

# ECHIZEN CITY Flood Hazard Map

~Protect yourself from floods~

Kunitaka/Kitahino/Kitashinjo/Ajimano/Awatabe/Okamoto/Minaminakayama/Fukuma District



**ECHIZEN CITY**  
Created in May 2021

## 1. Understanding Disasters

### 1-1. Past floods in Echizen City

During the torrential rains in Fukui in July 2004, various parts of the city, especially the former Imadate area were flooded. Also, the torrential rains in the eastern part of Japan in July 2012 caused flooding in Awatabe, Okamoto, and Ajimano districts.

	Inundation above floor level	Inundation below floor level	Partial damage	Half collapse	Complete collapse	Total
Torrential rain in Fukui (2004)	592	271	23	5	2	893
Torrential rain in eastern Echizen	50	174	7	2	0	233

### 1-2. Potential disasters and damage caused by heavy rain

#### Flood

**Flood from rivers**  
Heavy rains cause river water level to rise, overflow and flood.

**Flood from inland waters**  
A short period of heavy rainfall causes flooding beyond the processing power of the drainage channels.

**Dam burst**  
When it rains for a long time, the soil on the bank of the reservoir loosens and collapses, causing the reservoir to burst.

#### Flooding of roads

If the engine stops or if the car is immersed in water, you may not be able to get out of the car.

#### Inundation above floor level / Inundation below floor level

The water that flows in is muddy, and even after the water recedes, sediment and sludge accumulate, and therefore, cleaning up is difficult.

#### Destruction of houses

Due to the flow of water and other factors, houses may collapse, posing a danger to life.

#### Landslides disaster (In case of any of these signs, evacuate immediately!)

##### Collapse of steep slopes (Landslip)

- Gravel comes falling down from the cliffs
- There are cracks in the cliff
- Water suddenly gushes up from the cliff

##### Debris flow

- Rumbling of a mountain or sound of trees cracking
- Muddy river, driftwood in river water
- Despite continuous rain, the water level in the river drops drastically
- The soil smells rotten

##### Landslide

- There are cracks in the ground
- Water in ponds and wells suddenly decreases or becomes muddy
- Part of the ground collapses or rises

## 2. Preparing Yourself on a Daily Basis

### 2-1. Contemplate disaster prevention and evacuation on a regular basis

Set up evacuation routes to avoid flooded areas.

Next, check the evacuation centers near your home.

Walk along the evacuation routes to check if the routes are actually safe.

Get the whole family involved in disaster prevention drills.

### 2-2. Check your house and surroundings as a measure of disaster prevention

It is dangerous to check after torrential rains have intensified. Check it on a daily basis and check the areas that have been already been identified.

#### Roof

- Antenna
- Galvanized iron sheet
- Roof-tiles

#### Veranda

- Plant pots
- Clotheslines

#### Outer walls

- Cracks in outer walls

#### Windows

- Window frames
- Rattling of sliding storm shutter

#### Rain gutter

- Clogging due to fallen leaves and garbage
- Seams, peeling, decay

#### Drain

- Clogging due to garbage

#### Others

- Garbage cans
- Plant pots
- Concrete-block wall

### 2-3. Emergency supplies that include items useful against infectious diseases

Valuables	Clothes (according to season)	Medical supplies
<input type="checkbox"/> Cash (including small change) <input type="checkbox"/> Seal <input type="checkbox"/> Documents such as insurance card (copy is fine)	<input type="checkbox"/> Underwear <input type="checkbox"/> Socks <input type="checkbox"/> Mitten, gloves <input type="checkbox"/> Sweater, rainwear <input type="checkbox"/> Cap <input type="checkbox"/> Helmet <input type="checkbox"/> Items such as lap blanket	<input type="checkbox"/> Household medicines <input type="checkbox"/> Disinfectant <input type="checkbox"/> Health-care record book <input type="checkbox"/> Mask <input type="checkbox"/> Items such as bandage
Accessories and gadgets	Face washing products	Water and food items
<input type="checkbox"/> Flashlight <input type="checkbox"/> Portable radio set <input type="checkbox"/> Spare battery <input type="checkbox"/> Cell phone and charger <input type="checkbox"/> Mat <input type="checkbox"/> Newspapers <input type="checkbox"/> Items such as chopsticks, forks	<input type="checkbox"/> Bottle opener, can opener <input type="checkbox"/> Tissues, wet tissues <input type="checkbox"/> Soap <input type="checkbox"/> Dental care kit <input type="checkbox"/> Items such as towels	<input type="checkbox"/> Drinking water <input type="checkbox"/> Food items (canned goods, cup noodles, and other preserved foods) <input type="checkbox"/> Items such as snacks for kids
Baby products		
<input type="checkbox"/> Diapers <input type="checkbox"/> Baby powder	<input type="checkbox"/> Milk powder <input type="checkbox"/> Feeding bottle	<input type="checkbox"/> Toys and so on

#### ~Daily monitoring activities~

Through daily monitoring activities in Echizen City, information has been collected about people who require assistance for evacuation (such as the elderly and those with disabilities), and a register of names (register of names who require assistance for evacuation) has been created. In the event of a disaster, the register will be used to provide evacuation support such as communicating disaster information and checking safety. If you would like to be registered in the list of those who need assistance for evacuation, please contact the agencies listed on the right.

