

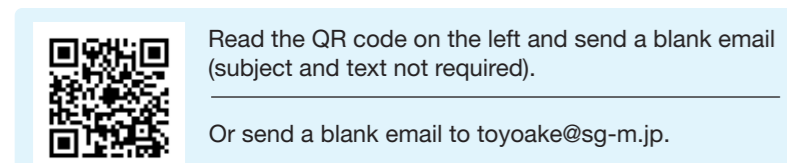
# Toyoake City Flooding and Landslides Hazard Maps

To be retained

Revised in March 2022

## Toyoake City mail distribution service

This is a service to send disaster prevention information and other notices from the city by mail to registered users' mobile phones and other devices. Anyone can register for free. We hope you will use this service.



## Broadcast radio

If you missed listening to the radio...  
Automatic Answer Telephone  
Broadcast Radio Dial TEL 0562-92-7811  
By calling this number, you can listen to the broadcast radio. (Calling charges apply.)

## Useful information

Collect disaster information yourself and evacuate voluntarily if you feel that you are in danger.

**Toyoake City website**  
https://www.city.toyoake.lg.jp/  
Information on weather warnings, etc. can be checked on the top page when they are issued.

**Aichi Prefecture Disaster Prevention Information on Rivers**  
https://www.kasen-aichi.jp/  
You can check rainfall in the prefecture, water levels, and river camera images of the prefectural-managed river (Sakai River).

**Disaster Prevention Information Center, Ministry of Land, Infrastructure, Transport and Tourism**  
https://www.mlit.go.jp/saigai/boesajijoho/  
Disaster prevention information held by the Ministry of Land, Infrastructure, Transport and Tourism is consolidated and provided in an easy-to-understand format.

**Information on River Water Levels in Toyoake City**  
https://www.city.toyoake.lg.jp/134.htm  
You can check river water levels in the city.

## Disaster message services "171" & "web171"

NTT Disaster Message Dial Service is provided when an earthquake or other disaster causes an increase in communications to the disaster-stricken areas, making it difficult to make phone calls.

A voice message board connecting the disaster-stricken area and other areas.

**Disaster Message Dial 171**  
Follow the guidance for use.

**Disaster Message Board web171**  
Follow the instructions on the screen.

Toyoake City Hall TEL 0562-92-1111 URL https://www.city.toyoake.lg.jp/

## What is the Alert Level?

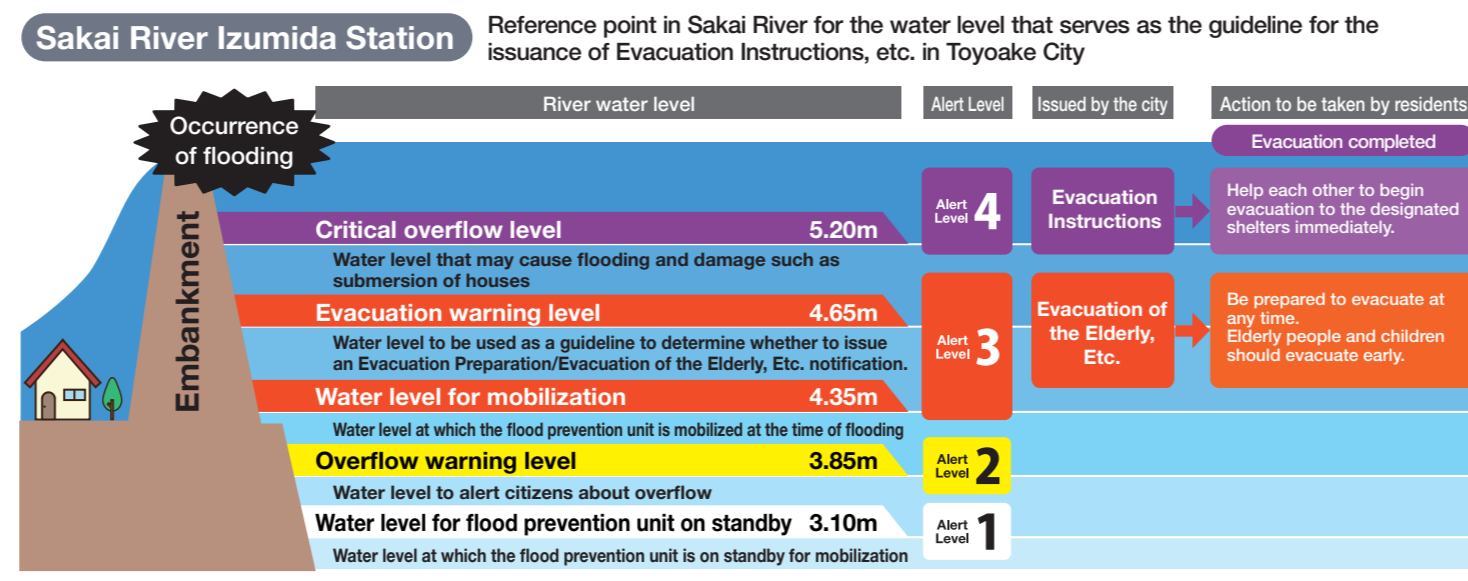
The Alert Level is information to help you intuitively understand the danger level of a disaster and the action you should take. If Alert Level 3 or 4 is issued, evacuate from hazardous areas!

Alert Level	Action to be taken by residents	Evacuation information, etc.	Disaster prevention weather information Information equivalent to Alert Levels (example)
<b>Alert Level 5</b>	A disaster has already occurred. Take immediate action to ensure your personal safety as your life is in danger.	<b>Emergency Safety Measures</b> *This will be issued to the extent possible when the city government becomes aware that a disaster is actually occurring. (Issued by Toyoake City)	Information equivalent to Alert Level 5 ● Flood Occurrence Information ● Heavy Rain Emergency Warning, etc.
<b>Alert Level 4</b>	Evacuate to an evacuation site as soon as possible. If going to an official evacuation site seems unsafe, go to a nearby safe place or to a safer place in your home.	<b>Evacuation Instructions</b> *This will be issued when urgent or repeated evacuation instructions are provided depending on the situation in the area, etc. (Issued by Toyoake City)	Information equivalent to Alert Level 4 ● Flood Hazard Information ● Landslide Alert Information ● Storm Surge Emergency Warning ● Storm Surge Warning, etc.
<b>Alert Level 3</b>	People who need time to evacuate (the elderly, people with disabilities, infants, etc.) and their caregivers should evacuate. Others should be prepared to evacuate.	<b>Evacuation of the Elderly, Etc.</b> *This will be issued when the evacuation warning level. (Issued by Toyoake City)	Information equivalent to Alert Level 3 ● Flood Alert Information ● Flood Warning ● Heavy Rain Warning (Landslide) ● Storm Surge Advisory, etc.
<b>Alert Level 2</b>	Check hazard maps and other information to confirm the disaster-prone areas, evacuation sites and evacuation routes.	<b>Flood Advisory Heavy Rain Advisory, etc.</b> (Issued by the Japan Meteorological Agency)	
<b>Alert Level 1</b>	Increase your preparedness for disasters by paying attention to the latest disaster prevention and weather information, etc.	<b>Probability of Warnings</b> (Issued by the Japan Meteorological Agency)	

\* Evacuation information is not necessarily issued in the order of Alert Levels 1 to 5. The situation may change suddenly.

