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 4,893 ha, including most of Edogawa Ward surrounded by Arakawa River and Edogawa River and a part of Katsushika Ward. Treated wastewater is discharged into Tokyo Bay (Arakawa River), while some of it is sand-filtered and used for washing/cooling machines and flushing toilets in the Center. Generated sludge is incinerated within the Center together with sludge pumped from Nakagawa Water Reclamation Center and Koseyou Water Reclamation Center. The treatment area has 8 pumping stations, 4 of which are operated remotely from Kasai Water Reclamation Center.

Water environment cultivated by the district

Kasai Water Reclamation Center

Kid’s Square

We are promoting multi-purpose use of sewerage facilities: the space is used as a square for events and visiting kids.

Turbocharged Fluidized Bed Incinerator

We introduce efficient incinerator such as high-temperature energy-saving type incinerator and reduce energy consumption and N2O gas emission.

Sawayaka (fresh)

Smoke Stack

To commemorate the 20th anniversary of the Center, local elementary school students were asked to create designs for the smoke stack. The old smoke stack, which was painted red and white, was reborn in 2001 with a fresh blue gradation.

Kid’s Square

We are promoting multi-purpose use of sewerage facilities: the space is used as a square for events and visiting kids.

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.

Water environment cultivated by the district

Kasai Water Reclamation Center

Guide map

Tokyo Bureau of Sewerage website

http://www.gesul.metro.tokyo.jp/

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.

Virtual Sewer

Animation and video are used to allow people to experience the sewer system and wastewater treatment system in a fun way that would not be normally possible.

Treasure of crooked dealer 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.
The sewerage is principally made up of 3 facilities. Sewers, which collect and carry sewage. Pumping stations, where sewage is pumped up so that the sewers do not get too deep.

Water reclamation centers, where sewage is treated to be clean water. Inspections, cleaning, and repairs are done daily in order to make sure each of these facilities works properly.

Sewers
The pipes that carry sewage to the water reclamation center. These pipes range in diameter from 25 cm to 8.5 m.

Pumping Station
Sewers are installed at an angle so that the sewage flows naturally.

Sewage Treatment
We treat sewage and release cleaned water, to carefully protect the water quality of rivers and the sea. We also recycle treated water and sludge, and utilize unused energy, as we work to build a recycling city.

Sludge Treatment
Sludge is dewatered and incinerated.

Photovoltaic (Solar) Power Generation
To help prevent global warming, a photovoltaic power generation system, which does not emit CO2 at the time of power generation, was installed and the generated power is consumed by the Center as part of its total power consumption.

Small-scale Hydroelectric Power Generator
The outlet channel for treated water is installed several meters higher than sea level to protect it against high tides. Hydraulic power is generated by utilizing this effluent drop.

Nas (sodium-sulfur) Battery
We reduce the electricity bill by using power in the daytime that was saved in the sodium-sulfur battery in the nighttime with low power rate. Also we tackle with the power shortage caused by power demand control.

Photovoltaic power generation system
Single-axis tracking type photovoltaic cell

Nas Battery
Schematic diagram of small-scale Hydroelectric Power Generation

Water Reclamation Center
Water discharge
Chlorination Tank
Treated water is chlorinated, so it can be released into rivers and the sea.

Features of Kasai Water Reclamation Center
Primary Sedimentation Tank
Sewage flows through slowly for 2 to 3 hours and easily submersible contamination settles.

Secondary Sedimentation Tank
Mud (activated sludge) masses formed in the reaction tank are precipitated for 3 to 4 hours, resulting in the separation into settled mud (treated water) and sludge.

Reaction Tank
Mud containing microorganisms (activated sludge) is added, air is pumped in, and the sewage is agitated for 6 to 8 hours. The microorganisms break down the contaminants in the sewage, and the particles attach to the microorganisms, causing them to form an easily submersible mass.

Secondary Sedimentation Tank
Mud (activated sludge) masses formed in the reaction tank are precipitated for 3 to 4 hours, resulting in the separation into settled mud (treated water) and sludge.

Preventing Flooding through the Removal of Rainwater
The city is protected from flooding through the speedy drainage of stormwater which falls on land surface.

Improvement of Living Environment through Sewage Treatment
Sewage discharged from homes and factories is treated to ensure a comfortable living environment.

Protecting the Global Environment
We treat sewage and release cleaned water, to carefully protect the water quality of rivers and the sea. We also recycle treated water and sludge, and utilize unused energy, as we work to build a recycling city.

Advanced Sewage Treatment
Implementation of the following facilities is underway in order for further clean water.

Sand Filtration / Membrane Filtration
Removes fine filth that the secondary sedimentation tank was not able to remove completely.

A2O process
Effectively removes nitrogen and phosphorus from sewage in the reaction tank.