

Dotombori River Water Gate and Higashi-Yokobori River Water Gate

In addition to performing a flood-control function by protecting against high tides and controlling the water level, the current water gates are equipped with water-purification and lock functions.

Operation of Water Gates

1 Protection Against High Tides

When the water level rises due to heavy rain or a high tide, the water gates are closed to protect the city from flooding.

2 Control of the Water Level

Dotombori River and Higashi-Yokobori River are tidal rivers whose water levels vary with the ebb and flow of the tides. These levels are maintained within a certain range using both gates.



Dotombori River Water Gate

Below: Dotombori River Water Gate control room



Higashi-Yokobori River Water Gate

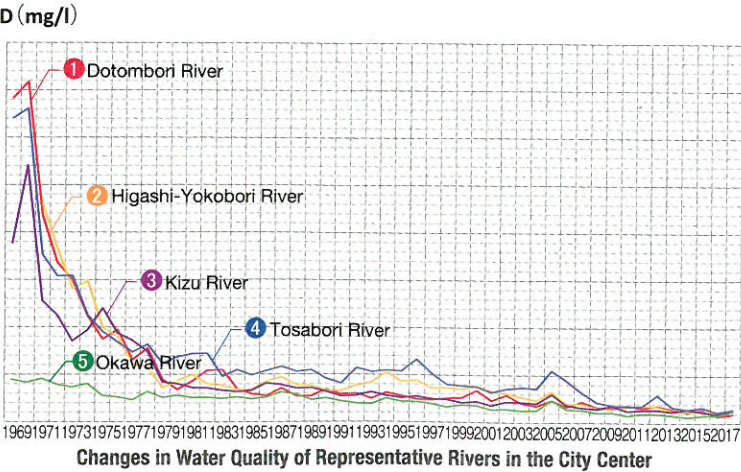
Below: Radial gate



Water Quality of Dotombori River

As a result of water quality improvement measures, such as water purification by the operation of water gates, the quality of the river water has improved in recent years, and is now at a high level, with a BOD (*1) of less than 3 mg/l.

As a result, fish can now be seen swimming in the river.



(*1) BOD (Biochemical Oxygen Demand)
This is a measure of the amount of oxygen required by microorganisms to decompose the pollutants contained in a body of water. Larger BOD values indicate higher levels of pollution.

Fish Living in Dotombori River

In recent years, the river water quality has gradually increased due to purification measures, and fish can now be seen swimming in the river.



●Khanka gudgeon



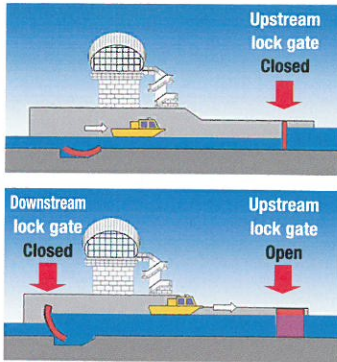
●Pale chub

3 Lock Function

Each of these water gates has a lock function that makes it possible to maintain the water level between the lock gates at a certain height when the water level before and after the gates is different, allowing boats to pass smoothly.

- Top: When the boat enters
 - The boat enters the area between the gates.
 - The upstream gate is closed.

- Bottom: When the boat leaves
 - The downstream gate is closed and the area between the gates is filled with water.
 - When the water level is equal to that on the upstream side, the upstream gate is opened, and the boat passes.



4 River Purification by Operation of Water Gates

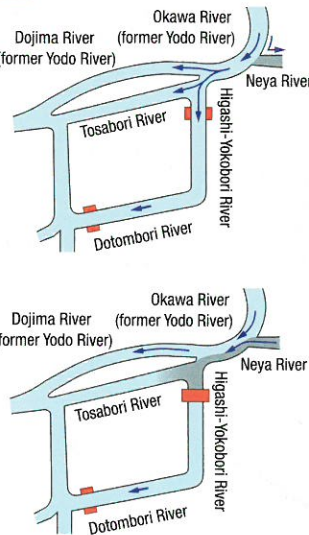
By controlling the water gates for the upstream Higashi-Yokobori River and the downstream Dotombori River, dirty water from Neya River is blocked and clean water from Okawa River (former Yodo River) is led into Higashi-Yokobori River and Dotombori River.

1. At high tide (top-right)

- The gates for both rivers are opened when the water level rises.
*The inflow of water from the Neya River is naturally blocked.

2. At low tide (bottom-right)

- The Higashi-Yokobori River Water Gate is closed to block the inflow of water from the Neya River.
*At low tide, the water from the Neya River flows downstream.



Working for Clean River Water (Water Purification Measures)

Various efforts are being made to improve the water quality of rivers in the city.



Water surface cleanup



"Masumi" river patrol



Dredging



Campaign to Raise Awareness on River Protection

Extracted from the results of a 2006 survey on fish living in the city's rivers published in Osaka City's 2011 White Paper on the Environment



●Black bass



●Bluegill

Osaka's Rivers of Past and Present

Osaka is a city that sprang up at the mouth of the Yodo River, and its basic structure was formed by crisscrossing canals. Most of these canals were constructed during the period from the late 16th century to the 18th century, and to the present day, they have supported both daily life and economic activities.

