# Edition TOWAGA CITY Disaster Prevention Maps

Floods, Landslides, Earthquakes, Volcanoes









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The latest disaster prevention maps for Towada City are available on the city website.



### Introduction

Many people consider Towada City to be a place where disasters are uncommon, but large-scale natural disasters have been occurring all over Japan and are tending to be more severe in recent years.

You never know when or where a disaster could strike. It is important that everyone prepares themselves so that they can protect themselves from a disaster and reduce injury and damage. Rather than relying only on public assistance from the government, also practice self-help to protect yourself and mutual assistance involving everyone in the community helping each other. Make efforts in your daily life to prepare for a disaster and be well-informed so that you can take the appropriate actions when a disaster occurs.

In addition to floods and landslides that were covered in previous versions, this disaster prevention map now also covers tremors from earthquakes and volcano disasters.

Keep it nearby during ordinary times and use it to check the evacuation centers and evacuation routes and as a guide for the measures to take for each type of disaster.

Above all else, protect your life by increasing your individual awareness of disasters and making sure you are prepared for them, including stocking up on emergency supplies.

### **Protect Yourself from Disasters**



- 1 Check the phenomena, measures, and evacuation timing for each type of disaster. (P2-P8, P31-P32, P39-P40)
- Check the dangerous spots, evacuation places, and evacuation routes. (P9-P30, P33-P38, P41-P44)
- Prepare emergency supplies and stocks during regular daily life. (P45)

### 1 Evacuation Action Guide

Evacuation does not only mean going to a designated evacuation center like a school or community center.

Evacuation means escaping from danger. If you determine that a disaster is already occurring around you or that traveling to an evacuation center would be too dangerous, evacuation can mean going to a safe place in the



## ly Timeline

### **Create a My Timeline** to evacuate safely!!

Have you ever thought "I will be fine" when an evacuation order has been issued? Organize what actions you will take and when so that you can act calmly in an emergency.

This is called your My Timeline. Discuss it carefully with your family to make one.



Alert Level 5

### Secure your safety

Heavy Rain **Emergency Warning Flood Occurrence** Information

(Only for nationally designated rivers)



Will we be okay in this rain?



**Heavy Rain Warning / Flood Warning** Watch your step **Flood Warning Information** 

Information gathering Flood Advisory Information Prepare for

**Heavy rain forecast** Information gathering



Alert Level 4

**Evacuation order Evacuate** 

Landslide Alert Information

Flood Risk Information

Aomori Prefecture website **Aomori My Timeline** Storm and Flood Damage (Typhoons and Heavy Rain) **Edition** 

# 3 Evacuation Action Decision Flow

\*Hazard maps are maps that use colors to show the

areas at high risk of damage from floods or landslides.

Disasters can still occur in areas that are not colored.

evacuate for a flood or landslide, check the maps, and if your home is in an area that is

lower than the surrounding land (inunda-

\*Even if there is a danger of flooding, you may be able to

(1) if you are in a place that is higher than the flood depth

(2) you can wait until the water recedes if there is a flood and have enough food, water, and other supplies.

\*If there is a risk of landslide but it is not possible to

Do you have a friend or relative who lives in a safe

evacuate to somewhere outside your home, move to a safer place inside your home, such as the farthest spot

tion zone in a past flood) or near a cliff,

take measures to evacuate as needed.

remain in your home and stay safe

Although you generally do not need to

### What evacuation action should you take? Try it and find out

evacuation

Find your home on the Flood and Land-

slide Disaster Prevention Maps on pages 9 to 30 and mark it.

Is your home in an area (address) that is colored in any of the landslide warning zones or expected flood and inundation areas?

Yes



As there is a risk of disaster, as a general rule\*, it is necessary to evacuate to somewhere outside your home.

Information

Flood Risk

No

Do you or someone you are with need extra time to

No

Do you have a friend or relative who lives in a safe place where you can go?

When an Alert Level 3 is issued for a flood or landslide. evacuate to the safe home of a friend or relative (discuss your plans regularly with them).

evacuate?

When an Alert Level 3 is issued for a flood or landslide, evacuate to a designated emergency evacuation site or designated evacuation center opened by your municipality.

place where you can go?

from the cliff or upstairs.

When an Alert Level 4 is issued for a flood or landslide, evacuate to the safe home of a friend or relative (discuss your plans regularly with them).

When an Alert Level 4 is issued for a flood or landslide, evacuate to a designated emergency evacuation site or designated evacuation center opened by your municipality.



# **Storm and Flood Damage Prevention Measures (1)**

### **Weather Information and Alert Levels**

Pay attention to weather information (such as warnings) from the Japan Meteorological Agency and prepare to evacuate quickly.

Warnings	and Information	Criteria for Issuance
	Advisory	Issued when disasters may occur due to heavy rain
Heavy	Warning	Issued when major disasters may occur due to heavy rain
rain	Emergency warning	Issued when there is a very high risk of a major disaster due to heavy rain
Flood	Advisory	Issued when disasters may occur due to flooding
Flood	Warning	Issued when major disasters may occur due to flooding
	Advisory (Strong wind)	Issued when disasters may occur due to strong wind
Storm	Warning	Issued when there is a predicted risk of a serious disaster occurring due to storm winds
	Emergency warning	Issued when strong wind is forecast due to an extratropical cyclone with strength equivalent to a strong typhoon that appears once every few decades
	Advisory	Issued when disasters such as damage to houses and traffic disruptions caused by snowfall may occur due to heavy snow
Heavy	Warning	lssued when major disasters such as damage to houses and traffic disruptions caused by snowfall may occur due to heavy snow
snow	Emergency warning	Issued when heavy snow recorded only once every few decades is forecast
	Advisory	Issued when disasters may occur due to strong wind with snow
Snowstorm	Warning	Issued when there is a predicted risk of a serious disaster occurring due to storm winds with snow
	Emergency Warning (Heavy snowstorm)	Issued when strong wind with snow is forecast due to an extratropical cyclone with strength equivalent to a strong typhoon that appears once every few decades
Landslide Alert Information		When the risk of a landslide from heavy rain has increased, prefectures and the Japan Meteorological Agency jointly announce the information to serve as a reference for mayors of municipalities to determine if they should issue an evacuation order and for residents to evacuate voluntarily
Record Dow	npour Information	When a Heavy Rain Warning is issued, information is announced when short violent rainfall that only occurs once every few years is observed or analyzed

		Evacuation Information, etc. (Alert Level)			r water level and r formation correspond	
Alert Level	Status	Actions to be taken by residents	Evacuation information, etc.	Disaster	and weather information (Informat Flood information (Rivers)	
5	Disaster has occurred or is imminent  Life-threatening situation! Secure your safety immediately!  Alert Level 5 is already a life-threatening situation where safe evacuation is not possible.  Do not wait for an Alert Level 5 Emergency Safety Measures order!  Alert Level 5 is information provided within the scope available when municipalities have been able to assess the occurrence and imminence of the situation and is not always issued.		Emergency safety measures	Equivalent to	Flood Occurrence Information	Heavy Rain Emergency Warning (Landslide)
<b>~~</b>	<b>~~</b> <be s<="" td=""><td>ture to evacuate by Alert Level 4</td><td>&gt;&gt;&gt;&gt;</td><td></td><td></td><td></td></be>	ture to evacuate by Alert Level 4	>>>>			
4	High risk of disaster	Everyone must evacuate from dangerous areas     Alert Level 4 evacuation order is information provided based on factors such as the amount of time needed to evacuate and the time of sunset. It is necessary to evacuate from dangerous places when this order is issued.	Evacuation order	Equivalent to	Flood Risk Information	Landslide Alert Information
3	Risk of disaster	The elderly and others who need more time to evacuate must evacuate from dangerous areas  • "The elderly and others who need more time to evacuate" include people with disabilities and those requiring assistance.  • Furthermore, this is the time when people other than the elderly should also cease their normal activities, prepare for evacuation, or voluntarily evacuate if they feel they are in danger.	Evacuation of the elderly and others who need more time to evacuate	Equivalent to	Flood Warning Information Flood Warning	Heavy Rain Warning
2	Worsening weather conditions	Check your own evacuation behavior	Heavy Rain, Flood, Storm Surge Advisory	Equivalent to	Flood Advisory Information	
1	Risk of wors- ening weather conditions	Increase preparedness for disasters	Early Advisory	Equivalent to		

\*Mayors of municipalities make comprehensive decisions about issuing evacuation orders (warning levels) based on information about rivers and rain (information corresponding to the alert level) as well as other information such as local land use and past disasters. For this reason, the timing and regions for which alert levels and information corresponding to alert levels are issued may not always match.

evacuation order has been issued, the order may not come in time in a sudden disaster.

Even if an evacuation order has not been issued, if you receive weather information corresponding to an alert level, take evacuation actions quickly if you sense that you are in danger.

What is important is that you judge the situation for yourself.

Although it is necessary to take evacuation actions immediately when an Alert Level 5 means that a disaster has already occurred or is imminent. Information is not always issued.

> When an Alert Level 3 evacuation of the elderly and others who need more time to evacuate or Alert Level 4 evacuation order has been issued, check on others in your community and evacuate safely and steadily.

# 4 Storm and Flood Damage Prevention Measures (2)

### Wind force and direction

### **Slightly strong wind**

10 m/s to less than 15 m/s



- Difficult to walk towards the wind.
- · Difficult to use an umbrella.

### **Strong wind**

15 m/s to less than 20 m/s



- Cannot walk towards the wind.
- Some people fall over.

### Very strong wind

20 m/s to less than 30 m/s



- Will fall over if you do not anchor yourself.
- Objects blown by the wind smash windows.

(Average wind speed: m/s)

### **Violent storm**

30 m/s or more



- Cannot stand up. Dangerous to stay outdoors.
- Trees are uprooted and fall over.

### **Preparation and Measures for Storm and Flood Damage**

### 1 Check household equipment

Have a professional fix problems like unstable roof antennas or roof tiles.

Check for tiles that have cracked, slipped, or come off.

Reinforce concrete block walls that have cracked and stone walls that have collapsed.

Put your flower pots in a safe place. Do not put objects in places they may fall from.



Check that tin roofs have not flipped or

Check that gutters are not clogged with leaves or dirt and that all the joints are in place

Check for any cracked or loose windows.

Anchor gas canisters in place with a chain to keep them from shifting.

Source: Created based on the Fire and Disaster Management Agency E-collage for Disaster Prevention and Crisis Management

### 2 Check evacuation routes

Walk the evacuation routes for yourself

to check for dangerous spots.



### Move household belongings

Move household belongings that might be inundated to a higher place like upper levels of the building.



Help remove leaves and trash from street rain gullies.





### **Use sandbag stations**

The city has set up sandbag stations for residents to take sandbags as needed to prevent flood damage in your house and other structures from heavy rain.

Check here for the locations of the stations and how to use them



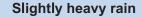


# Flood (Inundation) (1)

Rain is the main cause of floods and landslides that happen every year.

Recent extreme weather events are causing severe damage as typhoons pass through and heavy rain causes rivers to flood even to areas that had not previously experienced any damage. Pay attention to the weather information and disaster information for your neighborhood and take action early.

### Depiction of rainfall patterns and intensity





10 to less an hour

than 20 mm

- Rainfall with a rushing sound
- Puddles form on the ground

### **Heavy rain**



20 to less than 30 mm an hour

- Downpour
- Get wet even with an umbrella

### Very heavy rain

30 to less

an hour



- Coming down in buckets ■ The street is like a river

#### Intense downpour



50 to less than 80 mm an hour

- Umbrellas become completely useles

### Violent storm



than 80 mm an hour

50 to less

■ Feels oppressive and

### Flood and landslides from linear rainbands

Linear rainbands are often talked about lately as a cause of floods and landslides. They frequently cause major disasters, and weather forecasts are now able to provide information about their formation.

#### What is a linear rainband?

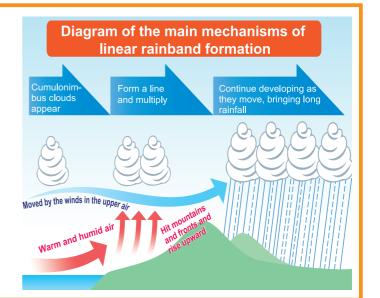
It is a phenomenon in which cumulonimbus clouds form one after another into a band in one spot, moving little or not at all and creating a heavy rainfall area that stretches 50 to 300 km long and 20 to 50 km wide in a linear pattern.

Linear rainbands have formed in about two-thirds of the torrential rain that

has occurred in Japan.

Various types of information on ■★※■ linear rainbands on the Japan **Meteorological Agency website** 





### Types and mechanisms of flood damage

Damage from heavy rain is not just from flooding of rivers. Before a disaster occurs, check what flood damage dangers there are in your neighborhood.

### River flooding

During heavy rain, when the water level of a river rises and the levee breaks or the river overflows its banks, this is called river flooding.



### Inland flooding

When the volume of rain exceeds the capacity of drainage systems like the sewers or the water level of rivers and other drainage areas rises and cannot drain the rainwater, the flooding that results is called inland flooding.





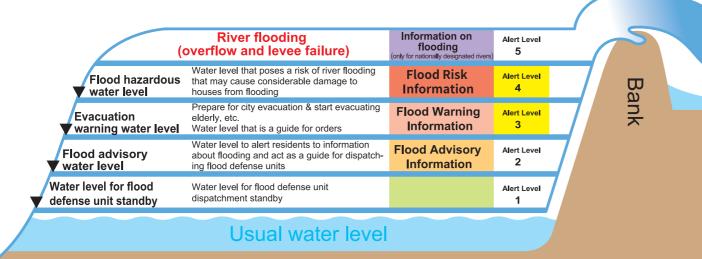
You can check water level information on this website. Aomori Prefecture River Erosion Control Information System Q Search





### Hazardous river levels and flood forecasts

Based on the hazardous water levels set for each river, river administrators and the Japan Meteorological Agency issue flood forecasts.



# 5 Flood (Inundation) (2)

### Flood hazard information

- The expected inundation shown on the Flood and Landslide Disaster Prevention Maps on pages 9 to 30 is hazard information that indicates the areas that are expected to be inundated by the maximum anticipated rainfall as specified by the Flood Control Act and the expected water depth if inundation occurs.
- These expected inundation areas were predicted using simulations of the situation when flooding occurs based on the development of river channels at the time of the designation.
- When using these maps, be well aware that they do not take flooding of tributaries or rainfall over the expected amount into account, that flooding may also occur in areas that have not been designated expected inundation areas, and that the actual water depth may differ from the predicted water depth.

### Designation of expected flood inundation areas (expected maximum scale)

Corresponding water level notification areas	Assumed rainfall for designation	Designating body	Date of designation
(Oirase River system) Oirase River	303 mm total rainfall over 12 hours in the river basin	River and Erosion Control Division, Prefectural Land Development Department, Aomori Prefectural Government	2019/1/23

### Approximations for inundation rank

5.0 m or higher	Inundation to about the second story roof
3.0 to lower than 5.0 m	Inundation to about the second floor
0.5 to lower than 3.0 m	Inundation to about the first floor
0.5 m or lower	About knee high on an adult



\*The water depth labels and colors are based on the Manual for Creating Expected Flood Inundation Area Maps (Ministry of Land, Infrastructure and Transport and Tourism, National Institute for Land and Infrastructure Management).

### Points for evacuation actions and hazardous spots

### Evacuate early before inundation starts

Flood water moves quickly, and it is difficult to walk through even a depth of knee height on an adult. It is dangerous to evacuate after inundation. Use informa



tion like weather information and river flood forecasts to start voluntary evacuation as soon as you sense that you are in danger.

