



Chiryu City

Inland Water Hazard Map



What is the Inland Water Hazard Map

This map summarizes areas that are expected to be inundated by sewers and waterways in the event of heavy rain, and the depth of inundation.

Mark the district where you live, your office, and other daily activity locations on the hazard map, and confirm the expected flood depths and the facilities available for safe evacuation in the vicinity.

Make sure to regularly discuss disaster preparedness at home, including evacuation sites, evacuation methods, and ways to stay in contact during an emergency.

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My Timeline

Prepared on:

Items to check at normal times

● Check the situation at your home

Flood depth:

● Place to evacuate to

Evacuation site:

● Transportation to the evacuation site

● People who will support us when evacuating

Name: Phone: Name: Phone:

● People we should be concerned about

Name: Phone: Name: Phone:

● Timing to start evacuation

● Prepare what you need for your life at the evacuation site

Check the hazard map for the dangers to your home.

If you actually evacuate, think about where you can actually live as an evacuee.

Travel time to the evacuation site mins

POINT

Consider "what kind of facility you need to evacuate to?" and think about the following to actually evacuate: "where", "with whom", "required time", "by what means", and "what to bring."

Meteorological and hydrologic information

72 hrs

48 hrs

24 hrs

18 hrs

0 hrs

● Meteorological and disaster prevention information on typhoons

● Typhoon forecast (as needed)

● Aichi Prefecture meteorological information on typhoons (as needed)

● Information session about typhoons (as needed)

● Other disaster prevention meteorological information

● Early warning information

● Heavy rain advisory / flood advisory

● Flood can warning / flood warning

● Localized alert information

● Storm warning

● Information about a record-breaking deluge in a short period

● Heavy rain emergency warning

Residents

● Check weather warnings etc. on TV, radio, the Internet, etc.

● Check evacuation shelters and evacuation routes using hazard maps, etc.

● Prepare disaster prevention goods

● Home maintenance

● Think about what you need to do to actually evacuate

Points of evacuation

POINT

Summarize the necessary actions such as "If the 1st floor is flooded, raise things to the second floor", "Prepare necessary items such as medicine", and "Leave your pet with your relatives".

● Think about precautions to evacuate

Alert level 1

Risk of worsening weather conditions

Alert level 2

Worsening weather conditions

Alert level 3

Risk of a disaster

Alert level 4

High risk of a disaster

Alert level 5

Disaster occurrence or imminence

Evacuation started → Evacuation completed

● Receiving evacuation instructions via such source as Internet, mobile mail, etc.

● Start voluntary evacuation action

● Prepare the evacuation preparation information by wireless-activated disaster warning system, mobile mail, etc.

Start evacuation of vulnerable people

Evacuation started → Evacuation completed

● Receiving evacuation instructions via such source as Internet, mobile mail, etc.

● Prepare the evacuation preparation information by wireless-activated disaster warning system, mobile mail, etc.

Information of your family and relatives

Name	Phone number	Necessities	Whereabouts in the daytime	Remarks
Example: Bosai Taro	090-****-****	Medicine that lowers blood pressure	Day-care facility	Long injured


Learn about disasters

Types of Flooding

What is the difference between flood from inland waters and flood from rivers?

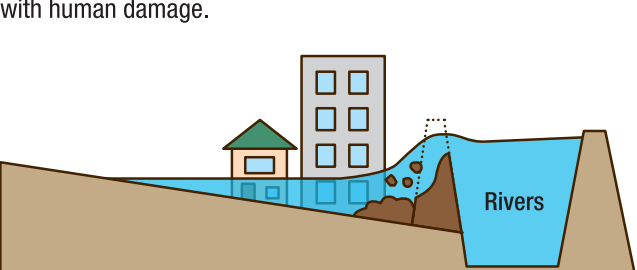
Flooding inside an embankment

Inundation of buildings, lands, roads, etc. in urban areas, due to the fact that rainfall exceeding the treatment capacity of drainage channels and sewer pipes flows in at once in a short time, and that the water level of the river rises and rainwater cannot be pumped into the river, is called flooding inside an embankment.




Inundation by river water

When water overflows from a river embankment or when the embankment collapses and houses and fields are flooded, it is called inundation by river water. A large amount of fast-flowing inundation flows in at once, causing inundation damage to residential areas (houses, urban areas, etc.) in a short time, which may cause a major disaster with human damage.




Potential damage from flood from inland waters


Inundation below floor level



Inundation above floor level



Inundation in underground spaces



Collect information

Alert levels and the actions to be taken



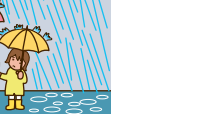
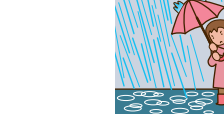

During heavy rainfall, gather information and use the five-step "alert level" to check disaster prevention weather information. It's important to plan evacuation measures, even in normal times, to ensure you're prepared to act appropriately.

