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Water Supplies Department

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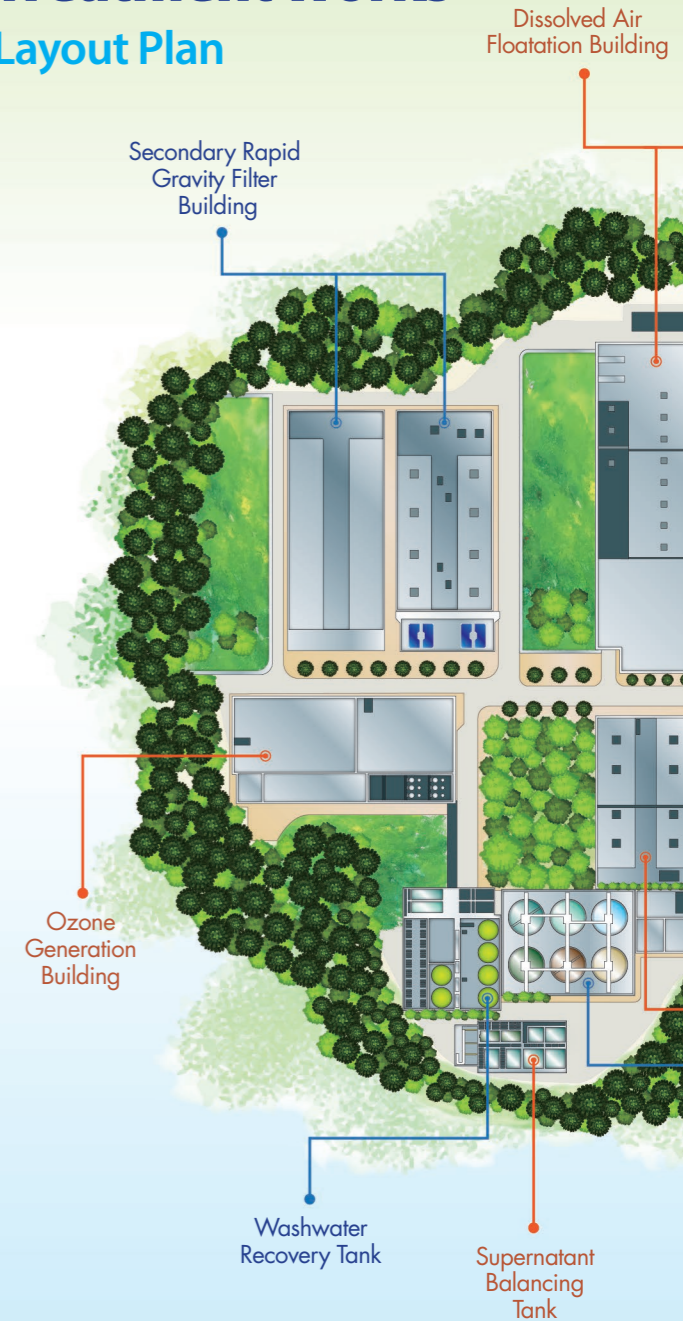
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# TAI PO Water Treatment Works



