Nonoichi City Flood Hazard Map

Created: March 2024

- The Nonoichi City Flood Hazard Map was created to provide citizens with helpful information to protect them from floods.
- You can confirm both estimated river flooding areas and inland flooding areas.
- Please use this hazard map to check the flood risks in your neighborhood and what actions to take in the case of typhoons and heavy rain.

Evacuation Action Decision Flowchart — Be sure to check it.

Check and mark the location of your house on the hazard map.

Where should you evacuate to?
*Areas at risk of flooding are colored in the hazard map. However, disasters might occur even in areas that are not colored.

Is your living area colored?

- No → Even if your living area is not colored, if it is lower than the surrounding areas, please evacuate according to the evacuation information from the city.
- Yes ↓

Evacuation means avoiding trouble, in other words: securing your safety. If you are in a safe place, you do not need to evacuate.

There is a danger of disaster. As a general rule, you will need to evacuate to a safe place. *

Exception → *If there is a risk of flooding, and:
1. You are outside the hazard area for building collapse due to flooding.
2. You are in a place higher than the estimated flood depth.
3. You can survive until the water recedes (you have enough water and food).

If any of the above apply, you can shelter in place (i.e. secure your safety inside your house).

Is your house in the **estimated area where house collapse due to flooding may occur?** Do you or a person who will evacuate with you **need time to evacuate?**

- Yes → Is there any relative or friend you can rely on who lives in a safe place?
  - Yes → **Alert level 3** Evacuation of the elderly, etc. — Evacuate to the house of your relative or friend in a safe place.
  - No → **Alert level 3** Evacuation of the elderly, etc. — Evacuate to an open shelter.
- No → Is there any relative or friend you can rely on who lives in a safe place?
  - Yes → **Alert level 4** Evacuation instruction — Evacuate to the house of your relative or friend in a safe place.
  - No → **Alert level 4** Evacuation instruction — Evacuate to an open shelter.

When should you evacuate?
Evacuate by the time Alert level 4 is issued.

- Decide your evacuation timing based on the result of the Evacuation Action Decision Flowchart.
- If you need time to evacuate (elderly people or small children and their guardians, etc.), evacuate well in advance.
- You need to evacuate early if your house is located in a hazard area for house collapse due to flooding.
- Please evacuate early voluntarily, based on weather information such as river water levels and alerts issued by the Ministry of Land Infrastructure, Transport and Tourism (MLIT) or Ishikawa Prefecture.

Even if no evacuation information has been issued, if you feel danger, evacuate **based on your own judgment.**

Alert level	Evacuation information	Actions to take	Evacuation places	Alert Level Based on Meteorological Agency: River Flooding	Alert Level Based on Meteorological Agency: Heavy Rain
5	Emergency safety measures	**Your life is in danger. Secure safety at once.** It is too late to evacuate safely, and your life is in danger. It is dangerous to go out to evacuate.	· Your house (2nd floor or higher) · Nearby building (2nd floor or higher)	Level 5 Emergency Flood Warning	Level 5 Emergency Heavy Rain Warning
		Evacuate before Alert Level 4.			
4	Evacuation instruction	**Everyone must evacuate.** If it is difficult to evacuate, go to the upper story of your house or a nearby building.	· Main shelter · Relative's or acquaintance's house in a safe area	Level 4 Severe Flood Warning	Level 4 Severe Heavy Rain Warning
3	Evacuation of the elderly, etc.	**Elderly people, etc. must evacuate.** Those who need time to evacuate such as elderly people, disabled people, pregnant women and small children, etc. need to begin evacuating.	· Voluntary shelter · Relative's or acquaintance's house in a safe area	Level 3 Flood Warning	Level 3 Heavy Rain Warning
2		**Preparation for evacuation** Reconfirm the evacuation timing, location of shelters and evacuation routes in preparation for evacuation.		Level 2 Flood Advisory	Level 2 Heavy Rain Advisory
1		**Stay aware of disaster information.** Pay attention to weather information via the TV, radio, internet, etc.		Early advisory information	Early advisory information

Do not go to check the river condition. Use the **River Flood Information** to get the information.

Check the information from water level observatory cameras.

