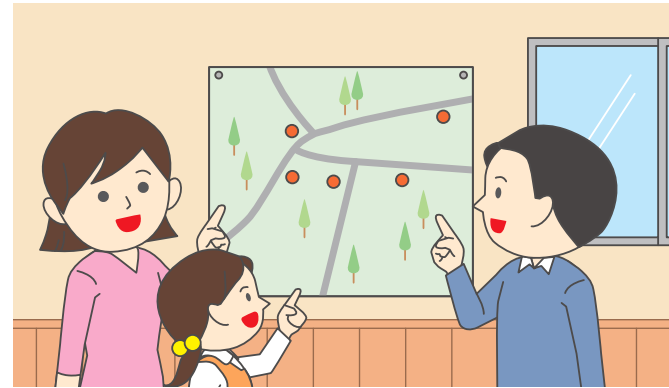


Water Hazard Map

Keep to with other disaster-readiness maps so that you can refer to it in the event of an emergency.



What Is the Water Hazard Map?



The Landside Water Hazard Map has been prepared to enable residents to make daily preparations and take action against heavy rainfall, such as localized torrential rains that exceed the capacity of the sewerage system (storm sewers).

Please use flood this map to check whether your residence, etc., are at risk of flooding, to confirm evacuation sites, etc., and to take steps in your daily life to prepare against flood damage due to heavy rainfall.

Inquiries

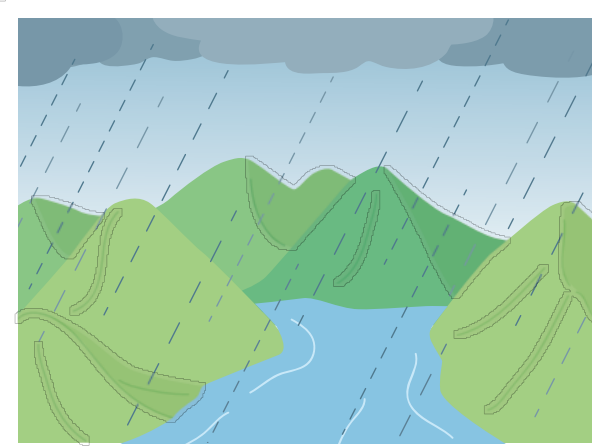


March 2019 Edition

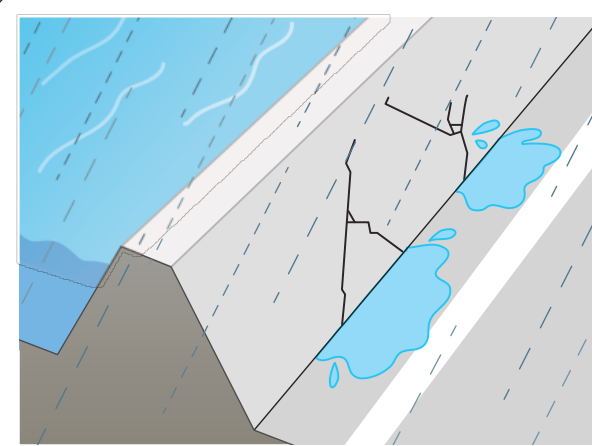
Inquiries:
Sewer Maintenance Division
Construction Department, Matsudo City
Annex 3rd floor, Nemoto 387-5, Matsudo City, Chiba Prefecture
Tel 047-366-7361 Fax 047-363-6779

1. What Is Inland Flooding?

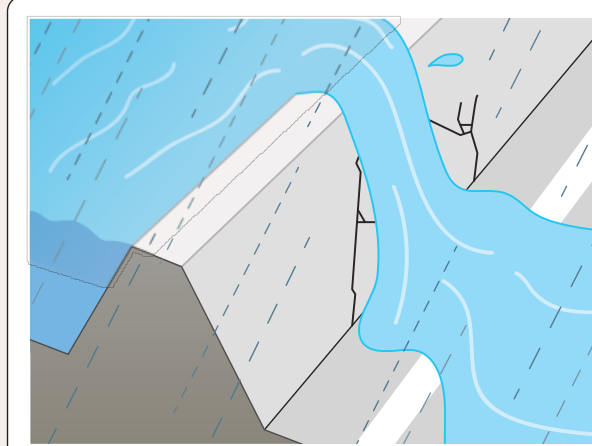
Flooding (Foreland)