Alert level	Course of Action Citizens Should Take	The city's response	Warning Level Warnings, etc.
5	Danger to life; Ensure your safety at once! A situation where safe evacuation is no longer possible, and lives are at risk, immediately relocate to a safer area than your current location.	Emergency safety measures The information is not always announced.	Heavy rain emergency warning

All evacuate at Warning Level 4!

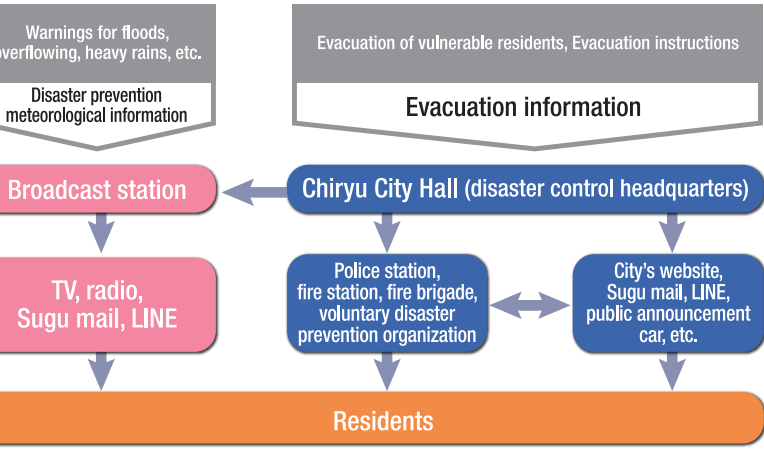
	All evacuate from dangerous areas	Evacuation instructions	Landslide alert information
4	All evacuate from dangerous areas If a storm is forecasted due to a typhoon or similar event, ensure you have evacuated before the storm begins.		
3	All vulnerable and dependent people evacuate Aside from vulnerable and dependent people, individuals should take the necessary precautions to reconsider their usual activities, prepare for evacuation, or take independent action to evacuate.	Evacuation of vulnerable residents	Heavy rain warning Flood warning
2	Review your evacuation plan Reassess the disaster risks of your home and surroundings using hazard maps and other resources, and review the means of receiving evacuation information.	—	Heavy rain advisory Flood advisory
1	Be prepared for a disaster	—	Early warning information (probability of warnings)

Intensity and pattern of rainfall

Precipitation	Light to moderate rain	Heavy rain	Torrential rain	Extremely heavy rain	Severe rain
	10 to 20 mm of rainfall per hour	20 to 30 mm of rainfall per hour	30 to 50 mm of rainfall per hour	50 to 80 mm of rainfall per hour	More than 80 mm of rainfall per hour
					
	Pouring rain	Downpour	Rain falling as if a bucket has been overturned	Rain pouring like a waterfall (with a constant roaring sound)	A feeling of fear accompanied by a suffocating sense of pressure
Impact on people	Feet get wet from water splashing up off the ground	You still get wet even while using an umbrella	Using an umbrella becomes completely useless		
Outdoor conditions	There are puddles all over the ground	Roads become flooded	The water splashes make the whole area look whitish, making visibility worse		

Information transmission paths

Evacuation orders and related instructions are transmitted to residents through the channels shown in the diagram.



Source of information

● Chiryu City

Chiryu City's website
<https://www.city.chiryu.aichi.jp/>
You can check the information on the top page when a weather warning is issued.

Chiryu City Sugu mail
<https://plus.sugumail.com/user/chiryu/home>
You can register for the email service by sending a blank email, etc. It supports Japanese and 3 other languages.

● Chiryu City Official LINE
By registering as a friend, you can receive various disaster prevention information about Chiryu City.
Broadcast radio
You can listen to it on the disaster prevention radio.

● Aichi Prefecture

River disaster management information released by Aichi Prefectural government
<https://www.kasen-aichi.jp/>
You can check the rainfall in the prefecture, the water level of the rivers managed by the prefecture (Kasuma River, Sawatari River), and the river camera.

Disaster prevention email service that protects you from water disasters
<https://www.kasen-aichi.jp/>
Registering for the email service will allow you to receive disaster prevention information such as heavy rain and flood alerts.

● Japan Meteorological Agency

Nagoya local meteorological observatory's website
<https://www.jma-net.go.jp/nagoya/>
You can check advisories, warnings, and movement of rain clouds (high resolution precipitation nowcast).

