

NaS (sodium-sulfur) Battery

Electricity bill is reduced by using the power from the sodium-sulfur battery that is charged in the nighttime with low power rate.

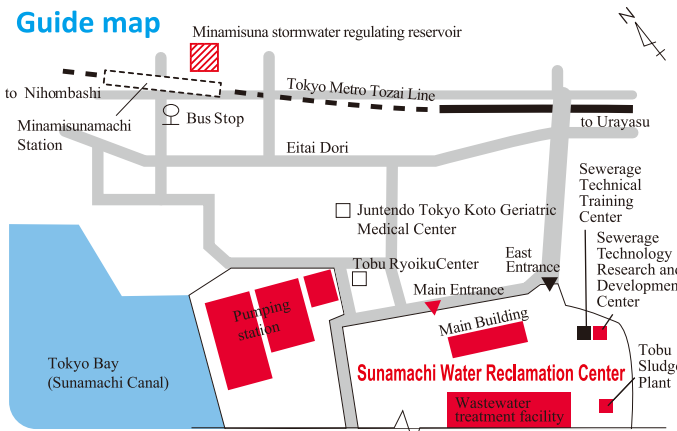
Also we tackle with the power shortage caused by power demand control.



▲ NaS Battery in Sunamachi WRC

Sewerage Technology Research and Development Center

The bureau established this center to experiment using real samples such as wastewater and sludge. Not only the bureau researchers but also laboratories at universities and manufacturers can use here to develop a new technology.



●Address 3-9-1, Shinsuna, Koto-ku, Tokyo Tel: 03-5632-2180
●Access 15 minutes walk from Minamisunamachi station east exit (Tokyo Metro Tozai Line)

Environmental management of Sunamachi Water Reclamation Center

The Sun Square

There are biotopes such as a little stream in "The Sun Square" on the left side containing the main gate. Moreover, in front of "Shinsuna Otaki," there is a pond which is recycling treated water and the fish such as carp swim in it.



Ginkgo Road

There are about 200 kinds of 80,000 plants in the site of a vast center (its area equals to 20 Tokyo Dome), and there are also the ginkgo trees which were transplanted from former Tokyo Metropolitan Government Building's site, or the American aloes that bloom once in 30 - 50 years.



- Business hours: 9:30 - 16:30
- Entry Fee: Free
- Closed: Mondays (open on holiday Mondays, closed the next day) and the year-end and New Year holidays
Open daily throughout the summer (July 16 - August 31)
Open on Sewerage Day (September 10) and Tokyo Citizens Day (October 1)
- Address: 2-3-5 Ariake, Koto-ku Ariake
Water Reclamation Center Management office (A-tower) 5th floor
- Telephone: 03 (5564) 2458
- Website: <https://www.nijinogesuidoukan.jp/>

Beware of crooked dealers who pretend to be related to the Bureau of Sewerage!
The Bureau of Sewerage does not rely on businesses to repair or clean drainage facilities in housing.

Facility tours of Water Reclamation Centers

Facility tours of water reclamation centers are available except weekends, holidays, and the New Year's season.
Please contact us about reservations and details.

● **Tokyo Amesh**
Tokyo Amesh is the system that shows rainfall in and around Tokyo in real time.
The rainfall is measured by radars and ground rain gauges.
※Tokyo Amesh is the registered trademark of the Tokyo Metropolitan Government.

● **Sewer Adventure**
Pass the sewer quiz to become a sewer master.

● **Bureau of Sewerage website**
<https://www.gesui.metro.tokyo.lg.jp/>

«Contact point for arranging facility tours»
Telephone: 03 (3241) 0944
Hours: 9:00 ~ 17:00 (weekdays only)



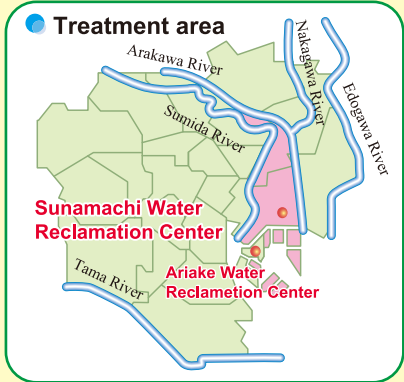
Water environment cultivated by the district Sunamachi Water Reclamation Center



Sunamachi Water Reclamation Center is the second oldest wastewater treatment plant in Tokyo, having started operation in 1930. Sunamachi treatment area is a delta area surrounded by Sumida River and Arakawa River, and is the vast zone of 6,153ha which consists of all of Sumida, Koto wards, and part of Chuo, Minato, Shinagawa, Ota, Adachi and Edogawa wards. Sunamachi Water Reclamation Center treats wastewater from this area jointly with Ariake Water Reclamation Center.

