# Issued by: Sewer Maintenance Division, Hiratsuka City Civil Engineering Department, Hiratsuka City (June 2022) Inland Water Hazard Map

Hiratsuka City's Inland Water Hazard Map shows the areas where inundation is expected and inundation depth during the expected maximum rainfall. This map has been created so that citizens can prepare in advance, such as by checking evacuation routes, measures, and regular preparations. The maximum expected rainfall in the Inland Water Hazard Map is 153 mm per hour. This is the maximum amount of rainfall in the Kanto region as indicated by the government. (The maximum recorded rainfall in Hiratsuka City's history was 70.5 mm per hour during Typhoon No. 18 which happened in October 2014.)

Note that regions other than the expected areas may be inundated and the flood depth may vary depending on the situation.

> When the region is receiving the maximum expected rainfall (153 mm per hour) and the water level of rivers has reached the embankments

### Be Aware of Flood Risk and **Think About Evacuation Behavior!**

Flood Risk to Your Home					
Expected inundation areas	<ul> <li>Inside the expected inundation area</li> <li>Outside the expected inundation area</li> </ul>				
Flood depth	$\Box$ 0.01 m to less than 0.3 $\Box$ 0.5 m to less than 1.0 m $\Box$ 3.0 m to less than 5.0 m	$\Box$ 1.0 m to less than 3.0 m			
<b>Evacuation M</b>	Evacuation Method				
□Evacuate to the Eme	□Evacuate to the Emergency Evacuation Sites □Secure Indoor Safety Evacuate to floor				
<b>Evacuation sit</b>	Evacuation sites				
Emergency evacuation sites	Name:	Time required from your home:			
Note					
Contact information Sewer Maintenance Division, Civil Engineering Department, Hiratsuka City TEL: 0463-21-8787					

# **Disaster Prevention Notes for My House**

Share your contact information and emergency contact details such as your office and school details so that you can act properly without panicking, even when your family is at another location. **Eamily's Contact Information** 

Family's Contact Information							
Name of family member	me of family member Contact details of company/school		Email address	Blood type			
Emergency Con	itact Information						
Name	Point of contact	Email address	Remarks				

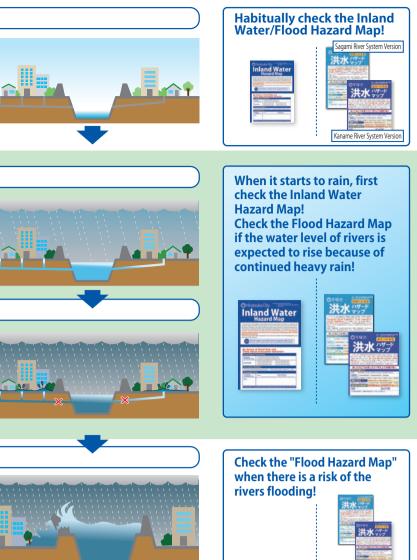
#### Disaster Emergency Message Dial "171"/ Disaster Message Board "Web 171" When there is increase phone calls or when telephone "171/Web 171" Trial Dates lines are difficult to connect to the disaster affected area, Ist and 15th of each month NTT will provide a message board to confirm the safety January 1 to 3 of people in the affected areas via telephone and August 30 to September 5 Internet. (Disaster Preparedness Week)\* January 15 to 21 (Disaster Prevention and Volunteer Week)\* How to **Post** a Message How to **Read** Messages %9:00 to 17:00 Dial 171 **Dial 171** (No PIN) (With PIN) (No PIN) (With PIN 「1」 **[2**] 「**4**」 「**3**」 **Disaster Message Board** (Area code) + Phone number (Area code) + Phone number During a disaster, every mobile Message playback operator will immediately set up Record your message the "Disaster Message Board." Access web171.jp Access web171.jp You can register and check safety information from your mobile or Enter your telephone number Enter your telephone number smartphone. Web Post button Web Read button Post your name/ Read message details safety situation/message **%**It is helpful if you choose your 4-digit PIN number beforehand.

# How to Use the Hazard Maps

Use the Inland Water Hazard Map and Flood Hazard Map depending on how the rain is falling.