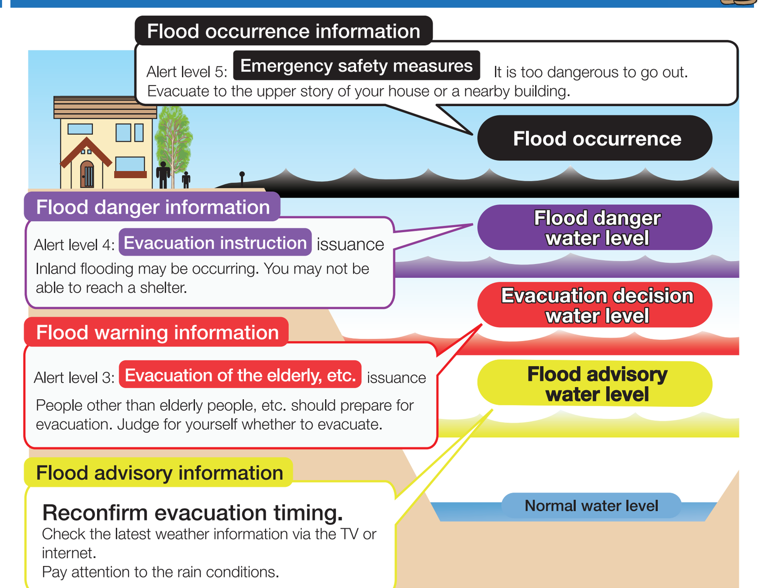
River	Water level observatory / Camera
Tedori River	Tsurugi / Tsurugi, Tsurugi Observatory
Takahashi River	Shijimada Bridge / Ken-o-doboku, Takahashi River, Shijimada Bridge
	Magae / Ken-o-doboku, Takahashi River, Magae
Yasuhara River	Nagaike / Ishikawa-doboku, Takahashi River, Nagaike
Fushimi River	Yoneizumi, Ken-o-doboku, Fushimi River, Yonaizumi
Koro River	Koro River (Korogawa Bridge) / Koro River (Korogawa Bridge)
Ikari River	Ikari River (Nukaotomaru) / Ikari River (Nukaotomaru)

Other live camera feeds of Nonoichi City (YouTube videos)

Ministry of Land Infrastructure, Transport and Tourism (MLIT) River Flood Information

Nonoichi City Live Feed Cameras Nonoichi City Official Website

River information corresponding to warning level



Weather information that may lead to disasters
Information to act on for evacuation

- Use information of heavy rainfall that might lead to a disaster in order to judge and prepare for evacuation.
- Decide the weather information that will signal your evacuation.

Information indicating high risk of disaster

Information indicating record-breaking heavy rainfall in a short period

Information indicating heavy rainfall that rarely occurs, which might lead to sediment disaster, inland flooding or the flooding of medium- and small-sized rivers.

Weather information indicating significant heavy rainfall

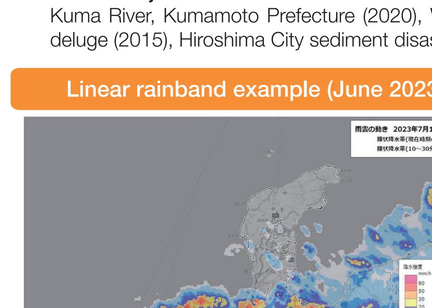
Information issued in the occurrence of "linear rainbands", which refers to the condition of continuous heavy rainfall in certain places, when there is a high risk of disaster due to heavy rain. Issued at Alert Level 4 or higher

Linear rain bands

In meteorology, linear rainbands refers to linear areas of heavy rainfall that extend 50~300km in length and 20~50km in width, typically associated with thunderstorms that stay in or move over the same region for several hours. Weather information using this keyword is issued half a day before, when thunderstorms are forecast to produce excessive rainfalls.
In recent years, linear rainbands have occurred during every major flood; this is a keyword that directly relates to disaster.