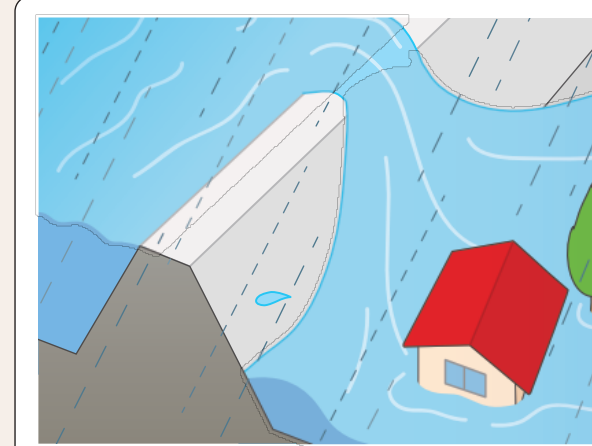
Due to heavy rainfall the water in rivers increases, and the river starts to swell.



When the water rises all the way to the top of the embankment, the pressure of the water starts to act upon the embankment.

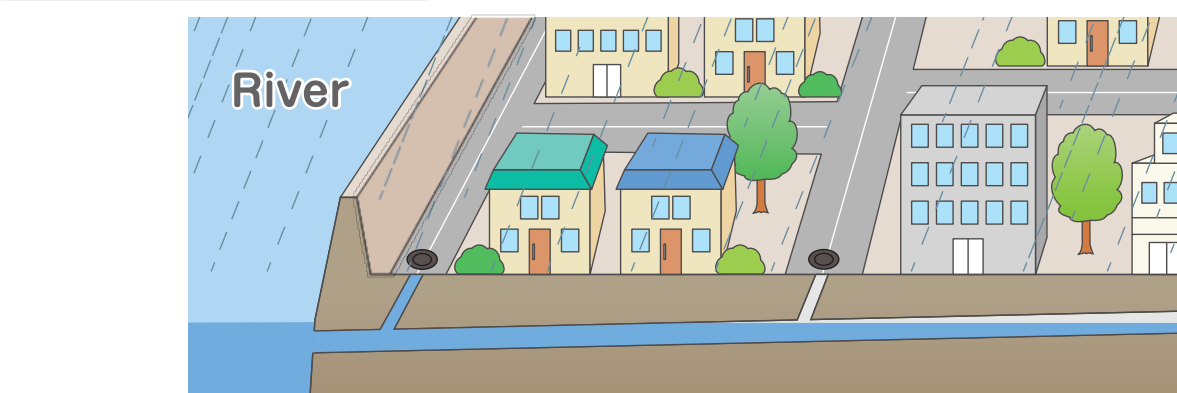


The water increases, and the embankment becomes unable to withstand the force of the water and part of it begins to collapse.

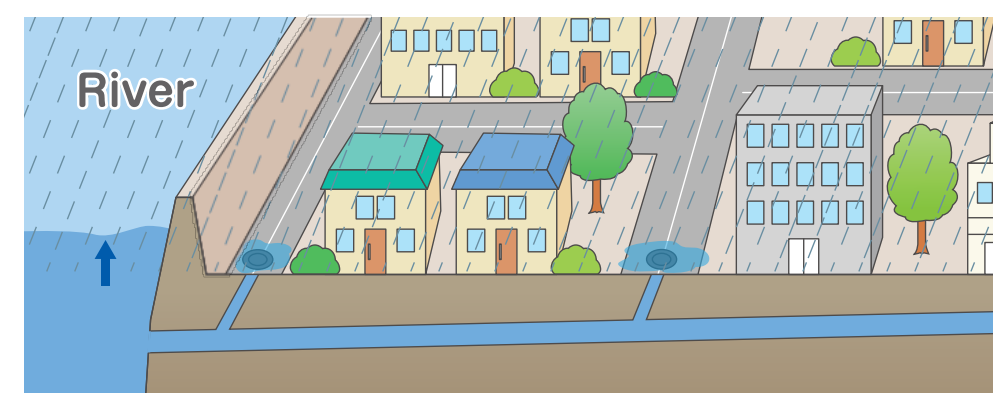


Water passes through the collapsed area and flows out with great force, carrying off houses and other things.

