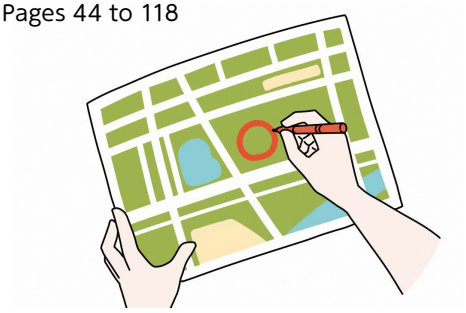
# Using hazard maps

Review these hazard maps during normal times to determine what you should do in the event of a disaster.

## 1. Find your home

Mark the location of your home on the maps.

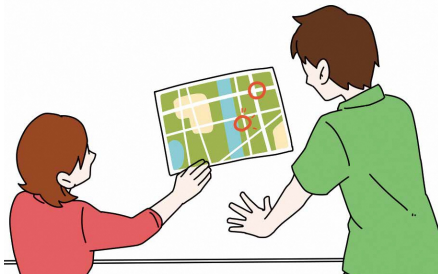
▶▶▶ Pages 44 to 118



## 2. Review what you should do and the locations of shelters

Review how you should evacuate based on pages 10 to 13.Check the locations of any shelters to which you might need to evacuate.

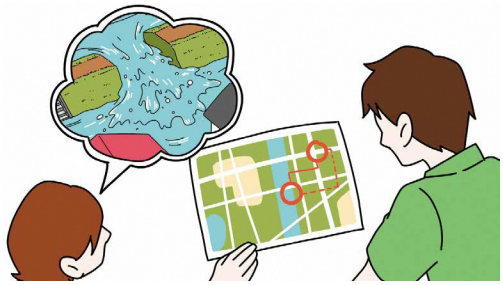
▶▶▶ Pages 12 and 13 : Choosing to evacuate
▶▶▶ Pages 36 and 37 : Shelters in Hirakata City



## 3. Consider your evacuation route

Choose a safe route, taking into consideration the need to use large roads and avoid rivers and slopes.

▶▶▶ Pages 44 to 118 : Hazard maps



## 4. Actually walk your evacuation route

Check whether the evacuation route you chose using the maps is safe, whether there are any other dangerous locations or locations requiring caution, and how long it will take you to evacuate.

## 5. Talk about disasters and evacuation

Share information about disasters and evacuation, not only with family members, but also with neighbors and colleagues at work.

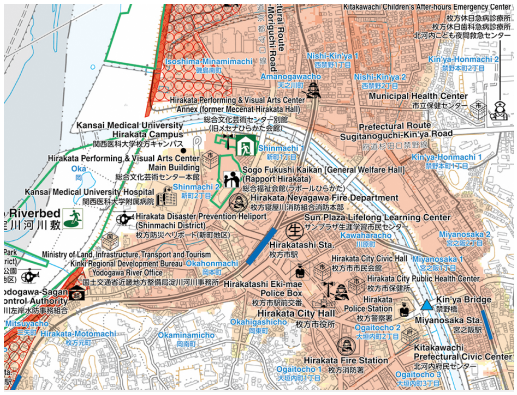
Winds, Flooding, and Landslides → Page 2
Earthquakes → Page 16
Emergency Supplies → Page 28
First Aid → Page 34
Verifying Safety → Page 35
Types of hazard maps → Page 41

Exercise caution as the nature of any rainfall and local topography may cause the actual flood depth to diverge from anticipated levels, or flooding or landslides to occur in areas where flooding was not anticipated.

# Types of hazard maps

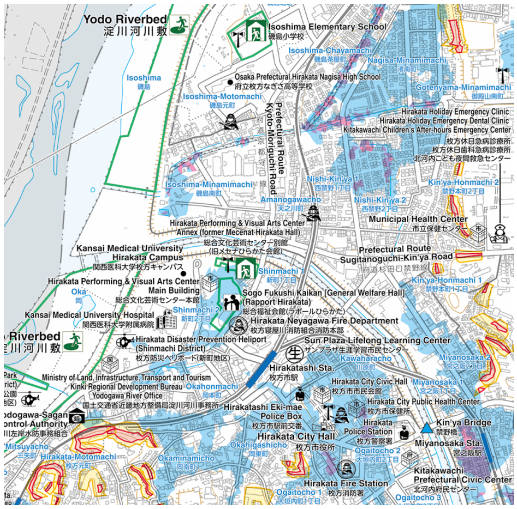
## Flood hazard maps

These flood hazard maps have been created in accordance with Article 14 of the Flood Control Act. They indicate zones where flooding due to the maximum anticipated rainfall is likely to occur as well as the anticipated depth of floodwaters.