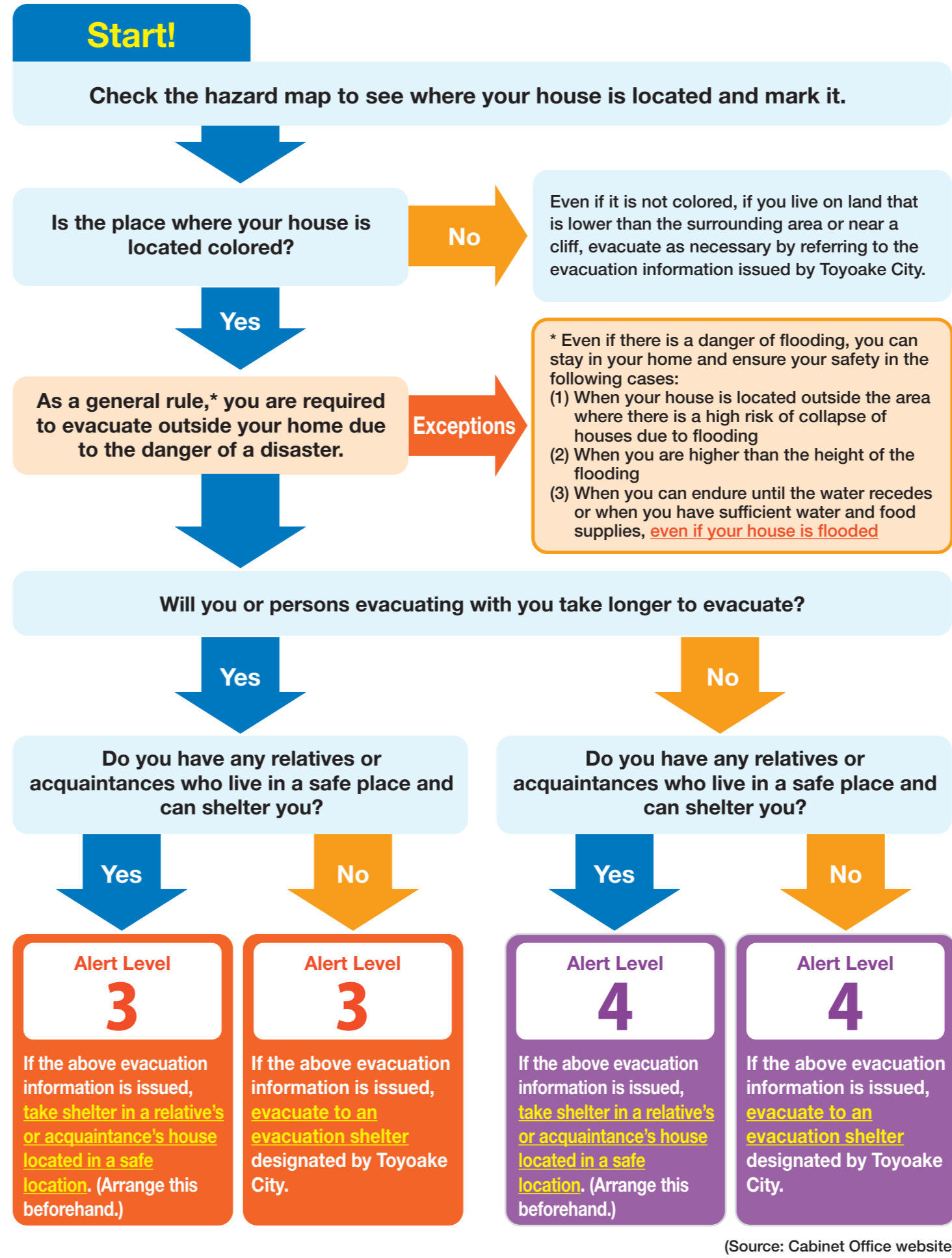
## Reference water level and evacuation instructions

The reference water level refers to the water level that serves as a guideline for issuing evacuation instructions, etc. The reference water level is determined at the point where flood damage occurs the earliest (the danger point) in the section that each water level station is in charge of. The reference water level is set in consideration of the time required for evacuation (lead time) so that the evacuation can be completed before the river begins to overflow.



## Evacuation action determination flow

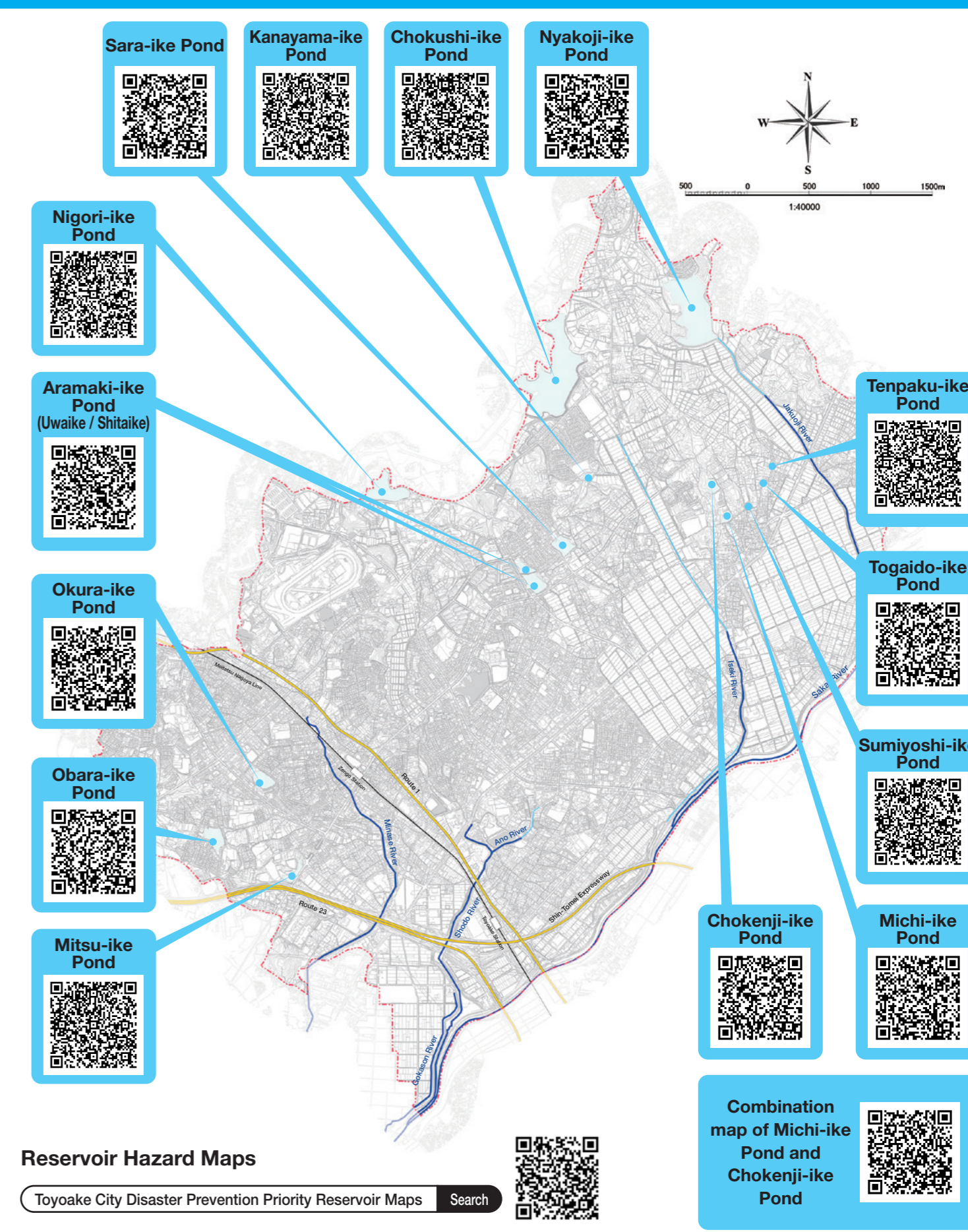
What evacuation action should you take?