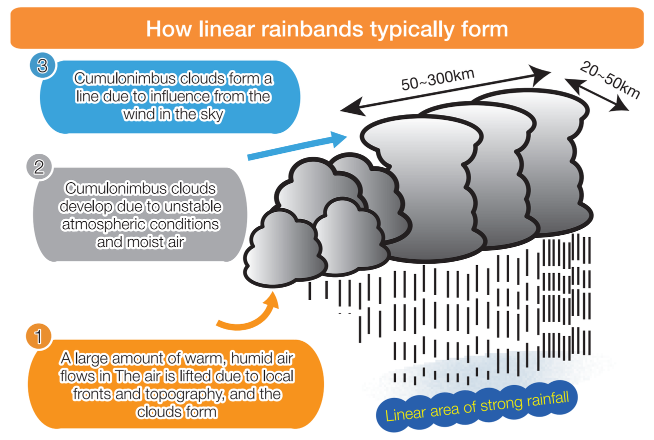
*Recent major floods:
Kuma River, Kumamoto Prefecture (2020), West Japan deluge (2018), Northern Kyushu deluge (2017), Kanto and Tohoku deluge (2015), Hiroshima City sediment disaster (2014)

Linear rainband example (June 2023)



Reference: Kanazawa Local Meteorological Observatory, Japan Meteorological Agency, Ishikawa Prefecture weather news flash regarding heavy rainfall on July 12~13, 2023

How linear rainbands typically form



Intensity of rain and how it falls

Words regarding rainfall strength often used in weather forecast

- **Continuous rain** — 10~20mm per hour. Heavy rain. Puddles form on the road.
- **Heavy rain** — 20~30mm per hour. Downpour. You become wet even under an umbrella.
- **Very heavy rain** — 30~50mm per hour. Rain falls as though emptied from buckets. Roads become full of water like a river.

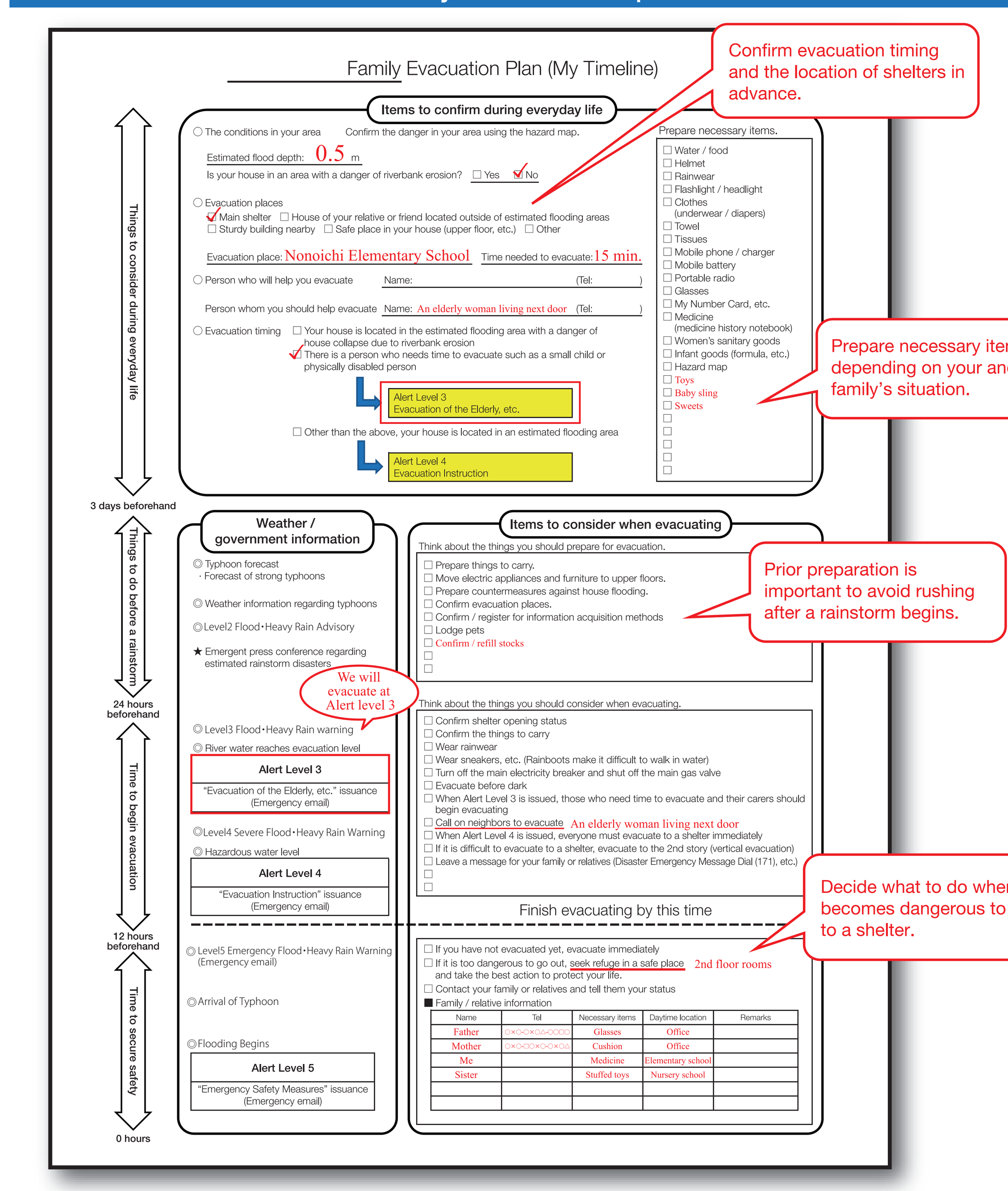
Rainfall strength that might lead to a disaster

