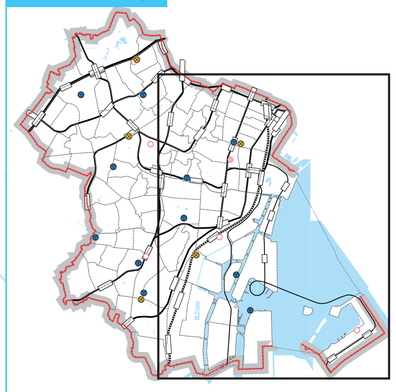
Minato City Tsunami Hazard Map

March 2024

Location map



What is the Minato City Tsunami Hazard Map?

Based on the results of Tsunami flooding forecast undertaken by the City in accordance with the conditions noted below, this Tsunami hazard map shows the scope of forecasted flooding. The value for each location has been calculated as the maximum flooding depth.

Concerning the Tsunami Flooding Forecast Detailed Conditions

1. **Tsunami** — The subject of the forecast was the Genroku Kanto Earthquake (2013 Central Disaster Management Council Model) with maximum negative impact (maximum Tsunami height).
2. **Tide Level Conditions** — The forecast was made with syzygy mean high tide (mean tide level when the sea surface height is at its highest each month) T.P. (Tokyo Bay mean sea height) 1.0m as the initial tide level.
3. **Tide Prevention Facilities** — As there is the likelihood that tide prevention facilities (tide embankments, floodgates, and Furukawa River seawalls) may fail to function due to damage caused by ground disasters, such as liquefaction, etc., the forecast was made based on both conditions that all the tide prevention facilities will become **completely non-functional** (**hazard map (B)**) and that they will **function properly** (**hazard map (A)**).
4. **Ground Changes** — The depth of flooding was calculated taking into consideration ground changes caused by an earthquake (estimated ground subsidence of approximately 65 to 74 cm immediately following the Genroku Kanto Earthquake).
5. **Liquefaction** — As liquefaction is anticipated to occur over a wide area in major parts of the coastal sections within the city, the forecast was made based on both conditions that ground subsidence of 0 to 20 cm (Severe conditions: forecast by 2013 Central Disaster Management Council) will occur (**hazard map (B)**), and that ground subsidence of 0 to 7 cm (Average conditions: 2022 Tokyo-based forecasts) will occur (**hazard map (A)**).
6. **Accuracy of Forecast** — In addition to flooding depth calculated at an accuracy of 5 m mesh, the **reverse tide in Furukawa River** was taken into consideration.

Diagram Illustrating the Connection Between a Tsunami in Minato City and the Tide Embankments

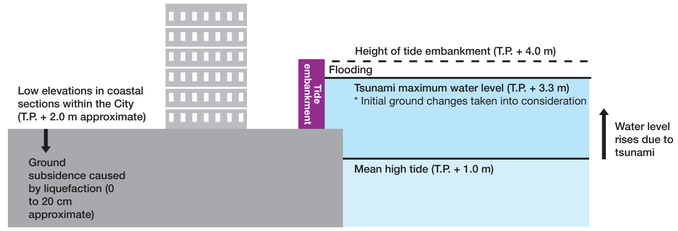


Image of tsunami flooding in Minato City

* Due to the occurrence of the Genroku Kanto Earthquake (2013 Central Disaster Management Council Model, M8.5), initial ground changes (subsidence) of approximately 65 to 74 cm in the environs of Minato City are anticipated. Maximum tsunami water levels of T.P. +3.3 m is a value that takes into consideration this ground subsidence.
* When ground subsidence caused by liquefaction occurs, there is the possibility that the area of flooding will further expand.
* T.P.: Shows the Tokyo Bay mean sea level and is the height which is the national benchmark.

How to Use this Map

Hazard Map (A) refers to the case where tide prevention facilities (tidal embankments, floodgates, and Furukawa River seawalls) **soundly function**, and **ground subsidence occurs** (average conditions) as a result of liquefaction.

