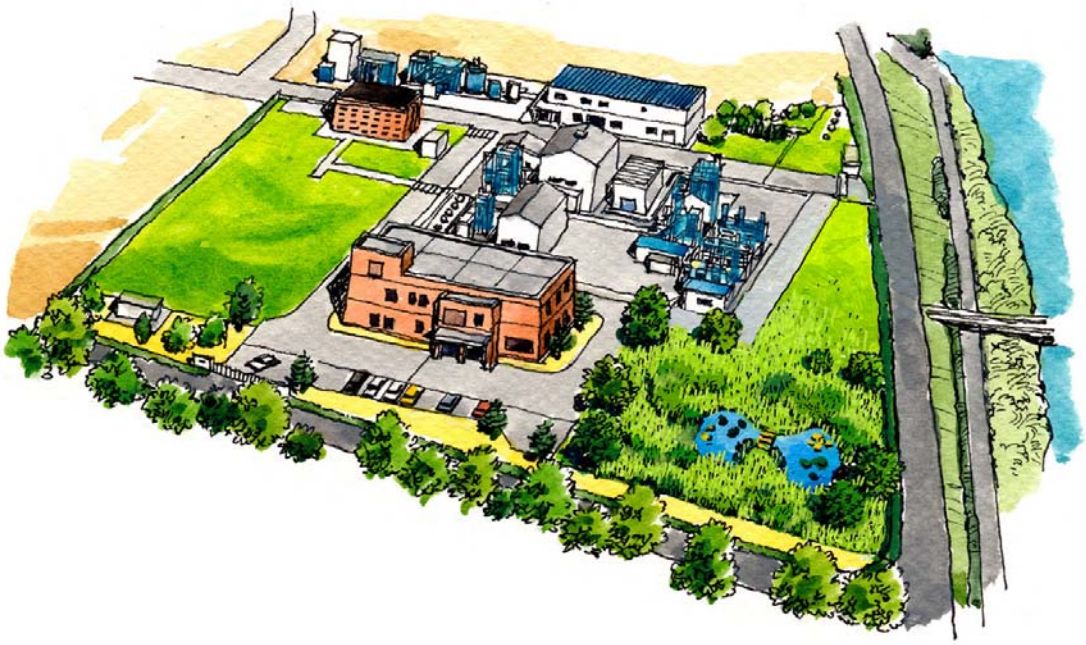
R&TD Experimental Center in Mooka City



Japan Sewage Works Agency

1.Background

The Japan Sewage Works Agency (JS) has been carrying out several research projects using actual wastewater in the Research & Technology Development (R&TD) Department in Toda City.

However, the Toda site has only a small area available for experiments. The wastewater for experiments comes from the adjacent Arakawa Wastewater Treatment Plant which has a combined system, and The R&TD cannot conduct experiments using the wastewater from a separate system. The R&TD of JS has therefore been forced to carry out experiments using pilot-scale facilities in other wastewater treatment plants with separate systems all over Japan.

To overcome these problems, in 1998 JS decided to build a new experimental center for research projects, which could receive a steady supply of actual wastewater from the adjacent Mooka Wastewater Treatment Plant which has a separate system. The plant commenced operation in June 2000.

Experimental Field

2. Outline of Facility

Area	;	Approximately 13,000 m^2
1) Laboratory Building	;	RC, Two-story building, total floor space of 892.38 m^2 <1st Story:> Lab for physics, chemistry, & biology, storage for chemicals, machinery room administration office, rest room <2nd Story:> Meeting room, laboratory, rest room etc.
2) Experimental Field	;	230 m^2 /block x 9 block Receiving tank, electricity, water supply Available volume of wastewater & sewage sludge: Influent 500 m^3/day (Max. 50 m^3/day/block) Primary effluent 500 m^3/day (Max. 50 m^3/day/block) Secondary effluent (Future) Primary sludge & excess sludge 50 m^3/day Gravity & mechanically thickening sludge (Future) Dewatered sludge 15 - 20 ton/day
3) West Experimental Field	;	Multipurpose experimental water tank (Width 6 m x Height 6 m x Length 12 m)
4) North Experimental Field	;	Prefabricated house for experiments
5) Experimental Field	;	(Future)

3. Policy for Using the Facility

The R&TD experimental center is JS's own experimental field. It is possible to use the actual wastewater and sewage sludge from the adjacent Mooka Wastewater Treatment Plant with a separate system. The JS plans to develop new technologies relating to sewerage systems and to actually use them at the site.

At the R&TD experimental center, JS intends not only to conduct its own research projects but also joint research with private companies, universities, and public research organizations. The joint research partners can implement pilot-scale experiments using actual wastewater, and the joint research partners can implement their own research within the facility's capacity.

1. Laboratory Building

3. Experimental Water Tank for Multipurpose

4. Expected Effects

1) Improved Research Efficiency

There are permanent basic facilities for experiments at the R&TD experimental center. It is unnecessary to confer with officers of local municipalities on installing experimental facilities.

2) Establishment of the Mooka Standard

Several research projects use the same wastewater from Mooka Wastewater Treatment Center as a standard wastewater. This makes it easy to compare the results of experiments and to evaluate the performance of newly developed systems and facilities.

3) Encouragement of Widespread Use of Newly Developed Technology

Several private companies, universities, and public research organizations can use the R&TD experimental center easily.

4) Upgrading the Research Level

Researchers can easily exchange technology information and knowledge.

5) Supporting the Technology Development of Private Company

The facility assists the technology development of private companies, which can conduct their own research projects other than joint research projects with JS.

6) Use for Education and Training

By making the R&TD experimental center open to the public, it is expected to be used for education and training.