

Environmental Measures and River Development along the Tama River

004 Kanto 18

Achieving a Balance between Communities and the River





The Tama River Natural Environment and River Improvements

What kind of image does this kind of title evoke as you envision the Tama River? Perhaps you think of a clean river where children can swim safely. Or a place to go boating. Or a river without concrete along its banks. Or perhaps the Tama River the way it once was, teeming with *ayu* fish. Everyone has their own vision of what the ideal Tama River should be. We at the Keihin Work Office of the Ministry of Land, Infrastructure and Transport are committed to listening to the views of local residents, and working in cooperation with local communities to improve the environment of the Tama River and make it a place we all can be proud to hand down to future generations. We hope that the efforts outlined in this pamphlet will bring us one step closer to making the Tama River everything you want it to be.



Cover photo: *Kawaranogiku* aster, by You Ida
Scientific name: *Aster kantoensis* Kitamura

A perennial of the compositae family that grows in the pebbles in the middle reaches of the Tama River. Clusters could once be seen like a layer of haze along the river, but in recent years, the *Red Data Book* has listed them as threatened.

Table of Contents

2 The Tama River and River Basin

- 3 The Changing River Basin, Flood Control, Water Use, and the Environment
- 4 Tama River Flora and Fauna
- 6 Topography of the Tama River

7 Tama River Environment Management Plan

- 8 Working Together with Citizens to Address Environmental Issues, from the Beginning
The Process of Citizen Participation in Government Efforts
- 10 A Grand Design to Achieve a Balance with Nature
Tama River Environment Management Plan 1
- 12 Creating a Vision for the Tama River That Reflects Each Community's Needs
Tama River Environment Management Plan 2

15 To Preserve and Restore the Natural Environment

- 16 Creating Lush and Flourishing Waterside Spaces
Naturally Diverse River Development 1
- 18 A River Where Fish Can Easily Travel Upriver and Downriver
Naturally Diverse River Development 2
- 20 Identifying the Tama River Ecosystem
Tama River Ecological Research
- 22 Restoring the Clean Water of the Tama River
Water Quality Management

25 Creating a Partnership between People and the Tama River

- 26 Sharing the Significance of the Tama River with Everyone
The Tama River Museum(TRM)1
- 29 For Those Who Want the Tama River to Serve as a Base for Academic and Cultural Activities
- 30 For Those Who Want to Do More with the Tama River
- 31 For Those Who Want to Learn More about the Tama River
- 32 TRM Launched in Pilot Areas Komae and Shukugawara
The Tama River Museum 2

The Tama River and River Basin

The Tama River is a Class A river whose main branch extends 138 km from its source at Mt. Kasatori in Yamanashi Prefecture (elevation 1,953 m) to the sea. The river joins up with several tributaries along its path, flowing southward between Tokyo and Kanagawa Prefectures, finally emptying into Tokyo Bay. Upstream, the river flows in clear streams through beautiful mountains and valleys. Midstream, it is marked by shoals, deep pools, and sandbars, and then further downstream, it meanders along at a more leisurely pace. The total river basin area is 1,240 km², of which 68% is mountain-

ous and 32% is flatlands. The river basin population is about 4.25 million people,* most of whom are concentrated in the plains around the middle and lower reaches of the river.

Flowing through the area around Japan's capital, the Tama River is a valuable natural resource for this urban center. It is a place where local residents can relax, enjoy recreational activities, and mingle with other people. The river is visited and enjoyed by 20 million people annually.

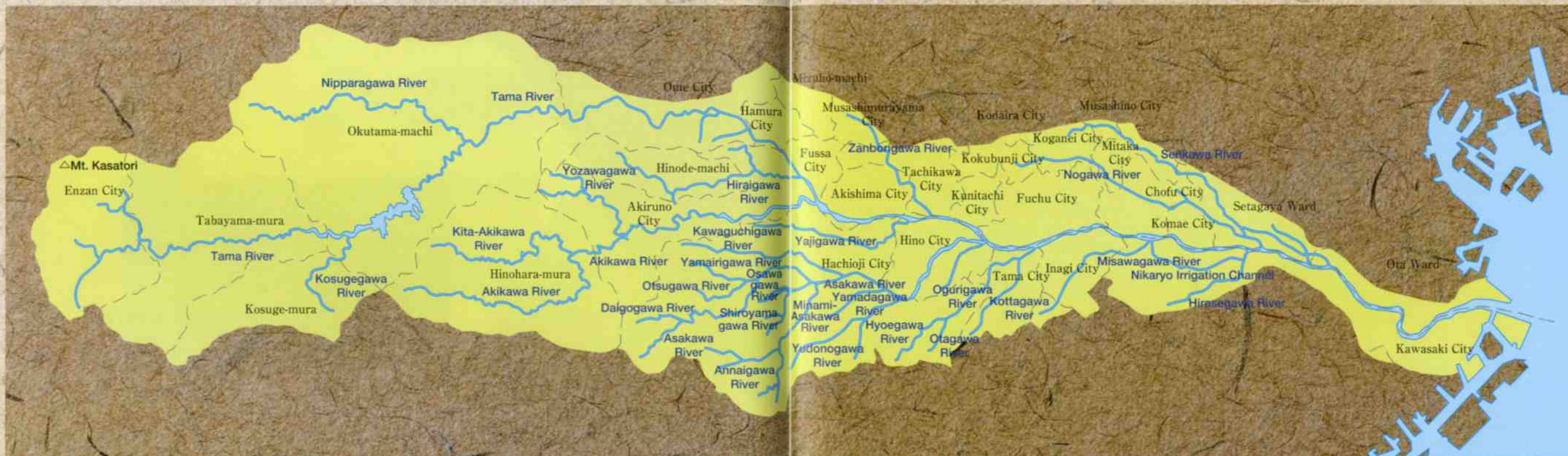
* Based on the 1995 National Census.

Tracing the Tama River Source

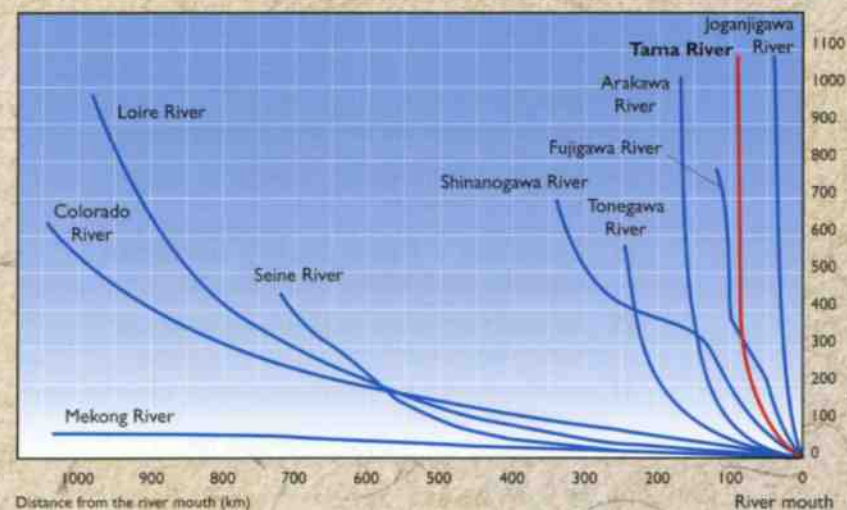
The Tama River is also called the "Taba River" in its upstream reaches. If you go upward along the Tabagawa River, you will come to the confluence of the Ichinose and Yanagisawagawa Rivers. Mizuhi, which is further up on Mt. Kasatori from the Ichinosegawa River, is considered to be the source of the Tama River. A water shrine has been erected directly beneath the mountain's summit, and the drops that form the beginning of the Tama River cascade down the cliff wall there.

The Changing River Basin

The Tama River basin was primarily used for agriculture, especially rice paddies, until the late Meiji period, but as the silk production industries grew more popular in the Taisho and early Showa periods, many mulberry plantations began to extend across the middle reaches of the river. Meanwhile, in the downstream regions, urbanization gradually began, and since 1955, the amount of farmland has been decreasing. In recent years, urbanization has even encroached on the green space in the Tama area, or middle reaches of the river, bringing with it ever increasing concentrations of people. The population density in the river basin is about 10 times that of the national average.



Comparison of the riverbed slopes of major rivers



Geography, Climate, Geology

The Tama River basin is comprised of two wards, 23 cities, two towns, and three villages in Yamanashi, Tokyo, and Kanagawa Prefectures with a population of approximately 4.25 million in their jurisdictions. Annual rainfall is about 1,400 mm. The river flows high from June through September, but lower in the winter. Water that flows down from the source of the river mixes in with water from tributaries like the Akikawa and Asakawa Rivers before ending its journey in Tokyo Bay. Downstream from the Chofu Intake Weir is the tidal area. The riverbed is comprised of pebbles and sand starting in the upper reaches of the river, and mud and sand in the lower reaches.

Flood Control

The urbanization of the river basin has resulted in increased flooding. Based on the lessons of a major flood that occurred in 1910, a Tama River improvement project was launched in 1918 and gradual improvements were made to the river. In 1966, the river was designated a Class A water system, and the portion of the river from its mouth to Mannen Bridge (61.8 km) was placed under direct ministerial jurisdiction (currently managed by the Ministry of Land, Infrastructure and Transport, or MLIT). Later, portions of the Asakawa and Ogurigawa Rivers were also placed under ministerial control.

Water Use

The use of the water from the Tama River developed significantly in the Edo period. As the demand for irrigation water increased, the Nikaryo irrigation channel and the Tamagawa Waterworks were created, allowing the river water to be used for both agricultural purposes and household use. The demand for water increased throughout the Meiji, Taisho, and Showa periods, and in 1957, the Ogouchi Dam was completed and began to play a significant role in the supply of water to the capital of Tokyo. Since water from the Tonegawa River later started to be used as well, currently, water supplied by the Tama River accounts for about 20% of the total water supply of the entire Tokyo metropolitan area.

The Environment

As the natural environment and water quality began to deteriorate in the 1950s and 1960s, citizen-led groups aimed at protecting the natural environment of the Tama River have become more active and have undertaken various efforts to preserve the river environment. As a result, the current value of 75% BOD (biochemical oxygen demand, an index of water quality) meets environmental standards in most areas. Environmental measures not only address water quality, but also seek ways to make the Tama River a place where wildlife can thrive and people can enjoy the outdoors. We have devised the nation's first-ever river environment management plan, and are working to create a naturally diverse river by focusing on both the physical and organizational infrastructures of the river system.

Tama River Flora and Fauna

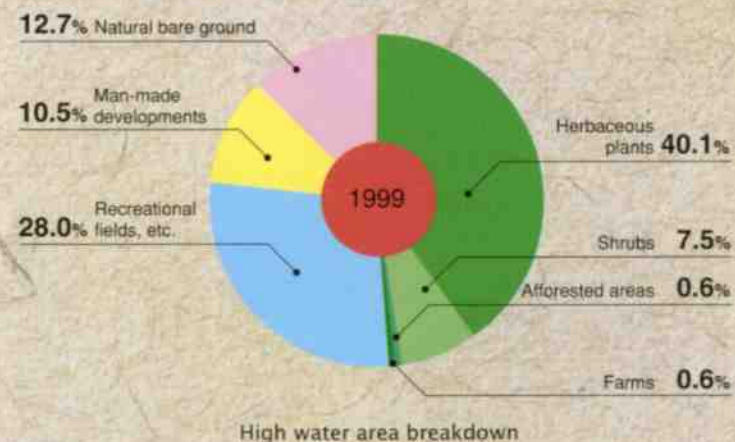
The MLIT conducts National Censuses on River Environments every year. The survey conducted at the Tama River covers six wildlife groups—fish, plants, birds, amphibians/reptiles/mammals, terrestrial insects, and others. These surveys gather basic statistical data on the environment and are designed to contribute to efforts to pursue naturally abundant river development. The flora and fauna found along the Tama River are shown below. The data shown is the most recent available in each survey category.

