

Nagaoka City Flood Evacuation Map

~You are advised to prepare for any possible emergencies~

Flood Warning Hazard Map Revised Edition

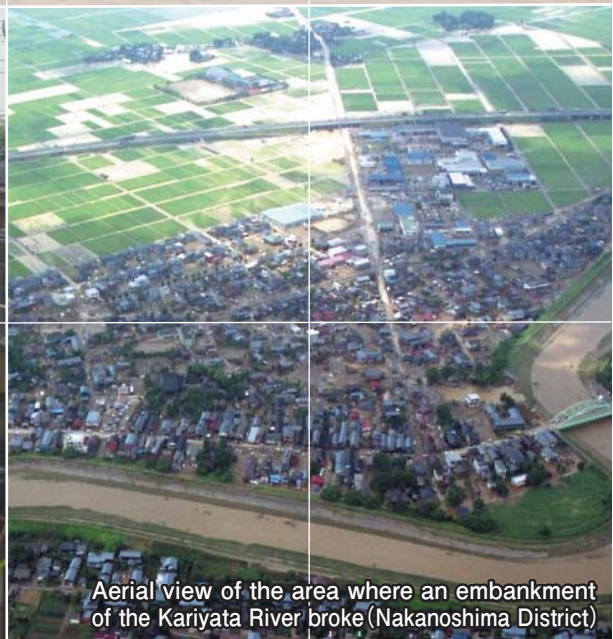
Keep this booklet handy for your reference



A rescue operation conducted by the Self-Defense Force (Shingumi Area)



A flooded residential area (Nakanoshima District)



Aerial view of the area where an embankment of the Kariyata River broke (Nakanoshima District)

 **Nagaoka City**

June, 2009

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The Purpose of Publishing This Flood Warning Hazard Map

You are advised to prepare for any possible emergencies

- This Flood Warning Hazard Map shows possible estimated levels of inundation in your residential area if heavy rainfalls cause overflows of the **Shinano, Kariyata, Saruhashi, Ôta, Inaba, Suyoshi, Kaki, Jôdo, Dôman, Shôbu, Ogijô, Kuro, and Shibumi Rivers**.
- We hope that this can help reduce damage in various ways when evacuating during a flood.
- To prepare for any possible emergencies, you are advised to have occasional disaster prevention meetings with your family and neighbors about emergency items and routes to evacuation shelters by using this map.

Please Note the Following When Using This Map

The depths of rivers may exceed the estimated levels in the map

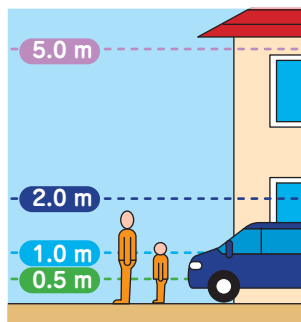
- This Flood Warning Hazard Map is published based on the flood simulation results offered by the Ministry of Land, Infrastructure, and Transportation for the Shinano River and by the Niigata Prefectural Government for other rivers. The subjective amounts of rainfalls differ for each river.
- There may be torrential rainfalls in a short period of time or large amounts of rainfalls that continue for many days. As there are various types of rainfalls, actual levels of inundation may sometimes differ from the estimated levels. Areas where no inundation is predicted may possibly be inundated.
- In lowland areas, inundation damage above or under the floor levels of a house may happen even if rivers do not overflow. Due caution should be taken in these areas.

Legend

How to Evaluate Inundation Depths

Estimated inundation depths when rivers overflow due to heavy rainfall are shown in different colors. Descriptions about each depth are also shown in the following list.

Color	Inundation Depth	Description
	5.0 m and Above	flooded up to the 3 rd floor level and above
	2.0~5.0 m	flooded up to the top of the 2 nd floor level windows
	1.0~2.0 m	flooded up to the top of the 1 st floor level windows
	0.5~1.0 m	flooded up to an adult's waist (inundation above the floor level of a house)
	0~0.5 m	flooded up to an adult's knees (inundation under the floor level of a house)



Facilities and Major Roads

- Major Public Facilities
- Disaster Relief Hospitals
- Regional Disaster Prevention Centers
- Facilities for people who need special assistance during emergencies
- Railways
- Major Roads

Hazardous Routes (impassable during floods)

- Bridges (Shinano River)
- Underpasses and Basement Facilities

Evacuation Facilities

- Available Evacuation Facilities
- Facilities that may become unusable as shelters depending on the inundation depths during floods

Evacuation Direction

- Follow the arrows for evacuation.

Immediate Evacuation Requested Areas

- Early preparations for evacuation are requested in these areas because flows of water are expected to be powerful and hazardous once rivers overflow. Inundation is likely to occur in a short period of time.

Evacuation Block Boundaries

- It is quite hazardous to cross bridges during floods. Avoid crossing bridges while evacuating. Based on the locations of rivers, the entire city is divided into blocks (A - S) in which local residents are primarily expected to seek evacuation shelters.

Hazardous Areas Prone to Landslide Damage

- Debris Flows
 - Collapse of Cliffs
 - Landslides
- Hazardous areas prone to landslide damage are shown based on the Map of Areas Prone to Landslides published by the Niigata Prefectural Government.

Rivers that Are Predicted to Overflow

- Rivers whose surrounding areas are designated as inundation predicted areas

Inundated Areas during the July 13 Floods

- Areas Inundated by the July 13, 2004 Niigata-Fukushima Downpour Damage

Other

- Municipal Boundaries

Criteria for Judging Usable Evacuation Facilities

Usable evacuation facilities during inundation differ depending on each river

● Points to Consider during Inundation

Color	Inundation Depth	Usability	
		Reinforced Concrete Structures	Wooden Structures
	5.0 m and Above	Unusable	Unusable
	2.0~5.0 m	3rd floor and above: usable	Unusable
	1.0~2.0 m	2nd floor and above: usable	Unusable
	0.5~1.0 m	2nd floor and above: usable	2 nd floor and above: usable
	0~0.5 m	Usable	Usable

- **Immediate Evacuation Requested Areas** where early evacuation preparations are necessary are designated and shown in red. Such areas along the Shinano River extend from 300 meters to 1.4 kilometers from the river. The areas along other rivers extend up to 300 meters from the rivers. **Wooden structures located within the Immediate Evacuation Requested Areas cannot be used.** Solid facility buildings such as reinforced concrete structures can be used even though they are located in the Immediate Evacuation Requested Areas.
- In **Hazardous Areas Prone to Landslide Damage** (shown in blue, orange, or red broken lines), the 2nd floors and above of solid facility buildings such as reinforced concrete structures can be used. Other types of facilities cannot be used.