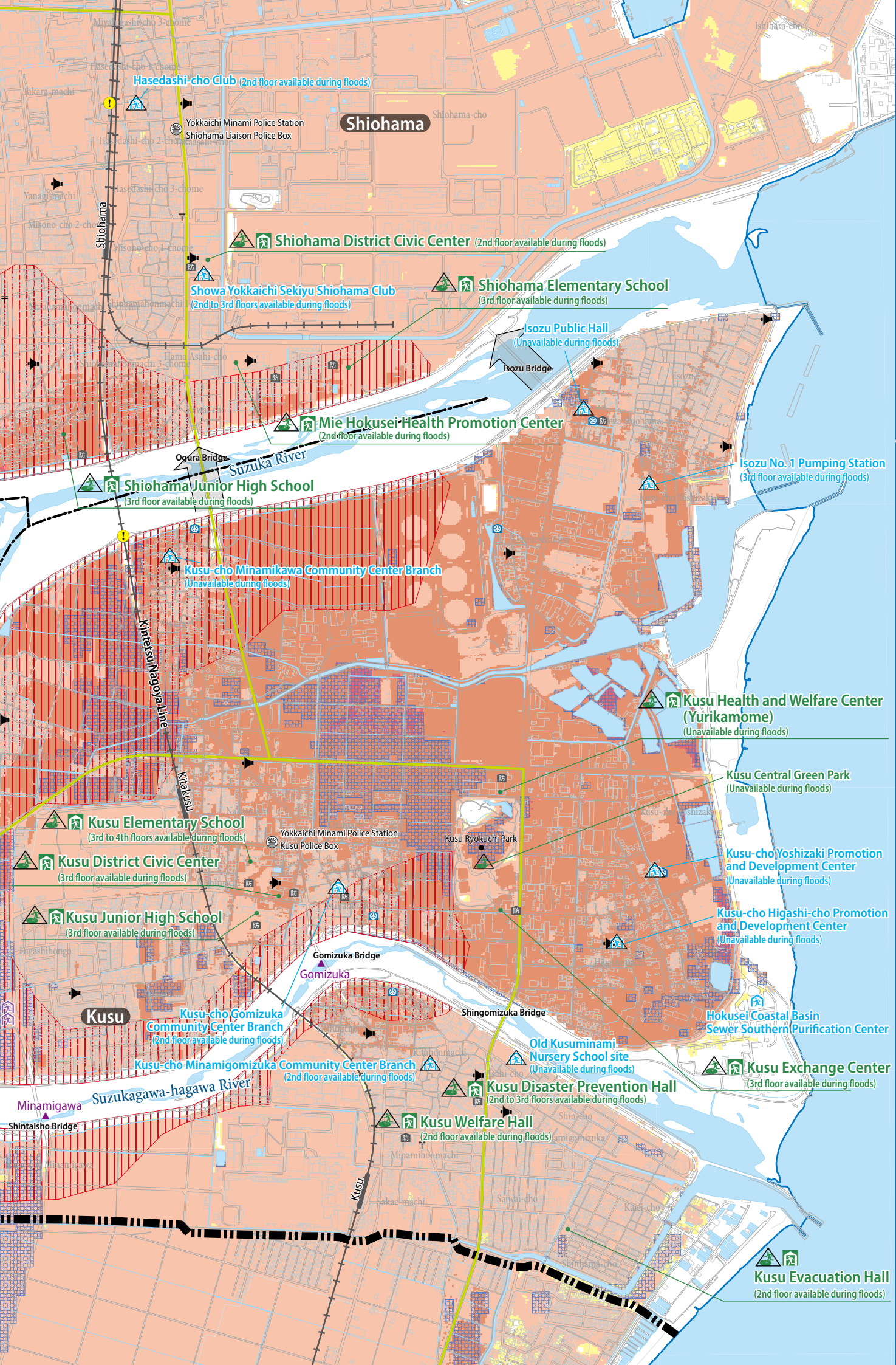
### Flood range due to reservoir burst

**Flood range when reservoir bursts**

Spread the "Evacuation map judgment flow" on page 107 and confirm together.









## Estimated flood inundation zone map

## Legends

### Expected water depth

**5 m to less than 10 m**  
(Flooding above the 3rd/4th floor)

**3 m to less than 5 m**  
(Flooding above the 2nd floor to under the eaves of the 2nd floor)

**0.5 m to less than 3 m**  
(Flooding above the 1st floor to under the eaves of the 1st floor)

**Less than 0.5 m**  
(Flooding under the 1st floor)

**Zones where the flow velocity is so high that there is a risk of wooden houses collapsing**

**Zones where the ground is likely to be eroded during flooding**

## Asake river system

## In the event of flooding of Asake River,

### Tabika River, Sugitani River and/or Taguchi River



**Estimated flood inundation zone map of Asake River in the Asake River system (estimated maximum scale)**

Prerequisite for designation: 24-hour total rainfall of **752** mm in the Asake River basin

Designated date: March 21, 2017

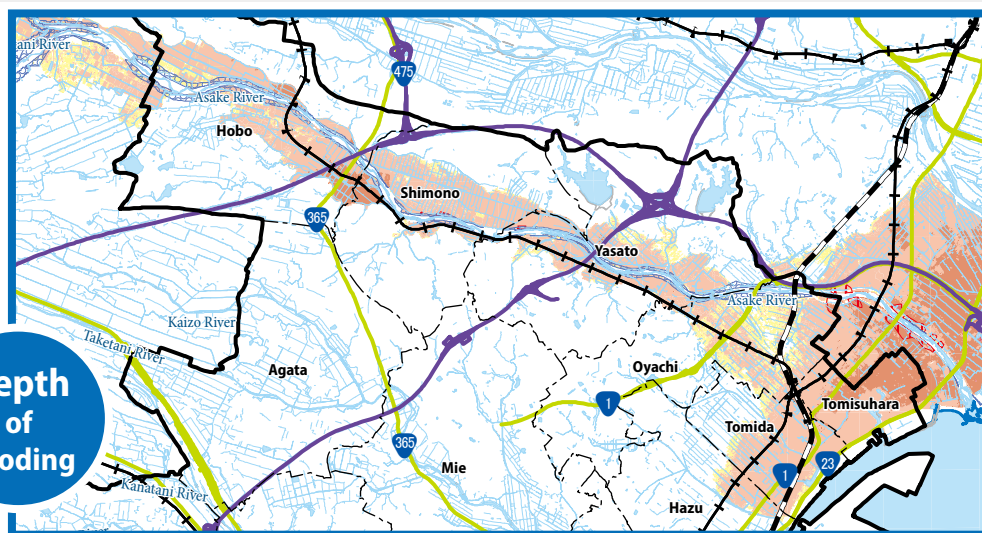
Created by: Mie Prefecture URL:<http://www.pref.mie.lg.jp/>

**Estimated flood inundation zone map of Tabika River, Sugitani River and Taguchi River in the Asake River system (estimated maximum scale)**

Prerequisite for designation: 24-hour total rainfall of **836** mm in the Tabika River basin

Publication date: May 24, 2022

Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>



## Depth of flooding

## Mitaki River system and Kaizo River system

### In the event of flooding of

**Mitaki River, Kanatani River, Yago River, Mitaki  
Shinkawa, Aka River, Kaizo River, and/or  
Taketani River**



**Estimated flood inundation zone map of Mitaki River, Kanatani River, Yago River, Mitaki Shinkawa, and Kaizo River in the Mitaki River system (estimated maximum scale)**

Prerequisite for designation: 24-hour total rainfall in the Mitaki River basin: **779** mm; 24-hour total rainfall in the Kaizo River basin: **828** mm.

Publication date: September 22, 2017

**Estimated flood inundation zone map of Yago River in the Mitaki River system (expected maximum scale)**

Prerequisite for designation: 24-hour total rainfall of **779** mm in the Yago River basin

Publication date: May 24, 2022

Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>

**Estimated flood inundation zone map of Kanatani River and Aka River in the Mitaki River system (estimated maximum scale)**

Prerequisite for designation: 24-hour total rainfall of **779** mm in the Kanatani River basin  
Publication date: May 24, 2022

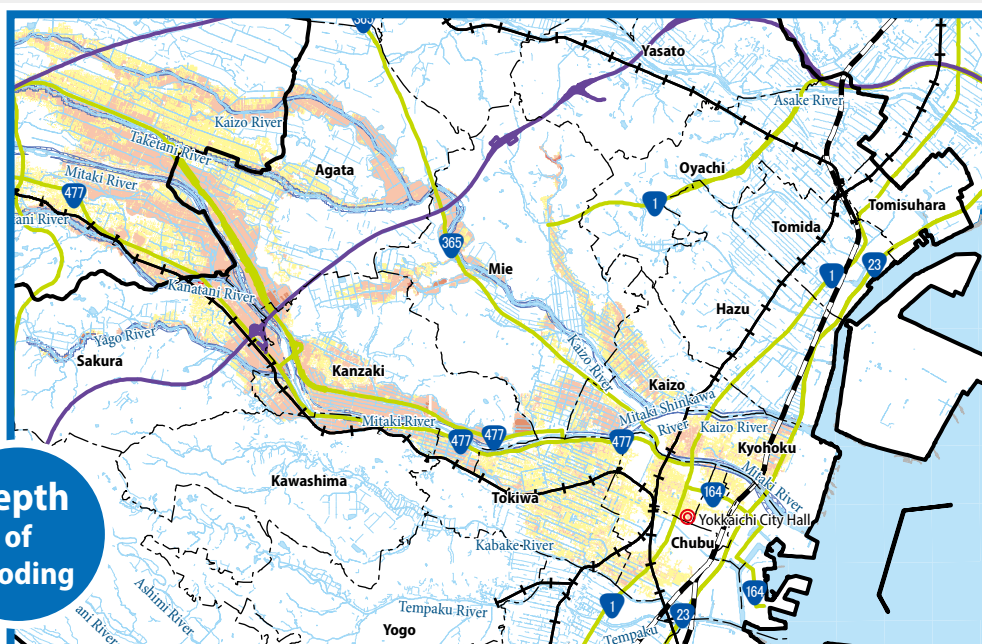
Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>

**Estimated flood zone map of Taketani River in the Kaizo River system  
(expected maximum scale)**

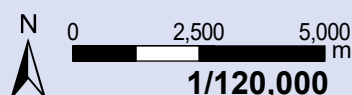
Prerequisite for designation: 24-hour total rainfall of **836** mm in the Taketani River basin

Publication date: May 24, 2022

Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>



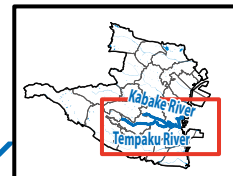
## Depth of flooding





## Tempaku River system

### In the event of flooding of Tempaku River and/or Kabake River

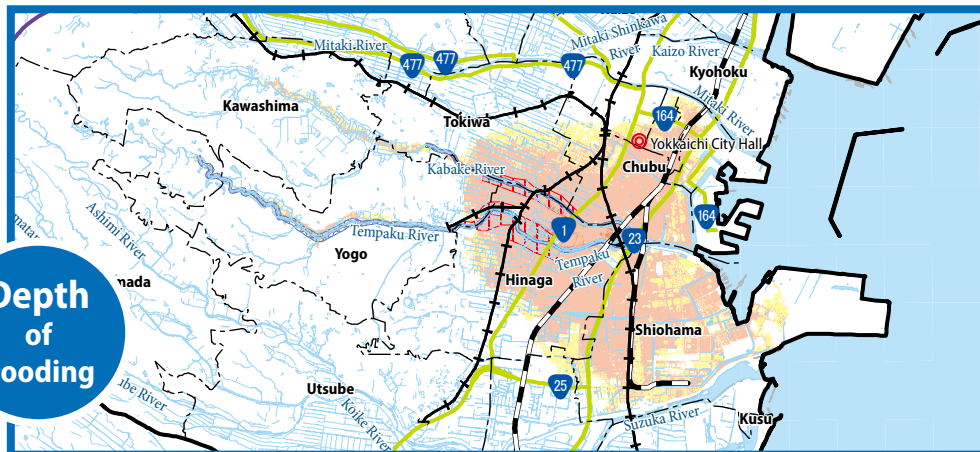


Estimated flood inundation zone map of Tempaku River and Kabake River in the Tempaku River system (estimated maximum scale)

Prerequisite for designation: 24-hour total rainfall of **829** mm in the Tempaku River basin

Publication date: May 7, 2019

Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>



Depth  
of  
flooding

Think

## Suzuka River system

### In the event of flooding of Suzuka River, Suzukagawa-hagawa River (short branch of Suzuka River), Utsube River, Kamatani River, Ashimi River, Harusame River, Koike River, and/or Tani River



Estimated Flood Inundation Zone Map of Suzuka River, Suzukagawa-hagawa River, and Utsube River in the Suzuka River system (estimated maximum scale)

Prerequisite for designation: 6-hour total rainfall of **391** mm in the Suzuka River basin

Publication date: May 31, 2016

Created by: Ministry of Land Infrastructure, Transport and Tourism, Chubu Regional Development

Bureau, Mie River National Highways Office

URL: <http://www.cbr.mlit.go.jp/mie/index.html>

Estimated flood inundation zone map of Harusame River and Koike River in the Suzuka River system (estimated maximum scale)

Prerequisite for designation: 6-hour total rainfall of **481** mm in the Harusame River basin

Publication date: May 24, 2022

Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>

Estimated Flood Inundation Zone Map of Utsube River, Kamatani River, and Ashimi River in the Suzuka River system (estimated maximum scale)

Prerequisite for designation: 24-hour total rainfall of **797** mm in the Utsube River basin,

24-hour total rainfall of **836** mm in the Kamatani River/Ashimi River basin

Publication date: May 27, 2020

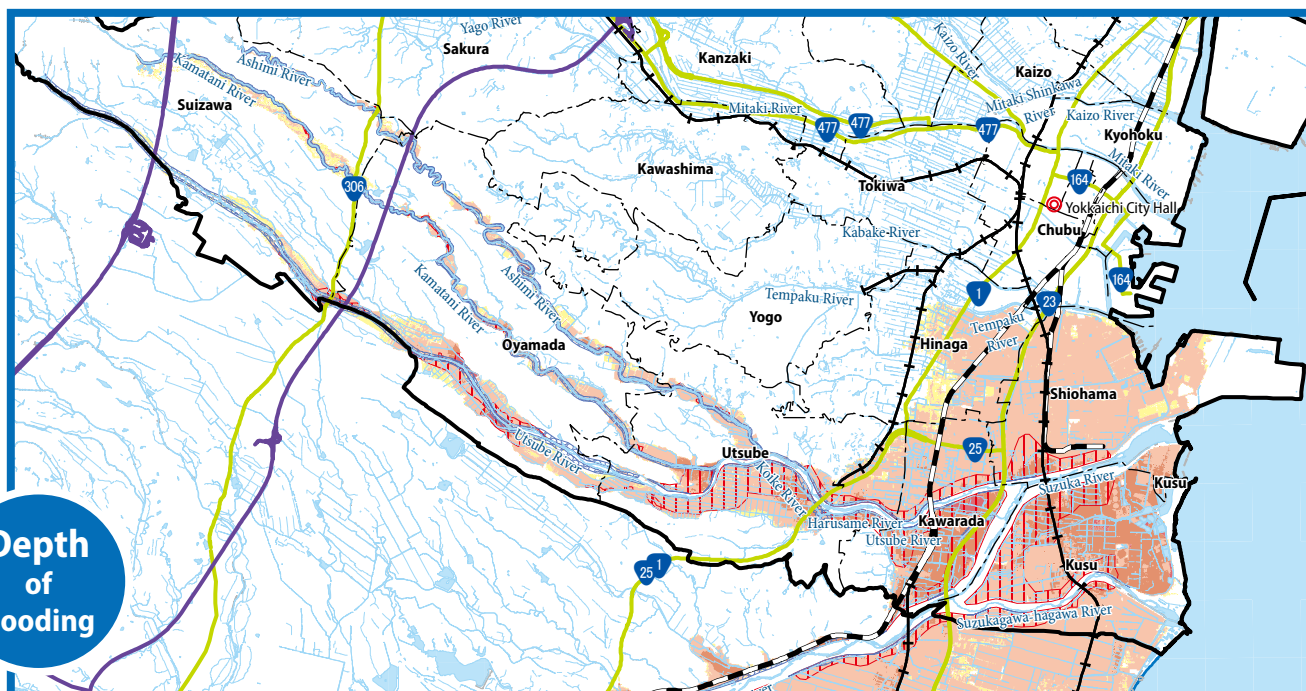
Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>

Estimated flood inundation zone map of Tani River in the Suzuka River system (estimated maximum scale)

Prerequisite for designation: 6-hour total rainfall of **481** mm in the Tani River basin

Publication date: May 24, 2022

Created by: Mie Prefecture URL: <http://www.pref.mie.lg.jp/>



Depth  
of  
flooding

Floods



# Storm surge hazard map



**Look at the map, consider the possible disaster situation for your home and where to evacuate, and fill out your family evacuation plan (wind and flood damage) on pages 103 and 104.**

## Storm surges

## Entry example



**Check the “Storm Surge Hazard Maps” on pages 67 to 70.**

Check if your home is expected to be flooded by storm surge.

☒ **Flooding is expected.** ☐ **Flooding is not expected.**

Judgment results based on the judgment flow of the storm surge hazard map

☐ **Can stay at home** ☒ **Cannot stay at home**



**Decide beforehand where to evacuate (consider also the possibility of flooding due to floods and landslide disasters).**

**Actions to save lives**

### Early evacuation

Evacuation information and places to evacuate before the wind gets stronger

Relative's or acquaintance's house, or evacuation shelters outside the flooded area

**Aunt's house on a hill**

**Actions to save lives**

### If you fail to evacuate early...

A place to evacuate when it is dangerous to evacuate far away or even go out of your home

Tall buildings or high places, high places in your home, or safe places nearby

**○○ Elementary School**

Think

Storm surges

### Damage estimation used for the storm surge hazard map

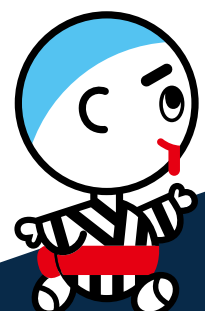
#### Ise Bay Coast [Mie prefecture section] Storm Surge Inundation Area Map

- ☐ Typhoon scale: a typhoon equal to the largest one which ever landed in Japan approaches the coast of Ise Bay on a path that will generate the largest storm surges
- ☐ Floods occur in major rivers at the same time as storm surges.
- ☐ Embankments and other flood barriers break when their design conditions are reached.
- ☐ Drainage facilities stop functioning due to submergence.
- ☐ Estimated tide level: H.W.L. (High Water Level)
- ☐ Publication month/year: August 2020
- ☐ Created by: Mie Prefecture

<https://www.pref.mie.lg.jp/D1KENDO/000240364.htm>



**Let's take a look at the storm surge inundation depth map.**

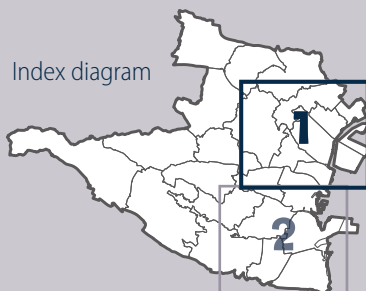




# Storm surges

## Hazard map 1

Index diagram



## Judgment flow

Expected water depth	Decide whether you can stay at home.	
Relationship between flood depth and houses	Number of floors of house	
10m	5m to less than 10m (flooding above the 3rd and 4th floors)	5th floor and above → Can stay 1st to 4th floors → Cannot stay
5m	3m to less than 5m (Flood above the 2nd floor to under the eaves of the 2nd floor)	3rd floor and above → Can stay 1st to 2nd floors → Cannot stay
4m	0.5m to less than 3m (flooding above the 1st floor to under the eaves of the 1st floor)	2nd floor and above → Can stay 1st floor → Cannot stay
3m	Less than 0.5m (flooding under the 1st floor)	All floors → Can stay
2m		
1m		
0.5m		
Flooding is not expected.	All floors	Can stay

### Legends

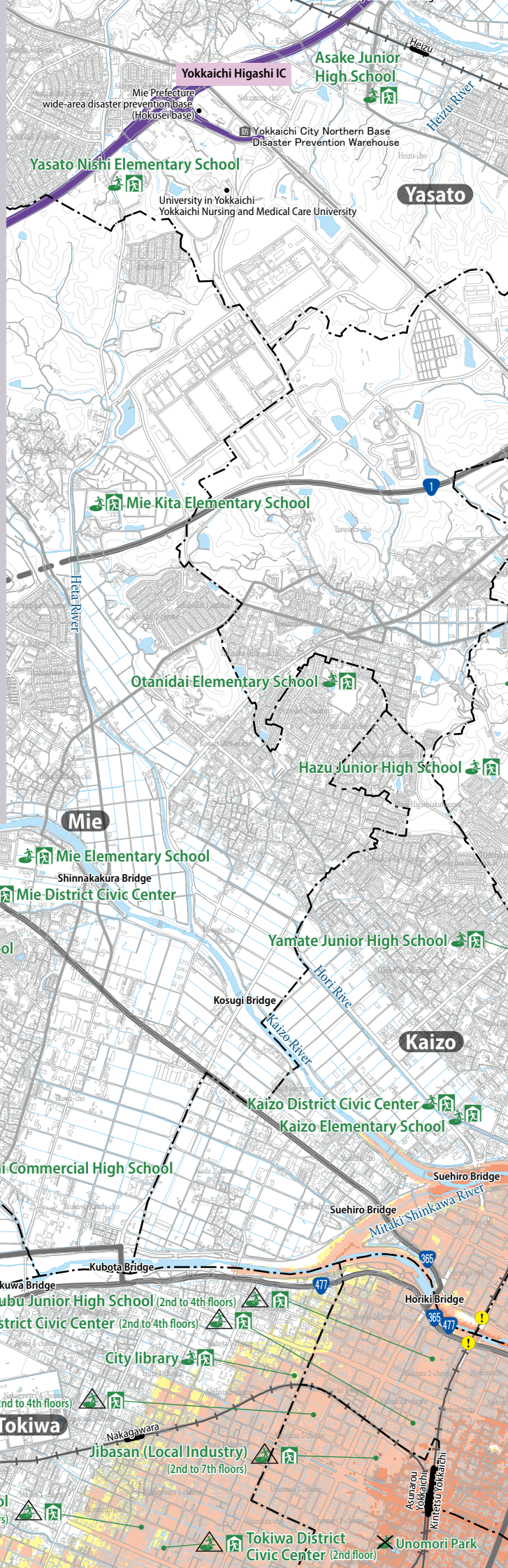
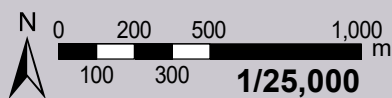
#### Evacuation facilities for storm surge

- Designated emergency evacuation site
- Designated emergency evacuation site (number of floors available)
- Designated emergency evacuation site (unavailable)
- Designated evacuation shelter
- (\* The city will decide whether to open the facility depending on the disaster situation.)
- For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.