● Ministry of Land, Infrastructure, Transport and Tourism

River disaster management information released by the Ministry of Land, Infrastructure, Transport and Tourism
<https://www.river.go.jp/portal/#80>
You will now be able to check information on river water levels, river cameras, and flood forecasts.

River water level information
<https://k.river.go.jp>
You can check the water level information of the crisis management type water level gauge.

● News (TV / Radio)

KATCH & Pitch (app)
Official app for cable TV station "KATCH" and community FM "Pitch FM"
<https://www.katch.co.jp/>
(FM 83.8 MHz)

Learn about evacuation

Guidelines for evacuation measures based on flood depth

The necessary evacuation measures vary depending on the forecasted flood depth and the height of the building where you live. Make sure you are aware of the necessary evacuation measures.

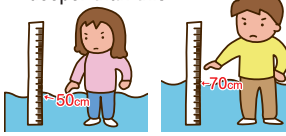
Forecasted flood depth	Building's floor level (For detached houses)	Residential floor (For apartment buildings)	Evacuation
1.0 m or less than 3.0 m (inundation below the 1st floor level)	Two or more floors	2nd floor or higher	Sheltering indoors is not possible Promptly evacuate to a shelter
0.5 m or less than 1.0 m (inundation above the 1st floor level)	Single-story buildings	1st and 2nd floors	
0.3 m or less than 0.5 m (inundation below the 1st floor level)	Single-story buildings	1st floor	
less than 0.3 m	All buildings		Evacuate to a shelter (evacuate from your current location) If there is no time to evacuate your current location, take shelter indoors or move to an upper floor

No coloring (no expected inundation) Please remain vigilant, as there is a possibility of rainfall exceeding the forecasted amounts.


Tips for Evacuation

Precautions to be taken when being forced to walk through flooded water


● The depth of water that is walkable is up to 70 cm for men and 50 cm for women. Wait for a rescue when the depth is deeper than this.



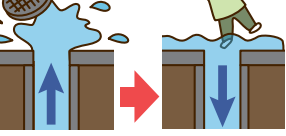
● It is very dangerous if the flow is fast, even in shallow water. Wait for rescue without taking risky actions.



● Carry elderly people, physically disabled people, etc. on your back when evacuating.



● In deep flooding you may not notice manholes and could be sucked in.



Do not use umbrellas but wear raincoats.

Things to bring in an emergency should be backpacked.

Wear athletic shoes fastened with shoestrings.


Going barefoot or wearing boots is dangerous.

Clothes for evacuation

Walk using a long stick as a cane, checking for safety.

Under the water's surface there may be gutters or obstacles, so be careful when walking in the water.


Wear gloves.





Daily preparedness


Consult with those close to you

Use the hazard map and discuss your evacuation plans regularly.

● Confirm evacuation shelters

Find a safe evacuation shelter that will not be affected by inundation.

● Confirm evacuation routes

Find safe evacuation routes, avoiding underpasses and underground passages.

● Confirm how you will evacuate

Find a way to evacuate that does not involve using a car. Evacuating in a car may obstruct emergency vehicles.

● Take some time to think about your evacuation measures Creating My Timeline!


What is My Timeline?

My Timeline is a disaster prevention action plan that chronologically organizes actions to be taken in the event of heavy rainfall due to an approaching typhoon or other disasters. Prepare for evacuation measures regularly to help you think independently and take action to protect your life.

Inspect the areas around your home

To prepare for heavy rain or a typhoon, inspect the area around your house on a regular basis. Working outdoors when a typhoon is approaching can be very dangerous.

