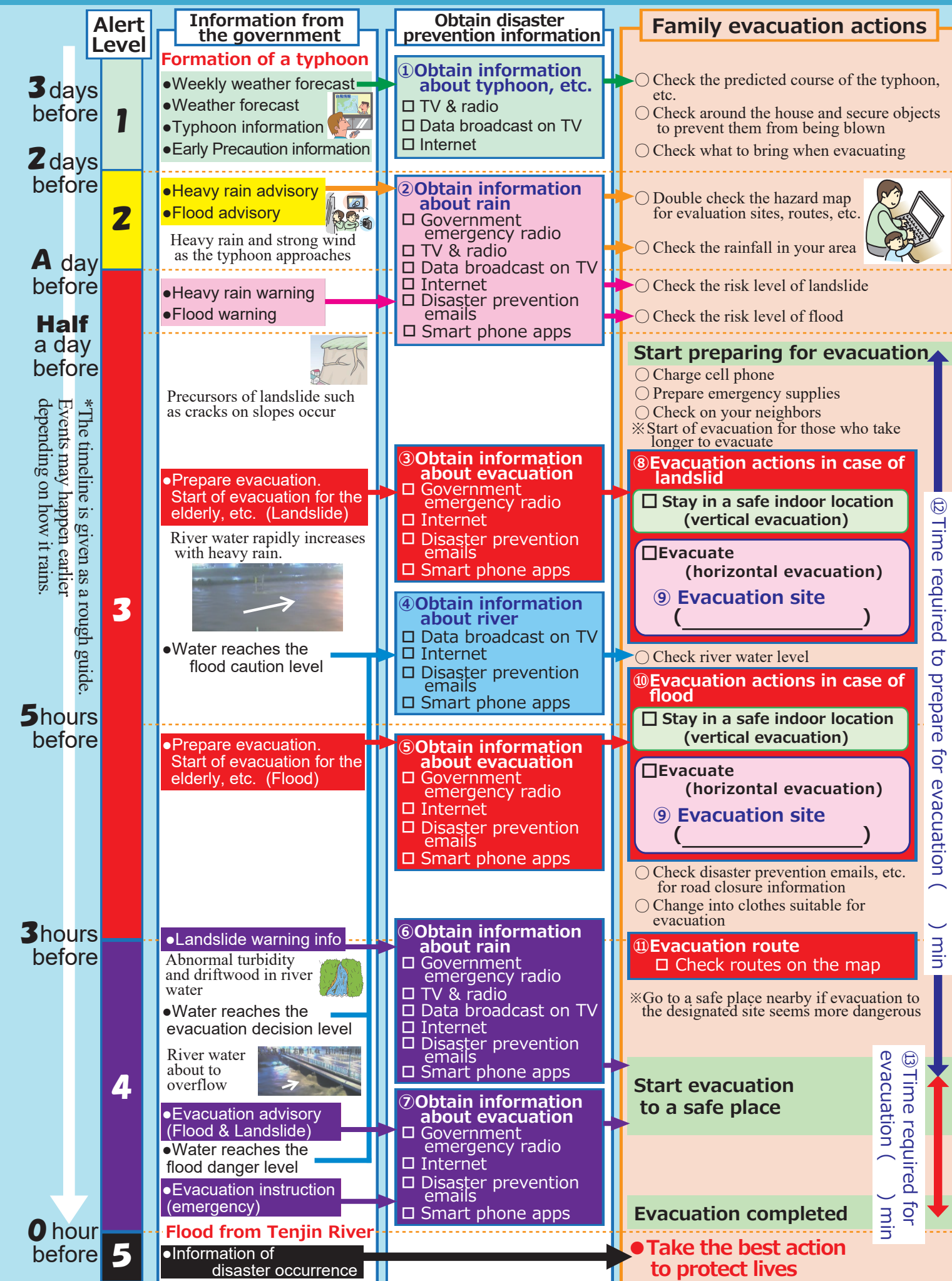


Evacuation Action Plan to Protect Lives ("My Timeline")



Kurayoshi City Flood and Landslide Hazard Map

Three Important Points to Protect Lives

- ① Know where there is danger.
- ② Know where to evacuate.
- ③ Know when to evacuate.

Create an Evacuation Action Plan to Protect Lives ("My Timeline")

Before this happens...



The inundation height around Kurayoshi Station is expected to be up to about five meters.



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Kurayoshi City General Affairs Department, Disaster Prevention and Security Division
722 Aoimachi, Kurayoshi City, Tottori, 682-8611, Japan TEL 0858-22-8162 FAX 0858-22-1087

1. Learn the Characteristics of the Tenjin River System P 1

- (1) Characteristics of the Tenjin River System
- (2) History of Flood Disasters along the Tenjin River System
- (3) Rising Speed of the Water Level of the Tenjin River System

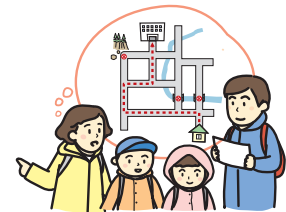
2. Learn the Risk around Your House P 3

- (1) Learn the Risk of Flood
- (2) Learn the Risk of Landslide
- (3) Risk of Flood and Evacuation Actions
- (4) Risk of Landslide and Evacuation Actions



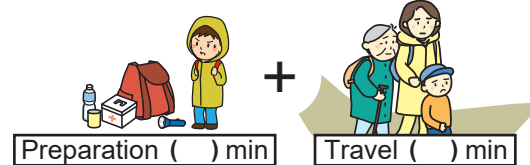
3. Choose Evacuation Sites and Evacuation Routes P 5

- (1) Learn about the Evacuation Sites
- (2) Choose Evacuation Sites
- (3) Choose Evacuation Routes



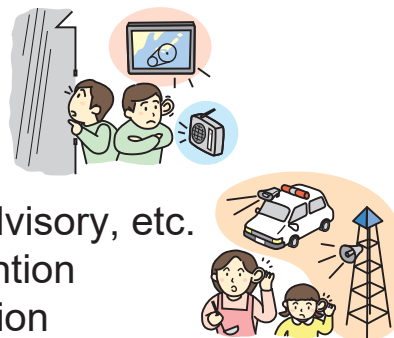
4. Check the Time Required for Evacuation P 6

- (1) Check the Time Required for Evacuation



5. Learn Information Necessary for Evacuation P 7

- (1) Learn Information about Flood and Landslide
- (2) Learn Information about Typhoon
- (3) Learn Information about Rain
- (4) Learn about River Water Level
- (5) Learn Information about Alert Levels, Evacuation Advisory, etc.
- (6) Learn How to Obtain Information for Disaster Prevention
- (7) Choose Sources of Information for Disaster Prevention



6. Preparation Necessary for Evacuation P 11

- (1) Prepare Emergency Supplies
- (2) Points to Note for Evacuation



Evacuation Action Plan to Protect Lives ("My Timeline") P 69

What is a Hazard Map?