### If you have to walk through water

Do not walk barefoot or in sandals or boots. Wear laced shoes that are less likely to come off in the water. Also, flood water is cloudy and you cannot see through it, so it is best to use a long



est to use a long stick or an umbrella as a cane to check for manholes and other obstacles as you walk

### Stay clear of rivers and irrigation canals

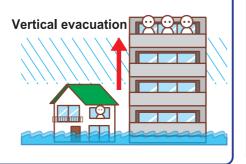
Stay clear of watersides like rivers and irrigation canals when an advisory or warning has been issued. You can check the river conditions on the Aomori



Prefecture live cameras. Also, avoid passing near rivers that are swollen while evacuating.

### **Evacuate according to the conditions**

If the surrounding area makes it too dangerous to reach the evacuation site, evacuate to a safe high place in your home. If you feel you are in danger while evacuating, go to the highest floor possible in a nearby strong building as an emergency evacuation.



### Basements and underground levels are dangerous

When underground, it is difficult to assess the conditions above ground and your evacuation route becomes limited.

Water may also suddenly rush in if the ground above floods. There is a high likelihood of a blackout, and escape could become difficult.

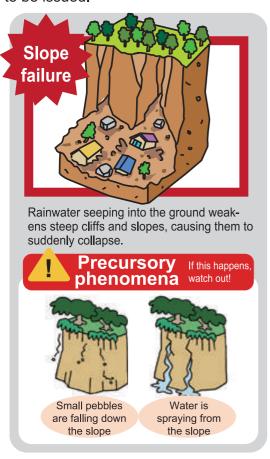


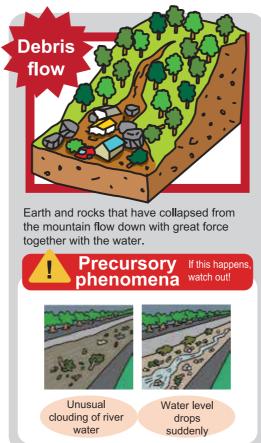
### Landslide

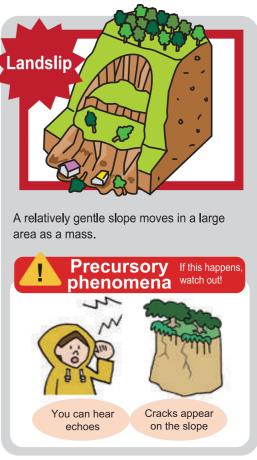
When the ground loosens in heavy rain or an earthquake, the risk of a landslide increases. Check for dangerous spots and precursory phenomena and evacuate quickly if you detect danger.

### Types of landslides and precursory phenomena

When a landslide occurs, you will sometimes see some type of precursory phenomena. If you notice the following precursory phenomena, it is important to quickly evacuate to a safe place without waiting for evacuation information to be issued.







### **Designation of hazard areas**

\*Act on Promotion of Landslide Countermeasures for Landslide Prone Areas

To protect residents from landslides, hazard areas are designated based on the Act on Landslide Countermeasures.\*

Landslide Hazard Area (Yellow Zone)

Area where there is a risk of fatality or injury when a landslide occurs

Special Landslide Hazard Area (Red Zone) Area where there is a high risk of buildings collapsing and of fatality or injury when a landslide occurs

### Pay attention to Landslide Alert Information!

When the risk of a landslide from heavy rain has increased, the Japan Meteorological Agency and Aomori Prefecture jointly announce Landslide Alert Information to serve as a reference for Towada City to determine if it should issue an evacuation order and for residents to evacuate voluntarily. You can check this information on the Japan Meteorological Agency or Aomori Prefectural Government websites or on the television or radio.



Aomori Prefecture Landslide Alert Information System

### How to evacuate from a landslide

### In principle, evacuate to another area

- Evacuate to a designated evacuation center indicated in the evacuation information to a safe place outside of the landslide hazard area.
- If your home is on a cliff, quickly evacuate to an area outside of the landslide hazard area as there is a risk of it collapsing.

Horizontal evacuation



### If you cannot evacuate to another area

- Urgently evacuate to the second or higher level of a strong building nearby.
- Evacuate to a safer place inside your home, such as an upstairs room farthest from the cliff.



### 7 Prepare for Disasters as a Region!

### Support for persons needing special consideration or assistance

There are some people such as older people, people with mental or physical disabilities, foreign nationals, infants and toddlers, and pregnant women who need to act early or need assistance during evacuation. Check on neighbors who need assistance and help them when evacuating.

### Points for safely guiding persons needing special consideration or assistance during evacuation

Point Approach and reassure them!

Point 2 Give correct information!

Point 3 Guide them to a safe place!

### Older people and very young children

Choose ahead of time who will provide assistance in a disaster. Choose multiple people if possible.



### If someone is ill or injured

Depending on the severity, provide assistance such as calling out to them or giving them a shoulder or hand to hold.



#### Someone in a wheelchair

Someone must always be with them. Help them slowly on the



#### Someone with vision impairments

Ask them first, "Do you need help?"

When guiding them, give them your arm to hold and walk slowly.



### Someone with hearing impairments

Although sign language is the best way to give them information, there are also other ways like gestures and writing in the air (air writing).

Communicate with them using several methods while watching their

reaction.

### Someone from another country

Call out to them. even in Japanese, so that they do not become separated.

If they do not understand vou. use gestures.



### Facilities used by persons needing special consideration or assistance in hazardous spots **Expected inundation areas for the Oirase River**

No.	Name of facility (Category)	Address	Page
0	Ho-oku Elementary School	102-2 Shitakawame, Okuse	P18
2	Ho-oku Elementary School Nakayoshikai	102-2 Shitakawame, Okuse	P18
3	Korakuen (Nursing Home for the Elderly)	2-9 Shitakawame, Okuse	P18
4	Group Home Hanaha (Nursing Home)	52-1 Nakamichi, Fujishima	P21
6	Palette (Welfare Service Business Operator)	10-5 Shitakawame, Okuse	P18
6	K no le (Welfare Service Business Operator)	10-6 Shitakawame, Okuse	P18
7	Zokibayashi (Welfare Service Business Operator)	269 Maekawara, Akanuma	P20

### Landslide warning zone

No.	Name of facility (Category)	Address	Page
8	Makoto Home (Aid Station)	12-1 Yamanaka, Ofudo	P24

### **Building a disaster-resilient community**

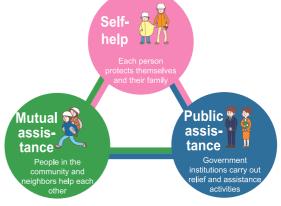
When a large disaster strikes, public assistance activities by public institutions may be inadequate due to transportation network disruptions or multiple simultaneous fires. In addition to self-help to prepare for disasters through individual efforts, it is also important to strengthen local disaster prevention capabilities through mutual assistance and cooperation within the community.

With the aim of building a disaster-resilient community, how about starting efforts to strengthen mutual assistance and cooperate in regional disaster prevention capabilities through voluntary disaster Towada City

prevention organization activities to mitigate damage in a disaster?

Create a voluntary disaster prevention organization





When creating a voluntary disaster prevention organization, the city has a system for subsidizing equipment like generators.



### What is a voluntary disaster prevention organization?

An organization in which everyone in the community works together on disaster prevention activities during ordinary times as well as during a disaster is called a voluntary disaster prevention org

It engages in activities like disaster prevention drills and PR activities during ordinary times and initial firefighting, rescue and relief, mass evacuation, and provision of food and water supply to evacuation centers during disasters.



### Why do we need a voluntary disaster prevention organization?

When a large disaster occurs, the fire department and other disaster prevention agencies may not be enough.

At these times, you can help mitigate damage if everyone in the community works together on the following disaster and evacuation activities.

Information communication

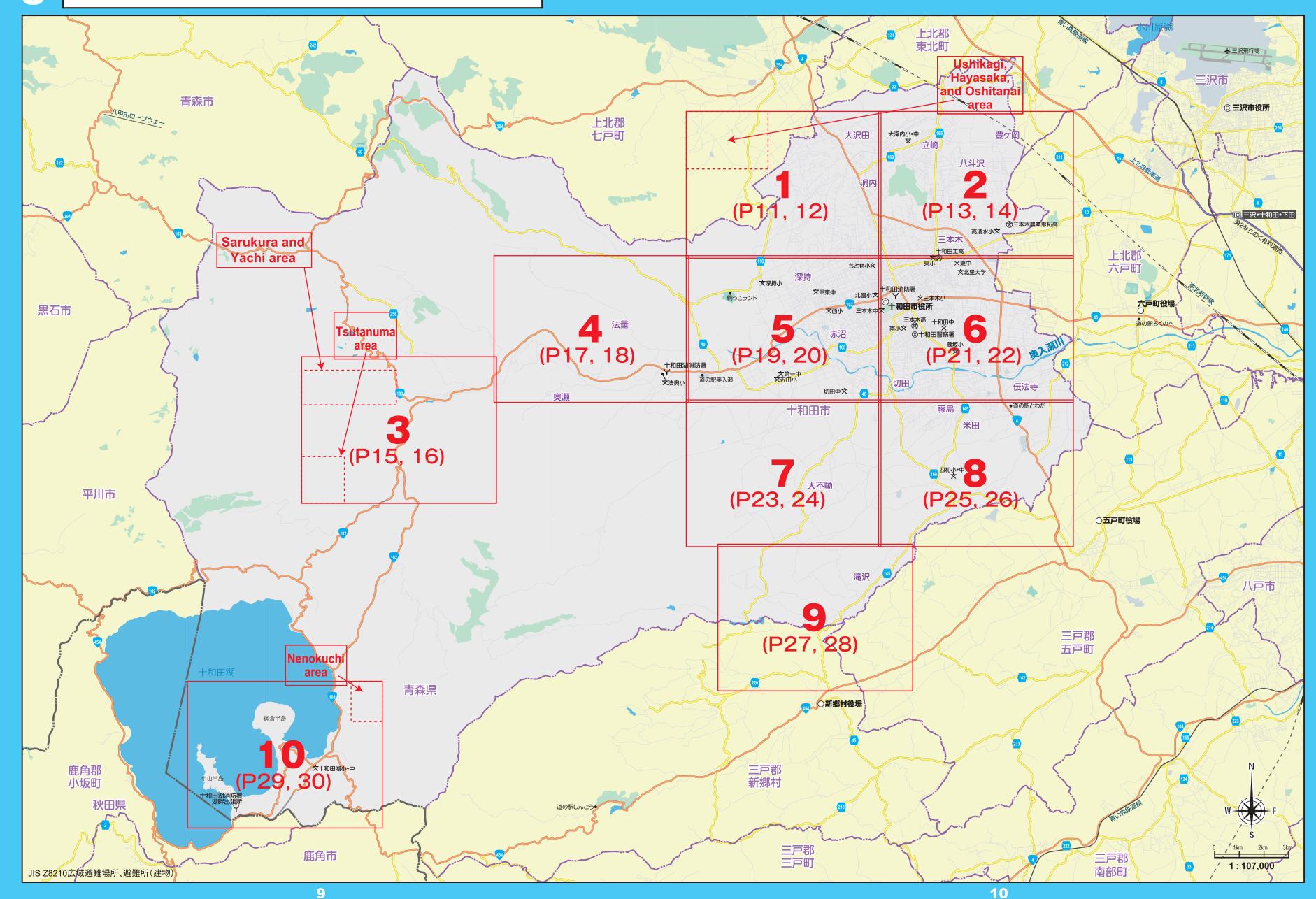
Evacuation guidance

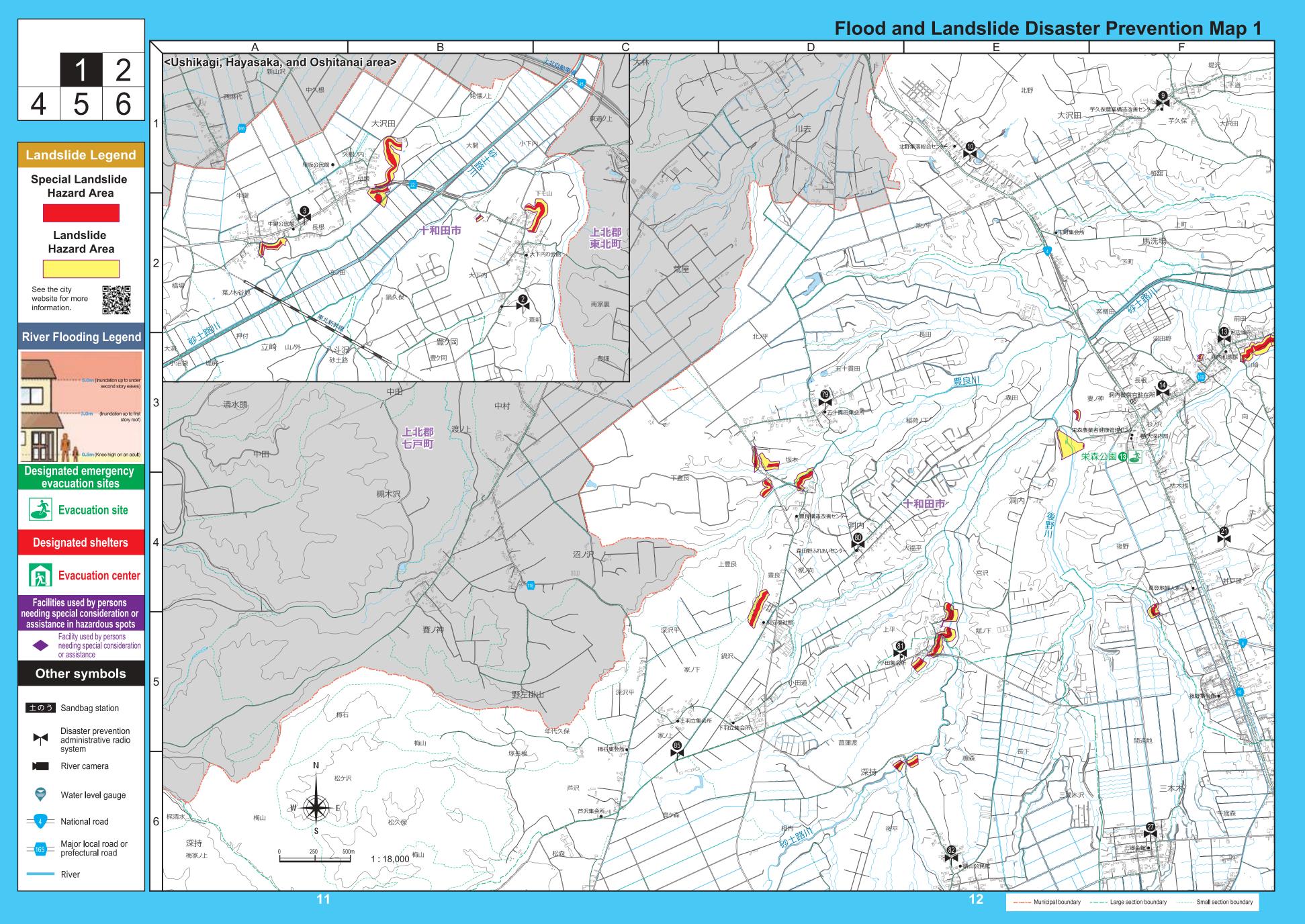
Rescue and relief activities. It is also