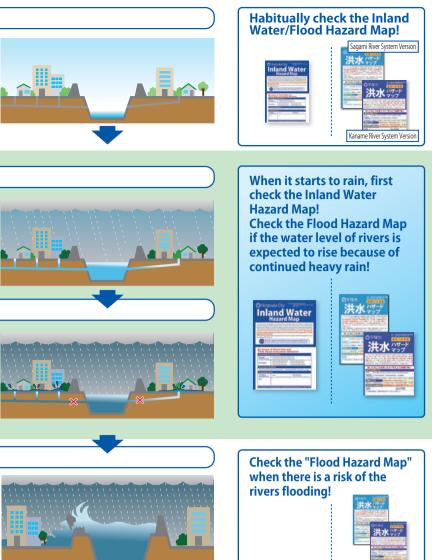
### (1. Normally

Rivers and waterways are not only for carrying water but are also indispensable for nurturing rich cities and creatures.



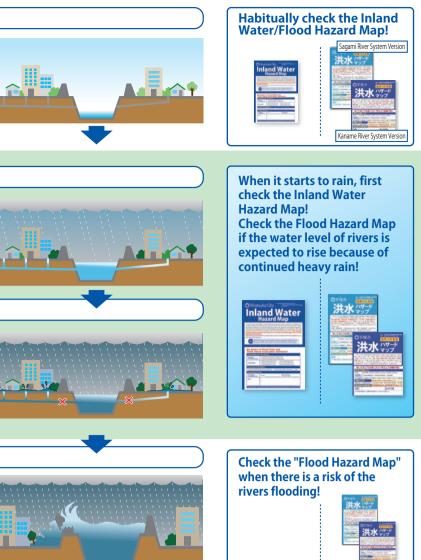
### 2. When it Starts to Rain

The water level of rivers and waterways gradually starts to rise. Small waterways may flood.

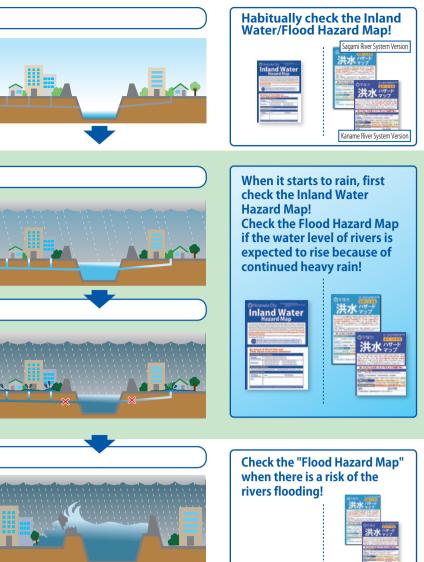


#### **3. If Heavy Rains Continue**

The water level of rivers will rise and the waterways will be poorly drained, which may cause inundation in low-lying areas floods caused by inland water). If the flow rate exceeds the capacity of the drainage pump stations, the level of risk for inundation will increase further



#### 4. If it Continues to Rain Heavily Rivers and waterways may flood and cause large inundations (floods from rivers) such as those caused by burst river



#### atsuka City provides flooding, landslide, storm surge, tsunami, and reservoir hazard map. Check these as we

### **Disasters Expected During Heavy Rain**



embankments.

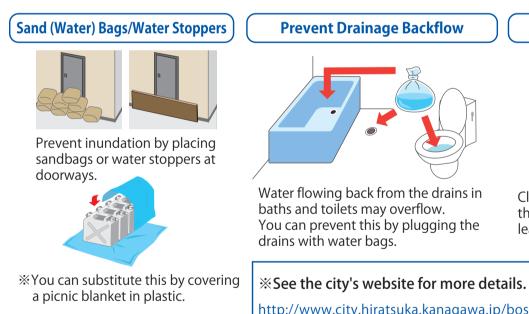
Heavy rains cause the gutters along the roads to be clogged with debris that prevents proper drainage and causes water to pool on roads.



Heavy rains cause the water level of rivers to rise, which in turn clogs the waterways and leads to inundation.

## Measures against inundation that can be implemented in offices and homes

You can place sandbags or water stoppers near openings such as doorways and entrances and install water bags to drainage ports in offices and homes to reduce damage caused by inundation.



# City's Initiatives Against Floods from Inland Waters

Because of increased urbanization and severe local rain, the effects of rainwater outflow that exceeds the sewer drainage capabilities and rising river water have caused inundation damage due to poor drainage. Hiratsuka City has drawn up plans for inundation and is promoting measures to reduce and eliminate damage.

Hiratsuka City's Master Plan for Measures Against Inundation

- Select the districts for focused implementation of measures and maintain pipelines, gates, and other infrastructure.
- Work on comprehensive inundation measures considering public assistance and the citizen's self-reliance.