(Source: Cabinet Office website)

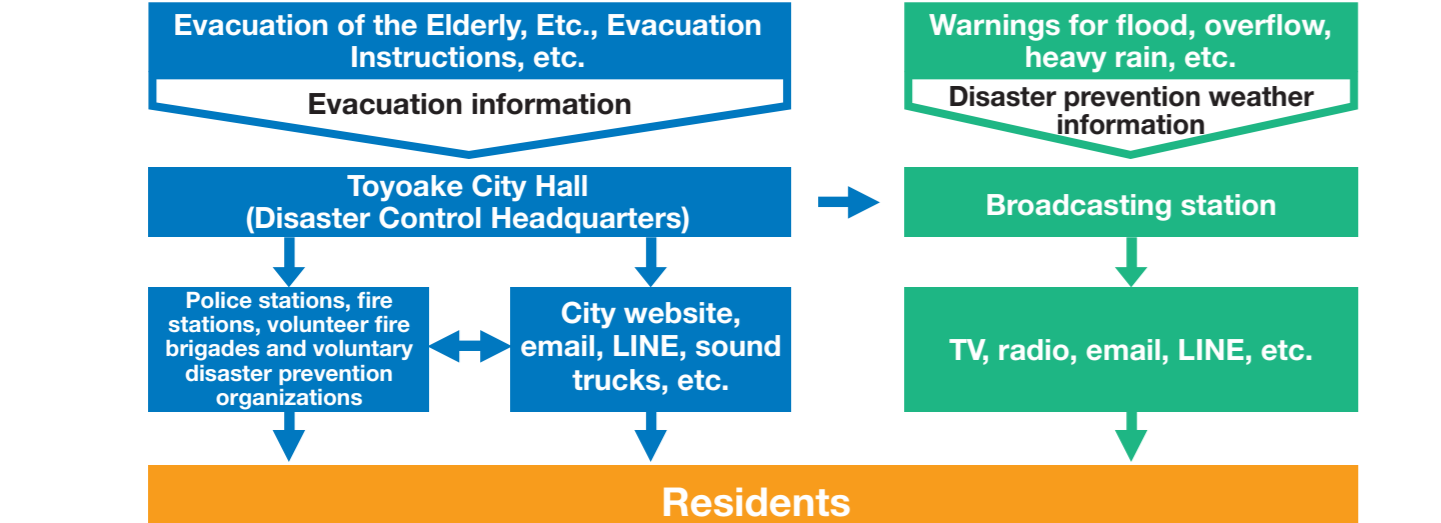
## Reservoir Hazard Maps

In Toyoake City, the flooding height, flow velocity and arrival time of flooding in the event of a reservoir collapse are disclosed for disaster prevention priority reservoirs. You can view the Toyoake City Reservoir Hazard Maps from the link below. Use this information as a reference when checking the safety of your community. \* A disaster prevention priority reservoir is a reservoir that may cause human casualties, since houses, public facilities, etc. are located in the flooded area in the event of a rupture.



## Information communication flow

Evacuation Instructions and other evacuation information will be communicated to residents in accordance with the flow shown in the figure.



## Wind and flood damage prevention measures inside and outside the house

Be sure to take adequate measures on a daily basis.

### Outside the house

- Are the rain gutters clogged with fallen leaves or sediment? Are there any dislodged joints, peeling paint or rot?
- Are the sliding shutters rattling or loose?
- Potted plants, clotheslines, and other items that are likely to scatter should be moved indoors.
- Are there any cracks in the window glass? Are the window frames rattling? Also, to protect against flying objects due to strong winds, cover the windows with boards from the outside or take other measures.
- Are the roof tiles cracked, broken or misaligned? Do galvanized iron sheets come off the roof?
- Are the mortar walls cracked? Are the boarded walls rotten or loose? Are the propane gas cylinders secured?
- Remove trash and sediment from gutters to improve rainwater drainage.
- Are there any cracks or damaged areas on the site?

### Inside the house

- Prepare a flashlight and portable radio in case of a power failure.
- Prepare an emergency survival kit containing valuables and other items in case of evacuation.
- Pay attention to weather information and information provided by the city.
- Do not go out unnecessarily.
- Secure drinking water and other supplies in case of a suspension of water supply, etc.
- If there is a possibility of flooding in your home, move food, clothing, bedding and other household goods to a higher location.
- Evacuate the elderly, children, sick persons and other people in need as soon as possible.
- Press the "cd" button on the TV remote control to watch data broadcasting.

## Evacuation tips in the event of flooding

In the event of an increased likelihood of a storm, flood or other disaster, take action to protect your life (= evacuation action). Evacuation action includes the following four actions. Identify dangerous areas for each type of disaster and determine in advance what action to take.

### Evacuation outside the house

- Movement to an evacuation site or shelter
- Movement to a safe place other than an evacuation site or shelter (e.g., a relative's or friend's house)
- Movement to a taller or stronger building, etc. in the neighborhood

If the floodwaters become nearly knee-deep during evacuation!

Evacuate to a nearby tall building or other shelter!

### Sheltering indoors

- Movement to a safer location in the building (e.g., a higher location) and staying there

If you are at home and the floodwaters are coming into the house!

Evacuate upstairs immediately!

Normally, evacuation actions in areas where flooding exceeds 50 cm are dangerous. When the water flow is strong, evacuation actions even in areas where flooding is 15 cm deep can be dangerous.

## Precautions when you have no choice but to walk through floodwaters

The standard walking depth is up to 50 cm for adults. If the water is deeper than that, wait for rescue.

## Daily preparedness

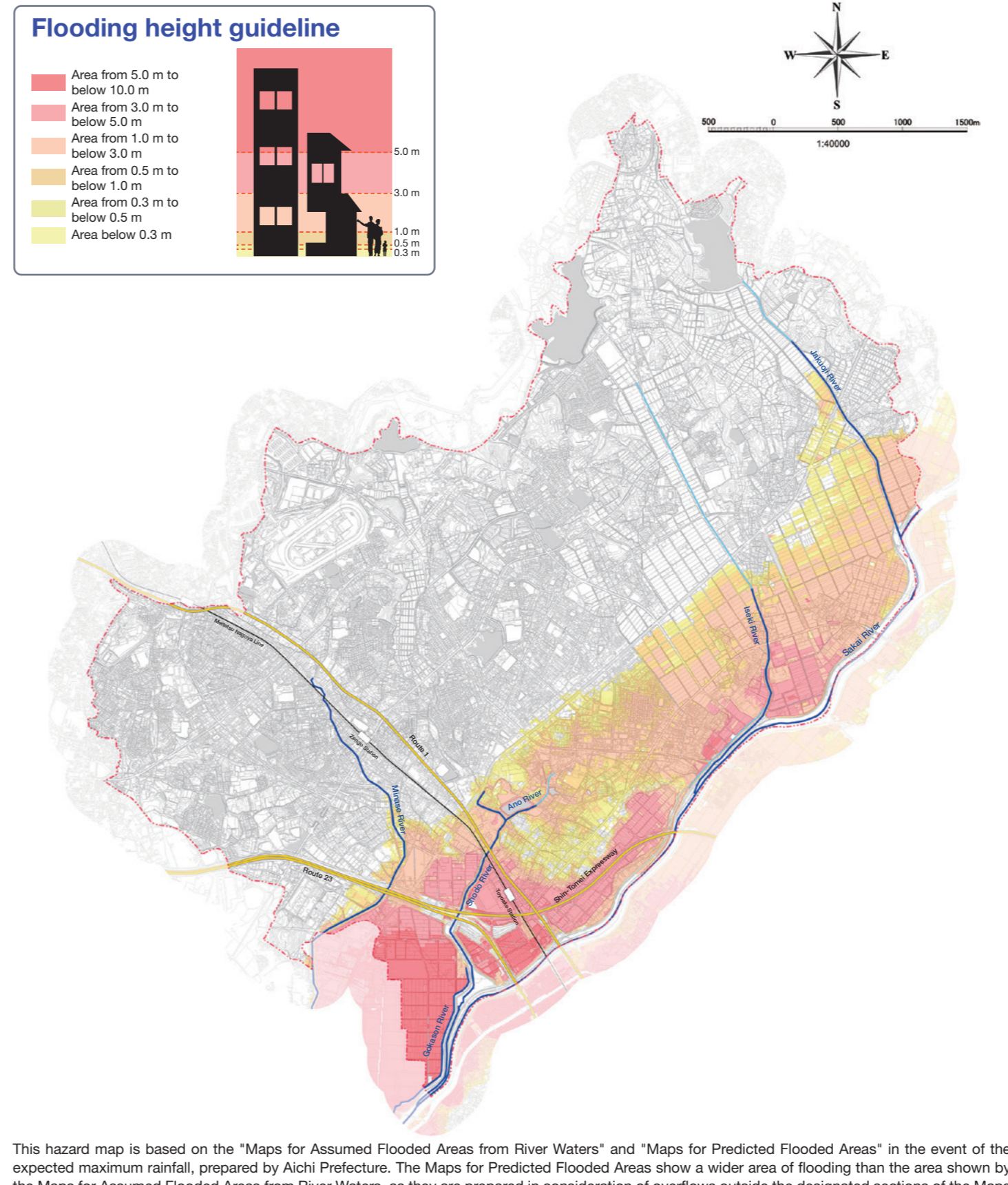
Prepare an emergency survival kit.