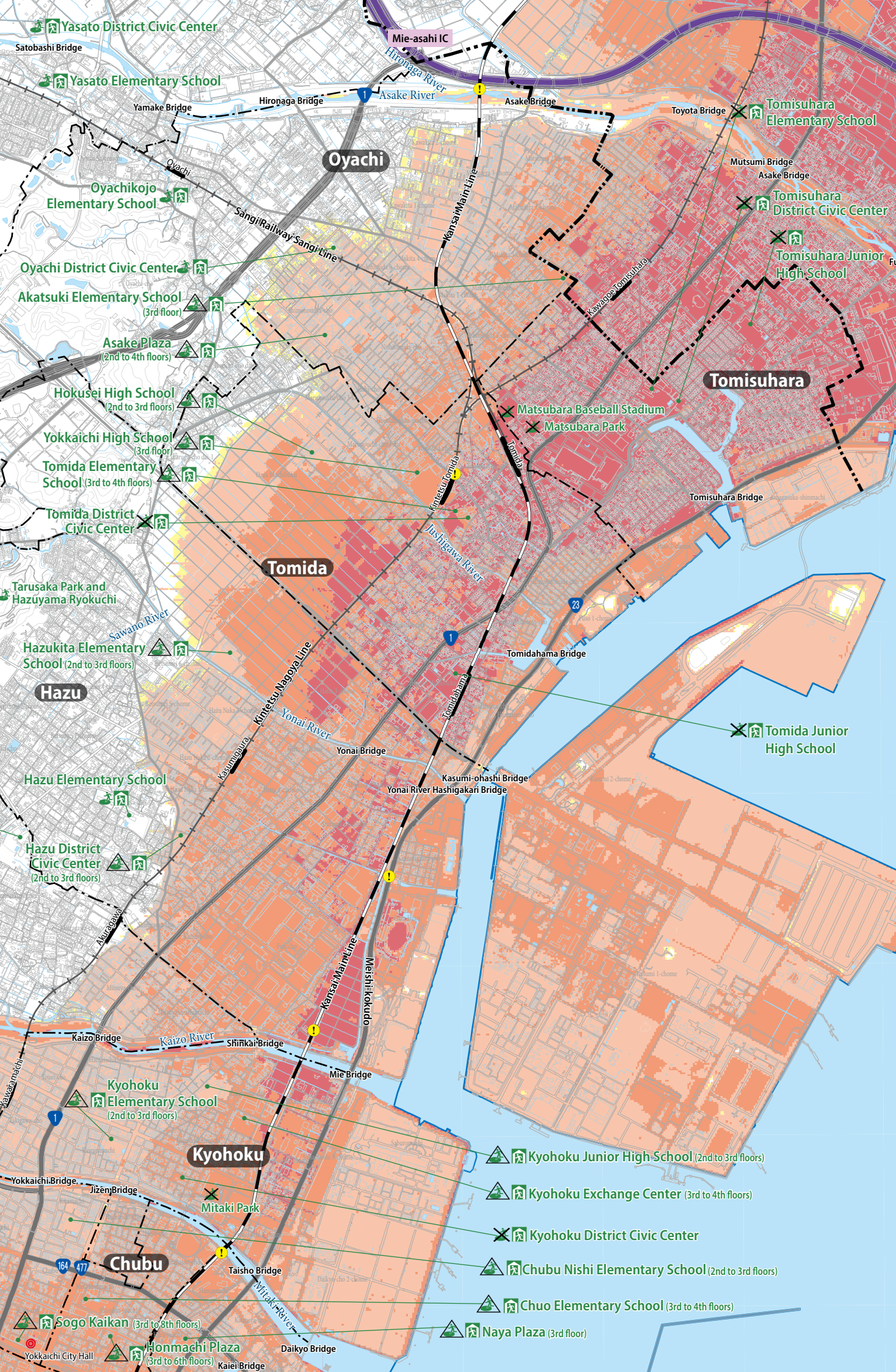
- Government offices
- Underpass

#### Expected water depth

- 5m to less than 10m  
(flooding above the 3rd and 4th floors)
- 3m to less than 5m  
(Flood above the 2nd floor to under the eaves of the 2nd floor)
- 0.5m to less than 3m  
(flooding above the 1st floor to under the eaves of the 1st floor)
- Less than 0.5m  
(flooding under the 1st floor)









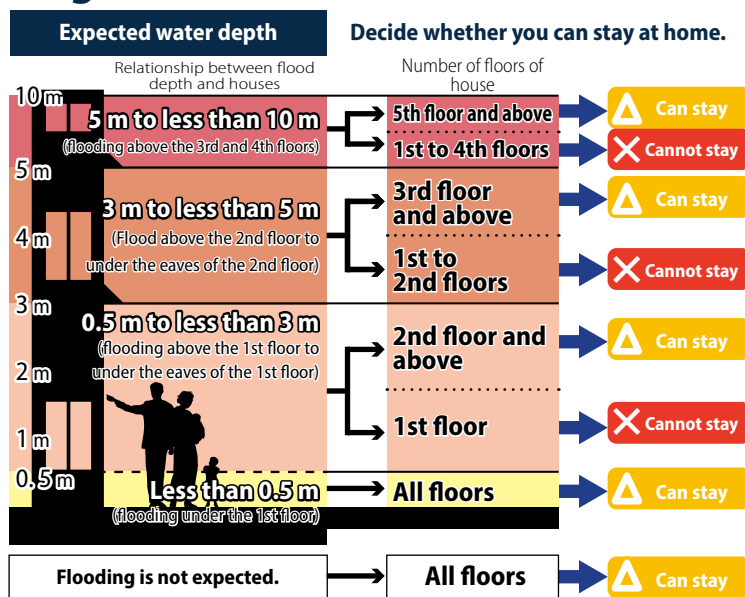
# Storm surges

## Hazard map 2

Index diagram



## Judgment flow



### Legends

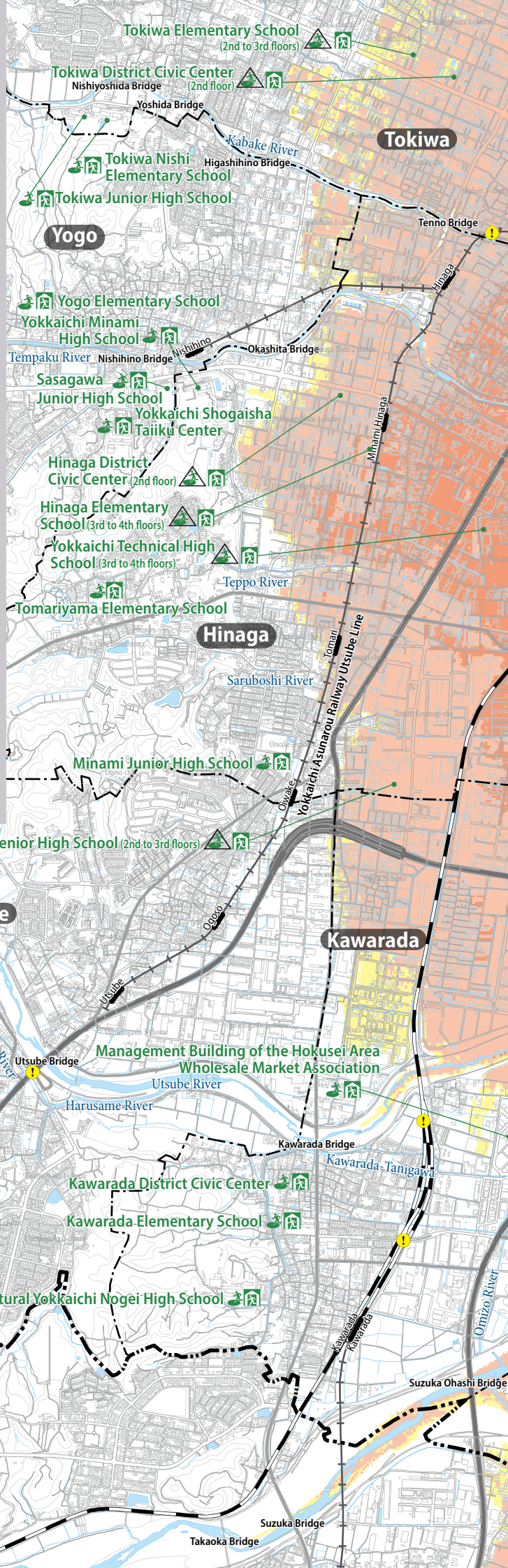
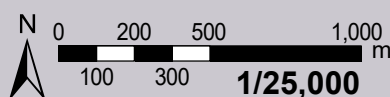
#### Evacuation facilities for storm surge

- Designated emergency evacuation site
- Designated emergency evacuation site (number of floors available)
- Designated emergency evacuation site (unavailable)
- Designated evacuation shelter
- (\* The city will decide whether to open the facility depending on the disaster situation.)
- For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.

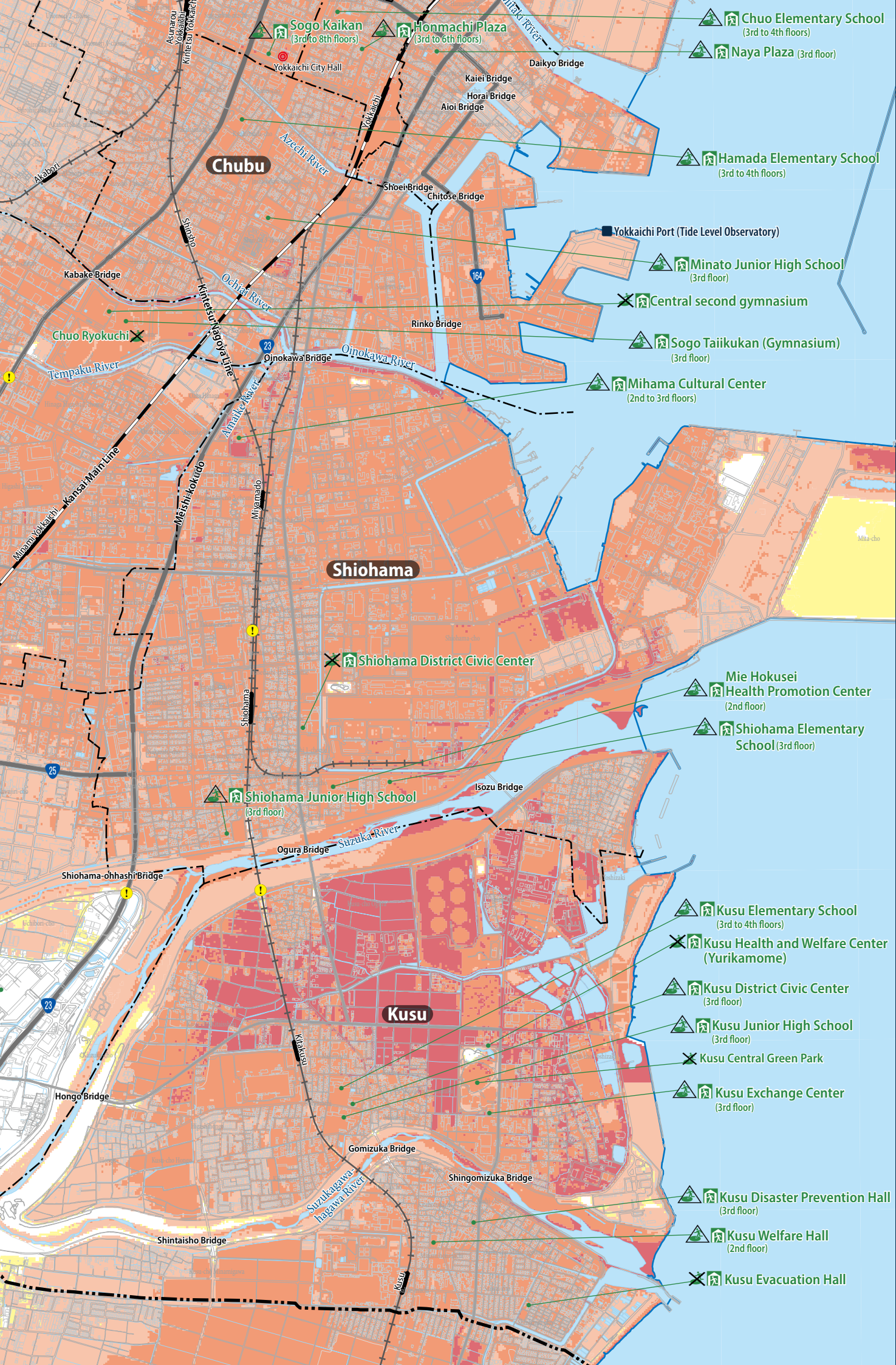
- Government offices
- Underpass

#### Expected water depth

- 5 m to less than 10 m  
(flooding above the 3rd and 4th floors)
- 3 m to less than 5 m  
(Flood above the 2nd floor to under the eaves of the 2nd floor)
- 0.5 m to less than 3 m  
(flooding above the 1st floor to under the eaves of the 1st floor)
- Less than 0.5 m  
(flooding under the 1st floor)









# Inland Water Hazard Maps



Look at the map, consider the possible disaster situation for your home and where to evacuate, and fill out your family evacuation plan (wind and flood damage) on pages 103 and 104.

//////  
Inland water  
flooding

## Entry example



Check the “Inland Water Hazard Maps” on pages 73 to 76.

Check if your home is expected to be flooded by inland water.

☒ Flooding is expected. ☐ Flooding is not expected.

\* Flooding estimates due to inland water are calculated only for the urbanized areas, not for the entire city. Therefore, there is a risk of flooding even in places where flooding is not estimated.

Judgment results based on the judgment flow  
of the inland flooding hazard map

☒ Can stay at home ☐ Cannot stay at home



If the assumption of deep flooding prevents staying in  
the house, decide where to evacuate beforehand.

A tall, sturdy building that you can stay in even after flooding, or a high place in your home

Apartment building next door

Think

Inland water  
flooding

### Damage estimation used for the inland water flooding hazard map

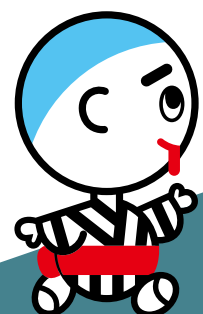
#### Yokkaichi city estimated flood inundation area map

- ☐ Maximum hourly rainfall: 147 mm/h  
The map is created based on the assumption of heavy rains that could occur approximately once every 1,000 years with the maximum hourly rainfall rate of 147 mm/h.
- ☐ Publication month/year: August 2020
- ☐ Created by: Yokkaichi City

[https://bousai2.city.yokkaichi.mie.jp/home/02\\_hazard\\_map\\_hinan\\_jyo/01\\_hazard\\_map/03.html](https://bousai2.city.yokkaichi.mie.jp/home/02_hazard_map_hinan_jyo/01_hazard_map/03.html)



Let's take a look at the inland  
water inundation depth map.

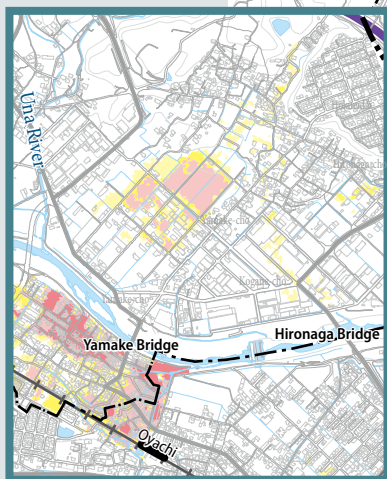
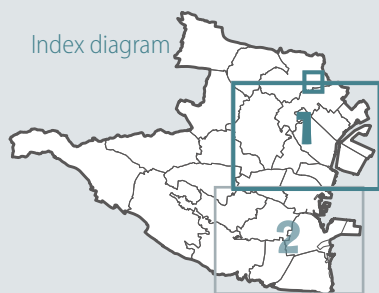




# Inland water flooding

## Hazard map 1

Index diagram

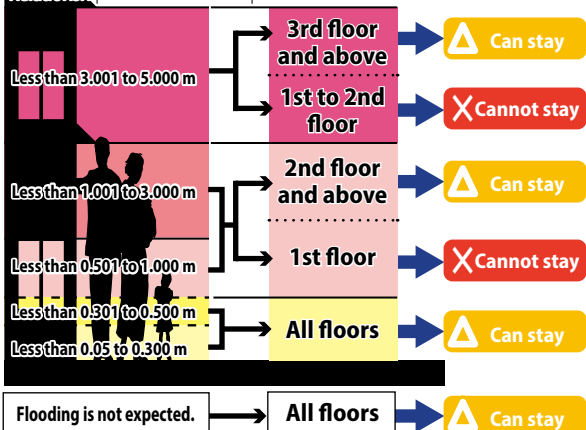


## Judgment flow

### Expected water depth

Decide whether you can stay at home.

Relationship between flood depth and houses



### Legends

Evacuation facilities for floods from inland waters

- Designated emergency evacuation site
- Designated emergency evacuation site (number of floors available)
- Designated emergency evacuation site (unavailable)
- Designated evacuation shelter

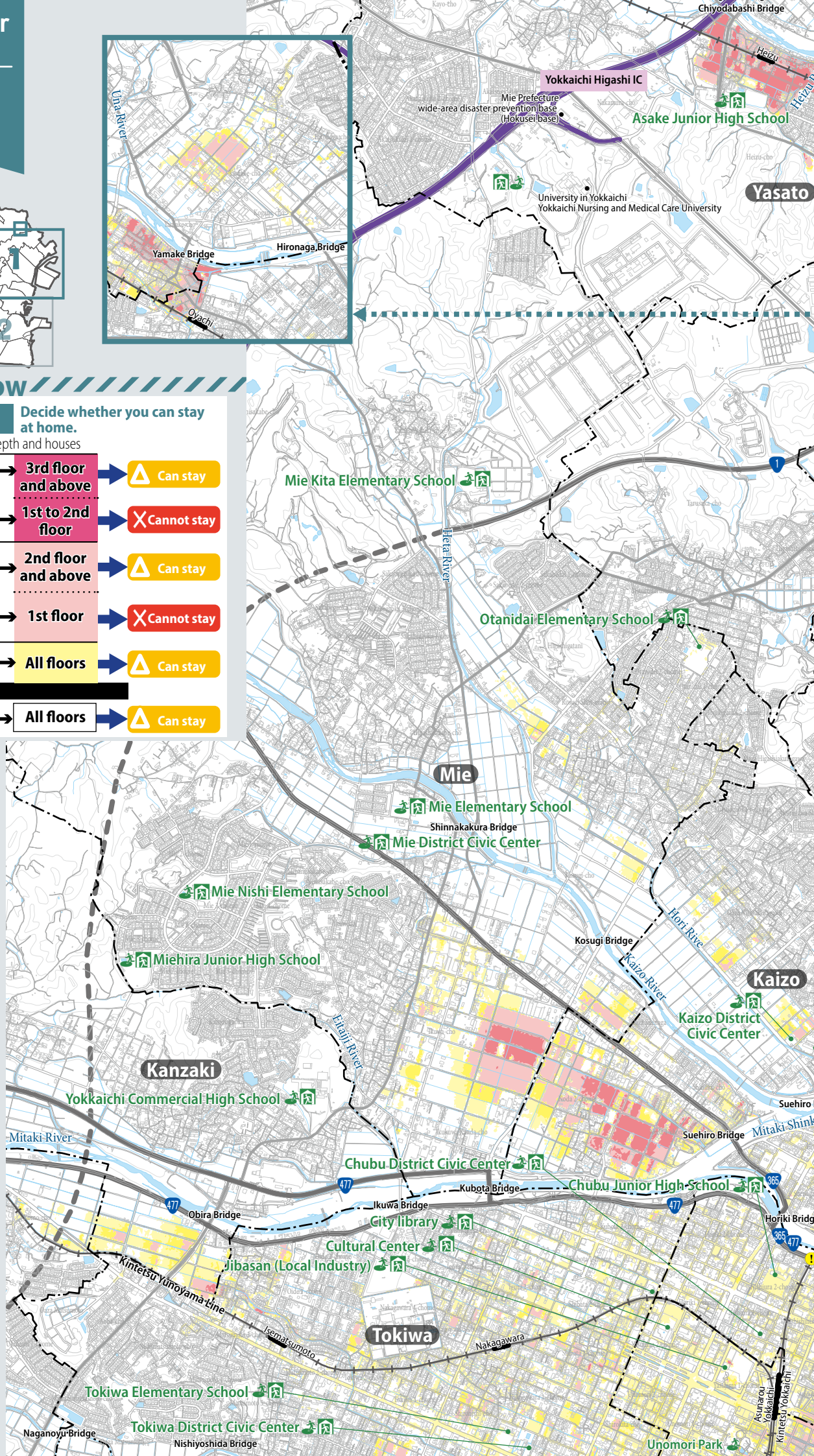
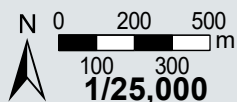
\*The city will decide whether to open the facility depending on the disaster situation.