- ◆ A "Hazard Map" is a map usually created and published by a municipality to show the areas that are at risk of flood or landslide and to help residents evacuate appropriately.

Kurayoshi City Flood and Landslide Hazard Map

- ◆ The Kurayoshi City Flood and Landslide Hazard Map covers the areas exposed to the risk of flood from Tenjin, Ogamo and Kou Rivers of the Tenjin River System managed by MLIT, as well as 15 rivers managed by Tottori prefecture. It also covers other areas at risk of landslide, such as Landslide Warning Areas.
- ◆ The Tenjin, Ogamo and Kou Rivers show predicted inundation height, areas where houses may collapse, etc., based on the worst scenario of bank failure caused by extreme rainfall that may occur once in 1,000 years (the heaviest rainfall used as an assumption.)
- ◆ 15 rivers managed by Tottori prefecture are subject to heavy rainfall that occurs once every 50 years.
- ◆ Probable flood areas along The Tenjin, Ogamo and Kou Rivers are determined on the assumption of the maximum rainfall of 566mm for 24 hours, based on Typhoon No. 10 of 1998.

【 Hazard Map (Flood and Landslide) 】

Areas at risk of Flood and Landslide P 15 ~ P 68

What is the Evacuation Action Plan ("My Timeline")?

- ◆ "My Timeline"※ is an action plan that shows the plan of action that you and your family should take when there is a risk of heavy rainfall, flood and/or landslide; for example, when a typhoon is approaching.
 - ◆ As water in the rivers of the Tenjin River System could rise very quickly, you would have to make a quick decision.
 - ◆ Consider the information, decisions and actions appropriate for your family composition and living environment that would be necessary for evacuation, develop your "My Timeline" and determine the best evacuation actions for you.
- ※ "My Timeline" is an initiative taken by Joso City, MLIT, etc. to reduce the number of victims to zero, in response to the Kinugawa River flood damage caused by heavy rainfall in Kanto and Tohoku regions of September 2015.

Development of Evacuation Action Plan ("My Timeline")

- You can complete your evacuation action plan ("My Timeline") by reading pp. 1-68 and filling out "Let's Do It!" on each pages and p.69.
- Take actions according to your "My Timeline" in case of emergency!

(7) Choose Sources of Information for Disaster Prevention

Let's Do It!



Pick a few sources for disaster prevention information necessary for evacuation. Check ☒ the type of information you want to obtain and use the information daily.

Type of information	Major information source
①Typhoon information	<input checked="" type="checkbox"/> TV & radio <input checked="" type="checkbox"/> Data broadcast on TV <input checked="" type="checkbox"/> Internet

For example
p.10

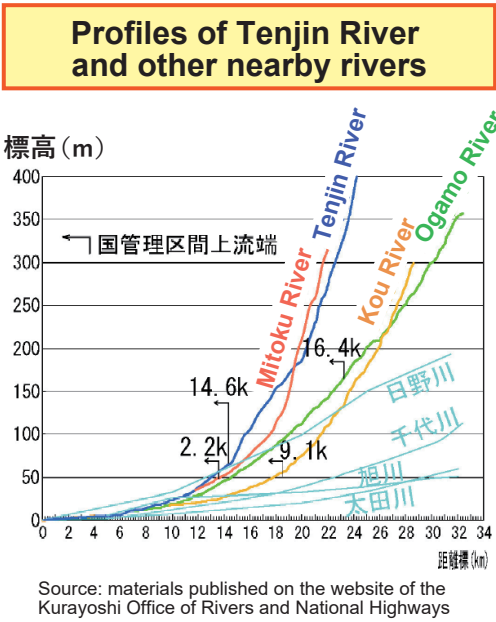
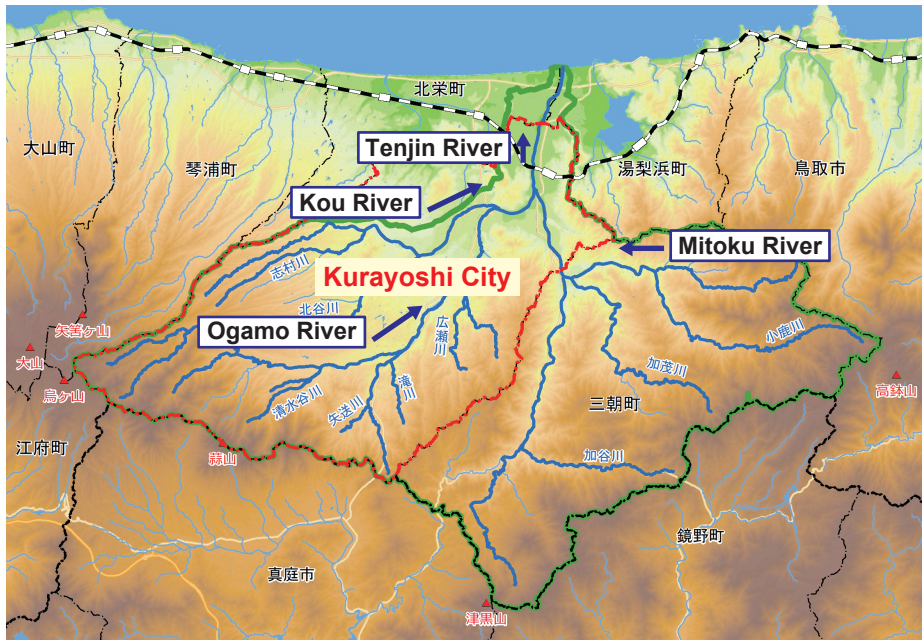
On p. 69


"My Timeline" on p. 69
①Obtain information about typhoon, etc.
☒ TV & radio
☒ Data broadcast on TV
☒ Internet

1. Learn the Characteristics of the Tenjin River System

(1) Characteristics of the Tenjin River System

The Tenjin River is one of the most rapid among the first-class rivers in Japan. With Ogamo and Mitoku Rivers joining near the urban area of Kurayoshi City, the river has a landform that is prone to flooding.

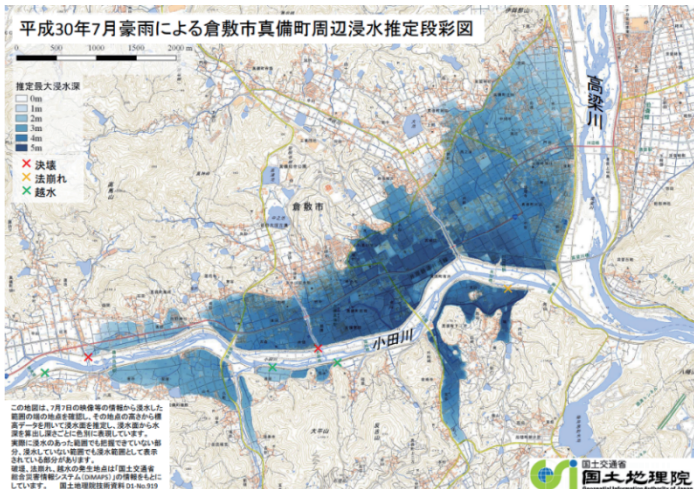




During a flood, the river water level is higher than the surrounding ground. Once floodwater overflows, it is expected to affect a wide area.


column Flood damage is more likely to occur near a river confluence

- ◆ It was reported that during Typhoon No. 19 of 2019, heavy rain caused bank failures in 71 rivers, about 80% of which occurred within a kilometer of a confluence of a branch and the main river. Thus, areas near a confluence are believed to be more prone to flooding.
- ◆ It is believed that in Mabi-cho, Kurashiki City in Okayama Prefecture, who was heavily damaged during the time of the heavy rainfall of July 2018, the stream near the confluence of Takahashi River and Oda River warped and water did not flow well. Then, the upstream water level rose, causing a “backwater phenomenon.” The stagnant water stayed in the slow-flowing Oda River, and the bank eventually failed.
- ◆ The actual inundation area almost exactly matched the area shown in the hazard map.



