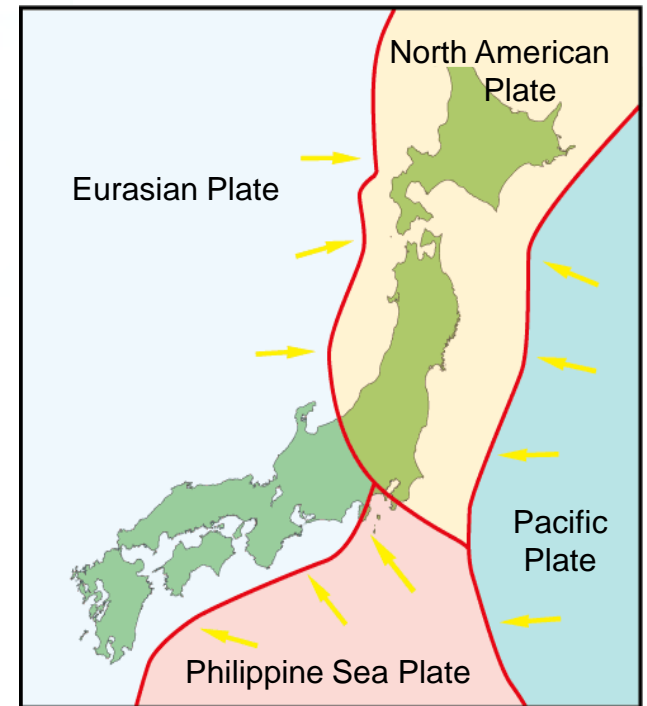
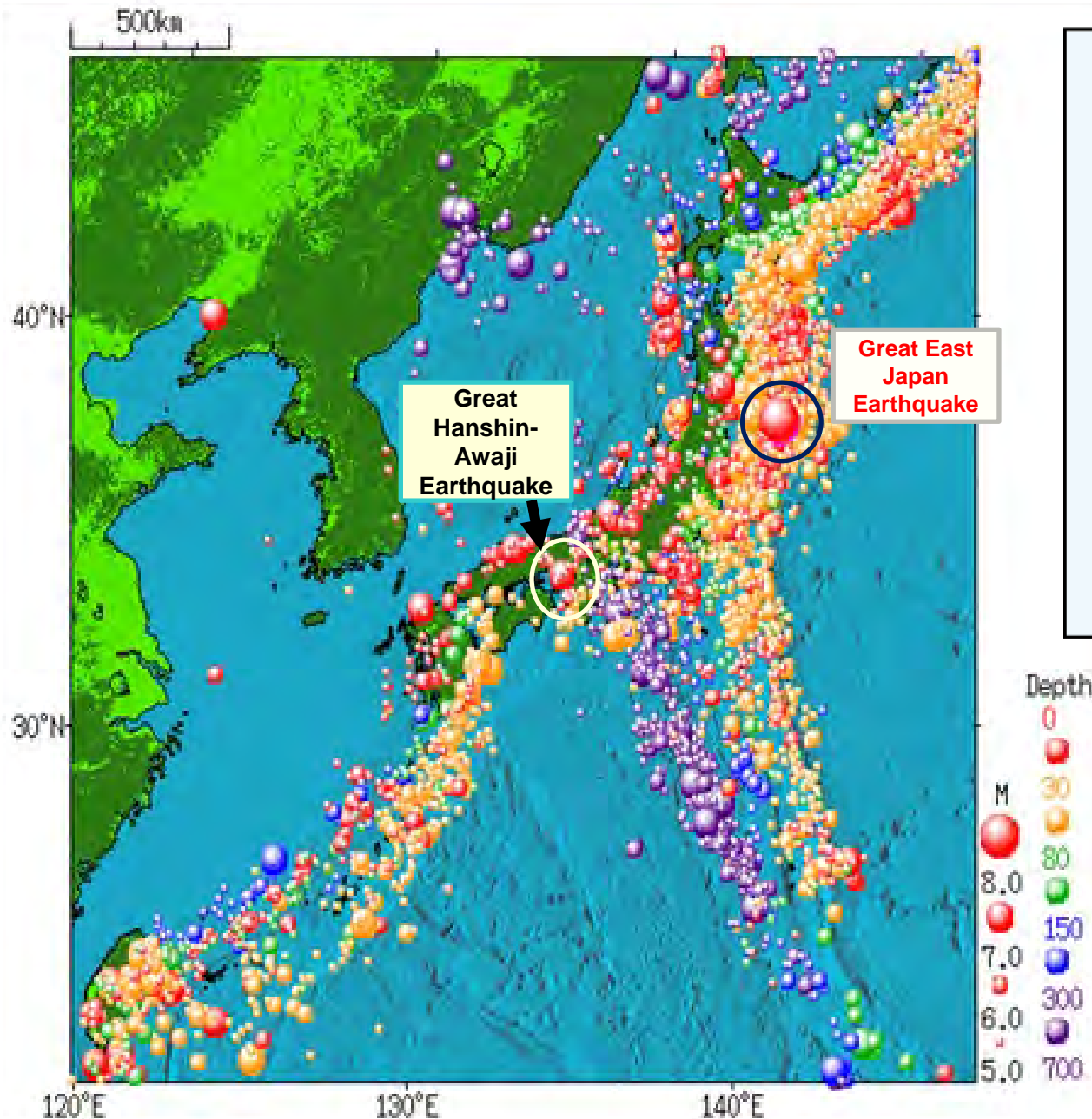


