

Water connects

“People, Nature, and Culture”

Lake Biwa and Yodo River Basin



Restoration Project for Lake Biwa and Yodo River Basin

Strategy to restore Lake Biwa and Yodo River Basin

Conference on Renaissance of Lake Biwa and the Yodo River Basin Area

Strategy 01

Restoration of "water for life"

Water is fundamental to Lake Biwa and the Yodo River. It is the "water for life", which is essential for the ecosystem and for people. To maintain and restore healthy water circulation, a "water for life restoration" action plan will be developed in fiscal 2005 including the conservation of the recharging function of water resource, improvement of water quality, maintaining water flow, and the plan must be closely followed for ensuring a steady implementation.

Establish "river stations" connecting the land routes and water corridors.

Example: Hachikenya Port (construction starts in fiscal 2005)



Today



Rendering

Strategy 02

Connecting the waterfront

A "waterfront promenade network" will be built connecting the waterfront through boat rides, cycling, and walking along the Yodo River, the Kizu River, the Katsura River, the Ina River, and other rivers in the basin as well as Lake Biwa. In preparation, the continuity of pedestrian paths and boat routes will be thoroughly checked, and any interruptions will be strategically removed while considering the environmental impact on the riparian zone along with predicted levels of use.



Route expansion

Cycling and walking
Total distance: About 633km (including tributaries)

Navigation
Mouth of the Yodo River to Fushimi Port: About 44km



10 Togetsu Bridge



8 Mt. Tenno



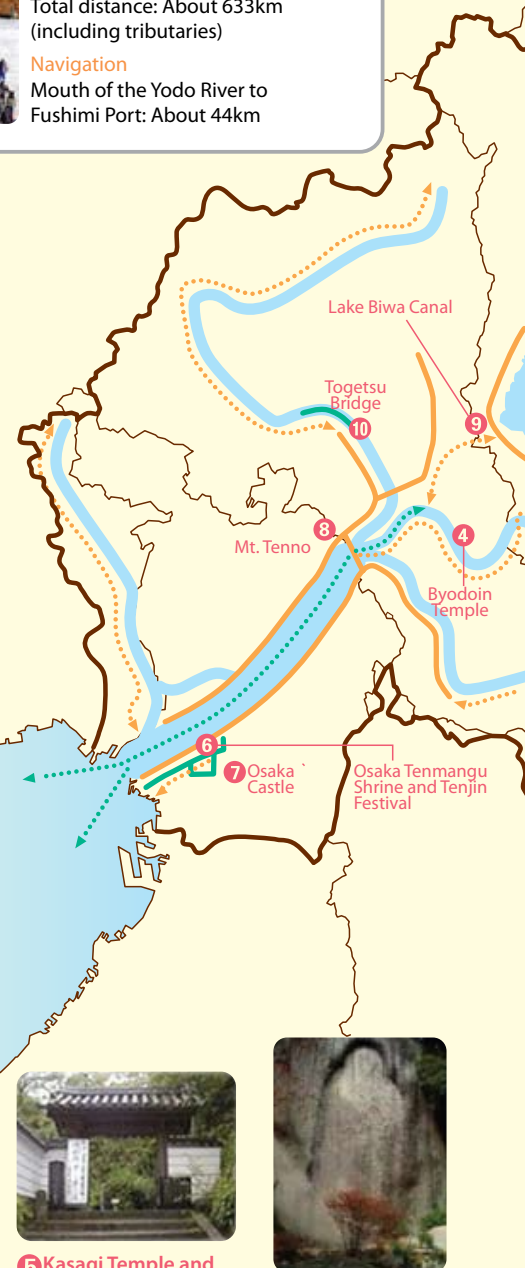
9 Lake Biwa Canal



6 Osaka Tenmangu Shrine and Tenjin Festival



7 Osaka Castle



5 Kasagi Temple and Magai Buddha



Legend

Cycling/walking
Navigation route

Route already established

Projected route



Lake Biwa and Yodo River Basin

Strategies for Restoration

Strategy 03

Development of major locations along the waterfront

"River stations" and "lake stations" will be established near the waterfront promenade, and river-conscious city planning will be developed.