Emergency food (for 3 days)	Drinking water (3 L per person per day for 3 days)	Portable gas stove	Milk, baby bottles, and diapers	Sanitary items	Candles	Gloves
First-aid kit	Underwear	Cold weather clothes	Valuables	Glasses and other items essential to daily life	Matches and lighter	Can opener and bottle opener
Portable radio	Flashlight	Tissues and wet wipes	Towels	Rain gear	Spare batteries	Oral care items

## If only flooding from river waters occurs in the event of a heavy rainfall that occurs about once every 1,000 years (total rainfall of 760 mm in 24 hours)

(Assumed flooded areas from river waters published by Aichi Prefecture based on the Flood Control Act)

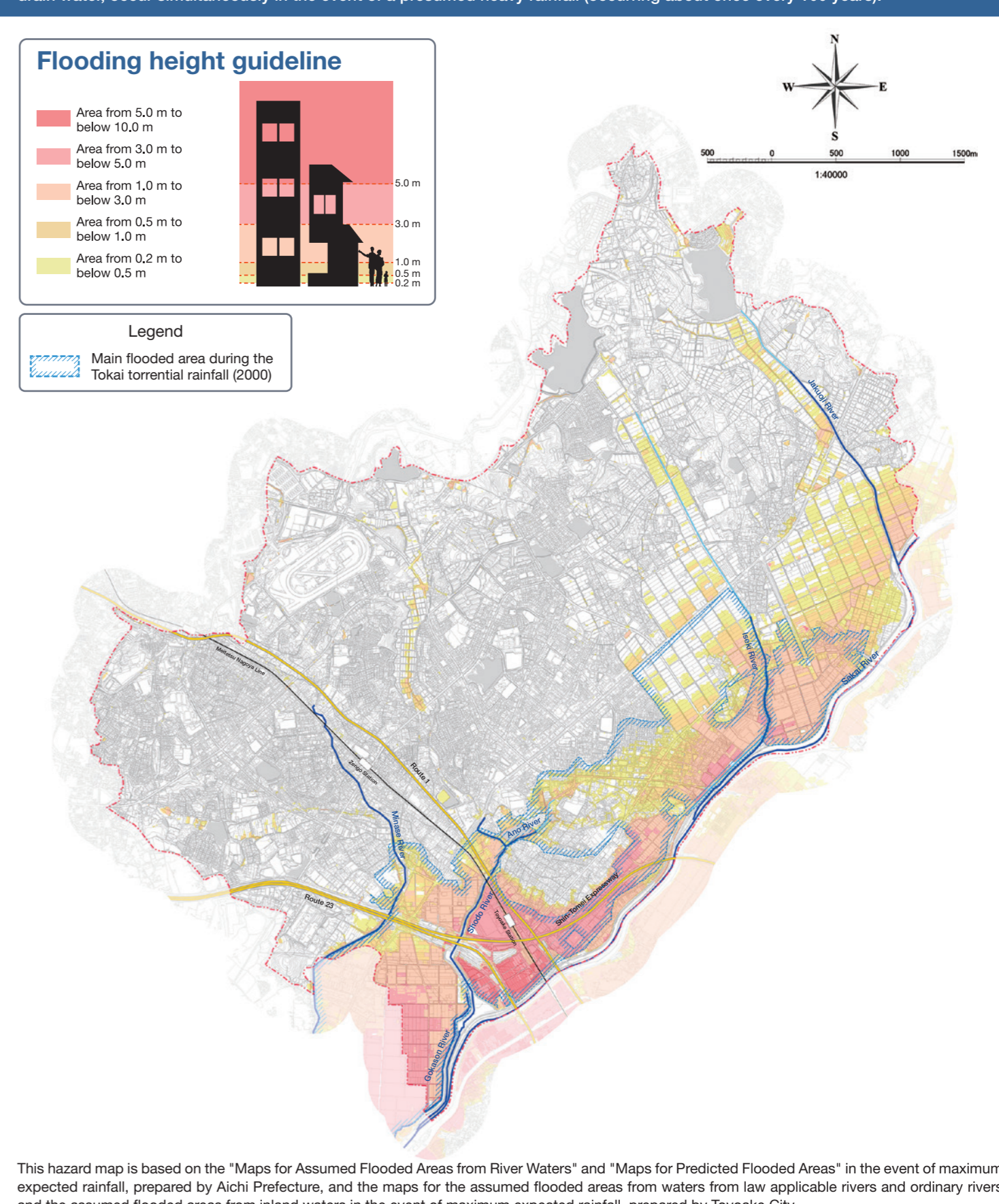
This hazard map shows the most dangerous flooding conditions (extent and depth of flooding) that could occur if the Sakai River, which is managed by Aichi Prefecture, swells, overflows, or bursts its banks in the event of the heaviest rainfall foreseeable (occurring about once every 1000 years).



This hazard map is based on the "Maps for Assumed Flooded Areas from River Waters" and "Maps for Predicted Flooded Areas" in the event of the expected maximum rainfall, prepared by Aichi Prefecture. The Maps for Predicted Flooded Areas show a wider area of flooding than the area shown by the Maps for Assumed Flooded Areas from River Waters, as they are prepared in consideration of overflows outside the designated sections of the Maps for Assumed Flooded Areas from River Waters under the Flood Control Act and floodwater from branch rivers.

## If flooding from river waters and inland waters occur simultaneously in the event of a heavy rainfall that occurs about once every 100 years (total rainfall of 411 mm in 24 hours)

This hazard map shows the flooding conditions (extent and depth of flooding) if flooding from waters from Class B rivers, law applicable rivers and ordinary rivers, and flooding from inland waters, which is caused by the inability of waterways and sewers to drain water, occur simultaneously in the event of a presumed heavy rainfall (occurring about once every 100 years).



