

Digest Version

Environmental Report 2025



Bureau of Waterworks
Tokyo Metropolitan Government

Bureau of Waterworks, Tokyo Metropolitan Government Environmental Basic Principle

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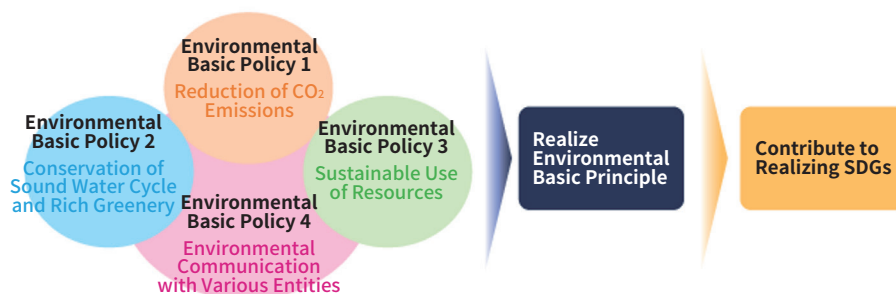
Water is essential for our lives.

Protecting the global environment which nurtures water is a common issue to all humankind.

Through business activities that supply safe and high quality tap water stably, Bureau of Waterworks, Tokyo Metropolitan Government, will strive to pass on our rich global environment to the next generation.

Bureau of Waterworks, Tokyo Metropolitan Government Environmental Five-Year Plan 2020-2024

Bureau of Waterworks, Tokyo Metropolitan Government, formulated a “Five-Year Environmental Plan 2020-2024” in March 2020. In the plan, we established the following 4 basic environmental policies, to reduce negative impacts on the environment. Based on these policies, we have stated 37 specific initiatives and targets. To achieve this, we will realize the Environmental Basic Principle and contribute to the realization of the SDGs.



Initiatives

Reduction of CO₂ Emissions

Bureau of Waterworks consumes a large amount of energy. To reduce CO₂ emissions, we are reducing our energy consumption and introducing renewable energy.

- Promote of Energy Saving
- Expand Introduction of Renewable Energy
- Promote development of a Carbon Free Society

Conservation of Sound Water Cycle and Rich Greenery

Tap water is made from precious and limited water. We are making approaches to conserve water and greenery by effectively using water resources, and protecting and nurturing the water conservation forests.

- Preserve and improve Water Conservation Forests
- Contribute to forming of urban* water and greenery networks
- Effective use of water resources

*Refers to the Tokyo Metropolitan area excluding water conservation forest area

Sustainable Use of Resources

We are carrying out approaches toward sustainable use of resources by controlling waste that is discharged due to water supply projects and promoting recycling.

- Reduce waste and promote recycling
- Go paperless
- Promote conversion to plastic-free

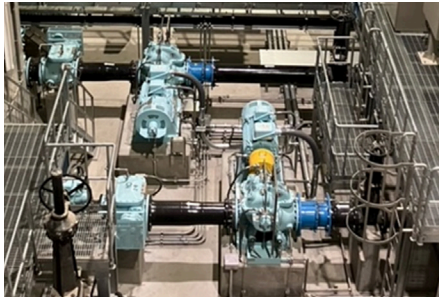
Environmental Communication with Various Entities

We are carrying out approaches to improve effectiveness of environmental measures through environmental education at elementary schools, raising awareness among relevant persons, communicating environmental information, etc., and by communicating with various parties such as customers and corporations.

- Collaborate with customers
- Collaborate with various entities including corporations

Bureau of Waterworks consumes approximately 800 GWh of electricity per year to purify and provide water. We are making innovations to send water using less power by replacing equipment with energy saving models because most of power use results from operation of purification plants and water supply stations.

Using energy saving pump equipment



Energy saving pump equipment
(Kamikitazawa Water Supply Station)

Pump equipment that sends water from purification plants and water supply stations consume a lot of electricity. We have introduced low energy loss inverters when updating pump equipment to reduce electricity consumption. In FY 2024, construction work was carried out to install energy saving pump equipment at the Wadabori Water Supply Station.

