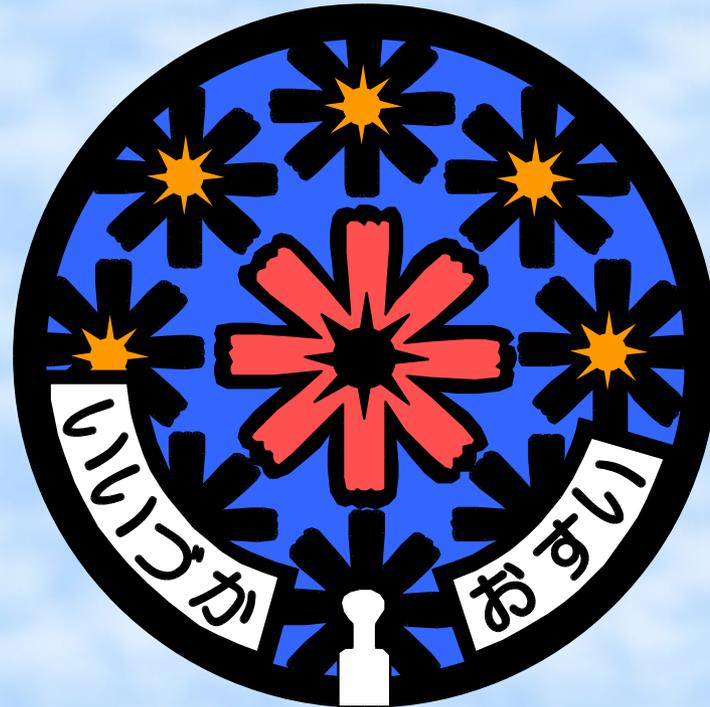
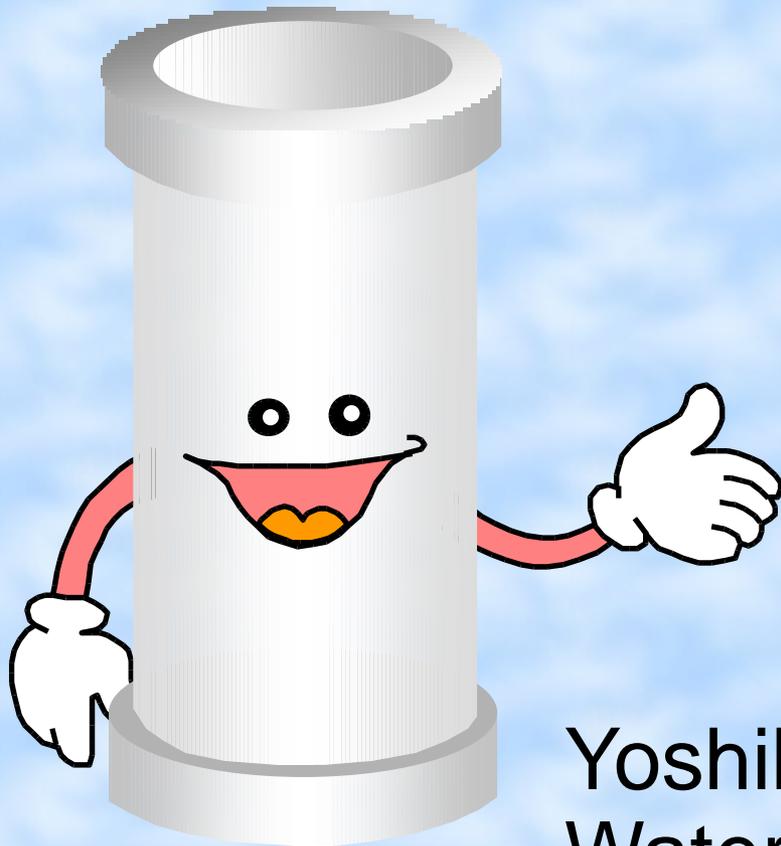