This hazard map is based on the "Maps for Assumed Flooded Areas from River Waters" and "Maps for Predicted Flooded Areas" in the event of maximum expected rainfall, prepared by Aichi Prefecture, and the maps for the assumed flooded areas from waters from law applicable rivers and ordinary rivers and the assumed flooded areas from inland waters in the event of maximum expected rainfall, prepared by Toyoake City.

# Toyoake City Flooding and Landslides Hazard Maps

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Read the QR code on the left and send a blank email (subject and text not required).

Or send a blank email to [toyoake@sg-m.jp](mailto:toyoake@sg-m.jp).

## Toyoake City official social media

Scan the QR codes below to check the Toyoake City official social media to receive disaster prevention information.

LINE



Twitter



Facebook



\* Use the QR code reader in the LINE app to read the LINE QR code.

## Broadcast radio

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Broadcast  
Radio Dial

TEL 0562-92-7811

By calling this number, you can listen to the broadcast radio. (Calling charges apply.)

## Useful information

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Information on weather warnings, etc. can be checked on the top page when they are issued.



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You can check rainfall in the prefecture, water levels, and river camera images of the prefectural-managed river (Sakai River).



### Information on River Water Levels in Toyoake City

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You can check river water levels in the city.



## Disaster message services "171" & "web171"

NTT Disaster Message Dial Service is provided when an earthquake or other disaster causes an increase in communications to the disaster-stricken areas, making it difficult to make phone calls.

A voice message board connecting the disaster-stricken area and other areas

### Disaster Message Dial 171

Follow the guidance for use.

**How to record a message**  
Call 171. Press "3" to record a message with a personal identification number.

**How to play back a message**  
Call 171. Press "4" to play back a message with a personal identification number.

The safety of family members and others can be confirmed through the Internet.

### Disaster Message Board web171

Follow the instructions on the screen.

**How to visit**  
Visit <https://www.web171.jp>. Enter the telephone number, mobile phone number, PHS phone number or IP phone number of the person in the disaster-stricken area that you want to contact. \* Enter the number beginning with the area code.

**How to view a message**  
Visit <https://www.web171.jp>. Enter the telephone number, mobile phone number, PHS phone number or IP phone number of the person in the disaster-stricken area that you want to contact. \* Enter the number beginning with the area code.

## What is the Alert Level?

The Alert Level is information to help you intuitively understand the danger level of a disaster and the action you should take. If Alert Level 3 or 4 is issued, evacuate from hazardous areas!

Alert Level	Action to be taken by residents	Evacuation information, etc.	Disaster prevention weather information Information equivalent to Alert Levels (example)
<b>Alert Level 5</b>	A <b>disaster has</b> already <b>occurred</b> . <b>Take immediate action to ensure your personal safety as your life is in danger.</b>	<b>Emergency Safety Measures</b> * This will be issued to the extent possible when the city government becomes aware that a disaster is actually occurring. (Issued by Toyoake City)	<b>Information equivalent to Alert Level 5</b> ● Flood Occurrence Information ● Heavy Rain Emergency Warning, etc.
<b>Alert Level 4</b>	<b>Evacuate to an evacuation site as soon as possible.</b> If going to an official evacuation site seems unsafe, go to a nearby safe place or to a safer place in your home.	<b>Evacuation Instructions</b> * This will be issued when urgent or repeated evacuation instructions are provided depending on the situation in the area, etc. (Issued by Toyoake City)	<b>Information equivalent to Alert Level 4</b> ● Flood Hazard Information ● Landslide Alert Information ● Storm Surge Emergency Warning ● Storm Surge Warning, etc.
<b>Alert Level 3</b>	<b>People who need time to evacuate (the elderly, people with disabilities, infants, etc.) and their caregivers</b> should evacuate. Others should be prepared to evacuate.	<b>Evacuation of the Elderly, Etc.</b> * This will be issued when the water level reaches the evacuation warning level. (Issued by Toyoake City)	<b>Information equivalent to Alert Level 3</b> ● Flood Alert Information ● Flood Warning ● Heavy Rain Warning (Landslide) ● Storm Surge Advisory, etc.
<b>Alert Level 2</b>	<b>Check hazard maps and other information to confirm the disaster-prone areas, evacuation sites and evacuation routes.</b>	<b>Flood Advisory Heavy Rain Advisory, etc.</b> (Issued by the Japan Meteorological Agency)	Source: Cabinet Office Japan "Disaster Management in Japan"
<b>Alert Level 1</b>	<b>Increase your preparedness for disasters by paying attention to the latest disaster prevention and weather information, etc.</b>	<b>Probability of Warnings</b> (Issued by the Japan Meteorological Agency)	

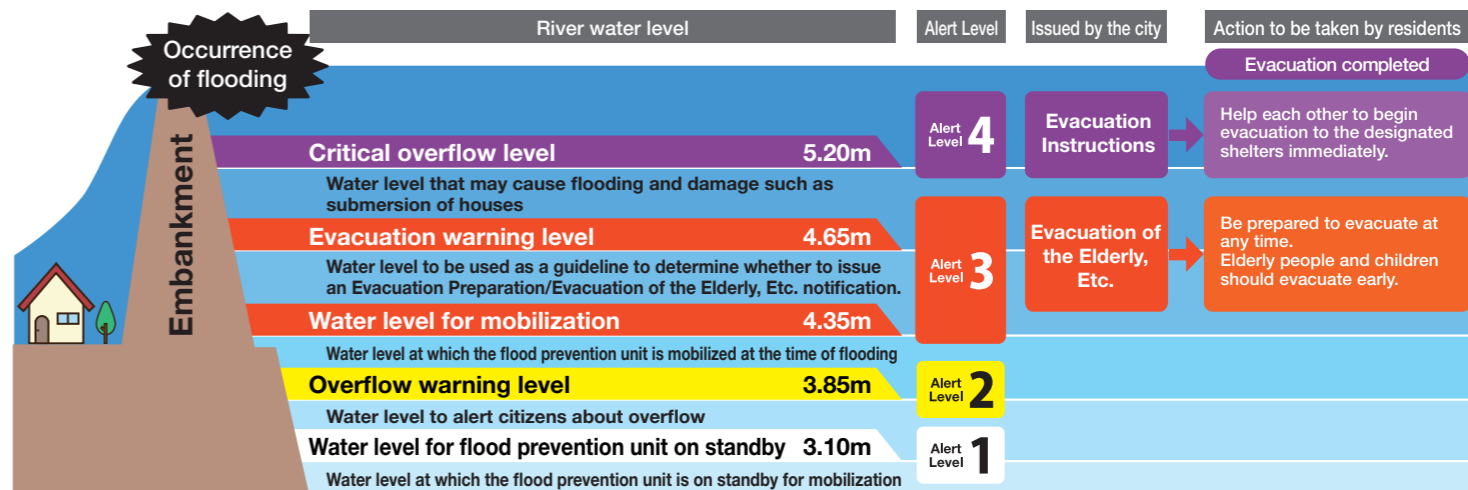
\* Evacuation information is not necessarily issued in the order of Alert Levels 1 to 5. The situation may change suddenly.

## Reference water level and evacuation instructions

The reference water level refers to the water level that serves as a guideline for issuing evacuation instructions, etc. The reference water level is determined at the point where flood damage occurs the earliest (the danger point) in the section that each water level station is in charge of. The reference water level is set in consideration of the time required for evacuation (lead time) so that the evacuation can be completed before the river begins to overflow.

### Sakai River Izumida Station

Reference point in Sakai River for the water level that serves as the guideline for the issuance of Evacuation Instructions, etc. in Toyoake City



# Evacuation action determination flow

## What evacuation action should you take?

**Start!**

Check the hazard map to see where your house is located and mark it.

Is the place where your house is located colored?

