

今治市下水浄化センター

IMABARI Wastewater Treatment Plant





Water Treatment 2017

Water quantity (m ³ /d)	Facility ability (m ³ /d)
40,044	54,750

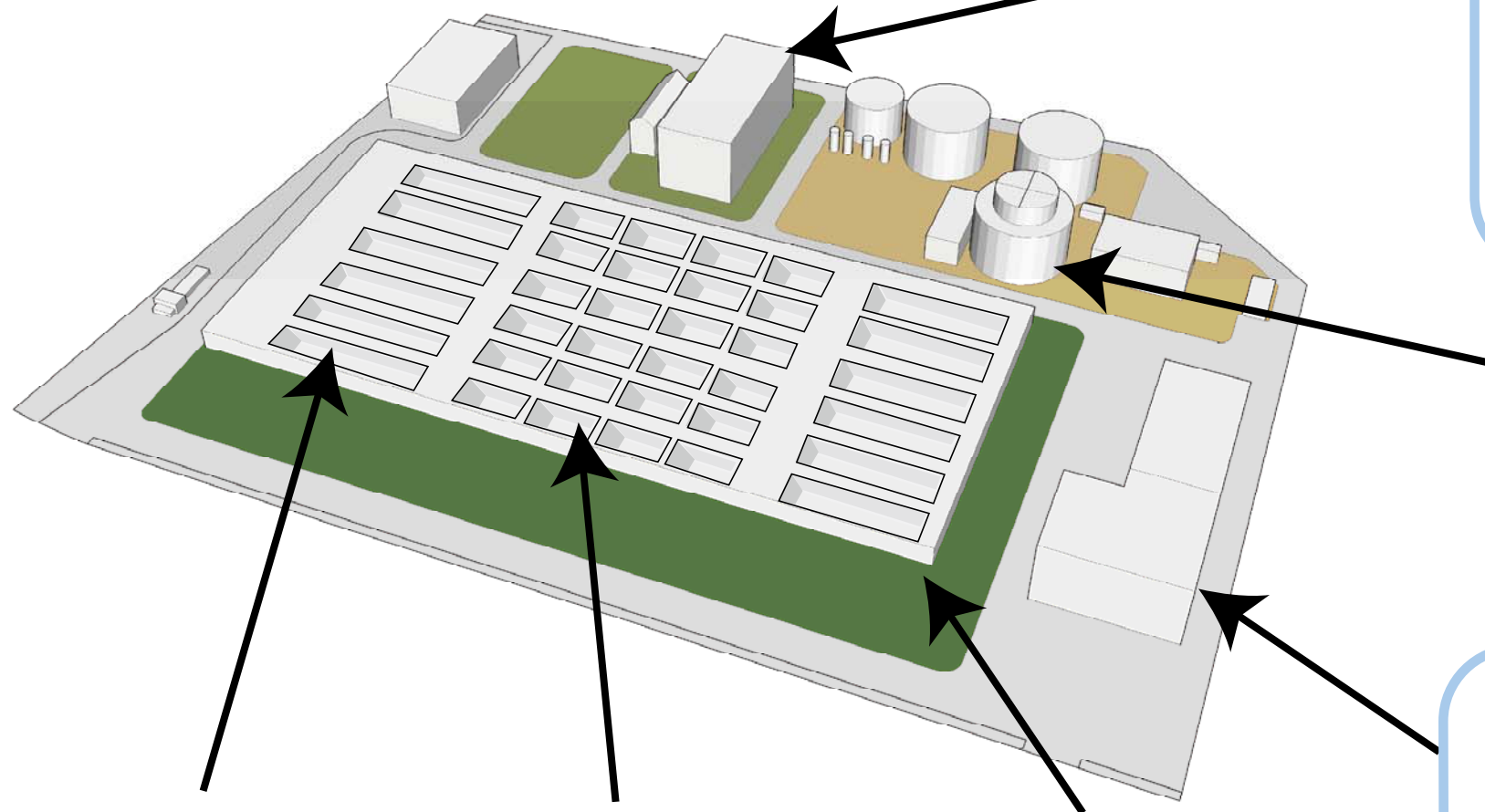
[Water quality]

	Inflow quality (mg/L)	Effluent quality (mg/L)	Removal ratio (%)
BOD	189.8	3.9	97.9
COD	83.5	8	90.4
SS	134.2	1.6	98.8
TN	43.2	11	74.5
TP	4.56	1.7	63.8

BOD : Biochemical Oxygen Demand
 COD : Chemical Oxygen Demand
 SS : Suspended Solids
 TN : Total Nitrogen
 TP : Total Phosphorus

IMABARI Wastewater Treatment Plant

IMABARI Wastewater Treatment Plant was built for the purpose of treating wastewater discharged from central area of Imabari City in 1976. It is the first wastewater treatment plant in the city.