# **Disaster Risk and Countermeasures in Osaka Prefecture**

Osaka Prefectural Crisis Management Office  
(14<sup>th</sup> MAY,2025)

# Past Earthquakes in and around Japan



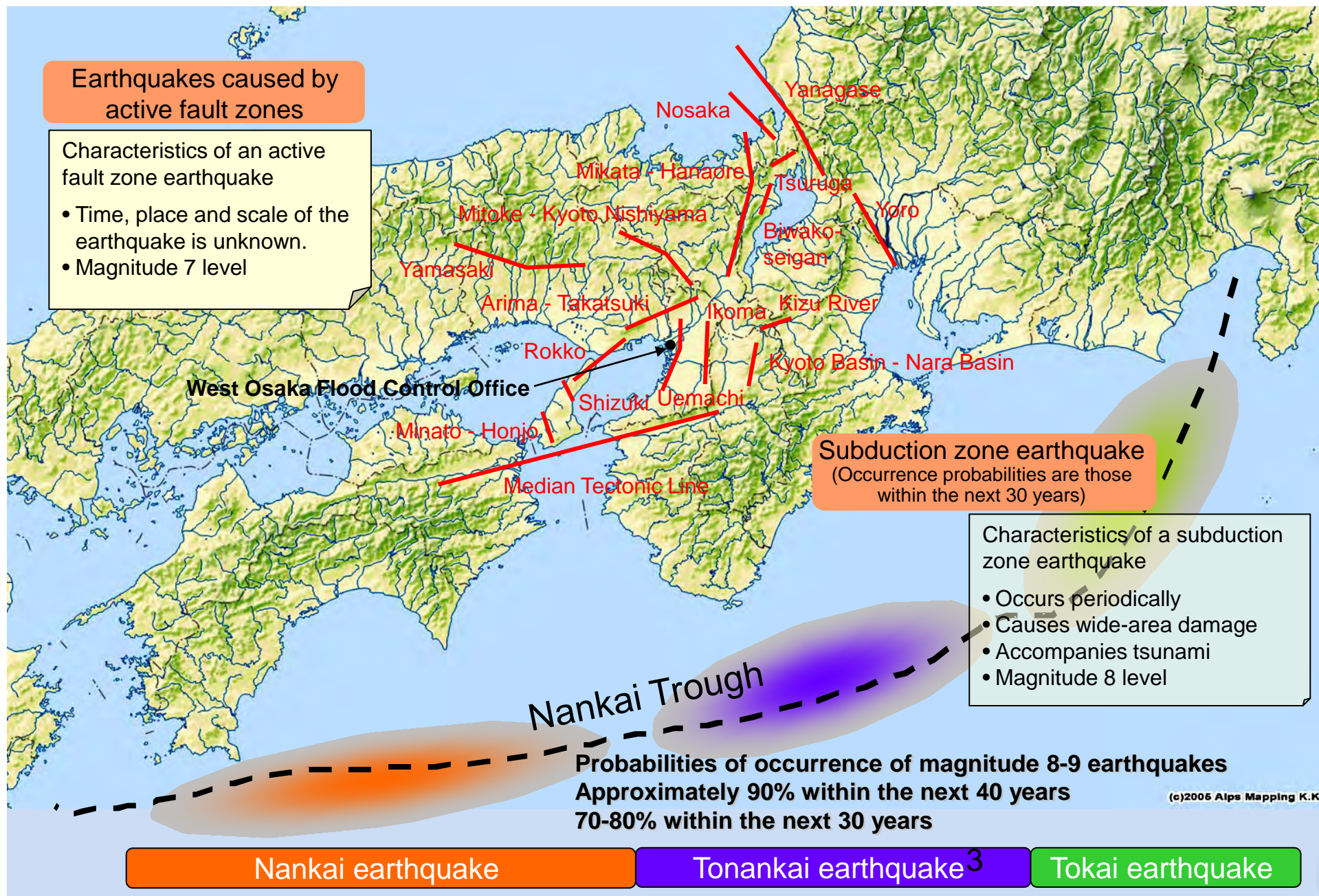
Distribution map of earthquakes magnitude 5 or greater that occurred in and around Japan from 1960 to 2011 (from Japan Meteorological Agency website)