Hazard Map (B) refers to the case where tide prevention facilities (tide embankments, floodgates, and Furukawa River seawalls) **fail to function due to damage, and ground subsidence occurs** (severe conditions) as a result of liquefaction.
Based on this flooding prediction map, Minato City has implemented disaster prevention measures such as the designation of tsunami evacuation buildings.
When a major earthquake occurs and tsunami warnings / major tsunami warnings are issued for the Tokyo Bay basin, persons in the forecasted flooding areas of this map should **seek refuge in the nearest tsunami evacuation building** (refer to the list below) noted on the map as a temporary evacuation location in order to protect themselves from the tsunami.
* Persons in high-rise buildings should **seek refuge on the third or higher floor of that building**.

How to Read the Tsunami Flooding Forecast

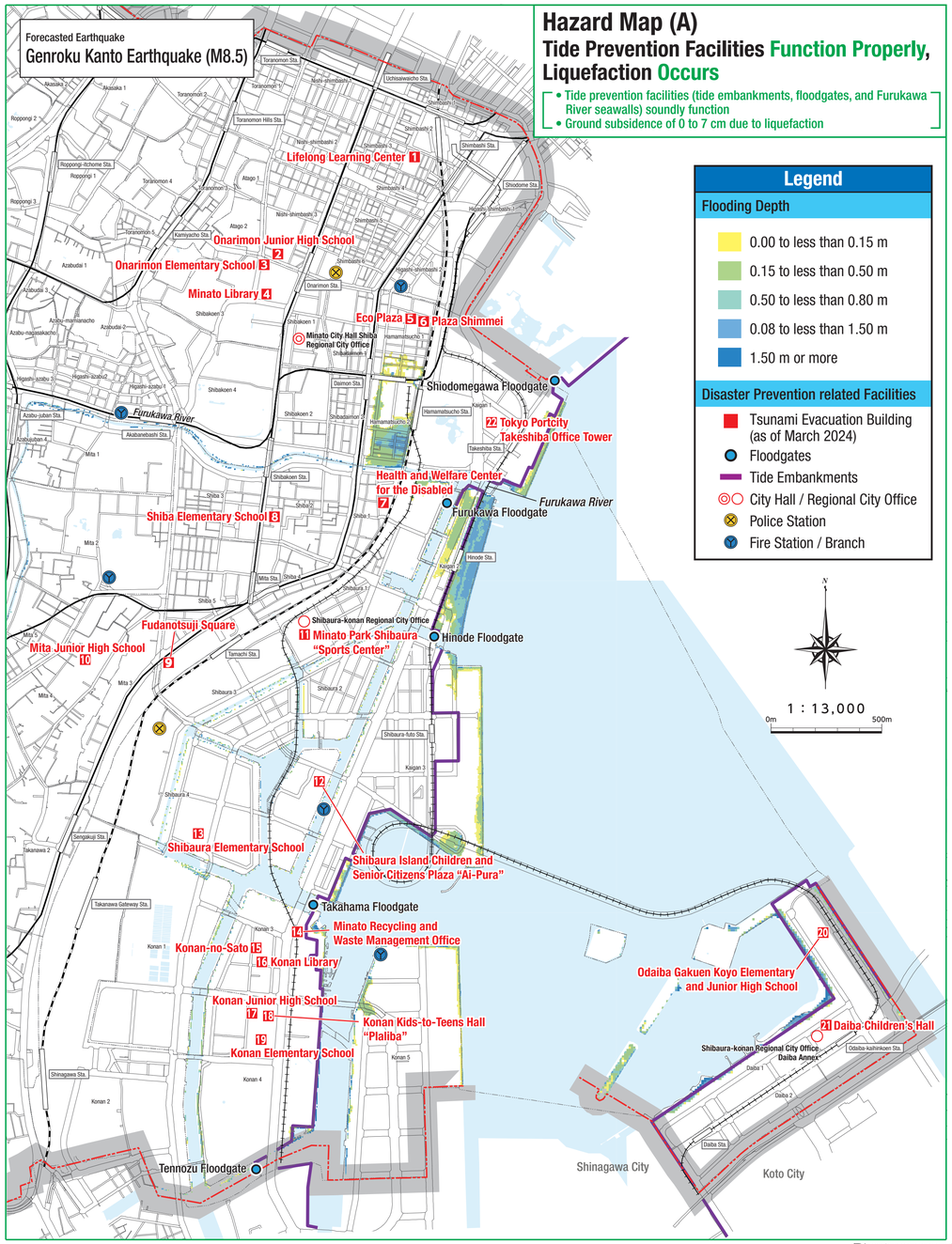
This forecast map shows the scope of forecasted flooding in the event the Genroku Kanto Earthquake (M8.5) occurs. Persons active in or living in the scope of the forecasted flooding need to promptly **seek refuge on higher ground or in high-rise buildings at least within approximately 70 minutes following the occurrence of the earthquake when the first wave of the tsunami will strike** (in fact, there are occasions when the tsunami will arrive sooner). Additionally, **it is important to continue to seek refuge in a safe place as the second tsunami wave, which is higher than the first tsunami wave, strikes approximately 150 minutes following the occurrence of the earthquake. After the first tsunami wave arrives, tsunami waves will strike repeatedly, so it is important to continue evacuating to a safe place**.
It is important for all city residents to use this forecast map and prepare for a tsunami on a routine basis.