Inundation prone area in Mabi-cho, Kurashiki, Okayama

- Important points


- ① Due to a very steep gradient, water level can rise very quickly in the rivers of the Tenjin River System.
 - ② The urban area of Kurayoshi City has a high risk of flooding because it is near a confluence.

(2) History of Flood Disasters along the Tenjin River System

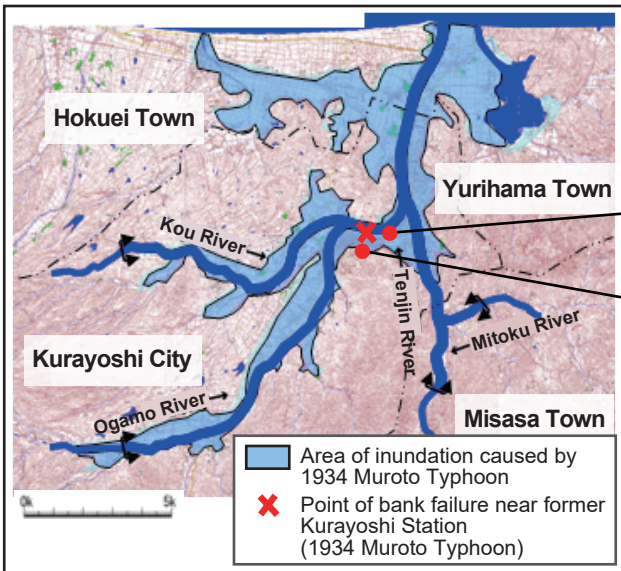
- ◆ At the time of the Muroto Typhoon of 1934, Ogamo River had bank failures in many locations, and it was said that “the muddy streams filled Ogamo Village and Kurayoshi Town with pebbles and turned the whole area into a mud sea overnight”.
- ◆ The Isewan Typhoon of 1959 brought the heaviest rain after World War II and caused significant damage in some areas including Namatake and Sekigane, where many bridges were lost (most bridges were made of timber at that time).
- ◆ As a recent example, Typhoon No. 10 of 1998 brought heavy rain and caused inundation above floor level to 17 buildings.

[Major floods and damages]

Date of occurrence	Cause	Average 2-day rainfall along the river	Damage	Note
Sep 20, 1934 (86 years ago) ※	Muroto Typhoon	294.3mm	No. of houses damaged: approx. 7,300	Largest flood ever recorded
Sep 20, 1959 (61 years ago) ※	Isewan Typhoon	351.3mm	No. of houses damaged: approx. 135	Largest flood after WWII
Oct 19, 1998 (22 years ago) ※	Typhoon No. 10	220.7mm	No. of houses damaged: 53	

* “XX years ago” as of 2020

Inundation area of 1934 Muroto Typhoon



Reference: materials published on the website of the Ministry of Land, Infrastructure, Transport and Tourism's Chugoku Regional Development Bureau

Damage (then)



Terrible damage behind Higashi Junior High School



Gensui Shuzo Sake Brewery, Higashinaka-machi

Now



Source: materials published on the website of the Kurayoshi Office of Rivers and National Highways

(3) Rising Speed of the Water Level of the Tenjin River System

Because the Tenjin River is a river with a rapid stream and with branch rivers joining from three directions, the water level increased about 3.2 meters in three hours at the time of Typhoon No. 10 of 1998.

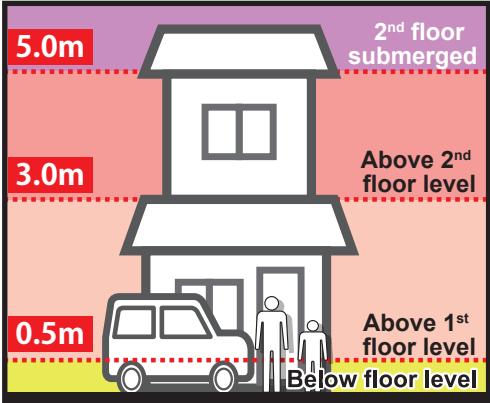
Reference: materials published on the website of the Kurayoshi Office of Rivers and National Highways



Water level increase of Tenjin River

2. Learn the Risk around Your House

(1) Learn the Risk of Flood



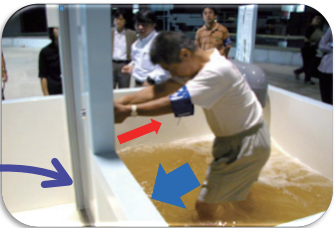
Inundation height 0.5-3.0m



Inundation height 3.0-5.0m



Inundation height below 0.5m



0.5m-deep inundation has such a force that an adult person cannot open a door.
Source: Material from Faculty of Environmental and Urban Engineering, Kansei University

In the areas at risk of high inundation and major flood damage, such as collapse of houses, it is especially important to take actions to protect lives.

Area at Risk of Inundation Damage such as Collapse of Houses

This area has a risk of collapse/loss of general buildings in case of a failure of a nearby bank. In this area, staying in a safe indoor location (vertical evacuation) will not be enough: people should evacuate to a designated evacuation site, etc. (horizontal evacuation).

Inundation flow

Area at risk of collapse of wooden houses due to bank failure or flood

Bank erosion

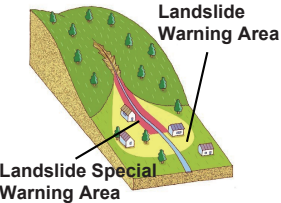
Area at risk of collapse of wooden and non-wooden houses due to bank erosion at the time of flood

(2) Learn the Risk of Landslide

Debris flow

- Induced by rain, soil and rocks rush down.
- High speed
- Spreads into a fan shape at the exit of a valley.

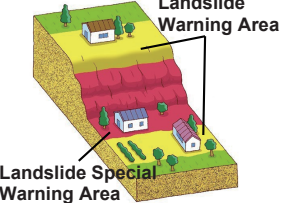
Damage over a wide area



Slope failure

- Houses on cliff may collapse.
- Earth and sand slide down for a distance up to twice the cliff height.