# Massive Earthquake that affects Osaka Prefecture

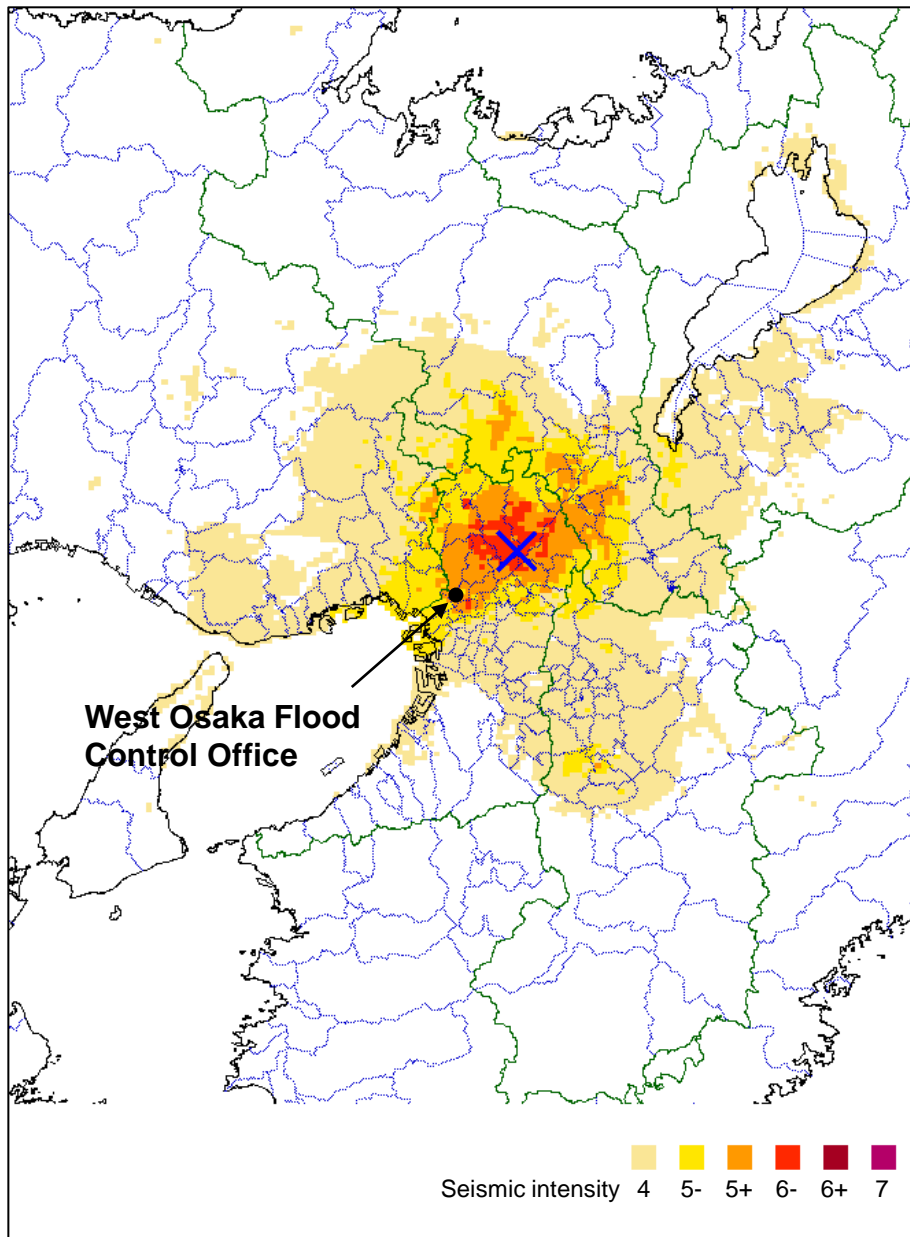
## Earthquakes caused by active fault zones