Hazard Map (A)

Tide Prevention Facilities Function Properly, Liquefaction Occurs

- Tide prevention facilities (tide embankments, floodgates, and Furukawa River seawalls) soundly function
- Ground subsidence of 0 to 7 cm due to liquefaction

Forecasted Earthquake
Genroku Kanto Earthquake (M8.5)



Legend

Flooding Depth

- 0.00 to less than 0.15 m
- 0.15 to less than 0.50 m
- 0.50 to less than 0.80 m
- 0.08 to less than 1.50 m
- 1.50 m or more

Disaster Prevention related Facilities

- Tsunami Evacuation Building (as of March 2024)
- Floodgates
- Tide Embankments
- City Hall / Regional City Office
- Police Station
- Fire Station / Branch

N

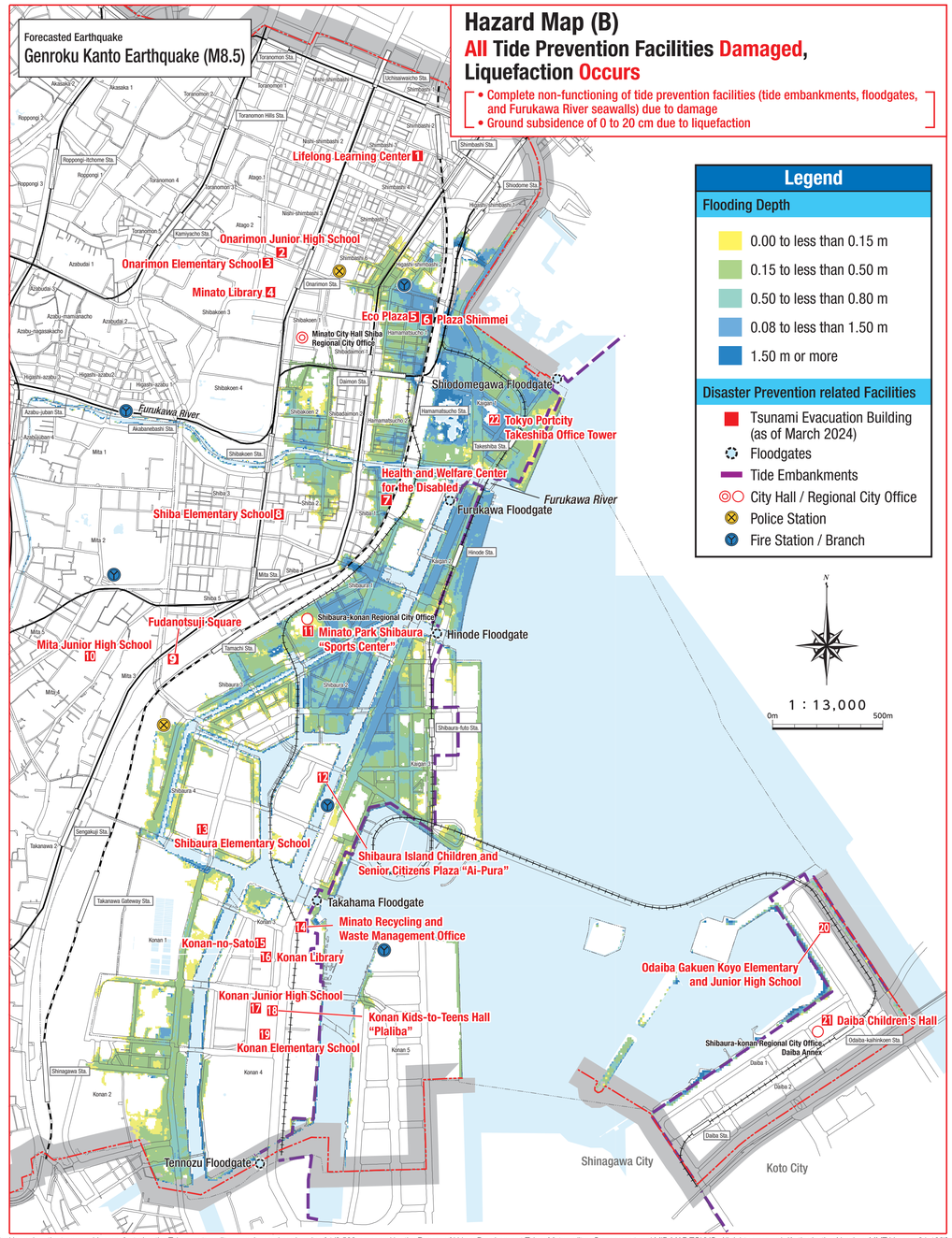
1 : 13,000
0m 500m

Hazard Map (B)

All Tide Prevention Facilities Damaged, Liquefaction Occurs

- Complete non-functioning of tide prevention facilities (tide embankments, floodgates, and Furukawa River seawalls) due to damage
- Ground subsidence of 0 to 20 cm due to liquefaction

Forecasted Earthquake
Genroku Kanto Earthquake (M8.5)



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Tsunami Evacuation Building List (as of March 2024)

No.	Facilities	Address	No.	Facilities	Address
1	Lifelong Learning Center	3-16-3 Shimbashi	12	Shibaura Island Children and Senior Citizens Plaza "Ai-Pura"	4-20-1 Shibaura