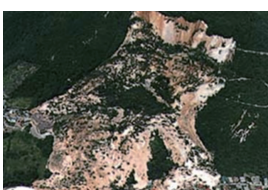
Local damage



Landslide

- Gently inclined slope slides down over a large area.
- The speed of landslide is so slow that it is invisible.

Damage over a wide area



Landslide Special Warning Area

Area where flowing earth and sand may destroy houses
⇒ Red zone in the map on the left

Landslide Warning Area

Area that flowing earth and sand may reach
⇒ Yellow zone in the map on the left

For the details of Landslide Warning/Special Warning Areas, please visit "Tottori Web Map"

とっとりWebマップ Search

<http://www2.wagmap.jp/pref-tottori/top/select.asp?dtp=9&pl=3>

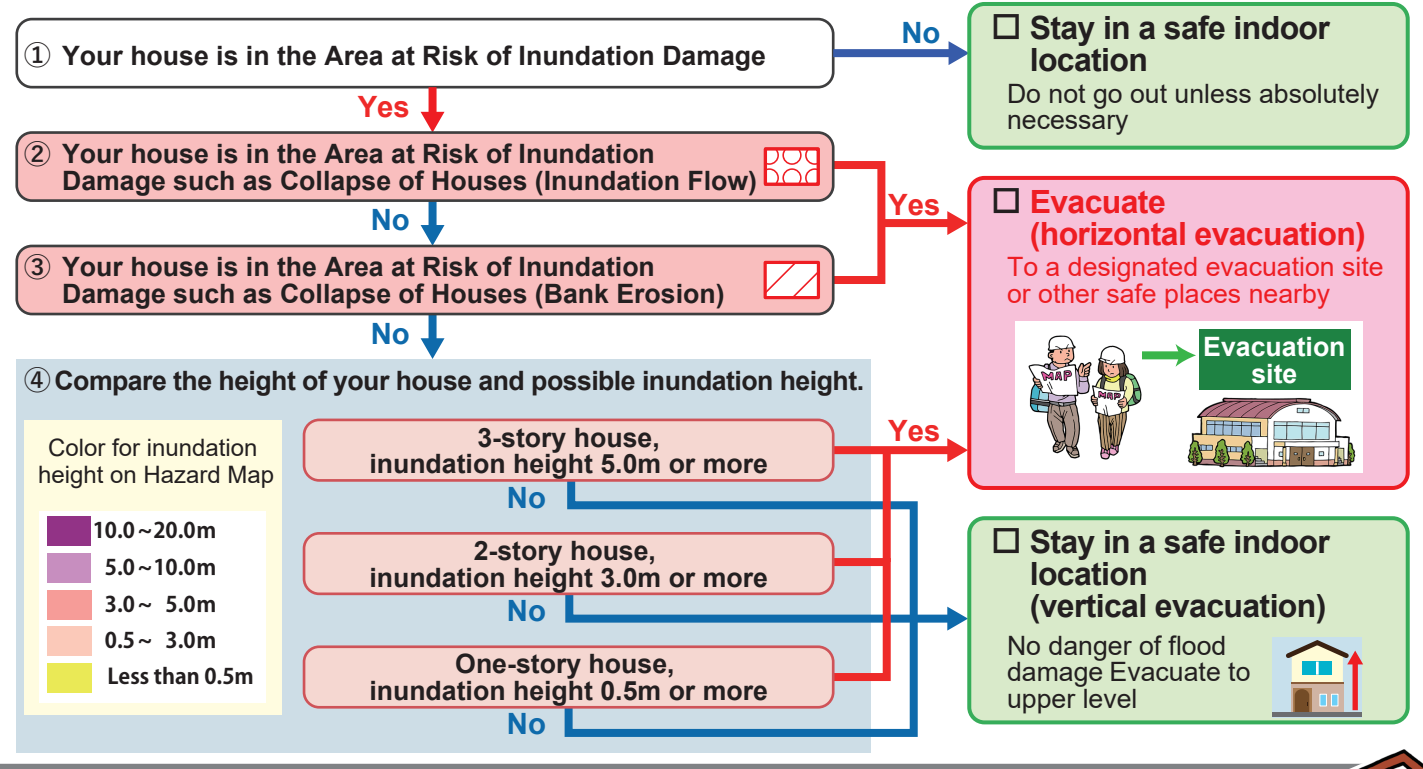
Important points

- ① Check the risk of flood and landslide around your house.
- ② Check whether you are supposed to stay in a safe indoor location or evacuate to a designated evacuation site.

(3) Risk of Flood and Evacuation Actions

Let's do it!

- ◆ Check the location of your house on the Hazard Map and mark it.
- ◆ Check the flood risk around your house on the Hazard Map.
- ◆ Are you supposed to **stay in a safe indoor location** or **evacuate to a designated evacuation site**? Check ☒ the appropriate evacuation action for you.

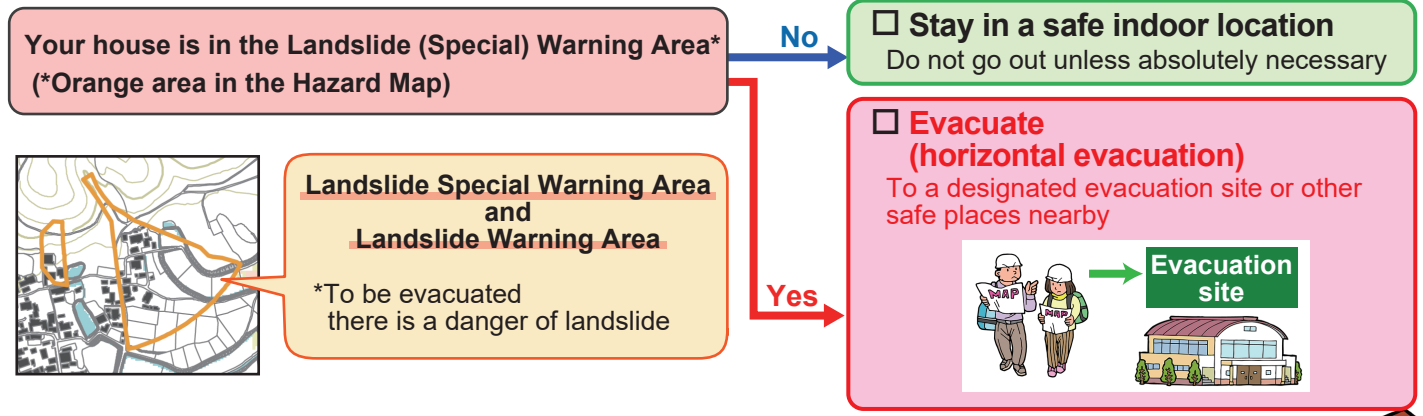


Conduct the same check in the column ⑩ on p.69

(4) Risk of Landslide and Evacuation Actions

Let's do it!