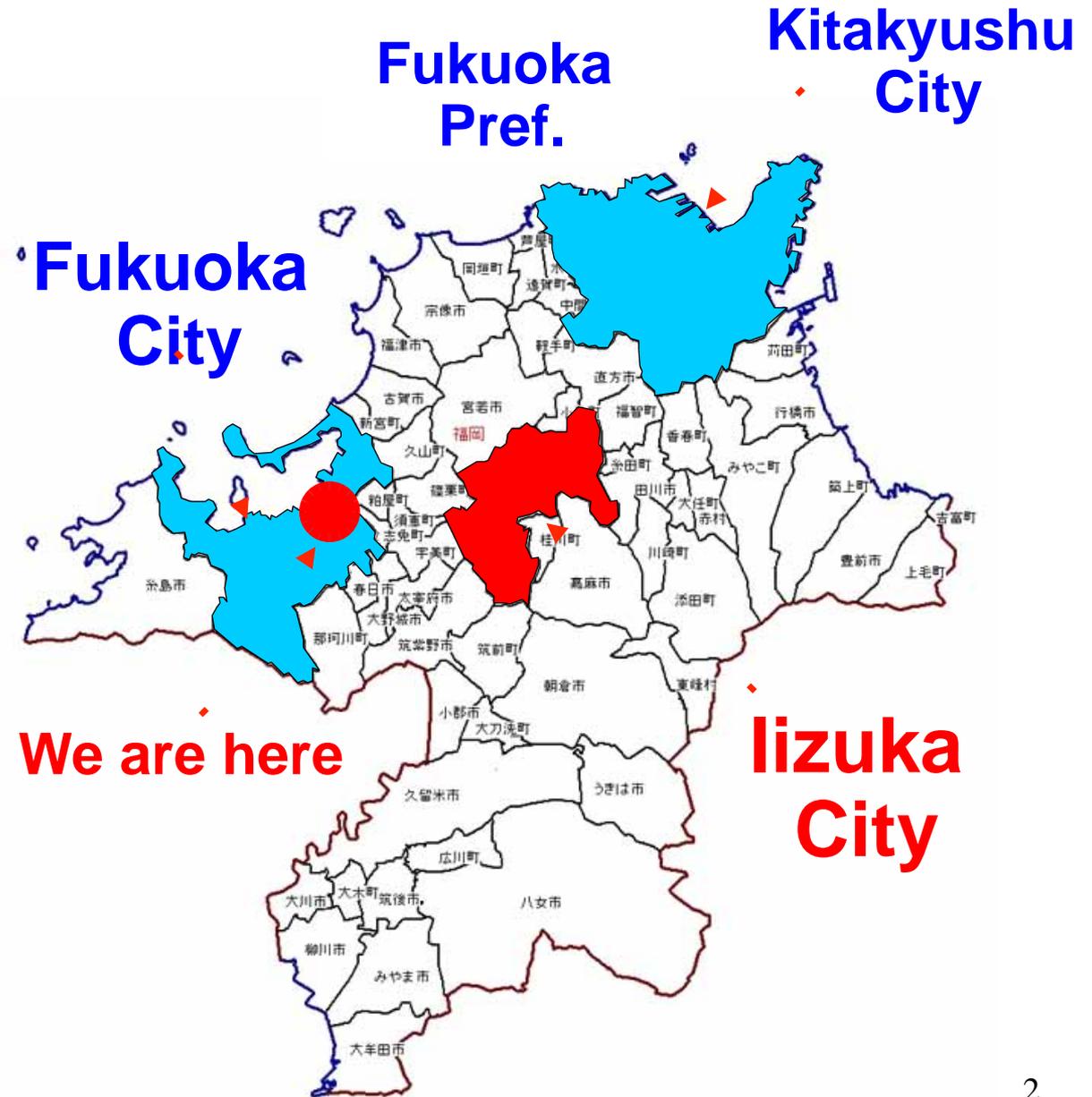
Sewage Treatment in Iizuka City



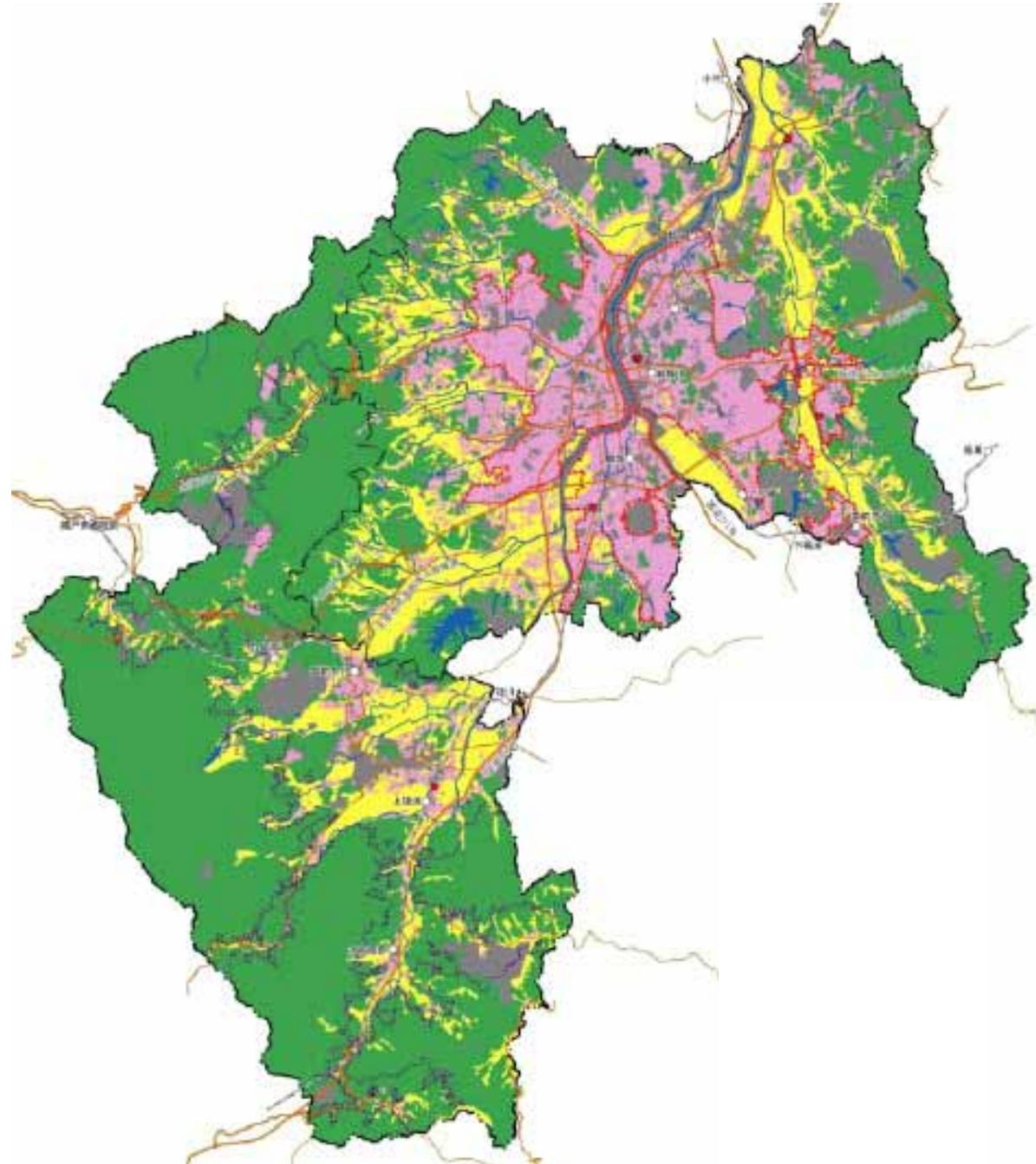
Yoshihiko Ota, Director
Waterworks and Sewage Bureau,
Iizuka City