Characteristics of an active fault zone earthquake

- Time, place and scale of the earthquake is unknown.
- Magnitude 7 level



# Overview of the Northern Osaka Earthquake



## ◆ Overview of the Earthquake

- Date and time: 7:58 A.M. on June 18, 2018
- Epicenter: Northern Osaka Prefecture  
(latitude 34.8 degrees north and longitude 135.6 degrees east)
- Depth of the epicenter: 20 km (provisional value)
- Scale of the earthquake (magnitude): 6.1

## ○ Seismic intensity (5- or greater)

- 6- Takatsuki City, Hirakata City, Ibaraki City, Minoo City, and Kita Ward of Osaka City
- 5+ Miyakojima Ward of Osaka City, Toyonaka City, Suita City, Neyagawa City, Settsu City, Katano City, etc.

## ◆ Major damage and casualties in Osaka Prefecture

- Deceased: 6 (due to the collapse of the concrete-structured wall, etc.)
- Damaged Buildings: 20 completely destroyed, 471 half destroyed, 57,586 partially destroyed
- Power outage: 5,500 houses
- Interruption of gas supply: 64,254 houses

(Reference) Osaka Prefecture Disaster Annual Report (2018), etc.

# Overview of the Northern Osaka Earthquake

9. CAM11



2018-06-18 08:03:40

# Seismic Intensity Distribution in Osaka Area (Nankai Trough Mega Earthquake)

6+



Resistance to earthquakes is high



Resistance to earthquakes is low

## [Seismic intensity of 6+]

- It is impossible to move except by crawling. People may be thrown through the air.
- Most unsecured furniture moves, and is likely to topple over.
- Wooden houses with low earthquake resistance are likely to lean or collapse.
- Large cracks may form, and large landslides and massif collapses may be seen.

6-



Resistance to earthquakes is high



Resistance to earthquakes is low

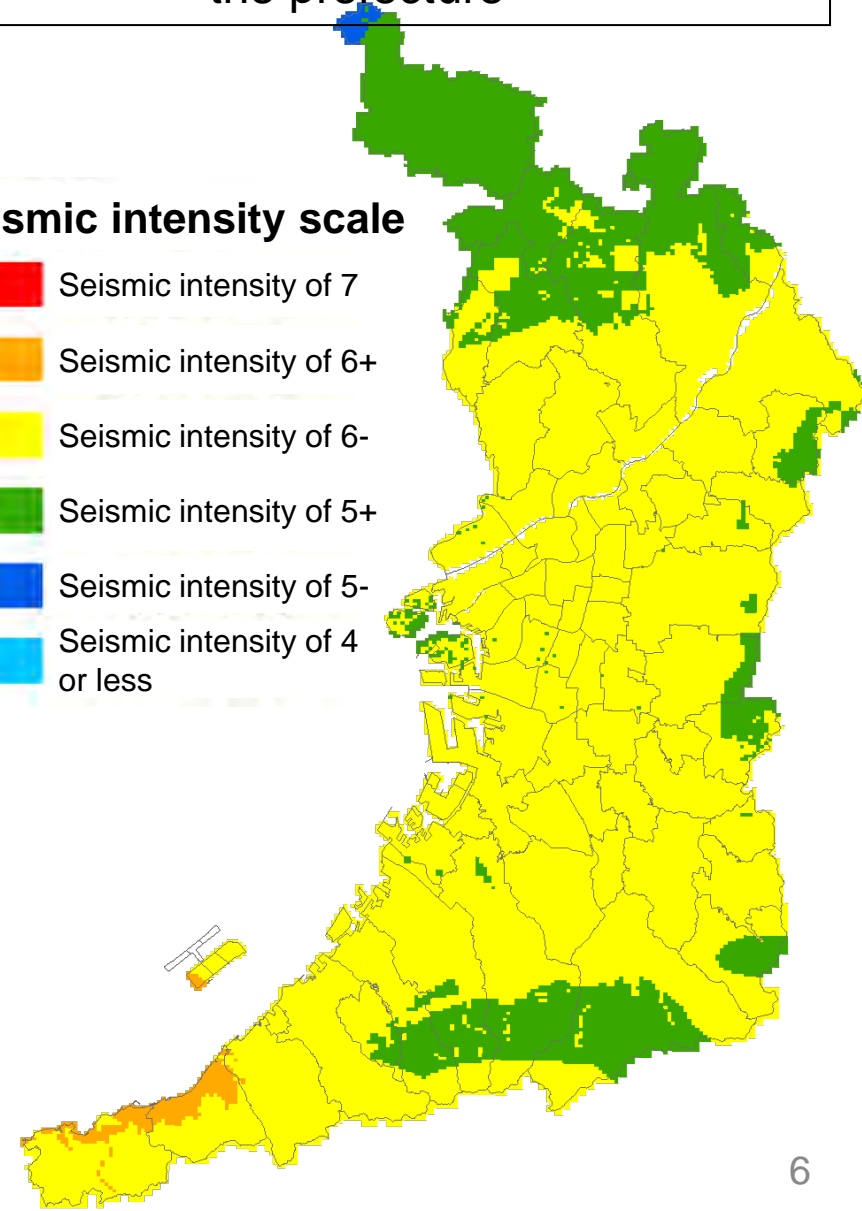
## [Seismic intensity of 6-]

