

# Zero Energy: Household level septic field systems



**Ecology Columbus Fukuoka**



ゼロエネルギー・家庭排水浄化装置  
**System K-36**

Zero Energy: Household level sewer systems

ゼロエネルギー・家庭排水浄化装置  
**S**ystem K-36

**This facility is a septic  
drainage sewer purification  
system utilizing bacteria in  
the soil**

**Requires no electricity.  
Zero CO2 emissions.**

■ Previous facilities

**Required electricity 24 hours/day,  
365 days**

# No Chemicals Used

## ■ Previous facilities

Uses Chlorine and others  
May generate trihalomethane ( potentially carcinogens)

**The soil enables a continuous deodorizing effect. No sewage odor around the facility.**

■ Previous facilities

Cannot prevent odor from spreading through the opening lid.

**BOD less than 5mg /ℓ**

■ Previous facilities

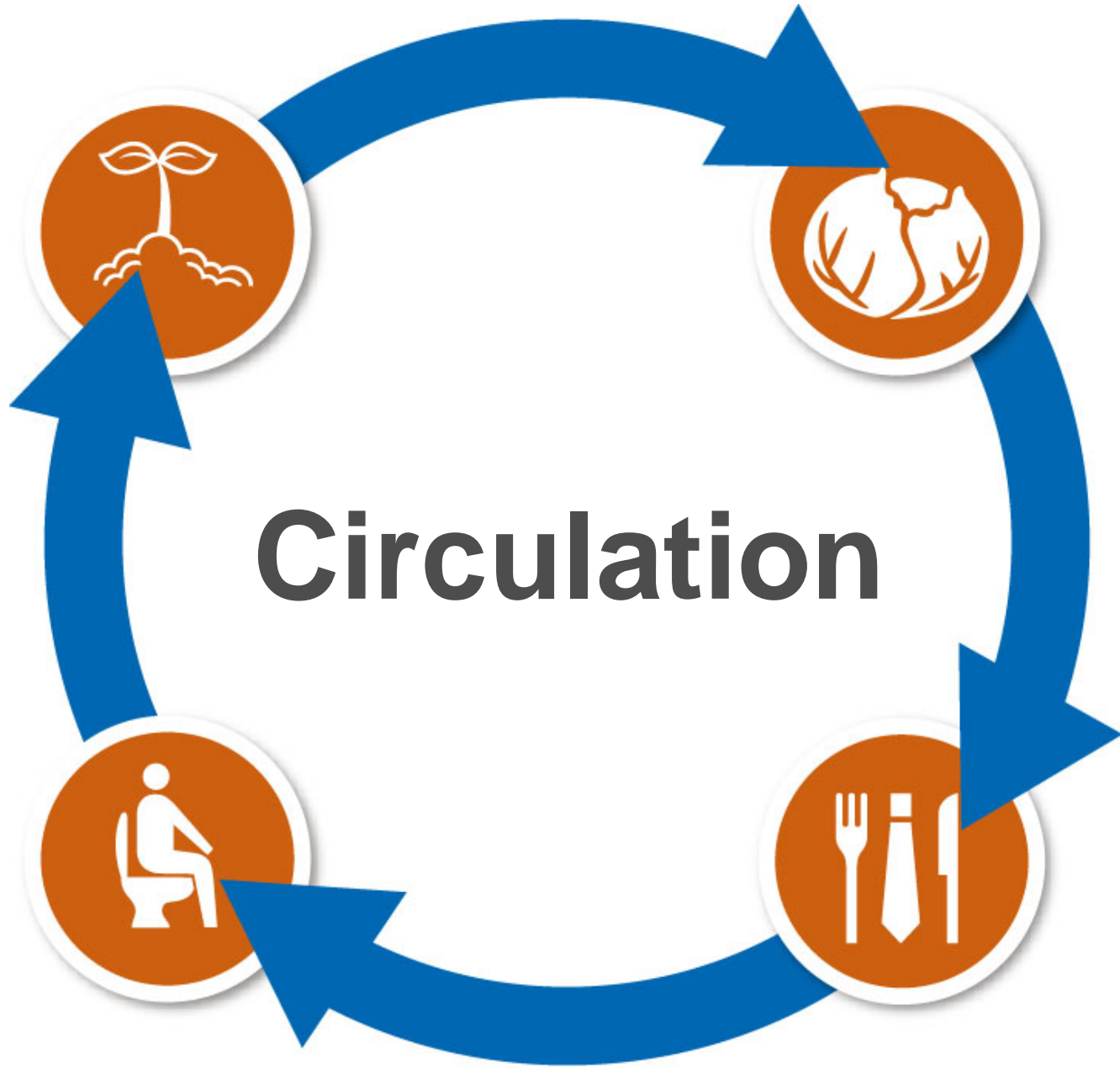
**Standard BOD level for septic tanks  
are 20mg/ℓ**

The discharged water is returned back to the soil. The nitrogen and phosphorous components can be recycled as liquid fertilizers. Also recharges ground water.