No

Even if it is not colored, if you live on land that is lower than the surrounding area or near a cliff, evacuate as necessary by referring to the evacuation information issued by Toyoake City.

Yes

As a general rule,\* you are required to evacuate outside your home due to the danger of a disaster.

Exceptions

\* Even if there is a danger of flooding, you can stay in your home and ensure your safety in the following cases:  
 (1) When your house is located outside the area where there is a high risk of collapse of houses due to flooding  
 (2) When you are higher than the height of the flooding  
 (3) When you can endure until the water recedes or when you have sufficient water and food supplies, **even if your house is flooded**

Will you or persons evacuating with you take longer to evacuate?

Yes

Do you have any relatives or acquaintances who live in a safe place and can shelter you?

Yes

Alert Level  
**3**

If the above evacuation information is issued, **take shelter in a relative's or acquaintance's house located in a safe location.** (Arrange this beforehand.)

No

Alert Level  
**3**

If the above evacuation information is issued, **evacuate to an evacuation shelter** designated by Toyoake City.

No

Do you have any relatives or acquaintances who live in a safe place and can shelter you?

Yes

Alert Level  
**4**

If the above evacuation information is issued, **take shelter in a relative's or acquaintance's house located in a safe location.** (Arrange this beforehand.)

No

Alert Level  
**4**

If the above evacuation information is issued, **evacuate to an evacuation shelter** designated by Toyoake City.

(Source: Cabinet Office website)

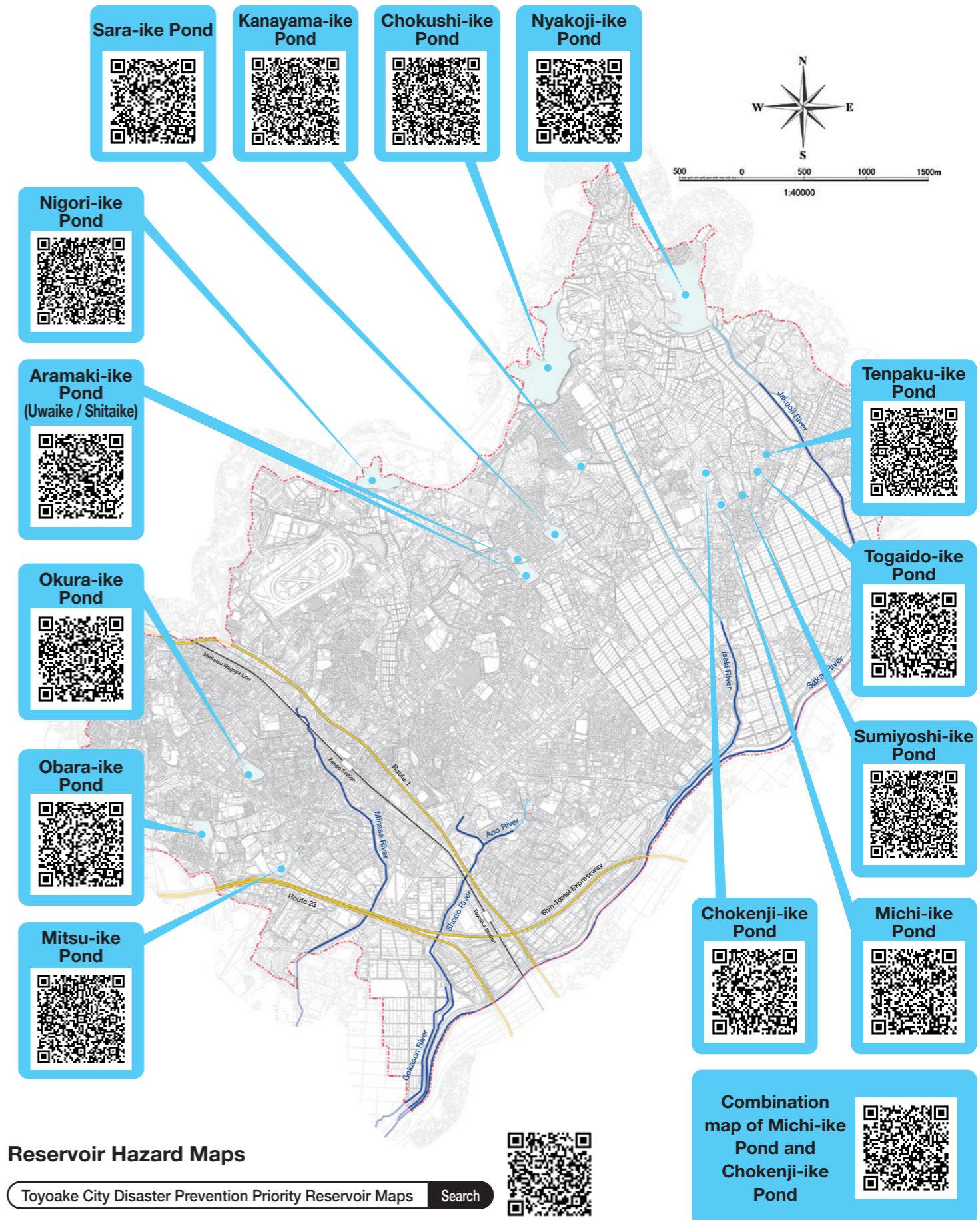
# Reservoir Hazard Maps

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You can view the Toyoake City Reservoir Hazard Maps from the link below.

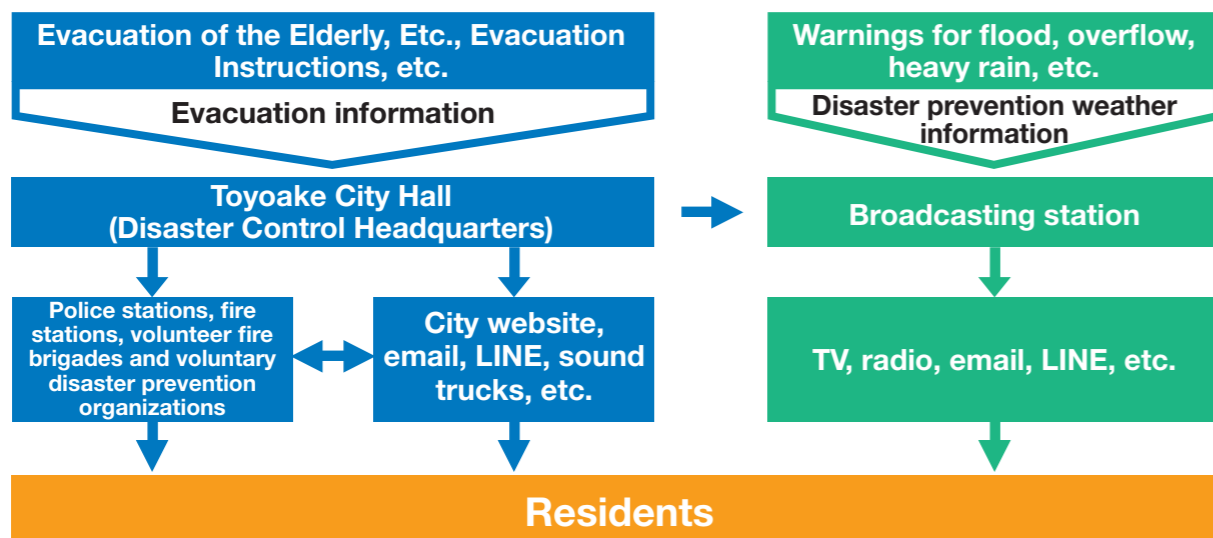
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## Information communication flow

Evacuation Instructions and other evacuation information will be communicated to residents in accordance with the flow shown in the figure.