- It is difficult to remain standing.
- Most unsecured furniture moves and may topple over. Doors may become wedged shut.
- Wall tiles and windows may sustain damage and fall.
- In wooden houses with low earthquake resistance, roof tiles may fall and buildings may lean or even collapse.

Expected seismic intensity of 5+ to 6+ in the prefecture

## Seismic intensity scale

- Seismic intensity of 7
- Seismic intensity of 6+
- Seismic intensity of 6-
- Seismic intensity of 5+
- Seismic intensity of 5-
- Seismic intensity of 4 or less





# Estimated Tsunami Inundation Areas in Osaka Prefecture

◆ A tsunami of over 1 meter reaches the Osaka prefectural area about 60 to 120 minutes after the occurrence of an earthquake

◆ Inundation area:  
About 11,000 ha  
(approx. 5.8% of the prefectural area)

Inundation depth (m)



Expo Site



Yodo River

Yamato River

Estimate by Osaka Prefecture (published on August 8, 2013)  
Nankai Trough Mega Earthquake (Mw = 9.1)

# New Osaka Prefecture Earthquake Disaster Risk Reduction Action Plan

(such as inundation countermeasures for seawalls)

## PROMOTING TSUNAMI INUNDATION COUNTERMEASURES FOR SEAWALLS



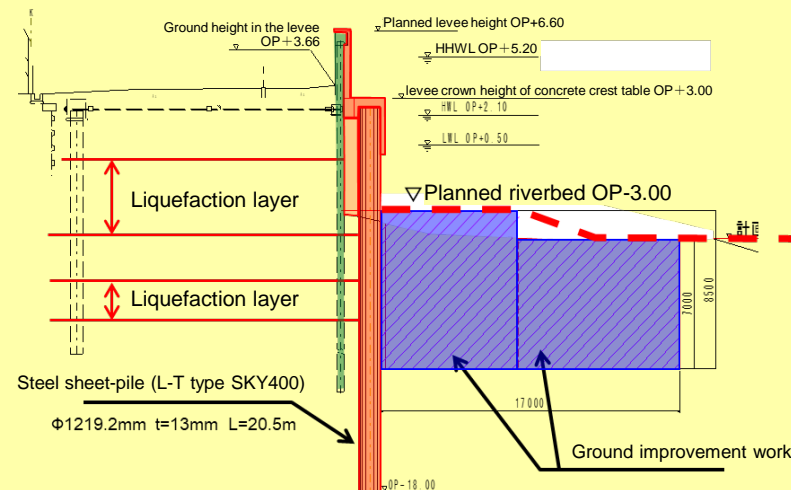
Damage to seawalls due to the earthquake



Before construction



Countermeasures completed



### Enhancing the Osaka 8.8 million drill: Carried out every September!!

Conducting the “Osaka 8.8 million drill (disaster transmission training)” so that citizens can save their lives by escaping immediately from various natural disasters, including tsunamis, in the event of an earthquake. The drill will be further enhanced to lead to accurate evacuation behavior.



