



港北

KOHOKU Wastewater Treatment Plant

水再生センター

Summary

The treatment areas of this plant are mainly located under Kohoku and Tsuzuki Ward and partly under Kanagawa, Midori and Aoba Ward.

The separate sewer system*1 is adopted in the hilly areas such as Kohoku New Town, and the combined system*2 is in lower areas of Tsurumi River.

In Wastewater Treatment Plants, wastewater is treated by activated sludge process and advanced treatment method, and treated effluent is discharged to Tsurumi River. In this way, we keep the quality of public water body clean, and also prevent city area from flooding by rapid discharging of stormwater.

In this plant, a lot of machines (pumps, blowers, and so on) always run by centralized monitoring system with many computers to keep the environment of this area comfortable.

*1 : In this system, sanitary sewage and stormwater is collected separately in two sewer pipes, and the latter is discharged to rivers or sea directly.

*2 : On the other hand, both are collected together in one sewer pipe.

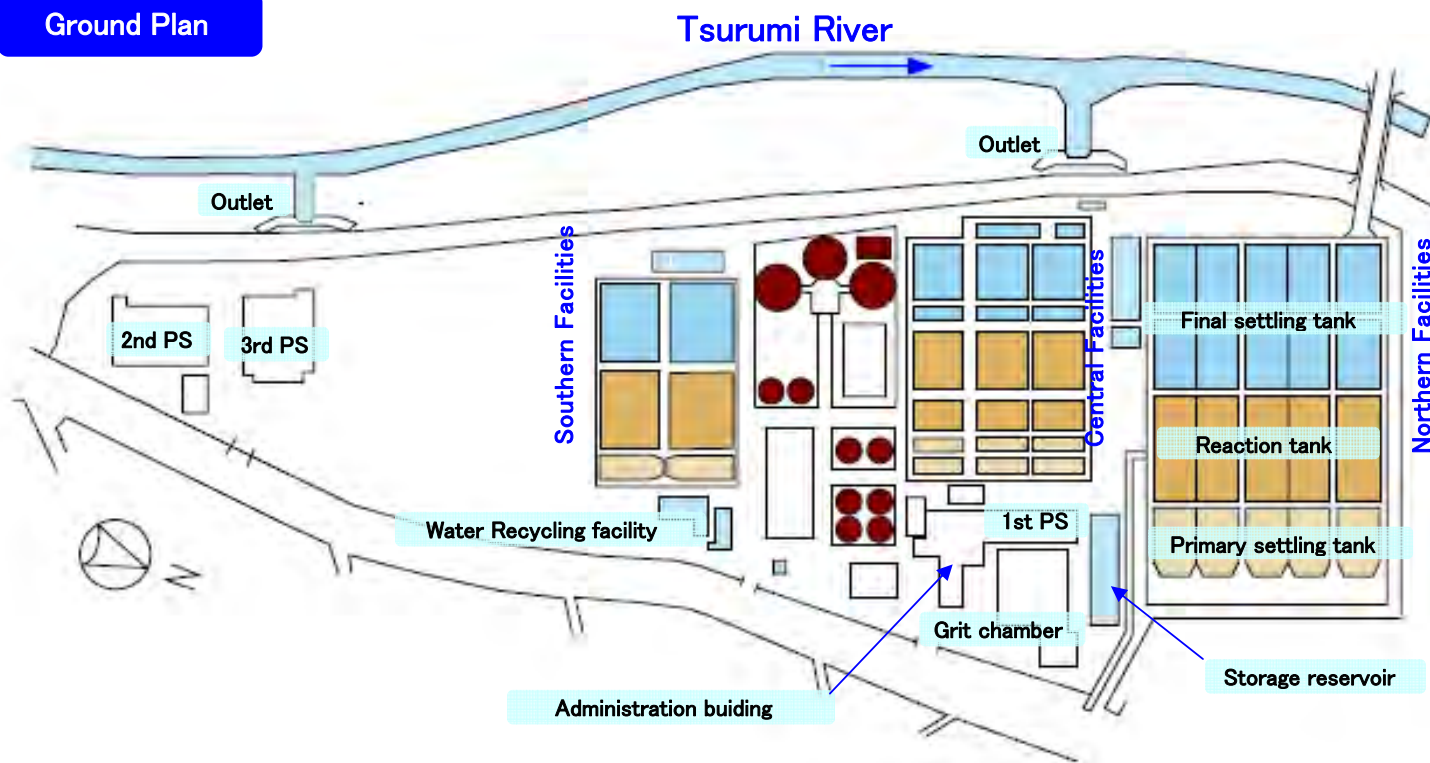
- Location : Okurayama 7-40-1, Kohoku Ward, Yokohma City, 222-0037
- Site Area : 124,960 m²
- Design Area : 6,270 ha
- Design Population : 474,000
- Design Capacity : 284,500 m³/day
- Receiving Waters : Tsurumi River
- Start-up : December in 1972
- Sludge Treatment : Pumping to the North sludge treatment and recycling center

