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

Effective Use of Digestion Gas

In the digestion tank, microorganisms decompose

generated in this process is effectively utilized.

Gas engines generate most of the electricity con-

At the same time, the heat generated by these

Digestion gas is used as fuel to burn sludge in

the incinerator and also as fuel for refuse incineration

Improved Soil (Hokubu Sludge Treatment Plant)

Incinerator ash is improved by mixing into the soil generated by construction, and then the ash is used

Incinerator ash is used as consruction material and

To prevent global warming, sludge is converted to

Use of Recycled Phosphorus as Fertilizer

and using it as a fertilizer raw material, we contribute

By recovering phosphorus from dewatering filtrate

to local phosphorus circulation and the domestic

alternative fuel and used for electricity generation.

Project to Convert Sludge to Fuel

plant of the Resources and Waste Recycling Bureau.

For Gas Engines

As Fuel Source

sumed at sludge treatment plants.

Effective Use of Ash

Construction Material

production of fertilizer.

Incinerated Ash is utilized 100%.

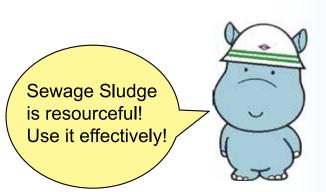
for filling material at construction sites.

contributes to a recycling-based society.

engines warm up the digestion tank.

the organic matters in sewage sludge. Digestion gas

Set up environmentally friendly facilities



Electricity

Fuel

Improved Soil

Construction Material

ternative Fuel to Fossil Fu

Agricultural Fertilizer

Map of Sludge Transportation Route



The Wealth of Resources in Sewage Sludge

Sludge Treatment Plant



and Rivers Bureau



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.

The annual amount of Sludge processed by Hokubu and Nambu Sludge Treatment Plant approximates 5,580,000m³

Yokohama Soil Improvement Cente

Effective Use of Sewerage Resources

Effective Use of Digestion Gas

Gas power generation (Electricity) 69%

ncinerating Fuel

Air Conditioning 1%

Safe Combustion Operation 1% Resources and Waste Recycling Bureau 5%

Sewerage Resources

Sludge





Incinerator Ash

Digestion Gas

Sludge Fuelization

Phosphorus Recovery

Yokohama Sewerage

Providing a Sustainable Environment for the Future



Flow of Sludge Treatment Process Exhaust Gas Heat Exchanger Gas engine and generator generate ectricity by using digestion gas (Only at Nambu Sludge Treatment Incineration Plant of Resources and ₹1 To Phosphorus Recovery Facility Waste Recycling Bureau Hokubu No.1 Granulator Carbonization Furnace Sludge Injection/Circulation (Only at Nambu Sludge Carbonized Fuel Storage Tank Cold/Warm Water Tank ncineration Facility Air Heating Furnace / Warm Water Tank Desulfurization system Air Pre-Heater Cooler Dehydration Facility Sludge Cake Dry Feeder Sludge Dryer Residue Dehydrato Screw Press Dehydrator Ash Conveyer Hopper Centrifugal Thickener Ash Exporting Facilit (Only at Hokubu Sludge Treatment Plant) (Only at Nambu Sludge Treatment Plant) Centrifugal Dehydrator Heat Exchanger *1 From Water Heater Construction Materia Sludge Transport Facility Sludge Receiving Facility Sludge Thickening Facility Digestion Tank Facility Dehydration Facility Incineration Facility Sludge-to-Fuel Conversion Facility hickener Effluent Treatment Facility Ash Exporting Facility Adds chemicals to the reduced This facility mechanically thickens This facility treats the effluent This facility transports the ash Sludge cake is incinerated by the Sewage sludge is converted into fuel This facility receives the sludge Decomposes the organic matters in sludge from digestion tank, the sludge and transports it to the sludge and reduces the volume.At incinerator, and the ash is utilized in the low-temperature carbonization produced in thickening and from the incinerator as dehydrating facilities, and transas improved soil and construction digestion tanks. the same time, stabilizes the produces sludge cake and sends system.Carbonized fuel replaces fossil plants to sludge treatment plants by lants, separates the sludge from onstruction material. it to incineration facility by screen residues and transports the udge to the thickening facility. treatment plants.