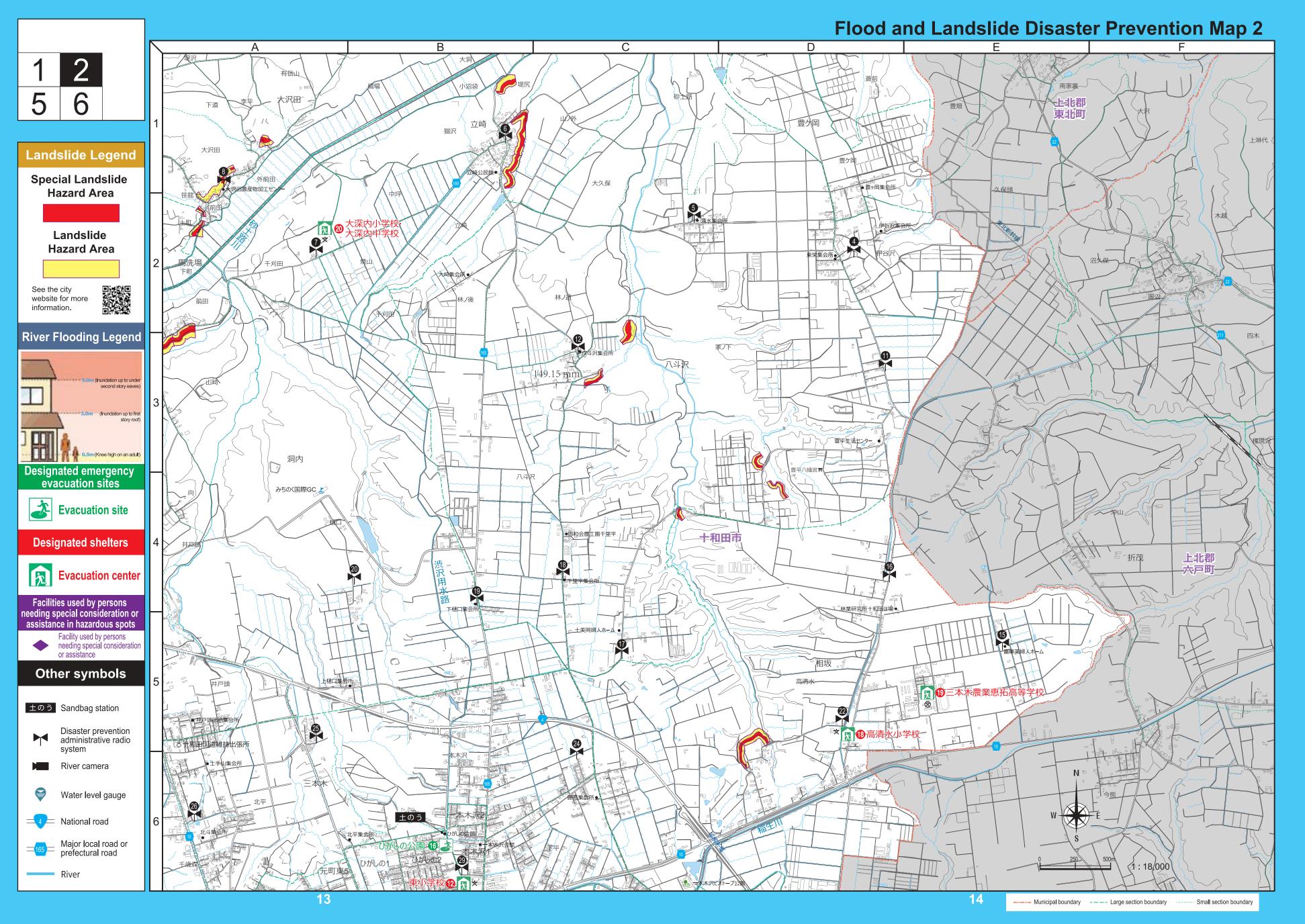
helpful to allocate roles in the community in advance, with everyone knowing each other, to make activities more rapid.

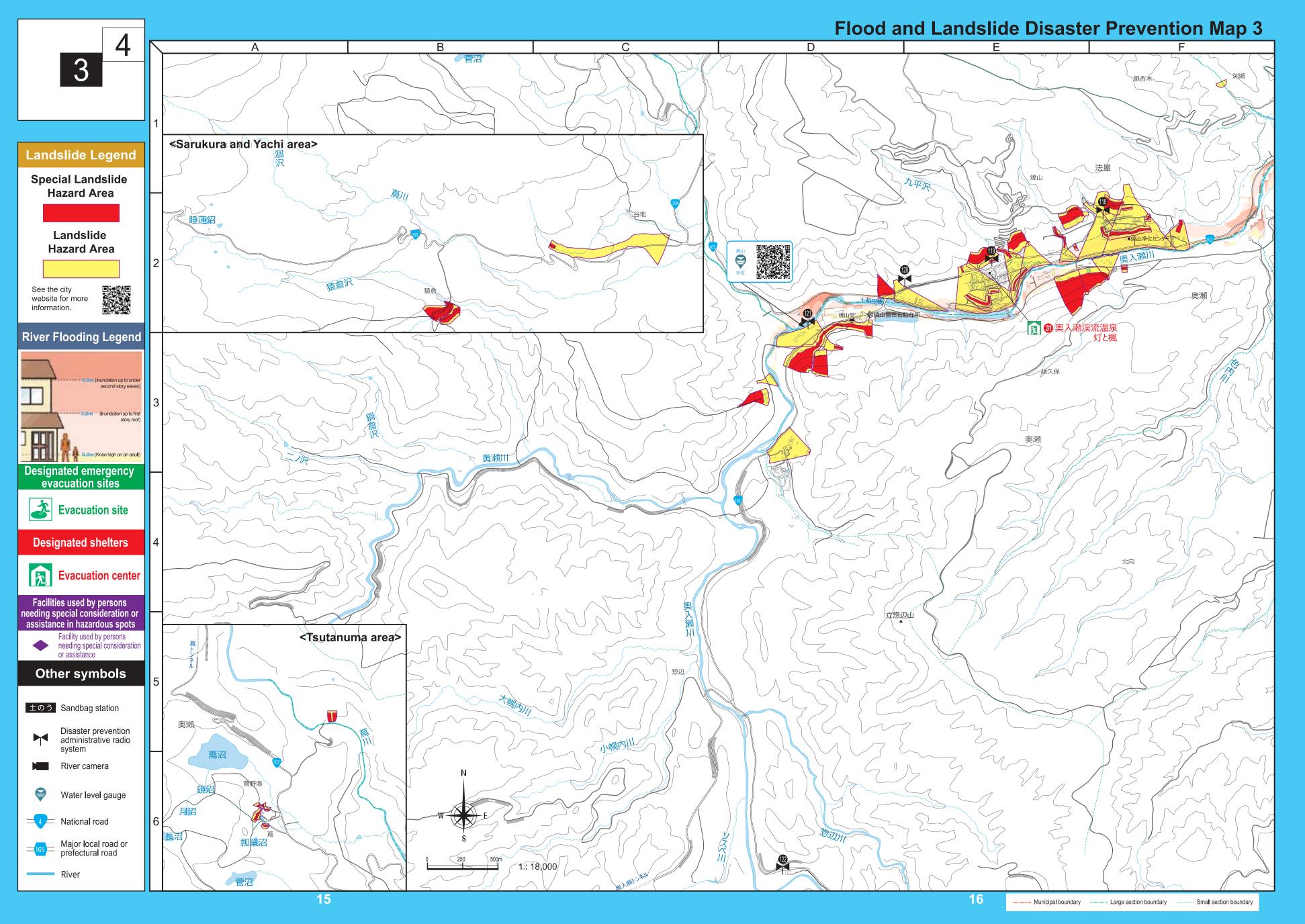
Advance preparation (creation of a system) is important for more effective activities of all kinds.