Plants	917	Reptiles	10
Fish	59	Mammals	15
Bottom Dwellers	218	Terrestrial Insects	1,165
Amphibians	8	Birds	119

Total 2,511

Plants

A reed grass marsh extends across the brackish water region around the river mouth, providing a habitat for *hinumaitotonbo* damselflies. *Ogi* grass (*Miscanthus sacchariflorus*) can be seen in clusters across the high water areas around mid-river, while upriver there are many clusters of *tsuruyoshi* grass (*Phragmites japonica*) and *tachiyana* willows (*Salix subfragilis*). The rocky riverbed in the mid-river area also has *kawaranogiku* (riverbed aster) and *kawarasaiko* (riverbed roses), which, as indicated by their names, are typical of river environments.



Fish

The distribution of major fish species is shown in the table below. Many saltwater and brackish water fish such as Japanese sea-perch and spiny goby can be seen in the area stretching 20 km from the river mouth. Freshwater fish can be seen from 10 km and further upstream, and include such species as freshwater minnow and big-scaled redbfin. Migratory fish that travel back and forth between the river and the ocean, such as dace and ayu also inhabit the river.

	Name	60km	50	40	30	20	10	0
Freshwater fish	Freshwater minnow	●	●	●	●	●		
	Big-scaled redbfin	●	●	●	●	●		
	Stone moroko	●	●	●	●	●		
	Field gudgeon	●	●	●	●	●		
	<i>Pseudogobio esocinus</i>	●	●	●	●	●		
	Barbel steed			●	●			
	Amur catfish		●	●	●			
	Cherry salmon	●						
	Japanese fluvial sculpin	●	●					
Migratory fish	Sand loach		●	●	●			●
	Japanese killifish						●	
	Dace						●	●
	Ayu	●	●	●	●	●	●	●
Brackish water and saltwater fish	<i>Touyoshinobori</i> goby			●	●	●	●	●
	Japanese sea-perch					●	●	
	Spiny goby					●	●	



Bottom Dwellers

Organisms that inhabit river bottoms are generally referred to as bottom dwellers, or benthos. The 1995 National Survey confirmed the existence of 218 types of bottom dwellers.

	Species		Species
Mollusks (snails, bivalves, etc.)	39	Insects	87
Worms (clam worms, earthworms, etc.)	34	Other	12
Crustaceans (shrimp, crab, etc.)	46		



Amphibians, Reptiles, and Mammals

The 1996 survey identified 8 species of amphibians, 10 species of reptiles, and 15 species of mammals, for a total of 33 species of small animals. The survey showed that mid-size mammals such as weasels, raccoons, and foxes also inhabited a wide area. Notably, weasels were observed in the area furthest downstream.

	Species
Amphibians (newts, Tokyo <i>daruma</i> pond frogs, etc.)	8
Reptiles (Reeve's turtles, lizards, vipers, etc.)	10
Mammals (weasels, raccoons, foxes, etc.)	15



Terrestrial Insects

The 1997 survey identified 1,165 species of terrestrial insects (including 98 species of spiders). There are a lot of grassy areas with *ogi* and other grass plants along the Tama River, which are home to locusts like the migratory locust and butterflies like the *Leptalina unicolor*. Even the pebbled water-edge areas where there is little grass are habitats for insects like *kawarabatta* locusts (*Eusphingonotus japonicus*).

Class	Order	Species
Arachnida	Araneae	98
Insecta	Odonata	27
	Orthoptera	48
	Hemiptera	119
	Coleoptera	555
	Hymenoptera	92
	Diptera	62
	Lepidoptera	138
	Other	26



Birds

The 1998 survey identified 119 species of birds. Many city bird species such as the sparrow and grey starling can be seen throughout the year, but many different kinds of birds visit the Tama River only in certain seasons. From April to June, summer birds such as the swallow and little terns come from the south to breed. In the winter, winter birds such as the black-headed gull and the teal fly down from the north for the cold months. In spring and fall, migrating birds such as Mongolian plovers and dunlins stop over in Japan and can be seen hunting their prey along the tidelands of the river mouth.

Birds seen April to June	Swallows, little terns, etc.
Birds seen in spring and fall	Mongolian plovers, dunlins, etc.
Birds seen in winter	Black-headed gulls, ducklings, etc.
Birds seen year-round	Japanese wagtails, grey starlings, etc.



Topography of the Tama River

The Tama River has many distinctive features from its source to its mouth, and can be divided into seven major sections.



Valley Section

From Ozaku Intake Weir to Mannen Bridge

- (56 to 61 km from the river mouth)
- Rocks are exposed everywhere as both steep-sided riverbanks rise straight up from the river.
- In this area, revetments are installed as needed to reinforce the places where the foot of the riverbank has eroded and become unstable.



Trench-shaped River Channel Section

From Shintama Bridge to Ozaku Intake Weir

- (51 to 56 km from the river mouth)
- The river channel is trench-shaped to create river terraces along both sides of the river along most of the length of this section.
- Rocks are exposed only where the water flows against the bank.



Stable Shoal/Deep Pool Section

From Daisan Keihin Expressway Bridge to Shukugawara Weir

- (16.5 to 22.2 km from the river mouth)
- Double-layered river channel with a lower river channel and an extensive high water area.
- The river channel curves, but because the flow center when the water level rises and when the water level is low are the same, the low-water channel is stable, and the shoals and deep pools are fixed.



Tidal Area

From the river mouth to Chofu Intake Weir

- (0-13.5 km from the river mouth)
- Double-layered river channel with an extensive high water area.
- River channel is almost straight.
- With the exception of the tidelands at the river mouth, there are almost no sandbars.



Exposed Tertiary Strata Section

From Omaru Irrigation Weir to Shintama Bridge

- (From 32.5 to 51 km from the river mouth)
- Because of the presence of the exposed tertiary rock strata, the river channel has formed a rectangular trench-shape with an extensive river area at the bottom of the channel.
- The low-water channel is stable, as it is fixed by the bedrock.



Unstable Low-water Channel Section

From Shukugawara Weir to Omaru Irrigation Weir

- (From 22.2 to 32.5 km from the river mouth)
- Accumulations of sand carried in from the Asakawa River and other rivers have raised the level of the riverbed. Especially in the areas upstream from the weir, the riverbed is about the same height as that of the high-water area in the river improvement plan, and the cross-sectional area is varied.
- The high-water area is narrow, and the sandbanks often change shape because of flooding.



Unstable Sandbar Section

From Chofu Intake Weir to Daisan Keihin Expressway Bridge

- (From 13.5 to 16.5 km from the river mouth)
- Clearly a double-layered river channel with an extensive high water area.
- This section is characterized by meandering flows and sandbars in a low-water channel.
- Because the flow center when the water level rises and when the water level is low are not the same, the sandbars are unstable, and the locations of the shoals and deep pools can easily shift when flooding occurs.

Placing equal emphasis on maintaining a pristine natural environment and creating spaces for recreational activities

Tama River Environment Management Plan

It is important to maintain the lush natural environment of this beautiful river, but also to allow the floodplain to be used for relaxation, sports, and other recreational activities. The point of contention in addressing river environmental problems comes down to the seeming conflict between the commitments to "preserving the natural environment" and "providing areas for public use." Since the Environment Management Plan was first enacted in 1980, these two points have been the focus of efforts aiming to achieve a balance between the preservation and use of the Tama River's natural environment. Three basic principles have been established for building a better relationship between people and the river.

1 Provide a place where people can interact with the river

Basic Principles of the Tama River Environment Management Plan

2 Maintain the uniqueness of the Tama River

3 Utilize the uniqueness of the Tama River

Working Together with Citizens to Address Environmental Issues, from the Beginning

The Tama River Environment

The Process of Citizen Participation in Government Efforts

The greatest novelty of the Environment Management Plan is that it was developed as a cooperative project through citizen participation. Its origins date all the way back to the late 1960s. At that time, the destruction of the natural environment along the Tama River, such as its deteriorating water quality, was becoming a major problem due to the rapid urbanization of the river basin communities. It was the citizens in the area that finally took a stand on the issue. With a growing awareness of the importance of environmental preservation, the government took notice of the citizens' activities and quickly added a River Environment Section within the Ministry of Construction's Keihin Work Office. From that point forward, the citizens and government discussed issues with one another and formed a citizen-government partnership that was the first of its kind in Japan.

River Environment Changes with Changing Times

In 1980, an Environment Management Plan was formulated that, in addition to conventional river management measures focusing only on flood control and water use, incorporated the concept of the "systematic preservation and use of the Tama River environment." In 1998, citizens, academic experts, river basin area local governments, and river management authorities came together to establish the River Basin Advisory Board. The relationship between the citizens and government grew stronger, and in 2001, the River Infrastructure Development Project for the Tama River System was enacted. The Environment Management Plan was simultaneously updated.

EMP Revised in 2001

The Environment Management Plan was newly revised to keep up with the changing times based on input provided by local governments, interested civic groups, and academic experts.

- Zone and functional space designations were revised in response to changes that have taken place over time (see page 10).
- The range of functional space sections was revised.
- The Asakawa River (sections under direct ministerial jurisdiction) was added as a target of the space management plan.

The Tama River Environment

The Process of Citizen Participation in Government Efforts

Keihin Work Office Activities

- 1972**
Begins surveying the natural environment of the Tama River.
Begins surveying plants, fish, marine life, small animals, insects, wild birds, and the social environment.
- 1975**
A River Environment Section is established within the Ministry of Construction's Keihin Work Office.

Local Government Actions

Civic Movements

- Late 1960s, early 1970s**
A civic movement to promote the river's natural environment forms.
- 1974**
The "Friends of the Love River Tamagawa" begin conducting activities to care for the river. The Tama River Water System Nature Protection Group is launched.

Trends in the Use of the Tama River Areas

- 1965**
A permit system is enacted for regulating private use of river areas.
- 1966**
High water areas downstream are improved and opened up for use as parks and playgrounds.

History of River Law Revisions

- 1896**
Old River Law is enacted.
Modern river management focused on flood control is born.
- 1964**
New River Law is enacted.
An integrated water system environmental management system is introduced, and water system management addresses both flood control and water use.

Tama River Water Quality

- Early 1960s**
Water quality deteriorates as urban drainage increases.
- Late 1960s, early 1970s**
System remains unable to achieve the environmental standard of 75% BOD.

Cultivating Relationships of Cooperation and Trust Between Groups Involved in Tama River Development

Building on the history of the Tama River, river management authorities, related institutions, local governments, academic experts, local assemblies, and civic groups are striving to establish the scope of their responsibilities and engage one another in dynamic relationships as they aim to achieve the best possible river management.



1980
Tama River Environment Management plan is formulated.
The Environment Management Plan was established as the first of its kind in the nation.

1986
Tama River Week is established.

1992
Tama River Water Surface Management Plan is formulated.
Created to show people how to use the water surface in a balanced, systematic, and desirable way.

1998
Tama River Basin Advisory Board is established.
Citizens, academic experts, local governments in the river basin, and river management authorities form a group for the purpose of building a "loose consensus" on achieving "clean rivers and comfortable communities."

March, 2001
River Infrastructure Development Project for the Tama River System is established.
Plan to Manage the Natural Environment of the Tama River is revised.

1978
Tama River Basin Liaison Groups are formed (in 17 cities).

1986
Tama River Summit is held for heads of relevant local governments.

1987
Tama River Basin Joint Administrative Council is formed.
(Consisting of the Tokyo Metropolitan Government, two prefectures, and 30 municipal governments)

1984
"The Eight Views of the Tama River" are affirmed by a citizen vote.

1994
Tamagawa Center is established.

1997
River Law is partially revised.
In addition to flood control and water use, the law regulates the development and preservation of the water environment. Introduces procedures for obtaining local input in formulating river development plans.

1970
The Chofu Intake Weir is closed due to fears of Kaschin-Beck disease.

Late 1970s
Water quality improves due to sewerage improvements and river clean-up measures.

1998
Environmental endocrine disruptors and dioxins are recognized as social problems.

A Grand Design to Achieve a Balance with Nature

Tama River Environment Management Plan

The Environment Management Plan covers the entire river basin and is designed to preserve the lush natural environment of the Tama River while making it available to people for various uses. It is comprised of two main sections—a Space Management Plan and a Water Surface Management Plan. It defines specific policies and space designations with regard to the systematic preservation and use of different areas of the river, as well as water surface and waterside spaces.