## Rainfall-triggered flooding hazard maps

Rainfall-triggered flooding hazard maps have been created using the city's own simulation process since anticipated rainfall flood zones and anticipated high-tide flood zones have not been designated in accordance with Article 14 Paragraph 2 and Article 14 Paragraph 3, respectively, of the Flood Control Act. The maps have been created based on a simulation of flood range and depth in the event all areas of the city were to experience the largest amount of rain that has ever fallen in Hirakata City (108 millimeters in one hour).



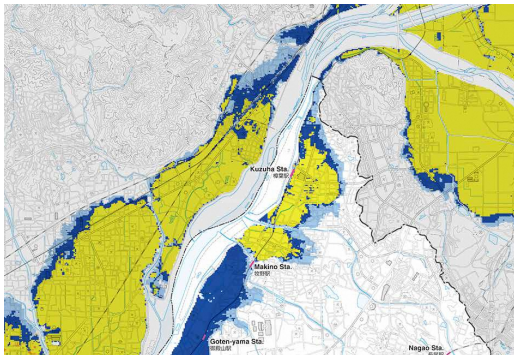

## Landslide hazard maps

These maps have been created based on landslide warning areas and landslide special warning areas as surveyed and designated by Osaka Prefecture.
Please see Osaka Prefecture's website for details.

http://www.pref.osaka.lg.jp/damusabo/dosyahou/sitei.html

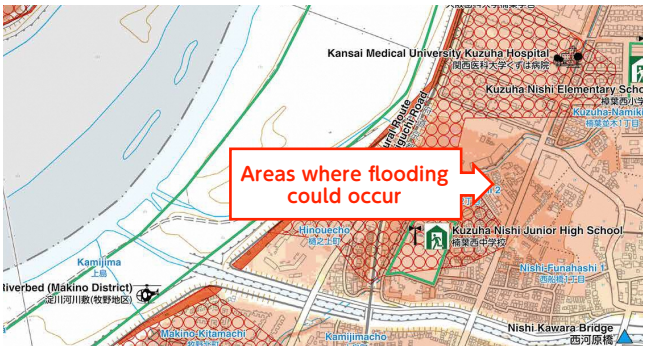
## Flood durations

These flood duration hazard maps have been created in accordance with Article 14 of the Flood Control Act. Projections are based on a simulation of flood conditions in the event rivers were to overflow as a result of the maximum anticipated rainfall.



# Explanation of hazard maps

## Flood hazard maps




Flood depth: Legend

- Area with depths of 10.0 m to less than 20.0 m
- Area with depths of 5.0 m to less than 10.0 m
- Area with depths of 3.0 m to less than 5.0 m
- Area with depths of 0.5 m to less than 3.0 m
- Area with depths of less than 0.5 m

### Yodo River and Kizu River

(as announced by the Ministry of Land, Infrastructure, Transport and Tourism's Kinki Regional Development Bureau on June 14, 2017)

**◎Assumed rainfall: Maximum anticipated rainfall**

Yodo River: Total 24-hour rainfall of 360 mm upstream of Hirakata

Kizu River: Total 12-hour rainfall of 358 mm upstream of Kamo

### Funahashi, Hotani, Amano, Toda, Kita, and Mae Rivers

(As announced by Osaka Prefecture's Hirakata Civil Engineering Office on March 25, 2020)