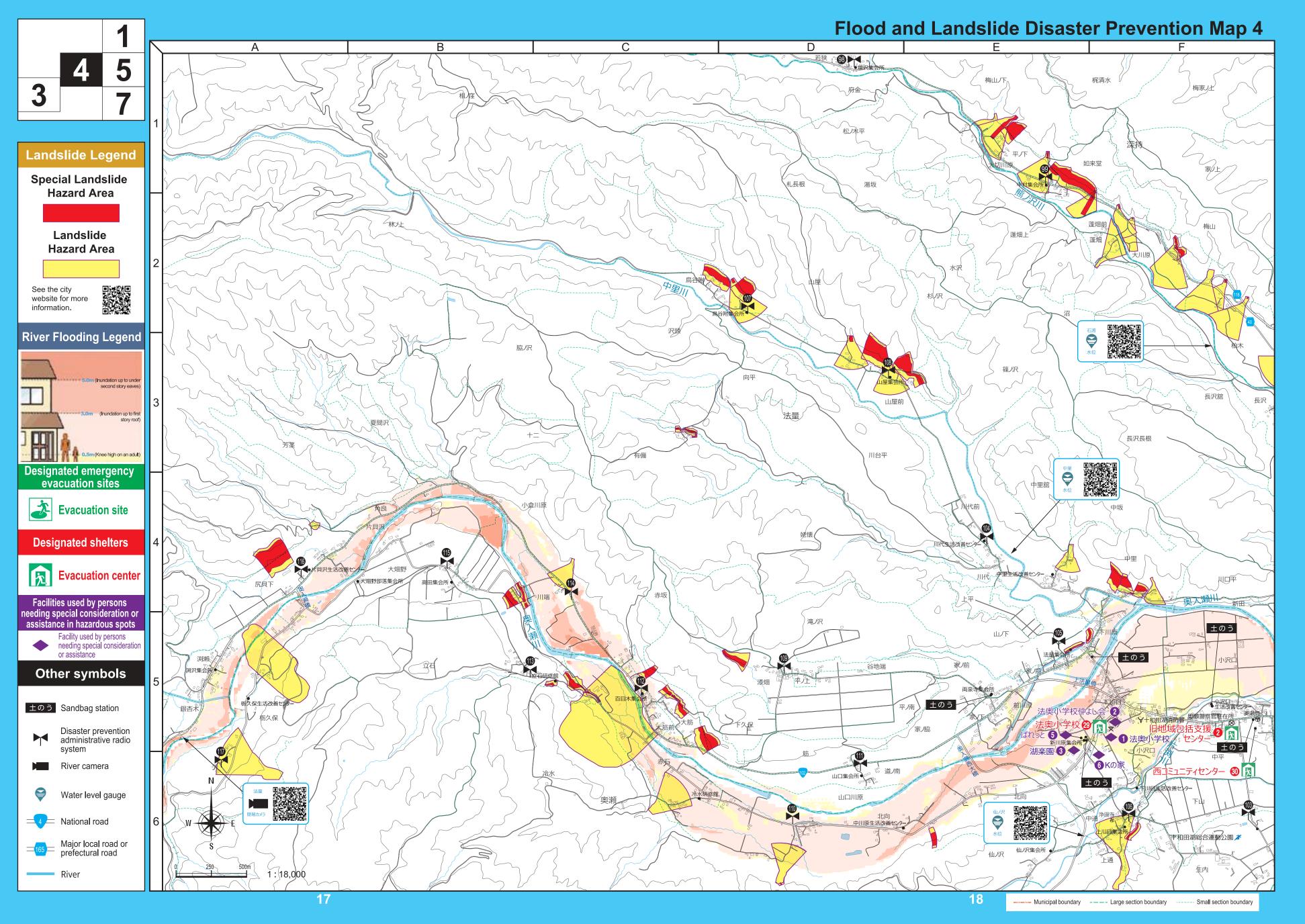
Safety confirmation

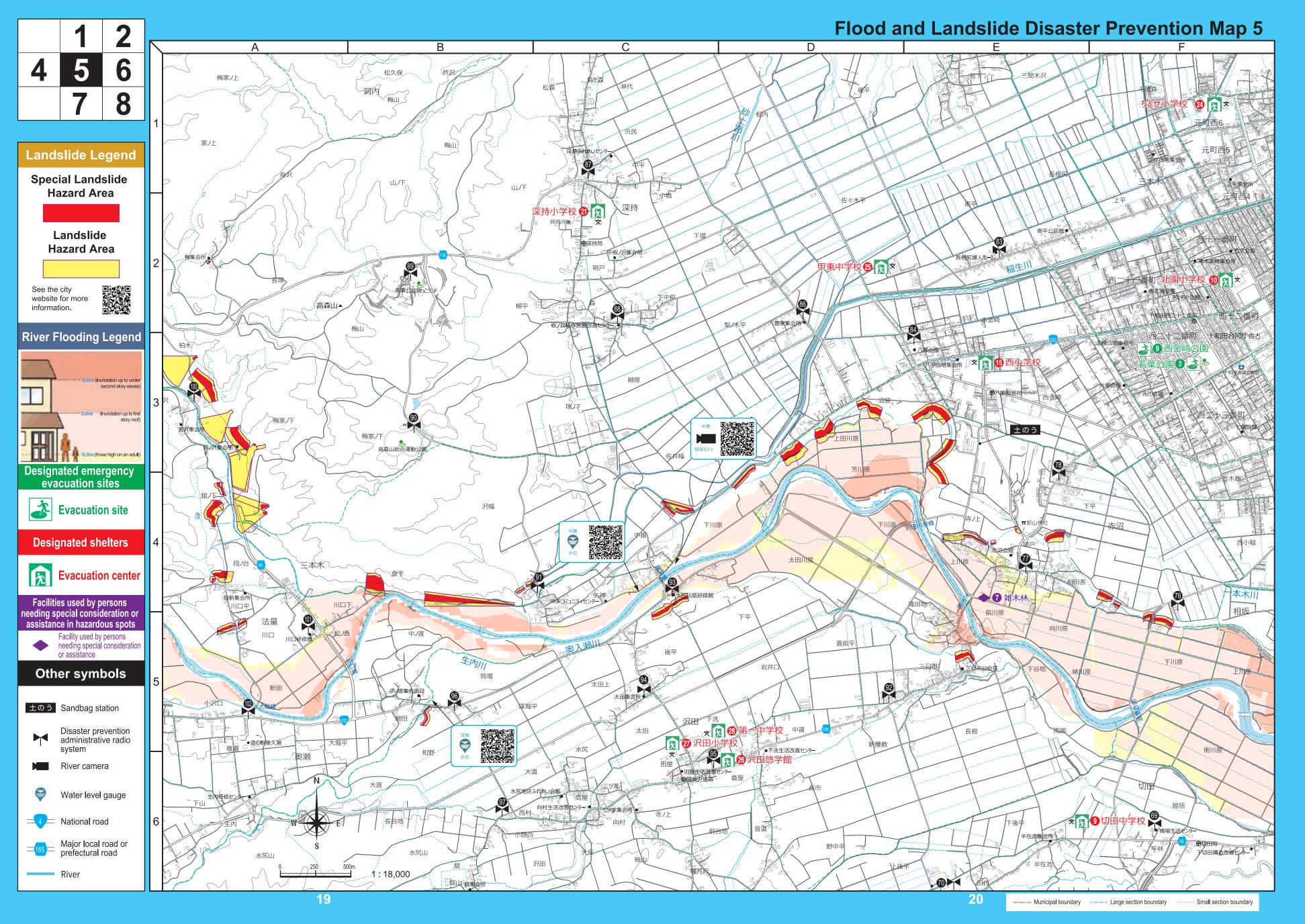


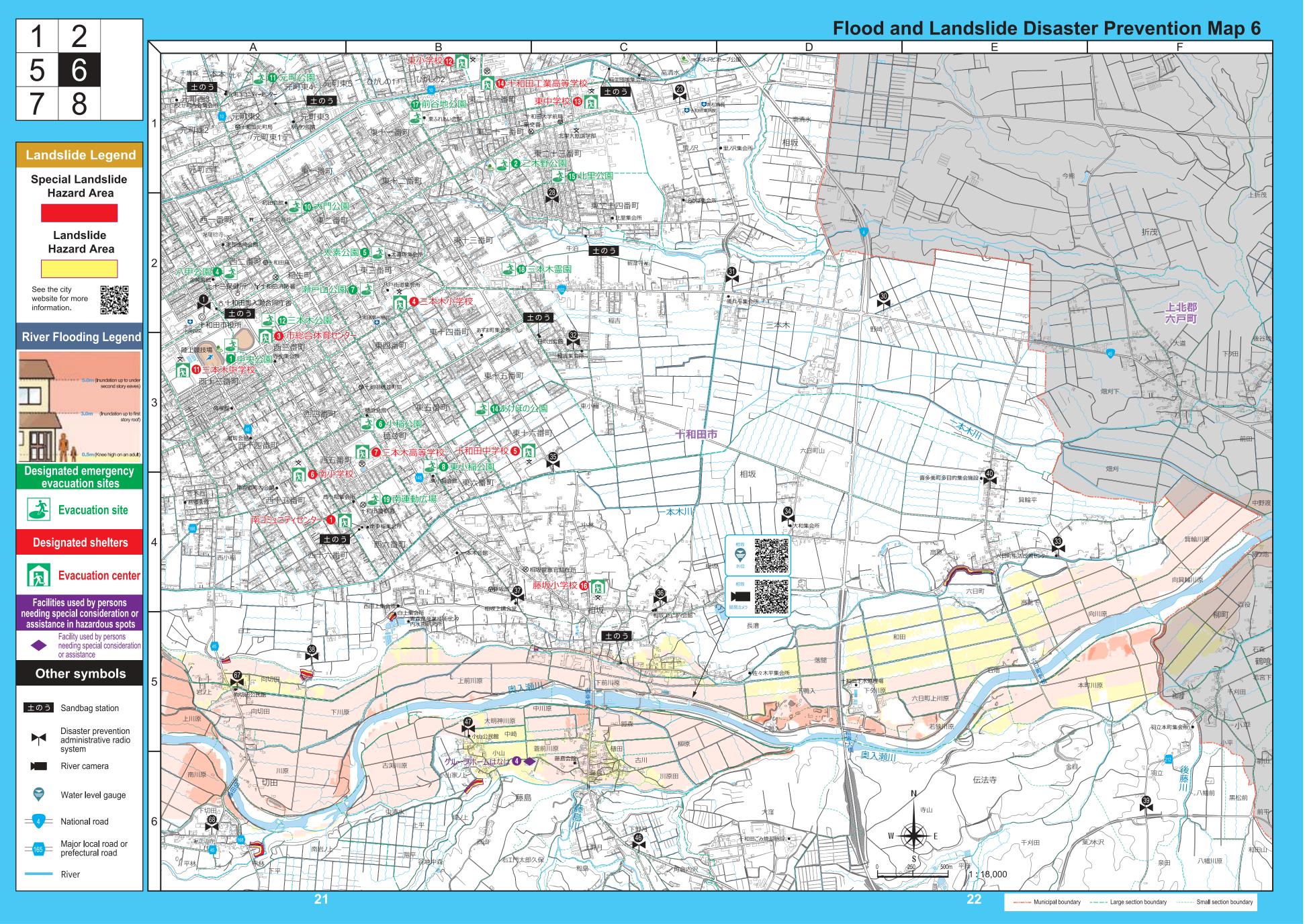


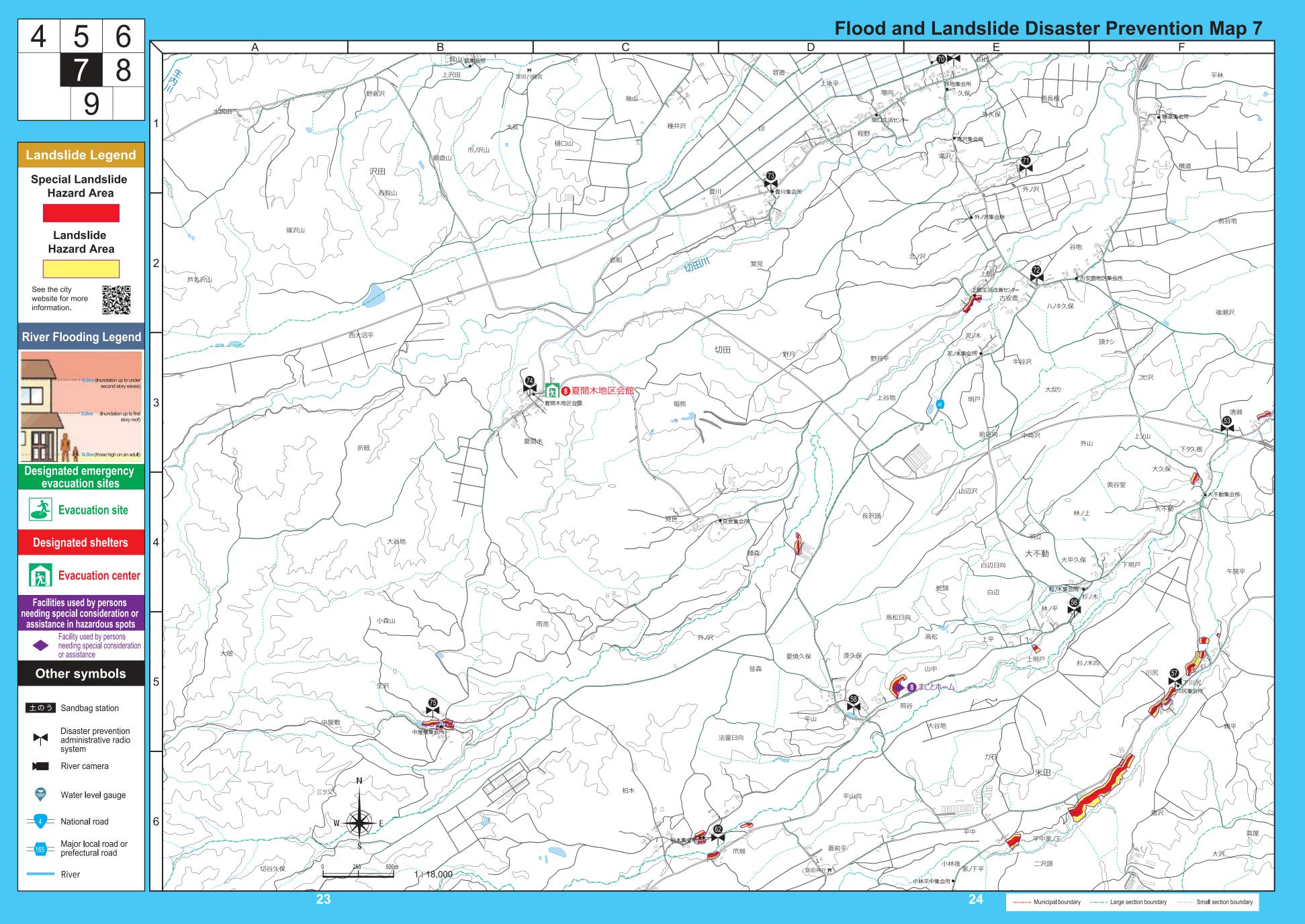


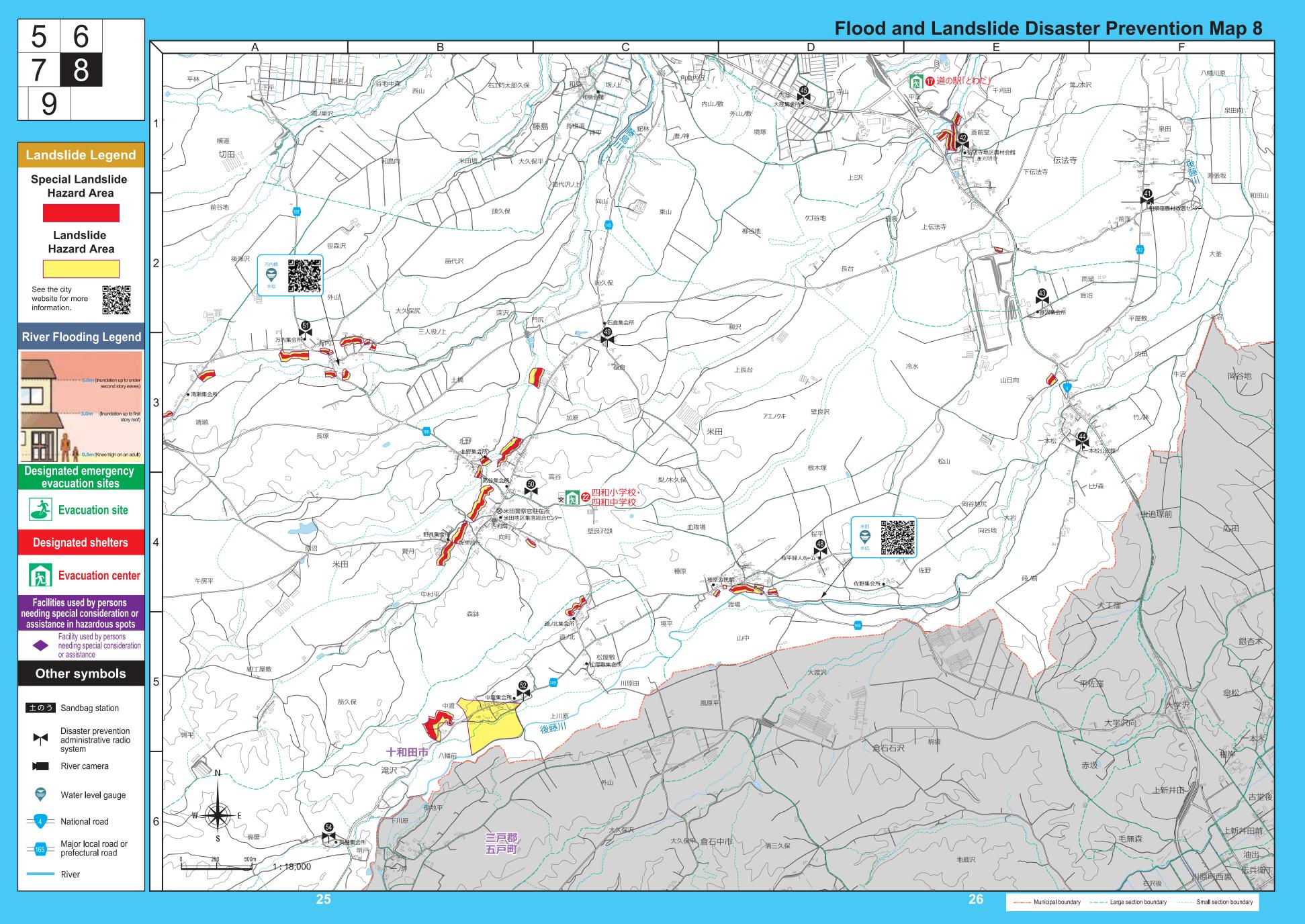


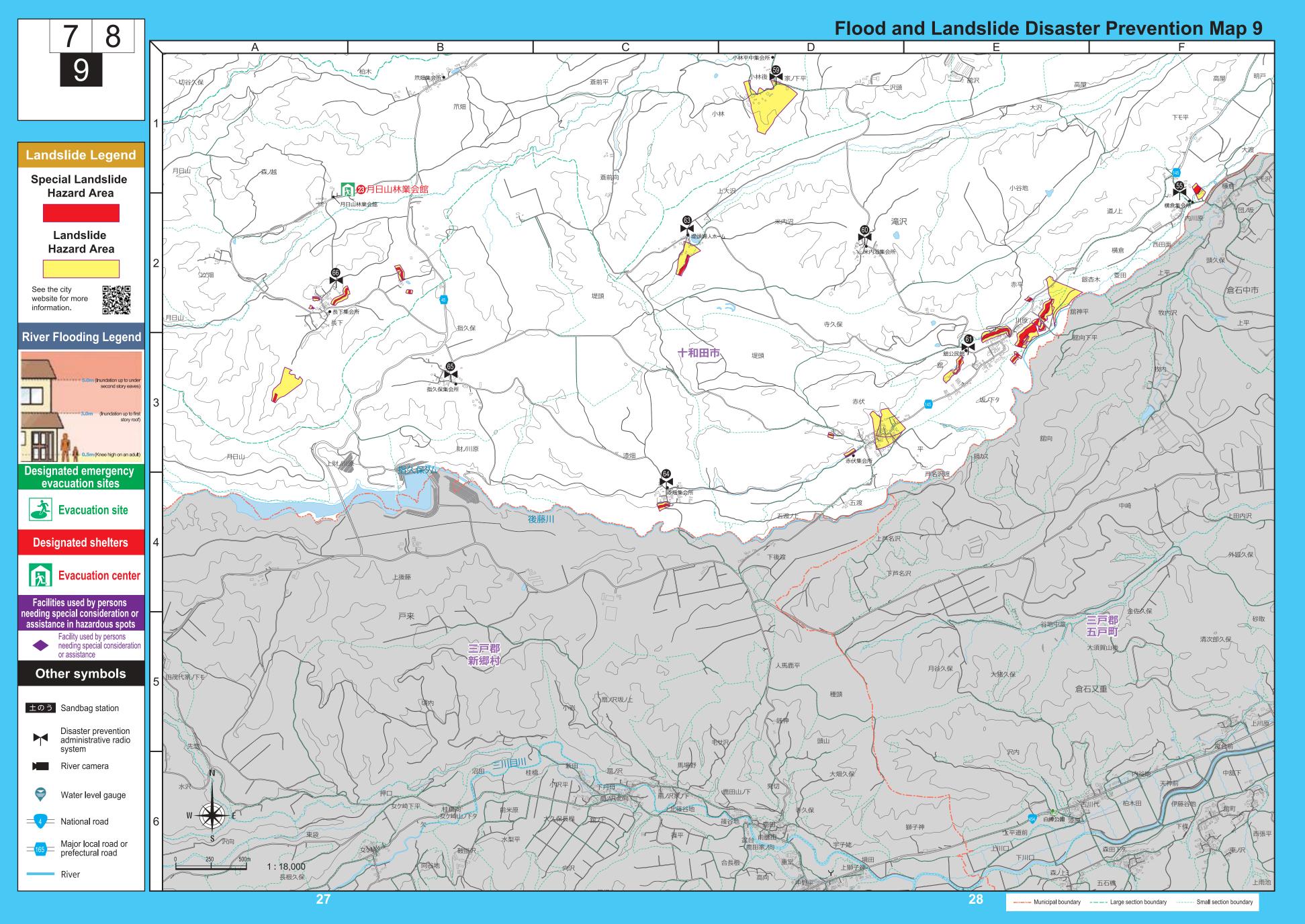


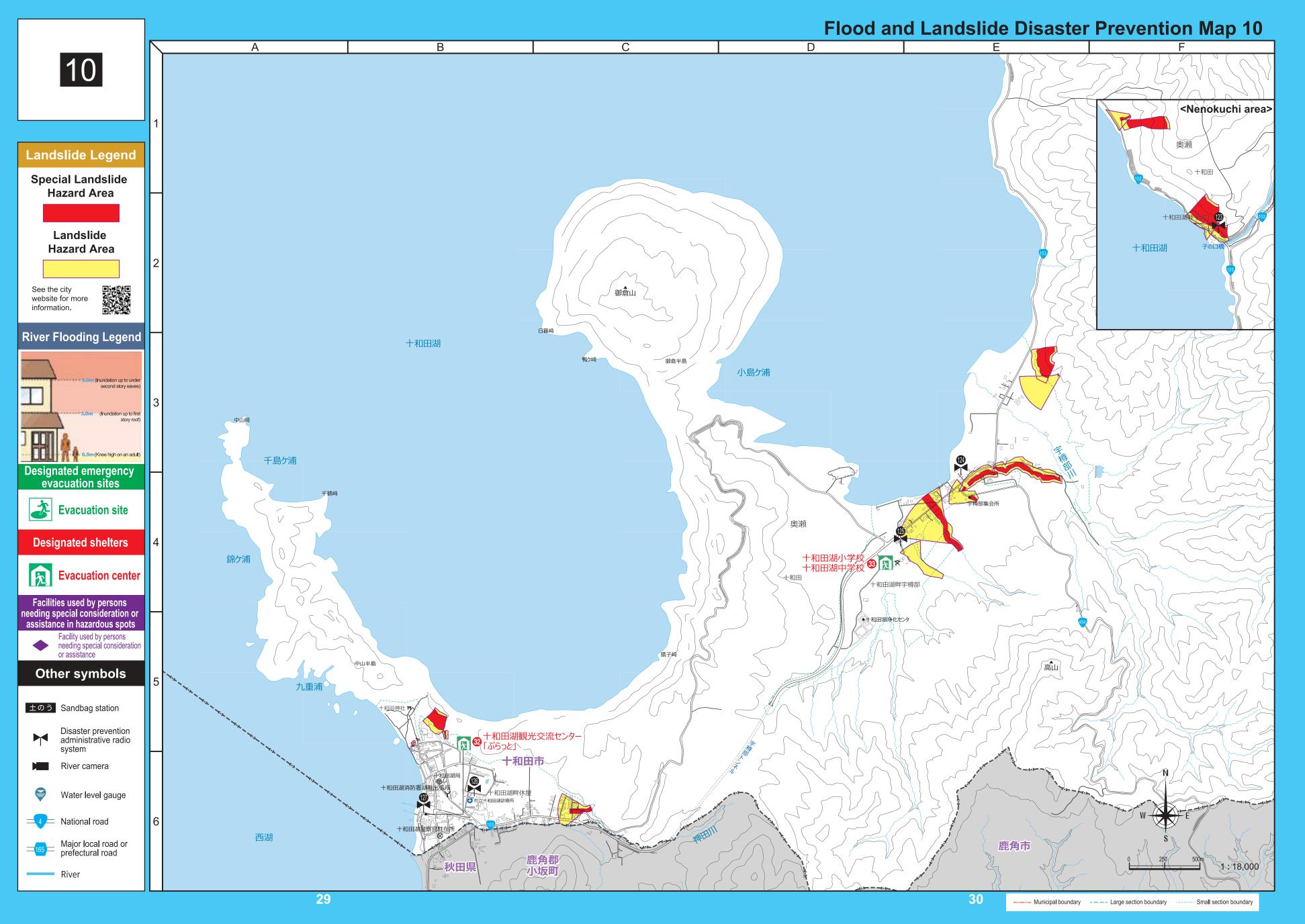












## **Earthquake Countermeasures (1)**

### Seismic intensity guide How do conditions differ by seismic intensity?



- Most people are alarmed
- Suspended items such as pendant lights swing significantly



- and feel the need to hang on to something
- · Dishes in cupboards and items on bookshelves may fall
- Unsecured furniture may move



- Walking is difficult without holding onto something
- Unreinforced concrete block walls may collapse

- \*Announcements of this seismic intensity according to this scale (Japan Meteorological Agency Seismic Intensity Scale) began in October 1996.
- \*The following guide was based on the Tables Explaining the Japan Meteorological Agency Seismic Intensity Scale.



- Standing becomes difficult
- Wall tiles and windows may sustain damage and fall
- Roof tiles may fall off wooden buildings with low earthquake resistance



- It is impossible to remain standing or move without crawling
- Large cracks appear in the ground and large landslips and mountain collapse may occur



- with high earthquake resistance may lean, although rarely
- Reinforced-concrete buildings with low earthquake resistance are more likely to collapse

### If an earthquake occurs

### If you are indoors

#### In your house

- If you feel the ground start to shake, secure your safety and quickly escape to a safe place outside.
- Check for fires promptly (also do not forget to turn off or close electrical outlets and gas valves). Secure the safety of people who require special assistance like infants and toddlers, people
- who are sick, and elderly people. Do not walk around barefoot (you may injure your foot on something like broken glass)

### Department stores & supermarkets

Cover your head with a handbag or other object and move away from show windows and showcases. Flatten yourself against a pillar or wall, listen to staff instructions, and take action calmly.



### Multiple-dwelling home

- Open doors and windows and secure an evacuation route.
- Never use the elevator to evacuate. Use the stairs to evacuate so you do not get caught up in flames and smoke.





### If you are outside

### On the street

- Do not stand still; cover your head with a handbag or other object to protect it from falling objects like windows and signs and escape to an open area or park.
- If there are no open areas nearby, calmly assess the surrounding area and move to a secure high place away from any buildings.
- Stay clear of concrete block walls and vending machines.
- Stay clear of utility poles that look like they may fall over and hanging power lines

#### If you are driving

- Grip the steering wheel tightly, gradually slow down, make room for emergency vehicles to pass, stop on the left side of the road, and cut the ignition.
- Wait for the shaking to stop, while calmly checking the surrounding conditions, and get information on the
- If you need to evacuate, leave the keys in the ignition and the doors unlocked.

### If you are on a bus or other vehicle

- Hold on tight with both hands to a strap or a handrail.
- Even if it stops, do not open the emergency
- handle to get outside or jump from the window. Act calmly according to crew instructions.



items nearby

### Earthquake safety measures for your home Keep this in mind on a daily basis.

Do not put objects in the entranceway or hallway

If you put objects in the entranceway or hallway, they may obstruct evacuation or close off your escape route. Keep the entranceway and hallway tidy.

### Do not put furniture that could topple in bedrooms

You cannot escape from falling furniture if an earthquake occurs while you are sleeping. Avoid using such furniture or use low furniture that will not topple as easily.





### Stick shatterproof film to window glass

Stick shatterproof film to window glass to keep it from shattering.

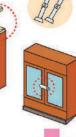






Keep disaster preparedness

Keep a flashlight, slippers, and other disaster preparedness items within reach from where you sleep so that you can use them right away if an