The location of Iizuka City

Japan



Overview of Iizuka City



Population
132,000

Area:
214.13km²





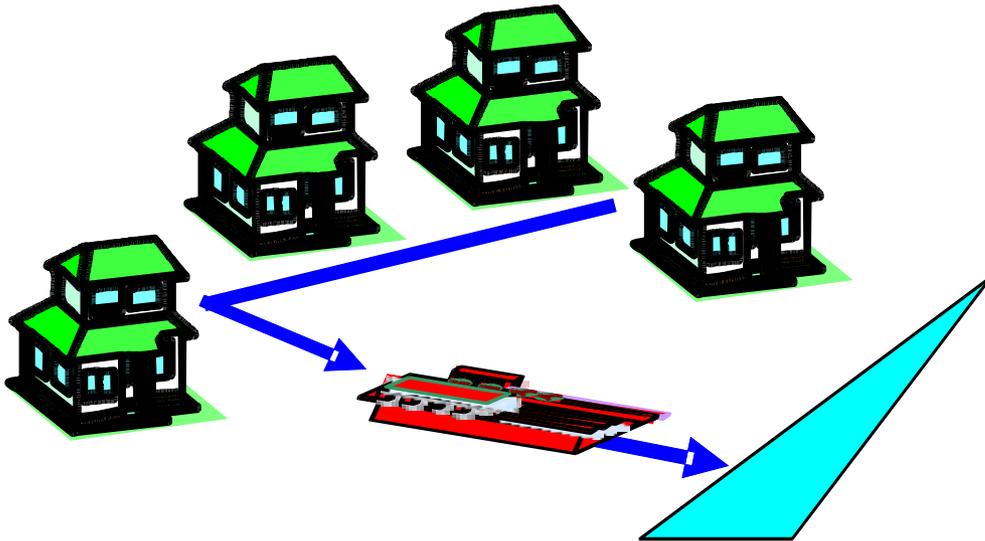
Sewage Management by Iizuka City



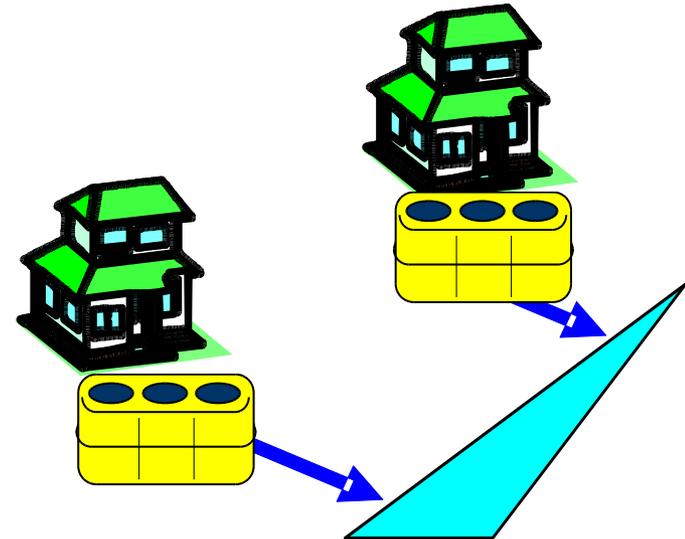
《Collective Treatment》

and

《Individual Treatment》



High density
housing areas



Low density
housing areas

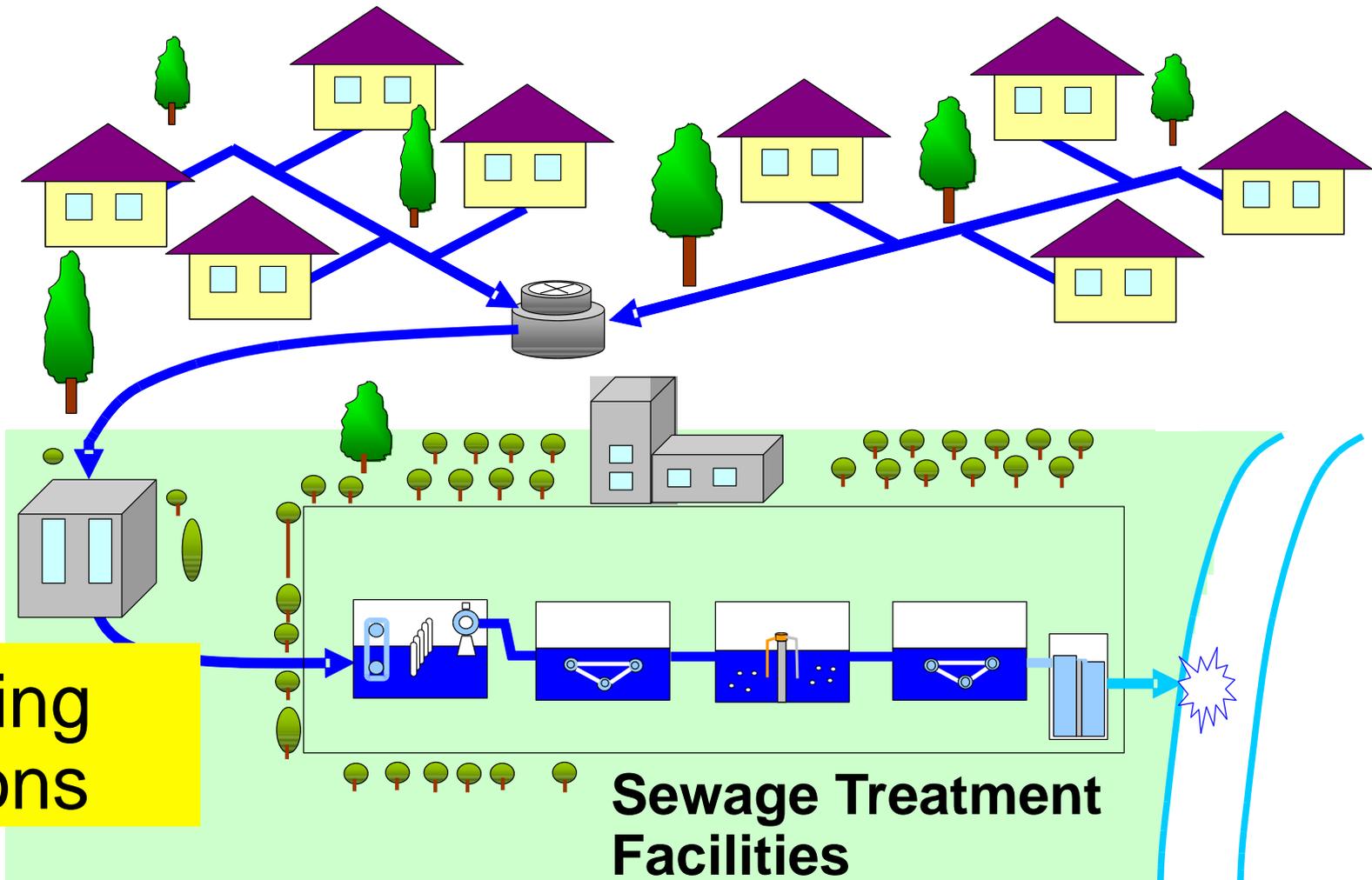
→ Collective Treatment is more efficient

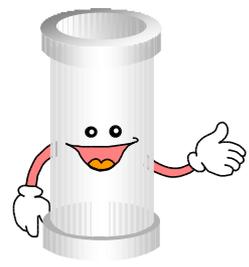
→ Individual Treatment is more efficient

~ Collective Treatment ~

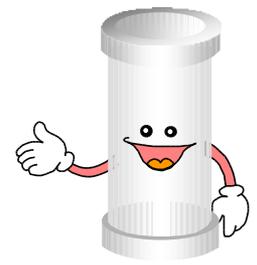
Public Sewage Farming village sewage

Community Plants





Public Sewage



○ For relatively large areas

Treatment started: 1974~

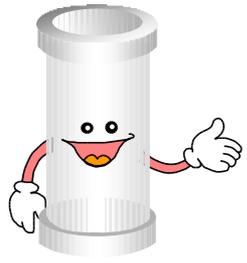
Coverage/population: **43.8%** (planned for 69.5%)

< Overview >

1 treatment plant
7 pumping stations
58,000 people covered

Final Treatment Plant ⇒
(Full view of the plant)