Ideal Vision Integrates Local Characteristics and Community Needs

The most unique feature of the Environment Management Plan is its system for dividing the river into five zones and eight types of functional spaces. The functional space designations, a unique characteristic of the plan, were developed based on a survey conducted among experts and citizens. The goal was to have the functional space designations reflect local characteristics and community needs. The plan is well suited to the Tama River, whose countenance changes as it flows from its upstream source to its downstream reaches, and it stipulates guidelines for public use and nature preservation that reflect the needs of the various communities in the region.



Five Zones

A Development Improvement Zone

Man-made facilities such as sports facilities, play and playground facilities, recreational facilities, landscape facilities, and amenities will be actively provided.

B Facility Utilization Zone

A zone primarily for man-made facilities, but also for educational facilities.

C Improvement and Nature Zone

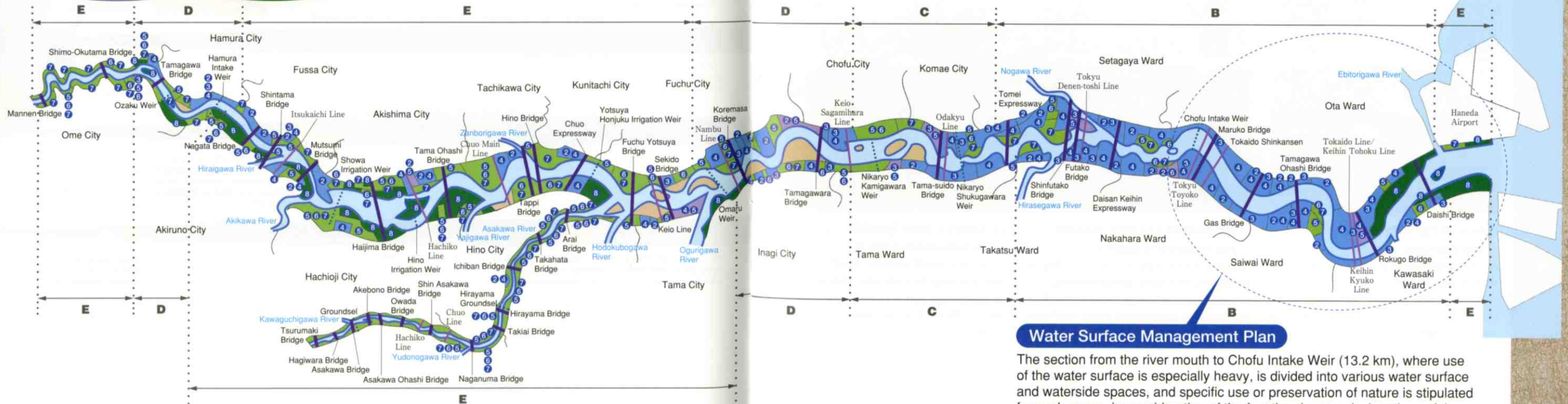
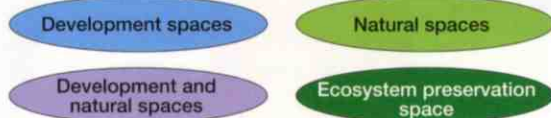
A zone used half for man-made facilities and half for nature-oriented purposes.

D Nature Utilization Zone

A zone primarily for nature-oriented facilities, but with some man-made facilities also included.

E Nature Preservation Zone

A zone for preserving natural ecosystems. Facilities for active use by people will not, in principle, be constructed.



Water Surface Management Plan

The section from the river mouth to Chofu Intake Weir (13.2 km), where use of the water surface is especially heavy, is divided into various water surface and waterside spaces, and specific use or preservation of nature is stipulated for each space, in consideration of the functional space designations of the riverside area (see page 18).

Areas Covered

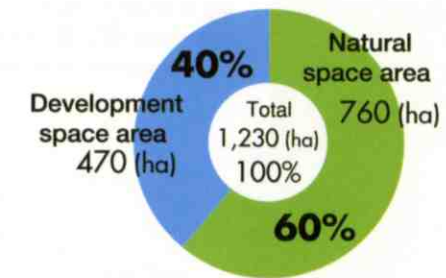
- From the main branch of the Tama River to Mannen Bridge.
- From the confluence of the main branch of the Asakawa River to the Minami Asakawa River confluence.

1. Relationship between Zones and Functional Spaces

Functional Space Designations	① Evacuation space						
	Development Space			Natural Space			
	② Local facility-based recreational space	③ Regional facility-based recreational space	④ Sports and health promotion space	⑤ Nature-oriented recreational space	⑥ Educational space	⑦ Sensitivity development space	⑧ Ecosystem preservation space
A. Development Improvement Zone	✿	✿	✿	✿	✿	✿	✿
B. Facility Utilization Zone	✿	✿	✿	✿	✿	✿	✿
C. Improvement and Nature Zone	✿	✿	✿	✿	✿	✿	✿
D. Nature Utilization Zone	✿	✿	✿	✿	✿	✿	✿
E. Nature Preservation Zone	✿	✿	✿	✿	✿	✿	✿

Ratio (by Area) of Natural Space to Development Space

6 : 4

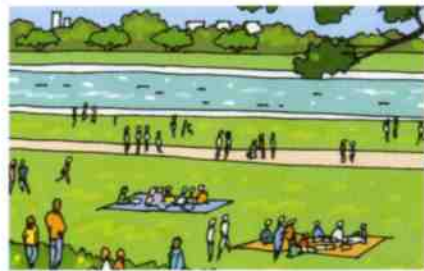


Creating a Vision for the Tama River That Reflects Each Community's Needs

Upon designating the functional spaces, a survey was conducted among experts and citizens to ensure that they would reflect local characteristics and community needs. The results of this effort was a plan that is well suited to the Tama River, whose countenance changes as it flows from its upstream source to its downstream reaches. The plan provides for public use and nature preservation that reflect the needs of the various communities in the region.



In Case of Disaster



① Evacuation space
A space for ensuring the community's safety in times of emergency.
 A space used as an evacuation site by people living near the river during a disaster. May also be used for functions ②, ③, and ④ and for other functions as necessary.

Developed Spaces



② Local facility-based recreation space
A relaxing space that local residents can enjoy.
 A nearby space where local residents can relax, such as a children's park or a waterfront space.



③ Regional facility-based recreation space
A wide open space where a lot of people can enjoy themselves.
 A recreational space to meet the needs of the regional community for a multipurpose park or recreational field.



④ Sports and health promotion space
A space with public facilities for promoting health and fitness.
 A space with public facilities for promoting health such as athletic fields or ball parks.

4 Principles for Development Space

In order to promote systematic use of the floodplain, there are principles set for appropriate use of developed spaces.

- The facility must be available for all people and open for a sufficient number of days.
- Active efforts must be made to prevent the deforestation of the land.
- Use of chemical substances and other agents that may have a negative impact on the ecosystem or water quality must be kept to the minimum.
- The facility must meet the needs of the majority of citizens.

Natural Spaces



⑤ Nature-oriented recreational space
A recreational space designed for "play" where people can have fun in the outdoors.
 A recreational space that takes advantage of the natural environment of the Tama River, such as a meadow, wading area, or fishing spot.



⑥ Educational space
A recreational space designed for "education" where people can enjoy nature.
 A space where people can learn about the natural environment of the Tama River as part of their education, such as a nature observation area or a "Riverside Fun School."



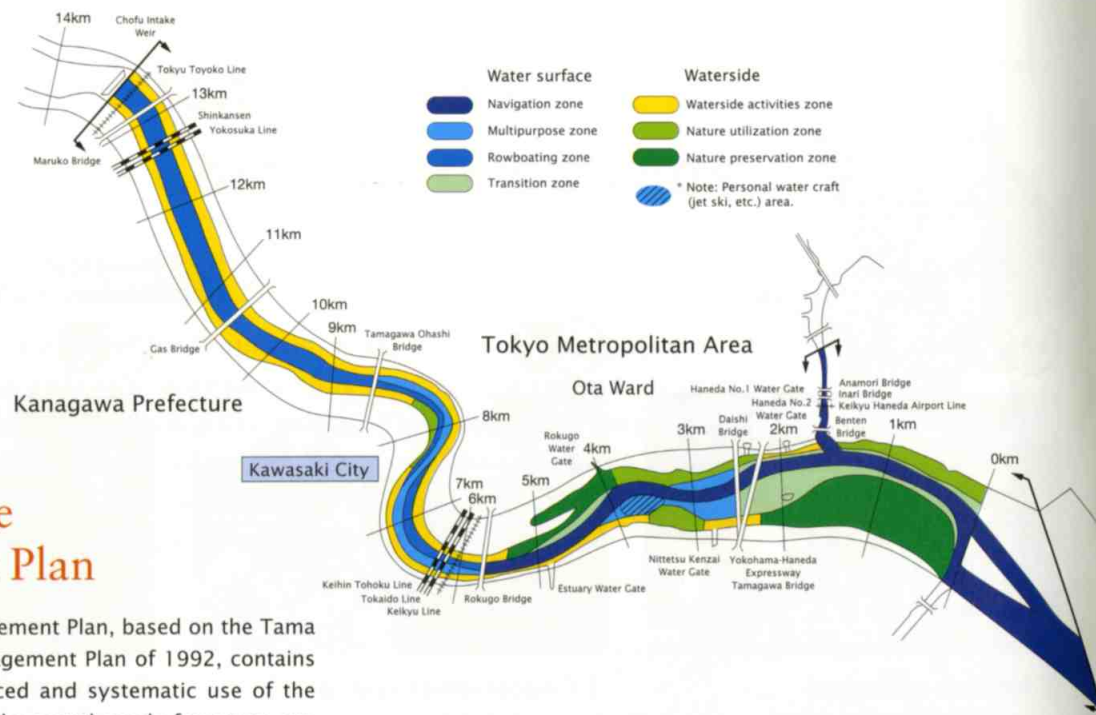
⑦ Sensitivities development space
A space for interacting with nature that emphasizes "sensitivity."
 A space whose natural environment will be preserved or protected so that it will serve as a place that cultivates the sensitivities of people near the river.



⑧ Ecosystem preservation space
A space that preserves the valuable ecosystem and protects the natural environment.
 A space that, from an ecological standpoint expressed by scholars and other experts, needs to be specially preserved as an animal or plant habitat. River ecology research area will be designated if necessary (e.g., the Nagata area in Fussa City) to restore the original ecosystem of the area.

Natural Space Management Policies

- Impose restrictions to avoid immoderate access of people and cars. (Access to ecosystem preservation spaces is prohibited in principle, except for academic research purposes.)
- Take measures to maintain the environment in its natural state, such as temporarily moving greenery when construction work has to be performed.
- Take measures to preserve precious wildlife.



Water Surface Management Plan

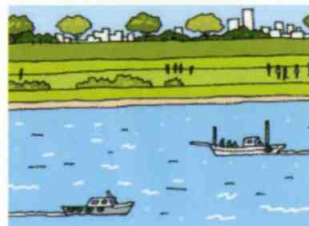
The Water Surface Management Plan, based on the Tama River Water Surface Management Plan of 1992, contains guidelines for the balanced and systematic use of the water surface based on the actual needs for water surface usage and the expectations for preservation of waterside natural environment like reed grass marshes. The area was divided into water surface and waterside zones, based on the functional space designations assigned to each area under the space management plan, to designate how each area is to be used.

Water Surface Management Plan Map

This map shows the four water surface use designations and the three waterside use designations.

* Covers the 13.2 km stretch from the river mouth to the Chofu Intake Weir.

Water Surface Use



① Navigation space

This is a zone where engine-driven ships and boats can safely travel. In an emergency, this space would be used as a channel for boats involved in disaster recovery efforts.



② Multipurpose space

This zone is primarily for non-motorized boats. Use of jet skis, etc., may be possible within this zone, by designating an area for their use in line with local needs.



③ Rowboating space

This is an area popular for rowboat activities, where non-motorized boats can safely travel. These areas are located between ② multipurpose space and waterside areas.