→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.

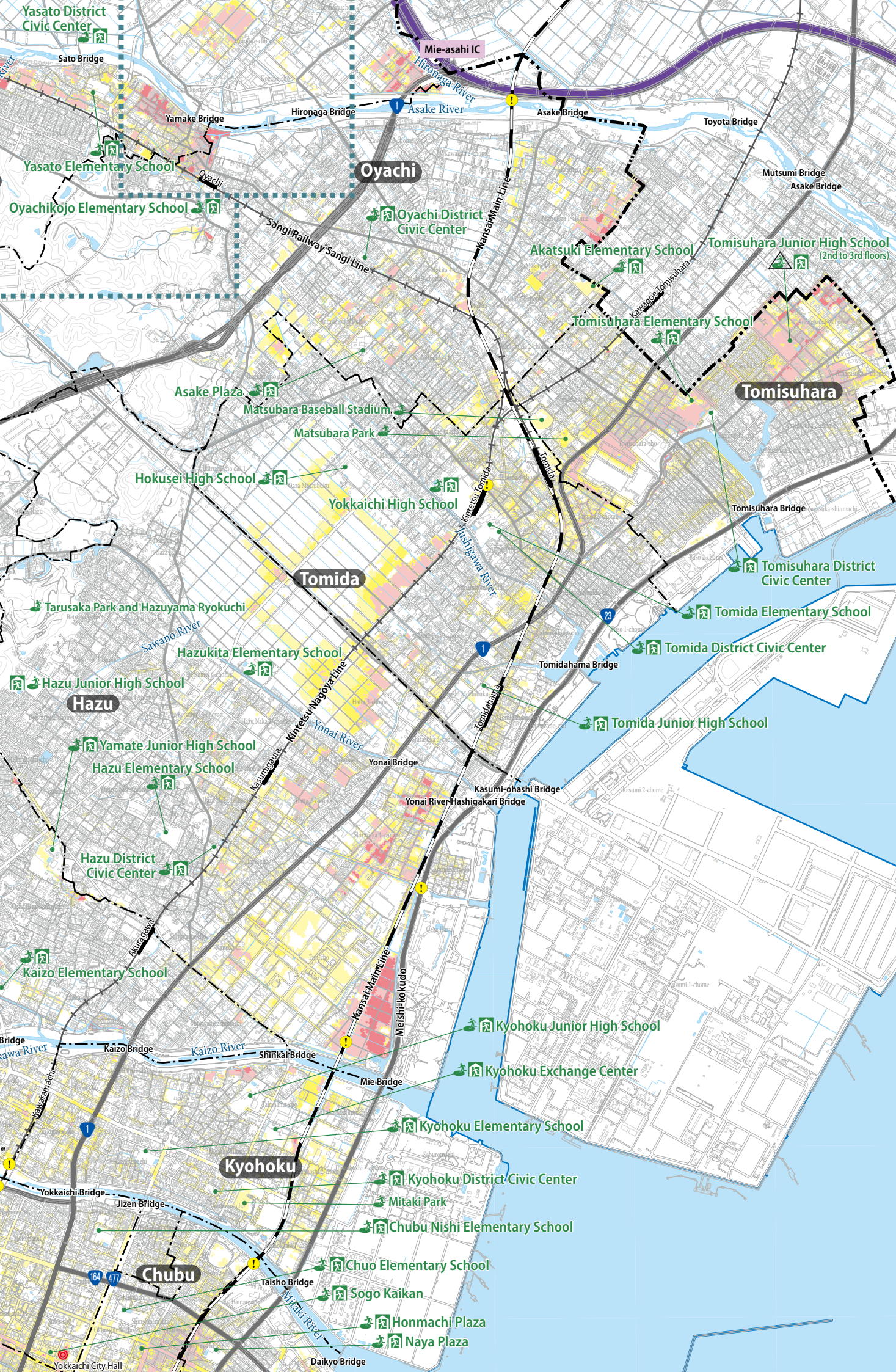
- Government offices
- Underpass

### Expected water depth

- Less than 3.001 to 5.000 m
- Less than 1.001 to 3.000 m
- Less than 0.501 to 1.000 m
- Less than 0.301 to 0.500 m
- Less than 0.05 to 0.300 m





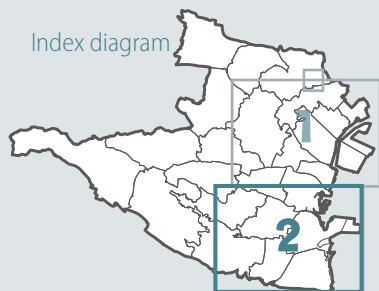




# Inland water flooding

## Hazard map 2

Index diagram

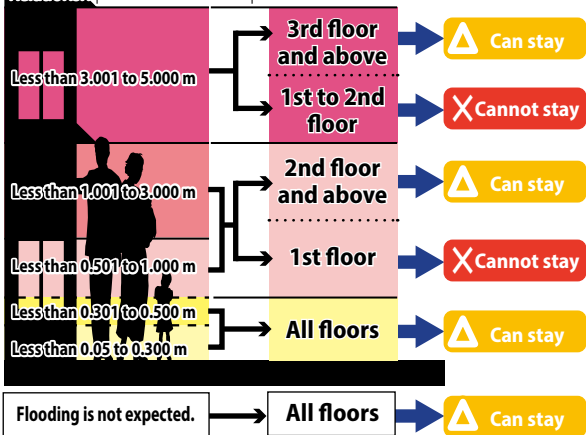


## Judgment flow

### Expected water depth

Decide whether you can stay at home.

Relationship between flood depth and houses



### Legends

Evacuation facilities for floods from inland waters

- Designated emergency evacuation site
- Designated emergency evacuation site (number of floors available)
- Designated emergency evacuation site (unavailable)
- Designated evacuation shelter

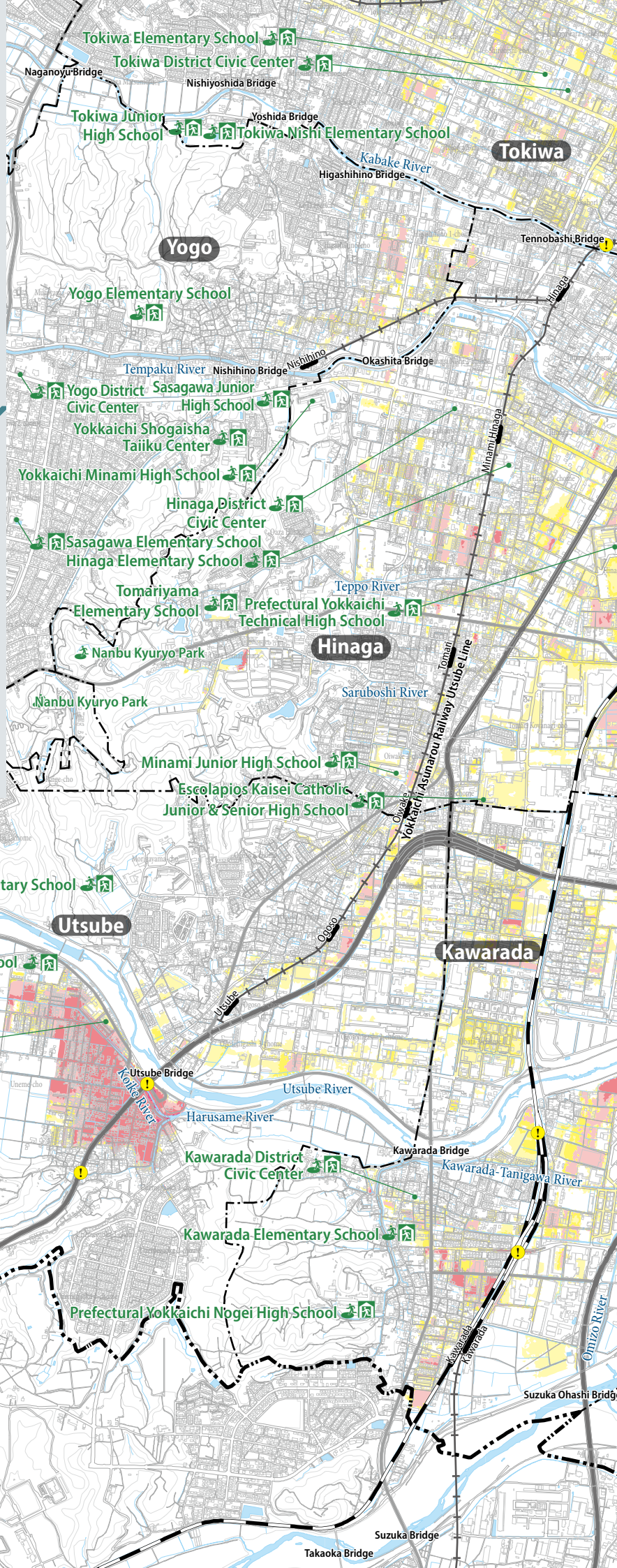
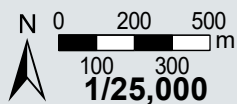
\*The city will decide whether to open the facility depending on the disaster situation.

→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.

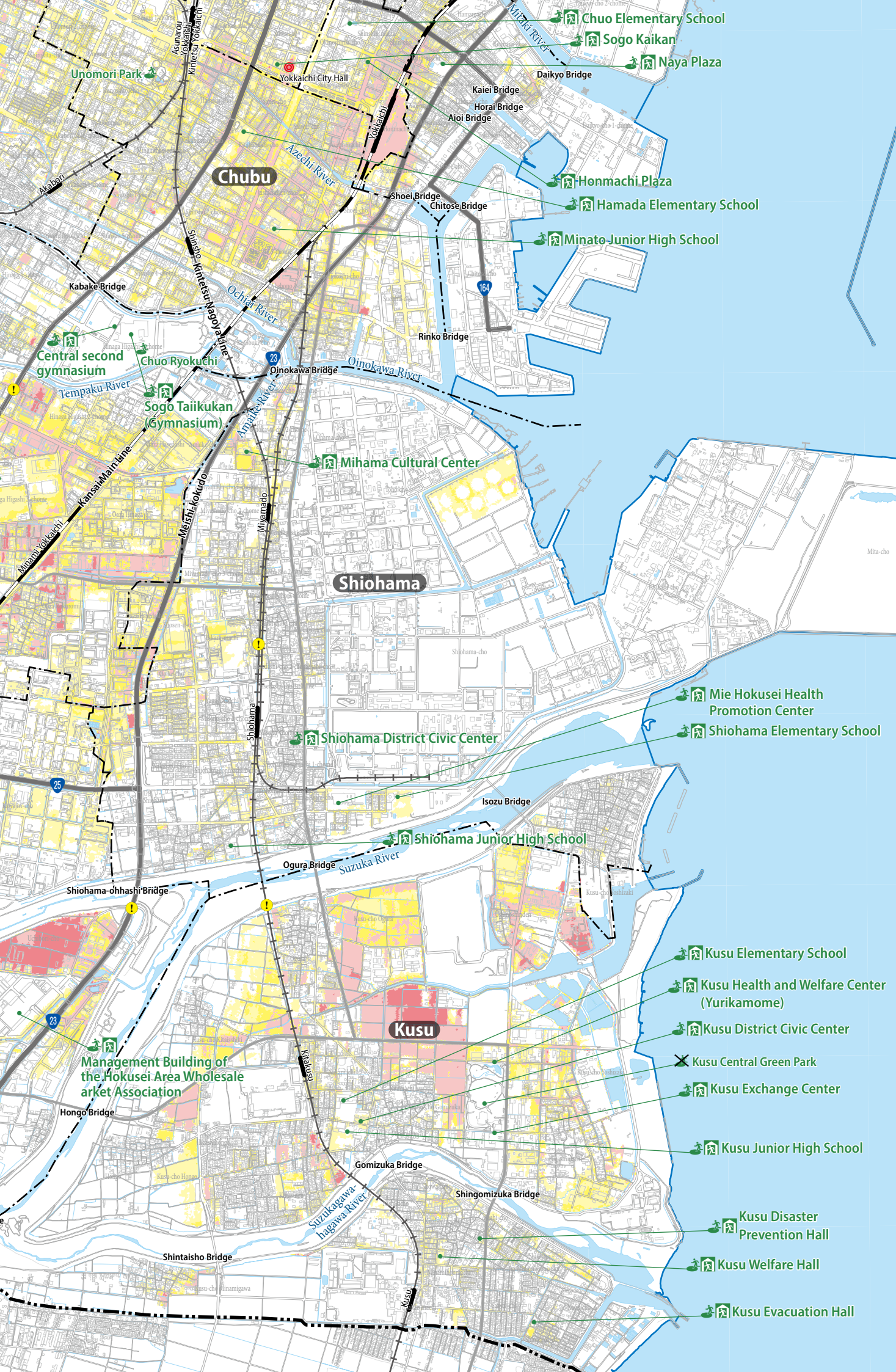
- Government offices
- Underpass

### Expected water depth

- Less than 3.001 to 5.000 m
- Less than 1.001 to 3.000 m
- Less than 0.501 to 1.000 m
- Less than 0.301 to 0.500 m
- Less than 0.05 to 0.300 m









# Earthquake hazard map



Look at the map, consider the possible disaster situation for your home and where to evacuate, and fill out your family evacuation plan (earthquake) on page 105.

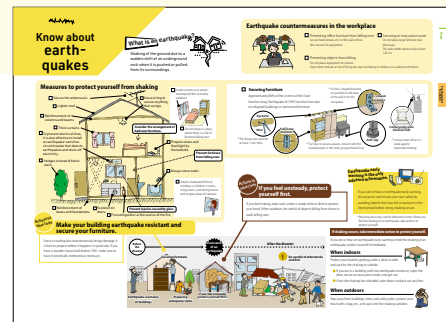
## Earth- quakes

## Entry example



Check "Know about earthquakes" on pages 25 and 26.

The first thing to do is to prepare in advance for the shaking.  
Check the earthquake resistance of your house and the way your furniture is arranged and secured.



Think



If there is no damage to your house and no risk of fire, you do not need to evacuate from your home.  
Check nearby evacuation shelters in case you need to evacuate.

A place to evacuate when it is dangerous to stay inside your house

Relative's or acquaintance's house, or evacuation shelters

○○ Elementary School

Earthquakes

Let's take a look at the liquefaction risk map  
and seismic intensity distribution map.



# Earth- quakes

## Hazard map

Mie Prefecture surveyed earthquake damage estimates in FY2013, referencing the damage estimates for the Nankai Trough mega-earthquake published by the government in FY2012.

The survey estimated the seismic intensity distribution, liquefaction risk distribution, etc., targeting not only earthquakes of two magnitudes in Nankai Trough but also three active faults of the "Yoro-Kuwana-Yokkaichi Fault Zone," the "East Nunobiki-sanchi-toen Fault Zone," and the "Tongu Fault."

## Liquefaction risk map

(Theoretically largest class Nankai Trough earthquake)

### Liquefaction risk



### Damage caused by earthquakes

#### landslide and mudslide

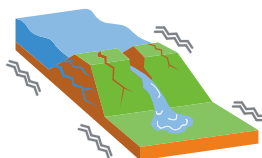
Earthquake vibrations can cause landslides and mudslides. They can be caused not only by the shaking of the main shock but also by aftershocks and rainfall after the main shock.

Landslide during the 2018 Hokkaido Eastern Iburi Earthquake (Hokkaido Open Data CC-BY4.0)



#### Reservoir embankment burst

When a large earthquake occurs, cracks and landslides occur in embankments, and ground liquefaction occurs, increasing the risk of embankment burst.



Reservoir hazard map

<https://www.city.yokkaichi.lg.jp/www/contents/1661993893908/index.html>



#### Liquefaction phenomena

When the ground liquefies due to earthquake vibrations, damage can occur, such as tilting of buildings, breaking of underground gas and water pipes, and gushing of water mixed with sand onto the ground.



Liquefaction damage caused by the Great East Japan Earthquake (Institute of Scientific Approaches for Fire & Disaster)



# Seismic intensity distribution map

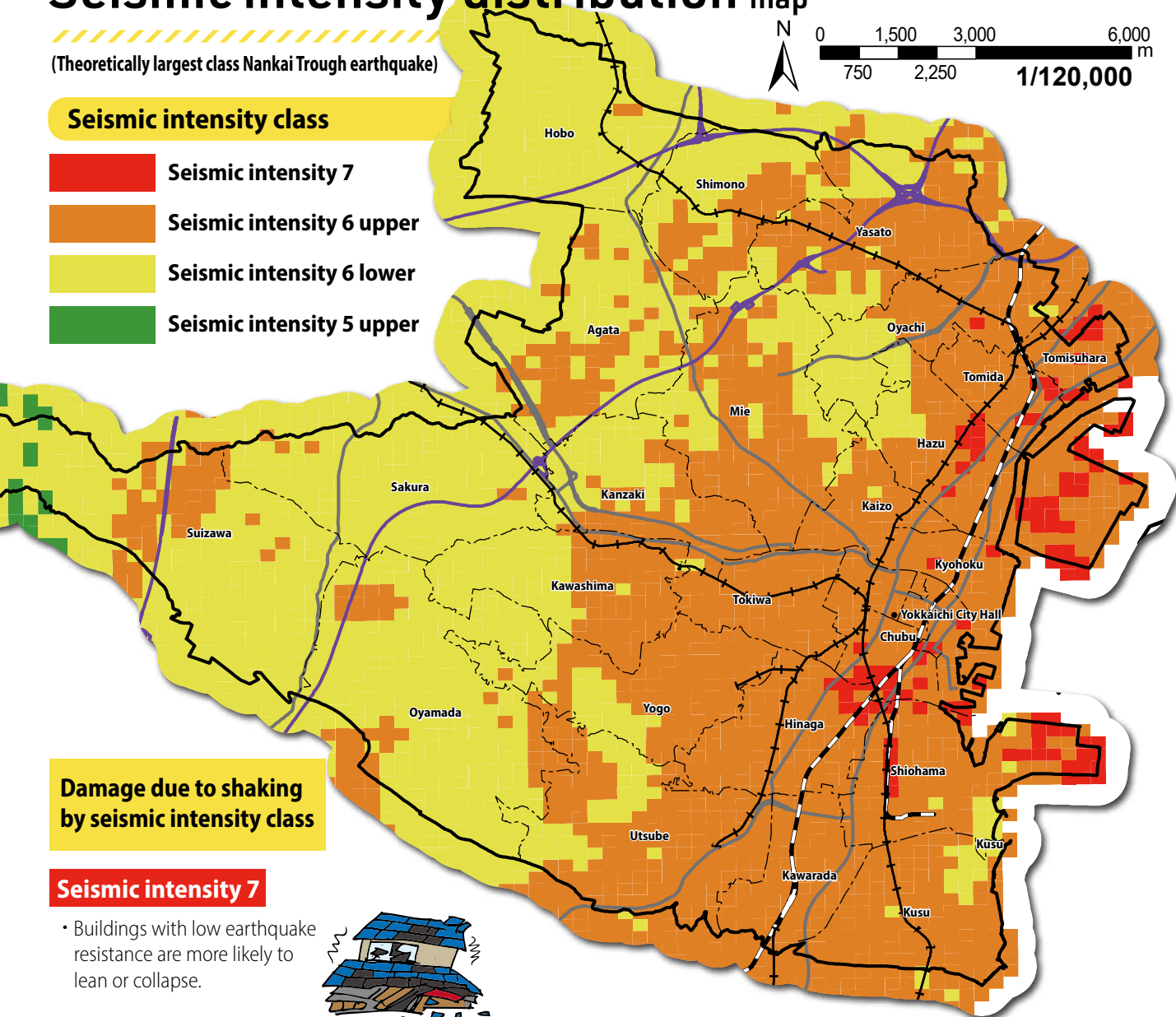
(Theoretically largest class Nankai Trough earthquake)



0 1,500 3,000 6,000  
750 2,250 1/120,000 m

## Seismic intensity class

- Seismic intensity 7
- Seismic intensity 6 upper
- Seismic intensity 6 lower
- Seismic intensity 5 upper



## Damage due to shaking by seismic intensity class

### Seismic intensity 7

- Buildings with low earthquake resistance are more likely to lean or collapse.



