

Reduce construction and maintenance costs by centralized sludge treatment

Effectively utilize recycled energy and resources from sludge treatment

Monitor the facility 24 hours to ensure that operations are safe

Set up environmentally friendly facilities

### Effective Use of Digestion Gas

In the digestion tank, microorganisms decompose the organic matters in sewage sludge. Digestion gas generated in this process is effectively utilized.

### For Gas Engines

Gas engines generate most of the electricity consumed at sludge treatment plants. At the same time, the heat generated by these engines warm up the digestion tank.

### As Fuel Source

Digestion gas is used as fuel to burn sludge in the incinerator and also as fuel for refuse incineration plant of the Resources and Waste Recycling Bureau.

### Effective Use of Ash

Incinerated Ash is utilized 100%.

### Improved Soil (Hokubu Sludge Treatment Plant)

Incinerator ash is improved by mixing into the soil generated by construction, and then the ash is used for filling material at construction sites.

### Construction Material

Incinerator ash is used as construction material and contributes to a recycling-based society.

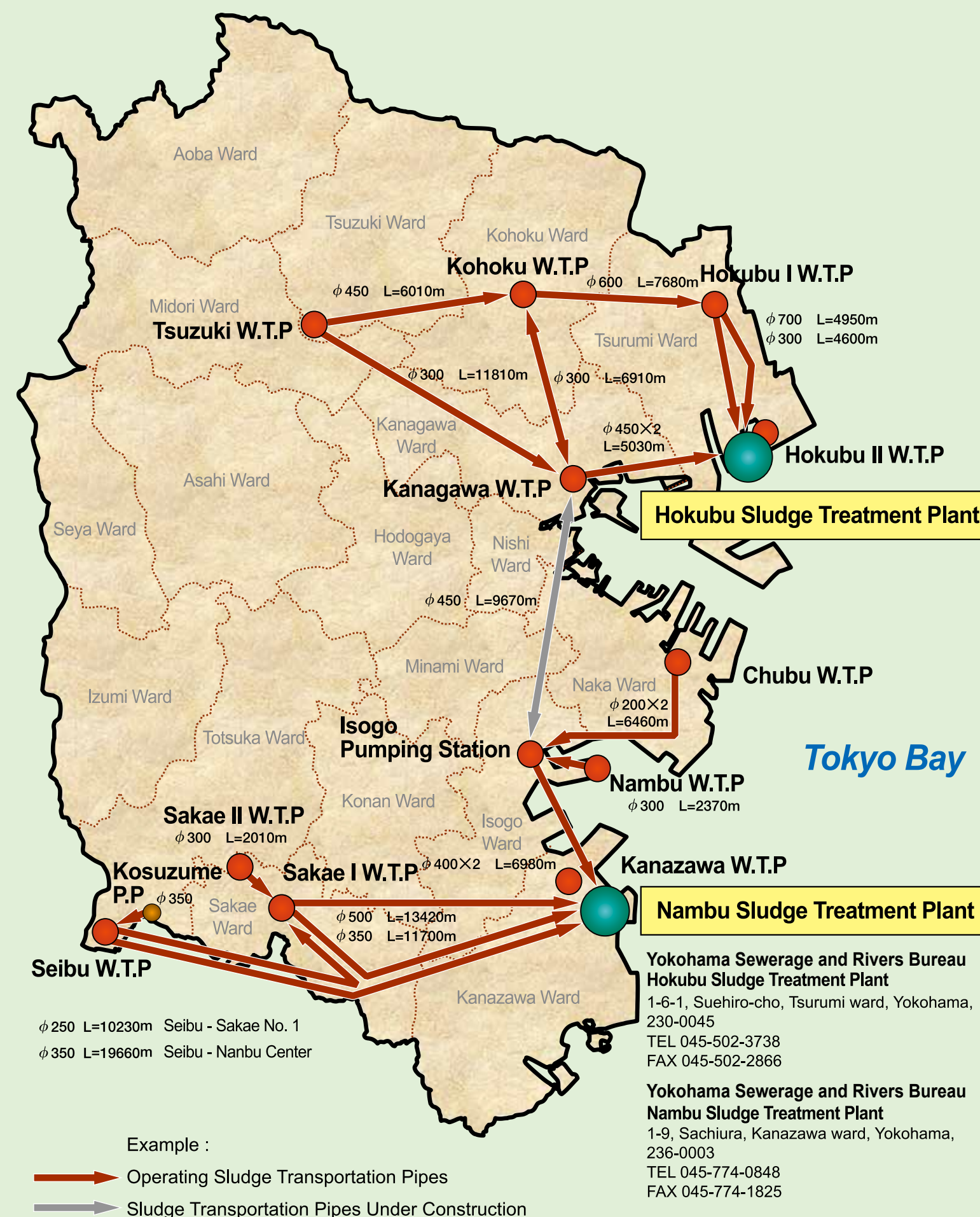
### Project to Convert Sludge to Fuel

To prevent global warming, sludge is converted to alternative fuel and used for electricity generation.

### Use of Recycled Phosphorus as Fertilizer

By recovering phosphorus from dewatering filtrate and using it as a fertilizer raw material, we contribute to local phosphorus circulation and the domestic production of fertilizer.

## Map of Sludge Transportation Route



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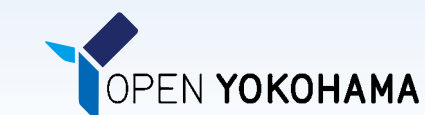
## The Wealth of Resources in Sewage Sludge

### Sludge Treatment Plant



## Yokohama Sewerage and Rivers Bureau

Providing a Sustainable Environment for the Future



### About the Sludge Treatment Plant

#### Actions Towards a Sustainable Society

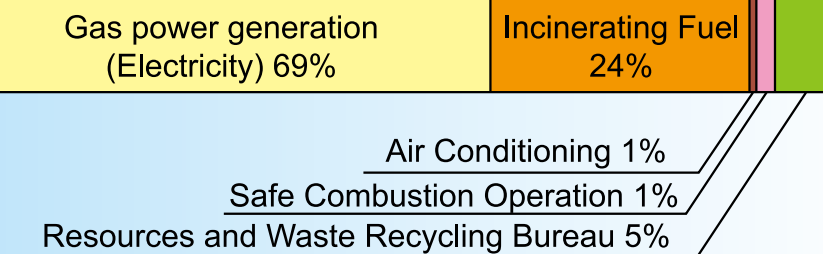
Sludge produces several recyclable resources including digestion gas and ashes after sludge incineration. Sludge Treatment Plant is utilizing these resources effectively to build a sustainable society.

#### Actions To Prevent Environmental Pollution

Monitors the level of air pollutants emitted from the incineration of sewage sludge for 24 hours.

### Effective Use of Sewerage Resources

#### Effective Use of Digestion Gas



### Sewerage Resources

### Sludge

### Digestion Gas

### Incinerator Ash

### Sludge Fuelization

### Phosphorus Recovery



The annual amount of Sludge processed by Hokubu and Nambu Sludge Treatment Plant approximates 5,580,000m<sup>3</sup>.

Yokohama Soil Improvement Center





# Flow of Sludge Treatment Process

Districts of Hokubu Plant

Districts of Nanbu Plant