- **Drenching rain** — 50~80mm per hour. Rainfall that continues heavily. Driving is dangerous. July 12, 2023 74.5mm/ hour (Kahoku City) First linear rainband occurrence in Ishikawa Prefecture
- **Torrential rain** — 80mm or more per hour. Rainfall causing a feeling of fear. Driving is dangerous. August 4, 2022 102.5mm / hour (Kawachi, Hakusan City) Flooding of the Kakehashi River in Komatsu City

Make "My Timeline"

- My Timeline is your personal schedule of "when" and "what to do" in the case of a disaster.
- Learn about the flooding risks for your house and consider what you need to do for evacuation with your family.

My Timeline Example



My Timeline template download

Download the template from here.

Nonoichi City My Timeline

Prepare a My Timeline with your family in advance so you can evacuate calmly.

How to obtain evacuation information

- Learn how to obtain evacuation information in preparation for a disaster.
- For information that requires registration, complete the registration in advance so that you can receive the information smoothly.

Information Sources	Places to obtain information
Weather information (Japan Meteorological Agency)	Japan Meteorological Agency (Disaster Prevention Information) Homepage "Kikikuru"
	TV data broadcast (d button)
River water level information (Ministry of Land, Infrastructure, Transport and Tourism/Prefecture)	Ishikawa Prefecture Disaster Prevention Portal / River Flood Information
	TV (emergency broadcast / text broadcast) / Radio (FM-N1)
Evacuation information (Nonoichi City)	Nonoichi City website
	Emergency information email, public information vehicle, disaster prevention administrative radio
	Hot Mail Nonoichi / Nonoichi City Official LINE account
	Yui Net /Yahoo! Disaster Prevention News App

Check / Receive — Citizens

: Advance registration / download required

How to receive information

Emergency information email
An email service that delivers highly urgent information such as disaster and evacuation information to mobile phones within the target area.

Hot Mail Nonoichi
A registration-based email service that delivers notifications from the city, disaster prevention information, traffic/crime prevention information, etc.

How to register
You can register by sending an empty email to the address below.
nonoichi@entry.mail-dpt.jp

Yui Net
Receive local information for free on your smartphone or tablet. It also functions as a safety confirmation system when disasters occur.

Yahoo! disaster prevention information
The app will notify you of local disasters, evacuation information, etc.
Download the app here https://emg.yahoo.co.jp/

Public announcement vehicle / Disaster prevention administrative radio
Broadcasts may be difficult to hear during heavy rain or strong winds. Disaster prevention administrative radio broadcast content can also be checked via the disaster prevention administrative radio information hotline (076-246-1000).

Nonoichi City Official LINE account
Check the latest information about the city via Nonoichi City's official LINE account.
Scan to connect

How to look up information

Ishikawa Prefecture Disaster Prevention Portal
Obtain information on disasters within the prefecture (natural disasters, earthquakes, etc.).
Ishikawa Prefecture Disaster Prevention Portal
PC / Smartphone https://pref-ishikawa.eye-bousai-plus.com/PTLC0010/top?init

Ministry of Land, Infrastructure, Transport and Tourism: River Flood Information
Get real-time information such as river water levels and river camera feeds.
River Flood Information
PC / Smartphone https://www.river.go.jp/e/

Japan Meteorological Agency "Kikikuru"
Check the increasing risk of flood disasters, inundation damage, and landslides.
Kikikuru
PC / Smartphone https://www.jma.go.jp/bosai/risk/

TV / Radio
Weather information and evacuation information can be checked via TV and radio. When a disaster occurs, information is broadcast on 76.3MHz (FM-N1).