Division in Charge	Telephone Number
Disaster Prevention and Crisis Management Division	0778-22-3081
Social Welfare Division	0778-22-3004
Longevity and Welfare Division	0778-22-3784

## 2. Preparing Yourself on a Daily Basis

### 2-4. Creating My Timeline

Disasters caused by typhoons and heavy rains can be predicted in advance. Consider your evacuation actions in advance based on evacuation and weather information, and create My Timeline.

#### Points for creating My Timeline

- Confirm the evacuation timing from the evacuation and weather information
- List the actions to be taken before evacuation begins
- List the precautions to be taken during evacuation

#### Means of transportation to evacuation site

minutes on foot    minutes by car

#### People who can assist you in evacuating

① Name    Telephone Number  
② Name    Telephone Number

Estimated time of typhoon approach	Alert Level	Echizen City Information	Reference information from authorities such as the Japan Meteorological Agency	Summarize what you need to do to mitigate damage and to evacuate.
3 days before	Alert Level 1		Typhoon information Large-scale typhoons and other disasters that are expected to cause river flooding. Typhoon-related weather information	(Example) • Charge cell phones and place sandbags in the places of your home that may be flooded. • Prepare necessary items for evacuation.
2 days before	Alert Level 2		Heavy rain advisory Flood advisory Flood advisory information	
1 day before	Alert Level 3	Evacuation of elderly people and others	Heavy rain warning Flood warning Flood alert information	Discuss with your family the precautions you should take when evacuating. (Example) • If there are imminent heavy rains at night, evacuate to a shelter.
12 hours before	Alert Level 4	Evacuation order	Flood risk information Landslide alert information	
6 hours before	Alert Level 5	Ensuring Safety During an Emergency	Heavy rain emergency warning Flood occurrence information	<b>Lives in Danger.. Immediately Ensure Safety!</b> If evacuation is delayed... the disaster has already occurred. Take the best course of action to save your life! If it is rather dangerous to evacuate outside, secure yourself in a safe place in the building you are currently in!

## Source of Information

Information source - QR code	Details	Information source - QR code	Details
	Echizen City website Emergency and disaster information		Comprehensive information on rivers and erosion control in Fukui Prefecture Weather alerts, information from river surveillance cameras, landslide risk information and so on.
	Fukui disaster prevention signal Information on rivers, rainfall, road surveillance cameras, snow accumulation (Tannan Cable Television's summary site)		Fukui Prefecture emergency net Public transportation, utilities, disaster prevention and evacuation information for the area around your current location
	Fukui local meteorological observatory Weather maps, current forecasts and weather alerts		Echizen City GuruGuru Map Displays road information, flood hazard maps, potential flood zones, evacuation sites in Echizen City among other information.

### Disaster Emergency Message Dial (171)

**Safety Confirmation Method**

Disaster Emergency Message Dial (171) is a "voice message board" (to check safety of relatives and friends) in the event of a major disaster. Messages can be recorded and played on ordinary telephones, public telephones, and cell phones.

**When recording a message**

People in the disaster area should enter their own phone numbers, and people outside the disaster area should enter the phone numbers of people in the disaster area, beginning with the area code.

1 → (0000)□□□□ → Record the message (30 seconds or less)

**When playing a message**

People in the disaster area should enter their home phone numbers, and people outside the disaster area should enter the phone numbers of people in the disaster area, beginning with the area code.

2 → (0000)□□□□ → Listen to the message

Echizen City has also created hazard maps for landslides and earthquakes. Check the information you need.

#### Landslide Hazard Map

Landslips, debris flows, landslides are listed according to selected towns.

#### Earthquake Disaster Prevention Map

Three categories: vulnerability to ground shaking, risk level of the area, and liquefaction risk level

#### Reservoir Hazard Map

Potential flood zones of reservoirs are listed for each town.