## Wind and flood damage prevention measures inside and outside the house

Be sure to take adequate measures on a daily basis.

### Outside the house

- Are the rain gutters clogged with fallen leaves or sediment? Are there any dislodged joints, peeling paint or rot?
- Are the sliding shutters rattling or loose?
- Potted plants, clotheslines, and other items that are likely to scatter should be moved indoors.
- Are there any cracks in the window glass? Are the window frames rattling? Also, to protect against flying objects due to strong winds, cover the windows with boards from the outside or take other measures.
- Are the roof tiles cracked, broken or misaligned? Do galvanized iron sheets come off the roof?
- Are the mortar walls cracked? Are the boarded walls rotten or loose? Are the propane gas cylinders secured?
- Remove trash and sediment from gutters to improve rainwater drainage.
- Are there any cracks or damaged areas on the site?

### Inside the house

- Prepare a flashlight and portable radio in case of a power failure.
- Prepare an emergency survival kit containing valuables and other items in case of evacuation.
- Pay attention to weather information and information provided by the city.
- Do not go out unnecessarily.
- Secure drinking water and other supplies in case of a suspension of water supply, etc.
- If there is a possibility of flooding in your home, move food, clothing, bedding and other household goods to a higher location.
- Evacuate the elderly, children, sick persons and other people in need as soon as possible.
- Press the "d" button on the TV remote control to watch data broadcasting.

## Evacuation tips in the event of flooding

In the event of an increased likelihood of a storm, flood or other disaster, take action to protect your life (= evacuation action). Evacuation action includes the following four actions. Identify dangerous areas for each type of disaster and determine in advance what action to take.

### Evacuation outside the house

- (1) Movement to an evacuation site or shelter
- (2) Movement to a safe place other than an evacuation site or shelter (e.g., a relative's or friend's house)
- (3) Movement to a taller or stronger building, etc. in the neighborhood

If the floodwaters become nearly knee-deep during evacuation!

Evacuate to a nearby tall building or other shelter!



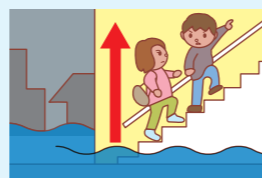
Normally, evacuation actions in areas where flooding exceeds 50 cm are dangerous. When the water flow is strong, evacuation actions even in areas where flooding is 15 cm deep can be dangerous.

### Sheltering indoors

- (4) Movement to a safer location in the building (e.g., a higher location) and staying there

If you are at home and the floodwaters are coming into the house!

Evacuate upstairs immediately!

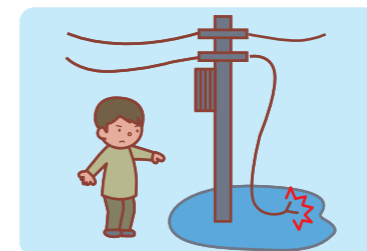
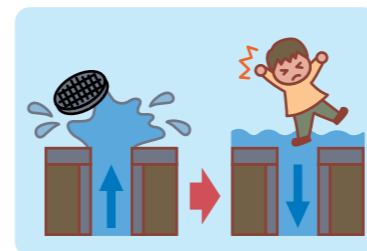


## Precautions when you have no choice but to walk through floodwaters

- The standard walking depth is up to 50 cm for adults. If the water is deeper than that, wait for rescue.
- Even in shallow water, fast currents can be very dangerous. Do not force yourself to evacuate, and wait for rescue.
- When you are with an elderly or disabled person, carry him or her on your back to evacuate.



- In the case of deep flooding, you could be sucked into a manhole unnoticed.
- Stay away from dangerous places/objects, such as severed electric wires.
- Since water from flooding is mixed with sewage, do not touch it unnecessarily.

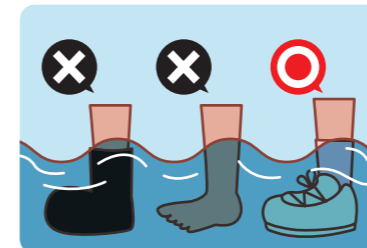


Do not use an umbrella; wear a raincoat.

Carry the emergency survival kit in a backpack.

Wear athletic shoes that can be securely fastened with laces.

Walking barefoot or in boots is dangerous.



What to wear when evacuating

Use a long stick as a cane and walk while checking for safety.

It is dangerous below the surface of water as there are ditches and obstacles there.



Wear work gloves (or ordinary gloves).

### Measures against infection

If you evacuate to a shelter, in addition to food and water, bring masks, a thermometer, disinfectant, etc., and be sure to take measures against infectious diseases, such as ensuring social distancing.



## Daily preparedness

Prepare an emergency survival kit.

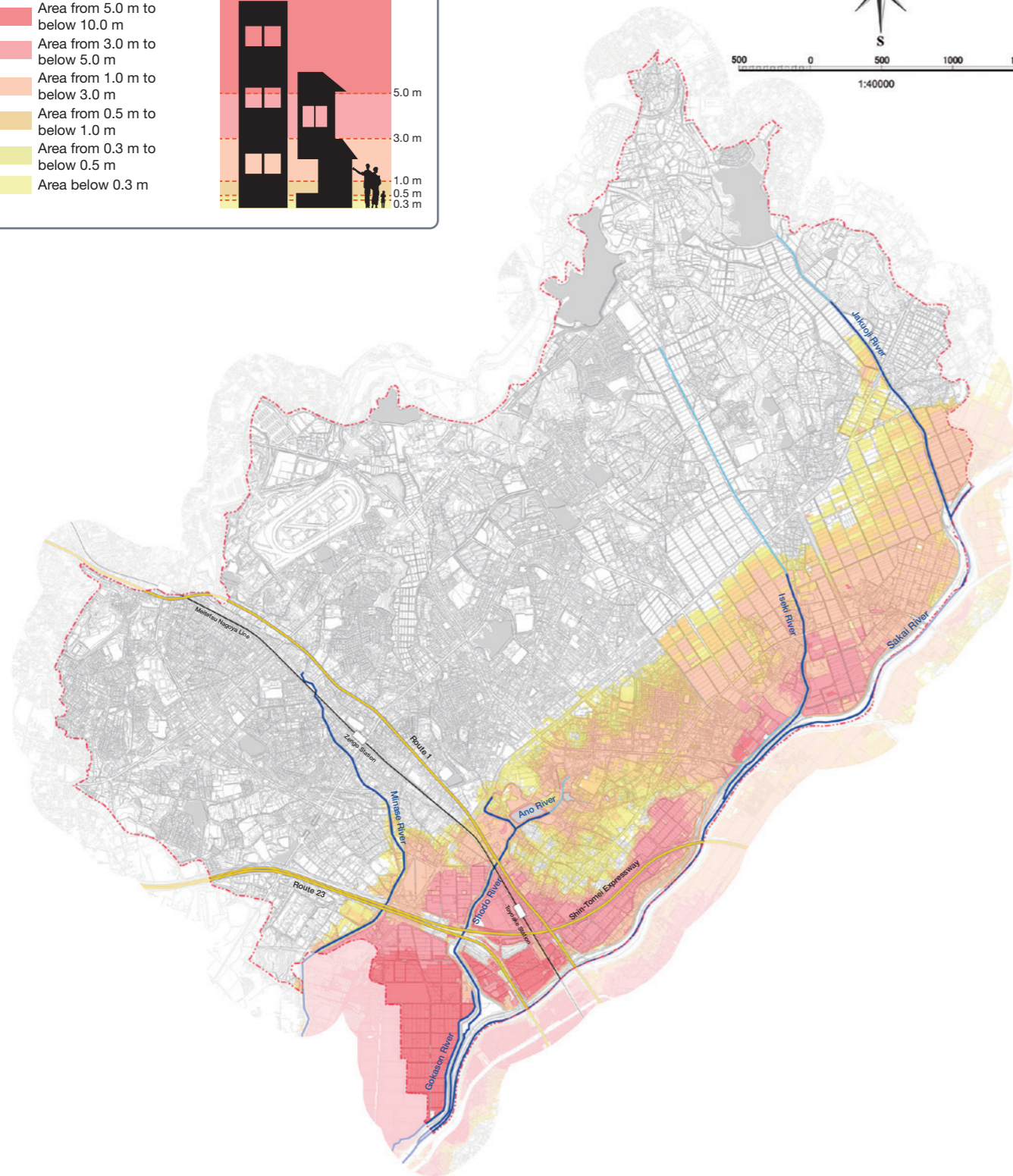
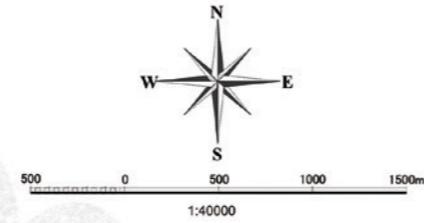
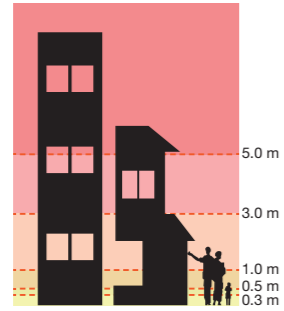
Emergency food (for 3 days)	Drinking water (3 L per person per day for 3 days)	Portable gas stove	Milk, baby bottles, and diapers	Sanitary items	Candles	Gloves
First-aid kit	Underwear	Cold weather clothes	Valuables	Glasses and other items essential to daily life	Matches and lighter	Can opener and bottle opener
Portable radio	Flashlight	Tissues and wet wipes	Towels	Rain gear	Spare batteries	Oral care items