① Mt. Shizugatake



② Hikone Castle



③ Seta no karahashi Bridge



④ Byodoin Temple

Strategy 07

Developing a system to carry out the plan

To promote the Lake Biwa and Yodo River basin restoration project, a "Conference on Renaissance of Lake Biwa and the Yodo River Basin Area" will be established as a venue where governments and other organizations can hold discussions and coordinate work from the viewpoint of integrated river basin management. Also, to ensure the implementation of the project, annual report meetings will be held to announce the progress of the project and assess it, and the results will be reported to the assessment committee including third parties as necessary. To work closely together with NPOs and other organizations to pursue the restoration project, the Lake Biwa and Yodo River Basin Restoration Organization will be established as a mediator that supports various activities, and a Basin Restoration Core Center will also be established as a central place to release information about the basin area and coordinate interactions among different stakeholders.

Strategy 04

Introducing streams in urban areas

Streams will be restored in the middle of urban areas by bringing water back to dried-up rivers and channels within the basin by using water flexibly or utilizing unused water sources, such as drawing water to the Midosuji area and redevelopment areas around train stations.



Hori River

Strategy 05

Connecting the natural environment in the basin

A natural environment in which the connectivity of lakes and ponds, rivers, water channels, forests along rivers, thickets near human activities, deep forests and other forms of nature has been interrupted, will be reconnected for restoring the ecosystem network in the basin.



Around 1945



Today



Rendering

Restoration of the rich natural waterfront

(Conservation and restoration of ponds and side-cavity "wando" open channels)

Strategy 06

Reinstating the connection between water and people

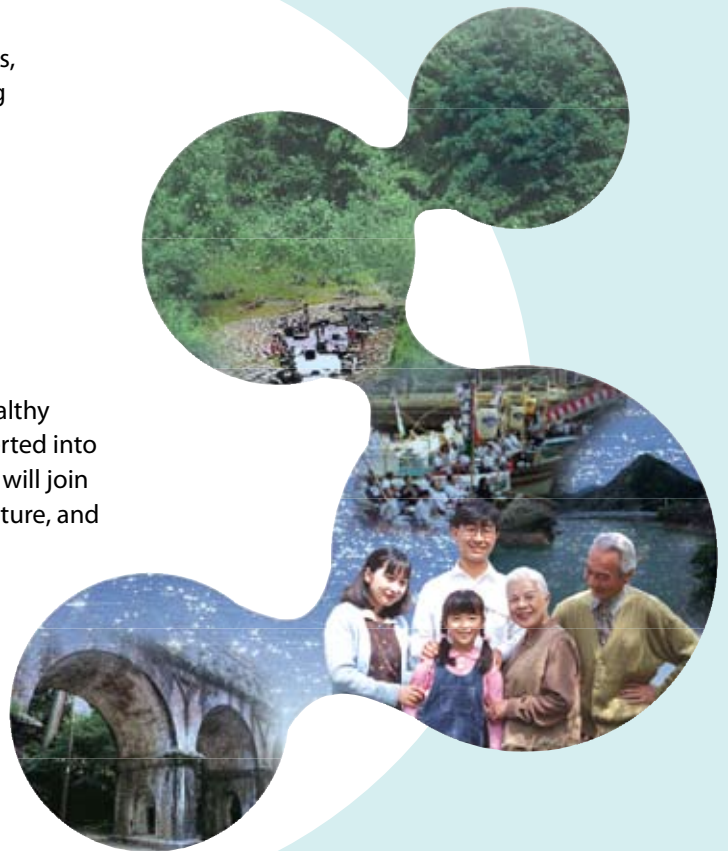
Lake Biwa and the Yodo River will be used as a "watershed museum," and we will release information to the public and establish facilities in a way that people can learn and have hands-on experiences with nature, history, culture, and other aspects involving water to refresh their recognition of the connection between water and people. The traditional "water culture" in the watershed as a way of water involved in people's daily lives will be handed down to the next generation in a healthy way, and a "reestablishment of connections with water" campaign will be carried out to maintain and develop knowledge about water.