Registration and confirmation of safety status
Disaster message hotline 171: Messages can be recorded and played back when a disaster occurs. Dial 171
Disaster message board web171: Can be used if you have access to the internet during a disaster. web171

Where to evacuate? Evacuation precautions

- Evacuation means avoiding trouble. Decide in advance how you will evacuate if a disaster occurs.
- There are four types of action for evacuation: In all cases, be sure to act early.

1. Go to designated shelter
Before flooding begins, grab your emergency bag and go to a shelter. Make sure to walk the evacuation route to the evacuation center in advance to make sure that it can be used safely.

2. Evacuation to safe friend / family house
Consult your friend / family in advance regarding evacuation should a disaster occur.
*Check the hazard map to see if it's safe.

3. Evacuation to a safe hotel / inn
Regular accommodation fees will apply.
Make reservations and confirm in advance.
*Check the hazard map to see if it's safe.

4. Shelter in place
Check the following "3 requirements" on the hazard map to confirm whether it is safe to stay in your home.
1. **Outside the hazard area for building collapse due to flooding**
2. **The living space is higher than the estimated flood depth**
3. **You can survive until the water recedes (you have enough water and food).**

*Flooding in Nonoichi City is estimated to last for about one day.

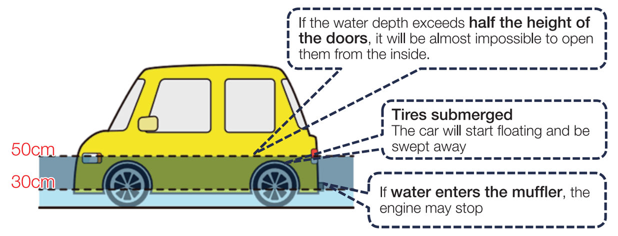
Evacuation precautions
1. **Lock doors and check fire sources and electrical breakers.**
2. **Don't evacuate alone, work together to help others in your community.**
3. **Be careful of gutters and manholes.**
Manhole covers may have been lifted up and moved due to inland flooding. If you have no choice but to evacuate during flooding, use a stick etc. to check the ground as you proceed.
4. **It's dangerous to evacuate when it's raining, windy or nighttime. Evacuate early.**
5. **Never go to look at rivers or rice fields.**

If flooding has already begun and moving to a shelter is dangerous, evacuate to your home's second floor or higher, or a nearby sturdy building.

Dangers of car evacuation
1. **There are various dangers when evacuating by car**
   - Getting stuck in a flooded underpass
   - Falling off a road into a river or rice field
   - Road congestion causing delayed evacuation

If you must evacuate by car, make sure to leave plenty of time before the flooding begins.

2. **What happens if your car floods?**



*The water depths are a guide. The impact will vary depending on the vehicle type.

3. **If you get stuck on a flooded road...**

Always keep an emergency escape hammer in your car.

4. **If water comes into the car...**

Once the difference in water level inside and outside the car becomes small, take a deep breath and use your legs to forcefully push the door open and get out immediately.

Reference: JAF website

The 3 steps to preparing for an emergency
Start with Step 1, then Step 0 and Step 2.

- Pack all the things you'd need for three days in an emergency evacuation bag.
- Prepare seven days' worth of food and a portable toilet in case lifelines are interrupted.

The 3 steps to preparing for an emergency

Step 0 preparation — Disaster pouch
Keep emergency items that you can carry with you in a bag that you always use, or in your pocket.

Step 1 preparation — Emergency evacuation bag
Keep an emergency carry bag in a place you spend most of your day, such as your home or workplace.
Put it in a place where you can easily take it with you, such as the building entrance or your bedroom.

Step 2 preparation — Household stockpiling
Stock up on food and supplies in advance so that you can survive on your own for a few days, even if lifelines are cut off in an emergency.