④ Transition space

This buffer zone was created to preserve the natural environment of the Tama River and to ensure ships safe passage. It is located in front of ⑧ ecosystem preservation spaces, and between ① navigation spaces and waterside spaces.

Waterside Space Designations



① Waterside activities space

The waterside zone is located adjacent to areas designated as ② local facility-based recreational spaces, ③ regional facility-based recreational spaces, and ④ sports and health promotion spaces, where people can safely fish, play in the water, and so on.



② Waterside nature utilization space

This zone is located adjacent to areas designated as ⑤ nature-oriented recreational spaces, ⑥ educational spaces, and ⑦ sensitivity development spaces, where people can safely observe nature and go on nature walks.

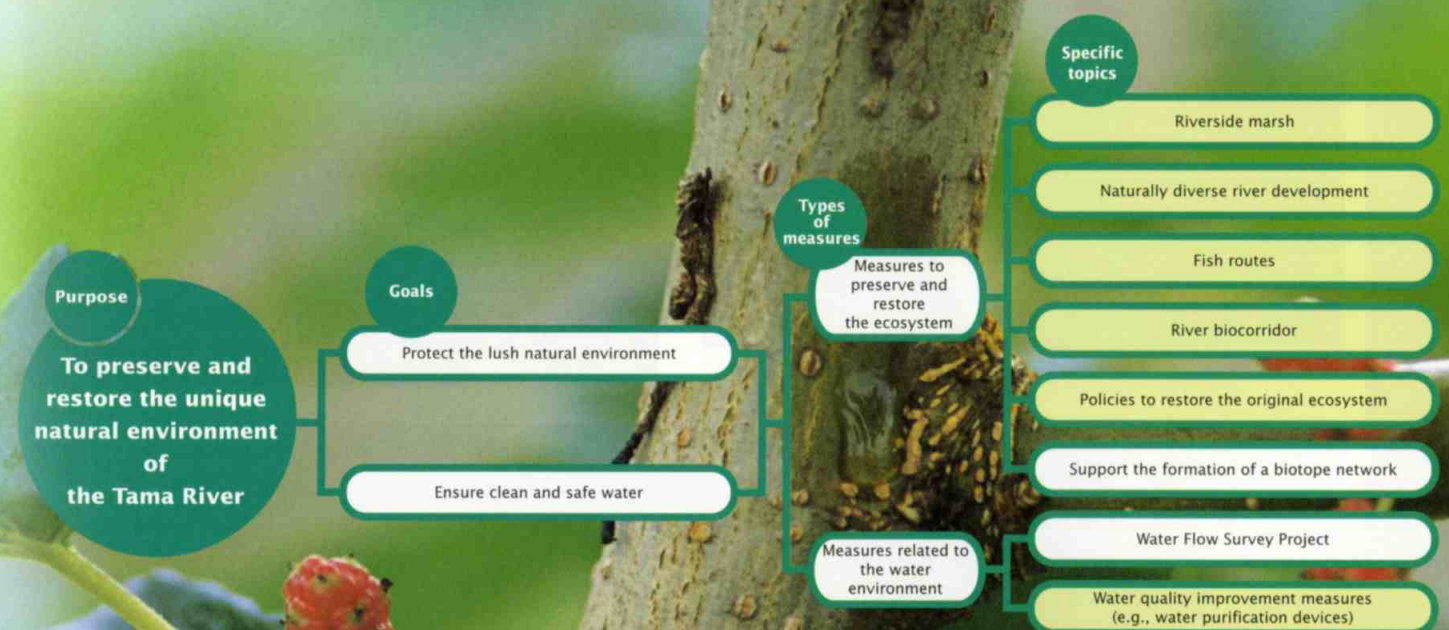


③ Waterside nature preservation space

This zone is located adjacent to areas designated as ⑧ ecosystem preservation spaces, where the healthy natural environment is protected and plant and animal habitats are sustained.

To Preserve and Restore the Natural Environment

In recent years, many efforts have been taken to preserve and restore the natural environment along the Tama River. These efforts aim to preserve certain fish, insects, plants and other valuable wildlife whose numbers have been threatened, and to restore the unique landscape of the Tama River.



Specific topics

- Riverside marsh
- Naturally diverse river development
- Fish routes
- River biocorridor
- Policies to restore the original ecosystem
- Support the formation of a biotope network
- Water Flow Survey Project
- Water quality improvement measures (e.g., water purification devices)

Types of measures

- Measures to preserve and restore the ecosystem
- Measures related to the water environment

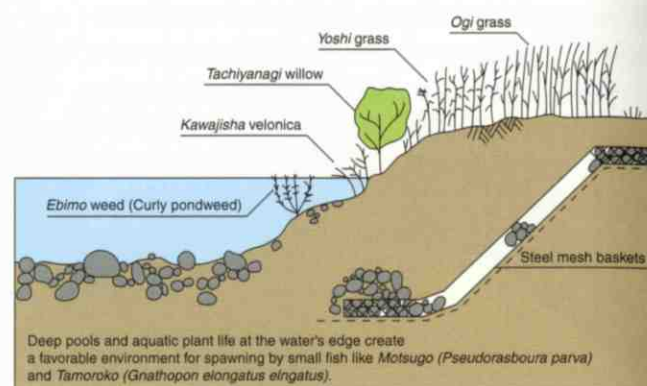
* Items shown in yellow are addressed in this pamphlet.

Creating Lush and Flourishing Waterside Spaces

To Preserve and Restore the Natural Environment Naturally Diverse River Development 1

Creation of Riverside Marshes

In rivers that have constant flows of water, the still water areas where the current flows gently provide a valuable living and breeding habitat for fish, aquatic insects, and aquatic plant life. A "riverside marsh" is an inlet of still water that is linked to the main river. The formation of marshes and small water channels ensures a diverse river environment and the still water areas serve as habitats and hiding places for lentic fish and for baby fish that cannot swim well. They also serve as a place where fish can evacuate during large floods.



Kamigawara Riverside Marsh, Chofu City

A riverside marsh was created at Kamigawara, Chofu City, to serve as a model project in natural environment restoration that takes the dynamism of the river into consideration. Because its source is a spring, we were able to create a place with a different water temperature and quality from the main current, producing a diverse wildlife habitat.



Fish are concentrated in the marsh.



Before construction.



After construction.



Creation of Riverside Marshes

Gyorangawa River, Todoroki Region of Kawasaki City

There used to be a small stream nicknamed the Gyorangawa River (Fish Cradle River) flowing through the river area in the Todoroki Region of Kawasaki City, but at some point the waterway became clogged with sand, and the water stopped flowing through it. We therefore redirected water from the main branch of the river and restored a natural habitat that could support the breeding of various fish.

Naturally Diverse Revetment Method (Revetment Utilizing Steel-Mat Construction)

This revetment method utilizes steel basket-like units filled with rocks to cover the riverbank. Because they do not interfere with ground water, and also ensure a base for plant life, their use as a method of restoring riverbank greenery is increasing.



During construction.



After completion. Greenery is reappearing.



Riverbank greenery is restored using steel-mat construction.

Denen Chofu Revetment in Ota Ward

We placed 50-150 cm of topsoil over the steel-mat foundation, facilitating the growth of greenery over the entire mat. During small and medium-sized floods, the vegetation protects the riverbank, and during larger floods that the vegetation cannot withstand, the steel-mat units protect the riverbank.

River Biocorridor

The River Biocorridor plan aims to create a greenbelt that extends through river areas which tend to feature long stretches of development, such as athletic fields and other facilities, with spare greenery. By planting walnut trees, willow trees, as well as grasses like *ogi* and *yoshi*, between such facilities or along walking paths, we will create a continuous greenbelt. The shade and thicket created by vegetation that blocks out some of the sunlight will create an environment conducive to wildlife habitation. The falling leaves will also create a good habitat for bottom dwellers.



Unane, Kawasaki City



Cluster of yoshi grass.



Onigurumi walnut (*Juglans mandshurica*).

A River Where Fish Can Easily Travel Upriver and Downriver

To Preserve and Restore the Natural Environment Naturally Diverse River Development 2

River Developments that Make It Easy for Fish to Travel Upstream

Most fish that live in rivers travel both upstream and downstream on a daily basis. The Ministry of Land, Infrastructure and Transport is promoting a Model River Development Project to Create a River where Fish Can Easily Swim Upstream. This project includes the installation or improvement of mechanisms that allow fish to move upriver or downriver even at weirs, which ordinarily block the free movement of fish. Its purpose is to create a river environment where fish can swim where they want. The Tama River was chosen as the model river for this pioneering project, and work has been underway since 1992.

- (1) From among the native fish species identified in the Tama River system, eight were selected as the specially targeted species for this project.
- (2) Fish routes are either being built or improved at dams and weirs in consideration of the ecology of these eight selected species.
- (3) To effectively promote this project, we have prioritized areas into first stage sections (river mouth to Ogouchi Dam/Akikawa River confluence to the river source) and second stage sections (Ogouchi Dam to the river source).

Specially Targeted Eight Species of Fish



Ayu (Family: Plecoglossidae "Ayu fish") *Plecoglossus altivelis*
This fish has long been familiar to people, and is a typical Japanese freshwater fish. Since long ago they have been targeted by professional and amateur fishermen, and there is a wide array of traditional techniques for catching ayu.



Maruta (Pacific redbfin) (Family: Cyprinidae (carp and related fish)) *Tribolodon brandti*
This is the only fish in family of carp that migrates between the river and the ocean. It closely resembles *ugui* (the big-scaled redbfin), but is much larger.



Ginbuna (Family: Cyprinidae (carp and related fish)) *Carassius auratus langsdorfii*
Inhabits mid-river to downstream areas. Most of these fish are female, and research has revealed that their eggs can start developing upon stimulation from the sperm of males from other species.



Flathead Mullet (Family: Mugilidae (Mulletts)) *Mugil cephalus*
A fish that migrates between freshwater and saltwater, called by different names according to its growth stage.



Yamame (Cherry Salmon) (Family: Salmonidae (Salmon)) *Onchorhynchus masou*
Prefers cool, clear upstream waters and has beautiful spots on its body. Its good flavor makes it a favorite food source.



Sakuramasu (Cherry Salmon) (Family: Salmonidae (Salmon)) *Onchorhynchus masou*
Among the *yamame* born in the upriver areas, the ones that swim down to the sea are called *sakuramasu*. Many *sakuramasu* are females, and once they are grown they return to the river where they were born to lay their eggs.



Numachichibu (Family: Gobiidae "Gobbies") *Tridentiger breuispinis*
This fish can move upstream using its abdominal fins, which have the form of suction cups. Adult fish inhabit the river bottom.



Eel (Family: Anguillidae "Eels") *Anguilla japonica*
Widely distributed from near the river mouth to the upstream areas. Mature eels eat small fish, and may grow to be as large as 1 m in length.

New and Renovated Fish Routes

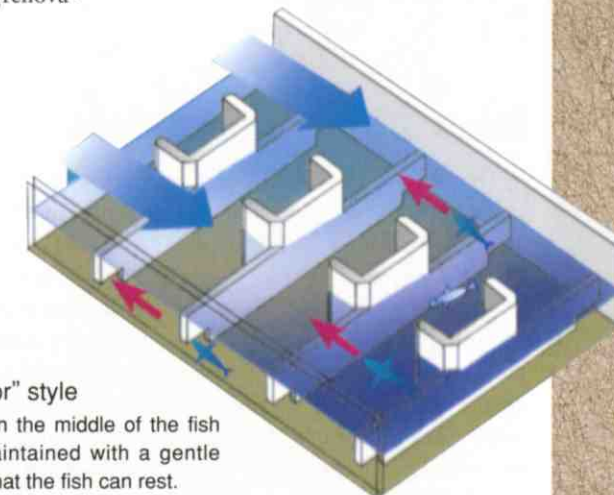
By March 2001, the Nikaryo Shukugawara Weir had been completely renovated, and fish routes at the Nikaryo Kamigawara Weir, Omaru Irrigation Weir, Keio Line bed protection work site, Yotsuya Honjuku Weir, and Showa Irrigation Weir had been improved. In 2002, the Shiromaru Dam was completed. Currently, improvement plans for the Hamura Intake Weir (new construction) and the Hino Irrigation Weir (renovations) are being developed.