The Lake Biwa and Yodo River Basin is

one of the busiest areas in Japan with many people and assets, yet at the same time it includes rich natural areas surrounding Lake Biwa. It is a rare, ancient lake of global importance, and many historical and cultural assets have been preserved in the area. However, construction and development during the economic boom severed the connection between people and rivers in the basin, broke up water and sediment movement, split up habitat that sustains the life and growth of plants and animals, and damaged the valuable connection between people, nature and water.

To restore the Lake Biwa and Yodo River Basin back to a healthy state for future generations, this “separation” should be converted into “continuity,” and all concerned organizations within the basin will join hands under the basic concept of “Water connects People, Nature, and Culture” to take specific action with the seven strategies.

Through these actions, we will try to restore Lake Biwa and the Yodo River’s rich, nurturing ecosystem and hospitable environment for freshwater fish, the Yodo River’s function as an artery connecting Kyoto and Osaka, and Osaka’s features as a city of water with babbling streams within it, a cityscape facing the river, rich and clean water, and other aspects.



Strategy 01 Restoration of “water for life”

Development of a water environment improvement plan for appropriate water management

- Identify some watersheds as models such as the Neya River and other urban watersheds, rivers feeding into Lake Biwa, and upper rivers including the Kizu River and the Katsura River to conduct research and study their water circulation systems including recharging function of water resource and groundwater flow, and develop a water environment improvement plan for appropriate water management. Also, verify how forest management, green space conservation, pervious pavement and other measures impact water quality and water levels in these model watersheds.

Maintaining steady water levels

- To ensure certain levels of flow in rivers and other water in the basin for a steady supply of water, and to benefit the life and growth of plants and animals, the coordination, reorganization and improvement of various water resource development facilities and the promotion activities for raising awareness on water conservation among the general public will be implemented. For more effective water use, dam operations and water rights approval system will be considered for review.

Improving water quality

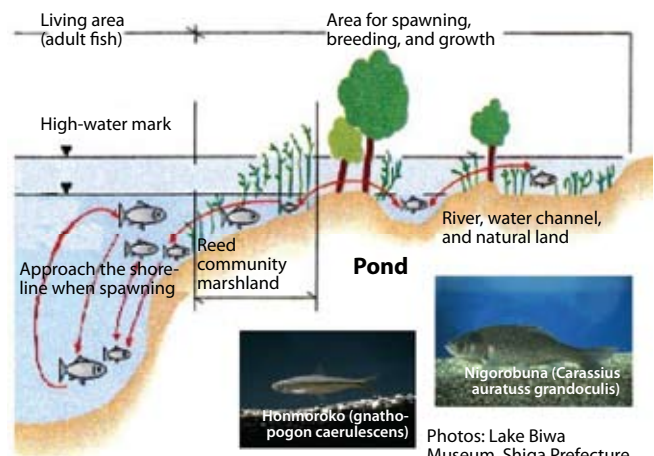
- For people to access water without any concern and to ensure water quality in which a wide variety of plants and animals can survive and grow, a water quality improvement program with the concrete goals, such as “restoring Nanko (southern part of Lake Biwa) and the Yodo River in a way that people can swim there again,” will be developed for the overall basin. In order to achieve this goal, actions for reducing water pollutions caused by different activities (e.g. agriculture, forest) and improving sewage systems will be implemented.

Natural riverbed restoration

- Vary water levels on some regular basis by making full use of dams and water gates to bring river flows back to a natural state and restore the natural riverbed.

Improvements in water fluctuation to harmonize with the ecosystem in Lake Biwa

- To improve seasonal fluctuations of water levels in Lake Biwa so they are ideal for the life and growth of plants and animals, and provide spawning areas for fish, the use of the Seta River water gate and retention ponds will be studied in light of problems concerning flood control, water utilization and influence on people’s lives and industries.