- ◆ Check the location of your house on the Hazard Map and mark it.
- ◆ Check the landslide risk around your house on the Hazard Map.
- ◆ Are you supposed to **stay in a safe indoor location** or **evacuate to a designated evacuation site**? Check ☒ the appropriate evacuation action for you.



Conduct the same check in the column ⑧ on p.69

3. Choose Evacuation Sites and Evacuation Routes

Important points ① Choose safe sites and routes for evacuation with your family and neighbors.
② Walk to the chosen sites by the chosen routes.

(1) Learn about the Evacuation Sites Designated evacuation sites opened at the time of heavy rain

Kurayoshi City has designated evacuation sites according to the level of flood and landslide risk. Using the Hazard Map, check where the safe evacuation sites are.

● Stage of voluntary evacuation (Alert Level 1-2)	Martial Arts Stadium, Kahoku Jr. High School, Ogamo Elementary School, Kume Jr. High School, Sekigane Elementary School (5 sites) ※For voluntary evacuation, the city has requested each community to open and operate an evacuation center using its community center, etc. Please check with the voluntary disaster prevention organization in your community first.
● Stage of evacuation preparation for the general public and start of evacuation for the elderly (Alert Level 3) or issue of evacuation advisory (Alert Level 4)	Kamihojo Elementary School, Kahoku Elementary School, Kahoku Jr. High School, Saigo Elementary School, Uenada Elementary School, Martial Arts Stadium, Meirin Elementary School, Nadate Elementary School, Kume Jr. High School, Kurayoshi Agricultural High School, Kitadani Elementary School, Takashiro Elementary School, Ogamo Elementary School, Nishi Jr. High School, Kurayoshi School for Handicapped Children, Kamiogamo Elementary School, Sekigane Elementary School, former Yamamori Elementary School, Tottori Prefectural College of Agriculture (19 sites)
● Stage of worsening weather conditions that require additional evacuation sites (Alert Level 4-5)	Houki Shiawase no Sato, Kurayoshi Kita High School, Tottori College, Kurayoshi Sports and Culture Hall, Kurayoshi Nursing School, Kurayoshi MiraiChushin, Kurayoshi City Sports Center, Seitoku Elementary School, Kurayoshi Welfare Center, Kurayoshi Rural Environment Improvement Center, Kamogawa Jr. High School, Sekigane-cho Yamaguchi Multipurpose Training Center (12 sites)
● Backup (if there is a shortage of evacuation sites in the above stages)	Kurayoshi Sports Center, JA Tottori Chuo, Nadate Nadate Nursery School, Yashiro Elementary School, Yashiro Nursery School, Kitadani Nursery School, Sekigane urury School, Sekigane Health Promotion Facility for Agricultural/Forestry/Fishery Workers (8 sites)
● Welfare shelters (facilities for people with special needs to stay)	Houki Shiawase no Sato, Kurayoshi City Hotel, Kurayoshi Exchange Plaza, Welfare Center for the Elderly (4 sites)

(2) Choose Evacuation Sites Let's do it!

How to pick evacuation sites Choose safe evacuation sites near your house from among listed above. It is desirable to choose more than one.

Mark evacuation sites

Mark evacuation routes

Mark the location of your house

Check the safe evacuation sites near your house and mark the locations.

Fill in the evacuation sites in the column ⑨ on p. 69

(3) Choose Evacuation Routes Let's do it!

How to pick evacuation routes Avoid taking routes near dangerous points that are at risk of high inundation or landslide, as well as rivers and bridges. Also, avoid the points that are often flooded during heavy rain. Considering the possibility of an evacuation at night, find evacuation routes that are usually safe to use even at night.

Using the Hazard Map, determine and mark safe routes from your house to the selected evacuation sites together with your family and neighbors.

Check column ⑪ on p. 69

4. Check the Time Required for Evacuation

Important points It is difficult to evacuate immediately after evacuation advisory is issued. Check the "time required to prepare for evacuation" and "travel time".

(1) Check the Time Required for Evacuation Let's do it!

How to measure time When evacuating, you will need some time before you can get out of the house ("time to prepare") and time to travel from your house to the evacuation site ("travel time"). Test the evacuation procedures and measure the time it takes.

Time required for preparation Mark the things to do before evacuation. Write the time required in ().

Move important documents (min)

Protect car from flood (min)

Move appliances (min)

Move family albums (min)

Move clothe (min)

Protect tatami mats from flood (min)

Protect your house from flood (min)

Check gas and electricity (min)

Reconfirm evacuation site (min)

Prepare emergency food (min)

Prepare evacuation of your pets (min)

Check on your neighbors (min)

Notes (Things to do on the day of evacuation)

Total Approx. (A) min

Travel time required Confirm how much travel time you will need by actually trying to walk to the evacuation site. Approx. (B) min

Time required for evacuation (preparation + travel)

Prepare for evacuation

Start evacuation

Your house

Evacuation site

⑫ Time required till you can get out of the house (Time required for preparation) Approx. (A) min

⑬ Time to travel to the evacuation site (Travel time required) Approx. (B) min

The elderly, children and those with physical disabilities take longer to travel to an evacuation site.

Note that it takes even longer at night or during heavy rain.

Write the same time information in the columns ⑫ and ⑬ on p. 69

5. Learn Information Necessary for Evacuation

(1) Access Information about Flood and Landslide

When there is a danger of flood damage, you can obtain various information about typhoon, rain, river and evacuation. Such information changes constantly. When a flood occurs, collect the latest information and make decisions accordingly.

Formation of typhoon

Heavy rain

Water level rising

Emergency

Type of information	Name of information and important points to check (一)	Major information source
Typhoon information	■ Weekly/daily/hourly weather forecast ■ Typhoon information ▣ Size, intensity and route of the typhoon ■ Early Precaution information ▣ possibility of alert level	<input type="checkbox"/> TV & radio <input type="checkbox"/> Data broadcast on TV <input type="checkbox"/> Internet
Rain information	■ Heavy rain/flood advisory ■ Heavy rain/flood warning ■ Landslide warning information ■ Special heavy rain warning ▣ Where it is raining (upstream) ▣ Forecast	<input type="checkbox"/> Government emergency radio <input type="checkbox"/> TV & radio <input type="checkbox"/> Data broadcast on TV <input type="checkbox"/> Internet <input type="checkbox"/> Disaster prevention emails <input type="checkbox"/> Smart phone apps
River information	■ Flood caution information ■ Flood warning information ■ Flood danger information ▣ Water level of nearby rivers ▣ Water level in the upper reach (forecast)	<input type="checkbox"/> Data broadcast on TV <input type="checkbox"/> Internet <input type="checkbox"/> Disaster prevention emails <input type="checkbox"/> Smart phone apps
Evacuation information	■ Evacuation preparation for the general public and start of evacuation for the elderly ■ Evacuation advisory ■ Evacuation instruction (emergency) ■ Information of disaster occurrence	<input type="checkbox"/> Government emergency radio <input type="checkbox"/> Internet <input type="checkbox"/> Disaster prevention emails <input type="checkbox"/> Smart phone apps

(2) Access Information about Typhoon

Typhoon information (Meteorological Agency)
Information about the location of the center, intensity, predicted course, etc. of a typhoon

Predicted course of typhoon

Circle to indicate predicted course

Storm warning area

Storm area (winds of 25m/s or more)

Strong wind area (winds of 15m/s or more)

Predictions of course and intensity for up to 5 days

Size and intensity of a typhoon

- ◆ The size is expressed in radius of the strong wind area (wind of 15 m/s or more blowing or likely to blow) and the intensity is shown by the maximum wind speed.
- ◆ Typhoon information combines the typhoon size and its intensity: such expressions as “large and strong typhoon” is used.