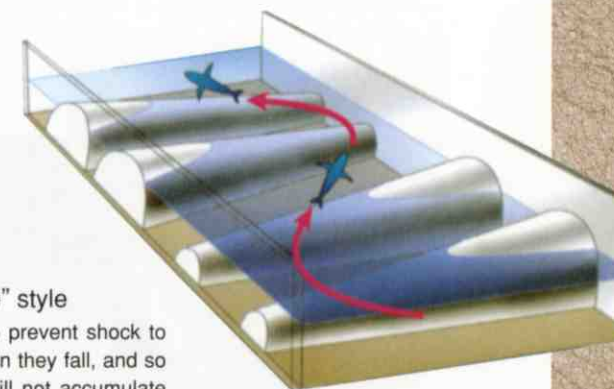
Nikaryo Shukugawara Weir



Omaru Irrigation Weir



"Ice Harbor" style
The water in the middle of the fish route is maintained with a gentle current so that the fish can rest.

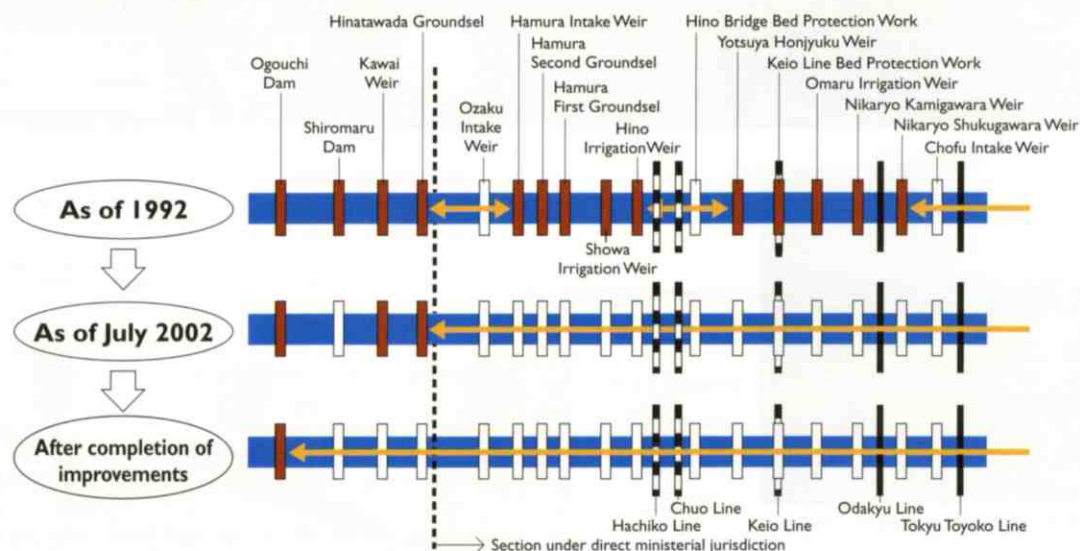


"Half-cone" style
Designed to prevent shock to the fish when they fall, and so that sand will not accumulate in the fish route.

Changes Due to Fish Route Improvements

Legend

- Facilities that allow fish to travel back and forth easily.
- Facilities that make it hard for fish to travel back and forth.
- Areas where fish can travel back and forth.



Identifying the Tama River Ecosystem

To Preserve and Restore the Natural Environment **Tama River Ecological Research**

Restoring the Original Ecosystem

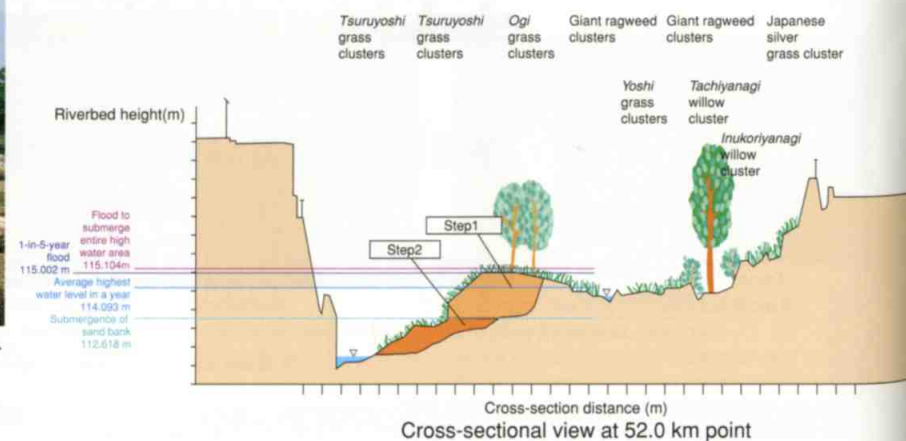
In the Nagata region of the Tama River (52 km from the river mouth), we are working together with university researchers on research projects aimed at restoring the river's ecosystem. We are striving to understand the Tama River from an ecological perspective and to discover what the ideal form of the river should be. To restore a healthy river environment, in addition to the preservation of scarce plants like the *kawaranogiku* aster and removal of trees like the pseudo acacia, we are working on projects to remove accumulated sand and restore the pebble riverbed.



The Nagata region.



Area where pseudo acacias have been removed.



Efforts in Nagata Region

The Tama River Ecological Research Group compiled data on the Nagata region in 2000, and devised a plan for handling the problems that were identified. Based on this information, we are conducting work in stages and will monitor the area after the work has been completed to assess the effectiveness of our efforts.

Current Status and Challenges

Twenty to thirty years ago, there were few trees in the river channel in this area, and organisms native to riverbed environments, such as *kawaranogiku* aster and *kawarabatta* locusts, could be seen along the pebbled riverbed.

However, over time, the shape of the river changed.



- The bottom of the river was gradually eroded away, deepening the river.
- The frequency of flooding of areas inside levees has decreased, even during heavy rainfalls.
- Fine sand accumulated along the riverbed.

As a result...plants and insects native to the Tama River decreased.



- Since the 1980s, black locust (also known as pseudo acacia) trees have become more common.
- The original vegetation of the Tama River such as willows, reed grass, and Japanese silver grass has been lost, therefore reducing the number of insects, such as *Komurasaki* (*Apatura metis substituta*) and the *Ginichimonjiseseri* (*Leptolina unicolor*) butterflies, which lived among those plants.
- The number of *kawaranogiku* aster, pearly everlastings (*Anaphalis margaritacea* Yedoensis), and *kawarabatta* locusts that were observed in the pebble areas declined.
- The *Tsumagurokichou* (*Eurema laeta*) butterfly and other rare species living along the riverbed became extinct.

Proposed Measures

STEP 1

Upstream: Preserve the plant species native to the river, such as the *kawaranogiku* aster, as well as their living environments.

Vegetation management for the survival of clusters of *kawaranogiku* aster.

- Remove tall-stemmed grasses in the habitats of native river species and the surrounding areas.

Downstream: Form new local native clusters

Remove pseudo acacias by digging them up or stripping away the top soil.

- Remove the trees down to their roots by digging up the trees or stripping away the top soil.

Create a pebbled riverbed suitable for the growth of *kawaranogiku* aster

- Excavate high water areas (dig through the surface soil to get to the pebbled layer).
- Try not to have any impact on the low water areas (preserve the *kawarabatta* locust habitats).

Endangered Species



Kawaranogiku aster



Kawarabatta locust

(Photo by the Hiratsuka City Museum)



Pearly everlastings

(*Anaphalis margaritacea* Yedoensis)



Tsumagurokichou butterfly (*Eurema laeta*)

STEP 2

Expand the width of the riverbed to mitigate the deepening of the river.

- Expand the width of the low water channel by excavating the high-water and low-water areas.
- When forming the pebbled riverbed, take into consideration that the riverbed will become a habitat for native riverbed vegetation.

Create a river that will be highly diverse during times of flooding.

- Ensure that there will be some places with a slow flow even during times of flooding.

Monitor the improved areas

- Conduct pre- and post-work surveys.
- Use feedback from the monitoring work.

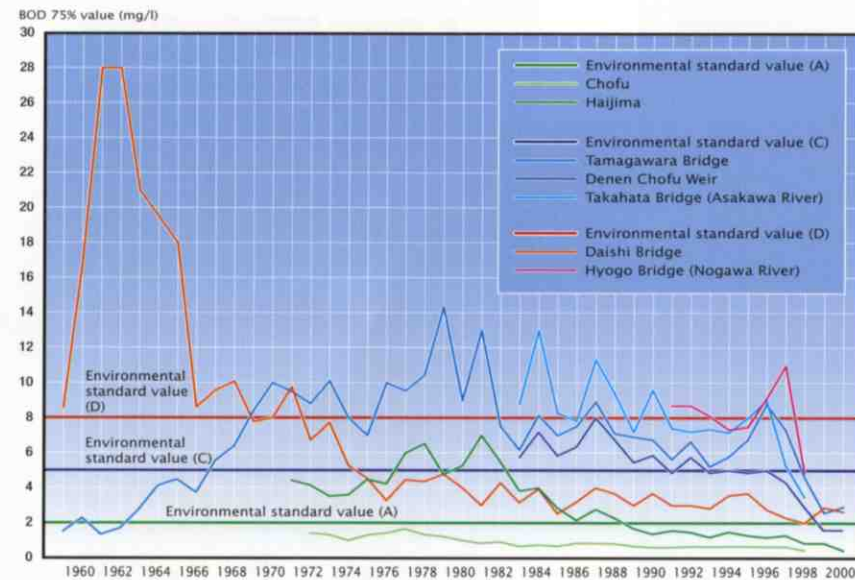
Restoring the Clean Water of the Tama River

To Preserve and Restore the Natural Environment **Water Quality Management**

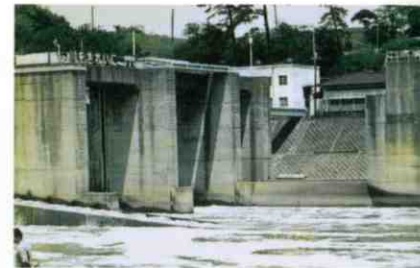
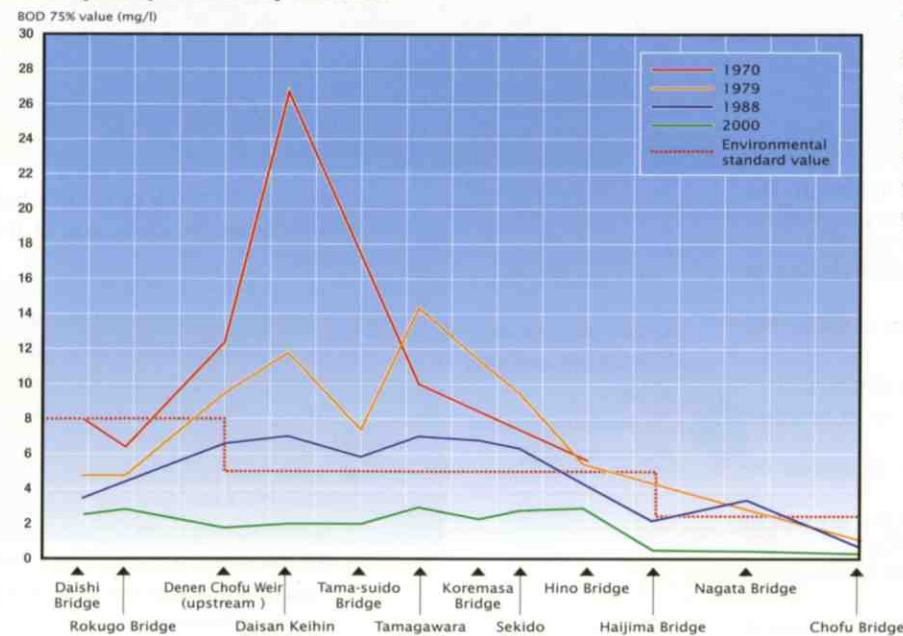
How Water Quality Has Changed

The water quality of the Tama River began to deteriorate from around 1960 as volumes of city wastewater increased, and starting in the early 1970s, it ceased to comply with the environmental standard of 75% BOD*. Later, as progress was made on improving wastewater regulations for factories, sewerage systems in the river basin, and cleaning agents, and as river water purification facilities were constructed, the water quality began to improve. Today, most sections of the river comply with the environmental standard of 75% BOD. Thus, in March 2001 the environmental standard values for the mid-river and downstream (lower than Haijima Bridge) areas were revised from types C and D to type B. Recently, however, new problems have emerged as environmental endocrine disruptors and dioxins have been detected in the river water and river bottom sludge. Long-term, ongoing efforts will be needed to solve these problems.