**◎Assumed rainfall: Maximum anticipated rainfall**

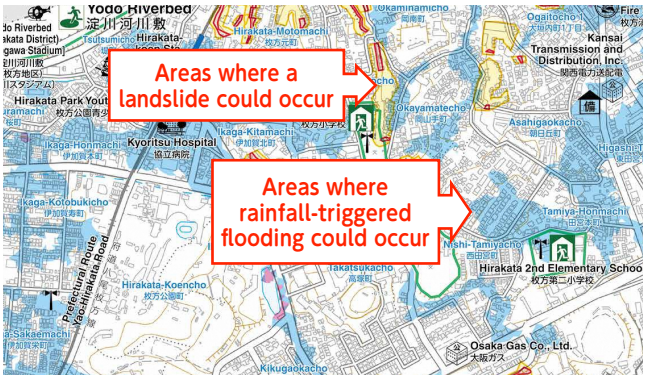
| | Total 24-hour rainfall | Maximum 1-hour rainfall |
|---|---|---|
| Funahashi River basin | 1,150 mm | 143.0 mm |
| Hotani River basin | 1,150 mm | 140.0 mm |
| Amano River basin | 1,038 mm | 115.0 mm |
| Toda River basin | 1,150 mm | 147.0 mm |
| Kita River basin | 1,150 mm | 144.0 mm |
| Mae River basin | 1,150 mm | 146.0 mm |

## Areas where early evacuation is necessary (during flooding)

Residents of the following areas will need to evacuate early: areas where flooding could cause homes to collapse or the riverside to erode, areas where even the upper stories of homes may experience water ingress, and areas where flooding may continue for an extended period of time. Residents of areas such as these should proceed to a safe location without delay as instructed in evacuation information in the event of a disaster since staying at home could pose imminent, life-threatening hazards.

| Designated area type | | | Type of disaster and action in event of evacuation | |
|---|---|---|---|---|
| Early evacuation areas | Areas where flooding could lead to collapse of homes | Flooding<br>Hazard map legend |  | Residents should evacuate early as wooden homes could collapse. |
| | | Riverside erosion<br>Hazard map legend |  | Residents should evacuate early as homes could collapse. |
| | Areas where homes could experience flooding (to a depth of 3 m or greater) | |  | Residents should evacuate early as floodwaters could reach even the upper stories of homes. |
| | Areas where flooding is expected to continue for at least 24 hours | |  | Residents should evacuate early as flooding is anticipated to continue for an extended period of time. Even shallow flooding could pose difficulties in daily life, even for residents of high-rise buildings. |

## Rainfall-triggered flooding and landslide hazard maps




Flood depth: Legend (rainfall-triggered flooding)

- Less than 0.5 m
- 0.5 m or greater and less than 1 m
- 1 m or greater

Landslides: Legend

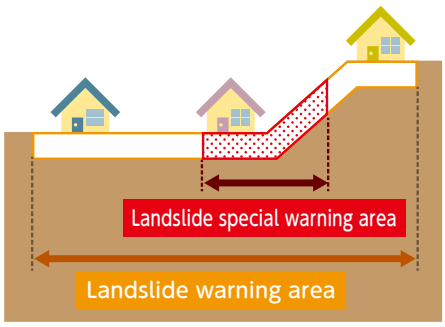
- Landslide special warning area (steep slope)
- Landslide warning area (steep slope)
- Landslide special warning area (debris flow)
- Landslide warning area (debris flow)
- Landslide warning area (landslide)

## Special warning areas and warning areas (landslides)

The city has conducted basic research and designated areas where landslides could occur.

**Landslide special warning area (red zone)**

Warning areas where the collapse of, or other damage to, a steep slope could cause damage to buildings and cause a high level of danger to life and limb




*Collapse of a steep slope

**Landslide warning area (yellow zone)**

Areas where the collapse of, or other damage to, a steep slope could endanger life and limb

### Legend (disaster readiness information)

- Primary shelter
- Secondary shelter
- Wide-area shelter
- Temporary shelter
- Welfare shelter
- Regional disaster base hospital
- Designated disaster medical center
- Hirakata City disaster medical center or disaster medicine partner hospital
- Base first-aid station
- Initial emergency medicine facility
- Police station or police stand
- Fire department or fire station
- Volunteer fire department garage
- City office or branch office
- Other municipal facility
- Other prefectural facility
- Other national facility
- Other public facility
- Lifelong learning center
- Library
- Flood control association
- Supply warehouse
- Government-run disaster readiness radio broadcasting station
- Heliport
- Water level observation point
- Underpass