Updating to high – efficiency equipment



High-efficiency transformer
(Yakumo Water Supply Station)

We can anticipate power saving effects by replacing air conditioning equipment and lighting, etc. in our offices with high-efficient equipment. Also, we aim to use energy more efficiently by replacing equipment with high-efficiency equipment at the time of their replacement. During FY 2024, we replaced 4 lights, 9 air conditioners, and 3 transformers with high-efficient equipments.

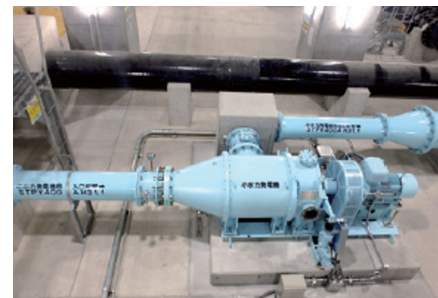
Solar Power Generation



Solar Panels

Bureau of Waterworks effectively uses spaces such as the top of distribution reservoir at purification plants and the roofs of buildings for solar power generation systems. In FY 2024, Solar Power Generation equipment produced approximately 6.49 million kWh of electricity. Additionally, the installation of Solar Power Generation equipment at the Kamikitazawa Water Supply Station has been completed.

Small Hydraulic Power Generation



Small Hydraulic
Power Generators

Bureau of Waterworks is performing power generation in a system uniquely applying to waterworks, such as a system of utilization of elevation difference between a reservoir and a purification plant or of utilization of water pressure at the gate of distribution reservoirs of water supply stations. In FY 2024, approximately 2.64 million kWh of electricity was generated through Small Hydraulic Power Generation. Additionally, the installation of such systems at the Kamikitazawa Water Supply Station and the Tokai Water Supply Station has been completed.

Approaches to protect water conservation forests

Water conservation forests have an area of 25,666 ha, or about 41% of the Ward Area of Tokyo.



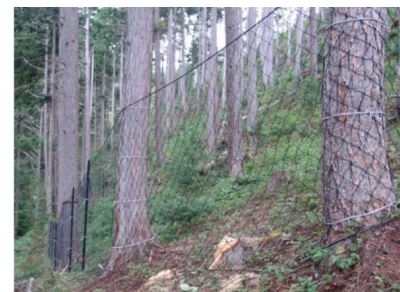
Forest preservation operation

Purchasing privately owned forests



Developed forest

Consideration towards biodiversity



Fence to prevent invasion by Sika deer

In recent years, there has been damage to trees due to Sika deer eating bark, etc., and there is the risk of a large impact on biodiversity. As such, we have installed fences to prevent invasion by the Sika deer, and are carrying out management and capture of deer to an appropriate population, in coordination with the local government and relevant organizations such as hunters associations.

A person wearing a white protective suit, a white cap, and gloves is using a chainsaw to cut a tree trunk in a forest. The person is positioned in the center of the frame, facing the tree. The forest floor is covered with brown leaves and pine needles. The background shows many tall, thin trees.

Volunteer activity

The Tama River Water Conservation Forests Team was established, to preserve privately owned forests that have become devastated due to lack of maintenance, in cooperation with Tokyo residents. In FY 2024, we worked with 1,553 volunteers to carry out preservation activities. To make people understand the importance of protecting water conservation forests, we are distributing e-mail newsletters and holding water conservation forests tours (video tours in FY 2024).

Sustainable Use of Resources

Recycling Resources

Water purification and construction works produces a lot of surplus soil and garbage. In addition, in maintaining and managing the water conservation forest, much wood is generated from cutting down trees. Rather than simply disposing of this wood, it is used effectively without any waste.

Recycling granular activated carbon



Utilizing granular activated carbon for gardening soil

Since granular activated carbon required for advanced water treatment may reduce its function to absorb such elements as source of smell, periodical replacement of it is required. In FY 2024, 8,770 tons of granular activated carbon was generated annually. Currently, such carbons are utilized perfectly as horticultural soil and fuel adjuvant auxiliary agent.