Sludge Treatment Building



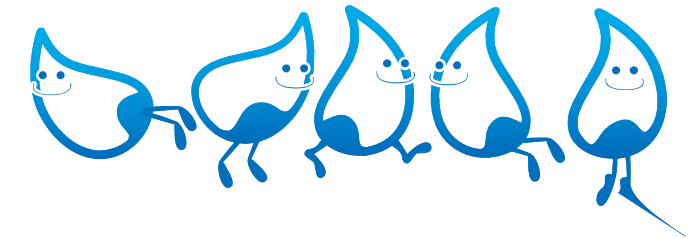
Digestion Tank



Administration Building



Blower Systems



Name	IMABARI Wastewater Treatment Plant	
Operation Started	1976	
Site Area	331a	
Type of Sewer System	Separate System(partly Combined System)	
Designed Final Effluent Quality	BOD	15mg/L
	T-N	20mg/L
	T-P	3.0mg/L

Wastewater Treatment Facilities

Facilities	Specification		Number
Primary Sedimentation Tank	W [Width]	9.0 m	6
	L [Length]	32.0 m	
	D [Depth]	3.9 m	
Standard Activated Sludge Process			
54,750 m ³ /day			
Reaction Tank	W [Width]	9.0 m	6
	L [Length]	54.9 m	
	D [Depth]	6.0 m	
Final Sedimentation Tank	W [Width]	9.0 m	6
	L [Length]	34.0 m	
	D [Depth]	3.6 m	
Chlorine Contact Tank	W [Width]	1.5 m	3
	L [Length]	68.0 m	
	D [Depth]	2.0 m	

Sludge Treatment Facilities

Facilities	Specification		Number
Gravity Thickener	W [Width]	11.0 m	1
	L [Length]	11.0 m	
	D [Depth]	3.0 m	
Anaerobic Degestion Tank	ID [Inside Diameter]	18.0 m	2
	D [Depth]	14.5 m	
	ID [Inside Diameter]	17.0 m	
Sludge Tank	W [Width]	4.0 m	2
	L [Length]	4.0 m	
	D [Depth]	2.75 m	
Sludge Dewaterer (Centrifugal Decanter)	10 m ³ /h		3



Final Sedimentation Tank



Reaction Tank (Standard Activated Sludge Process)



Primary Sedimentation Tank



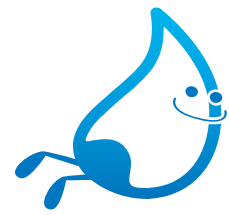
Final Sedimentation Tank (Inner Structure)