# Emergency Control Organization in Osaka Prefecture (Ordinary Times and Emergency)

## ◆ Night-Shift Staff for Disaster Prevention / Crisis Management

### [Team Structure]

- In pairs (1 person from Crisis Management Bureau)

### [Operational Hours]

- Weekdays: 6:00 pm – 9:00 am
- Weekend / Holidays: 9:00 am – 6:00 pm, 6:00 pm – 9:00 am

### [Scope of Operations]

- Collects and disseminates information on crisis events such as wind and water disasters, earthquakes, and large-scale accidents

## ◆ Standby Staff for Crisis Management

Stands by at the designated residence near Otemae Bldg. (14 persons)

- Vice Governor
- Senior Executive Director – Crisis Management
- Director General-Crisis Management Office, Director General-Crisis Management Center
- Director-Crisis Management Office (3 persons), Senior Executive Staff-Crisis Management Office (3 persons)
- Director-Medical Administration Division, Senior Executive Staff-Urban Disaster Prevention Division
- Director-Road Environment Division, Director-River Environment Division

## ◆ Staff Deployment

	preparation Deployment	Emergency Deployment No.1	Emergency Deployment No.2	Emergency Deployment No.3
<b>Headquarters (Otemae)</b>	Preparation Team (7 persons) or Command Prep. Room	<b>Staff designated by department or bureau</b>		All Employees
<b>Local Offices</b>	Local Information Team			

\*In the event that earthquake intensity of 5 (lower or higher) is observed in the prefecture on holidays or at night, in addition to the staffs above, 417 Emergency Disaster Control Promotion staff will gather at disaster prevention centers. (Prefectural government offices, municipalities, etc)

# Expo-Related Action Items

## Deployment of On-Site Liaison Staff

Osaka Prefecture and Osaka City plan to assign 2 to 4 liaisons in the Expo site during the Expo period, including weekends and holidays, in preparation for a large-scale disaster occurring.

[ Administration Bldg. (Administration HQ Center Bldg.)  
: Room next to Crisis Control Center]



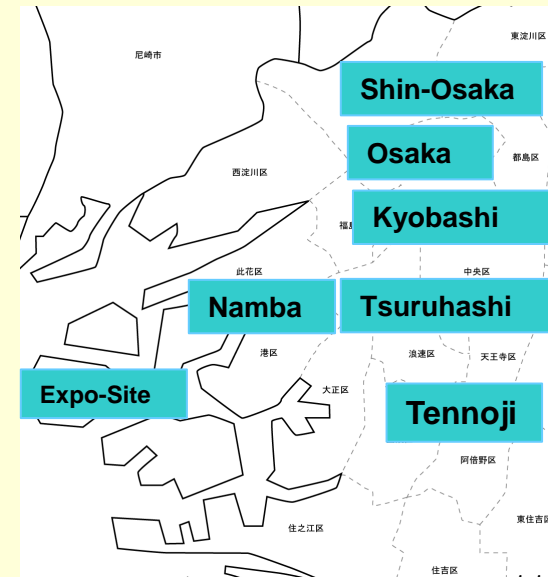
## Securement of Temporary Accommodation Facilities

Osaka Prefecture and Osaka City are working to support Japan Association for the 2025 World Exposition Association in securing temporary accommodation facilities in Yumeshima, Sakishima, and Maishima.



### [Stranded-Visitor Support]

Osaka City is working to secure temporary accommodation facilities near major terminal stations and to deploy stockpiled supplies at these facilities. (Water, Food, Portable Toilets, etc.)



## Details

### (Stockpile Food)

- **Provision of additional stockpile food by Osaka Prefecture and Osaka City**

⇒Based on a request from Japan Association for the 2025 World Exposition Association, 150,000 meals for each prefecture and city, for a total of 300,000 meals, are prepared at the Expo site.



### (Stranded Visitor Support)

- **Support for visitors who are difficult to go home**

⇒In the event of major disasters, Osaka Prefecture and Osaka City, in collaboration with the Expo Association, will request the cooperation of bus companies for transportation from the Expo site to major terminal stations in Osaka City.

⇒If the routes are not accessible, transportation of visitors by helicopter or ship will be conducted depending on the damage in cooperation with rescue agencies.



### (Disaster Prevention Information for Visitors)



# Safe and Secure Expo with Well-Prepared Disaster Prevention Measures!



Thank you for your attention!!