## 3. Understanding Evacuation

### 3-1. Evacuation behavior according to the Alert Level

Risk Level	Low	High
Alert Level	Alert Level 1	Alert Level 2, Alert Level 3, Alert Level 4, Alert Level 5
Evacuation Information		Evacuation of elderly people and others, Evacuation order, Ensuring safety during an emergency
Course of Action Citizens Should Take	Pay attention to latest information.	Get the latest weather information. Confirm the location of regional evacuation sites (Designated evacuation shelters). Evacuate the elderly and other potential victims from dangerous places! Call out to neighbors and evacuate in groups! Everyone to evacuate from dangerous places! Go to evacuation shelters as soon as possible! Evacuate to a safe place of refuge! Lives in danger..Immediately ensure safety. Move to higher places as much as possible to avoid flooding! Move as far away as possible from places that are at a risk of landslide disasters!
Weather information	Early caution information (possibility of alert level)	Heavy rain advisory, Flood advisory, Heavy rain warning, flood alert, Landslide alert information, Heavy rain emergency warning (heavy rain occurring once in decades)
Surrounding Circumstances		Puddles form all over the ground. Roads become like rivers. Whole area turns whitish due to splashes of water. Large-scale disaster will probably occur and extreme caution is required.
River flood Information		Flood advisory information, Flood alert information, Flood risk information, Flood occurrence information
Real-time Heavy Rain and Flood Risk Map		Warning, Alert, Very dangerous, Extremely dangerous

### Evacuation Information Published by Echizen City

In the event of a disaster, Echizen City administration will issue information such as evacuation details using loud speakers of government emergency radio (radio broadcast) and emergency sirens.

Classification	Alert level	Siren
Evacuation of elderly people and others	Alert level 3	Three or more sirens blaring for approximately 40 seconds
Evacuation order	Alert level 4	Six or more sirens blaring for approximately 20 seconds
Ensuring safety during an emergency	Alert level 5	12 or more sirens blaring for approximately 10 seconds

If you cannot hear the broadcast, you can call the following exclusive numbers to reconfirm the details.

☎ 0778-21-0088  
☎ 0778-21-0091  
☎ 0778-21-0094  
☎ 0778-21-0095

## 3. Understanding Evacuation

### 3-2. Understanding Evacuation Behavior

There are two types of evacuation: "evacuation to a safe place outside your home" and "moving to a safer place inside your home, such as the second floor." Evacuation methods vary depending on region and situation. Depending on the timing of evacuation, use the most appropriate method, especially if you need to move during heavy rain or at night, because there is a risk of getting injured while evacuating outside your home. Also, consider measures against infectious diseases when deciding whether to evacuate outdoors or securing your safety indoors.

#### Evacuating your home (Moving out of your home)

Evacuate to safe shelters if it is dangerous to be in an area such as one near a river where flood depth increases or an area where landslides may occur. In principle, evacuate away from your home before the disaster occurs.

#### Staying inside your home (secure safety indoors)

Stay inside your house if leaving your house is dangerous or if the flood depth is low and you can move to places such as the second floor of your own house.

### 3-3. Evacuation: Caution Points

If there is no shelter nearby, temporarily evacuate to the upper floors of a sturdy building in your neighborhood.

Evacuation at night is very dangerous because it is difficult to see your surroundings. As far as possible, evacuate before dark.

Those who need more time to evacuate, such as the elderly, children, people with disabilities, and people with physical disabilities, should start evacuating as soon as possible. Let's work together as a community to help those who need assistance with evacuation.

Use your judgement when evacuating! Be sure to evacuate as early as possible based on evacuation and weather information.

Evacuation order is issued when danger is imminent, so evacuate as soon as possible.

When evacuating, wear comfortable clothing to make movement easy. As far as possible, evacuate in groups of at least two.

## 3. Understanding Evacuation

### 3-3. Evacuation: Caution Points

The risk of flooding varies from river to river. At the water level gauging stations of major rivers in Echizen City, water levels that indicate flood or water levels that indicate risk of flood are determined. Water level gauging stations are marked with on the map.

Water level gauging station	Flood Warning Water Level (m)	Evacuation Decision Water Level (m)	Flood Risk Water Level (m)
Yoshinoe River	Iehisa 1.90	2.70	2.70
Kururami River	Kamiyoda 2.40	2.70	3.20
Kururami River	Awatabe 1.80	2.10	2.70
Hattori River	Higashihozakai 1.50	1.80	2.20
Asozo River	Kita 2.30	2.50	2.80
Hino River	Nakahirabuki 3.50	4.00	4.00

#### Explanation of Water Level

**Flood Warning Water Level**: Water level indicating that flood risk information should be issued.

**Evacuation Decision Water Level**: Water level indicating that flood advisory information should be issued.

**Flood Risk Water Level**: Water level indicating that flood fighting corps should be on standby for mobilization.