Most of the canals in the city center were filled because of pollution resulting from an increase in the urban population and the growth of industry, and because of the development of automobile traffic systems.

It is possible, however, to see traces of former canals that flowed through the city center, such as Nagahori River and Satsumabori River.

Even though many canals became roads, rivers still account for approximately 10% of the area of the city and so Osaka can be described as a city that is blessed with water.



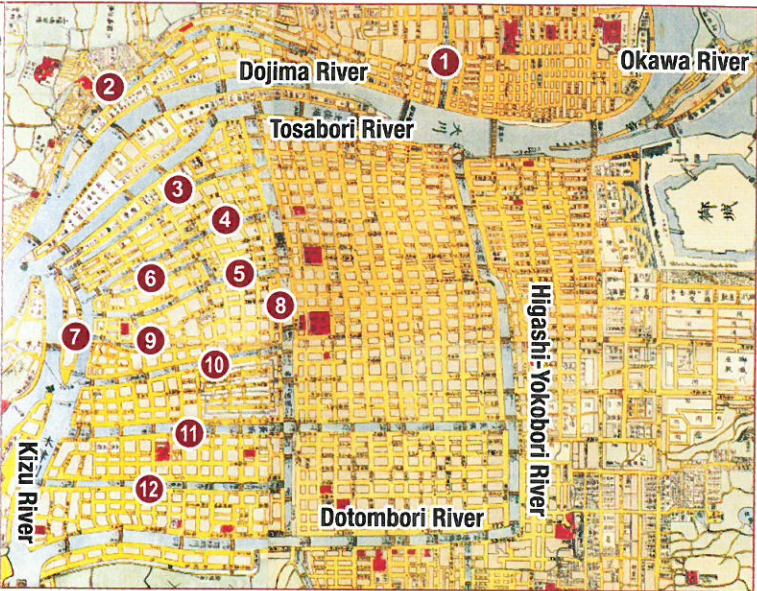
Crysta Nagahori (Nagahori River)



Monument at Site of Satsumabori River

Major Rivers in the City Center That Changed Form

- 01: Temmabori River
- 02: Sonezaki River
- 03: Edobori River
- 04: Kyomachibori River
- 05: Awabori River
- 06: Kaifuhori River
- 07: Hyakkembori River
- 08: Nishi-Yokobori River
- 09: Satsumabori River
- 10: Itachibori River
- 11: Nagahori River
- 12: Horie River



Center of Osaka in Edo Period Enlarged and Revised Version of "Kokuho Osaka Zenzu" (National Treasure Drawing of Osaka), 1863

Rivers and Culture of Osaka

In addition to festivals staged on rivers, such as the Tenjin Festival, there are many examples of color prints and literary works that are based on rivers, and we can see the deep relationship that has existed between Osaka's rivers and its culture.

Rivers and "Nishikie" (Color Prints)



"Naniwa-Bashi Yuzusumi" (The Evening Cool at Naniwa Bridge) by Utagawa Kunikazu (Property of Osaka Prefectural Nakanoshima Library)



"Hachikenya Chakusen No Zu" (Drawing of a Boat's Arrival at Hachikenya) by Utagawa Kunikazu (Property of Osaka Prefectural Nakanoshima Library)

Rivers and Literature

Osaka's rivers were mentioned in the Chronicles of Japan, and since then, have been used as settings and themes in Genroku literature and modern literature.

Great Writers Who Supported Genroku Culture
Ihara Saikaku (left: 1642 to 1693) and Chikamatsu Monzaemon (right: 1653 (estimated) to 1724)
Bottom: Monument of the birthplace of Yosa Buson (1716 to 1783) and an engraving of the poem "Shumpu Batei Kyoku" (on the Kema levee in Yodogawa Riverside Park)



Rivers, Festivals, and Events



"Sesshu-Naniwa-Bashi Tenjin Matsuri No Zu" (Drawing of Tenjin Festival at Sesshu-Naniwa Bridge) from "Shokoku Meisho Hyakkei" (One Hundred Famous Views of Various Places) by Utagawa Hiroshige I (Property of Osaka Prefectural Nakanoshima Library)

Tenjin Festival

The Tenjin Festival is held by the Osaka Temmangu Shrine, which enshrines Sugawara no Michizane as a deity. It ranks alongside Kyoto's Gion Festival and Tokyo's Kanda Festival as one of Japan's three big festivals, and is celebrated every year by more than one million visitors.



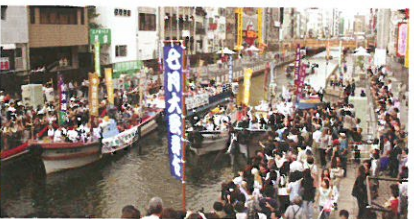
Modern-Day Tenjin Festival



Osaka City Regatta



Yodogawa Fireworks Festival



Kabuki World's Funanorikomi Parade

Annual Schedule of River Festivals and Events

- Osaka City Regatta (Okawa River): Early April
- Cherry Blossom Viewing (Japan Mint, near Okawa River): Mid-April
- Kabuki World's Funanorikomi Parade (Higashi-Yokobori River and Dotombori River): Late June
- Tenjin Festival (Okawa River, Dojima River, etc.): 24 to 25 July
- Yodogawa Fireworks Festival (Yodo River): Early August

The above schedule is subject to change.