Recycling of wood generated from the water conservation forest



Wood collecting

To ensure that the forest is made up of a variety of types and generations of trees, in forest management operations, we create space to plant new trees, carry out final cutting while leaving certain trees that have grown sufficiently, and carry out thinning so that light enters the forest. Wood that is generated from final cutting is used for civil engineering/construction materials, biomass power generation, etc. Wood that is generated from thinning is used for earth retaining in forests, footpath landings and wooden fences for forest management. Therefore, 100% of this wood is used effectively.

Reducing usage of resources

Waste is generated such as through using large amounts of paper and plastic at work. Incineration and landfilling of waste puts large burdens on the environment, such as discharge of harmful substances and soil pollution. When plastic is used, marine pollution and CO₂ emissions increase. By reducing usage of such items, environmental burdens can be reduced.

Promoting “paperless”



Icon and screen of Tokyo Water App

Bureau of Waterworks is actively working to promote paperless system. By introducing portable tablets and conference monitors, paperless meetings are being promoted. In addition, initiatives are also being taken towards paperless meter reading slips and invoices for water bills. We are encouraging people to switch from paper to paperless accounts through Tokyo Water App.

Reducing Use of Plastics



Switching from plastic shopping bags to your own bags

In meetings hosted by Bureau of Waterworks, we are thoroughly ensuring that we don't use any plastics. We stopped selling “Tokyo water”, which used to be sold in plastic bottles, and have installed environment-friendly Tokyowater Drinking Stations (please see next page for details) and are recommending people to bring their own bottles. Bureau of Waterworks employees are also encouraged to bring and use their own water bottles and reusable shopping bags. We are making approaches to raise awareness towards reducing plastics through e-mail newsletters and trainings.

Environmental Communication with Various Stakeholders

Environmental Communication with Customers

Water purification and construction works produces a lot of surplus soil and garbage. In addition, in maintaining and managing the water conservation forest, much wood is generated from cutting down trees. Rather than simply disposing of this wood, it is used effectively without any waste.

Waterworks Caravan

To promote deep understanding of waterworks of local customers and elementary school students who represent the next generation, we are implementing 'Waterworks Caravan' (visiting lecture) at facilities such as elementary schools, children's centers and shopping malls. Waterworks Caravan consists of skits, movies and experiments. to enable kids to understand easily how to produce and supply tap water. In FY 2024, we visited 1,154 elementary schools and held 132 lectures at children's centers and other facilities.

In these lectures, the role of water conservation forest and water saving will also be explained to receive feedbacks from students that such as they have learned to use water with care.



Waterworks Caravan at elementary school

Tokyowater Drinking Station Promotion

We are promoting Tokyowater Drinking Station "(DS)" at public spaces and event sites. We will assist customers to take eco-action through promoting DS.



Outdoor location type DS

Environmental Communication with Various Stakeholder including Corporations

We are promoting environmental approaches through communicating with various entities, such as corporations, universities and people from overseas. We are also taking the initiative to raise awareness of environmental issues among our employees.

Tokyo Waterworks – Corporation Forests – (Naming Rights)

We have established naming rights for parts of our water conservation forest. Companies can name the part of forest using their company name, and the companies and Tokyo Waterworks are working together to take care of the forests.

We promote understanding of water conservation forest by providing companies participating in the Tokyo Waterworks-Corporation Forests-(naming rights) program with opportunities to visit water source forests and experience forest conservation work in the agreed areas. In FY 2024, 11 corporations experienced the activities.



Forest conservation experience
(Forest thinning)

Collaboration with business operators

We award business operators, such as construction contractors who have implemented approaches which helps to enhance the image of water supply works by the active environmental measures with taking the local region into consideration.

In addition, to carry out environment-friendly construction works, we strive to reduce environmental burdens in construction by collaborating with business operators. For example, we are requiring the use of low-emission construction machinery,

and we are adopting a construction method that reduces excavation (non-open cut tunneling method) to curtail road construction.