Water quality changes over time



Water quality trends by location



Chofu Intake Weir in the late 1960s.



Recently, with improved water quality (Hyogo Island).

* BOD (biochemical oxygen demand)
An index that expresses the degree of pollution of a river's water. It represents the amount of oxygen needed for aerobic bacteria to oxidize organic matter in the water.

Regular Water Analysis Surveys

Regular water analysis surveys are conducted once a month in 15 locations along the Tama River. With the exception of some of the tributaries, the river complies with environmental standards.

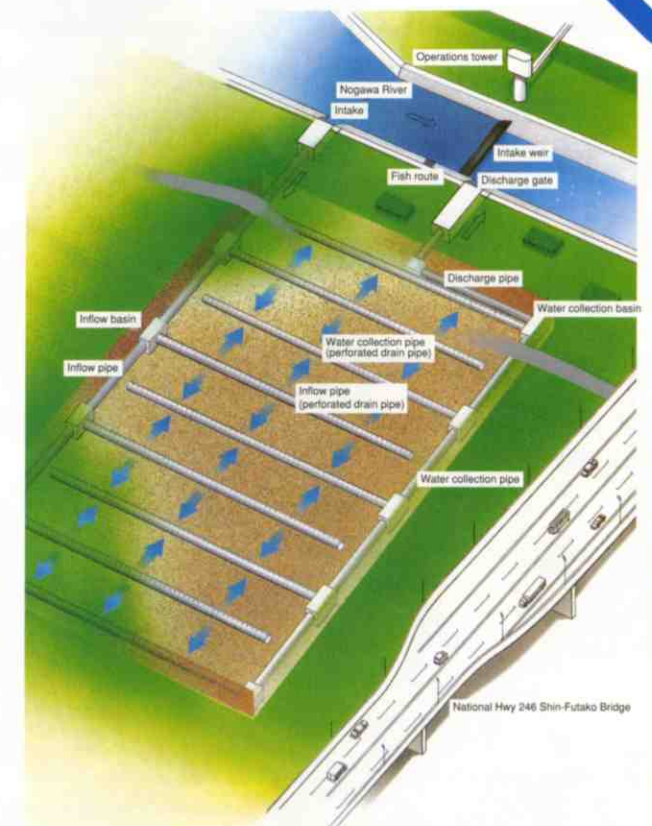
River Water Purification Devices Next to the River

River water purification devices next to the river are being prepared along four tributaries that are especially polluted. Water quality is improved by a pebble direct-contact oxidization method that promotes the self-cleaning of river water. This method is one that uses the gravel and pebbles already in the Tama River, does not require any maintenance through human effort, and brings the surrounding environment into balance.

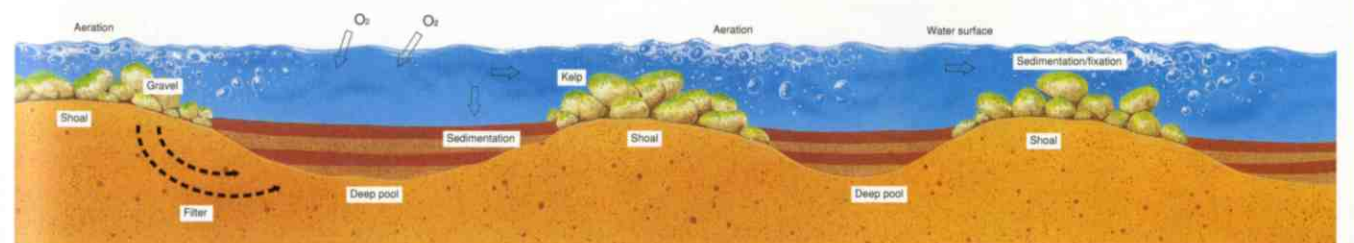


Water Purification Mechanism

- 1. Contact sedimentation**
Pollutants in the water come into contact with pebbles as they flow through the spaces between the pebbles, and they precipitate.
- 2. Fixation**
Pollutants in the water are fixated by electrovalent bonding or by the viscosity of the organisms covering the pebble.
- 3. Oxidization**
The organisms living on the surface of the pebbles eat the pollutants, which are ultimately broken down into water and CO₂ gas.



Water Purification Mechanism



Water Quality from the Perspective of Aquatic Life

Stoneflies and freshwater crabs live in clean water, while *kawanina* snails and *ishimakigai* snails can be seen in slightly turbid water and American crayfish and the *eramimizu* worm can survive in very turbid water. By exploring the aquatic animals that inhabit the Tama River, we can learn more about the water quality of the river.



I. Clean water	II. Slightly turbid water	III. Turbid water	IV. Very turbid water
Kawagera Stonefly	Kogatashimatobigera caddisfly	Boat bug	<i>Sesujiyusurika</i> (<i>Chironomus yoshimatsui</i>)
Nagaretobigera caddisfly	Ooshimatoigera caddisfly	Mizukamakiri water scorpion	<i>Choubae</i> (<i>Telmatoscopus</i>)
Yamatobikera caddisfly	<i>Hiratadoromushi</i> (<i>Mataeopsephus japonicus</i>)	Taikouchi water scorpion	<i>Eramimizu</i> worm
Mayfly	<i>Genjibotaru</i> firefly	Leech	<i>Sakamakigai</i> snail
Dobsonfly	<i>Kooniyanma</i> Dragonfly	Mud snail	American crayfish
Blackfly	<i>Kawanina</i> snail	<i>Isokotubumushi</i> (<i>Gnorimosphaeroma</i>)	
<i>Amika</i> (<i>Blepharocera</i>)	<i>Sujiebi</i> prawn (<i>Palaemon</i>)	<i>Nihondorosokoebi</i>	
Planarian	Fresh water calm (<i>Corbicula japonica</i>)		
Freshwater crab	<i>Ishimakigai</i> snail		

Aquatic organisms that live in clean water



Kawagera stonefly (*Perlidae*)

Aquatic organisms that live in slightly turbid water



Kawanina (*Semisulcospira libertina libertina*)

Aquatic organisms that live in turbid water



Mud snail

Aquatic organisms that live in very turbid water



American crayfish

Creating a Partnership between People and the Tama River



Purpose
To create a partnership between people and the Tama River

Tama River Museum Plan
Creating a river where people can relax, play, and learn
Making the Tama River accessible to everyone
Respecting the cultural background of the river

- Specific topics**
 - Riverside walking trails
 - "River Milestone" rest areas
 - Support for revival of old river crossings
 - Cherry tree grove improvement
 - Making parking lots
 - Support for waterside rediscovery activities
 - Barrier-free features
 - Information collection and distribution
 - Installation signboards
 - Digital library
- Types of measures**
 - Measures related to interactions between people and the river
 - Measures related to welfare
 - Measures related to history and culture

*Items shown in orange are addressed in this pamphlet.

More than 20 million people visit the Tama River annually. It is a place where people can interact with nature and with other people. Visitors can enjoy the water, get a close-up look at various insects and plants, or just spend time with friends and family. To help even more people take advantage of this valuable space, we are promoting the Tama River Museum (TRM) concept. The TRM is a way of using the entire Tama River basin as a museum to teach the many valuable lessons of the river to the people who come to visit. It allows people to learn the value of the river's natural environment and ecosystem, and of the historical and cultural background of the areas around it.

Sharing the Significance of the Tama River with Everyone

Creating a Partnership between People and the Tama River **The Tama River Museum (TRM) 1**

The Tama River Museum (TRM)

For people to develop an appreciation for the Tama River, it is important that they learn about the river and its surrounding basin. The TRM is a system that allows everyone to learn about the wildlife, natural environment, history, and culture of the Tama River. Also, the system being used for the museum now makes it possible to distribute and collect information regarding flooding, such as changes in water levels, in real time.

Making the entire river a museum for everyone

Tama River Museum

1 For those who want the Tama River to serve as a base for academic and cultural activities

Support such as dispatch of lecturers and activity programs will be offered for river observation groups, nature studies, and cultural and art activities led by civic groups and schools.

2 For those who want to do more with the Tama River

We will install facilities that bring people closer to the river, such as "Riverside walking trails", "River Milestone" rest areas, and "Riverside Fun Schools," and will set up civic activities bases which we will operate with the cooperation of local citizens.



3 For those who want to learn more about the Tama River

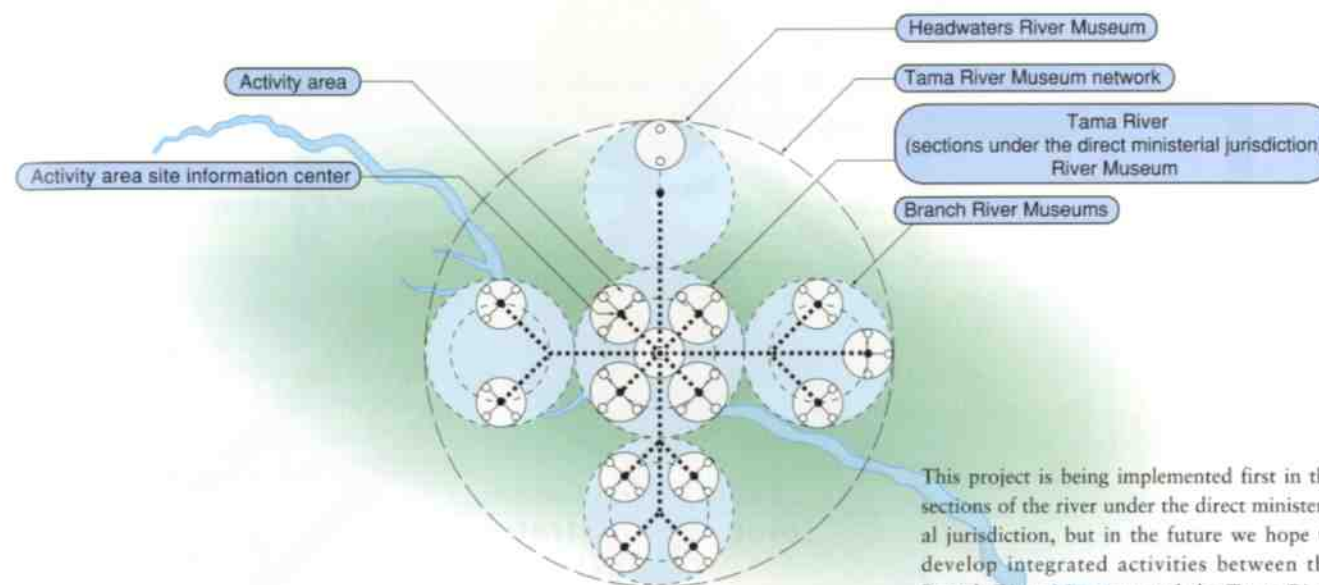
Interactive information about the river's natural surroundings, history, culture, and disaster prevention is available, even when you are at the riverside, via mobile phone or PC at www.tamariver.net (accessible using i-mode mobile phones).