Typhoon size class	Radius of the area of wind of 15 m/s or more
Large-scale (Large)	500km – 800km or less
Super (Very large)	800km or more

Typhoon intensity class	Max. wind speed
Strong	33m/s to 44m/s or less
Very strong	44m/s to 54m/s or less
Extremely strong	54m/s or more

Ref. Website of the Meteorological Agency
<https://www.jma.go.jp/jma/kishou/now/typhoon/1-3.html>

Important points

- ① Learn the different types of information concerning typhoons, rain, rivers and evacuation.
- ② Learn the levels of danger associated with heavy rain warning etc. (Flood and Landslide)

(3) Access Information about Rain

Type of information	Contents	Actions to take	Alert Level
Special heavy rain warning (Flood and Landslide)	To be issued in the event that heavy rainfall that generally occurs once every several decades is predicted, due to a typhoon or a torrential rain; or in the event that heavy rainfall is predicted due to a typhoon or an extratropical cyclone with the intensity that generally occurs once every several decades.	A disaster is already occurring. Take the best course of action to protect lives.	Equivalent to Alert Level 5
Landslide alert information	Criteria have been determined for the situation where “a life-threatening landslide disaster is about to occur”. Considering the time required for evacuation, this type of information is issued rapidly when it is predicted that the situation will meet the criteria within two hours.	This information is used as a guide when Kurayoshi City issues evacuation advisory. Immediately evacuate to an evacuation site.	Equivalent to Alert Level 4
Flood warning	To be issued when it is predicted that a serious flood may occur due to water rise or flood in a lower reach of a river, caused by heavy rainfall or snow melting in an upper reach	This information is used as a guide when Kurayoshi City issues advisories for evacuation preparation for the general public and start of evacuation for the elderly, etc.	Equivalent to Alert Level 3
Heavy rain warning (Flood and Landslide)	To be issued when it is predicted that heavy rainfall may cause serious landslide and/or flood	Those who need more time for evacuation (the elderly, those with disabilities, babies and infants, etc.) should start to evacuate. Others should prepare for evacuation.	
Flood advisory	To be issued when it is predicted that flood may occur due to water rise in a lower reach of a river caused by heavy rainfall or snow melting in an upper reach	This information is issued by the Meteorological Agency to call for attention. Using the Hazard Map, etc., check the areas of predicted damage, evacuation sites and routes.	Alert Level 2
Heavy rain advisory	To be issued when it is predicted that heavy rainfall may cause landslide and/or flood		
Early Precaution information (possibility of alert level)	To be issued as “early precaution information (possibility of alert level)” in two stages, “high” and “medium”, when a warning-level phenomenon is expected to occur within 5 days.	Pay attention to the latest weather information for disaster prevention and be prepared for a natural disaster.	Alert Level 1

- ◆ The Meteorological Agency creates a map showing five levels of flood danger caused by heavy rainfall in different colors, based on the rainfall forecast for up to an hour ahead.
- ◆ “Heavy rain warning (landslide) danger distribution” is created when a landslide warning, heavy rain warning (landslide), etc. is issued, based on the forecast of rainfall and soil water index for up to the next two hours ahead. The map shows the five danger levels in different colors.
- ◆ You can use these pieces of information to determine high-risk locations.

Heavy rain warning (flood) risk map

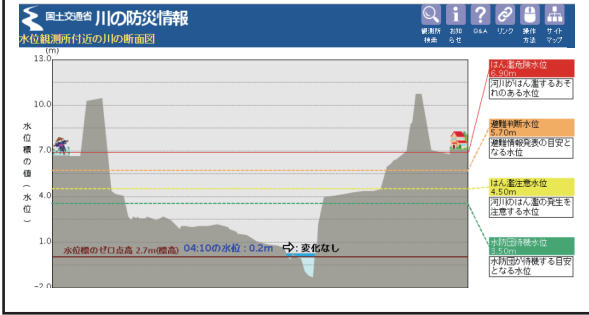
Heavy rain warning (landslide) risk map

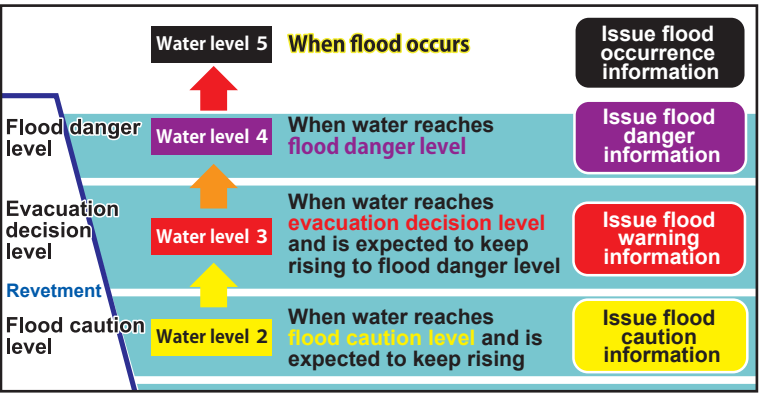
5. Learn Information Necessary for Evacuation

(4) Learn River Water Level

- ◆ Regardless of the inundation height shown in the predicted inundation area map, those who are near a bank should evacuate early.
- ◆ River water levels are shown in different colors depending on the danger level associated with the height.

River disaster prevention information

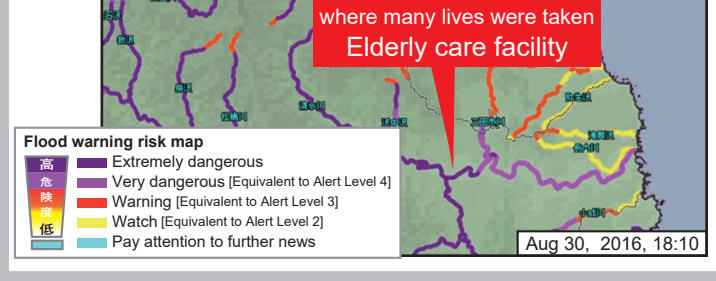




◆ Flood Warning Risk Map supplements flood warning information.

◆ Five levels of predicted danger for up to the next three hours ahead are shown in different color.

Flood Warning Risk Map



◆ The Tenjin River is equipped with a river surveillance camera as a safeguard against flooding during heavy rains.