Things to keep in mind when preparing disaster mitigation goods

1. **Check twice a year** — To change seasonal necessities such as clothing, check your inventory twice a year: once in the spring and once in autumn.
2. **Learn how to use the goods** — Try using the disaster mitigation goods that you have prepared, so that you don't have to use them for the first time in an emergency.
3. **Versatility, ingenuity and knowledge of daily necessities** — There are some everyday items that can be useful in times of disaster, such as newspapers, plastic wrap and plastic bags. Actively obtain information from the internet, etc.
4. **In addition to "helping yourself", there is also the concept of "mutual help"** — **Participate in local disaster prevention drills** — In addition to making preparations at home, check where and how communal preparations are made by neighborhood associations and residents' associations.

Clothes for evacuation

Wear running shoes with laces
Avoid wearing rain boots as water can get in, making it difficult to walk.

Don't use an umbrella
Wear rain gear so you can use both hands.

Check the ground in front of you with a stick / walking stick etc.
During a flood, the water is cloudy, making it difficult to see the ground. Use a stick or walking stick to check the ground as you move forward.

Preventing flooding in your home or car

A simple water-bag using garbage bags
Place one 45 liter garbage bag inside another to create two layers, and fill it with water. Tie the bags tightly to create a "water-bag".
Plastic tanks and planters can also be wrapped in tarpaulins and used as water-bags or sandbags.

Placement of simple water-bags and water stop plates
Place simple water-bags, sandbags, and water stop plates at entrances and other places to prevent water from entering.

Keep the area around your home clean
Are the gutters and rainwater drains around your home clogged? Keep them clean to prevent them from overflowing during heavy rain.

Preventing flooding in garages
Place simple water-bags, sandbags, and water stop plates to prevent water from entering.

Preventing water from entering car mufflers
Block the muffler exhaust with a plastic bag, etc.

Water inundation prevention cover
Place a water-proof cover over the entire car.

Disaster mitigation goods checklist

0: Always carry, 1: Emergency bag, 2: Stockpile

The ✓ in the table indicates which items to prepare for each stage; 0: Always carry, 1: Emergency bag, 2: Stockpile. Use the table below to organize preparation for yourself, your family, and your place of work/school. Consider the quantities and items you need for the three steps.

Type		Item	0	1	2	Notes
Basic items	Bag	Emergency evacuation bag		✓		
	Water	Drinking water	✓	✓	✓	Step 0: 500mℓ Step 1: Approximately 1.5 liters per person
	Food	Portable food	✓	✓		Chocolate, candy, nutritional supplements and prepared foods, etc.
		Emergency food		✓	✓	Items such as hardtack that can be eaten as is, without water or cooking.
	Equipment	Helmets, disaster hoods, hats, etc.		✓		Something to protect your head while evacuating.
		Whistle	✓			
		Gloves (for work)		✓		Made of durable material such as leather.
		Running shoes		✓		
		Flashlight (spare batteries and power supply also)	✓	✓	✓	Portable items such as mini flashlights for Stage 0. See also power generation/rechargeable items.
	Tools	All-purpose knives		✓		Compound tools including scissors, knives and can openers etc. are useful.
		Rope (10m)		✓		Can be used as rescue and evacuation ladders. Thick enough to support your weight.
	Information	Portable radio (with spare batteries)	✓	✓		Some have multiple functions (light, phone charger, etc.). Portability is important for Stage 0, for Stage 1 and 2, a radio with speakers is good.
		Mobile phone (charger/battery also)	✓			
		Contact details/preparation list	✓	✓		
		ID (copy)	✓	✓		My Number Card Passport, Residence Card, etc.
		Writing materials (notepad and pen)	✓	✓		
		Permanent marker (thick)		✓		Leave a message
		Cash (including 10 yen coins)	✓	✓	✓	You will need 10 yen and 100 yen coins for public phones if your mobile or home phone cannot be used.