Basic Structure of the Tama River Museum

Tama River Information Center

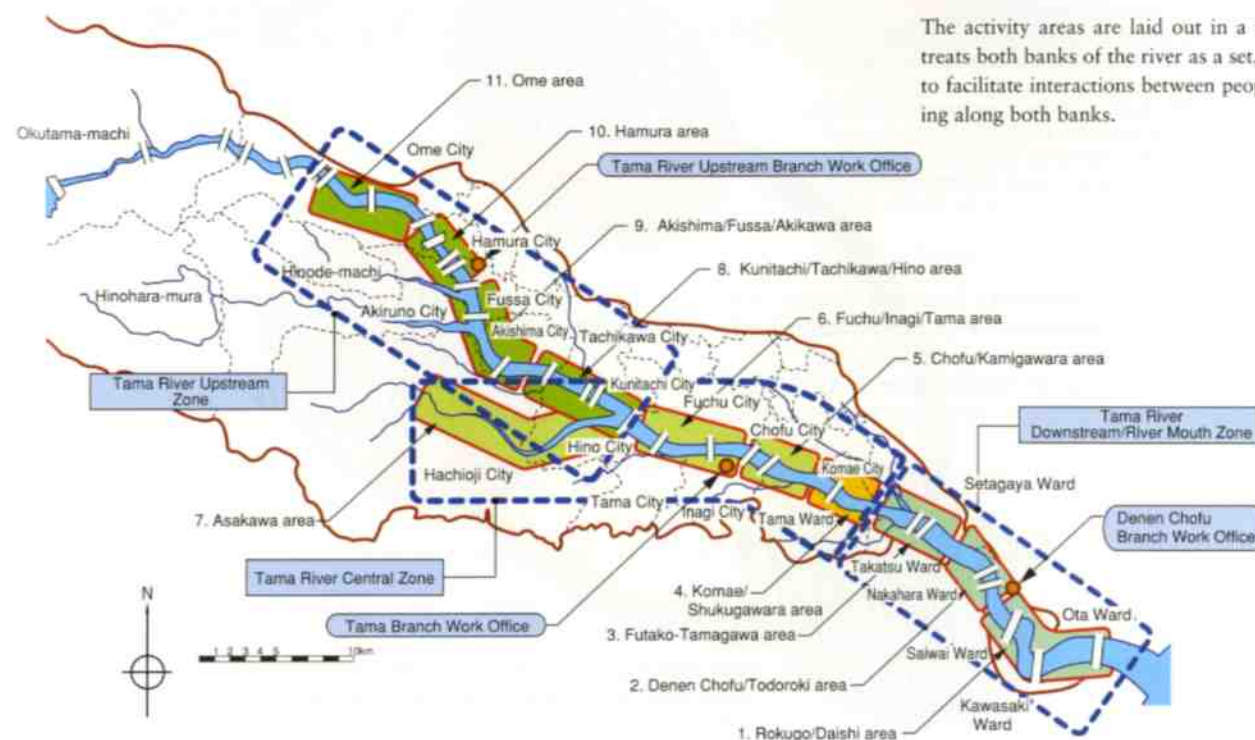
The center will play a coordinating role for the River Museum, and will support the site information centers.

The expanding TRM network



Site Information Centers

The sections of the Tama River under direct ministerial jurisdiction have been divided into 11 sections based on the nature of their daily activities. In each activity area, we will install centers for collecting information, distributing information, and overseeing citizen (civic group) activities.



The activity areas are laid out in a way that treats both banks of the river as a set, in order to facilitate interactions between people residing along both banks.

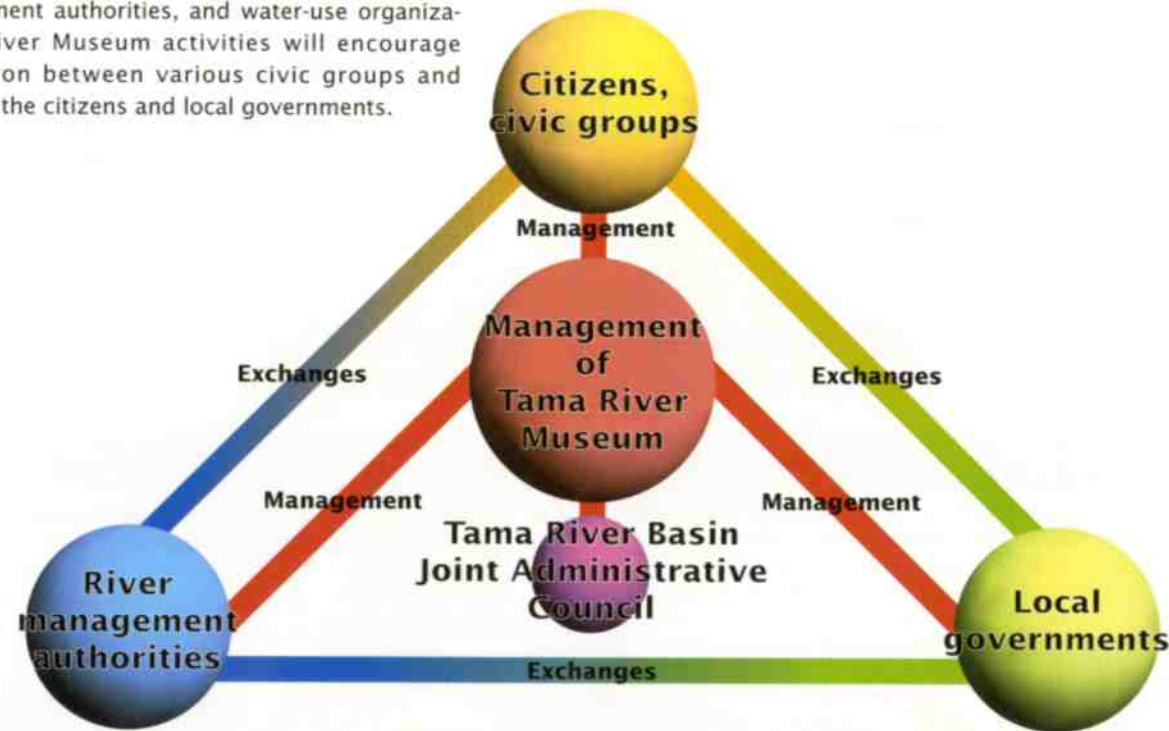
TRM Management

Cooperative Management and Exchange through Partnership

The everyday maintenance of information, facilities, and assets of the Tama River Museum, as well as the provision of site guides and coordination of various events, is managed by a partnership between related institutions, including citizens (civic groups), local governments, river management authorities, and water-use organizations. River Museum activities will encourage interaction between various civic groups and between the citizens and local governments.

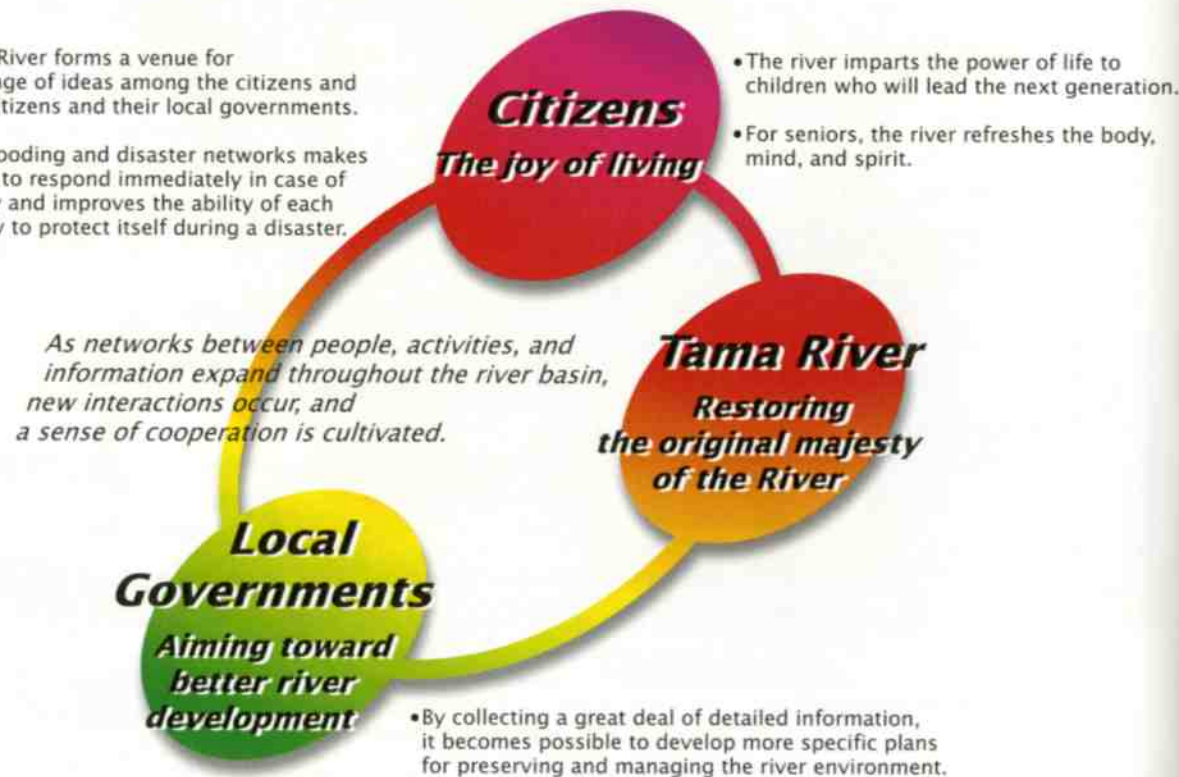


The TRM Investigative Council is comprised of citizens, local government representatives, and academic experts.



TRM Effects

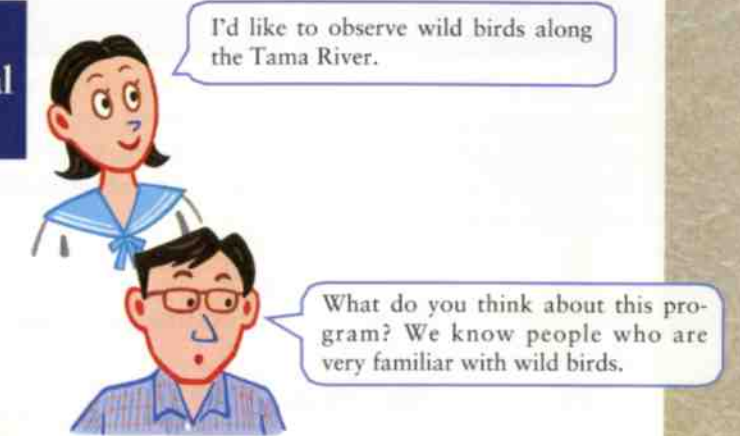
- The Tama River forms a venue for the exchange of ideas among the citizens and between citizens and their local governments.
- Forming flooding and disaster networks makes it possible to respond immediately in case of emergency and improves the ability of each community to protect itself during a disaster.