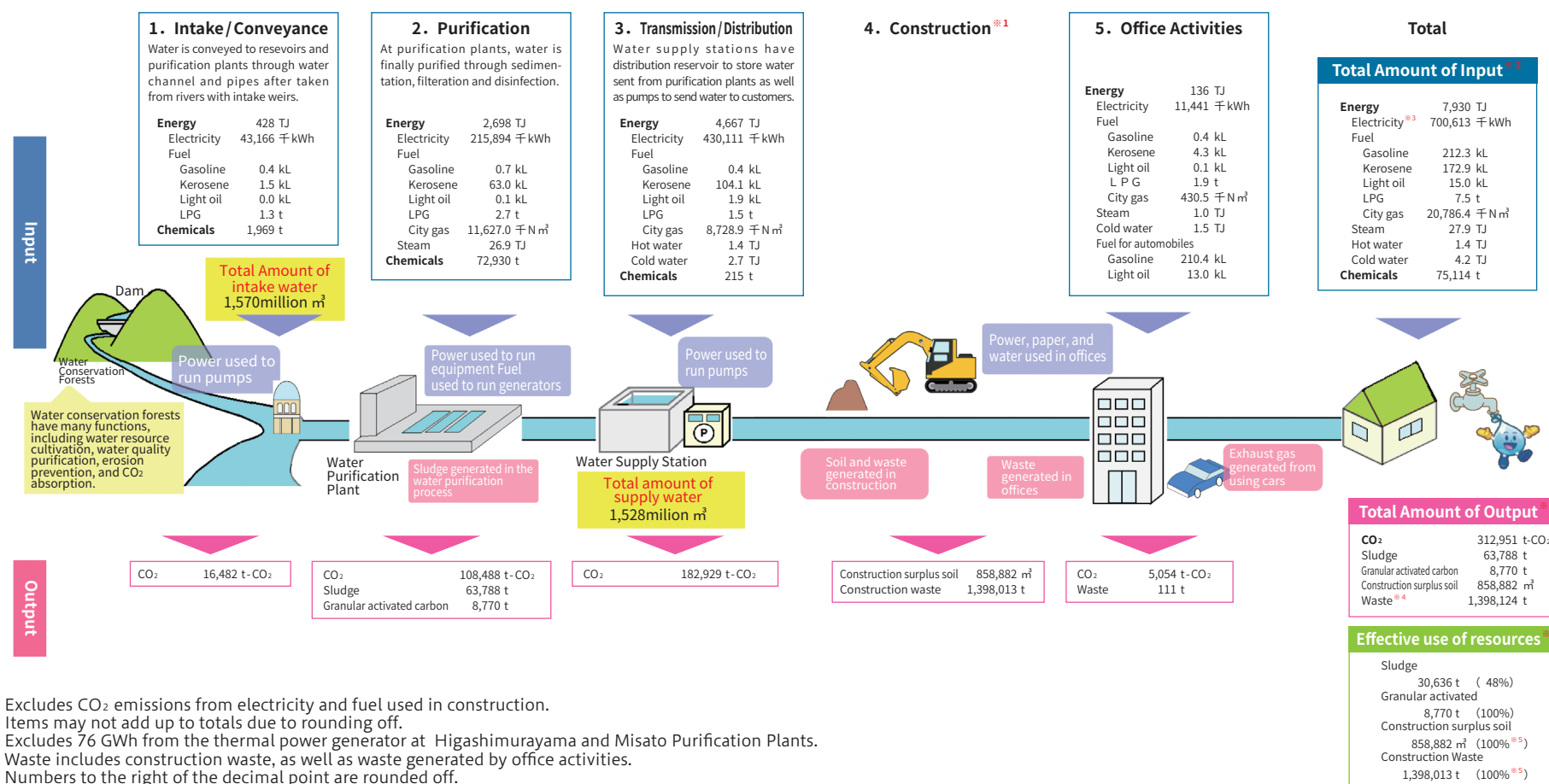


Solar-Powered Mobile Temporary Offices

Impact on the environment from the waterworks business

The waterworks business makes and delivers tap water in a state that is safe to drink, so it is deeply connected to the global environment. However, a great burden is placed on the environment in order to make tap water and deliver it to customers, such as using a large amount of electricity and other energy, and emitting CO₂.

The diagram below shows the positive impacts and negative impacts on the environment, as well as the matter used (input) and matter emitted (output) by Bureau of Waterworks in each step from intaking water to delivering it to the customers.



<https://www.waterworks.metro.tokyo.lg.jp/eng/waterprofessionals/>