Type		Item	0	1	2	Notes
Basic items	Emergency	First aid kit	✓	✓		Store all your injury care supplies, such as disinfectant, cotton wool, gauze, bandaids, bandages and slings.
		Tweezers		✓	✓	Can be used to remove splinters etc.
		Chronic disease medicine / regular medicine	✓	✓	✓	Also include a copy of your medication notebook and prescriptions.
	Hygiene	Masks	✓	✓	✓	As a countermeasure against infectious diseases. Also important for protection from the cold.
		Portable toilet	✓	✓	✓	In an emergency, not being able to use a toilet is quite a serious problem.
		Tissue paper / toilet paper	✓	✓	✓	Toilet paper is versatile.
		Wet tissues		✓	✓	Useful when there is no water.
	Cold protection	Disposable warmers (heat pads)	✓	✓		
		Survival blanket		✓		Lightweight and simple cold protection gear for emergencies
	General	Handkerchief (large) / hand towel	✓			
		Towel		✓	✓	Highly versatile, such as for wiping away dirt, treating injuries, and as a substitute for underwear.
		Safety pin	✓	✓		Can be used to fasten a towel and use it as a substitute for underwear.
		Plastic bag	✓	✓	✓	Around 10 pieces in various sizes. Highly versatile.
		Vinyl sheets (picnic mats, tarpaulins)		✓	✓	
		Lighter (matches also OK)		✓		For lighting heating equipment, etc. Easier to use than matches.
		Cloth duct tape		✓		Multipurpose. Convenient for displaying messages outdoors.

Type		Item	0	1	2	Notes
Items for individual consideration	Valuables	Spare keys (house, car, etc.)				
		Spare glasses / contact lenses				
		Copy of bankbook / certificates				
		Personal seal stamp				
	Women	Sanitary products (pantyliners)				Also useful as a substitute for gauze when treating wounds.
		Security buzzer				
		Comb, brush, mirror				
		Cosmetics				
		Hairbands				When you can't take a bath, tie your hair up to reduce discomfort.
	Elderly	Nursing care notebook				
		Disposable diapers				
		Nursing care products				
		Dentures				
		Hearing aid				
	Infants	Powdered milk, baby bottles, baby food				
		Cleansing cotton				
		Bath towel				
		Disposable diapers				
		Baby sling				
		Mother & child handbook				
	People with disabilities, foreign residents, etc.	Disability certificate				
		Way to call for help				Whistle, siren, etc.
		Means of aiding movement				Walking stick, tape, back baby carrier, etc.
		Way of obtaining information				Radio, 1seg, magnifying glass, etc.
		Communication methods				Writing material, voice recorder, communication support board, etc.
		Things that make you feel calm and safe				Favorite items, etc.
		Something that allows identification of a person requiring assistance				Bib, badge, etc.
	Pets	Pet Supplies				Identification tag, etc.

Type		Item	0	1	2	Notes
Daily necessities to stockpile	Clothing	Clothes			✓	Determine what items and quantities are needed depending on the season and individual circumstances.
		Blanket			✓	
		Rain gear (ponchos, raincoats, etc.)	✓	✓	✓	Easy to work with using both hands. Can also be used as winter clothing.
	Food	Preserved food		✓	✓	Rice, dried food, beans, root vegetables, hardtack, rice that has been cooked and dried, cut rice cakes (mochi), instant foods, canned foods, etc. According to your preference.
		Salt / seasonings			✓	
		Tableware (plates, cups, chopsticks, forks, spoons)			✓	Made from paper, stainless steel, etc.
		Plastic wrap			✓	Wrap it around dishes so you don't have to wash them, which saves precious water. Versatile.
		Aluminum foil			✓	
		Can opener			✓	
		Portable stove and gas cylinders			✓	Aim for one cylinder per day. Pay attention to the use-by date of stoves and cylinders.
		Saucepan			✓	
	Living goods	Toothbrush set / mouth rinse			✓	Mouth care during disasters is important.
		Soap			✓	
		Dry shampoo			✓	
		Baking soda			✓	Can be used for many purposes such as deodorizing spray and cleaning.
		Large cloth (furoshiki)	✓	✓		Highly versatile. Can be used to wrap and carry something, or for extra warmth (lay it on the ground to lie on, etc.).
		Spare batteries		✓	✓	
		Tools			✓	Jack, crowbar, etc.
	Convenient / versatile items	Map (for evacuation, return, etc.)			✓	
		Newspaper / cardboard		✓	✓	
		Candle			✓	Provides long-lasting light when there is no electricity. Be extremely careful of fires.
		Emergency water bags / tanks			✓	Used to carry and store water.
		Paper towels			✓	
		Whiteboard			✓	Convenient when you run out of paper and supplies for displaying messages, conveying information, etc.
		Bleached cotton cloth			✓	Highly versatile. Can also be used as a baby carrier.
		Slippers			✓	Wear indoors at the shelter.
		Mosquito repellent incense			✓	In case you have to evacuate outdoors during summer.

Reference: Disaster Mitigation Goods Checklist (The Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Human Renovation Institution website)