Strategy 02 Connecting the waterfront

Waterfront promenade network

- A boat route from the mouth of the Yodo River to Fushimi Port will be secured by improving the river's course including the installation of locks at the Yodo River main dam, and renovating Fushimi port.
- Docking areas and ports in Lake Biwa and the Yodo River will be improved.
- To secure continuous waterfront paths along the river, areas where footpaths and other paths are interrupted will be inspected and reported on for systematic improvement.
- A waterfront guidebook including the history, culture, nature and other aspects of the river will be developed.
- By connecting to the existing routes such as Rekishi Kaido (historic route) or the Nagisa Kaido (coastal route), use the waterfront promenade network as a model course to offer excursions on themes of history and culture.



Strategy 03 Development of major locations along the waterfront

Development of "river stations" and "lake stations"

- Through harmonization with the surrounding nature, landscape, historical buildings in each community, "river stations" and "lake stations" will be built to provide information and space for interaction of the citizens.
- Open thirty stations in areas including ones around Hachikenya, the confluence of the three rivers, Fushimi Port, and the Karasuma Peninsula as soon as possible within the next 10 years.
- To reinforce redundancy functions around Lake Biwa in case of major earthquakes and other natural disasters, "lake stations" will also be used as bases for a disaster-response lake transportation network.



Development of water corridors

- In the center of Osaka City where the Dotonbori River, the Higashi Yokobori River, and other rivers surround in a square shape, improving water corridors in conjunction with urban development in surrounding areas, and expansion of boat cruises in the city will be implemented.



Development of Hachikenya Port

- At Hachikenya Port, a connecting point for the Kumano Kaido and the water corridor, docking facilities and other water transportation terminals as well as waterfront venues will be developed featuring local history and culture to provide resting and gathering places for the general public. A center for NPO activities, a museum, and other facilities will be developed to provide information about the history and culture surrounding the Yodo River.



Development of Hirakata and surrounding areas

- At Hirakata which has been a major post town crowded with people since ancient times and is famous for Kurawanka boats, urban planning from the area surrounding the train station to the waterfront will be developed while featuring navigation system. Planning also includes super levee development, improvement of traffic flow connecting the train station, the city, the river, and the docking area, and a creation of a River Park.



Development of the area surrounding the confluence of the Yodo River with two other rivers

- Regional interactive facilities with broad disaster-prevention functions and environmental education features will be developed, taking advantage of networks of railways, roads, and boat services in the area near the confluence



Pilot programs and other plans

- Pilot programs and other plans are used to encourage more active use of the waterfront.
- A pilot program will take place regarding preferential measures for permission for occupancy of waterfront areas at "river stations" and "lake stations" such as open cafes, flea markets, and outdoor concerts run by private companies and organizations.
- Application procedures for using docking areas will be simplified, and onsite experiments will be considered to expand the water transportation network including opening the Kema locks as needed and the use of water taxis.
- Joint projects, such as a "waterfront promenade day pass," with private companies will be considered using the network of water transportation, public land transportation, and rental bicycles.

Strategy 04 Introducing streams in urban areas

Restoring streams in Kyoto

- Clear streams will be revived in Kyoto's Nishi Takase River and Hori River, which are now dry.



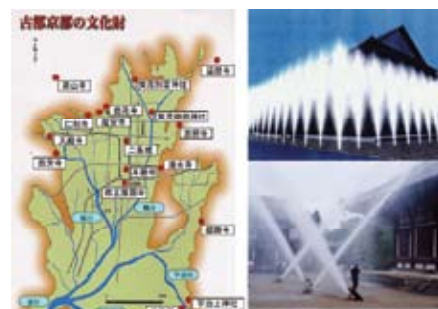
Introducing a babbling stream in the district north of Osaka Station

- A water and vegetation network will be incorporated into urban development in the district north of Osaka Station by creating water channels and green spaces.



Introducing environmentally friendly firefighting water

- To protect historical heritage, cultural properties, and the region as a whole from fire and other disasters to preserve the traditional cityscape and landscape, an environmentally friendly disaster-fighting water supply using a wide range of water sources including rivers, water channels, and natural detention ponds will be considered for areas such as Kiyomizu Temple and the surrounding area. Relaxation of building codes will also be considered for this purpose.