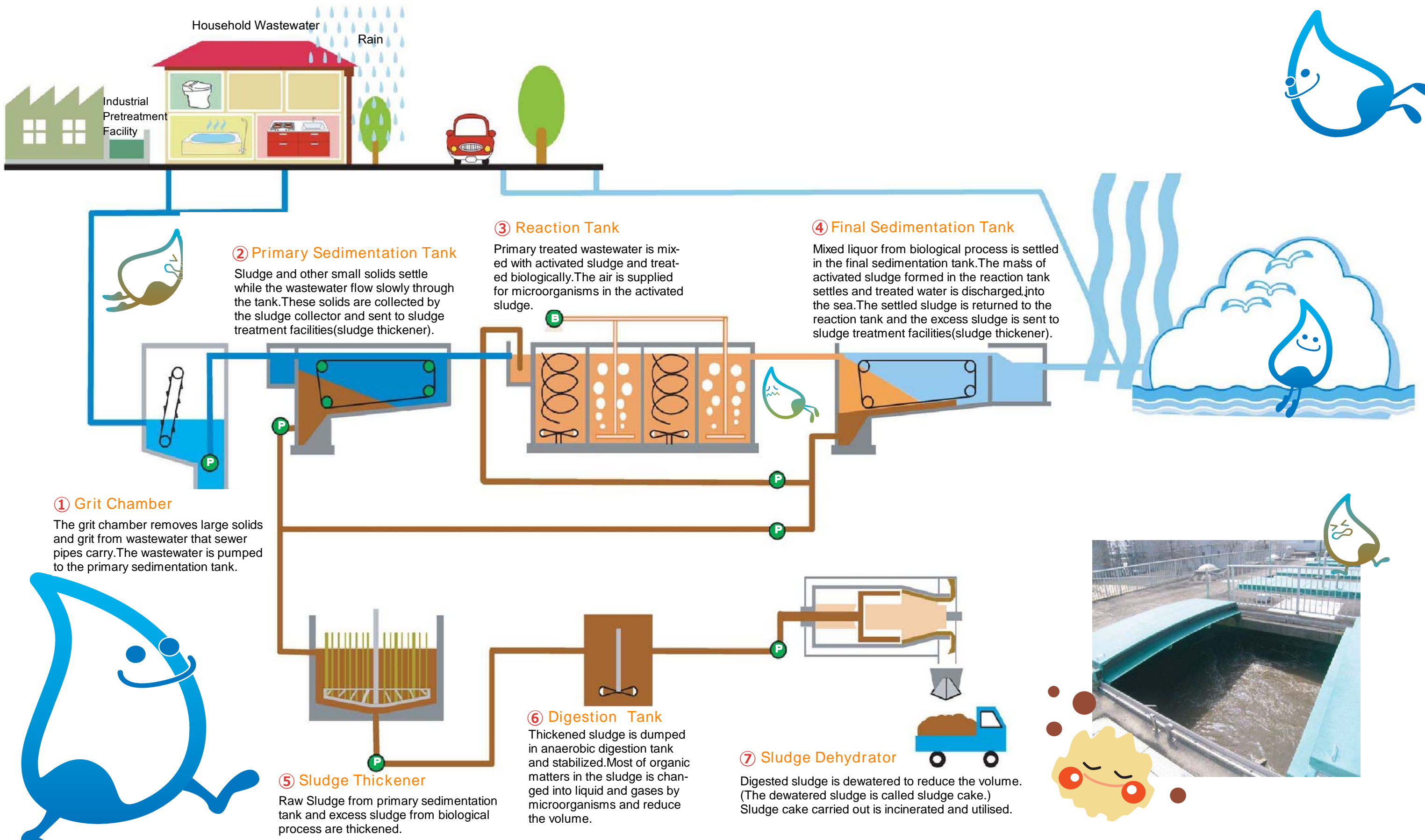
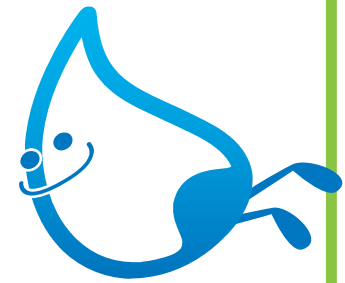
Reaction Tank (Diffuser)



A Distant View of Primary Sedimentation Tank and Sludge Treatment Building



Wastewater Treatment Systems



② Primary Sedimentation Tank
Sludge and other small solids settle while the wastewater flow slowly through the tank. These solids are collected by the sludge collector and sent to sludge treatment facilities (sludge thickener).

③ Reaction Tank
Primary treated wastewater is mixed with activated sludge and treated biologically. The air is supplied for microorganisms in the activated sludge.

④ Final Sedimentation Tank
Mixed liquor from biological process is settled in the final sedimentation tank. The mass of activated sludge formed in the reaction tank settles and treated water is discharged into the sea. The settled sludge is returned to the reaction tank and the excess sludge is sent to sludge treatment facilities (sludge thickener).

① Grit Chamber
The grit chamber removes large solids and grit from wastewater that sewer pipes carry. The wastewater is pumped to the primary sedimentation tank.

⑤ Sludge Thickener
Raw Sludge from primary sedimentation tank and excess sludge from biological process are thickened.

⑥ Digestion Tank
Thickened sludge is dumped in an anaerobic digestion tank and stabilized. Most of organic matters in the sludge is changed into liquid and gases by microorganisms and reduce the volume.

⑦ Sludge Dehydrator
Digested sludge is dewatered to reduce the volume. (The dewatered sludge is called sludge cake.) Sludge cake carried out is incinerated and utilised.