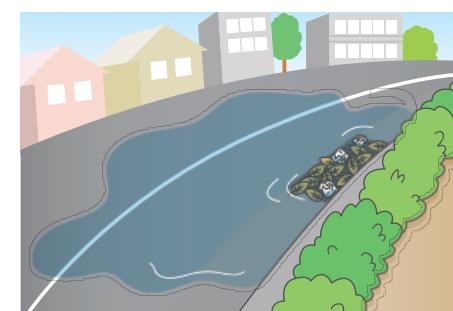
Inland Flooding



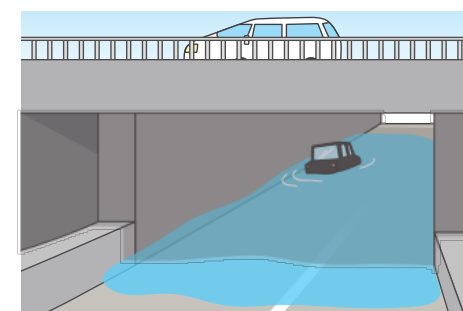
Rain that falls in areas such as towns passes through a sewerage system (storm sewers) and the like and is drained into rivers.



When heavy rain falls and the river water level rises, drainage becomes difficult, and the sewerage system (storm sewers) and the like overflow.



When heavy rain falls, the side ditches along roadways become clogged with trash and other materials and fail to drain, so roadways become covered with water.



Rainwater collects on low-lying sections of roads under expressway and railway overpasses and the like, and they become covered with water.

- Flooding (foreland) is when, due to heavy rainfall, the water level of rivers rises and overflows embankments, and when the earth in an embankment flows out and the embankment collapses.
- Inland flooding is when the amount of rain exceeds the capacity of a sewer system or other such drainage facility, and when rainwater cannot drain when the water level of rivers of other such drainage destinations is high and water overflows from manholes, side ditches, etc., causing flooding. The overflowing water collects in underpasses and other low-lying places, and caution is needed.

For a "Flooding Hazard Map," visit the link below.
http://www.sonicweb-asp.jp/matsudo/map?theme=th_14

2. Taking Precautions Against Inland Flooding



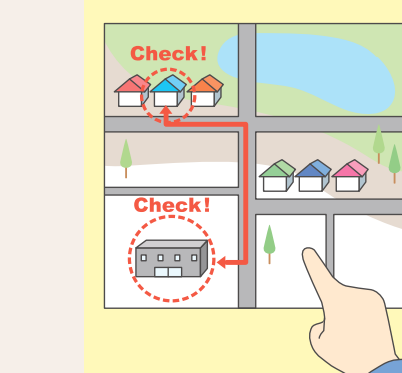
Checking Weather Information

Obtain weather information about heavy rainfall, and at times when heavy rainfall is foreseen, such as when cold winds begin to blow, pay attention to weather forecasts via television, radio, and other sources, and take notice of changes in the weather.



Cleaning Side Ditches

When roadside drains and the like become clogged by trash and fallen leaves, rainwater cannot drain, and flooding sometimes occurs. Your cooperation in keeping the areas around nearby roadways clean is requested.



Checking the Inland Hazard Map

Use the inland hazard map to check the status of anticipated flooding near your residence. Then check the marks for evacuation sites near your residence, and confirm an evacuation route that avoids locations of deep flooding and hazardous locations.