◆ This camera is useful to use along with weather information as you can check the river's water level and the force of its current at all times.

*It is very dangerous to go inspect the river during heavy rain.

天神川 河川監視カメラ

URL <https://www.pref.tottori.lg.jp/220875.htm>

(5) Learn Information about Alert Levels, Evacuation Advisory, etc.

Alert level	Actions to take	Evacuation information, etc.	Weather information for disaster prevention (reference information for voluntary evacuation)
Alert Level 5	There is a high probability that the disaster is already occurring. Take the best course of action to protect lives.	Information of disaster occurrence [Issued by Kurayoshi City]	Information of flood occurrence, special heavy rain warning (Flood and Landslide), etc.
Alert Level 4 [Evacuation for all]	Immediately evacuate to an evacuation site. In case it is judged dangerous to go to an evacuation site run by the city, go to another safe place nearby, or go upstairs in your house where it is safer.	Evacuation instruction (emergency) Evacuation advisory [Issued by Kurayoshi City]	Flood danger information, Landslide warning information, etc.
Alert Level 3 [Evacuation for the elderly, etc.]	Those who need more time to evacuate (the elderly, those with disabilities, babies and infants, etc.) and their care takers should start evacuation. Others should prepare for evacuation.	Information of evacuation, preparation and start of evacuation for the elderly, etc. [Issued by Kurayoshi City]	Flood warning information, Flood warning, heavy rain warning (Flood and Landslide), etc.
Alert Level 2	Using the Hazard Map, etc., check the best evacuation actions to take in case of a disaster.	Flood advisory, Heavy rain advisory, etc. [Issued by the Meteorological Agency]	Flood caution information, etc.
Alert Level 1	Be prepared for disaster.	Precaution information [Issued by the Meteorological Agency]	

Important points Find out how to obtain various information register to use such information in advance. (You can use the information for other activities such as leisure activities.)

(6) Learn How to Obtain Information for Disaster Prevention[ref.]

Internet


The Tottori Local Meteorological Observatory Website

Weekly weather forecasts are posted every day at 11:00 and 17:00 daily; daily weather forecasts are posted at 5:00, 11:00 and 17:00; typhoon course and intensity forecasts are published for up to next 5 days ahead.

URL <https://www.jma-net.go.jp/tottori/>

River disaster prevention information

Weather information and flood and landslide risk information are compiled on this website.



URL <https://www.river.go.jp/>
<http://i.river.go.jp/> (mobile version)

Kurayoshi City Website

You can check evacuation information and the availability status of the evacuation sites when a warning is in effect.

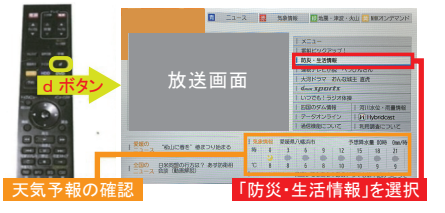
For PC <https://www.city.kurayoshi.lg.jp/>

For mobile phone <https://www.city.kurayoshi.lg.jp/m/>

Data broadcast on TV


digital terrestrial broadcasting (NHK) d button

You can obtain weather and river information.



Smart phone app

Yahoo! Disaster Prevention flash report (app)



Disaster prevention emails

Kurayoshi City Mailing List

Disaster prevention information is delivered by e-mail.

● To register/change email address, send a blank email to kurayoshi@xpressmail.jp

(7) Choose Sources of Information for Disaster Prevention Let's do it!

Pick a few sources for disaster prevention information necessary for evacuation. Check ☒ the type of information you want to obtain and use the information daily.

Type of information	Major information source	Type of information	Major information source
①Typhoon information	<input type="checkbox"/> TV & radio <input type="checkbox"/> Data broadcast on TV <input type="checkbox"/> Internet	④River information	<input type="checkbox"/> Data broadcast on TV <input type="checkbox"/> Internet <input type="checkbox"/> Disaster prevention emails <input type="checkbox"/> Smart phone apps
②⑥Rainfall information	<input type="checkbox"/> Government emergency radio <input type="checkbox"/> TV & radio <input type="checkbox"/> Data broadcast on TV <input type="checkbox"/> Internet <input type="checkbox"/> Disaster prevention emails <input type="checkbox"/> Smart phone apps	③⑤⑦Evacuation information	<input type="checkbox"/> Government emergency radio <input type="checkbox"/> Internet <input type="checkbox"/> Disaster prevention emails <input type="checkbox"/> Smart phone apps

Check the columns ① to ⑦ on p. 69

6. Preparation Necessary for Evacuation

Important points

①

In some areas, floodwater may stay for more than 24 hours (a day).

②

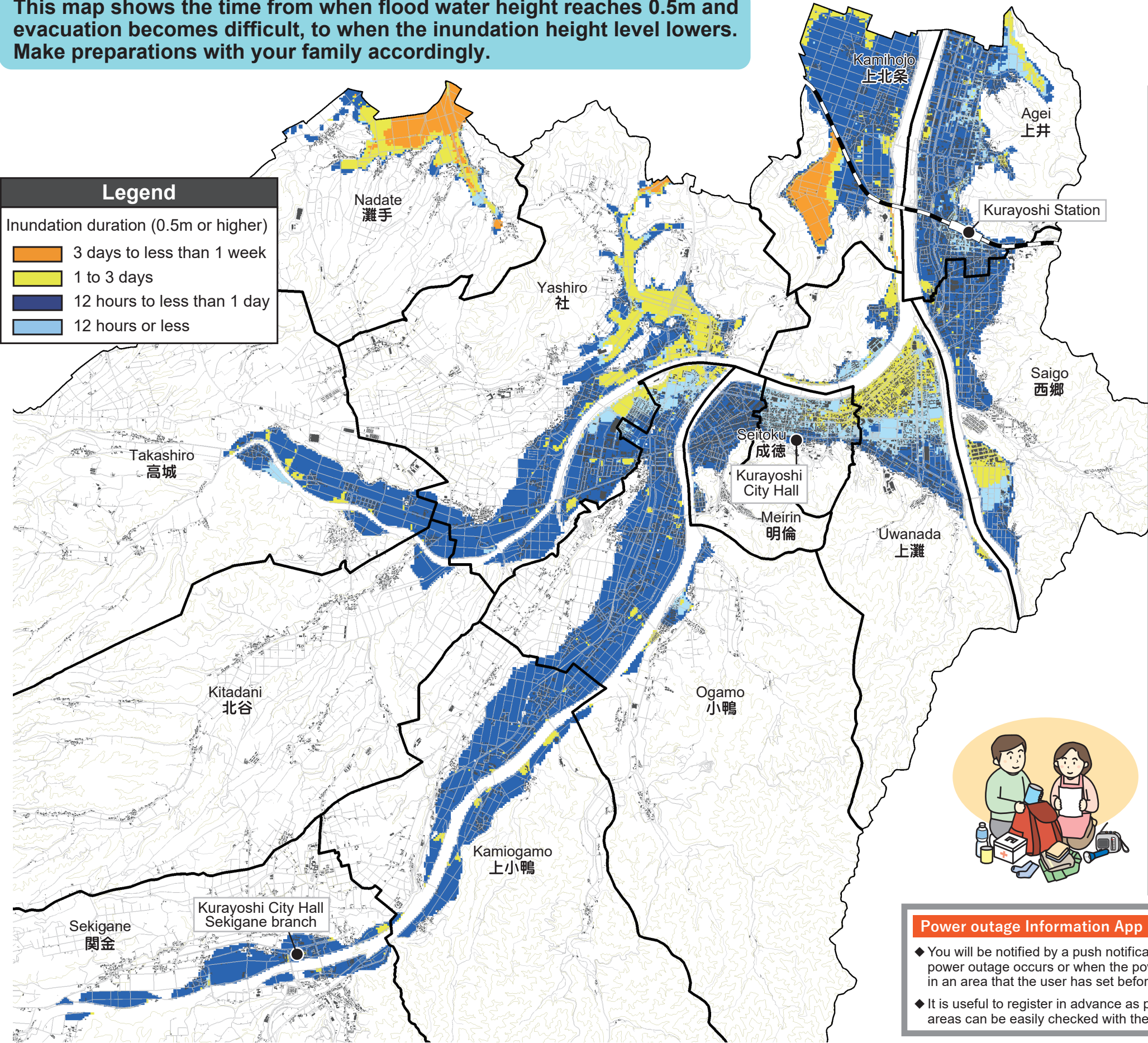
When inundation height is more than 0.5m, you may not be able to use electricity, etc.