**If only flooding from river waters occurs in the event of a heavy rainfall that occurs about once every 1,000 years (total rainfall of 760 mm in 24 hours)  
(Assumed flooded areas from river waters published by Aichi Prefecture based on the Flood Control Act)**

This hazard map shows the most dangerous flooding conditions (extent and depth of flooding) that could occur if the Sakai River, which is managed by Aichi Prefecture, swells, overflows, or bursts its banks in the event of the heaviest rainfall foreseeable (occurring about once every 1000 years).

**Flooding height guideline**

- Area from 5.0 m to below 10.0 m
- Area from 3.0 m to below 5.0 m
- Area from 1.0 m to below 3.0 m
- Area from 0.5 m to below 1.0 m
- Area from 0.3 m to below 0.5 m
- Area below 0.3 m



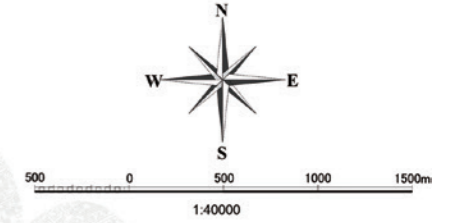
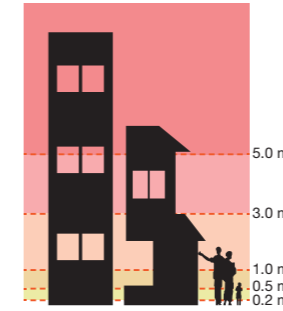
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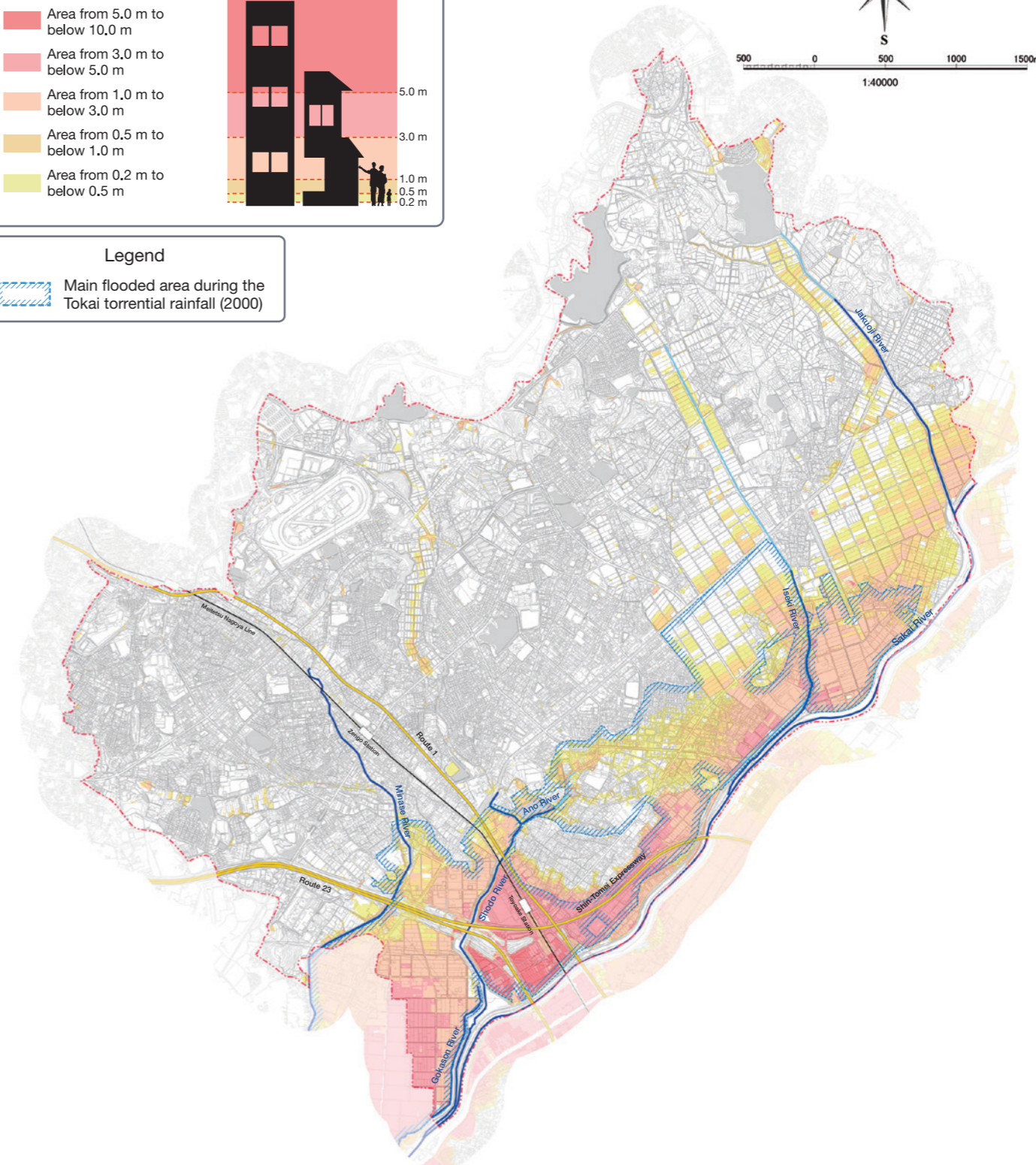
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**Legend**

- Main flooded area during the Tokai torrential rainfall (2000)



This hazard map is based on the "Maps for Assumed Flooded Areas from River Waters" and "Maps for Predicted Flooded Areas" in the event of maximum expected rainfall, prepared by Aichi Prefecture, and the maps for the assumed flooded areas from waters from law applicable rivers and ordinary rivers and the assumed flooded areas from inland waters in the event of maximum expected rainfall, prepared by Toyoake City.