### Seismic intensity 6 upper

- Cannot move without crawling, and may be blown away
- Large cracks in the ground, large-scale landslides, and forest collapse may occur.



### Seismic intensity 6 lower

- Difficult to keep standing
- Wall tiles and window glass may be damaged or may fall.



### Seismic intensity 5 upper

- Difficult to walk without holding on to something
- Furniture that is not secured may fall over.
- Unreinforced block walls may collapse.



### Seismic intensity 5 lower

- Most people feel fear and want to hold on to something.
- Dishes on the shelves and books on the book shelves may fall.



## Mie Prefecture Earthquake Damage Estimation Survey for FY2013

A predicted liquefaction risk distribution map and a predicted seismic intensity distribution map have been created, targeting the following five estimated earthquakes:

- ☐ The largest-class Nankai Trough earthquake ever recorded
- ☐ Theoretically largest class Nankai Trough earthquake (damage assumption used for the map on this page)
- ☐ Earthquakes with epicenters on active faults in the land area (Yoro-Kuwana-Yokkaichi Fault Zone)
- ☐ Earthquakes with epicenters on active faults in the land area (East Nunobiki-sanchi-toen Fault Zone)
- ☐ Earthquakes with epicenters on active faults in the land area (Tongu Fault)
- ☐ Created by: Mie Prefecture

Predicted liquefaction risk distribution map

<https://www.pref.mie.lg.jp/D180USA/84543007860.htm>



Predicted seismic intensity distribution map

<https://www.pref.mie.lg.jp/D180USA/84541007863.htm>





# Tsunami hazard map



Look at the map, consider the possible disaster situation for your home and where to evacuate, and fill out your family evacuation plan (tsunami) on page 105.



## Entry example



Check the "Tsunami Arrival Time Maps" on pages 87 to 90.

Check if your home is expected to be flooded by a tsunami.

☒ Flooding is expected. ☐ Flooding is not expected.

Time until tsunami arrives

**90** minutes



Check the "Tsunami Inundation Depth Maps" on pages 83 to 86.

In order to complete your evacuation before the tsunami arrives, decide where to evacuate, considering the time it will take to evacuate.

Actions to  
save lives

### Early evacuation

Places to evacuate if you feel strong or long-lasting shaking

Relative's or acquaintance's house, evacuation shelters on the mountain side of the tsunami evacuation target line, or a high building far from the sea

**Aunt's house on a hill**

Time required for evacuation **35** minutes

Actions to  
save lives

### If you fail to evacuate early...

Where to evacuate if you do not have enough time to go far away

Nearby tsunami evacuation buildings, tall buildings, high places, etc.

**Apartment building next door**

Time required for evacuation **3** minutes



Decide where to meet up if your family evacuates to a faraway place.

Meeting place after tsunami warning is lifted

**Grandma's house**

Damage estimation used for the tsunami hazard map  
Mie Prefecture Earthquake Damage Estimation Survey  
for FY2013

Target tsunami earthquake

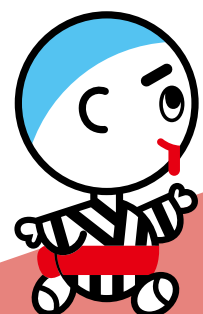
☐ Nankai Trough Earthquake: one of the largest  
theoretically possible earthquakes

☐ Created by: Mie Prefecture

<https://www.pref.mie.lg.jp/common/02/ci500003606.htm>



Let's take a look at the tsunami  
inundation depth map and  
arrival time map.

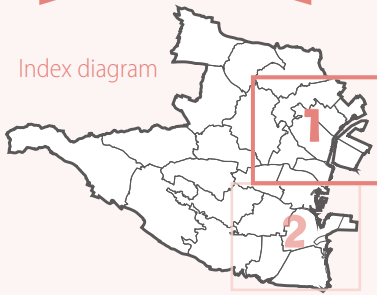




# Tsunamis

## Flood depth map 1

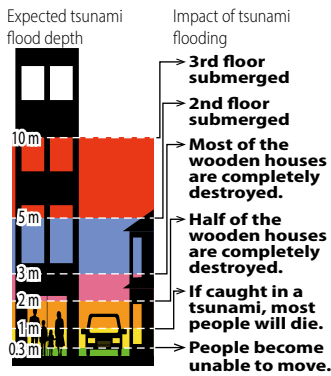
Index diagram



This map shows the estimated flood depth of a tsunami caused by the "theoretically largest class Nankai Trough earthquake."

### Legends

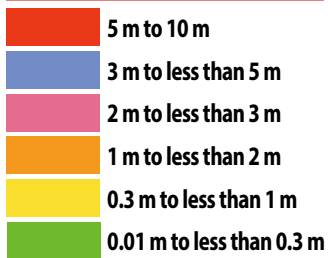
#### Expected water depth



#### Tsunami evacuation facilities

- Tsunami evacuation buildings (This mark is a landmark.)  
→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 101-102.
- Designated emergency evacuation site (number of floors available)
- Designated emergency evacuation site (unavailable)
- Designated evacuation shelter  
(\*The city will decide whether to open the facility depending on the disaster situation.)  
→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.
- Emergency evacuation shelter
- Government offices Underpass

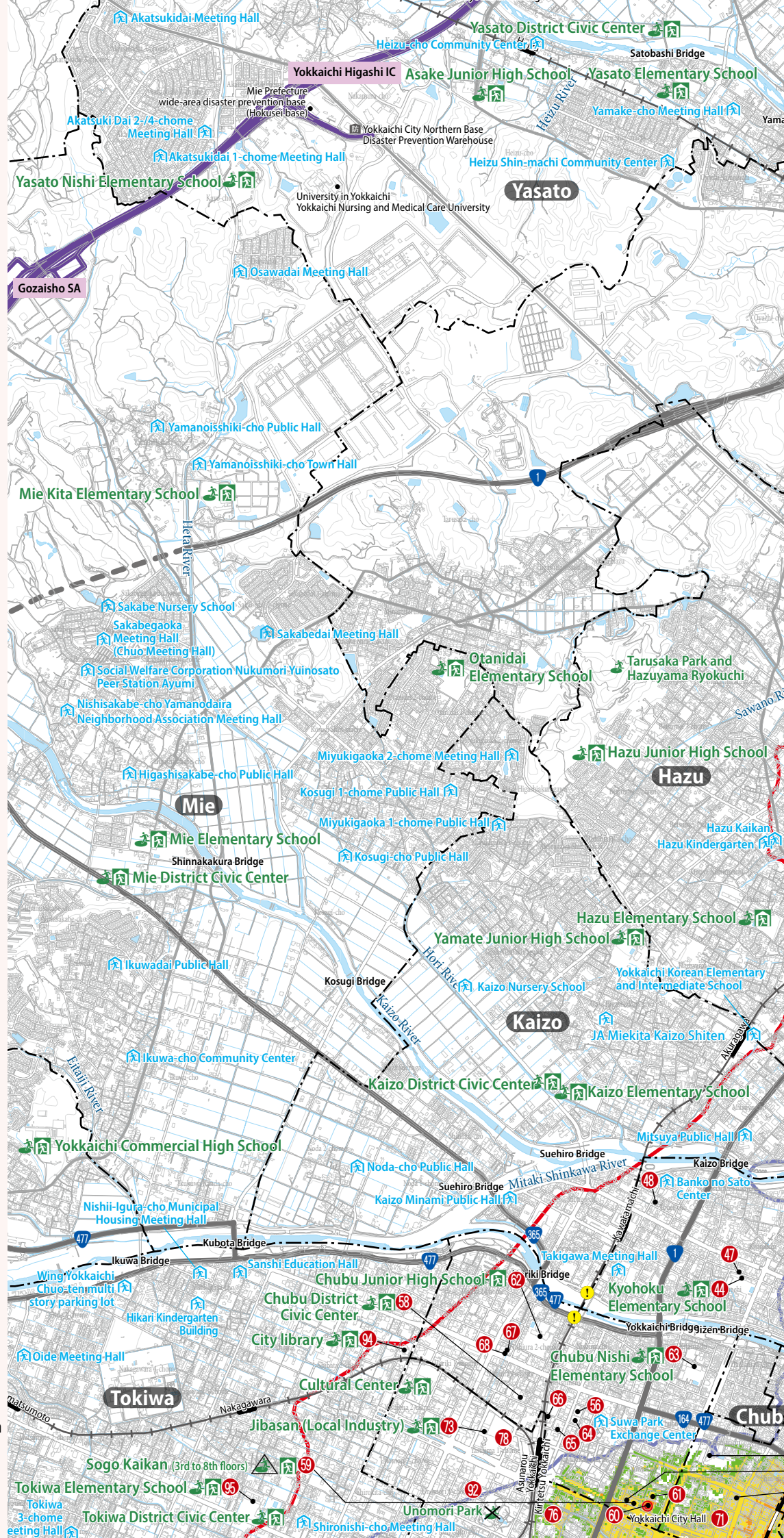
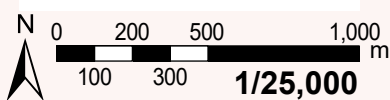
#### Expected water depth



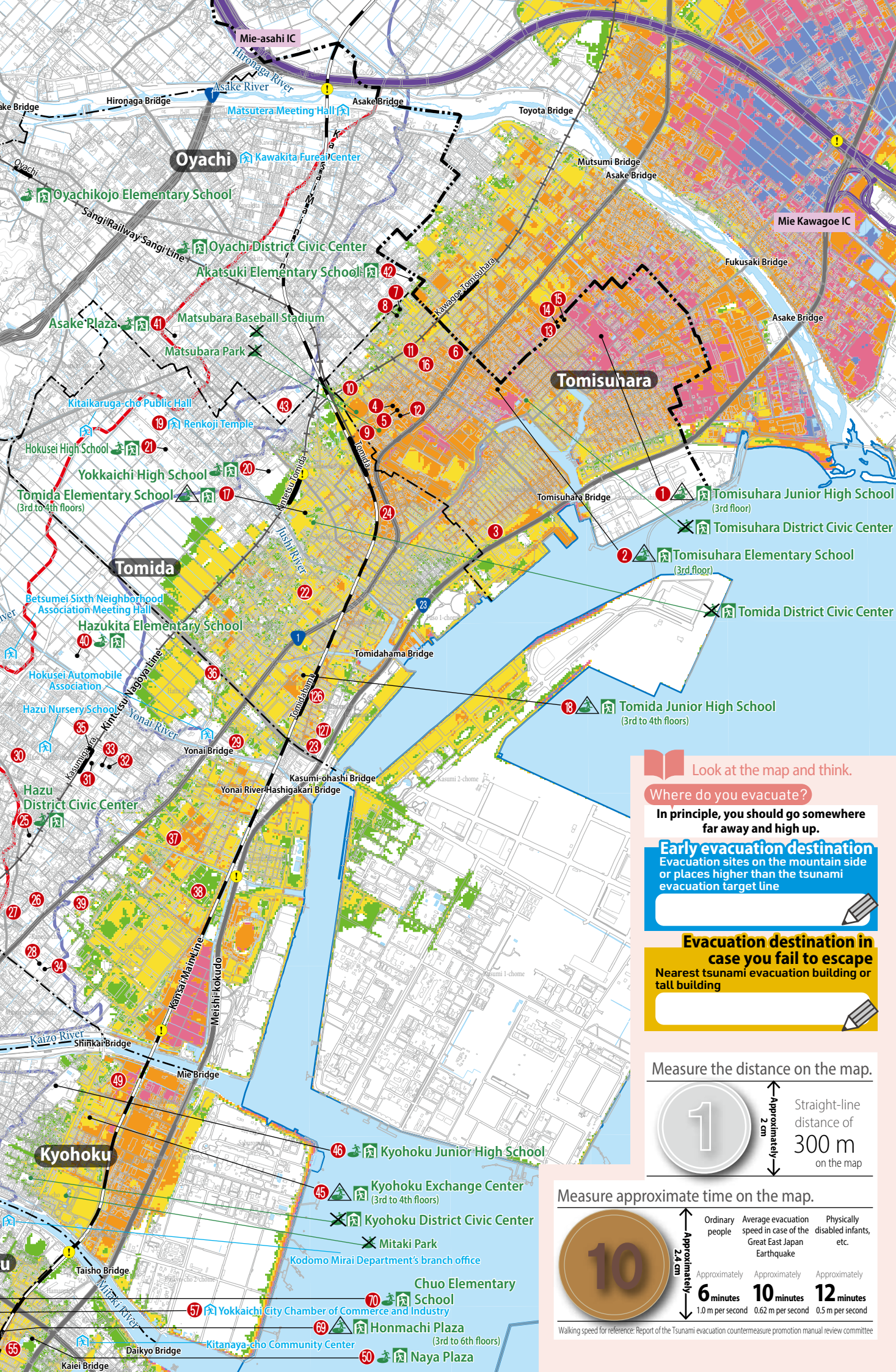
#### Tsunami evacuation target line

A line connecting points 5 m above sea level in inland areas

#### Estimated flood line







Look at the map and think.

Where do you evacuate?

In principle, you should go somewhere far away and high up.

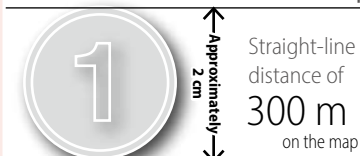
**Early evacuation destination**

Evacuation sites on the mountain side or places higher than the tsunami evacuation target line

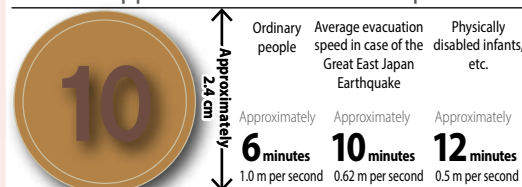
**Evacuation destination in case you fail to escape**

Nearest tsunami evacuation building or tall building

Measure the distance on the map.



Measure approximate time on the map.



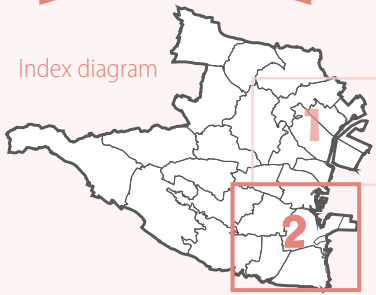
Walking speed for reference: Report of the Tsunami evacuation countermeasure promotion manual review committee



# Tsunamis

## Flood depth map 2

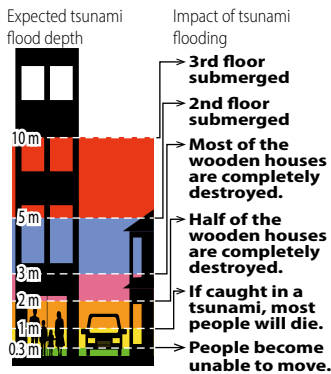
Index diagram



This map shows the estimated flood depth of a tsunami caused by the "theoretically largest class Nankai Trough earthquake."

### Legends

#### Expected water depth

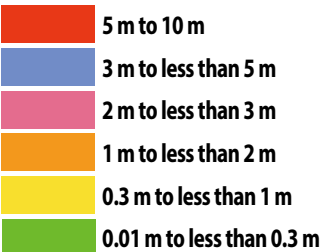


#### Tsunami evacuation facilities

- Tsunami evacuation buildings (This mark is a landmark.)  
→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 101-102.
- Designated emergency evacuation site (number of floors available)
- Designated emergency evacuation site (unavailable)
- Designated evacuation shelter  
(\*The city will decide whether to open the facility depending on the disaster situation.)  
→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.
- Emergency evacuation shelter

- Government offices
- Underpass

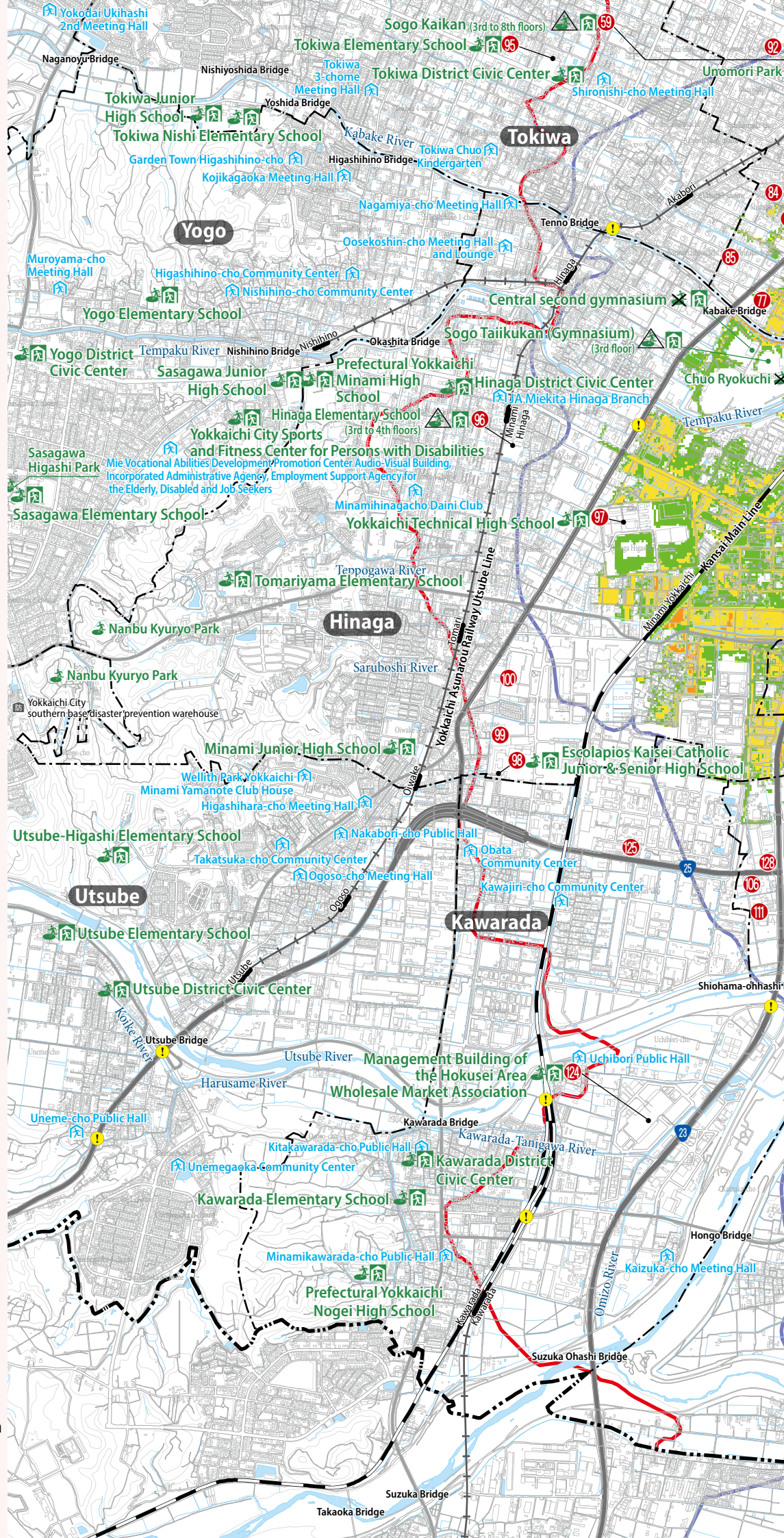
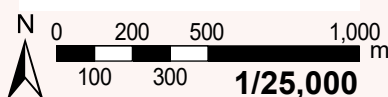
#### Expected water depth