The treated water is discharged into Tokyo Bay. Part of the treated water is cleaned through sand filtration and used inside the center for cleaning facilities, cooling machines, and toilet water.

The generated sludge is carbonized and incinerated at Tobu Sludge Plant in the center.



(As of April 2024)

- **Operation started:** February 1930
- **Site area:** 827,033m²
- **Treatment capacity:** 658,000m³/day
- **Wastewater treatment facilities:**
Grit chamber : 54
Primary sedimentation tank : 21
Reaction tank : 24
Secondary sedimentation tank : 20
High-rate filtration system: 1

● **Sludge Treatment Facilities**
Thickener : 7 (3)
Storage tank : 7 (4)
Concentrator : 12 (12)
Dehydrator : 10 (10)
Incinerator : 3 (3)
Sludge carbonization facility : 2 (2)

The digits in the brackets belong to Tobu Sludge Plant.

- **Storage tank in wet weather:** 85,600m³
- **Storm water storage tank:**
Pumping station: 33,000m³
Ex-Kiba line: 61,000m³

● **Average quality of influent and final effluent**
The final effluent from the water reclamation center complies completely with the water quality standards of the Tokyo Metropolitan Environmental Security Ordinance and is sufficiently clean for fish to live in.

Item	Influent	Final effluent	Regional water quality standards
B O D	170	4	—
C O D _{Mn}	90	10	35 or below
Total nitrogen	31.8	9.5	30 or below
Total phosphorus	4.1	1.1	3 or below

Average values of 24-hour test conducted in FY2022

※The higher values of BOD and COD indicate the higher levels of water contamination. BOD describes the amount of oxygen required by microorganisms to eat organic material in water, and COD describes the amount of oxygen required by oxidizer to decompose organic material in water. The quality levels of discharged water are specified in terms of BOD for rivers and COD for seas. Total nitrogen and total phosphorus are closely related to the generation of red tides.

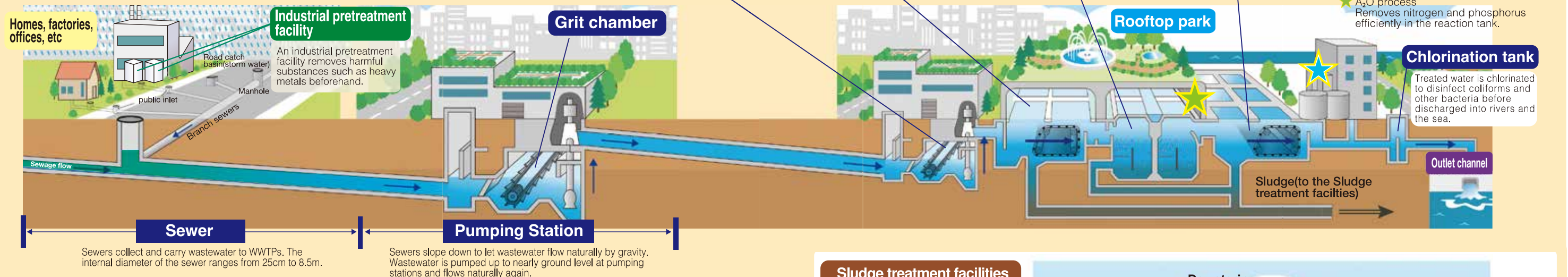


Sewerage System

Sewerage system is mainly composed of 3 components*:
sewers, pumping stations and wastewater treatment plants (WWTPs)*.
Sewers collect and carry wastewater.
Pumping stations pump wastewater to avoid sewers getting deeper.
WWTPs treat and clean wastewater.

We perform inspection, cleaning and maintenance every day to keep them working properly.

*WWTPs in Tokyo are called "Water Reclamation Centers".



The Role of Tokyo Sewerage

Improvement of a Living Environment by Treating Wastewater

We treat wastewater from houses and factories and ensure a comfortable living environment.

Flood Prevention by Draining Stormwater

We protect the city from flooding by draining stormwater immediately from roads or residential areas.