#### System to Subsidize the Cost of Purchasing Ráinwater Storage Tanks (Rainwater Tankš)

This system subsidizes the cost of buying rainwater storage tanks. Rainwater flowing from the roof is collected in these tanks, and this water can be used for watering plants in your garden, cleaning, and for emergency use.

It also contributes to conserving the environment and reducing inundation damage.

See the city's website for more details. http://www.city.hiratsuka.kanagawa.jp/machizukuri/page-c\_02774.html



Rainwater collects in low-lying areas such as underground passages below expressways and railways.



The water level of the river rises, and the water goes over the embankment or bursts through it causing inundation.



http://www.city.hiratsuka.kanagawa.jp/bosai/page-c\_02782.html



page62\_00004.html

# **Evacuation Measures During Heavy Rain**

Storm and flood damage is disaster that can be predicted to some extent. Check what actions you should taking beforehand according to the disaster situation.

evacuate or remain indoors.



Collect accurate information from the internet, television radio, and other sources. • Check the evacuation sites and evacuation routes on the hazard map.

**Collect Information** 



Electricity turned off!

### **Prepare to Evacuate**

· Check your surroundings and decide whether it is safe to



#### • Close the stopcock of your gas stove and turn off the electric breaker. Check that the entrance, balcony and other doors are

locked.

**Evacuation Method Depending on the Situation** 



assistance during evacuation activities.



### Living in Evacuation Shelters

- Use the Disaster Emergency Message Dial (171) and Disaster Message Board (web 171) to check your family's safety.
- Take the countermeasures against infectious diseases into consideration when evacuating. Help with emergency measures such as
- distributing supplies as far as possible.



## **Regular Preparation**

You will be secure if you place your emergency supplies in a rucksack that allows you to use both your hands and place the sack near your bedside or in a place that is easily accessible. For primary emergency supplies, prepare those items that are "indispensable" to you, not those that "make your life

convenient." If you have properly prepared your supplies, they will be useful even during vertical (elevated) evacuation.

Items You Should Always Carry Items that can be used for minimal activities even if the disaster strikes while you are away from home □ Mobile phone (Smartphones) □ Mobile phone (Smartphones) battery □ Cash □ Driver's license

□ Notepads and pens □ Drinking water □ Portable food □ Whistle (Used when asking for help)

### Primary Emergency Supplies Items to be taken out as a top priority in the event of a disaster

**Drinking Water and Food** Drinking water (About one liter per person for emergencies) Food (Canned food, biscuits, chocolate, etc.)

Daily necessities and hygiene products Lighter, matches Thermal blanket Writing implements Plastic bags Raincoat Towels Clothing, underwear Oral care products that do not require toiletries or water Orable toilet

□ Tissue paper, toilet paper □ Disposable heat packs □ Body sheet to wipe body **Infectious Disease Control Products** 

🗌 Masks 🛛 Hand sanitizer 🔲 Soap (hand soap) 🔲 Wet wipes 🔲 Clinical thermometer **Emergency Medical Supplies** 

Adhesive plaster Gauze Bandage Disinfectant Household medicine (painkillers, gastrointestinal medicine, etc.) Medication record **Evacuation Supplies** 

🗆 Flashlight 🔲 Helmet, cotton work gloves 🗌 Slippers 🗌 Stick (for probing in flooded) 🗌 Dry cell batteries 🔲 Air mattress **Valuables** 

□ Health Insurance card □ ID card □ Passport □ Deposit passbook □ Inkan (personal seal)

econdary Emergency Supplies I Items to be retrieved from your home in case your stay at the evacuation shelter is extended **Drinking Water and Food** 

🗌 Drinking water (Approximately 3 liters per day per person for one week) 🛛 🔲 Food (Approximately one week's worth including allergy-friendly food) **Daily Necessities** 

□ Plates, cups, chopsticks, kettle, pan □ Food wrap (Use it to cover tableware to keep it clean) □ Dry shampoo □ Water bags for emergency □ Sleeping bag □ Portable stove □ Gas cylinder for portable stove (One for two days) □ Solid fuel □ Portable toilet □ Flame resistant polythene bags (for cooking packed items)

Clothing: Arrange for the necessary garments according to your family's (especially children's) growth and season. Underwear, socks Long-sleeves, full-length pants Winter clothes Blankets Towels, bath towels Convenient things to have at hand

Tools □ Saw, crowbar □ Cutting pliers □ Rope

Newspapers, cardboards for packing Safety pins «Make sure you have individual supplies according to your family structure and situation»———