#### Take measures to prevent furniture from toppling and windows from shattering \* In a major earthquake, residences that were built with the old earthquake resistance

Take measures to prevent furniture from toppling in an earthquake. You can buy all sorts of topple-prevention products.
Also take measures to prevent glass from shattering.

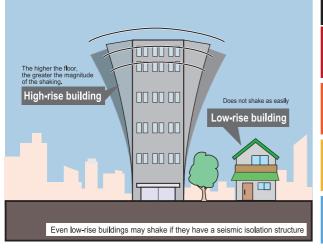


# 9 Earthquake Countermeasures (2)

### **About long-period ground motion**

### What is long-period ground motion?

A slow, large tremor with a long period that occurs during a major earthquake is called long-period ground motion. The magnitude of shaking caused by long-period ground motion in tall buildings cannot be determined from seismic intensity, and so the long-period ground motion scale is used as a guide. Even hundreds of kilometers from the hypocenter, high-rise buildings may shake violently for a long time.



Grade	Shaking situation
4	<ul> <li>Cannot stand, must crawl to move around. Tossed about by the shaking.</li> <li>Furniture on caster wheels moves significantly and may fall over. Most of the unsecured furniture is being shifted and some may be knocked over.</li> </ul>
3	<ul> <li>Standing becomes difficult.</li> <li>Furniture on caster wheels moves significantly. Unsecured furniture may be shifted, and if unstable, may be knocked over.</li> </ul>
2	<ul> <li>You feel strong shaking in the room and the need to hold onto something. You have difficulty moving around, for example, experiencing difficulty walking unless holding onto something.</li> <li>Furniture on caster wheels moves slightly. Dishes in cupboards and items on bookshelves may fall.</li> </ul>
1	<ul> <li>Most people in the room feel the shaking. Some people are alarmed.</li> <li>Items like blinds that hang down shake significantly.</li> </ul>

Japan Meteorological Agency website: About long-period ground motion



### About Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisories

### What is an Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory?

There was an event in the area off the Coast of Sanriku and off the Pacific coast of Hokkaido (along the Japan Trench and Chishima Trench) in which a magnitude 7 earthquake was followed by another large earthquake (subsequent earthquake).

Although the probability of a subsequent earthquake occurring is low, if an earthquake of magnitude 7 or higher occurs in or around the expected hypocenter area, the possibility of a large-scale earthquake occurring is relatively higher than usual. For this reason, the Japan Meteorological Agency issues an Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory and the Cabinet Office calls for disaster prevention measures to urge caution against subsequent earthquakes.

### Disaster prevention measures when an advisory has been issued

Advisory issuance does not necessarily indicate a need to evacuate. For about a week after an earthquake occurs, continue socio-economic activities while remaining extra vigilant for the occurrence of a huge earthquake and thoroughly preparing for an earthquake.

Double check all your regular earthquake preparations such as securing furniture and checking evacuation sites and evacuation routes and prepare so that you can evacuate immediately if you feel shaking.

# When an earthquake with a magnitude of 7.0 or higher occurs... There is a possibility of another massive earthquake! Stay informed Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory: Implemented in December 2022 \*Issuance of this information does not necessarily mean that a massive earthquake will definitely occur.

### Points to remember about the information

- Based on cases around the world, the probability of a subsequent earthquake is about one in a hundred, and so a large-scale subsequent earthquake is not guaranteed to occur in the following week.
- Assume that a huge earthquake may occur suddenly without any advisory being issued, and prepare for earthquakes on a daily basis.
- While the national and local governments will not call for advance evacuation, stay vigilant for earthquakes for about a week from the initial earthquake.

Japan Meteorological Agency website: About Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory



### An Earthquake Early Warning is issued in these cases!

Issuance conditions Prediction of a seismic intensity 5-lower or stronger OR prediction of 3 or higher on the long-period ground motion scale

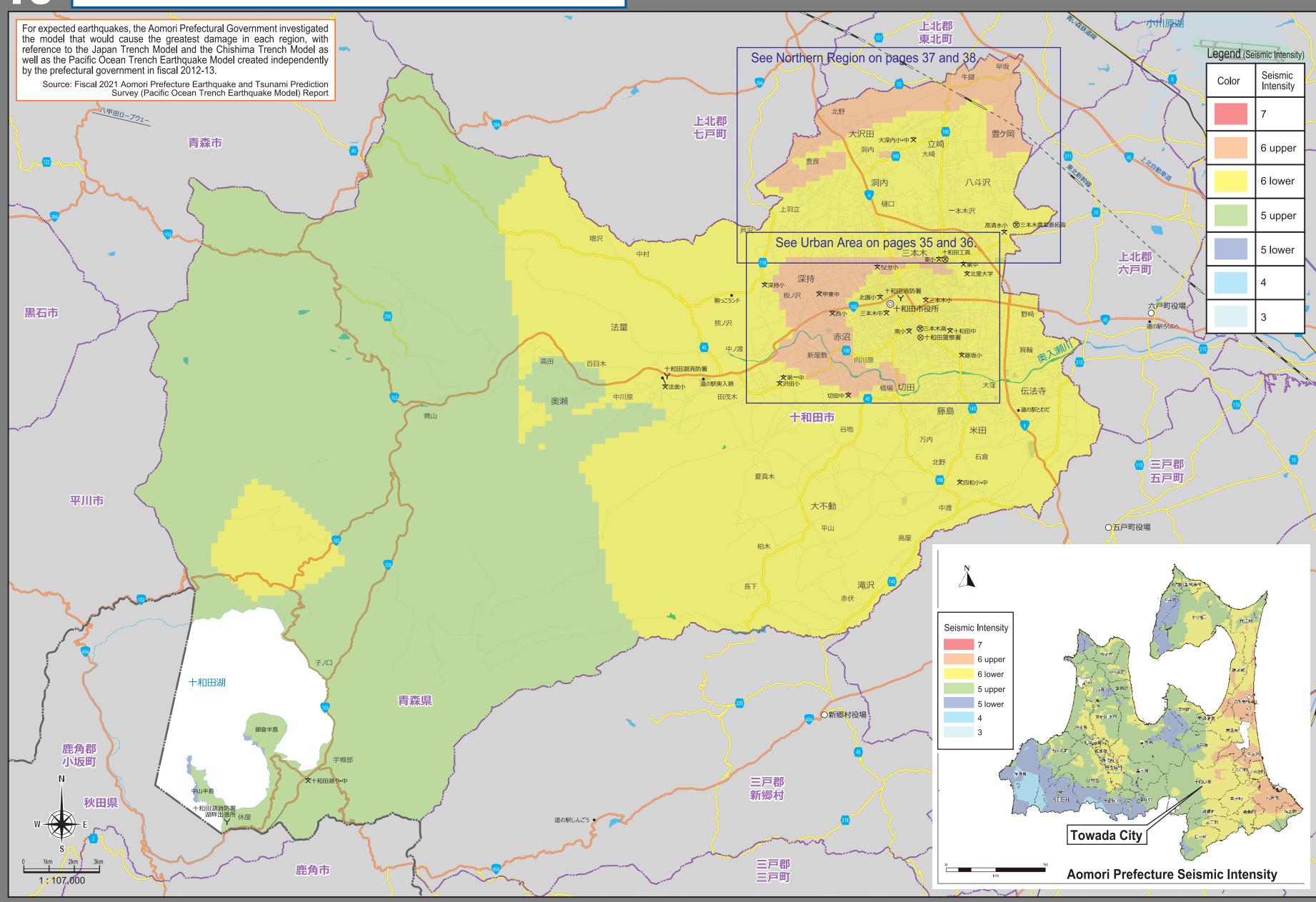
Prediction areas Areas expected to experience seismic intensity 4 or stronger OR areas expected to experience 3 or higher on the long-period ground motion scale