Public Sewage



<Overview of Iizuka Final Treatment Plant>

Method: Standard Activated Sludge Method

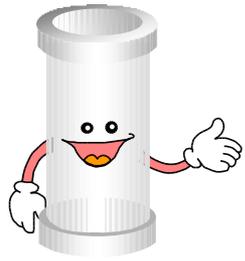
Capacity: 30,000m³/day

↓ Sludge Processing Facility

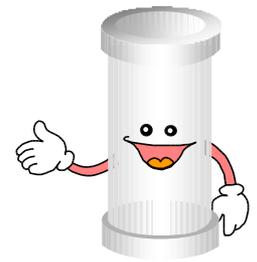


Make compost from sludge

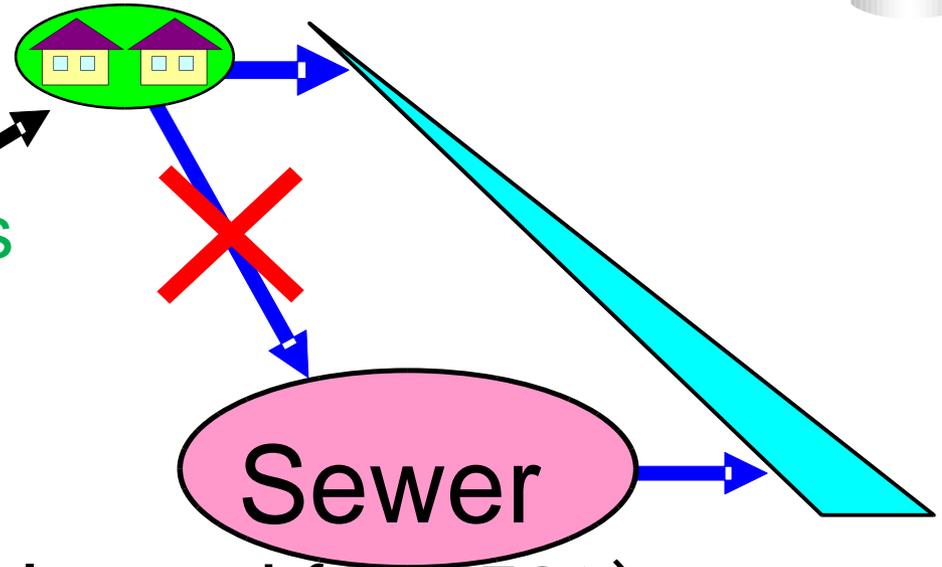




Farming village sewage



○ Collective treatment method used in rural and farming areas far from the sewage systems.



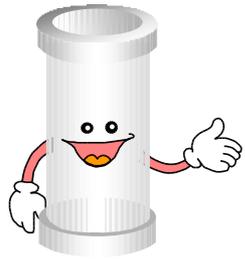
Started in 2001

Coverage/population **0.3%** (planned for 1.5%)

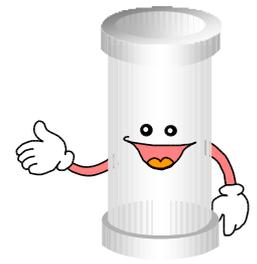
Uchino District
Sewage Treatment
Center⇒

Capacity
211m³/day

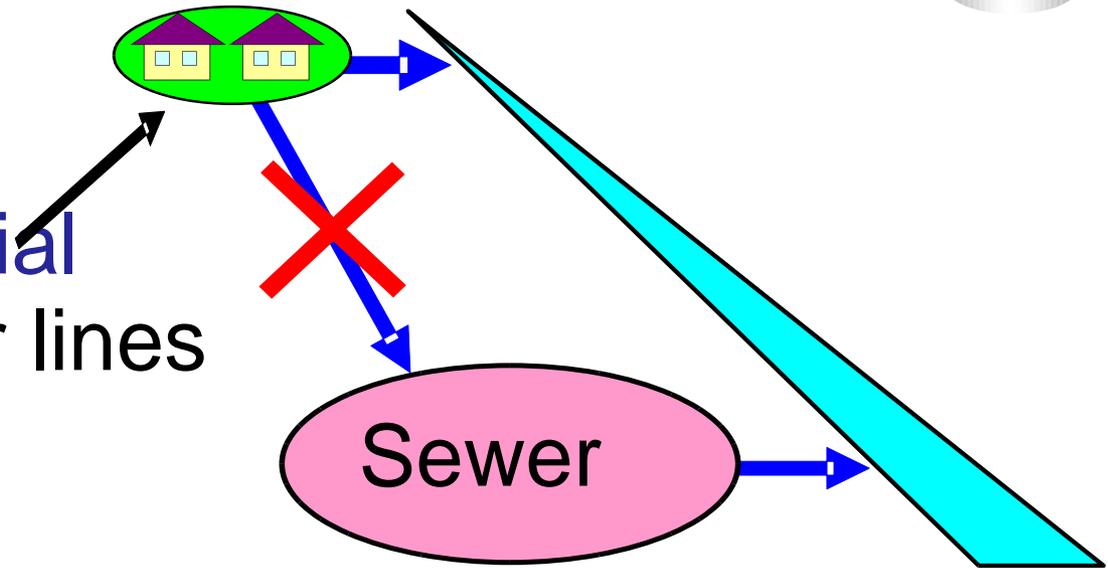




Community Plant



- A collective treatment method used in residential areas far from the sewer lines