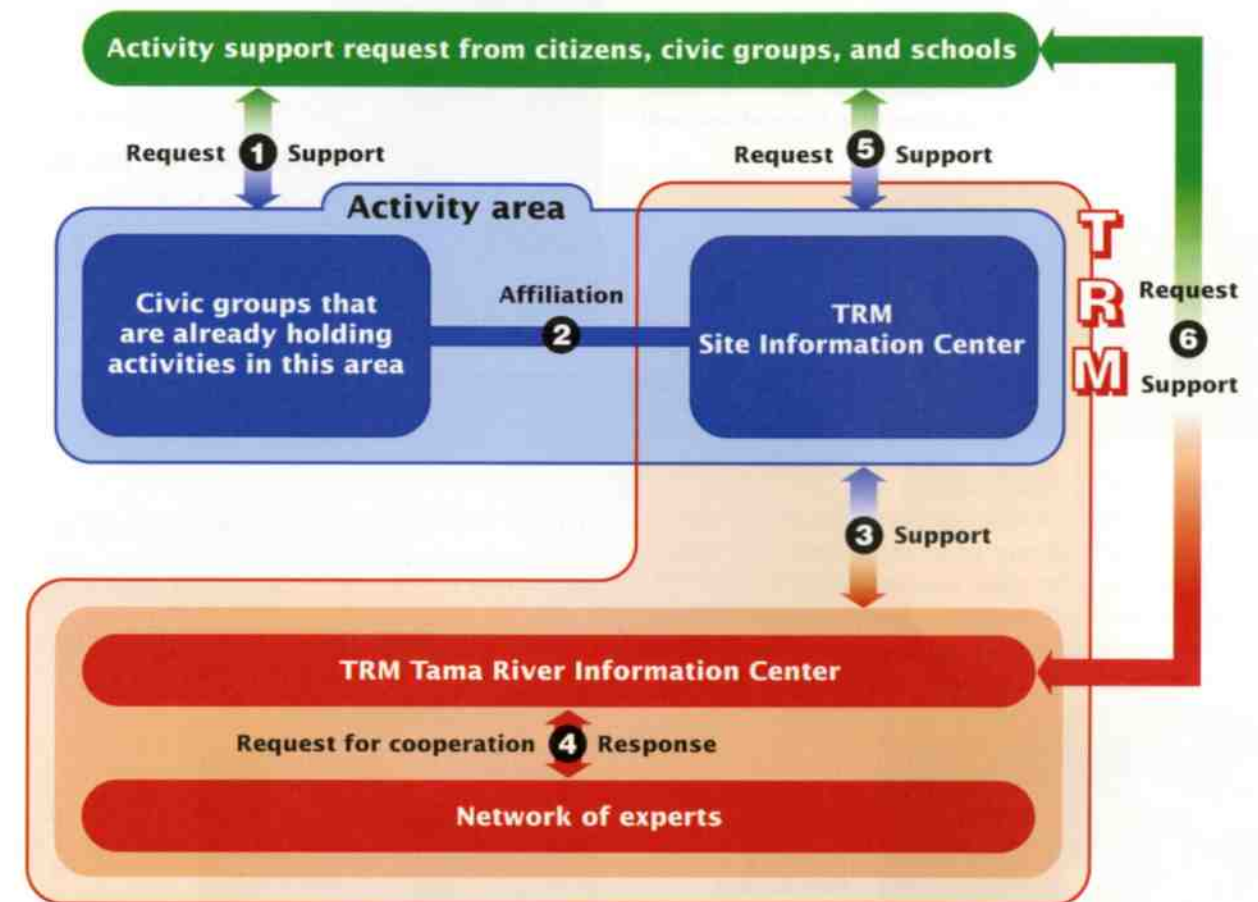
• By collecting a great deal of detailed information, it becomes possible to develop more specific plans for preserving and managing the river environment.

For Those Who Want the Tama River to Serve as a Base for Academic and Cultural Activities

We will provide support for activities by civic groups or schools, such as river observation tours, nature studies, cultural and art activities, by responding to requests to dispatch instructors and offering activity programs.



Activity Support Structure



Tama River Museum activity support provides assistance for activities by civic groups and other organizations.

- ① Civic groups already active in a particular area respond to requests for activity support.
- ② In fields or content that civic groups are not able to handle, the needs of the group making the request are met through the joint efforts of civic groups and the TRM Site Information Centers.
- ③ The TRM Tama River Information Center will provide support for topics that cover the entire Tama River basin.
- ④ The TRM Tama River Information Center requests cooperation from a network of suitable experts.
- ⑤ The TRM Site Information Center may provide consultation services.
- ⑥ When the topic covers the entire river basin or when requests for activity support are made in other activity areas, the TRM Tama River Information Center will provide consultation services.

For Those Who Want to Do More with the Tama River

The TRM project includes the installation of riverside walking trails and river milestone rest areas to allow visitors to get closer to the river. It also includes the construction of handicapped-accessible slopes and restrooms with flush toilets.

Measures to Promote Interaction between People and the River

The Tama River as an Interactive Space

Riverside Walking Trails

We are building small paths and rest areas to allow visitors to enjoy walking along the river. The paths run along the river and are closer to the river than the embankment road.



Walking trail near the Gas Bridge

About a 30-minute walk from the Tokyu Tamagawa Line Shimo-maruko Station.

Riverside Fun Schools

The Riverside Fun School Project aims to cultivate mentally and physically strong children by using the nearby river as a venue for nature education activities. The Ministry of Land, Infrastructure and Transport provides support for these activities, which are mainly organized by civic and volunteer groups.



Komae Riverside Fun School

About a 15-minute walk from Izumi-tamagawa Station (Odakyu Line).

Welfare Measures

Making the Tama River Handicapped accessible

Flush Toilets

As part of efforts to make the Tama River barrier-free, we are installing restrooms with flush toilets and handicapped-accessible features.



Restrooms at Hyogo Island, Futako Tamagawa

About a 5-minute walk from Futako-tamagawa Station (Tokyu Denen-toshi Line).

	Existing and first proposed situation	Planned
Riverside walking trails	About 29 km	About 46 km
River Milestone rest areas	8 locations	54 locations
Shade trees	—	71 locations
Restored historical river crossings	—	Some of the 35 crossing points
Riverside Fun Schools	1 location	16 locations
Ramps	1 location	84 locations
Restrooms	—	64 locations

*Large icons represent 10 locations each.

"River Milestone" Rest Areas

At these rest areas named "River Milestone," visitors can enjoy shade from nearby greenery and sit on benches.



Todoroki River Milestone

About a 15-minute walk from Shin-maruko Station (Tokyu Toyoko Line).

Ramps

Gently sloping ramps have been installed in the most frequently visited sections of the river to allow the elderly and persons with disabilities to safely descend the riverbank.



The Futako-tamagawa ramp

About a 4-minute walk from Futako-tamagawa Station (Tokyu Denen-toshi Line).

For Those Who Want to Learn More about the Tama River

The TRM is unique in that it allows you to provide and obtain information about the river's natural surroundings, history, and culture even as you along its banks from your mobile phone or computer. The keywords here are "while at the river," "real time," and "interactive."

Information Network

We have built the TRM information network using fiber optic cables installed in the embankments. This network lets people use the Internet to access information any time, anywhere, using their mobile phones or computer.

Digital Library

We will build a digital library by collecting written information that discusses the history and culture of the river basin, including the Tama River Journal which was compiled in 1986.



Tama River history includes the Tamagawa siblings who started the Tamagawa Waterworks.

TRM Web Site

www.tamariver.net

The TRM web site offers a wide variety of information regarding the Tama River, and provides a venue where citizens can exchange ideas with others about the river. This can help local residents rediscover their local rivers.

For example... TRM Info Center

Tama River Basin Information

- Outline of the Tama River and basin
- Tama River sights guide
- Other information

Tama River Information (sections under ministerial jurisdiction)

- Natural environment
- Historical and cultural treasures
- Other information

Detailed Area Information (Komae Shukugawa Area)

River Source Area Exchange Corner

Tama River Digital Library

For example... Studio Tamagawa

- Citizens' patrol information
- Disaster information
- Waterside rediscovery activities

For example... River Management Info

- Tama River - Today's Current
- Tama River flooding alert



I can get real-time views of the Tama River around the Denen Chofu area, and can even see a live display of the fish route.



I can get all kinds of information about the Tama River even when I'm sitting along its banks! Whenever I have a question about something I see, I can look it up right away.



I can send info about things I've discovered along the riverbanks to the TRM? Wow! This really is interactive, isn't it!

TRM Launched in Pilot Areas —Komae and Shukugawara

Creating a Partnership between People and the Tama River

The Tama River Museum 2

Efforts in the Komae and Shukugawara Areas

Before the TRM is formally launched, we have begun trial operations of the system in the Komae and Shukugawara areas. These are serving as our pilot areas, where, in investigative committees and working groups, we are discussing the direction future activities should take. Since the trial operations began in July 2001, we have provided support for established waterside rediscovery activities, installed facilities that allow people to interact with the river, and distributed and collected information using information technologies.



Komae Riverside Fun School

In Komae, civic groups, neighborhood associations, elementary schools and Komae City take the initiative in organizing various activities including the making of flower and grass handicrafts, wildlife map drawing, and outdoor drawing classes. To create an environment suitable for nature studies, we have created ponds where children can observe aquatic insects and have installed ramps leading down to the riverside areas.



Kawasaki Riverside Fun School

The Kawasaki Riverside Fun School, whose activities are centered around Nikaryo Seseragi Hall, offers programs for kids, such as bird watching, riverbed rock hunting, and water purification surveys, as well as an Okutama river source tour for parents. A biotope development activity is being planned for the wildlife observation and research zone.

TRM Information Satellite Seseragi Hall Efforts

Information Corner

Visitors can view the TRM web site on computers at the hall. It has a river environment guide map with detailed information on the Komae and Shukugawara areas.



Visitors can use computers to look up information on the Komae and Shukugawara areas on the TRM web site.



Address: 1-5-1 Shukugawara, Tama Ward, Kawasaki City, Kanagawa Prefecture 214-0021
Tel: 044-900-8386
Location: 10-minute walk from Noborito Station on the JR Nambu Line or the Odakyu Line.
Closed: Mondays (or Tuesdays, when Monday is a public holiday)
Hours: 10:00-16:00 (10:00-17:00 on Saturdays, Sundays, and public holidays in June-September)

High-Definition Images

Enjoy pleasant music as you view more than five million beautiful images of the Tama River, including aerial images of the Komae and Shukugawara areas and the mountain valley landscapes of the upstream region.



Real-quality images of the Tama River.

Printing Services

Visitors can print out microscopic images or maps they find on the TRM web site.

Real-time Images

Viewers can see actual real-time images from cameras and microscopes installed along the Nikaryo Shukugawara Weir fish route.



Enjoy creating your own river map.

Support for Waterside Rediscovery Activities

River Environment Map Drawing

Citizens can borrow laptop computers and digital cameras to load information discovered along the river onto the TRM web site.



Children enjoy microscopic images on laptop computers.



Children learn about fishing by throwing nets, as it once was practiced along the Tama River.

Investigating the Microscopic World

Using the hall's digital microscopes and computers, children can look at grasses and insects found along the river magnified 200 times.

Consultation on Activity Programs

The regular TRM staff at Seseragi Hall is available to offer advice on activities regarding the Tama River in the Komae and Shukugawara areas targeting civic groups or schools.

Description of Field Survey Route

The hall provides explanations of nature observation routes around the riverbanks of the Komae and Shukugawara areas, as well as explanations of historical and cultural walking routes around the Tama River. Also, visitors can find information on-site, on signposts as well as via their i-mode mobile phones.

Eight Views of the Tama River



Tama River Mouth

Kawasaki side: About an 8-minute walk from Kojima Shinden Station (Keikyu Daishi Line).
Tokyo side: About a 7-minute walk from Haneda Airport Station (Keikyu Haneda Airport Line).



Tamagawa-dai Park

About a 3-minute walk from tamagawa Station (Tokyu Toyoko Line or Tokyu Tamagawa Line).



Futako Tamagawa Hyogo Island

About a 5-minute walk from Futako-tamagawa Station (Tokyu Denen-toshi Line or Tokyu Oimachi Line).



Dry Riverbed near the Tama Ohashi Bridge

From Tachikawa Station on the JR Chuo Line, take the Seibu Bus bound for Shindo-fukushima. Get off at Tama Shindo-fukushima. Walk about 15-minutes.



Tamagawa Waterworks

Near Hamura Weir: About a 15-minute walk from Hamura Station (JR Ome Line).



Akikawa Canyon

Iwase Ravine: From Musashi Itsukaichi Station on the JR Itsukaichi Line, take the Nishi Tokyo Bus departing from the No.1 bus shelter. Get off at Higashi Konakano or Sawatobashi. Walk about 3-minutes.



Mitake Canyon

About a 3-minute walk from Mitake Station or Sawai Station (JR Ome Line).



Okutama Lake

From Okutama Station on the JR Ome Line, take the Nishi Tokyo Bus bound for Okutama Lake. Get off at Okutama Lake. Walk about 1-minute.

Tama River Consultation Office

For information about the Tama River

TEL: 0120-53-5379

FAX: 03-3721-6245

Hours: 9:30-17:00 on weekday

*Japanese language only

Keihin Work Office

Kanto Regional Development Bureau

Ministry of Land, Infrastructure and Transport

Website: www.keihin.ktr.mlit.go.jp

2-18-1 Tsurumi Chuo, Tsurumi Ward

Yokohama City, Kanagawa Prefecture 230-0051

Tel: 045-503-4011 Fax: 045-503-4010

*Japanese language only

Locations decided by the Eight Views of the Tama River Selection Committee based on votes from citizens in a survey conducted by the Kanto Regional Construction Bureau of the Ministry of Construction (now the Kanto Regional Development Bureau of the Ministry of Land, Infrastructure and Transport) in April 1984.