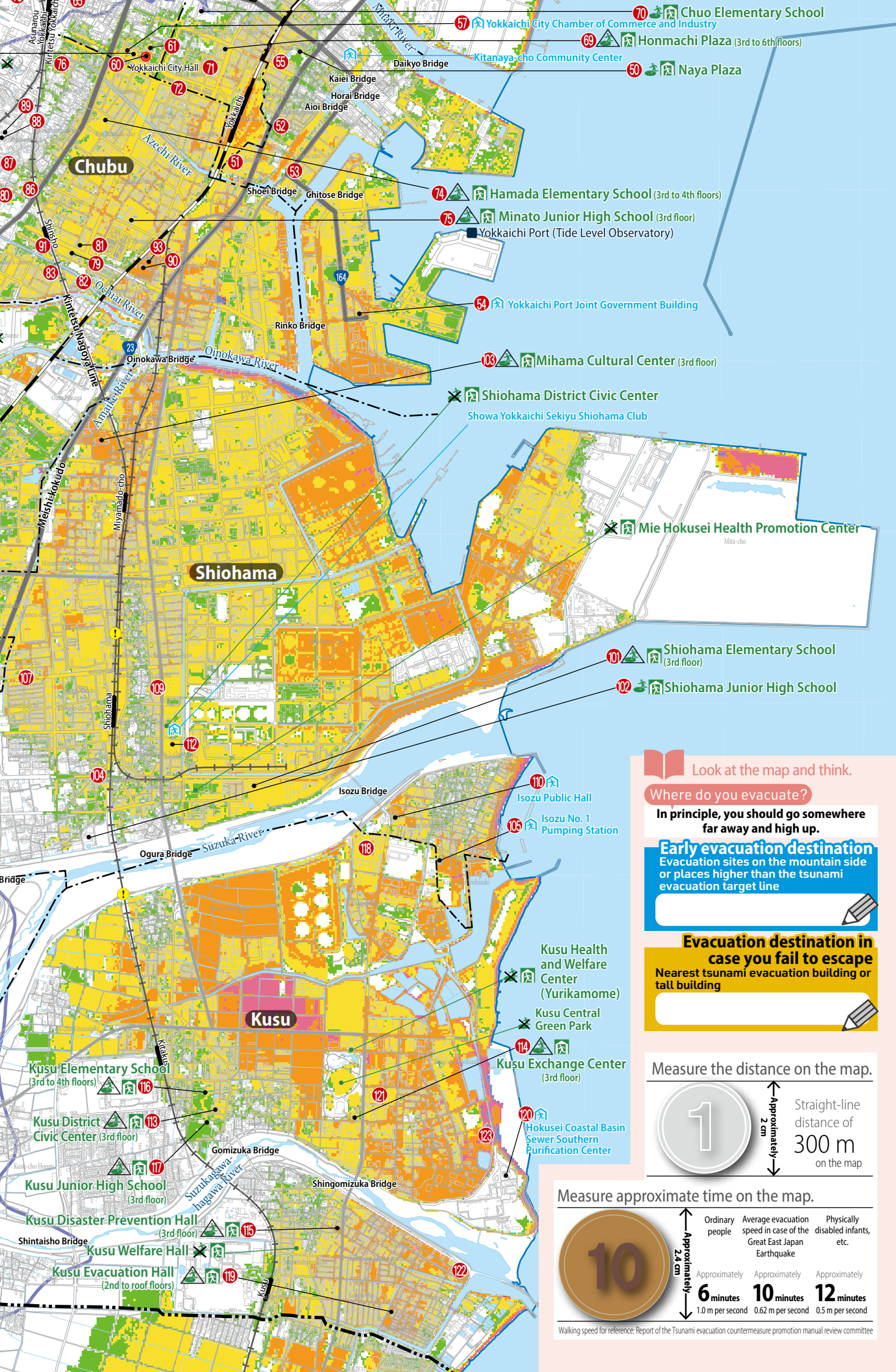
#### Tsunami evacuation target line

A line connecting points 5 m above sea level in inland areas

#### Estimated flood line







Look at the map and think.

Where do you evacuate?

In principle, you should go somewhere far away and high up.

**Early evacuation destination**

Evacuation sites on the mountain side or places higher than the tsunami evacuation target line

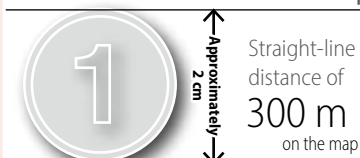


**Evacuation destination in case you fail to escape**

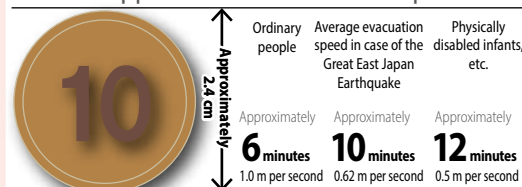
Nearest tsunami evacuation building or tall building



Measure the distance on the map.



Measure approximate time on the map.



Walking speed for reference: Report of the Tsunami evacuation countermeasure promotion manual review committee

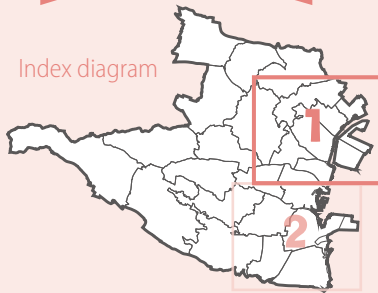


# Tsunamis

Arrival  
time map

1

Index diagram



This map shows the time taken for a tsunami with a flood depth of 30 cm to reach the area after an earthquake occurs. (Based on assumption of tsunami flooding due to "theoretically largest class Nankai Trough earthquake")

## Legends

### Tsunami evacuation facilities

**Tsunami evacuation buildings** (This mark is a landmark.)

→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 101-102.

**Designated emergency evacuation site**

**Designated emergency evacuation site (number of floors available)**

**Designated emergency evacuation site (unavailable)**

**Designated evacuation shelter**

(The city will decide whether to open the facility depending on the disaster situation.)

→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.

**Emergency evacuation shelter**

**Government offices** **Underpass**

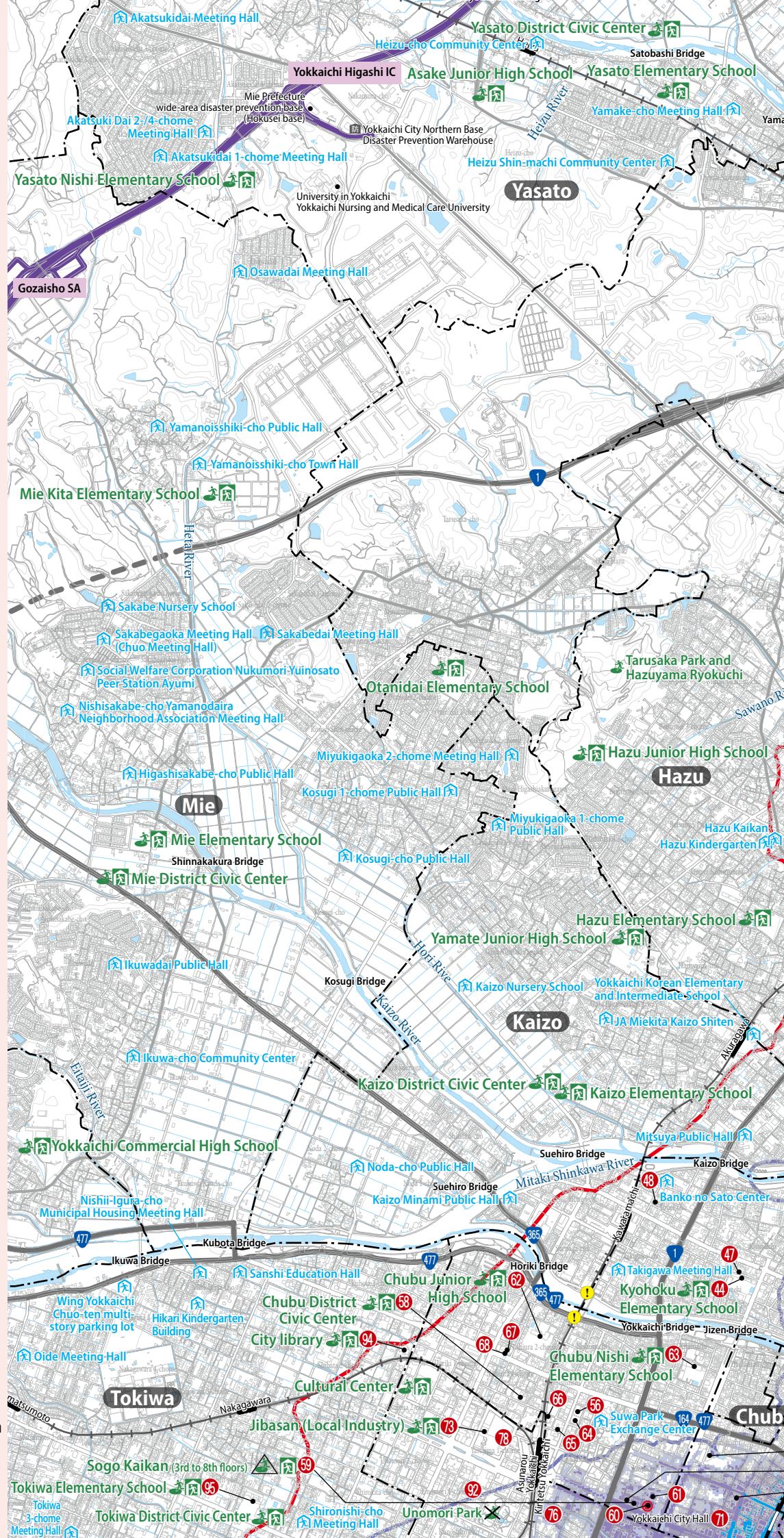
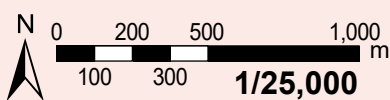
### Tsunami arrival time

Time for a tsunami with a flood depth of 30 cm to reach

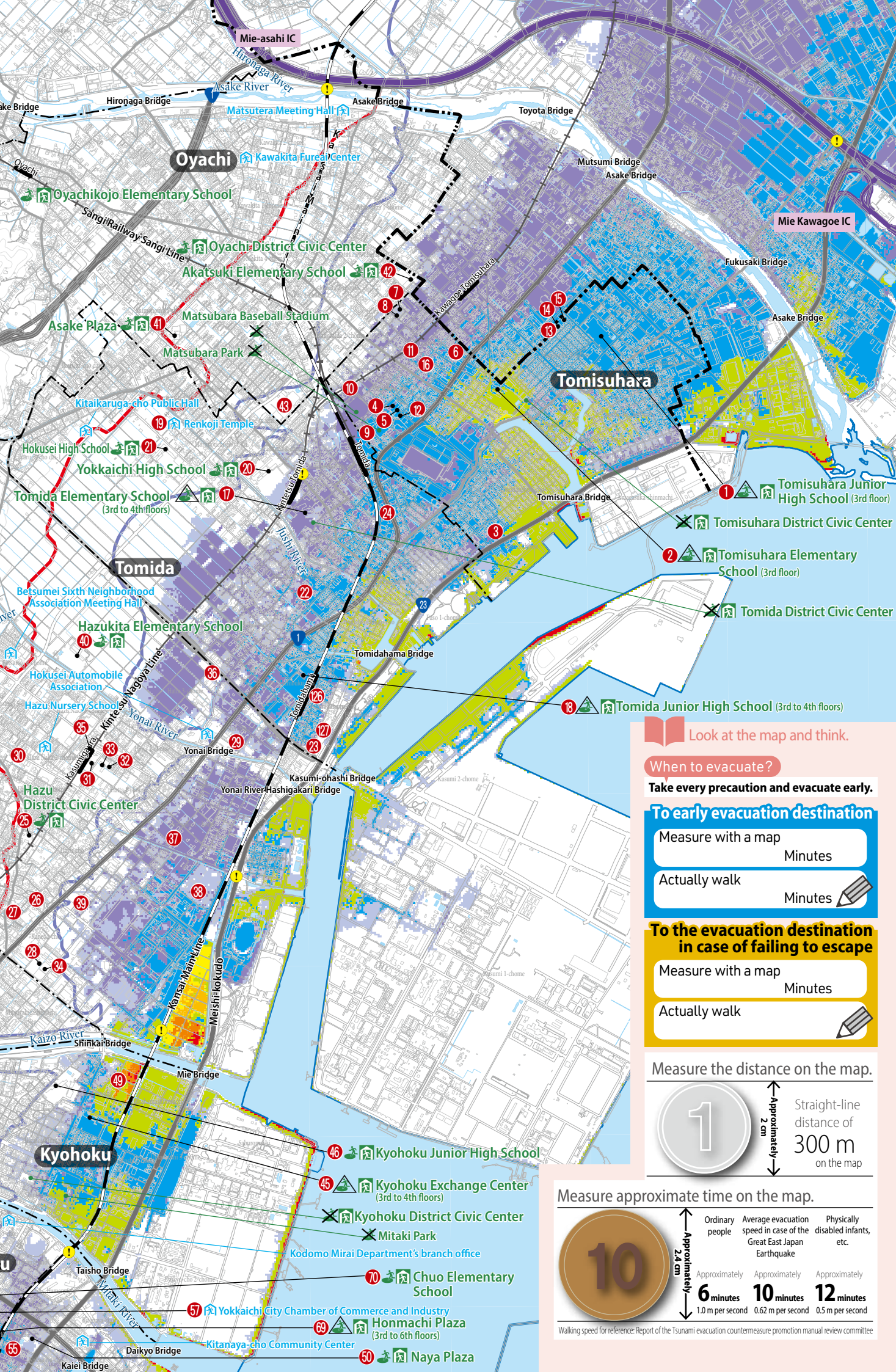


**Tsunami evacuation target line**  
A line connecting points 5 m above sea level in inland areas

**Estimated flood line**







Look at the map and think.

When to evacuate?

Take every precaution and evacuate early.

To early evacuation destination

Measure with a map  
Minutes

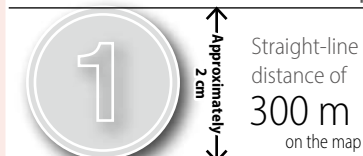
Actually walk  
Minutes

To the evacuation destination  
in case of failing to escape

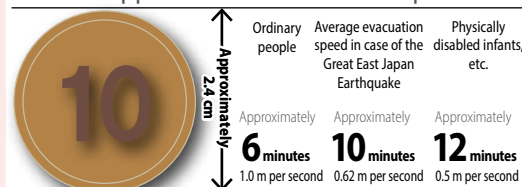
Measure with a map  
Minutes

Actually walk

Measure the distance on the map.



Measure approximate time on the map.



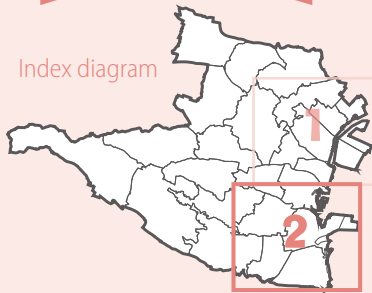
Walking speed for reference: Report of the Tsunami evacuation countermeasure promotion manual review committee



# Tsunamis

## Arrival time map 2

Index diagram



This map shows the time taken for a tsunami with a flood depth of 30 cm to reach the area after an earthquake occurs. (Based on assumption of tsunami flooding due to "theoretically largest class Nankai Trough earthquake")

### Legends

#### Tsunami evacuation facilities

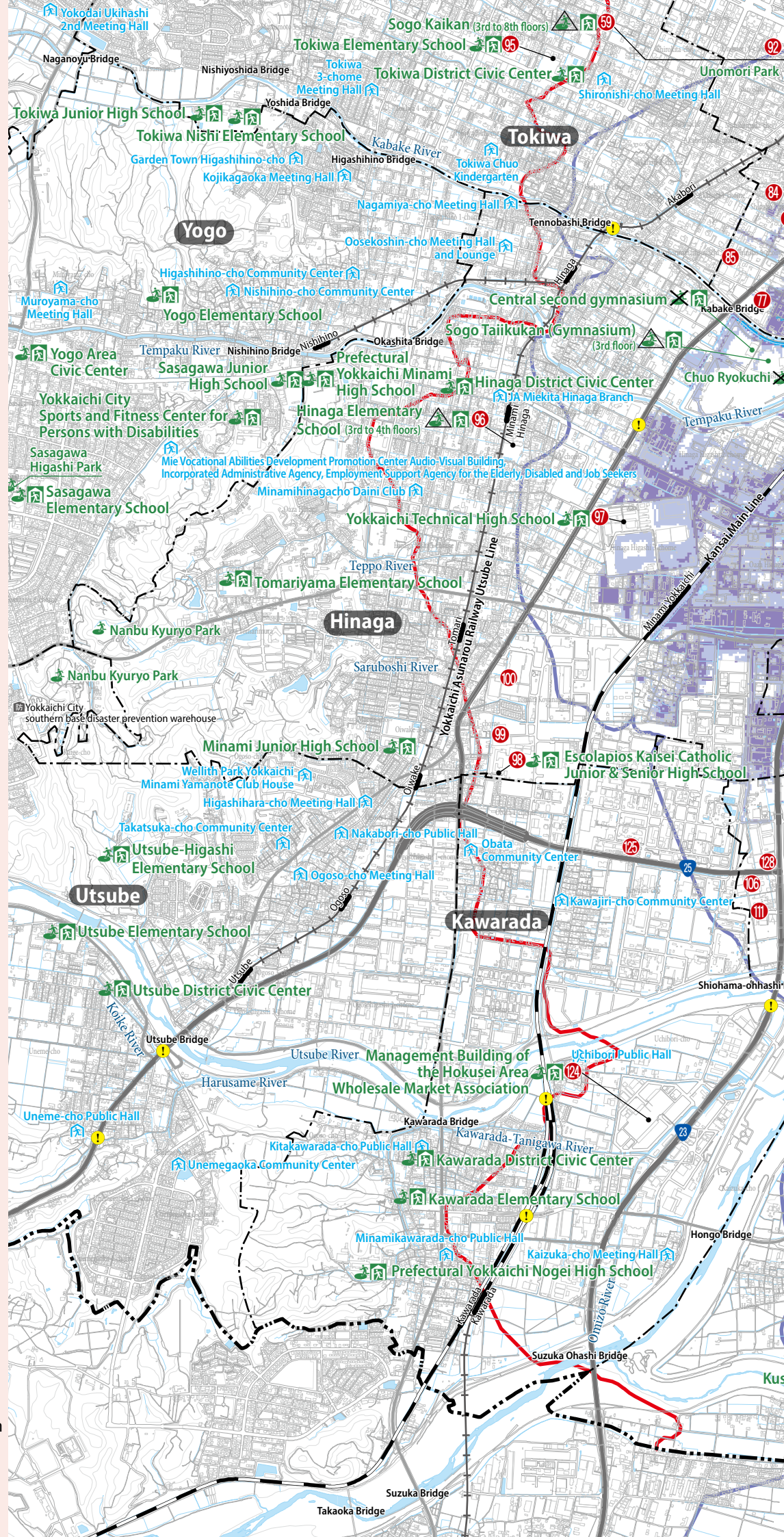
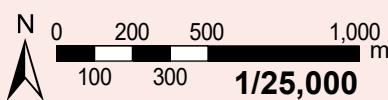
- Tsunami evacuation buildings** (This mark is a landmark.)  
→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 101-102.
- Designated emergency evacuation site**  
**Designated emergency evacuation site (number of floors available)**
- Designated emergency evacuation site (unavailable)**
- Designated evacuation shelter**  
(The city will decide whether to open the facility depending on the disaster situation.)  
→ For a list of designated emergency evacuation shelters (designated evacuation shelters), see pages 97 to 100.
- Emergency evacuation shelter**
- Government offices** **Underpass**

#### Tsunami arrival time

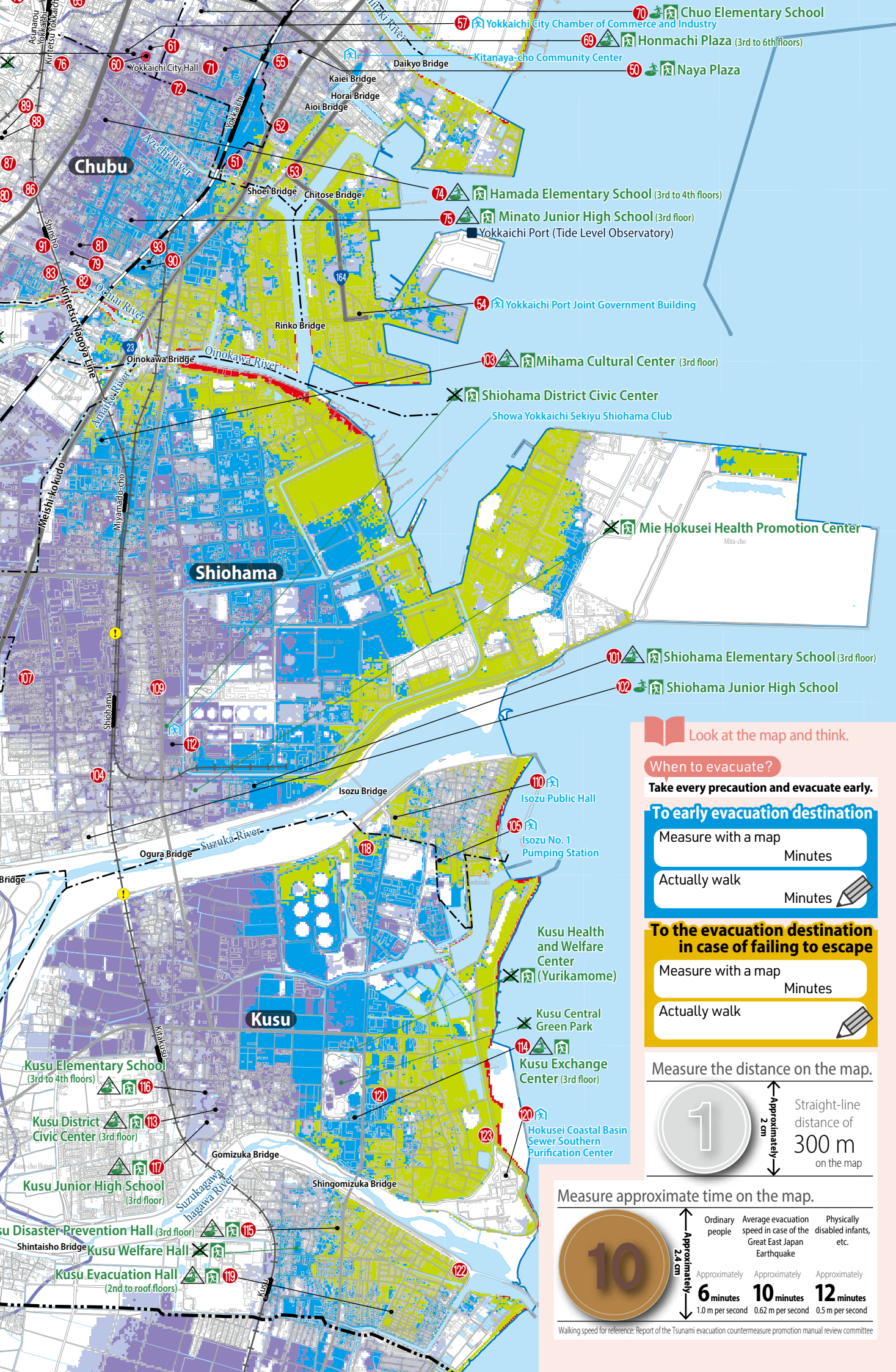
Time for a tsunami with a flood depth of 30 cm to reach

- Less than 5 minutes to 10 minutes**
- 10 to 20 minutes**
- 20 to 30 minutes**
- 30 minutes to 60 minutes**
- 60 minutes to 90 minutes**
- 90 minutes to 120 minutes**
- 120 minutes or more**
- Tsunami arrives, but the flood depth is less than 30 cm.**

- Tsunami evacuation target line**  
A line connecting points 5 m above sea level in inland areas
- Estimated flood line**









**Paso  
3**

**Prepare**



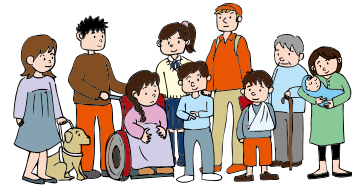


# In disaster prevention, the most important thing is to take precautions in advance!

There are limits to what can be done after a disaster occurs.  
Let's prepare in advance to protect lives from disasters.