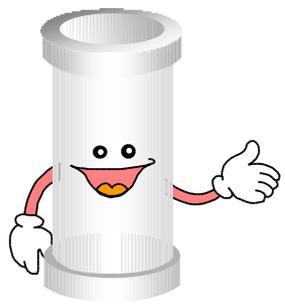
Started in 1981

Coverage/population : **0.8%** (planned for 0.8%)

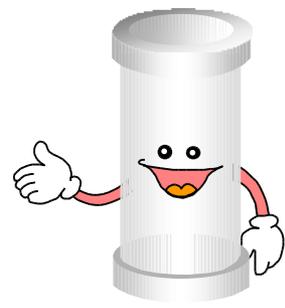
Uguisudai Residential
District
Sewage Treatment
Facility⇒

Treatment Capacity
750m³/day





~ Individual Treatment ~

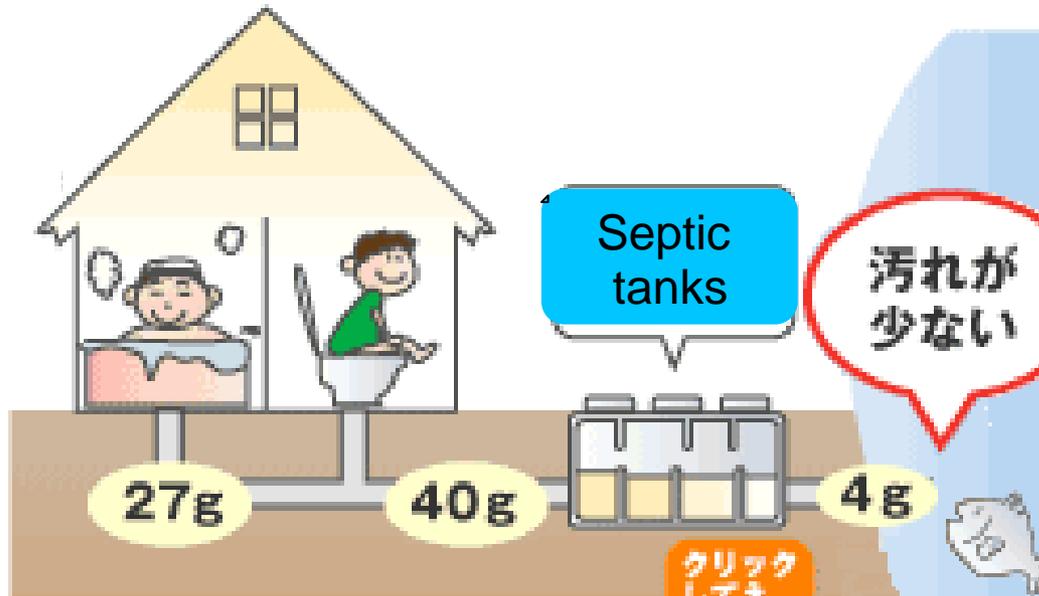


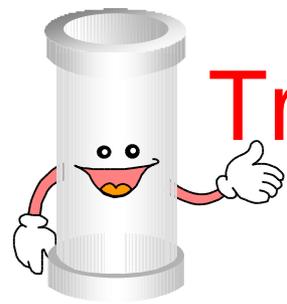
○ Individual Septic Tanks

⇒ Treated at household levels

Coverage/population: **27.3%** (planned for 28.2%)