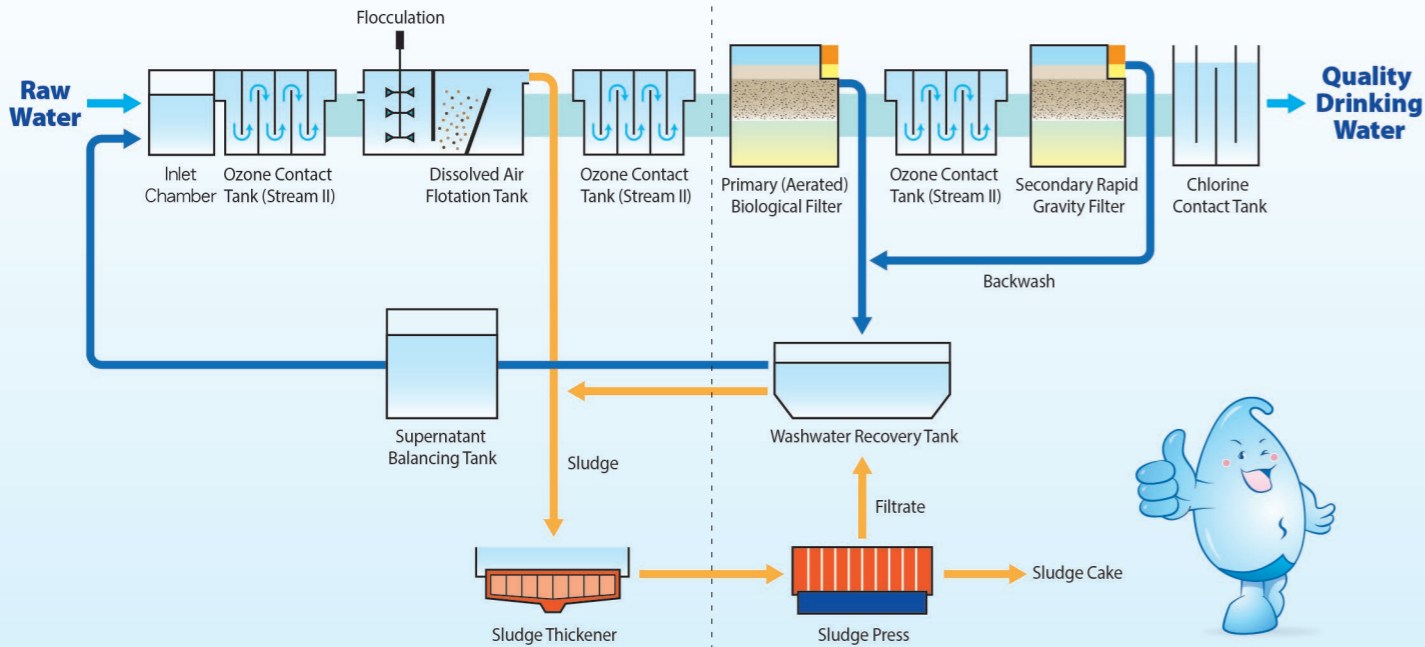
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## Tai Po Water Treatment Works Layout Plan





# Treatment Process in Tai Po Water Treatment Works



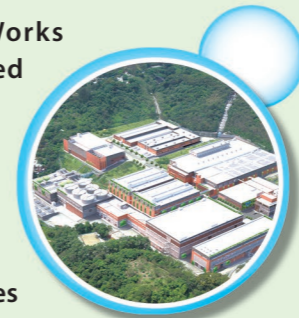
## Award

The incorporation of various green and sustainable features, such as renewable energy, water reuse, extensive greening, use of ozone as disinfectant, etc., making TPWTW won two important awards in the construction industry.



## Tai Po Water Treatment Works

Tai Po Water Treatment Works (TPWTW) was commissioned with a capacity of 250,000 cubic metres per day in 2003. Currently, Stream II of TPWTW has been completed and the total capacity has reached 800,000 cubic metres per day. It provides quality drinking water to Tai Po, Central and West Kowloon and the Central and Western districts of the Hong Kong Island.



## Special Features

TPWTW has adopted many innovative solutions which integrated various green and sustainable features into new as well as existing buildings for optimization of the plant operation. By adopting these best practices, TPWTW has been recognized as a green infrastructure.



### 1 Dissolved air flotation

A robust and efficient process employs a mixture of air and water to lift coagulated solids to the water surface for subsequent removal. The rapid start-up capability of the unit can react to sudden changes in raw water quality effectively.

### 2 Biological filtration

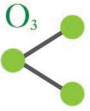
Ammonia and manganese are removed biologically under a controlled environment. The process significantly reduces the use of chlorine.

### 3 Rapid gravity filtration

The remaining turbidity in the water is removed. This is followed by final disinfection using chlorine.

### 4 Ozone

TPWTW (Stream II) is the second water treatment works in Hong Kong using ozone as disinfectant. The usage of ozone has the following advantages:



- **Advanced and Effective Disinfection Technology**
- **Reduce Chlorine Consumption by around 30%**
- **Improve Water Quality**

### 5 Laboratory

TPWTW Laboratory is a HOKLAS accredited laboratory monitoring closely the quality of water at different treatment stages to ensure treated water quality fully complying with the Hong Kong Drinking Water Standards.



It has Biosensing Alert System, which is a patented system developed by WSD and won the silver and bronze prizes in Civil Service Outstanding Service Award under two award categories, for continuous monitoring of the incoming raw water quality entering water treatment works.

# Tai Po Water Treatment Works

## Layout Plan