Obtaining Information Concerning Disaster Readiness

For the most up-to-date information regarding disaster readiness, check the Matsudo City official website and other such sites.

Matsudo City official website
<https://www.city.matsudo.chiba.jp/>



Matsudo City official Twitter account
https://twitter.com/matsudo_city



Matsudo City official Facebook account
<https://www.facebook.com/matsudocity/>



Disaster-readiness information is distributed by email, so please be sure to register.

Matsudo City Safety and Security Email
<https://service.sugumail.com/matsudo/>

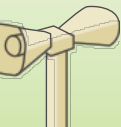


Chiba Disaster Readiness Email
<http://chibapref3.bosai.info/chiba/mobile/bosaimail.cgi>








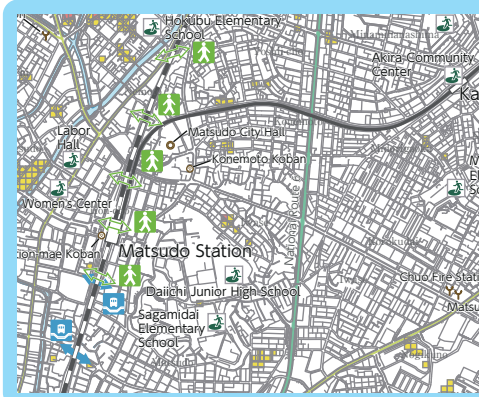
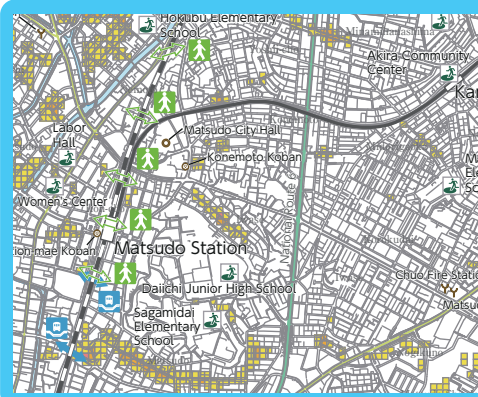
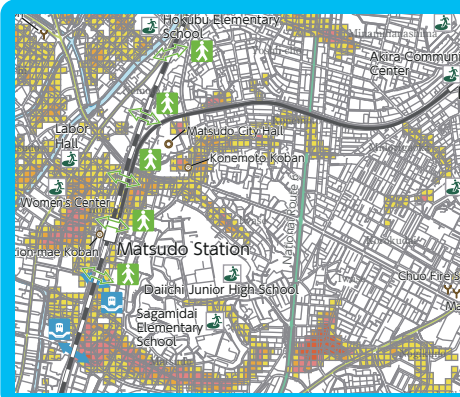
Information is also distributed by the Administrative Radio System for Disaster Use (Disaster Radio), and when you want to check the broadcast content, please call the following telephone number.

Automated Voice Response for the Administrative Radio System for Disaster Use
(Free Dial) **0800-800-9366**



Note: Regular daily broadcasts at 2:00 pm and in the evening are not supported.

3. Information Concerning Inland Flooding

Amount of rainfall	Heavy rain/flood advisory					Heavy rain emergency warning
	Light					Heavy
Rainfall per hour (mm)	10 to less than 20	20 to less than 30	30 to less than 50	50 to less than 80	80 or more	
Rain intensity	Hard rain	Intense rain	Fierce rain	Extremely fierce rain	Violent rain	
Type of rainfall	The rain falls heavily. It splashes up from the ground and wets feet. 	The rain is a downpour. Side ditches and small rivers begin to overflow. 	The rain comes down as if in buckets. Roadways become rivers. 	The rain roars and comes down like a waterfall. Water spurts from manholes. 	A sense of suffocating oppression and fear are felt. 	
Action by residents	Check weather information and hazard maps.		Early precautionary measures. People who live in zones where flooding is anticipated should take measures that can be taken at home.		People who live in zones where flooding is anticipated should give attention to evacuation information. Cases of evacuation sites flooding and becoming unusable are also anticipated, so when evacuating, you should collect accurate information and avoid hazardous locations.	
Anticipated inland flooding						