③

It is important to prepare necessary items.

[Ref.] Duration of inundation in Kurayoshi City

This map shows the time from when flood water height reaches 0.5m and evacuation becomes difficult, to when the inundation height level lowers. Make preparations with your family accordingly.



(1) Prepare Emergency Supplies

☒ Check the items on the list!

List of emergency supplies to prepare at home	
※ The list is just an example. Choose appropriate items according to the situation of your household.	
Water / food	<div><input type="checkbox"/> Drinking water (3 liters per person per day)</div> <div><input type="checkbox"/> Personal items and emergency food *cookies, canned food, etc.</div>
Medicine and toiletries	<div><input type="checkbox"/> Medicine and drug history handbook</div> <div><input type="checkbox"/> First aid kit</div> <div><input type="checkbox"/> Feminine hygiene products</div> <div><input type="checkbox"/> Dust mask</div> <div><input type="checkbox"/> Toothbrush and oral care products</div>
Valuables	<div><input type="checkbox"/> Cash</div> <div><input type="checkbox"/> Seal (inkan)</div> <div><input type="checkbox"/> Health insurance card and bank books *Photocopies are OK</div>
Safety measures	<div><input type="checkbox"/> Helmets and disaster hoods</div> <div><input type="checkbox"/> Work gloves</div> <div><input type="checkbox"/> Athletic shoes with thick soles</div>
Tools	<div><div><input type="checkbox"/> Mobiles phone and charger</div><div><input type="checkbox"/> Portable radio</div><div><input type="checkbox"/> Flashlight</div><div><input type="checkbox"/> Batteries</div><div><input type="checkbox"/> Clock</div><div><input type="checkbox"/> Pocket warmers</div><div><input type="checkbox"/> Lighters and matches</div><div><input type="checkbox"/> Candle</div><div><input type="checkbox"/> Can opener</div><div><input type="checkbox"/> Knife</div><div><input type="checkbox"/> Eyeglasses</div><div><input type="checkbox"/> Rope</div><div><input type="checkbox"/> Portable stove</div><div><input type="checkbox"/> Solid fuel</div><div><input type="checkbox"/> Cooking devices</div></div>



Power outage Information App

◆ You will be notified by a push notification when a power outage occurs or when the power is restored in an area that the user has set beforehand.

◆ It is useful to register in advance as power outage areas can be easily checked with the map.

中国電力ネットワーク

停電情報

突然の停電...
そんな時、
スマートフォンが
あなたに情報をお届けします!

まずはアプリをダウンロード!
中国電力ネットワーク
停電情報

※別途通信料がかかります。

6. Preparation Necessary for Evacuation

(2) Points to Note for Evacuation

■ **Do not wear rain boots when you evacuate!**

Rain boots become heavy when they have water inside.
You may think rain boots are good when dealing with water, but they may cause more trouble when evacuating.
Wear Athletic shoes with thick soles instead.
If the water depth is more than 50cm, evacuation becomes difficult even for adults.



■ **Bring an umbrella with you when you evacuate!**

You cannot see the border between a water channel and a road or an open manhole because of the brown color of floodwater. If you have to walk in water, check your route carefully using an umbrella or a cane.



■ **Driving is strictly forbidden. Bicycling is dangerous too!**

Driving to an evacuation site would cause traffic congestion and block the passage of emergency vehicles.
Walk to the evacuation site whenever possible.
Driving during a flood may involve such danger as disabled brakes and cars being washed away.
Car deaths (casualties caused while traveling by car) have frequently been recorded during past heavy rain disasters.



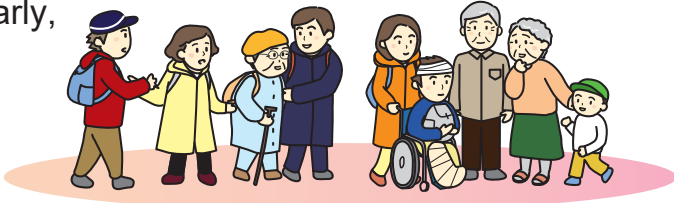
■ **Complete evacuation before sundown!**

Evacuation at night is very dangerous because it is difficult to check the surroundings. Complete evacuation before sundown if possible.



■ **Check on your elderly neighbors, etc. before evacuating!**

Help those who should start evacuating early, such as the elderly, children and sick people.



column It is important to evacuate early in cooperation with neighbors.
[Lessons from the damage in Mabi-cho, Kurashiki, Okayama]

- ◆ Out of 51 victims of the heavy rainfall of July 2018 rain in Mabi-cho, Kurashiki City, Okayama, 42 people (over 80%) were on the first level of a house and about 80% of them were 65 years old or older.
- ◆ In terms of the type of building, 21 victims lived in a one-story building, 21 victims lived in a building with two or more stories, but were probably unable to make “vertical evacuation” (go upstairs).
- ◆ If heavy rainfall is predicted, it is important to evacuate early in cooperation with neighbors.

Important points Large-scale flooding is to be expected in Kurayoshi City. Using page 17 as a reference, understand your home’s floodwater height and think about an appropriate evacuation plan.

[Reference information]
Inundation status at the time of a flood
(visual depiction)

Kurayoshi Mirai Chushin



Flood water height ... about 5 m



Shirakabedozogun



Flood water height ... about 3 m



Enkei Museum



Flood water height ... about 2 m