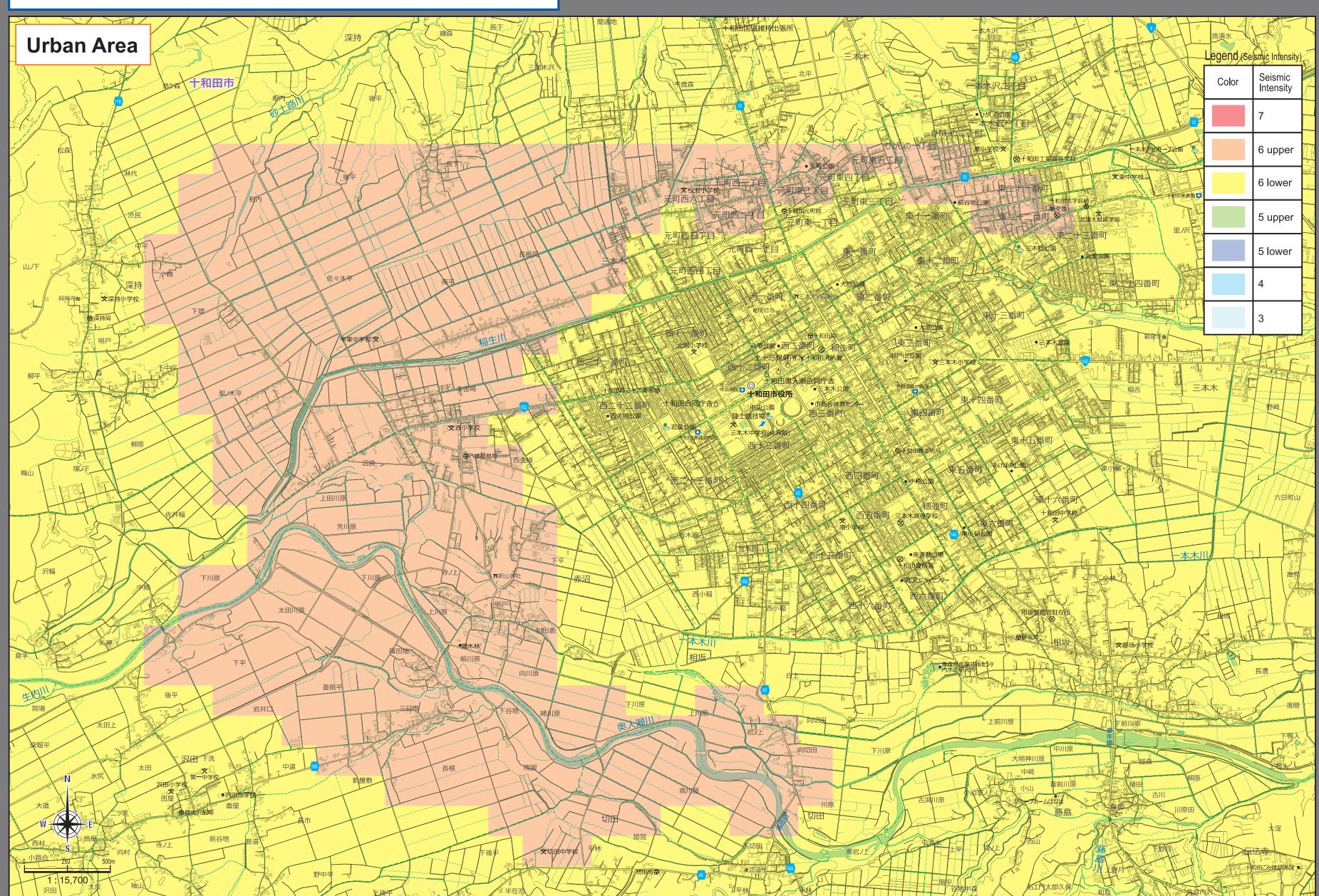
It is rare for a warning to be issued only based on long-period ground motion scale criteria, but it was added to the warning criteria due to the risk of a serious disaster with casualties. The actions to take are the same for large rattling shaking (high seismic intensity) and large but slow shaking (long-period ground motion). There is only a small window of time. If you see or hear an Earthquake Early Warning, take actions to protect yourself and continue those actions until the shaking stops.

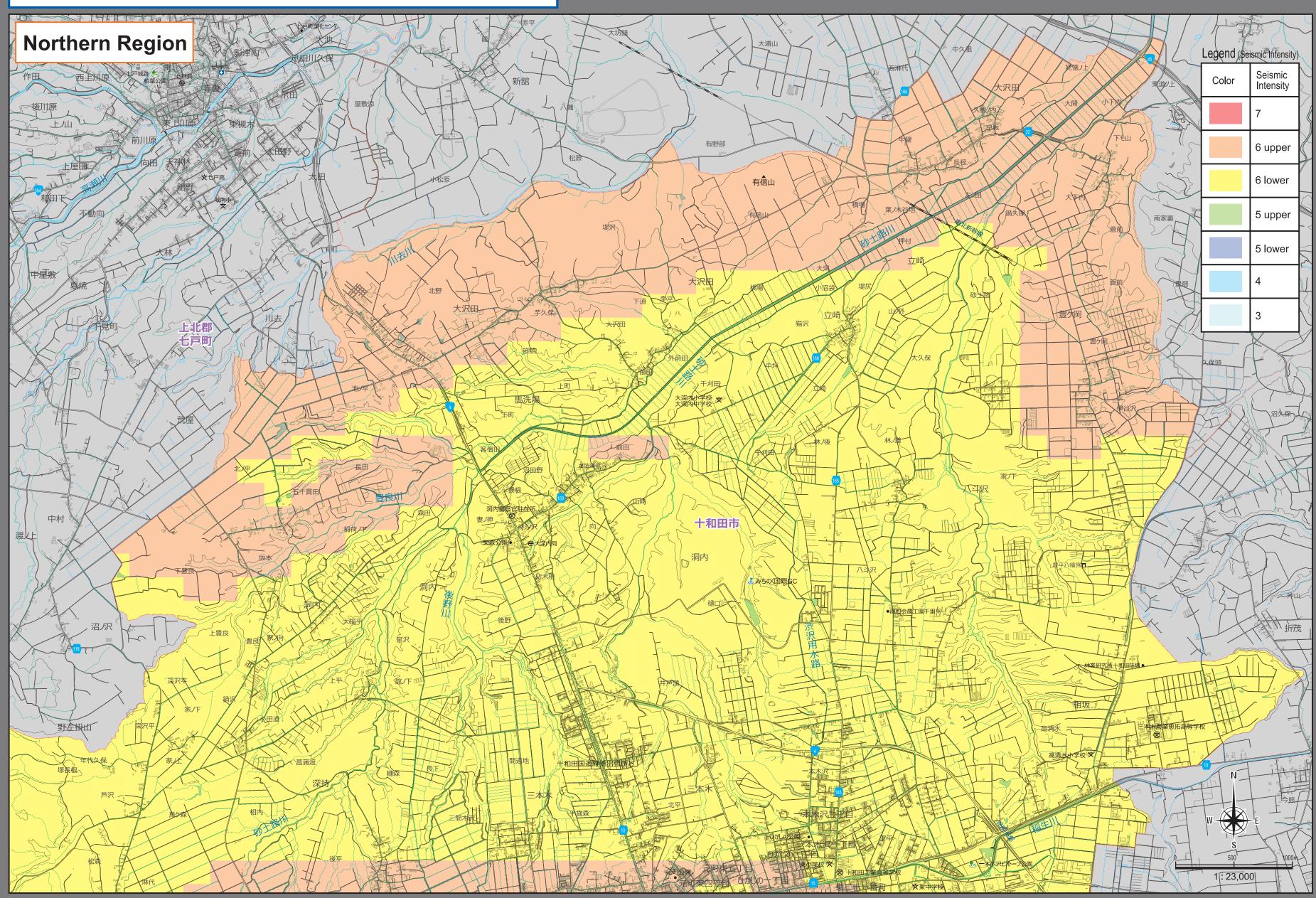
Japan Meteorological Agency website: About Earthquake Early Warnings



(Tables and figures on the page are edited excerpts from the Cabinet Office and Japan Meteorological Agency websites)







### 11 Volcanic Eruption Preparedness Measures

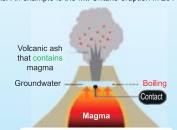
Volcanic eruptions and phenomena that occur in eruptions

There are various types of eruptions. Here are some eruption phenomena that can occur.

# What types of eruptions are there?

### Phreatic eruption

An explosion in which groundwater warmed by the heat of magma boils all at once, blowing away the surrounding rocks. An example is the Mt. Ontake eruption in 2014.



#### Phreatomagmatic eruption

Rising magma interacts with groundwater, triggering an explosion. This is a phreatomagmatic eruption.



### **Magmatic eruption**

Magma that has risen up from underground erupts directly onto the ground surface. Various types of eruptions are triggered depending on the chemical

### What happens in a volcanic eruption?

### Flying and falling phenomena Flying rocks

Rocks that fly out from a crater from explosive eruptions shoot out in a ballistic trajectory like a cannonball. Flying rocks were one cause of the many casualties that occurred in the 2014 Mt. Ontake eruption

### Flowing phenomena

Debris flows after ash fall 🛣



When heavy rain falls on volcanic ash tha has been ejected by an eruption, debris flows and mud flows occur. These debris flows and mud flows rapidly flow down the slopes and cause major injuries and damage

### Pyroclastic fall deposits



A phenomenon in which volcanic ash and pumice fall from plumes that rise in the air from a volcanic eruption. The deposits are blown far in the wind and can have a serious impact on daily lives.

### Lava flow and lava domes

volcanic gases at high temperatures of several

hundred degrees flowing down the slopes of a

volcano like an avalanche is called a pyroclastic

flow. It is faster than a car and very destructive.

and is the most dangerous volcanic phenomeno



Magma that flows out from a crater is called lava flow. Viscous magma piles up on the top of the crater to form a lava dome. If a lava dome collapses while still hot, it can cause pyroclastic flows.

### Snowmelt-type mudflow



When pyroclastic flows form on a volcano that is covered in thick snow, the heat melts the snow on the slopes, creating large amounts of water When that water picks up surrounding soil and rocks, it becomes a volcanic mudflow. It flows quickly and far and can cause a major disaster.

### Main information issued about volcanos (Japan Meteorological Agency

issued when there has been a	an eruption of when voicanic activity is high (shows main information)			
Name of information	Description			
Eruption Notice	This is information to quickly let mountain hikers and residents living near the volcano that there has been an eruption.			
Details of Volcanic Activity	<ul> <li>Regular or special information provided as needed to explain the number of volcanic earthquakes and tremors, status of volcanic eruptions, and predicted phenomena.</li> </ul>			
Volcanic Ash Fall Forecasts	<ul> <li>Forecasts are announced to provide information about the expected volume and location of volcanic ash that will fall after an eruption in three stages of ash thickness.</li> <li>There are Volcanic Ash Fall Forecasts (Preliminary) that are announced immediately after a volcanic eruption and Volcanic Ash Fall Forecasts (Detailed) that are announced later. Volcanic Ash Fall Forecasts (Scheduled) are also announced every three hours when a volcanic warning has been issued.</li> </ul>			
Issued during regular times				

	a volcanic warning has been issued.
Issued during regular time	es
Name of information	Description
Volcanic Warnings/Forecasts (Volcanic Alert Levels)	<ul> <li>Volcanic warnings are issued when a life-threatening volcanic phenomenon is predicted and shows the area where vigilance is required.</li> <li>For volcanos that use the Volcanic Alert Level system, the Volcanic Alert Level (five levels from 1 to 5) is announced.</li> </ul>
Volcanic activity explanation materials	Materials issued regularly or specially as needed to explain the status of volcanic activity and predicted phenomena.
Other	In addition to the above, information about volcanos such as the Weekly Volcano Overview, the Monthly Volcano Overview, and the Earthquake and Volcano Monthly Report (Disaster Prevention Edition) is also periodically issued during regular times.

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Information about volcanos announced by the Japan Meteorological Agency (including other than the above)

You can get information and materials about volcanos announced by the Japan Meteorological Agency (including other than the above) on the following website. Japan Meteorological Agency website > Information/Explanations > Volcanos https://www.data.jma.go.jp/vois/data/tokyo/STOCK/kaisetsu/vol know.html



### What to do if a volcano erupts while you are climbing

### If you encounter an eruption while climbing a volcano

Get away from the crater quickly while protecting your head and back.

- You could be fatally injured by cinders falling rapidly from above. If you encounter an eruption while climbing a volcano, put on a helmet to protect your head. If you do not have a helmet, cover your head and back with something else such as your bag and get off the volcano.
- When escaping, quickly head away from the crater. Immediately after a sudden volcanic eruption, get in a building or behind a large rock to protect yourself from flying rocks.
- Cover your mouth with a towel while escaping to keep from inhaling the volcanic ash and gases (avoid gorges and depressions where volcanic gases tend to accumulate).
- To prepare for a sudden volcanic eruption, look for places to escape to or hide as you climb.

Sudden eruption in September 2014 (Mt. Ontake)



Mountain hut with a wall facing the crater that was damaged by cinders



Camping pot that was dented by a direct impact from falling debris (Mt. Ontake)



### Information for volcano climbers

You can get information for volcano climbers on the following Japan Meteorological Agency website.

Webpage with information for volcano climbers (Tohoku Region)

https://www.data.jma.go.jp/vois/data/tokyo/STOCK/activity\_info/map\_2.html

### What to do when volcanic ash is falling

### Impact of volcanic ash on daily life and what to do

- When volcanic ash accumulates, it can have various impacts on daily life, such as negative health effects on your eyes and respiratory tract, poor visibility from volcanic ash that is stirred up, reduced vehicle driving performance, power outages caused by short circuits of the insulators in utility poles, water stoppages due to reduced water quality, sewers clogged with volcanic ash in the drains, and negative effects on agricultural produce.
- When volcanic ash is falling, get a dust mask and goggles to protect your health and plastic bags to protect your phone and other items you carry around. Also take steps to from low ash fall (Shinmoedake) keep the volcanic ash out of your home, for example, by brushing off the volcanic ash on your clothes before entering your house when coming home. Be careful not to fall from high places when removing ash from your roof or rain gutters. When clearing away volcanic ash from your garden or the street, be careful that it does not get into the



Road that is wet and slippery



Citrus fruit covered in volcanio



ash (Shinmoedake)



Ash removal from a roof covered in volcanic ash (Shinmoedake)

Information to prepare for volcanic ash

The following National Research Institute for Earth Science and Disaster Resilience website has information such as a guide to preparing for volcanic ash.

Health hazards from volcanic ash https://ivhhn.org/images/pamphlets/preparedness\_jap\_low.pdi

### Preparation for volcanic eruptions in daily life

### Check which areas are expected to be dangerous in a volcanic eruption

• Use tools like the Volcano Disaster Prevention Maps to determine what phenomena would occur in a volcanic eruption and which areas are expected to be dangerous.

### Check where to get information about volcanic eruptions

- Check what types of information are issued by the Japan Meteorological Agency and local governments (prefectural, municipal) when a volcano erupts.
- Check how to get information (e.g., internet, radio, TV).