Example of a septic tank set in a garage ⇒

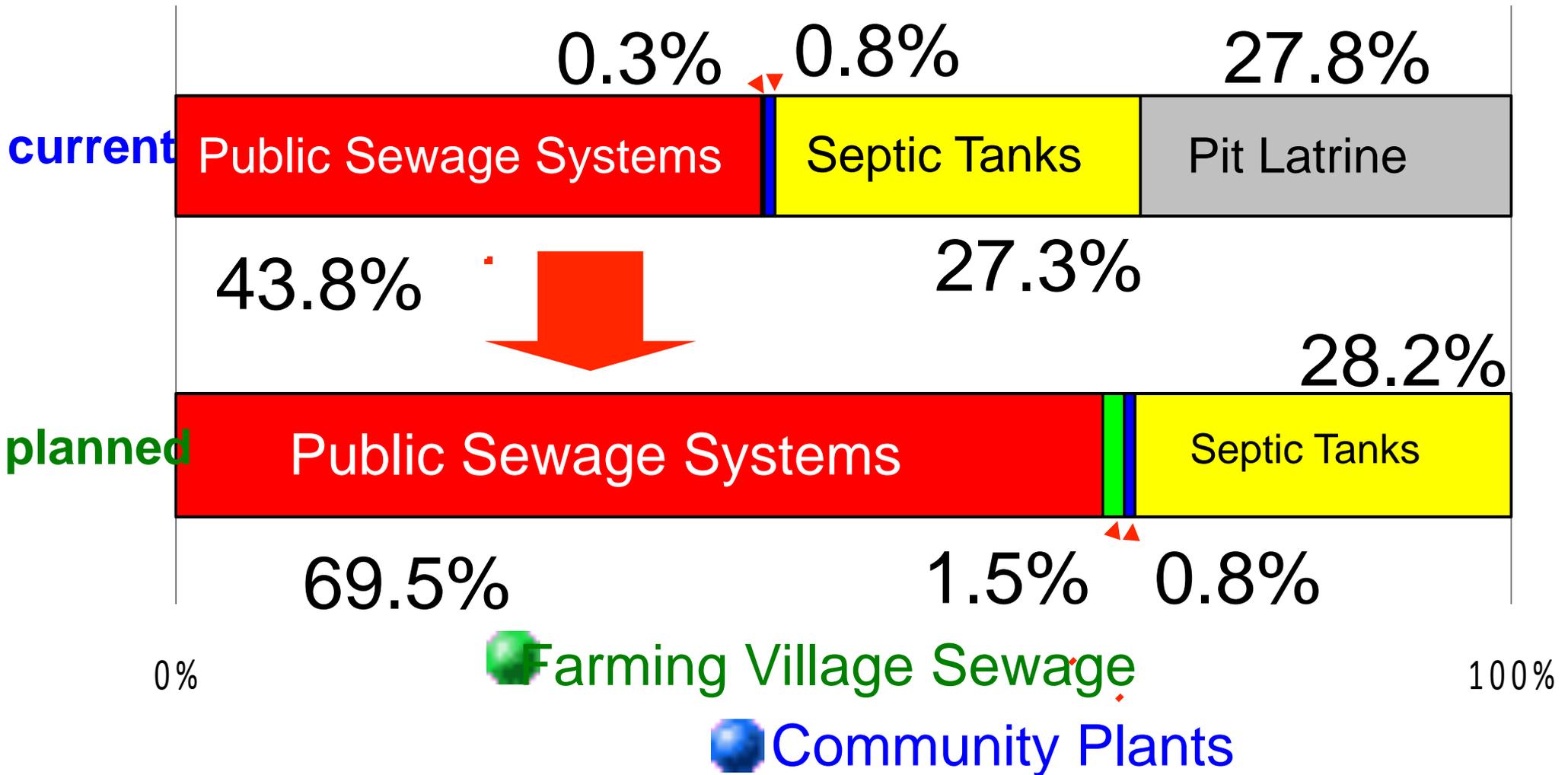




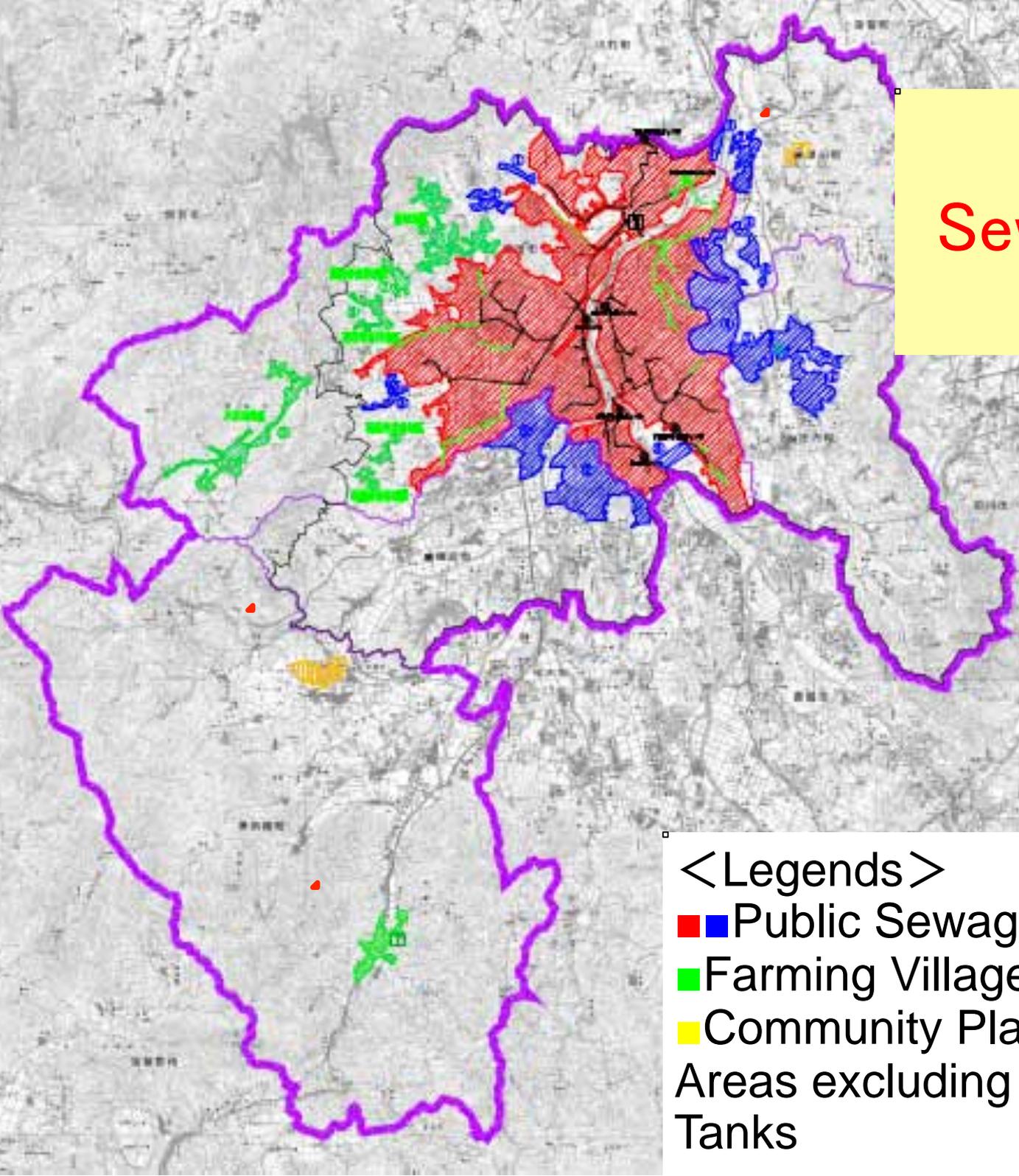
Treatment Methods in Iizuka City by ratio