Balcony

Rain gutters and shutters

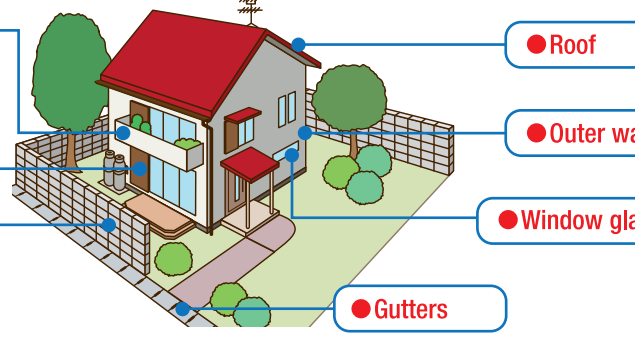
Block walls

Roof

Outer wall


Window glass

Gutters



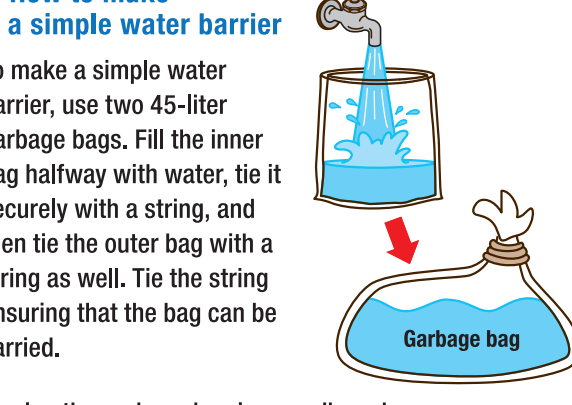
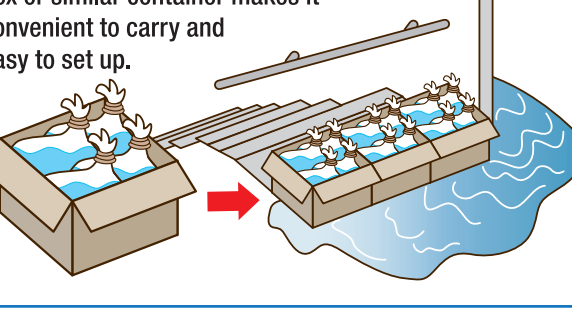
Participate in volunteer disaster prevention associations and disaster prevention drills

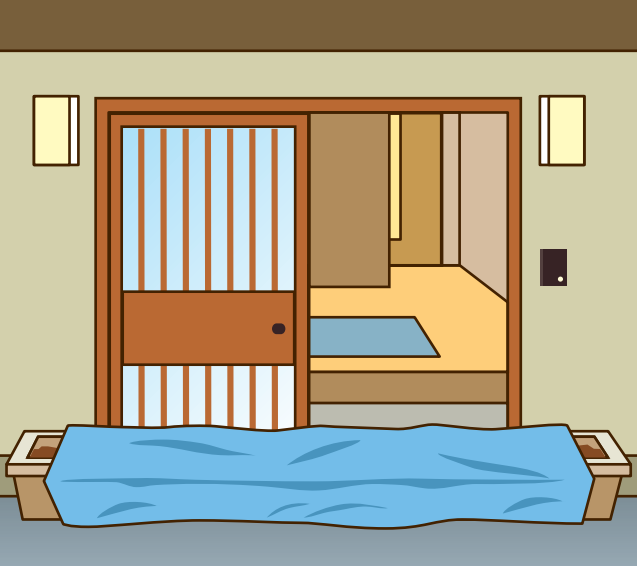
In the event of a large-scale disaster, if the fire, police, or other rescue services are unavailable, the residents can rely on the volunteer disaster prevention associations that they have formed themselves. Actively participate in the activities of volunteer disaster prevention associations and disaster prevention drills in your sub-prefecture region.

**Independent disaster prevention**

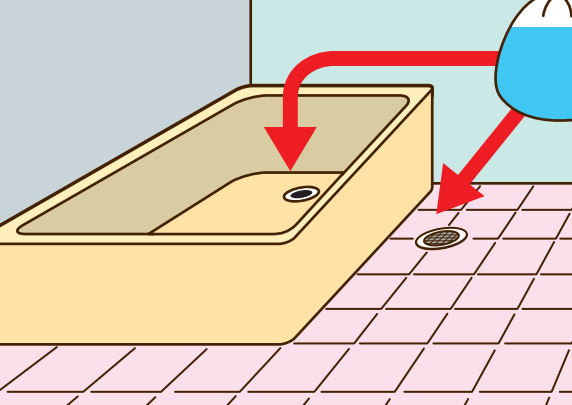
Consider ways to prevent inundation damage

When the flood depth is shallow, household items can be used to reduce flooding to the house.


● How to make a simple water barrier
To make a simple water barrier, use two 45-liter garbage bags. Fill the inner bag halfway with water, tie it securely with a string, and then tie the outer bag with a string as well. Tie the string ensuring that the bag can be carried.

Placing the garbage bag in a cardboard box or similar container makes it convenient to carry and easy to set up.


Prevent inundation through the front door

You can help prevent your home from inundation by creating a barrier by arranging planters or water-filled plastic tanks and wrapping them with a tarp.

Prevent inundation through drains



Backed-up water may overflow from drains connected to such things as baths, washing machines, or toilets. This can be prevented by plugging them using water sacs.

**Rainwater inlet**

● Watch out for gutters and rainwater troughs.
Rainwater flows into gutters and storm drains, where it is discharged. If trash or fallen leaves clog the drains, water will not flow easily. Be sure to clean the gutters and storm drains around your house.
Also, avoid placing objects over storm drains, as blocking them can cause water to overflow onto the road.