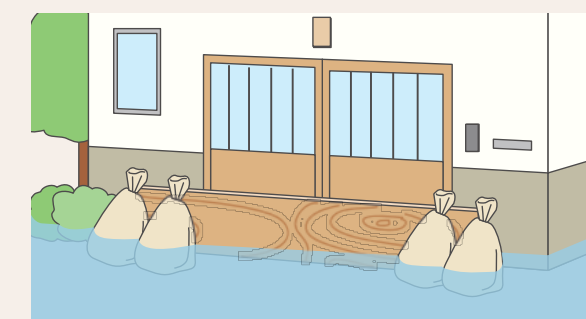
Flooding Depths Legend

3.0 m or more
1.0 m to less than 3.0 m
0.5 m to less than 1.0 m
0.3 m to less than 0.5 m
Less than 0.3 m

Note: Information on flood depths according to rain strength can also be viewed on the Matsudo City website.

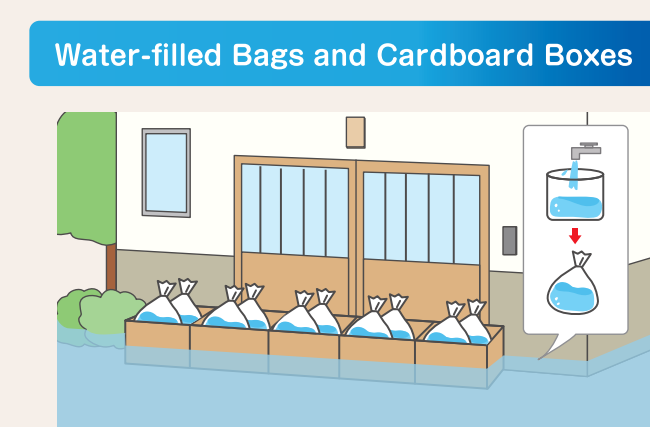
4. Disaster Readiness and Evacuation for Inland Flooding

Measures That Can Be Taken at Home



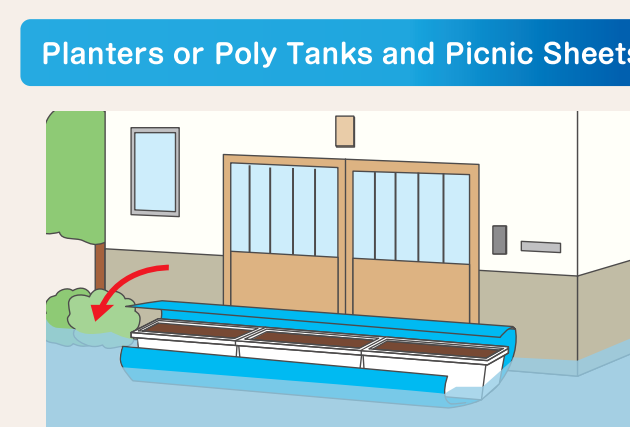
Long Planks and Sandbags

Inflow of water into the house can be prevented by making sandbags and using them in combination with long planks, etc.



Water-filled Bags and Cardboard Boxes

Place Plastic bags filled with water in cardboard boxes and arrange them in a line.

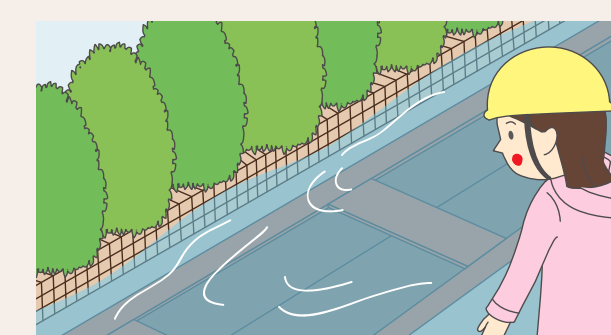


Planters or Poly Tanks and Picnic Sheets

Arrange planters or poly tanks in a line and wrap them in picnic sheets.

