

WATER REUSE FOR INDUSTRY

**Reclaimed water with Ozonizer and
Ceramic Membrane filtration**



WATER REUSE SYSTEM FLOW DIAGRAM

Information:

- **Location:** Municipal waste water treatment plant
- **Capacity:** 7000 m³/day, expansion up to 21.000 m³/day
- **Usage:** Water for public fountains, washing and flushing toilets
- **Further treatment:** Reverse osmosis to produce process water for the industry

**Biological Treat-
ment Process
(optional)**

Nitrification with bio-
filter to reduce ozone
consumption at the
ozonation stage.
[Targets removed]
NH₄⁺, NO₂, SS



**Ozonation
Process**

**Ozonation
Process**

Odor/color removal,
disinfection and refining
of fine particles by
ozonation.
[Targets removed]
Color, odor, organics,
bacteria, viruses



**Coagulation /
Flocculation
Process**

Coagulation / flocculation
of SS to prevent
membrane fouling.
[Targets removed]
SS (organic substances,
phosphorus, viruses etc.)



**Ceramic Mem-
brane Filtration
Process**

Filtration of coagulated
water using µm MF
ceramic membrane to
remove micro-flocs
[Targets removed]
Turbidity, bacteria



		Secondary Effluent	Reclaimed Water from water reuse system	Standards of water for recreational use
SS	mg/L	~3	<1	N/A
Turbidity	Degree	1-5	<0.1	<2
COD _{Mn}	mg/L	5-11	3-5	N/A
Color	Degree	4-23	0-3	<10
T-P	mg/L	~1.1	0,4	N/A
E.coil	MPN/100mL	1300	N/D	N/D



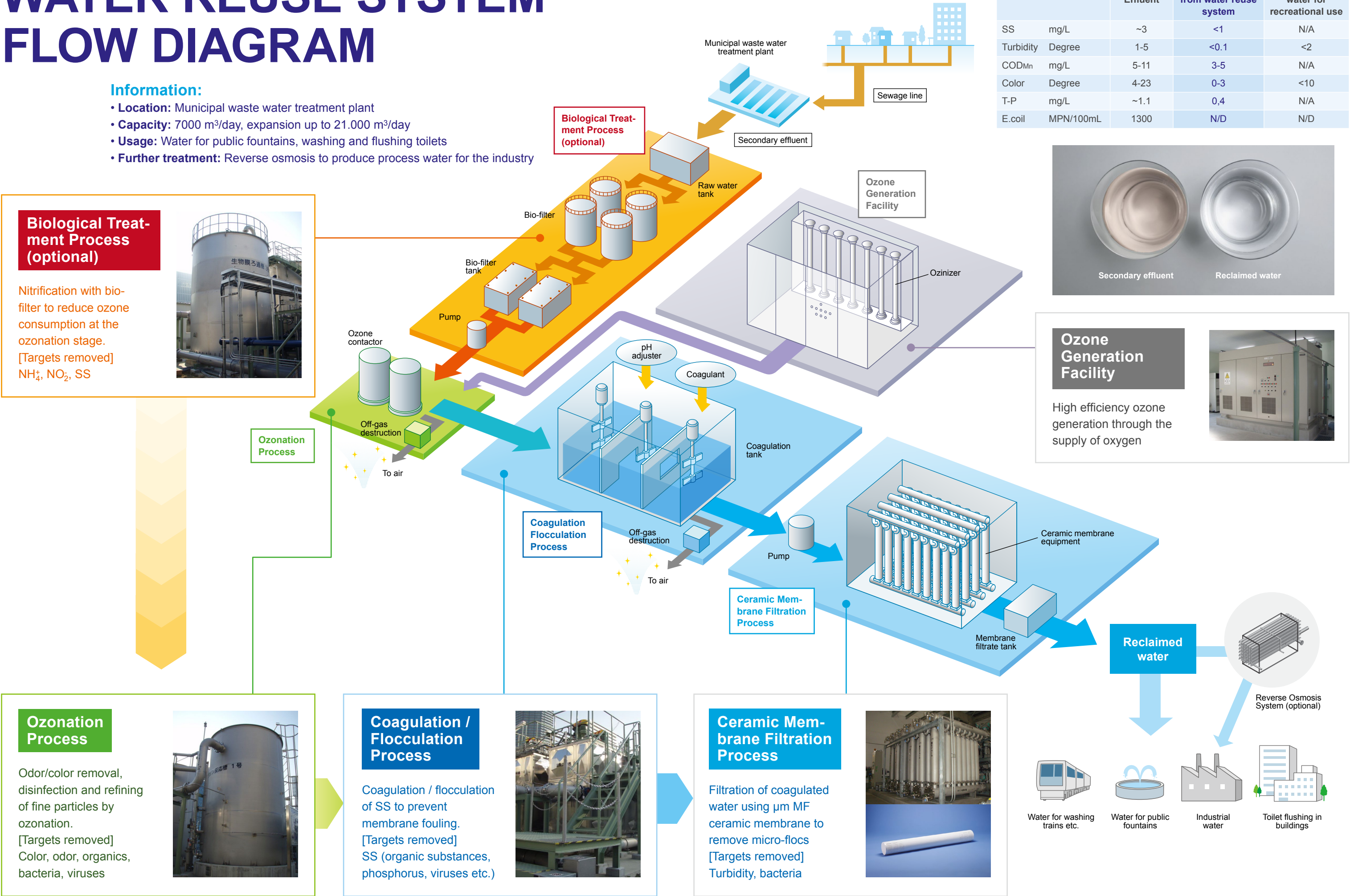
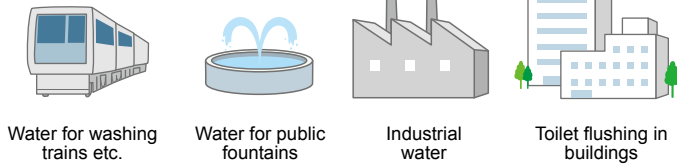
**Ozone
Generation
Facility**

High efficiency ozone
generation through the
supply of oxygen



**Reclaimed
water**

Reverse Osmosis
System (optional)



Professionals in water!

Solutions and systems within the potable water, waste water and process water industry.

RWB differentiates itself by supplying standard systems on the one hand and by developing custom made solutions on the other hand. By keeping all disciplines, like engineering, process management,

assembly, commissioning and maintenance in-house and also because of a 24/7 service, RWB can offer a complete package in water treatment. That is our added value!

RWB's services



Process technology



Engineering



Project management



Service

