#### 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

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



#### **Seaside Ball Game Field on top of the Treatment Facility**

Edogawa City Rinkai Ball Game Field, which has been built on the space above the water treatment facilities, is used by many people to play soccer, baseball, etc. The field would serve as an evacuation area in the event of an earthquake.

Application for use: Edogawa City Rinkai Ball Game Field Phone:03-3680-9251



▲Treatment facilities are underneath the field

#### Sawayaka (fresh) Smoke Stack

The height of the smoke stack is 100 meters. Immediately after opening, it was painted red and white.

However, in 2001 we solicited design ideas from local elementary school students and changed it to a more pleasant blue gradation.

It was then repainted and reborn in 2018, with further consideration made for the surrounding landscape.



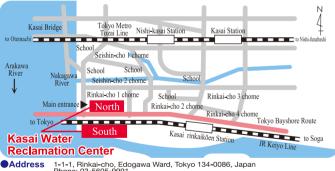
▲The smoke stack appears to be sucked into the blue sky.

#### **Hydrogen Station**

Part of the center site is being used to build a facility that supplies hydrogen, a next generation fuel. (This will be a base for refueling hydrogen fuel cell buses operated by the Tokyo Metropolitan Bureau of Transportation, also known as Toei Bus)







Get off at Nishi Kasai Station on the Tokyo Metro subway, take a metropolitan bu und for "Rinkai-cho 2-chome Housing Complex," get off at "Tokyo Rink spit" or "Rinkai-cho 1-chome," and walk for 10 minutes to the Reclamatic

Center. Or Get off at Kasai Rinkai Park Station on the JR Keiyo Line and walk for 20 minutes to the Reclamation Center

## 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.

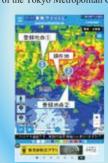
Please contact us about reservations and details.

#### Tokyo Amesh

Tokyo Amesh is the system that shows rainfall in and around Tokyo in sewer master. The rainfall is measured by radars

and ground rain gauges.

\*Tokyo Amesh is the registered trademark of the Tokyo Metropolitan Governr









Sewer Adventure

Bureau of Sewerage website https://www.gesui.metro.

tokyo.lg.jp/

«Contact point for arranging facility tours»

Telephone: 03 (3241) 0944 Hours: 9:00  $\sim$  17:00 (weekdays only)





## Water environment cultivated by the district **Kasai Water Reclamation Center**

Kasai Water Reclamation Center, which is located at the mouth of Arakawa River, consists of facilities in the southern and northern areas that sandwich the Metropolitan Expressway Bayshore Route. Its treatment area is 4,889ha, including most of Edogawa ward surrounded by Arakawa River and Edogawa River and part of Katsushika

Treated wastewater is discharged into Tokyo Bay, while some of it is sand-filtered and use for washing/cooling machines and toilet water in the center.

The generated sludge is dewatered and incinerated at the center along with sludge pumped from Nakagawa Water Reclamation Center and Kosuge Water Reclamation

The treatment area has 8 pumping stations, 4 of which are operated remotely from Kasai Water Reclamation Center.

Wastewater treatment facilities

Primary sedimentation tank: 10

Secondary sedimentation tank: 10

High-rate filtration system: 1

Sludge treatment facilities

Dewatering machine: 18

Thickener: 4

Concentrator: 7

Incinerator: 3

Grit chamber: 18

Reaction tank: 10

# Earth-kun, the mascot of Bureau of Sewerage Treatment area

#### 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
В	0	D	110	3	
С	0	$D_{Mn}$	68	9	35 or below
Total nitrogen			25.6	9.4	30 or below
Total phosphorus			2.8	0.8	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.



(As of April 2024)

Operation started :

Site area :

361,744m<sup>2</sup>

87,300m<sup>3</sup>

69.000m<sup>3</sup>

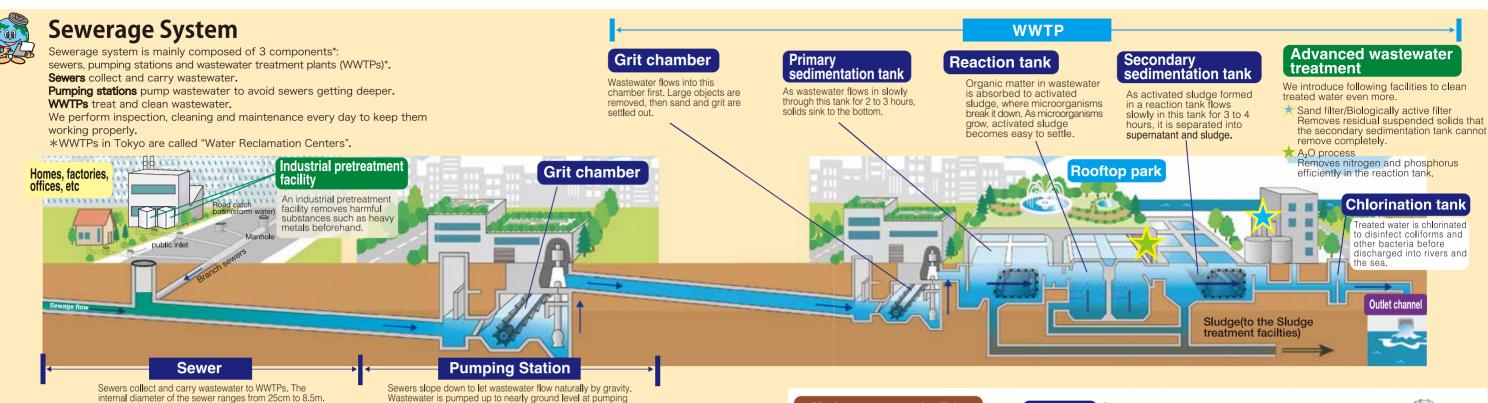
September 1981

Treatment capacity :

Wet weather storage tank :

Stormwater storage tank :

400,000m3/day



## 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**

stations and flows naturally again.

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 Rivers and the Sea 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.

#### Sludge is settled calmly and Sludge treatment facilities Thickener separated into supernatant and Gravity thickened sludge. Sludge is thickened, dewatered and incinerated. Sludge Dewatering Sludge machine Thickened sludge is **%In case of a WWTP with no** Incinerator The sludge is coagulated by adding chemicals, **Thickener**

sludge treatment facility, it transports sludge to another WWTP with sludge treatment facilities.

placed on a belt, and water is separated out by gravity

Dewatered sludge is

## Ground plan Office Na-S Batter Sand filtration facilities Metropolitan Expressway JR Keiyo Line tank P Water treatment facilities Rooftop park Sludge treatment facilities -----Kasai Canoe Slalom Centre

#### Features of Kasai Water Reclamation Center

#### **Photovoltaic (Solar) Power Generation**

To help prevent global warming, a photovoltaic power generation system, which does not emit CO<sub>2</sub> at the time of power generation, was installed and the generated power is consumed by the center as part of its total power consumption.

The total power generation capacity is 490kW, 290kW of which is generated by single-axis tracking type generators. The annual power production is equivalent to the power consumed by 160 ordinary households.



▲ Single-axis tracking type photovoltaic cell

#### **Belt Thickener**

This machine coagulates sludge with chemicals, loads it on the belt, and separates water efficiently, consuming less power compared to conventional sludge concentration methods.

Belt Thickener



#### **Turbocharged Fluidized Bed Incinerator**

We introduce efficient incinerator such as high-temperature energy-saving type incinerator and reduce energy consumption and N<sub>2</sub>O gas emission.