## Prepare by yourself

**"Protect your life by yourself."**



- Protecting your own life helps protect the lives of your family and the community. First, take action to protect your own life.
- There is no such thing as "Disasters won't happen to me." Let's think in advance about what to do in an emergency without being bound by assumptions.
- Think of disasters as a personal matter and prepare for them independently without relying on others.

## Prepare as a family

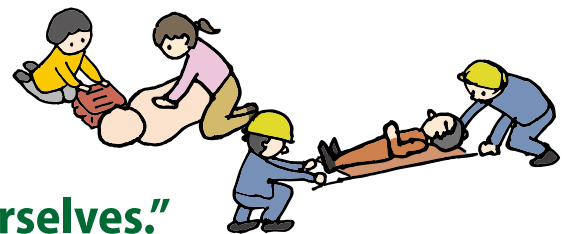
**"Protect the lives of your family by yourselves."**



- Disaster preparations differ depending on each household's circumstances, such as family composition and house structure. Check the risks faced by your house.
- Discuss with your family and confirm the means of contact and evacuation locations in case of an emergency.
- Be sure to proactively check the preparedness of not only yourself but also your family and loved ones.

## Prepare as a community

**"Protect your community by yourselves."**



- In case of emergency, it is the power of the community that you can rely on. Try to build face-to-face relationships by actively participating in local events and disaster prevention activities.
- Don't hesitate to evacuate; in an emergency, urge each other in your neighborhood to evacuate together.
- Be aware of people with physical disabilities and foreigners in your community in advance. Work together to confirm their safety and assist them in evacuation.



# Emergency goods/Stockpiled supplies

## Emergency goods

Prepare the minimum necessary items as emergency items so that you can evacuate immediately with them.  
A backpack that leaves both hands free is a good option for an emergency bag. Try carrying it on your back to see if it's too heavy.

### Items to keep in your emergency bag (backpack, etc.)

#### ☐ Drinking water

\*Minimum so as not to be too heavy (about 2 to 3 500 ml plastic bottles)



#### ☐ Emergency food

\*Items that have a long shelf life and can be eaten without cooking



#### ☐ Valuables

- ☐ Cash
- ☐ Health insurance card
- ☐ Bank book
- ☐ Driver's license
- ☐ Name stamp
- ☐ My number card



\*In the event of a disaster, electronic payment may not be possible due to power or network outages. Be sure to have cash (small change) ready.

#### ☐ First aid supplies/medical supplies Infection prevention products

- ☐ Disinfectant
- ☐ Mask
- ☐ Bandage
- ☐ Thermometer
- ☐ Sling
- ☐ Slippers



### Others

- ☐ Whistle
- ☐ Thick gloves (work gloves)
- ☐ Clothing (outerwear, underwear, socks)
- ☐ Hand warmer
- ☐ Plastic bag
- ☐ Sanitary products
- ☐ Helmet/disaster hood
- ☐ Rain/cold weather gear
- ☐ Towel/handkerchief
- ☐ Knife/can opener
- ☐ Disposable tableware (chopsticks, paper plates)
- ☐ Female sanitary items
- ☐ Shoes with sturdy soles
- ☐ Battery-powered charger/mobile battery
- ☐ Portable toilet
- ☐ Tissue paper/wet tissue
- ☐ Toiletries
- ☐ Yokkaichi City Disaster Prevention Hazard Map

### Necessary items depending on family structure and circumstances

#### Infant

- ☐ Baby Food
- ☐ Powdered milk/liquid milk
- ☐ Diapers
- ☐ Baby wipes etc.



#### Pregnant woman

- ☐ Maternal and child health handbook
- ☐ Absorbent cotton
- ☐ Gauze
- ☐ Newborn supplies etc.



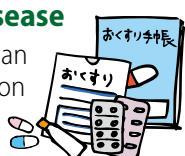
#### Senior citizen

- ☐ Dentures
- ☐ Nursing care food
- ☐ Adult diapers etc.



#### Person with a disease

- ☐ Attending physician contact information
- ☐ Medicine for chronic disease
- ☐ Prescription record book etc.



#### Pet

- ☐ Lead
- ☐ Cage
- ☐ Toilet supplies
- ☐ Pet food etc.



#### Others

- ☐ Glasses
- ☐ Contact lenses
- ☐ Hearing aids etc.





# Stockpiled supplies

Stockpiled supplies in the evacuation shelter are limited. It is also necessary to consider the possibility that relief supplies may not arrive for several days after the occurrence of a disaster.  
Therefore, you will feel safe if you prepare enough daily necessities for yourself and your family.

## Emergency stockpiled supplies

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"><li><input type="checkbox"/> <b>More than 7 days worth of food</b><ul style="list-style-type: none"><li><input type="checkbox"/> Rice that can be eaten by adding water (pregelatinized rice)</li><li><input type="checkbox"/> Canned food</li><li><input type="checkbox"/> Hardtack</li><li><input type="checkbox"/> Instant retort food</li><li><input type="checkbox"/> Nutritional supplement</li><li><input type="checkbox"/> Sweets</li><li><input type="checkbox"/> Seasoning</li><li><input type="checkbox"/> Soup etc.</li></ul></li></ul> | <ul style="list-style-type: none"><li><input type="checkbox"/> <b>More than 7 days worth of drinking water</b><ul style="list-style-type: none"><li><input type="checkbox"/> Per adult 3 liters per day</li></ul><p><small>*The approximate amount of water required per day for each person is 2.5 liters in total, including meals and sports drinks.</small></p></li><li><input type="checkbox"/> <b>Toilet supplies</b><ul style="list-style-type: none"><li><input type="checkbox"/> Simple toilet (toilet bag)</li><li><input type="checkbox"/> Container for storing waste</li><li><input type="checkbox"/> Toilet paper</li></ul></li></ul> | <ul style="list-style-type: none"><li><input type="checkbox"/> <b>Fuel etc.</b><ul style="list-style-type: none"><li><input type="checkbox"/> Cassette stove</li><li><input type="checkbox"/> Gas cylinder etc.</li></ul></li><li><input type="checkbox"/> <b>Domestic water</b><p><small>*Use of leftover bath water, storage of water in a plastic tank, etc.</small></p></li><li><input type="checkbox"/> <b>Food wrap film</b><p><small>*Save water by covering dishes, etc.</small></p></li></ul> |
|---|---|--|



### Let's carry an emergency bag!

A backpack that leaves both hands free is a convenient emergency bag.  
Try carrying it on your back beforehand to see if it's too heavy.

Emergency goods

**15 kg**  
for an adult male

**10 kg**  
for an adult woman

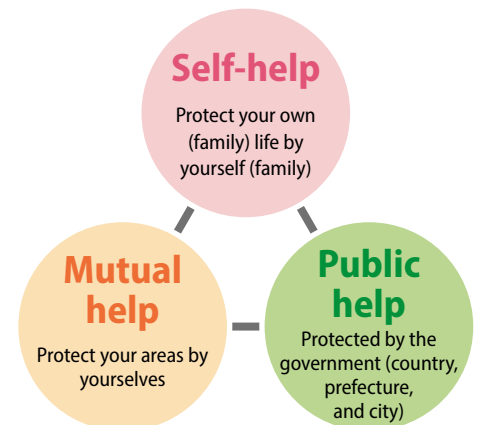


# Self-help, mutual help, and public help

## Collaboration of self-help, mutual help, and public help

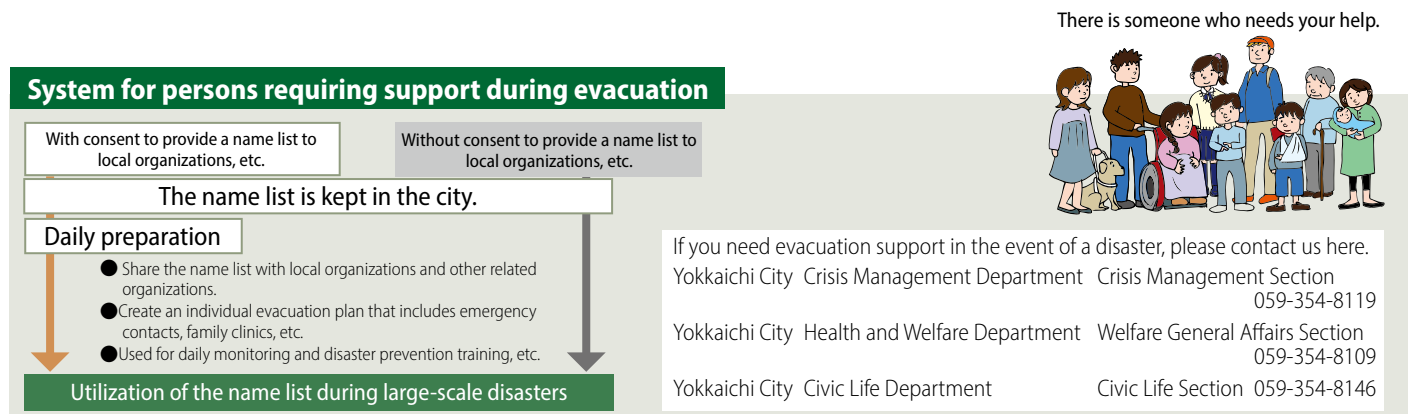
When a large-scale disaster occurs, good collaboration of “self-help,” “mutual help,” and “public help” is important to minimize the damage. The basic principle of disaster prevention is that you have to protect your own safety.

It is important for you, the local community, and the government to share the roles and help each other to move forward with disaster prevention measures.



## Cooperating with each other in local communities to support people who require special care

There is a system in place to support each other in the community for those who are unable to evacuate on their own and need support, such as the elderly and people with disabilities, when a large-scale disaster occurs. The city creates a list of people who need support, “List of people who need support during evacuation,” to establish a support system in the event of a disaster and to prepare for emergencies.



## The power of the area

The fire department provides districts and voluntary disaster prevention organizations with technical guidance on fire extinguishing, rescue, etc. The fire departments, districts, voluntary disaster prevention organizations, and local crime prevention organizations also work together to strengthen regional cooperation in preparation for large-scale disasters.

In addition, voluntary disaster prevention organizations are formed by local residents for the purpose of working together to “protect their own areas by themselves” from disasters. They make various efforts to prepare for disasters on a daily basis, and in the event of a disaster, they carry out activities to minimize the damage caused by the disaster.

When a disaster occurs, some people cannot evacuate alone and need help. In case of emergency, it is the power of the community (mutual help) that we can rely on. Let’s call out to each other on a daily basis and actively take part in local drills to make a disaster-resistant district.





## Decide together and evacuate together.

Even if there is information calling for evacuation, we tend to hesitate to evacuate alone.

The decision to evacuate will be made easier by establishing an evacuation system in your community in advance.

### In normal times...

**Decide together**  
where and when to  
evacuate.



**Ensure that**  
everybody is aware of  
who cannot evacuate  
alone.

### When a disaster occurs...

**Evacuate  
together!**

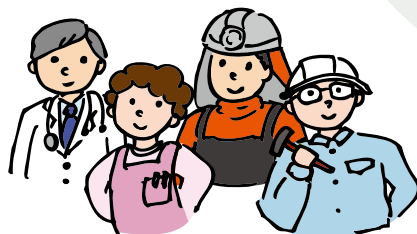


**For example...**  
Urge each other  
to evacuate early.



### It is important that everyone joins hands and helps each other.

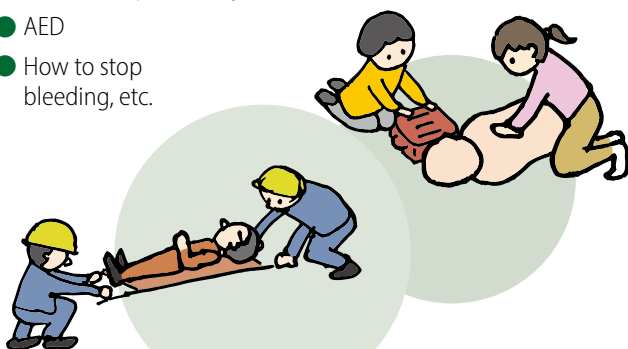
Let's actively participate in the activities of voluntary disaster prevention organizations to build relationships with neighbors and other local people so that you can cooperate with each other.



## First aid that you should know

During large-scale disasters, many people get injured. Be sure to acquire first aid knowledge and skills in normal times so that you can provide simple treatment or transport when you or someone in your family or around you gets injured or collapses.

- CPR (Cardiopulmonary resuscitation)
- AED
- How to stop bleeding, etc.



**Yokkaichi City Fire Department provides first aid training.**

**Yokkaichi City Fire Department**

CPR procedure, first aid training application form, a list of AED installation locations, etc.

URL [https://www.city.yokkaichi.mie.jp/syoubou/emergency\\_front/index.html](https://www.city.yokkaichi.mie.jp/syoubou/emergency_front/index.html)

► Emergency front line





# List of Designated Emergency Evacuation Sites 1

Designated emergency evacuation sites are designated for each type of disaster.  
Please note that which evacuation sites can be used depends on the type of disaster.

## Types and roles of evacuation shelters



### Designated emergency evacuation site

A place for temporary evacuation to avoid danger during a disaster  
It will also serve as a place for people unable to return home to wait until public transportation is restored.



### Designated evacuation shelter

Facilities for temporarily accommodating evacuated residents affected by the disaster until the danger of the disaster subsides.  
The city will decide whether to open the shelters depending on the disaster situation.



### Welfare evacuation shelter (secondary evacuation shelter)


Welfare facilities with which the city has concluded agreements in advance for people who require care and have difficulty staying at designated evacuation shelters or designated emergency evacuation sites



### Emergency evacuation shelter (other shelters)

Facilities designated at the request of local communities for local residents to temporarily avoid danger during disasters

	[Name]	Also as designated evacuation shelter	[Applicable disaster type]					
			Floods	Landslide disasters	Storm surges	Inland waters		
			Floor(s)			Floor(s)	Floor(s)	
Tomisuhara	Tomisuhara District Civic Center	☆	△ 2nd	○			○	
	Tomisuhara Elementary School	☆	△ 3rd	○			○	
	Playground of Tomisuhara Elementary School			○				
	Tomisuhara Junior High School	☆	△ 3rd	○			△ 2nd and 3rd	
	Playground of Tomisuhara Junior High School			○				
	Matsubara Park			○			○	
Tomida	Matsubara Baseball Stadium			○			○	
	Tomida District Civic Center	☆	△ 2nd	○			○	
	Tomida Elementary School	☆	△ 2nd to 4th	○	△ 3rd and 4th		○	
	Playground of Tomida Elementary School			○			○	
	Tomida Junior High School	☆	△ 2nd to 4th	○			○	
	Playground of Tomida Junior High School			○				
	Yokkaichi High School	☆	△ 2nd and 3rd	○	△ 3rd		○	
	Playground of Yokkaichi High School			○			○	
	Hokusei High School	☆	○	○	△ 2nd and 3rd		○	
	Playground of Hokusei High School			○			○	
Hazu	Hazu District Civic Center	☆	○	○	△ 2nd and 3rd		○	
	Hazu Elementary School	☆	○	○	○		○	
	Playground of Hazu Elementary School			○	○		○	
	Hazukita Elementary School	☆	○	○	△ 2nd and 3rd		○	
	Playground of Hazukita Elementary School			○			○	
	Hazu Junior High School	☆	○	○	○		○	
	Playground of Hazu Junior High School			○	○		○	
	Tarusaka Park and Hazuyama Ryokuchi			○	○		○	
	Tokiwa District Civic Center	☆	○	○	△ 2nd		○	
	Tokiwa Elementary School	☆	△ 2nd and 3rd	○	△ 2nd and 3rd		○	
Tokiwa	Playground of Tokiwa Elementary School			○				
	Tokiwa Nishi Elementary School	☆	○	○	○		○	
	Playground of Tokiwa Nishi Elementary School			○	○		○	
	Tokiwa Junior High School	☆	○	○	○		○	
	Playground of Tokiwa Junior High School			○	○		○	
	City library	☆	○	○	○		○	
	Hinaga District Civic Center	☆	○	○	△ 2nd		○	
	Hinaga Elementary School	☆	△ 2nd to 4th	○	△ 3rd and 4th		○	
	Playground of Hinaga Elementary School			○			○	
	Tomariyama Elementary School	☆	○	○	○		○	
Hinaga	Playground of Tomariyama Elementary School			○	○		○	
	Minami Junior High School	☆	○	○	○		○	
	Playground of Minami Junior High School			○	○		○	
	Sogo Taiikukan (Gymnasium)	☆		○	△ 3rd		○	
	Chuo Daini Taiikukan (Gymnasium)	☆		○			○	
	Yokkaichi Minami High School	☆	○		○		○	
	Playground of Yokkaichi Minami High School				○		○	
	Yokkaichi Technical High School	☆	△ 2nd to 4th	○	△ 3rd and 4th		○	
	Playground of Yokkaichi Technical High School			○				
	Escolapios Kaisei Catholic Junior & Senior High School	☆	△ 2nd to 4th	○	△ 2nd and 3rd		○	
Yogo	Playground of Escolapios Kaisei Catholic Junior & Senior High School			○				
	Chuo Ryokuchi			○			○	
	Nanbu Kyuryo Park			○	○		○	
	Yogo District Civic Center	☆	○	○	○		○	
	Yogo Elementary School	☆	○	○	○		○	
	Playground of Yogo Elementary School			○	○		○	
	Former Sasagawa Nishi Elementary School site	☆	○	○	○		○	