### Check where to evacuate to and how to evacuate

- Check where your family should evacuate to (e.g., an evacuation center) and how to contact your family members. Anticipate that it may be difficult to reach the evacuation place and check which buildings nearby are strong.
- When a volcano erupts and there is ash fall, traffic congestion is expected as visibility is reduced and the road becomes slippery. Ash fall can also sometimes cause a power outage. Travel by public transportation such as car, bus, or train is also expected to be difficult. Check with your family what method

### Prepare emergency items for an emergency

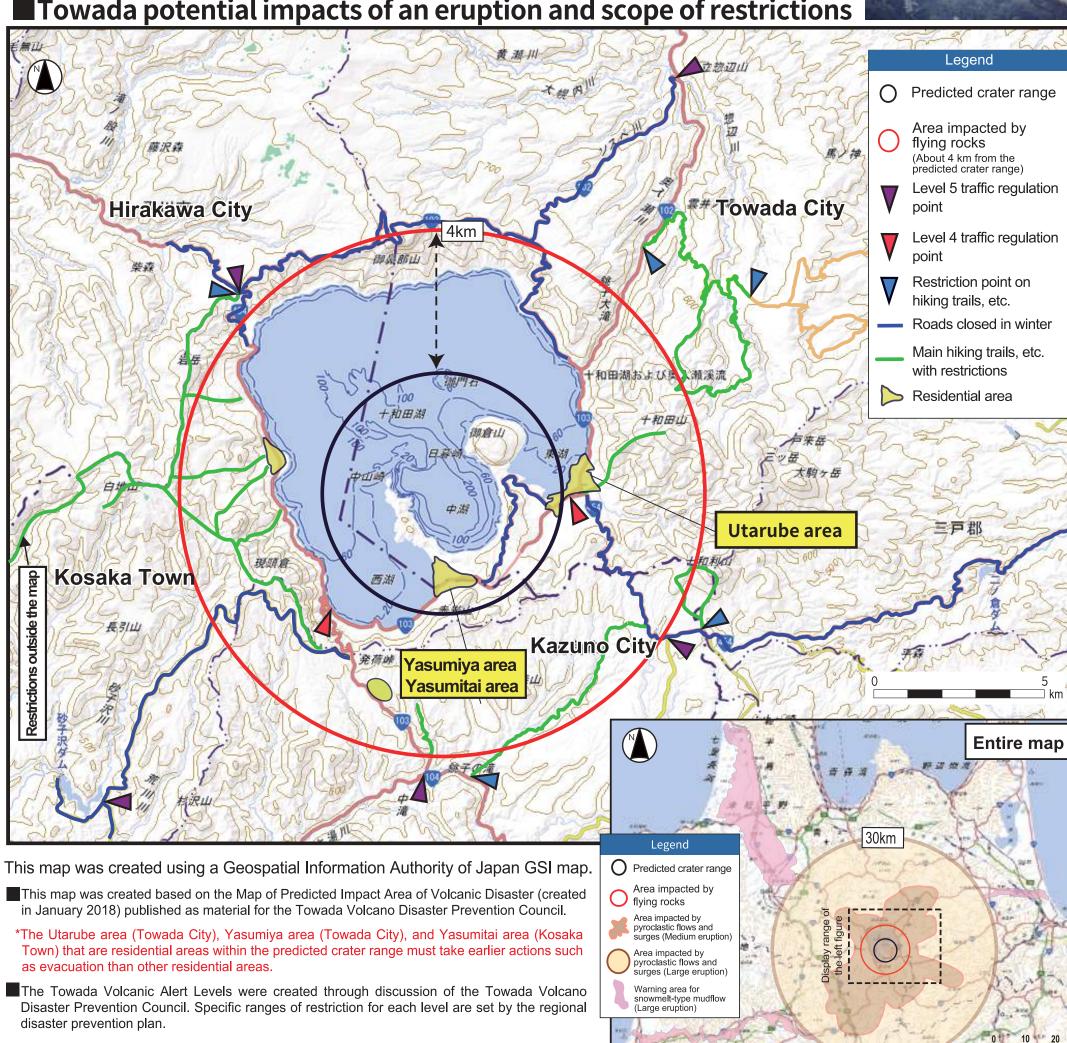
- Prepare necessary supplies and emergency items.
- Areas that are downwind from the volcano are expected to be impacted by ash fall even if far from the volcano. To minimize the impact of ash fall, make preparations so that you can protect your eyes and respiratory tract from volcanic ash.

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12 Towada Volcano Disaster Prevention Map (Small eruption)

- The Volcanic Alert Level for Towada is shared as a volcanic warning or other information.
- When an increase in volcanic activity is detected, Details of Volcanic Activity (Extra) are announced.
- When the likelihood of a volcanic eruption increases, a Level 4 or 5 Volcanic Warning is issued. \*Evacuation may take longer during the period from November to April as some roads are closed for the winter. Earlier action is important
- ■Towada potential impacts of an eruption and scope of restrictions

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### **Evacuation centers and evacuation routes**

	Name	Address
1	Sawada Yugakukan	21-1 Shimoarai, Sawada
2	Nishi (West) Community Center	70-3 Nakatai, Okuse
3	Former Regional Comprehensive Support Center	61-6 Nakatai, Okuse

\*(1) to (3) are opened in order as evacuation centers as needed.

### **Evacuation routes** (Examples if the crater location is Naka Lake)

- (1)Nenokuchi area towards Towada (Route 102 along Oirase Gorge, near Aobunayama)
- (2)Utarube area towards Shingo and Gonohe (Route 454 towards Mayogatai)
- (3) Yasumiya area towards Akita (Route 103) (Akita Prefectural Route 2 Odate Towadako Line)

### Oln winter

- (1)Nenokuchi area towards Towada (Route 102 along Oirase Gorge)
- (2)Utarube area towards Towada (Route 102 along Oirase Gorge)
- (3) Yasumiya area towards Akita (Route 103)

\*See the Towada City website for details.



### Towada Volcanic Alert Levels

Adopted in Match 2022

Туре	Name	Scope	Level (keywords)	Volcanic activity	Actions for residents and response for those in and on the volcano Expected phenomena	Expected phenomena
	Volcanic Warning (Residential areas) or Volcanic Warning	the crater	5	An eruption causing serious damage to residential areas has occurred or is imminent.	Evacuation is necessary, starting with residential areas in danger.	[5-3] ◆An eruption with pyroclastic flows and surges causing damage to residential areas within about 30 km of the crater has occurred or is imminent. In the snow cover period, snowmelt-type mudflow has reached or is about to reach residential areas along rivers up to the coast. Past events Eruption about 6,200 years ago (Chuseri pumice eruption) Climax eruption in 915 (Kemanai pyroclastic flows)
Emergency warning	al areas) or Vo	areas facing	Evacuation)			<ul> <li>[5-2]</li> <li>◆An eruption with pyroclastic flows and surges causing damage to residential areas within about 20 km of the crater (maximum 23 km) has occurred or is imminent.</li> <li>Past events</li> <li>One eruption in 915 (Medium eruption)</li> </ul>
Emergeno	Residentia	areas and	(E			[5−1]  •An eruption causing damage to residential areas with flying rocks reaching about 4 km from the crater has occurred or is imminent.  •Past events None
	ic Warning (	Residential	of the elderly s who need o evacuate)	An eruption causing serious damage to residential areas is expected (probability has increased).	Need for the elderly and those who need support in the time of a disaster to evacuate and need for residents to prepare to evacuate in residential areas	<ul> <li>[4-2]</li> <li>● An eruption with pyroclastic flows and surges and snowmelt-type mudflow reaching residential areas that are over 4 km from the crater is possible.</li> <li>Past events None</li> </ul>
	Volcan		ation others ime t	nac moreaccay.	where vigilance is required. Need for those in residential areas within the predicted crater range to evacuate.	<ul> <li>[4-1]</li> <li>●An eruption impacting residential areas with flying rocks reaching about 4 km from the crater is possible.</li> <li>Past events None</li> </ul>
Warning	Volcanic Warning (Near the crater) or Near-crater Warning From the crater to	Ĕ	used when the amount of volcanic activity is increasing (Do not Approach the Approach the Crater)	An eruption seriously impacting the area near residential areas (entering this range is life-threatening) has occurred or is expected.	Do not enter the dangerous area. Residents should watch out for changes in volcanic activity.	[About Levels 2 and 3]  ●These levels are not used when volcanic activity is increasing; they are announced based on the status of volcanic activity when
Wa		Near the crater	not used when the arr (Do not Approach the Crater)	An eruption impacting the area near the crater (entering this range is life-threatening) has occurred or is expected.	Do not enter the area around the crater. Residents should watch out for changes in volcanic activity.	the activity calms down to below Level 4 or 5.
Forecast	Volcanic Forecast	Inside the crater, etc.	Levels 2 and 3 are Potential for Levels 2 and 3 are Increased activity)	An increase in volcanic activity is detected. The level may be increased with future changes in activity.	Depending on the situation, need for the elderly and those who need support in the time of a disaster in residential areas within the predicted crater range to evacuate.	● For example, an increase in volcanic earthquakes with a shallow hypocenter, occurrence of volcanic tremors, or crustal movements indicating shallow expansion.  Past events None
Fo	≯હ	Inside	(Pote incre	Volcanic activity is calm.	Residents may continue daily activities as usual.	●Volcanic activity is calm.

When an increase in volcanic activity is detected and the level may be raised depending on changes in activity or when it is difficult to judge the situation, Details of Volcanic Activity (Extra) are announced.

\*Residential areas within the predicted crater range must take actions such as evacuation earlier than other residential areas \*The crater refers to the predicted location of an eruption on a volcano hazard map.

\*Snowmelt-type mudflow is only expected during the snow cover period.

■Specific ranges of restriction for each level are set by the regional disaster prevention plan for each municipality

■See the Japan Meteorological Agency website for the latest Volcanic Alert Levels. https://www.jma.go.jp/jma/index.html

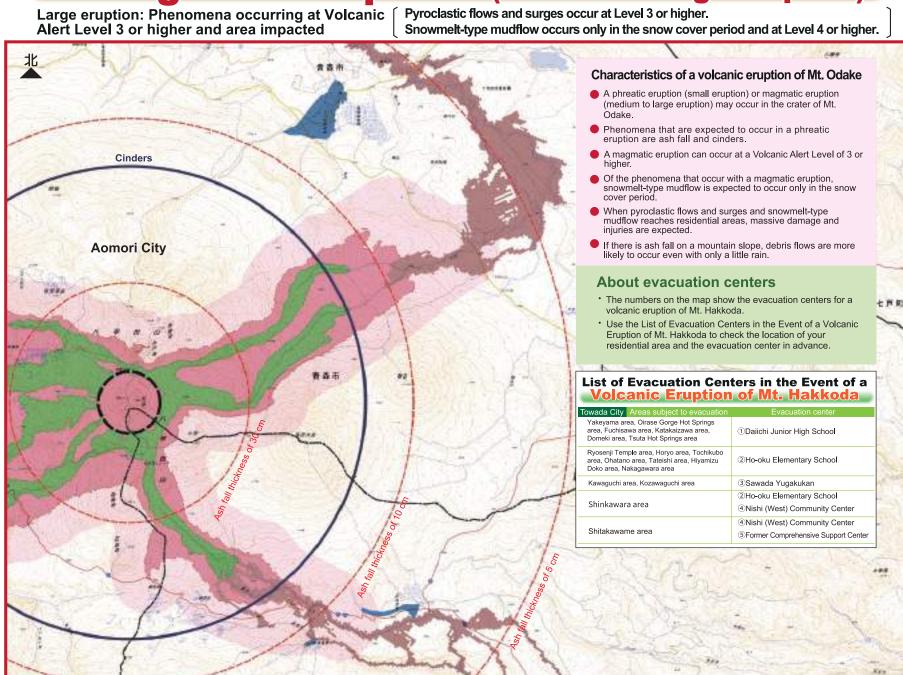


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### 13 Hakkodasan Volcano Disaster Prevention Map

For magmatic eruptions (Mt. Odake large eruption)

Alert Level 3 or higher and area impacted



### Mt. Hakkoda Volcanic Alert Levels

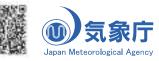
Туре	Name	Scope	Level (keywords)	Volcanic activity	Actions for residents and response for those in and on the volcano	Expected phenomena
Emergency warning	Volcanic Warning (Residential areas)	and areas facing the crater	(Evacuation) <b>6</b>	An eruption causing serious damage to residential areas has occurred or is imminent.	Evacuation is necessary, starting with residential areas in danger.	<ul> <li>Snowmelt-type mudflow has reached or is about to reach residential areas.</li> <li>Past events         Mt. Odake crater         Eruption about 4,800 years ago, eruption about 4,200 years ago, eruption about 3,100 years ago     </li> </ul>
		Residential areas ar	(Evacuation <b>P</b> Preparation)	An eruption causing serious damage to residential areas is expected (probability has increased).	Need for evacuation preparation in residential areas where vigilance is required. Need for evacuation of persons needing special consideration and specified regions.	A volcanic eruption with a snowmelt-type mudflow reaching residential areas is expected.      Past events     None
Warning	Volcanic Warning (Near the crater)	From the crater to near residential areas	(Do Not Approach the Volcano)	An eruption seriously impacting the area near residential areas (entering this range is life-threatening) has occurred or is expected.	Need for evacuation preparation in residential areas where vigilance is required. Need for evacuation of persons needing special consideration and specified regions.  Residents may continue daily activities as usual.	<ul> <li>A volcanic eruption is occurring or may occur with impacts from flying rocks and lava flow within about 3 km and pyroclastic flows and surges within about 6 km from the Mt. Odake crater.</li> <li>A volcanic eruption is occurring or may occur with impacts from flying rock within about 3 km, lava flow within about 2 km, and pyroclastic flows an surges within about 5 km from the Mt. Odake crater.</li> <li>During the snow cover period, snowmelt-type mudflow has reached or may reach within about 6 km from the Mt. Odake crater.</li> <li>Past events</li> <li>Eruption in around the 1st century</li> </ul>
			Near the crater	(Do not Approach the Crater)	An eruption impacting the area near the crater (entering this range is life-threatening) has occurred or is expected.	Do not enter the area around the crater. Depending on the situation, evacuation of specified regions may be needed.  Residents may continue daily activities as usual.
Forecast	Volcanic Forecast	Inside the crater, etc.	(Potential for increased activity)	Volcanic activity is calm. Depending on the volcanic activity, volcanic ash may be ejected within the crater (entering this area is life-threatening).	Depending on the situation, restrictions on approaching the crater and need for evacuation preparation of specified regions may be required.	<ul> <li>Volcanic activity is calm.</li> <li>Depending on the situation, some volcanic ash and/or volcanic gases may be ejected to an extent that will affect the inside of the crater.</li> </ul>

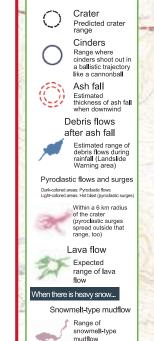
\*Specified regions means regions with facilities such as hot springs located near the predicted crater of Mt. Hakkoda. Actions such as early evacuation may be required.

\*If the crater cannot be identified, a Volcanic Warning is issued for an expected eruption from both the Mt. Odake crater and the Jigokunuma Specific ranges of restriction for each level are set by the regional disaster prevention plan for each municipality.

See the Japan Meteorological Agency website for the latest Volcanic Alert Levels.

https://www.jma.go.jp/jma/index.html





👩 🖟 4 Nishi (West) Community Center **5** Former Comprehensive Support Center **Ho-oku Elementary** 

Sawada Yugakukan

Daiichi Junior **High School** 

**Towada City** 

Approved by the Geospatial Information Authority of Japan based on the Survey Act (Reproduction) R2JHf214

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This map shows all areas expected to be affected by debris, ash fall, lava flows, pyroclastic flows and surges, snowmelt-type

mudflows, and post-ashfall debris flows.

A single eruption will not necessarily cause these phenomena to flow in all of the directions shown on this map.

# 14 My Family's Disaster Prevention Memo

<b>Evacuation</b>	site Decide as a family w	Decide as a family where you will evacuate to Check the directions to the evacuation place							
My family's evacuation p	lace								
Family meeting place (if unable to meet at the evacuation p									
Family contact	cts Decide on emergenc	Decide on emergency contact methods and persons for your family							
Name	Company/school	Phone No.		Date of birth	Blood type	Comments			
			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • •	• • • • • • • • • • • • •				
Emergency contacts Friends or relatives who live far away									
Name	Phone No.		Name Phone		ie No.				

# **Emergency and Stockpile Supplies**

When a disaster occurs and you need to evacuate, or even if you do not need to evacuate, you may be unable to use electricity, water, gas, and other utilities.

Prepare for any situation by talking with your family and getting emergency and stockpile supplies ready for a disaster.

**Examples of emergency supplies** 

Check the **y** boxes of the items you have ready.

### **Examples of stockpile supplies**

Check the boxes of the items you have prepared for surviving a few days (at least three) ✓ until disaster recovery.

