

Chapter 2

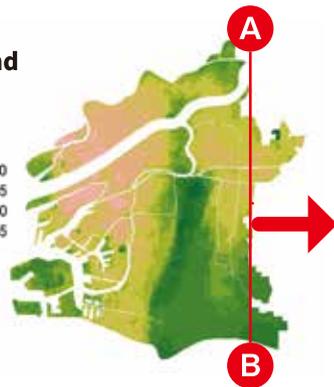
Preparing for Wind and Flood Damage

Osaka City's Geography Makes It Prone to Flooding

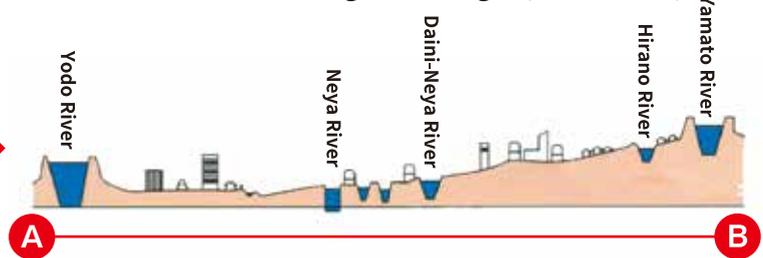
Due to Osaka's many rivers, the city was called "The 808 Bridges of Naniwa" in the Edo period and has developed over time as a "water city." In the ancient Yayoi period, the sea covered over half of the current city area, and there was a lake in the interior. Due to this, much of the urban area is low-lying and vulnerable to flood damage.

Height of the ground from sea level (m)

3 ~ 4	20 ~ 25
4 ~ 5	15 ~ 20
5 ~ 10	10 ~ 15
10 ~ 15	5 ~ 10
15 ~ 20	4 ~ 5
20 ~ 25	3 ~ 4
-3 ~ -2	2 ~ 3
-2 ~ -1	1 ~ 2
-1 ~ 0	0 ~ 1
0 ~ 1	-1 ~ 0
1 ~ 2	-2 ~ -1
2 ~ 3	-3 ~ -2



A cross section of the ground height (From A to B)



Typhoons and Torrential Rains that Cause Major Damage

Typhoons often make landfall in Japan from July to October, and heavy rains accompanied by strong winds remain over a large area for long periods. Also, with the approach of typhoons, the atmospheric pressure drops, the sea level rises, and high tides occur as the sea water is blown into the coast by strong winds.

Additionally, in recent years, flooding caused by "guerrilla rainstorms" (short, localized downpours) and linear precipitation belts that bring sustained rainfall to the same location has occurred frequently.

Guerrilla rainstorms bring sudden, heavy precipitation caused by the abrupt formation of cumulonimbus (thunderclouds), while linear precipitation belts bring extended heavy rainfall when a series of cumulonimbus clouds develop in a line.



Characteristics of Urban Flooding

In large cities where many areas are covered by hard asphalt, underground malls and basements have been flooded due to large amounts of rainwater suddenly flowing into the sewer system, exceeding the wastewater-processing capacity, and overflowing from manholes and gutters onto the ground.

When you are in a basement, don't assume that you are safe; pay attention to how hard and how long it has been raining and keep checking on what is going on outside.

Because the momentum of water flowing down stairs can be strong, making it difficult to move up to the ground level, evacuate as soon as possible when you think the basement may be submersed.