[Name]		Also as  designated evacuation shelter	[Applicable disaster type]									
			Floods	Landslide disasters	Storm surges	Inland waters	Earthquakes	Tsunamis	Floor(s)			
										Floor(s)	Floor(s)	Floor(s)
Yogo	Playground of Former Sasagawa Nishi Elementary School											
	Sasagawa Elementary School	☆										
	Playground of Sasagawa Elementary School											
	Takahanadaira Elementary School	☆										
	Playground of Takahanadaira Elementary School											
	Sasagawa Junior High School	☆										
	Playground of Sasagawa Junior High School											
	Nishisasagawa Junior High School	☆										
	Playground of Nishisasagawa Junior High School											
	Yokkaichi Yogo High School	☆										
	Playground of Yokkaichi Yogo High School											
	Yokkaichi City Sports and Fitness Center for Persons with Disabilities	☆										
	Sasagawa Higashi Park											
Utsube	Sasagawa Nishi Park											
	Utsube District Civic Center	☆	△	2nd*								
	Utsube Elementary School	☆	△	2nd and 3rd								
	Playground of Utsube Elementary School											
	Utsube-Higashi Elementary School	☆	○									
	Playground of Utsube-Higashi Elementary School											
	Utsube Junior High School	☆	△									
	Playground of Utsube Junior High School			2nd and 3rd								
Shiohama	Nanbu Kyuryo Park											
	Shiohama District Civic Center	☆	△									
	Shiohama Elementary School	☆	△	2nd		△	3rd		○	△	3rd	
	Playground of Shiohama Elementary School			3rd								
	Mihama Cultural Center	☆	△			△	2nd and 3rd	△	2nd and 3rd	○	△	3rd
	Playgound of Mihama Cultural Center			2nd and 3rd								
	Shiohama Junior High School	☆	△			△	3rd			○	○	
	Playground of Shiohama Junior High School			3rd								
Oyamada	Mie Hokusei Health Promotion Center	☆	△			△	2nd					
	Oyamada District Civic Center	☆	○	2nd						○	○	
	Oyamada Elementary School	☆	○							○	○	
	Playground of Oyamada Elementary School									○	○	
	Seiryō Junior High School	☆	○							○	○	
Kawashima	Playground of Seiryō Junior High School									○	○	
	Kawashima District Civic Center	☆	○							○	○	
	Kawashima Elementary School	☆	○							○	○	
Kanzaki	Playground of Kawashima Elementary School									○	○	
	Kanzaki District Civic Center	☆	○							○	○	
	Kanzaki Elementary School	☆	○							○	○	
	Playground of Kanzaki Elementary School									○	○	
	Mitaki Junior High School	☆	○							○	○	
	Playground of Mitaki Junior High School									○	○	
	Yokkaichi Commercial High School	☆	○							○	○	
	Playground of Yokkaichi Commercial High School									○	○	
Sakura	Yokkaichi Chuo Technical High School	☆	○							○	○	
	Playground of Yokkaichi Chuo Technical High School									○	○	
	Sakura District Civic Center	☆	○							○	○	
	Sakura Elementary School	☆	○							○	○	
	Playground of Sakura Elementary School									○	○	
	Sakuradai Elementary School	☆	○							○	○	

## Prepare



# List of Designated Emergency Evacuation Sites 2

[Name]		Also as designated evacuation shelter	[Applicable disaster type]									
			Floods	Landslide disasters	Storm surges	Inland waters	Earthquakes	Tsunamis				
										Floor(s)	Floor(s)	Floor(s)
Sakura	Playground of Sakura Junior High School				○	○		○		○	○	
	Prefectural Yokkaichi Nishi High School	☆	○			○		○		○	○	
	Playground of Prefectural Yokkaichi Nishi High School					○		○		○	○	
Mie	Mie District Civic Center	☆	○		○	○		○		○	○	
	Mie Elementary School	☆	○		○	○		○		○	○	
	Playground of Mie Elementary School				○	○		○		○	○	
	Mie Nishi Elementary School	☆	○			○		○		○	○	
	Playground of Mie Nishi Elementary School				○	○		○		○	○	
	Mie Kita Elementary School	☆	○			○		○		○	○	
	Playground of Mie Kita Elementary School					○		○		○	○	
	Otanidai Elementary School	☆	○		○	○		○		○	○	
	Playground of Otanidai Elementary School				○	○		○		○	○	
	Miehira Junior High School	☆	○			○		○		○	○	
	Playground of Miedaira Junior High School				○	○		○		○	○	
	Agata District Civic Center	☆	○		○	○		○		○	○	
	Agata Elementary School	☆	○		○	○		○		○	○	
	Playground of Agata Elementary School				○	○		○		○	○	
Agata	Oike Junior High School	☆	○		○	○		○		○	○	
	Playground of Oike Junior High School				○	○		○		○	○	
	Hokusei Kirara Gakuen	☆	○		○	○		○		○	○	
	Playground of Hokusei Kirara Gakuen				○	○		○		○	○	
	Yokkaichi Maryknoll School	☆	○		○	○		○		○	○	
	Plarking Lot of Yokkaichi Maryknoll School				○	○		○		○	○	
	Yasato District Civic Center	☆	△	2nd *	○	○		○		○	○	
	Yasato Elementary School	☆	△	2nd to 4th	○	○		○		○	○	
Yasago	Playground of Yasato Elementary School				○	○				○	○	
	Yasato Nishi Elementary School	☆	○			○		○		○	○	
	Playground of Yasato Nishi Elementary School					○		○		○	○	
	Asake Junior High School	☆	○			○		○		○	○	
	Playground of Asake Junior High School					○		○		○	○	
	Akatsuki Junior-Senior High School	☆	○			○		○		○	○	
	Akatsuki Senior High School	☆	○			○		○		○	○	
	Playground of Akatsuki Junior-Senior High School					○		○		○	○	
	Shimono District Civic Center	☆	△	2nd	○	○		○		○	○	
	Shimono Elementary School	☆	△	2nd and 3rd	○	○		○		○	○	
Shimono	Playground of Shimono Elementary School				○	○		○		○	○	
	Nishiasake Junior High School	☆	△	2nd and 3rd	○	○		○		○	○	
	Nishichomei Junior High School				○	○		○		○	○	
	Oyachi District Civic Center	☆	△	2nd	○	○		○		○	○	
	Oyachikojo Elementary School	☆	△	2nd and 3rd	○	○		○		○	○	
Oyachi	Playground of Oyachi Kojo Elementary School				○	○		○		○	○	
	Asake Plaza	☆	△	2nd to 4th	○	△	2nd to 4th	○		○	○	
	Playground of Akatsuki Elementary School				○			○		○	○	
	Akatsuki Elementary School	☆	△	2nd and 3rd	○	△	3rd	○		○	○	
	Kawarada District Civic Center	☆	△	2nd	○	○		○		○	○	
	Kawarada Elementary School	☆	△	2nd to 4th	○	○		○		○	○	
Kawarada	Playground of Kawarada Elementary School				○	○		○		○	○	
	Prefectural Yokkaichi Noge High School	☆	○			○		○		○	○	
	Playground of Prefectural Yokkaichi Noge High School					○		○		○	○	
	Management Building of the Hokusei Area Wholesale Market Association	☆	△	3rd	○	○		○		○	○	
	Suizawa District Civic Center	☆	○		○	○		○		○	○	
	Suizawa Elementary School	☆	○		○	○		○		○	○	
Suizawa	Playground of Suizawa Elementary School				○	○		○		○	○	
	Hoshinohiroba				○	○		○		○	○	

[Name]

	Also as designated evacuation shelter	[Applicable disaster type]									
		Floods	Landslide disasters	Storm surges	Inland waters	Earthquakes	Tsunamis				
		Floor(s)		Floor(s)	Floor(s)		Floor(s)				
Hobo	Hobo District Civic Center	☆ △ 2nd	○	○	○	○	○				
	Hobo Elementary School	☆ △ 2nd and 3rd	○	○	○	○	○				
	Playground of Hobo Elementary School		○	○	○	○	○				
	Hobo Junior High School	☆ △ 2nd and 3rd	○	○	○	○	○				
	Playground of Hobo Junior High School		○	○	○	○	○				
	Asake High School	☆ ○	○	○	○	○	○				
	Playground of Asake High School		○	○	○	○	○				
	Hokusei Chuo Park		○	○	○	○	○				
Kaizo	Kaizo District Civic Center	☆ ○	○	○	○	○	○				
	Kaizo Elementary School	☆ ○	○	○	○	○	○				
	Playground of Kaizo Elementary School		○	○	○	○	○				
	Yamate Junior High School	☆ ○	○	○	○	○	○				
	Playground of Yamate Junior High School		○	○	○	○	○				
Kyohoku	Kyohoku District Civic Center	☆ ○	○	○	○	○	○				
	Kyohoku Elementary School	☆ △ 2nd and 3rd	○	△ 2nd and 3rd	○	○	○				
	Playground of Kyohoku Elementary School		○		○	○	○				
	Kyohoku Exchange Center	☆ ○	○	△ 3rd and 4th	○	○	△ 3rd and 4th				
	Playground of Kyohoku Cultural Center		○		○	○	○				
	Kyohoku Junior High School	☆ ○	○	△ 2nd and 3rd	○	○	○				
	Playground of Kyohoku Junior High School		○		○	○	○				
	Mitaki Park		○		○	○	○				
Chubu	Chubu District Civic Center	☆ ○	○	△ 2nd to 4th	○	○	○				
	Chubu Nishi Elementary School	☆ ○	○	△ 2nd and 3rd	○	○	○				
	Playground of Chubu Nishi Elementary School		○		○	○	○				
	Chuo Elementary School	☆ ○	○	△ 3rd and 4th	○	○	○				
	Playground of Chuo Elementary School		○		○	○	○				
	Hamada Elementary School	☆ △ 2nd to 4th	○	△ 3rd and 4th	○	○	△ 3rd and 4th				
	Playground of Hamada Elementary School		○		○	○	○				
	Chubu Junior High School	☆ △ 2nd to 4th	○	△ 2nd to 4th	○	○	○				
	Playground of Chubu Junior High School		○		○	○	○				
	Minato Junior High School	☆ △ 2nd and 3rd	○	△ 3rd	○	○	△ 3rd				
	Playground of Minato Junior High School		○		○	○	○				
	Naya Plaza	☆ △ 2nd and 3rd	○	△ 3rd	○	○	○				
	Playground of Naya Plaza		○		○	○	○				
	Sogo Kaikan	☆ △ 2nd to 8th	○	△ 3rd to 8th	○	○	△ 3rd to 8th				
	Honmachi Plaza	☆ △ 2nd to 6th	○	△ 3rd to 6th	○	○	△ 3rd to 6th				
	Jibasan (Local Industry Center)	☆ ○	○	△ 2nd to 7th	○	○	○				
	Cultural Center	☆ ○	○	△ 2nd to 4th	○	○	○				
	Unomori Park		○		○	○	○				
Kusu	Kusu District Civic Center	☆ △ 3rd	○	△ 3rd	○	○	△ 3rd				
	Kusu Elementary School	☆ △ 3rd and 4th	○	△ 3rd and 4th	○	○	△ 3rd and 4th				
	Playground of Kusu Elementary School		○		○	○	○				
	Kusu Junior High School	☆ △ 3rd	○	△ 3rd	○	○	△ 3rd				
	Playground of Kusu Junior High School		○		○	○	○				
	Kusu Exchange Center	☆ △ 3rd	○	△ 3rd	○	○	△ 3rd				
	Kusu Welfare Hall	☆ △ 2nd	○	△ 2nd	○	○	○				
	Square in front of Kusu Welfare Hall		○		○	○	○				
	Kusu Disaster Prevention Hall	☆ △ 2nd and 3rd	○	△ 3rd	○	○	△ 3rd				
	Square in front of Kusu Disaster Prevention Hall		○		○	○	○				
	Kusu Evacuation Hall	☆ △ 2nd	○		○	○	△ 2nd floor to rooftop				
	Playground of Kusu Evacuation Hall		○		○	○	○				
	Kusu Health and Welfare Center (Yurikamome)	☆	○		○	○	○				
	Square in front of Kusu Health and Welfare Center (Yurikamome)		○		○	○	○				
	Kusu Chuo Ryokuchi		○		○	○	○				

\*(Unavailable for emergency warning disasters)



# List of Tsunami Evacuation Buildings

As of May 2023



## Tsunami evacuation buildings

A temporary evacuation building to protect people against tsunamis caused by the anticipated Nankai Trough earthquakes, etc.

In Yokkaichi City, in preparation for a tsunami, not only public facilities and school facilities but also commercial facilities and condominiums have been designated as tsunami evacuation buildings. They are sturdy buildings of 3 or more floors in an area within 4 km of the coastline and 5 m or less above sea level. Some tsunami evacuation buildings, especially public facilities, are equipped with a key box that automatically unlocks the doors when hit by a seismic intensity of 5-lower or greater. At such facilities, anyone can unlock the doors and evacuate to inside the facility without waiting for the facility manager to arrive.



Tsunami evacuation building sign



Automatically unlocks when the seismic intensity is 5-lower or greater  
Key box

	[No.]	[Name]	[No. of floors]	[Above sea level]	[Capacity]
Tomisuhara	1	Tomisuhara Junior High School	3	-0.4	2420
	2	Tomisuhara Elementary School	3	0.6	1860
	3	Yugen gaisha Maekawa	3	1.4	130
	4	Sunny Heights Matsubara Park Building A	5	0.8	80
	5	Sunny Heights Matsubara Park Building B	5	1	80
	6	Residence Tomisuhara	3	1	32
	7	Corpo Eden A	3	0.8	35
	8	Corpo Eden B	3	0.8	35
	9	Hinomoto Nursery School	2 (rooftop)	1.1	240
	10	Hinomoto Daini Nursery School	2 (rooftop)	1.3	320
	11	Raums Tomisuhara	9	1.3	250
	12	Chubu Plant Service Co., Ltd. Yokkaichi Dormitory	4	1	98
	13	Lions Mansion Tomisuhara New City Ichibankan	9	0.1	230
	14	Lions Mansion Tomisuhara New City Nibankan	14	0.1	430
	15	Lions Mansion Tomisuhara New City Sanbankan	13	0.1	210
Tomida	16	Towa City Corp Tomisuhara	5	0.8	108
	17	Tomida Elementary School	4	1.8	2750
	18	Tomida Junior High School	3	1.4	960
	19	Renkoji Temple	3	4.1	75
	20	Yokkaichi High School	3	2.6	1292
	21	Hokusei High School	3	3.5	445
	22	Hokusei National Highway Office	Office building: 3 Dormitory: 5	1.4	209
	23	La prima casa	6	3.6	186
	24	Disaster Prevention Education Center (North Fire Department)	2 (rooftop)	1.1	222
	126	Chantclair	3	0.9	21
	127	Porta del mare	3	2.8	26
Hazu	25	Hazu District Civic Center	3	4	100
	26	Mansion Belleheim Shiroyama	4	2.5	79
	27	Radier Maison	3	3.1	90
	28	Excellence	3	2.3	20
	29	Spring Saison	3	2.8	11

	[No.]	[Name]
Hazu	30	Cosmos
	31	Dwell Wisteria
	32	Social Demeure Building East
	33	Social Demeure Building West
	34	Wing Pachinko Parlor Kaneba Store, Multi-story parking lot
	35	Mie Hair Artist Academy
	36	Kasumi no Sato
	37	Cainz Home Yokkaichi Store
	38	MGM Yokkaichi Store
	39	Hazukita Elementary School
Oyachi	40	Tomita Saihokaku Funeral Hall
	41	Asake Plaza
	42	Akatsuki Elementary School
Kyohoku	43	Frespo Yokkaichi Tomida
	44	Kyohoku Elementary School
	45	Kyohoku Exchange Center
	46	Kyohoku Junior High School
	47	Asahi Doboku Co., Ltd.
	48	Banko no Sato Center
	49	Special Elderly Nursing Home Takahama Rakurakukan
Minato	50	Naya Plaza
	51	Sumitomo Wiring Systems Co., Ltd.
	52	SWSWAY Center
	53	Okubo Shokai Co., Ltd.
	54	Yokkaichi Port Joint Government Building
	55	Acorde Kuramachi
Kyodo	56	San ju San Bank Head Office
	57	Chamber of commerce and industry
	58	Chubu District Civic Center
	59	Sogo Kaikan
	60	Yokkaichi City Hall
	61	Municipal central parking lot
	62	Chubu Junior High School
	63	Chubu Nishi Elementary School
	64	Platon Hotel Yokkaichi
	65	Yokkaichi City Hotel Building
Chuo	66	B. D. Hayashi
	67	Prurlion
	68	Plazer Building
	69	Honmachi Plaza
	70	Chuo Elementary School
Hamada	71	Yokkaichi Kensetsugyo Kaikan
	72	Saiwaicho Building
	73	Jibasan (Local Industry Center)
	74	Hamada Elementary School
	75	Minato Junior High School
	76	Yokkaichi City Hotel Annex
	77	Mie Prefectural Yokkaichi City Hall

Please check here for the latest information on the designation status of tsunami evacuation buildings.

## Yokkaichi City disaster prevention information/Evacuation information

### "Know the evacuation sites"

URL <https://bousai2.city.yokkaichi.mie.jp/evacuation/ei-03/>

► List of Tsunami Evacuation Buildings





[No. of floors]	[Above sea level]	[Capacity]	[No.]	[Name]	[No. of floors]	[Above sea level]	[Capacity]
3	3.4	33	78	Miyako Hotel Yokkaichi	15	2.2	4800
5	2.9	120	79	Iroha Building	6	1.3	72
4	2.9	60	80	Shalom Bion R	5	1.7	51
4	2.9	40	81	Ibon Lavien	5	1.1	165
5	2.3	2343	82	Nakashima Heights	3	1.4	22
4	3.8	540	83	Yokkaichi Democratic Chamber of Commerce and Industry	3	1.1	77
4	1.7	260	84	Maison Venus	3	1.8	78
2 (rooftop)	1.9	7503	85	Kohyo Co., Ltd., Parking building	2 (rooftop)	1.9	1500
2 (rooftop)	1.8	2888	86	Meitetsu Yokkaichi Taxi, Multi-story parking lot	2 (rooftop)	1.7	150
3	4.7	843	87	Earl's Court 2	6	2.4	44
2 (rooftop)	1.8	1337	88	Dia Palace Yokkaichi Station South	15	2.5	321
4	4.9	20	89	Humanitec Junior College	4th floor lecture room 5th floor lecture room etc.	2.5	610
3	1.9	1397	90	Akebono-cho Municipal Housing Building 1	5	0.7	486
2	2.8	3600	91	Saint Lumiere	6	1.9	60
3	3.5	900	92	Taisui Chuo Nursery School	5	2.9	380
4	1.5	2200	93	Akebono-cho Municipal Housing Building 2	5	0.7	261
3	3.5	1400	94	City library	3	4.2	200
3	3.5	100	95	Tokiwa Elementary School	4	5	1900
3	4.4	80	96	Hinaga Elementary School	4	2.6	1800
5	1.2	240	97	Yokkaichi Technical High School	4	2.5	6400
3	1.1	300	98	Escaprios Kaisei Catholic Junior & Senior High School	3	4.5	2154
Building A: 5 Cafeteria building: 3	1.7	350	99	Super Viva Home Yokkaichi Tomari Store	Rooftop parking lot	4.3	13118
3	2.1	150	100	Aeon Town Yokkaichi Tomari Store	2 (rooftop)	3.8	22146
3	2.3	320	101	Shiohama Elementary School	3	1.2	2140
4	1.9	307	102	Shiohama Junior High School	3	2.2	1394
4	1.3	34	103	Mihama Cultural Center	3	0.7	1450
12	2.4	150	104	Humanitec Medical & Welfare College	Rehabilitation Building 4th floor Dental, Acupuncture & Welfare Building 4th floor	1.4	560
4	1.4	400	105	Isozu No. 1 Pumping Station	24	1.8	55
4	3	300	106	Sansho Bussan Co., Ltd. Head Office	6 (rooftop)	2.3	400
8	1.4	1000	107	MS Kanzai Co., Ltd.	3	1.3	150
11	1.4	250	109	Sankyu Co., Ltd. Mie Branch	4 (rooftop)	1.7	215
5 (rooftop)	1.4	800	110	Isozu Public Hall	2 (rooftop)	1.6	247
4	3.4	2800	111	Ohashi Gakuen High School	3	2.4	240
3	3.4	1300	112	Showa Yokkaichi Sekiyu Co., Ltd. BCP Center	3	1.6	717
10	2.4	300	128	Minami Fire Station	3 (rooftop)	2.4	500
10	2.4	1500	113	Kusu District Civic Center	3	2.2	600
4 (rooftop)	2.4	36	114	Kusu Exchange Center	3	1.4	90
5	3.7	68	115	Kusu Disaster Prevention Hall	4	1.3	160
3	3.7	80	116	Kusu Elementary School	4	2.3	3334
6	1.2	1000	117	Kusu Junior High School	3	2.6	2614
4	1.8	1900	118	MIE Chemical Machinery Co.,Ltd.	Welfare building, gensunba, 3rd floor	1.8	860
4	1.2	220	119	Kusu Evacuation Hall	2 (rooftop)	0.8	140
6	1.1	50	120	Hokusei Coastal Sewer System Southern Purification Center	2 (rooftop)	4.9	600
7	2.8	400	121	Watanabe Tekko Co., Ltd.	Gensunba, 2nd floor	1.5	400
4	1.2	2300	122	Shinminami Gomizuka Pumping Station	3 (rooftop)	1.7	303
3	1.1	1600	123	Yoshizaki Pumping Station	2 (rooftop)	2.8	660
10	1.4	400	124	Hokusei Area Wholesale Market Association	4	4.6	500
5	2.2	135	125	JSR Corporation Yokkaichi Plant Main Building	5	3.2	320



# Family evacuation plan (wind and flood damage)

Think about your family's evacuation plan by organizing your thoughts on a disaster basis about assumable disaster situations and evacuation destinations.