 Farming Village Sewage  Community Plants



Iizuka City Sewage Treatment Plan



<Legends>

- Public Sewage Systems
- Farming Village Sewage (○:in place)
- Community Plant(○:in place)
- Areas excluding above: Individual Septic Tanks



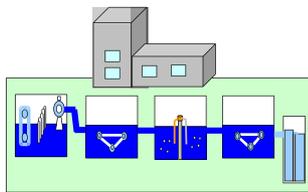
Selection of Treatment Methods



~The Case of Iizuka City~

★ Collective Treatment or Individual Treatment?

Compare Cost of A and B by both initial set up cost and maintenance cost. Collective treatment will be done in areas where the total cost is less than B.



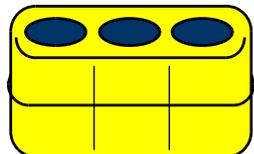
If A is cheaper,

A: Cost to occur on Treatment facility and pipes

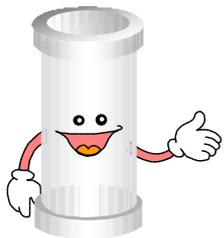
Collective Treatment

B: Cost on Septic Tank

Individual Treatment



If B is cheaper,



Selection of Maintenance Methods



～The Case of Iizuka City～

☆ 公共下水道か？ その他の事業か？

日本では様々な事業制度があるが、本市において、最も有利な事業を選定。

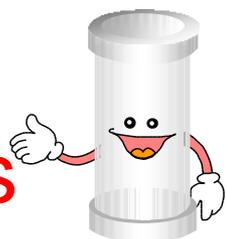
< 検討事項 >

- 事業要件
- 事業費
- 補助率
- 補助対象範囲
- ・・・等

公共下水道
農業集落排水
コミュニティプラント
を選定。

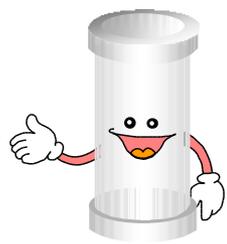


PR Activities ~ Water Environment Learning Opportunities

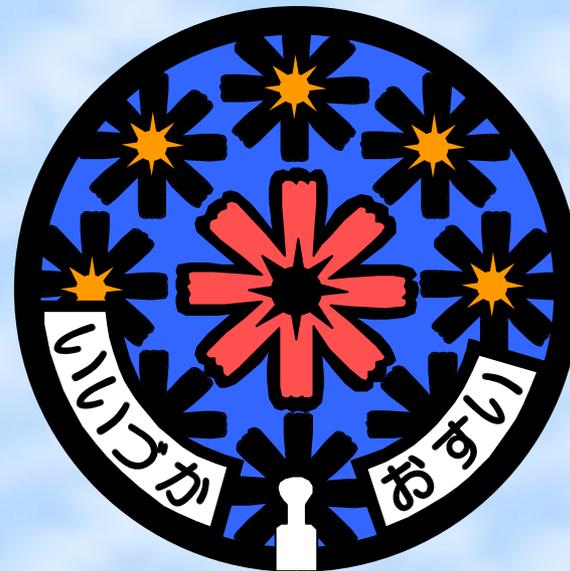
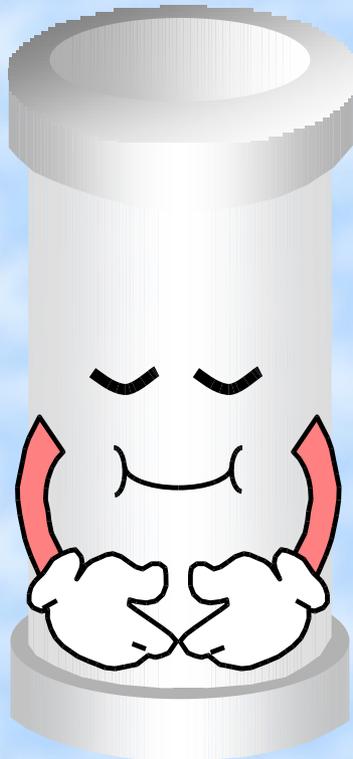




PR Activities ~ Delivery Classes



Thank you for your attention



Iizuka City Waterworks and
Sewage Bureau