#### ■ Previous facilities

Water is discharged to waters outside, then flows into rivers, lakes, sea which could result in generation of algae and red-tides

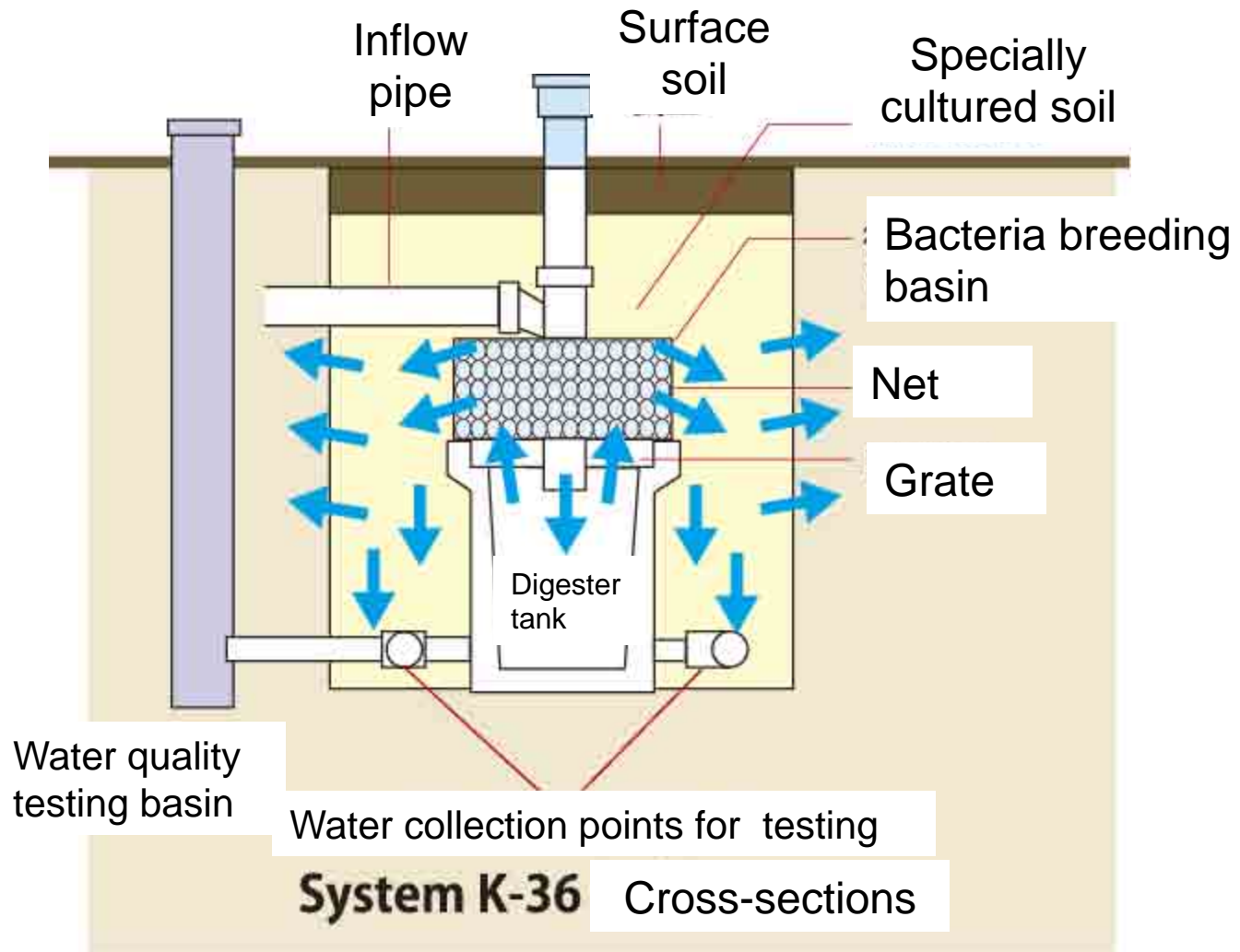














# System K-36 Installation in Japan (as of 2011)



## Installation in Hokkaido (51 total)





# ■ How the system is installed

A case in Hokkaido 2006











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設工事



Newly developed materials











## ▼ In closing...

### **A Commitment to Earth (Nature)**

Waste generated from people should never have been returned anywhere but to the earth.

Life on earth should be returned to earth, and life in sea should be returned to sea. This is the commitment we have made on circulation.