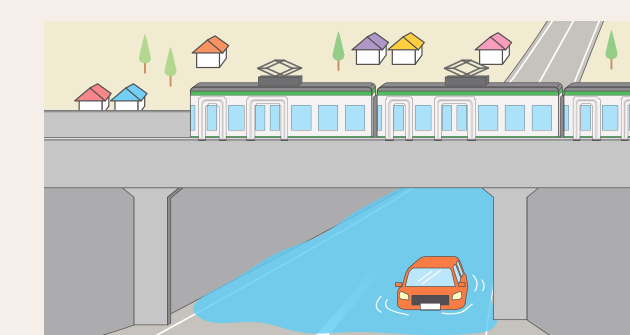
Hazardous Locations

Areas Near Waterways



Many waterways lack guard rails or other fencing. During flooding, there is risk of being inadvertently swept away because the location of a waterway cannot be determined, and so they should not be approached.

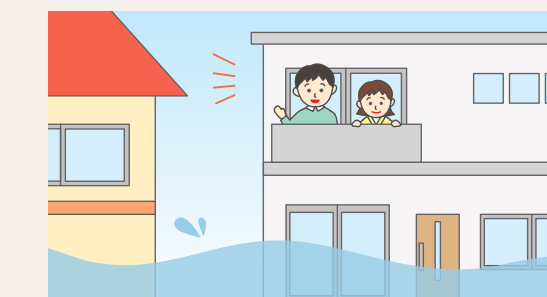
Underpasses



During flooding, low-lying places such as underground roadways and underground walkways present risk of becoming submerged by water flowing in from the surrounding area, and so they should not be approached.

Evacuation Inside at Home

Evacuation to the Second Floor or Higher



When sudden torrential rain starts to fall, instead of unreasonably attempting to evacuate to outside, you should relocate to a high-up location, on the second floor or higher, and rain for the rain to abate.

Underground is Hazardous



Underground locations are hazardous, and so they should not be approached. When evacuating from underground to above ground, stairs cannot be climbed when struggling against inflowing water, and you should leave earlier.

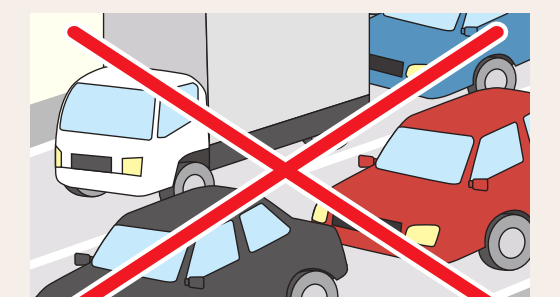
Evacuation When Outside

Without Overstraining, Get to a Safe Building in the Area



When the floodwater depth is 50 cm or higher, hazards might be experienced when evacuating. Without making an unreasonable attempt, you should evacuate to a safe building in the area.

Avoid Evacuating by Automobile



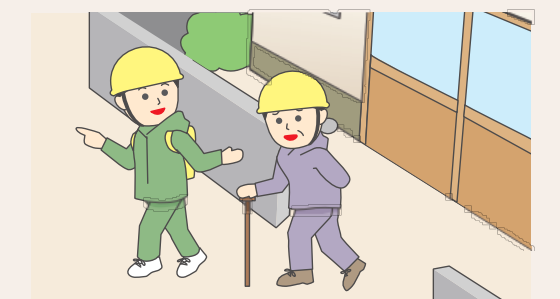
Evacuating by automobile can sometimes impede emergency vehicles and flood-control efforts, and so should be avoided.

Be Careful Around Manholes and Side Ditches



When evacuating, wear clothes that are easy to move in, try to stay in groups of two or more persons, and when moving, be careful around manholes and side ditches.

Cooperate with the Evacuation of the Elderly, Etc.



For the elderly, children, the sick or injured, and other persons who require consideration, early evacuation is necessary. Persons around them should help with their evacuation.