Treatment Area



Kohoku Wasterwater Treatment Plant

Ground Plan



Characteristics

1.Utilization of recycled water

Recycled water is sent to Nissan Stadium that is one of the largest stadium in Japan. And it is used for heat resources of air conditioners and for flushing water of toilet. Recycled water is also sent to Yokohama Arena as flushing water.

2.Parks above the facilities

For the effective utilization of these site areas, parks are constructed above the facilities. Futo Park and South Futo Park are above Kohoku WTP, and Simonoya Park is above the storage and regulating reservoir of Kawamuko PS. There are tennis courts and baseball fields in each park.

3.Mini aquarium

There are many kinds of fishes of Tsurumi River in mini aquarium.



NISSAN STADIUM

Facilities

Facilities		number	Cap. [m ³]	Size [m]	retention time	
grit chamber	Central	stormwater	3	816	W:4.0 × L:16.0 × D:4.25	48 [sec]
		sewage	3	576	W:4.0 × L:16.0 × D:2.9	48 [sec]
	Northern	stormwater	6	3,600	W:4.0 × L:35.0 × D:5.5	51 [sec]
		sewage	2	1,050	W:3.5 × L:35.0 × D:5.5	78 [sec]
	Southern		2	600	W:2.0 × L:35.0 × D:5.0	51 [sec]
Primary settling tank	Southern	2	53	W:3.0 × L:11.0 × D:0.8	37 [sec]	
	Central	6	7,568	W:13.9 × L:27.4 × D:3.3	2.7 [hrs]	
	Northern	10	13,104	W:9.1 × L:24.0 × D:3.0(× 2)	2.5 [hrs]	
Reaction tank	Southern	3	2,772	W:5.5 × L:28.0 × D:3.0(× 2)	1.72 [hrs]	
	Central	3	15,101	W:7.05 × L:35.7 × D:5.0(4 flows)	5.4 [hrs]	
	Northern	5	42,211	W:9.0 × L:48.0 × D:10.0(2 flows)	8.0 [hrs]	
Final settling tank	Southern	2	25,218	W:9.0 × L:72.0 × D:10.0	7.83 [hrs]	
	Central	6	9,853	W:13.8 × L:34.0 × D:3.5	3.5 [hrs]	
	Northern	20	18,837	W:9.1 × L:34.5 × D:3.0	3.6 [hrs]	
Chlorination tank	Southern	8	7,776	W:9.0 × L:36.0 × D:3.0	2.4 [hrs]	
	Central	1	1,600	W:2.0 × L:50.0 × D:4.0(4 flows)	-	
	Northern	1	1,832	W:2.75 × L:37.0 × D:3.0(6 flows)	-	
Sludge thickener	Southern	1	1,260	W:2.0 × L:30.0 × D:3.5(6 flows)	-	
		5		φ:13.6 × D:3.4	-	

●Pumps

Facilities	Number & Use	Location	Cap. [m ³ /sec] sewage /stormwater
1st PS	5 sewage pumps & 6 stormwater pumps	Inside of this Plant	9.3 / 23.7
2nd PS	4 sewage pumps	Inside of this Plant	2.7 / -
3rd PS	4 stormwater pumps	Inside of this Plant	- / 9.0
Futo PS	4 sewage pumps and 6 stormwater pumps	Okurayama6-19-1, Kohoku Ward	1.8 / 13.0
Nippa PS	4 sewage pumps and 5 stormwater pumps	Nippacho745, Kohoku Ward	5.5 / 51.5
Kawamuko PS	4 stormwater pumps	Kawamukocho1266, Tsuzuki Ward	- / 20.7
Kamoi PS	5 stormwater pumps	Higashihongocho113, Midori Ward	- / 19.7