**Check the "Awareness map" on Pages 5-6.**

Which river floods, affecting your house?

☐ Suzuka River ☐ Utsube River ☐ Mitaki River ☐ Kaizo River ☐ Asake River ☐ Tempaku River ☐ Kabake River

**Check the "Evacuation map" on Pages 35 to 62 and the judgment flow at the end of the document.**

Judgment results based on the evacuation map judgment flow (at the end of the document) ☐ Can stay at home ☐ Cannot stay at home

Reasons why you cannot stay at home ☐ It is a wooden house and may collapse. ☐ There is a risk of landslide disasters. ☐ There is a risk that the ground may be scraped away during floods. ☐ There is a risk of flooding up to the floor you live on.

**Decide where to evacuate (consider the possibility of flooding due to storm surge).**

**Early evacuation**


Evacuation information and places to evacuate before the rain and wind get stronger

Relatives' houses/acquaintances' homes or evacuation shelters in areas where flooding and landslide disasters are not anticipated

**If it is too late to evacuate...**

A place to evacuate when it is dangerous to evacuate far away or go out

A tall and durable building that you can stay in even after flooding, or a high place in your home away from a slope



**Check the "Storm Surge Hazard Map" on Pages 67 to 70.**

Is your home expected to be flooded by storm surge?

☐ Flooding is expected. ☐ Flooding is not expected.

Judgment results based on the judgment flow of the storm surge hazard map ☐ Can stay at home ☐ Cannot stay at home

**Decide where to evacuate (think about possible flooding due to floods and landslide disasters).**

**Early evacuation**


Evacuation information and places to evacuate before the wind gets stronger

Relatives' houses/acquaintances' houses or evacuation shelters outside the flooded area

**If it is too late to evacuate...**

A place to evacuate when it is dangerous to evacuate far away or go out

Tall buildings or high places outside, high places in your home, and safe places nearby



**Check the "Inland Water Hazard Map" from Pages 73 to 76.**

Is your house expected to be flooded from internal waters?

☐ Flooding is expected. ☐ Flooding is not expected.

Judgment results of the judgment flow of the inland flood hazard map ☐ Can stay at home ☐ Cannot stay at home

**If the assumption of deep flooding prevents staying in the house, decide where to evacuate.**

A tall and durable building that you can stay in even after flooding, or a high place in your home

\*Since flooding estimates due to inland waters are calculated for urbanized zones and are not evaluated for the entire city, there is a risk of flooding even in places where flooding is not estimated.

# My Timeline

My Timeline shows your action plan.

Wind and flood damage can be predicted in advance, so you can prepare for it before it occurs.

Protect yourself from disasters by creating My Timeline for yourself and your family in advance.

## Publicized information, disaster situations etc.

## Major preparations [Memo field]

## Preparation examples

### Outbreak of typhoon

#### Alert Level 1

**Early Warning Information**  
(Probability of Warnings)

#### Alert Level 2

**Heavy Rain Advisory  
Flood Advisory  
Storm Surge Advisory**

**Flood advisory water level reached**

#### Alert Level 3

**Evacuation of the Elderly, etc.**

Equivalent to Alert Level 3

- Heavy Rain Warning
- Flood Warning
- Storm Surge Advisory (with a high probability of a subsequent warning)
- Flood Warning Information, etc.

**Hazardous water level reached**

#### Alert Level 4

**Evacuation Instruction**

Equivalent to Alert Level 4

- Landslide Alert Information
- Storm Surge Warning, Storm Surge Emergency Warning
- Information on Potential Flood Hazards, etc.

**URGENT: A disaster may occur any time.**

#### Alert Level 5

**Emergency Safety Measures**

**Elderly people and people with disabilities must evacuate.**

**Everyone must evacuate from dangerous locations.**

**MUST evacuate at Alert Level 4!**

An **Alert level 5** is not always issued.

**You MUST evacuate from dangerous locations! DO NOT wait for Alert Level 5 to be issued!**

● Start checking future typhoon conditions on TV, radio, Japan Meteorological Agency website, etc.

● Check to see if there are any objects that could be blown away by the wind around the house.

● Prepare an emergency bag.

● Charge your mobile phone.

● Reconfirm evacuation sites and evacuation methods using the hazard map.

● Start checking the water level of the rivers in your area.

● Obtain evacuation information from Yokkaichi City S-Alert, Yokkaichi City Safety and Security Disaster Prevention Email, etc.

● Receive the "Evacuation of the Elderly, etc." information.

● The elderly or others who need extra time to evacuate must start evacuating.

● If you are evacuating by car, move to a safe place with a large parking lot at this level at the latest.

● Contact your neighbors who will be evacuating with you.

● Change into clothing that makes it easier to evacuate.

● Receive the "Evacuation Instruction" information.

● Go to a relative's/acquaintance's house or a city-designated evacuation shelter that will not be flooded.

● As a general rule, evacuate on foot.

● If you feel in danger while evacuating, you need not limit yourself to your plan. Instead, go to a nearby evacuation shelter, emergency evacuation site, or a tall, sturdy building.

● If you have not completed evacuation yet, move to the second floor of your home or a nearby tall, sturdy building.

Urgency

High

Prepare

\*Information may not necessarily be released in this order depending on the progress of the disaster situation. It is important to respond flexibly depending on the situation.



# Family evacuation plan (earthquake and tsunami)

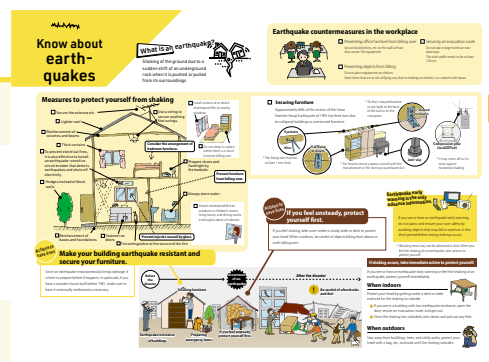
Think about your family's evacuation plan by organizing your thoughts on assumable disaster situations and evacuation destinations for each type of disaster.

## Earth- quakes



Check "Know about earthquakes" on pages 25 and 26.

The first thing to do is to prepare in advance for the shaking. Check the earthquake resistance of your house and the way your furniture is arranged and secured.



If your home is undamaged and there is no risk of fire, you do not need to evacuate from your home. Check nearby evacuation destinations in case you need to evacuate.

A place to evacuate when it is dangerous to stay inside your house

Relative's or acquaintance's house, or evacuation shelters



## Tsunamis



Check the "Tsunami Arrival Time Maps" on pages 87 to 90.

Check if your home is expected to be flooded by a tsunami.

☐ Flooding is expected. ☐ Flooding is not expected.

Time until tsunami arrives

min



Check the "Tsunami Inundation Depth Maps" on pages 83 to 86.

In order to complete your evacuation before the tsunami arrives, decide where to evacuate, considering the time it will take to evacuate.

Actions to  
save lives

### Early evacuation

Places to evacuate if you feel strong or long-lasting shaking

Relative's or acquaintance's house, evacuation shelters on the mountain side of the tsunami evacuation target line, or a high building far from the sea

Time required for evacuation

min

Actions to  
save lives

### If you fail to evacuate early...

Where to evacuate if you do not have enough time to go far away

Nearby tsunami evacuation buildings, tall buildings, high places, etc.

Time required for evacuation

min



Decide where to meet up if your family evacuates to a faraway place.

Meeting place after tsunami warning is lifted



# Family contact information

Confirm what actions to take if your family members or loved ones need to evacuate from places they have gone to, e.g., workplace and school.

If your family members need to evacuate from places they have gone to

Name	Contact address
<div><div><input type="checkbox"/> Evacuate from your workplace, school, or the place you have gone to (evacuation destination)</div><div><input type="checkbox"/> Stay at workplace, school, or the place you have gone to</div></div> <div><div><input type="checkbox"/> Come back home</div></div>	

Name	Contact address
<div><div><input type="checkbox"/> Evacuate from your workplace, school, or the place you have gone to (evacuation destination)</div><div><input type="checkbox"/> Stay at workplace, school, or the place you have gone to</div></div> <div><div><input type="checkbox"/> Come back home</div></div>	

Name	Contact address
<div><div><input type="checkbox"/> Evacuate from your workplace, school, or the place you have gone to (evacuation destination)</div><div><input type="checkbox"/> Stay at workplace, school, or the place you have gone to</div></div> <div><div><input type="checkbox"/> Come back home</div></div>	

Name	Contact address
<div><div><input type="checkbox"/> Evacuate from your workplace, school, or the place you have gone to (evacuation destination)</div><div><input type="checkbox"/> Stay at workplace, school, or the place you have gone to</div></div> <div><div><input type="checkbox"/> Come back home</div></div>	

Name	Contact address
<div><div><input type="checkbox"/> Evacuate from your workplace, school, or the place you have gone to (evacuation destination)</div><div><input type="checkbox"/> Stay at workplace, school, or the place you have gone to</div></div> <div><div><input type="checkbox"/> Come back home</div></div>	

# Contact address in case of evacuation

Even when evacuation information is issued, it is difficult to make a decision to evacuate alone. Be sure to confirm whom you will call out to during evacuation and who will be evacuating with you.

Relatives/  
acquaintances

Name	Contact address
<div><div><input type="checkbox"/> Call out to others during evacuation</div><div><input type="checkbox"/> You will be contacted during evacuation.</div><div><input type="checkbox"/> Evacuate together</div></div>	

Name	Contact address
<div><div><input type="checkbox"/> Call out to others during evacuation</div><div><input type="checkbox"/> You will be contacted during evacuation.</div><div><input type="checkbox"/> Evacuate together</div></div>	

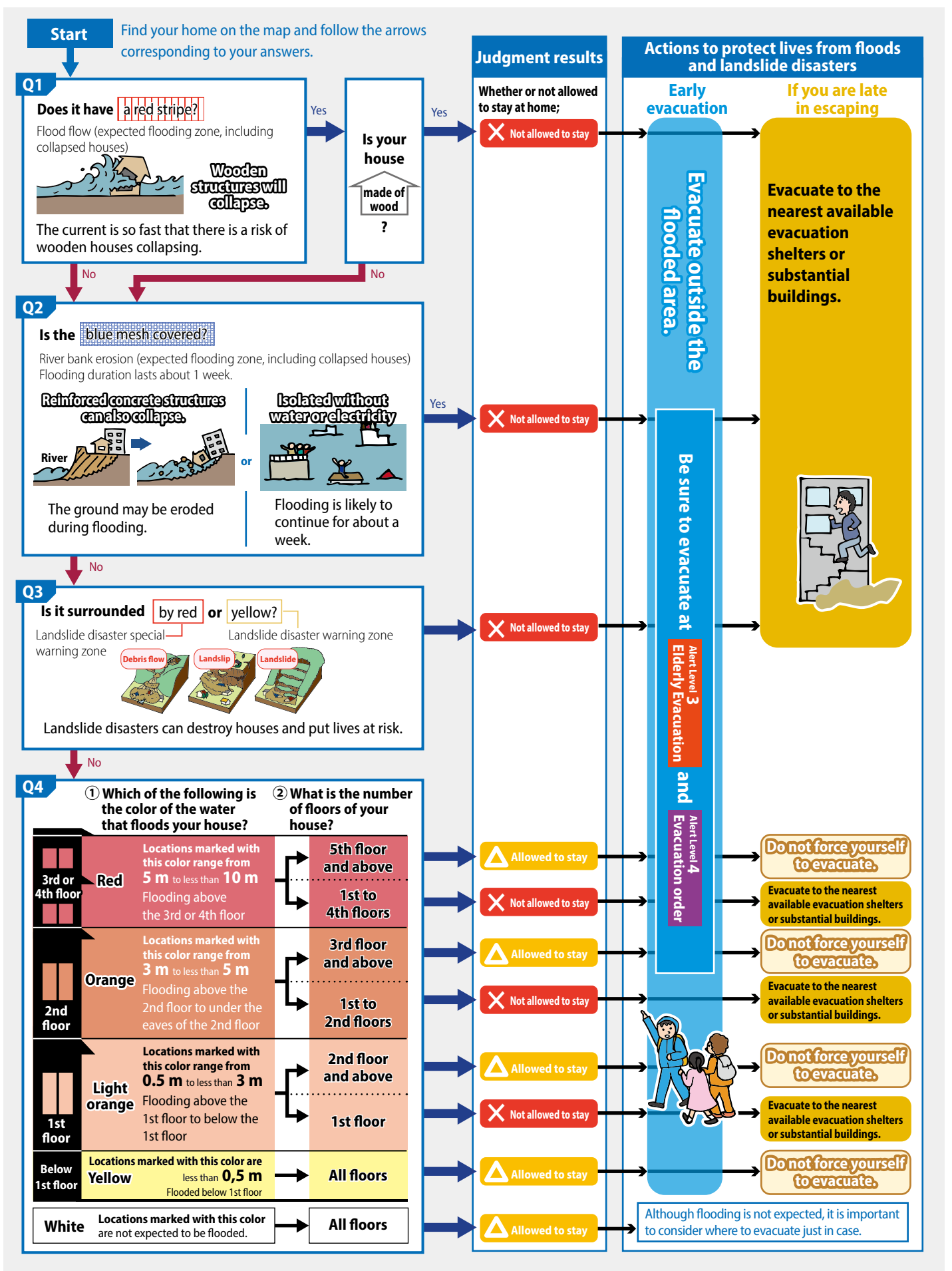
Representative of  
the neighborhood  
association

Name	Contact address
<div><div><input type="checkbox"/> Call out to others during evacuation</div><div><input type="checkbox"/> You will be contacted during evacuation.</div><div><input type="checkbox"/> Evacuate together</div></div>	



# Evacuation map judgment flow

- ① Open the evacuation map for your area (Pages 35 to 62) and find your home on it.
- ② Check the color and pattern of your house, and start by following the arrows corresponding to your answers.
- ③ Consider the evacuation destination based on the "Judgment Results" and "Actions to Protect Lives from Floods and Landslide disasters," and fill in the information in the entry field on Page 103.



## Contact/Inquiries in Case of Disaster

Firefighting (fire/emergency/  
rescue)

▶▶▶ **119**

Police (incident/emergency)

▶▶▶ **110**

Japan Coast Guard (marine  
accidents/incidents)

▶▶▶ **118**

### Administrative Agencies

Yokkaichi City Hall (Disaster Control Headquarters)	059-354-5234
Yokkaichi City Fire Department (Fire inquiries)	059-353-9999
Emergency Medical Information Center (Call Center)	059-229-1199

### Lifeline Utilities

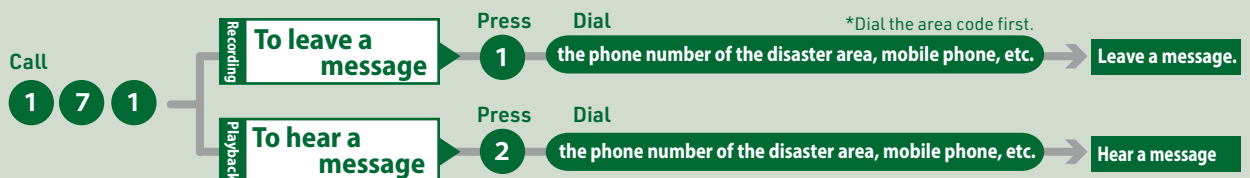
Chubu Electric Power Power Grid Yokkaichi Sales Office	0120-923-384
Toho Gas Yokkaichi Sales Office	059-353-9151
Yokkaichi City Water and Sewerage Bureau	059-354-8355

### Traffic information/Road conditions/Weather information

Kintetsu Railway Telephone Center	050-3536-3957
JR Tokai Telephone Center	050-3772-3910
Yokkaichi Asunarou Railway	059-351-1860
Sangi Railway	059-364-2141
Ise Railway	059-383-2112
Japan Road Traffic Information Center	050-3369-6624
Mie Kotsu Yokkaichi Sales Office (Bus)	059-323-0808
Sangi Railway Automotive Department Tomita Sales Office	059-365-9106
Weather Guidance	059 + 177

### Disaster Message Dial 171

During a disaster, it may be difficult to make or receive calls.  
By dialing Disaster Message Dial 171, you can record and play back messages.



### Disaster Message Board

The Disaster Message Board provided by NTT and other mobile phone companies can be used during a disaster if internet connection is available.

#### Web171 (NTT)

URL <https://www.web171.jp/>



#### Softbank / Y!mobile

URL <http://dengon.softbank.ne.jp>



#### NTT docomo

URL <http://dengon.docomo.ne.jp>



#### au (KDDI)

URL <https://dengon.ezweb.ne.jp>



\*A disaster message board will be provided when a major disaster occurs. For service details, please refer to the explanations provided by NTT and other mobile phone companies.



# Map Page for Each District

	Evacuation map (flood/landslide disasters)		Storm surge hazard map		Inland flooding hazard map		Tsunami hazard map			
	Maps	Pages					Flood depth		Arrival time	
Chubu District	Maps 9/12	Pages 51 to 52 and 57 to 58	Maps 1/2	Pages 67 to 70	Maps 1/2	Pages 73 to 76	Maps 1/2	Pages 83 to 86	Maps 1/2	Pages 87 to 90
Tomisuhara District	Map 5	Pages 43 to 44	Map 1	Pages 67 to 68	Map 1	Pages 73 to 74	Map 2	Pages 83 to 84	Map 1	Pages 87 to 88
Tomida District	Maps 5/9	Pages 43 to 44 and 51 to 52	Map 1	Pages 67 to 68	Map 1	Pages 73 to 74	Map 1	Pages 83 to 84	Map 1	Pages 87 to 88
Hazu District	Maps 5/9	Pages 43 to 44 and 51 to 52	Map 1	Pages 67 to 68	Map 1	Pages 73 to 74	Map 1	Pages 83 to 84	Map 1	Pages 87 to 88
Tokiwa District	Maps 8/9/ 11/12	Pages 49 to 52 and 55 to 58	Maps 1/2	Pages 67 to 70	Maps 1/2	Pages 73 to 76	Map 1	Pages 85 to 86	Map 2	Pages 89 to 90
Hinaga District	Maps 11/12	Pages 55 to 58	Map 2	Pages 69 to 70	Map 2	Pages 75 to 76	Map 2	Pages 85 to 86	Map 2	Pages 89 to 90
Yogo District	Maps 10/11	Pages 53 to 56	Map 2	Pages 69 to 70	Map 2	Pages 75 to 76				
Utsube District	Maps 11/13/ 14	Pages 55 to 56 and 59 to 62			Map 2	Pages 75 to 76				
Shiohama District	Maps 12/14	Pages 57 to 58 and 61 to 62	Map 2	Pages 69 to 70	Map 2	Pages 75 to 76	Map 2	Pages 85 to 86	Map 2	Pages 89 to 90
Oyamada District	Maps 7/8/ 11	Pages 47 to 50 and 55 to 56								
Kawashima District	Maps 7/10/ 11/13	Pages 47 to 48, 53 to 56 and 59 to 60								
Kanzaki District	Maps 8	Pages 49 to 50								
Sakura District	Maps 6/7/ 8	Pages 45 to 50								
Mie District	Maps 4/8/ 9	Pages 41 to 42 and 49 to 52			Map 1	Pages 73 to 74				
Agata District	Maps 3/4/ 8	Pages 39 to 42 and 49 to 50								
Yasato District	Maps 2/5	Pages 37 to 38 and 43 to 44			Map 1	Pages 73 to 74				
Shimono District	Maps 1/2/ 4	Pages 35 to 38 and 41 to 42								
Oyachi District	Maps 4/5	Pages 41 to 44	Map 1	Pages 67 to 68	Map 1	Pages 73 to 74				
Kawarada District	Maps 13/14	Pages 59 to 62	Map 2	Pages 69 to 70	Map 2	Pages 75 to 76				
Suizawa District	Maps 6/7/ 10	Pages 45 to 48 and 53 to 54								
Hobo District	Map 1	Pages 35 to 36								
Kaizo District	Map 9	Pages 51 to 52	Map 1	Pages 67 to 68	Maps 1	Pages 73 to 74				
Kyohoku District	Maps 9/12	Pages 51 to 52 and 57 to 58	Maps 1/2	Pages 67 to 70	Maps 1	Pages 73 to 74	Map 1	Pages 83 to 84	Map 1	Pages 87 to 88
Kusu District	Maps 14	Pages 61 to 62	Map 2	Pages 69 to 70	Maps 2	Pages 75 to 76	Map 2	Pages 85 to 86	Map 2	Pages 89 to 90
Earthquake hazard map (entire city)							Pages 79 to 80			

**Issued by:** Yokkaichi City (Created in March 2023)

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Some of the maps shown in this booklet are based on the Digital Map (Basic Geospatial Information 200000) and the Fundamental Geospatial Data published by the Geospatial Information Authority of Japan (GSI), with approval obtained from the GSI Director General. (Approved by GSI Director General (Use) based on Surveying Act, R 4JHs 644)

Some of the maps shown in this booklet are based on the National Land Numerical Information by the Ministry of Land, Infrastructure, Transport and Tourism (River Data, Municipal Offices, Police Stations, Fire Stations).

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