Windke St	ne you nave	individual supplies according to your family s	tructure and situation/	
Women	Infants		Pets	
Sanitary products	🗌 Baby bo	ttles	🗆 Pet food 🛛 Cage	
Personal alarm	🗌 Liquid fo	ormula 🔲 Snacks 🗌 Baby wipes 🛛 🥥 🖓	🗆 Leash 🛛 Identification tag	
Cosmetics	Maternity	health record book	Toiletries     Grooming supplies	
People Who have C	hronic	Elderly and Those Who Require Care	Household medicines	
<b>Diseases or Allergie</b>	S	Nursing care supplies Household medicines	<b>○For Those Who Own Dogs</b>	
Medicines for you		Disability certificate Soft emergency rations	License permit	
Allergy-friendly	food	Adult diapers	Rabies immunization tag	

# Evacuation information and alert level announced during heavy rains

Various organizations will announce evacuation information during heavy rains. Protect yourself from danger by understanding the announced information properly and combining it with the actions to be taken by everyone.

High (	Alert level Evacuation information			Actions to be taken by evryone		
Ris	Alert level <b>5</b>	[Announced by Hiratsuka City] Emergency safety measures	[Issued by the Japan Meteorological Agency (JMA)] Heavy Rain Emergency Warning/ Information on flooding	Due to the dangerous situation of life, ensure safety immediately! A situation where a disaster has already occurred Do your best to save your life!!		
k of D		Be sure to evacua	te by alert level 4 [Evacuat	ion instruction]		
Risk of Disaster Occurrence	Alert level 4 All residents should evacuate from affected areas	[Announced by Hiratsuka City] Evacuation instruction	[Issued by the Japan Meteorological Agency (JMA)] Landslide Alert Information/ Storm Surge Emergency Warning/ Storm Surge Warning/ Information on potential flood hazards	Evacuate to a safe place quickly! If you think the move is dangerous, evacuate to a safe place nearby or a safer place in your home!		
Ce	Alert level 3 Elderly people should evacuate from affected areas	[Announced by Hiratsuka City] Evacuation of the elderly, etc	[Issued by the Japan Meteorological Agency (JMA)] Heavy Rain Warning/Flood Warning/ Storm Surge Advisory that is likely to switch to storm surge warning/ Information to provide a warning on flooding	Evacuate the elderly, persons with disabilities , infants , pregnant women and other such people who need time to evacuate with their helpers! Other people, prepare to evacuatze!		
Low	Alert level <b>2</b>		[Issued by the Japan Meteorological Agency (JMA)] Heavy Rain Advisory/ Flood Advisory/Storm Surge Advisory	Check your own evacuation behavior!		
	Alert level <b>1</b>		[Issued by the Japan Meteorological Agency (JMA)] Early Warning Information	Prepare your mind for a disaster!		
When	vou don't know wh	ether the amount of rainf	all is alarming, check "Kikikuru" on the	e Japan Meteorological Agency's (JMA) webs		

Kikikuru is information that allows you to check the disaster risk caused by rain on a map in real time. The disaster risk due to rain is updated every 10 minutes.

he risk level is divided and shown in five colors Caution

ich Extreme risk (Dark purple) High risk (Light purple) .... [Alert level 4] Warning (Red) ··· [Alert level 3] · [Alert level 2] Check weather bulletin

### **Rainfall intensity**

American					
Amount of rainfall in one hour	10~20mm	20~30mm	30~50mm	50~80mm	80mm以上
<b>Rainfall intensity</b>	Slightly heavy	Heavy	Severe	Extremely severe	Violent
Impact on people					
	Rains heavily. The rain splashes on the ground and gets your feet wet.	There is a downpour and there are puddles all over the ground.	Rain pours down as if a bucket has been tipped over and you will get wet even if you use an umbrella.	Rain pours down thunderously like a waterfall, and using an umbrella is useless.	You get an oppressive feeling that makes you suffocate. You also feel terrified.
Situation outside	There are puddles all over the ground.		Roads become flooded.	The splashing rain make look hazed, and the visi	es the surrounding area bility gets worse.
lf you are in your car		It is hard to see even if the wipers are running fast.	When driving at high speeds, a film of water is formed between the axle of the tire and the road surface, because of which the brakes do not work (hydroplaning phenomenon).	Driving a car is dangerous.	

## How to Get Information

Various information will be broadcast over the Internet, television, radio, and other sources. Take proper evacuation measures by proactively obtaining accurate information.