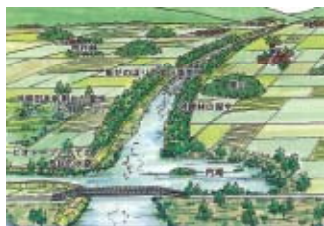
Strategy 05 Connecting the natural environment in the basin

Inspecting the connectivity of water networks

- As for the water network of lake, ponds, rivers, water channels, forests, and rice paddies in the basin, water connectivity will be inspected from the viewpoint of creatures' movements and the results will be compiled and announced as a diagnosis of the health of the water.

Repairing water connectivity

- Along with a health diagnosis of the water, areas where water has been disconnected will be systematically repaired.
- The status of improvements after repairs will be monitored, and the results will be announced.
- As a pilot project, improve conditions in the Akuta River to ensure water connectivity to allow ayu sweetfish to run the river.



Water connectivity

Revitalization of Nanko

- To revitalize Nanko (southern part of Lake Biwa) where the ecosystem is in critical condition, the lake bottom will be cleaned by dredging and other methods, a biotope will be established, measures will be taken to increase the number of native fish and shellfish, and pollutants flowing into the lake from specific and unspecified sources will be controlled.



Revitalization of ponds and the lakeshore

- Ponds around Lake Biwa will be revitalized, and the lakeshore including a canal at the foot of a levee will be brought back to a natural state.
- The banks of the river will be lowered in the Udono district to revitalize a reed community.
- Side-cavity "wando" open channels will be built in the Yodo River. A new spur dike will be placed to create wandos as an onsite experiment.



Conservation and revitalization of side-cavity "wando" open channels

Organization of the Lake Biwa and Yodo River Basin Forest Network

- Activities among various stakeholders toward appropriate forest management including thinning will be organized to establish a "Lake Biwa and Yodo River Basin Forest Network" for the promotion of interactions.



Mt. Tanakami Century Forest tree-planting program

Conservation of native species in the Lake Biwa and Yodo River basin

- Prefectures in the basin and related organizations will join together to establish an "Introduced Species Control Committee" to prevent foreign species from being introduced in the region, as well as removing them.
- Rare indigenous species, natural treasures, and other unique species found in the Lake Biwa and Yodo River basin will be protected and increased in number.

Strategy 06 Reinstating connections between water and people

Turning Lake Biwa and the Yodo River into a “watershed museum”

- Lake Biwa and the Yodo River will be used as a “watershed museum” where people can learn about and have hands-on experience with nature, history, culture, and other things involving water. To achieve that goal, signboards will be erected, volunteer guides will be utilized, and maps will be created to establish tools to better accommodate field studies and experiments. Museums, visitor centers, and other facilities with a large volume of historical and cultural assets nurtured and handed down in the Lake Biwa and Yodo River basin, and with any kind of information related to water will be connected as a network to provide information to the public about Lake Biwa and the Yodo River’s nature, history, culture, disaster prevention activities, geography and other features. Also approach NPOs to encourage their active involvement in operating visitor centers and providing volunteer guides, and support their efforts.



Aqua Biwa

“Reestablishment of connections with water” campaign

Rediscovery of water culture and history

- To rediscover water culture and history in the basin and provide information to the public, efforts will be made including surveys of the current status of wells and famous springs in the basin that have been a cultural part of people’s lives. This will include recognizing and utilizing “Lake Biwa and Yodo River lecturers” who transmit water culture to future generations, the preservation of civil engineering assets in the basin that have contributed to the modern era as industrial structures, the conservation and preservation of the fishing industry, food, festivals and other cultural aspects that have been nurtured in the relationship between water and people, and the arrangement of “water culture exploration tours,” “history exploration tours,” and other types of tours.