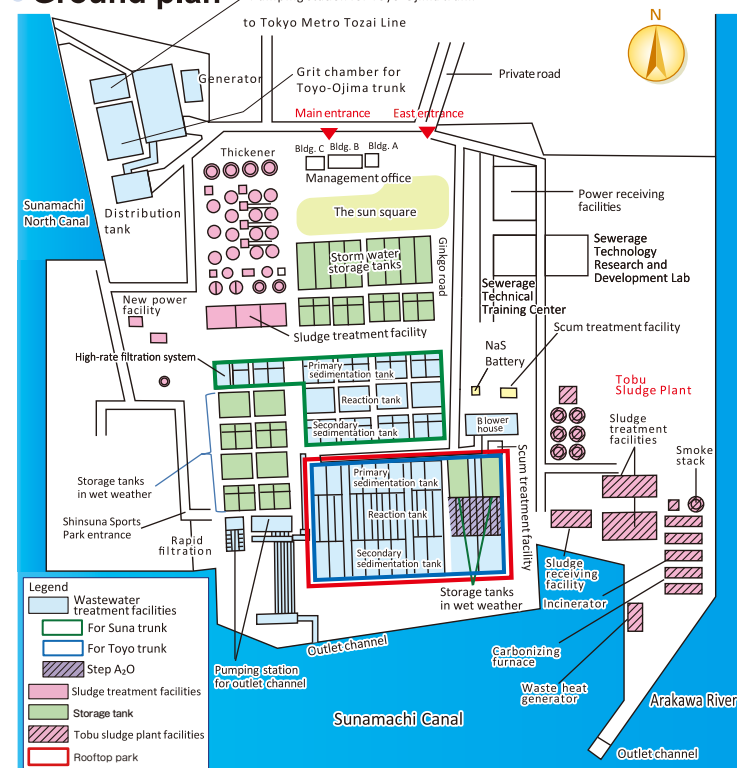
Water Quality Conservation in Rivers and the Sea

We conserve the water quality of rivers and the sea by treating wastewater and returning treated water to them.

Our New Roles

Now we play new roles in creating a good urban environment. We use sewerage resources and energy effectively, for example, reclaimed water and sewerage heat. We also utilize rooftop spaces of our facilities as parks.

Ground plan



Features of Sunamachi Water Reclamation Center

Minamisuna stormwater regulating reservoir

Minamisuna stormwater regulating reservoir is an institution for storing the stormwater collected from the area of about 500 ha, such as Sunamachi area in Koto ward, and aiming at mitigation of flood damage.

The stored stormwater is sent to Sunamachi Water Reclamation Center at the time of fine weather, and after processing, it is discharged into Tokyo Bay. Moreover, in order to use an institution effectively, the upper part of reservoir is used as public facilities, such as collective housing and a parking lot for bicycles.



▲ The exterior of Minamisuna stormwater regulating reservoir



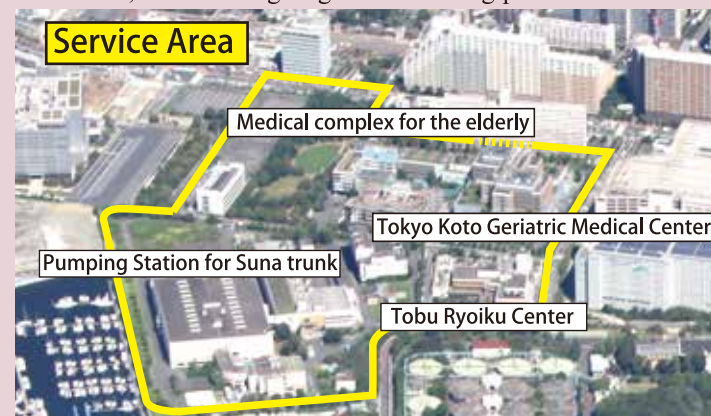
▲ The interior

Regional Air Conditioning Project in Shinsuna 3-chome Area

Regional Cooling/Heating Service Area

In Juntendo Tokyo Koto Geriatric Medical Center and other facilities in Shinsuna 3-chome area of Shinsuna, Koto ward, the treated water of Sunamachi Water Reclamation Center and the waste heat of incinerators or carbonization furnaces are utilized as a heat source of hot water supply or an air conditioning.

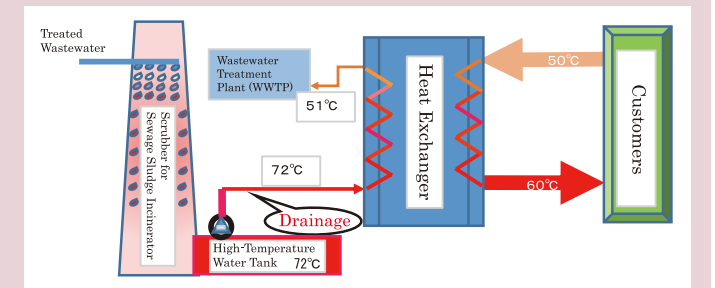
Utilizing such unused energy makes the amount of discharge of CO₂ less than using the electricity and any gas made from the fossil fuel, contributing to global warming prevention.



▲Business operator: Tokyo sewerage energy corporation

Systems for Producing Heated Water

Exhaust gas from sludge incinerators produces approximately 70°C drainage water when cleaned without affecting the surrounding environment. We use this hot drainage to produce 60°C water through a heat exchanger with fresh water to supply to our customers.



Effects of Regional Cooling/Heating Systems

- (1) Reduction of the use of fossil fuels
- (2) Reduction of greenhouse gas emissions
- (3) Easing of heat island phenomena
- (4) Effective use of building space by downsizing heat source equipment