#### **Emergency medicines** Portable radio **Valuables Flashlight** Ointment ☐ Bandages Flashlight (one for each person, if possible) Digestive medicine Radio ☐ Inkan ☐ Driver's license ☐ Batteries (extra) Painkillers Batteries (extra) Health insurance card Disinfectan **Emergency food** Foods that do not require cooking, cutlery, etc. Phone charger Helmet, cotton gloves \_\_\_ Hardtack Canned and ready-made foods Cloth adhesive tape ☐ Plastic bags ☐ Mineral water Plastic wrap ☐ Baby formula, baby food ☐ Clothing for cold weather (if needed) ☐ Picnic blanket ☐ Can opener, bottle opener

Clothing (innerwear, outerwear, etc.)

☐ Wet wipes

☐ Face masks

Sanitary products



Water for daily activities (filling the bath tub, washing

☐ Tabletop gas cooker ☐ Gas cylinders

 $\hfill \square$  Blankets, sleeping bags, toiletries, dry shampoo, etc. Cooking utensils (e.g., pot, kettle)

☐ Solid fuel

☐ Bucket, outdoor supplies, etc.

### Items to wear in an emergency

☐ Thermos

☐ Paper cups and plates

 $\hfill\Box$  Chopsticks, spoons, etc.

- ☐ Helmet or other head protection ☐Your regular thick-soled shoes
- ■Work gloves
- ☐ Face masks
- ☐ Mobile phone, smartphone

### Items that are useful at an

If you can go back home for them

Towels

Lighter

Raincoat

Disposable diapers

☐ Disaster prevention map (this booklet)

- · Blankets, sleeping bags, floor cushions, lighters, can opener, utility knife
- · Packing tape, empty cardboard boxes, writing implements, notepad
- · Face masks, hats, changes of clothes, large towels, slippers
- Toiletries, mouthwash
- · First aid medicines (e.g., adhesive bandages, ointment, digestive medicine, cold medicine, eye drops, supplements)
- · Eye masks, earplugs, hearing aids, denture cleaner



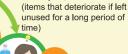
### What is a rolling stockpile?

A rolling stockpile is when you regularly use and then restock items like foods and batteries as emergency supplies so that you always have a certain amount in stock in your home.

#### **Examples of foods** to stockpile Bottled water and beverages Instant foods, dry confections

dry noodles, canned foods, pickled vegetables, etc





# 16 List of Evacuation Sites and Shelters

### **Designated emergency evacuation sites**These are places to stay temporarily as emergency protection of your life from the dangers of fires and other disasters.

Na	Facility name (name in Japanese)	Address	Designated	Мар				
No.	racility name (name in Japanese)	Addless		Landslide	Earthquake	Fire	Volcano	iviap
0	Chuo (Central) Park (中央公園)	2-2, 160, 624, 625 Nishi Sanbancho	0	0	0	0	0	6
2	Mikino Park (三木野公園)	17-1 Higashi Nijusanbancho	0	0	0	0	0	6
3	Wakaba Park (若葉公園)	359-5, 386-183, 387-19, 387-53 Nishi Nijunibancho	0	0	0	0	0	5
4	Hakko Park (八甲公園)	75, 76 Nishi Nibancho	0	0	0	0	0	6
6	Taiso Park (太素公園)	24-1, 28-1 Higashi Sanbancho	0	0	0	0	0	6
6	Koina Park (小稲公園)	108-14 Honamicho	0	0	0	0	0	6
7	Setoyama Park (瀬戸山公園)	40-1 Higashi Sanbancho	0	0	0	0	0	6
8	Higashikoina Park (東小稲公園)	105-35 Honamicho	0	0	0	0	0	6
9	Nishikanezaki Park (西金崎公園)	385-87 Nishi Nijunibancho	0	0	0	0	0	5
0	Daimon Park (大門公園)	30-37 Higashi Ichibancho	0	0	0	0	0	6
0	Motomachi Park (元町公園)	2-67 Notomachihigashi	0	0	0	0	0	6
12	Sanbongi Park (三本木公園)	10-6 Nishi Sanbancho	0	0	0	0	0	6
B	Sakaemori Park (栄森公園)	2-5 Ushirono, Horanai	0	0	0	0	0	1
14	Akebono Park (あけぼの公園)	101-6 Higashi Jugobancho	0	0	0	0	0	6
<b>(</b>	Kitasato Park (北里公園)	17-391, 17-561, 17-655 Higashi Nijusanbancho	0	0	0	0	0	6
16	Higashino Park (ひがしの公園)	2-232-4 Higashino	0	0	0	0	0	2
Ø	Maeyachi Park (前谷地公園)	16-171, 16-178, 16-180, 16-368, 16-1166, 16-1167 Higashi Nijuichibancho	0	0	0	0	0	6
18	Sanbongi Cemetery (三本木霊園)	20-5 Higashi Jusanbancho	0	0	0	0	0	6
<b>1</b>	Minami Sports Center (南運動広場)	330-1 Nishi Rokubancho	0	0	0	0	0	6

### **Designated shelters**

These are facilities for survivors who have evacuated due to the danger of a disaster to stay at for a certain period.

		Facility name (name in Japanese)		Designated emergency evacuation sites for different disasters					
Name of area	No.		Address	Flood	Landslide		Fire	Volcano	Мар
Former urban area	0	Minami (South) Community Center (南コミュニティセンター) ★	5-10 Nishi Rokubancho	0	0	0	0	0	6
Former town area	2	Former Regional Comprehensive Support Center (旧地域包括支援センター) ★	61-6 Nakatai, Okuse	0	0	0	0	0	4
Sanbongi	3	Municipal General Sports Center (市総合体育センター)	6-6 Nishi Sanbancho	0	0	0	0	0	6
Elementary	4	Sanbongi Elementary School (三本木小学校)	36-1 Higashi Sanbancho	0	0	0	0	0	6
School District	5	Towada Junior High School (十和田中学校)	27-1 Higashi Jurokubancho	0	0	0	0	0	6
	6	Minami Elementary School (南小学校)	3-1 Nishi Jugobancho	0	0	0	0	0	6
Minami Elementarv	0	Sanbongi High School (三本木高等学校)	7-1 Nishi Gobancho	0	0	0	0	0	6
School District	8	Natsumagi Chikukaikan (夏間木地区会館)	46-2 Natsumagi, Kirida	0	0	0	0	0	7
	9	Kirita Junior High School (切田中学校)	387 Tairabayashi, Kirida	0	0	0	0	0	5
Kitazono Elementary	10	Kitazono Elementary School (北園小学校)	50-18 Nishi Juichibancho	0	0	0	0	0	5
School District	0	Sanbongi Junior High School (三本木中学校)	5-24 Nishi Jusanbancho	0	0	0	0	0	6
Higashi	12	Higashi Elementary School (東小学校)	1-1-1 Ippongisawa	0	0	0	0	0	2、6
Elementary	B	Higashi Junior High School (東中学校)	29-1 Higashi Nijunibancho	0	0	0	0	0	6
School District	14	Towada Technical High School (十和田工業高等学校)	215-1 Shimotai, Sanbongi	0	0	0	0	0	6
Nishi Elementary School District	<b>(</b> 5	Nishi Elementary School (西小学校)	6-2 Nishikanezaki, Sanbongi	0	0	0	0	0	5
Fujisaka Elementary	16	Fujisaka Elementary School (藤坂小学校)	355-1 Kobayashi, Osaka	0	0	0	0	0	6
School District	<b>(</b>	Michi-no-eki Towada (道の駅「とわだ」)	37-2 Tairakubo, Denpoji	0	0	0	0	0	8
Takashizu	18	Takashizu Elementary School (高清水小学校)	900 Takashimizu, Osaka	0	0	0	0	0	2
Elementary School District	19	Sanbongi Agricultural Keitaku High School (三本木農業恵拓高等学校)	78-92 Takashimizu, Osaka	0	0	0	0	0	2
Ofukanai Elementary School District	20	Ofukanai Elementary/Junior High Schools (大深内小学校·大深内中学校)	24-6 Sengarita, Horanai	0	0	0	0	0	2
Fukamochi Elementary School District	21	Fukamochi Elementary School (深持小学校)	12-3 Hayashi, Fukamochi	0	0	0	0	0	5
Shiwa Elementary and Junior High	22	Shiwa Elementary/Junior High Schools (四和小学校·四和中学校)	140 Takaya, Maita	0	0	0	0	0	8
School District	23	Tsukihiyamaringyo Hall (月日山林業会館)	19-1 Morinokoshi, Maita	0	0	0	0	0	9
Chitose	24	Chitose Elementary School (5とせ小学校)	6-2-1 Motomachinishi	0	0	0	0	0	5
Elementary School District	25	Koto Junior High School (甲東中学校)	330 Minamitai, Fukamochi	0	0	0	0	0	5
Sawada	26	Sawada Yugakukan (沢田悠学館)	21-1 Shimoarai, Sawada	0	0	0	0	0	5
Elementary	2	Sawada Elementary School (沢田小学校)	29 Taya, Sawada	0	0	0	0	0	5
School District	28	Daiichi Junior High School (第一中学校)	53-3 Shimoarai, Sawada	0	0	0	0	0	5
Ho-oku	29	Ho-oku Elementary Schooln (法奥小学校) ☆	102-2 Shitakawame, Okuse	×	0	0	0	0	4
Elementary	<u>30</u>	Nishi (West) Community Center (西コミュニティセンター)	70-3 Nakatai, Okuse	0	0	0	0	0	4
School District	<b>3</b>	Oirase Gorge Hot Springs Akari to Kaede (奥入瀬渓流温泉「灯と楓」)	64-108 Yakeyama, Horyo	0	0	0	0	0	3
Towadako Elementary and	32	Towadako Tourism Exchange Center Puratto (十和田湖観光交流センター「ぷらっと」)	486 Towadakohan Yasumiya, Okuse	0	0	0	0	0	10
Junior High School District	<b>33</b>	Towadako Elementary/Junior High Schools (十和田湖小学校·十和田湖中学校)	420 Towadakohan Utarube, Okuse	0	0	0	0	0	10

Designated evacuation centers with a  $\bigstar$  mark are main evacuation centers.

The latest information on designated emergency evacuation sites and designated evacuation centers is available on the city website.

Designated emergency Designated evacuation sites



shelters



<sup>☆</sup> Ho-oku Elementary School is not included as a designated evacuation center for flood damage as it is in the expected flood/inundation area for the Oirase River (303 mm total rainfall over 12 hours). Expected flood/inundation area for the Oirase River (announced on January 23, 2019)

<sup>\*</sup>Evacuation centers are opened based on the type of disaster (e.g., earthquake, storm and flood) and the situation.

### **Methods for Gathering Disaster Prevention Information,** Contacts for Organizations Related to Disaster Prevention

When there is a disaster, information to help decide what actions to take is provided through various tools. However, it is also important to have a mindset of protecting your own life yourself, and collecting information on your own to help you take the appropriate evacuation actions.



### **Emergency early** warning e-mail

\*Not all phones are compatible with emergency early warning e-mails. Contact your phone carrie for information on how to set up the e-mails. \*When you are near the city limits, you may still receive an e-mail if you are outside of the receipt



Komaran Information Mail This e-mail service sends you information such as Towada City event information, information about evacuation centers in a disaster, and weather information to your phone or computer in a timely manner. Free to register!





### https://www.city.towada.lg.jp/oshirase/pickup/line

Official Towada City LINE account Get all types of information about municipal administration on LINE.



Install the LINE communication app on your phone, add the official Towada City LINE account as a friend, and select "Information to receive" in the receiving settings.







### Home receiver (disaster prevention radio)

Disaster prevention radio is broadcast automatically when you receive disaster prevention administrative radio broadcasts so



YAHOO! Disaster Prevention Bulletins

Delivers disaster prevention bulletins and evacuation center information for Towada City based on an agreement. http://emg.yahoo.co.jp

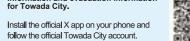
on your phone and register



https://twitter.com/towada\_city

Official Towada City X (formerly Twitter) account

Provides disaster prevention information and disaster information such as weather information and evacuation information for Towada City.







Disaster prevention administrative radio system

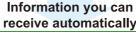






receive automatically

Install the official YAHOO! Disaster Prevention Bulletins app









### Aomori Local Meteorological Observatory

Provides weather information, disaster prevention information, and observation information for Aomori Prefecture. http://www.jma-net.go.jp/aomori/



### Information you obtain yourself

Aomori Prefecture Landslide Alert Information System
You can check detailed danger level information for landslide alert information in the prefecture.

the prefecture. https://www.dosya-keikai.pref.aomori.jp/



Aomori Prefecture River Erosion Control Information System
Provides information such as rainfall in the prefecture and observation data from water level stations.

http://www.kasensabo.bousai.pref.aomori.jp/



Towada City Government website
Posts the latest information on Towada City. Posts the latest information on http://www.city.towada.lg.jp/



Aomori Disaster Prevention Portal
The latest national and prefectural disaster information is sent to your computer or phone. The latest national and prefectural disaster information is sent to your computer or phone. https://bousai.pref.aomori.lg.jp



Ministry of Land, Infrastructure, Transport and Tourism River Disaster Information
Provides information about rainfall and water levels around Japan in real time.

https://www.river.go.jp/



#### TV data broadcast

Press the "d (data broadcast)" button on the remote control for your TV. Use the arrows on the remote control to select

the required information and then press "OK."









\*The information displayed varies by broadcast station

### Inquiries in the event of a power outage or emergency

Network Call Center 0120-175-366 [Hours] 24 hours a day, every day of the w

- See the power outage information on the website or power outage information app. Downed power lines may cause electric shock, so do not approach or touch them before calling the power company.



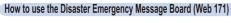
### Check the safety confirmation method for a disaster

How to use the Disaster Emergency Message Dial (171) ① Dial 1 7 1

Voice guidance will follow 2 Press 1 to record a message; press 2 to play a message Voice guidance will follow

3 Enter your phone number

Dial the phone number for the affected area or mobile phone PHS, or IP phone number starting with the area code



**NTT Docomo** 

http://dengon.docomo.ne.jp/top.cgi



Softbank http://dengon.softbank.ne.jp



KDDI (au)

http://dengon.ezweb.ne.jp



#### Rakuten

https://public-safety.mobile.rakuten.co.jp



### **Emergency contact**

### Fire, relief, or rescue: 119 Accident or incident: 110

Towada City Hall		23-5111	Okuse Police Station	72-2110
Towada National Highway Maintenand National Highway, Ministry of Land, In	ce Branch Office, Aomori Office of River and frastructure, Transport and Tourism	23-7138	Yakeyama Police Station	74-2001
Kamikita Regional Citizens Bureau	Regional Development Department	22-8111	Towadako Police Station	75-2151
	Regional Health and Welfare Department (Shichinohe Town)	62-2145	Towada Wide Area Region Administration Association	
Towada Police Station		23-3195	Fire Defense Headquarters	25-4111
Chuo Police	Box	23-3566	Towada Fire Department	25-4115
Higashi Poli	ce Box	22-4346	Towadako Fire Department	72-2241
Osaka Police	e Station	23-5096	Kohan Branch Office, Towadako Fire Department	75-1011
Horanai Poli	ce Station	27-2616	Aomori Branch, NTT East Corporation	017-774-9550
Maita Police	Station	28-2200	Towada Gas Corporation	23-3591

### **Towada City Disaster Prevention Maps, February 2024**

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The maps in this material were created based on the data from Towada City (1) and (2) issued in March 2021 by Zenrin. On-site survey information with residential maps and detailed

information edited independently were also added.
While we took great care in the editing of this material, there was a considerable amount of information, and the daily changing situation may not match the maps. Also, in order to prioritize the visibility of landmarks, some of their official names have been omitted. Thank you for your understanding.