Encouraging the relationship between the upstream and downstream

- To increase awareness of the upstream and downstream in the basin and develop the relationship between them, a variety of activities will be conducted. They will include the arrangement of watershed source tours, the establishment of a “Lake Biwa and Yodo River brand” to stimulate local production and local consumption within the basin, encouragement of tree planting in the headwaters with the participation of urban residents and other people, and promotion of interactive events among different schools in the basin.

Transmitting ancestors’ experiences and wisdom

- To hand down ancestors’ experiences and wisdom as to how to cope with natural disasters including floods and droughts, disaster experiences, behavior patterns, wisdom, and ingenuity in times of disasters, and actively provide such information to people living in the area will researched and recorded.

Making coordinated efforts in the watershed

- To help people rediscover the connections between water and their lives, coordinated efforts across the watershed will be made. The efforts will include the campaign of reducing wastewater from households as much as possible and water conservation campaign/ offering of experiences of life without running water to help people understand the importance of water. Evacuation drills to increase awareness of flooding and “Uchimizu (water sprinkling) Project” to relieve the heat-island effect will be also implemented.

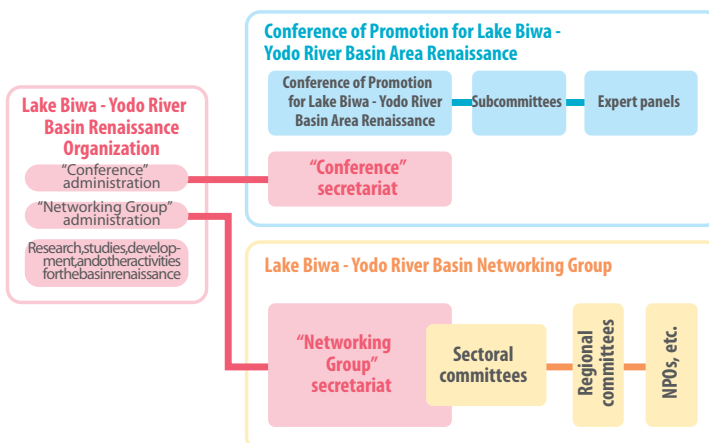
Strategy 07 Developing a system to carry out the plan

Establishment of the Conference of Promotion for Lake Biwa - Yodo River Basin Area Renaissance

To ensure the progress of the Lake Biwa and Yodo River basin restoration project, a “Conference of Promotion for Lake Biwa - Yodo River Basin Area Renaissance” was established as an organization to promote discussion and coordination among related organizations and assess the achievements and effects of individual projects. The conference has subcommittees by sector and theme along with expert panels that include specialists and NPO representatives to exchange opinions and technically study about the individual issues or specific topics.

Establishment of the Lake Biwa -Yodo River Basin Renaissance Organization

A “Lake Biwa - Yodo River Basin Renaissance Organization” will be established to play the role of a secretariat for the “Conference of Promotion for Lake Biwa - Yodo River Basin Area Renaissance”, as well as the “Lake Biwa - Yodo River Basin Networking Group” that will help NPOs exchange information with each other and develop relationships among them. As for the establishment of the Lake Biwa and Yodo River Basin Renaissance Organization, discussions will be held with related groups regarding this matter considering the possibility of using the existing “Lake Biwa-Yodo River Water Quality Preservation Organization” by developing its organizational structure.





Conference of Promotion for Lake Biwa - Yodo River Basin Area Renaissance

Ministry of Land, Infrastructure and Transport; Ministry of Internal Affairs and Communications; Agency for Cultural Affairs; Ministry of Health, Labor and Welfare; Ministry of Agriculture, Forestry and Fisheries; Forestry Agency; Fisheries Agency; Ministry of Economy, Trade and Industry; Ministry of Environment; Mie Prefecture; Shiga Prefecture; Kyoto Prefecture; Osaka Prefecture; Hyogo Prefecture; Nara Prefecture; City of Kyoto; Osaka City; Otsu City; Cabinet Office Urban Renaissance Headquarters Secretariat as an observer

Planning Department, Kinki Regional Development Bureau, Ministry of Land, Infrastructure and Transport

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