2	Onarimon Junior High School	3-25-30 Nishi-shimbashi	13	Shibaura Elementary School	4-8-18 Shibaura
3	Onarimon Elementary School	3-2-4 Shibakoen	14	Minato Recycling and Waste Management Office	3-9-59 Konan
4	Minato Library	3-2-25 Shibakoen	15	Konan-no-Sato	3-3-23 Konan
5	Eco Plaza	1-13-1 Hamamatsucho	16	Konan Library	3-3-17 Konan
6	Plaza Shimmei	1-6-7 Hamamatsucho	17	Konan Junior High School	4-3-3 Konan
7	Health and Welfare Center for the Disabled	1-8-23 Shiba	18	Konan Kids-to-Teens Hall "Plaliba"	4-3-7 Konan
8	Shiba Elementary School	2-21-3 Shiba	19	Konan Elementary School	4-3-28 Konan
9	Fudanotsuji Square	5-36-4 Shiba	20	Odaiba Gakuen Koyo Elementary and Junior High School	1-1-5 Daiba
10	Mita Junior High School	4-13-15 Mita	21	Daiba Children's Hall	1-5-1 Daiba
11	Minato Park Shibaura "Sports Center"	1-16-1 Shibaura	22	Tokyo Portcity Takeshiba Office Tower	1-7-1 Kaigan

Inquiry
Minato City
Disaster Prevention and Crisis Management Department
Disaster Prevention Section
☎03-3578-2516

Evacuation Information for Your Family

(Be sure to fill in this table - you may need it in an emergency)

Local Meeting Place	
Wide-Area Evacuation Sites	
Resident Evacuation Sites (Local Disaster Preparedness Centers)	

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