



silulumanzi

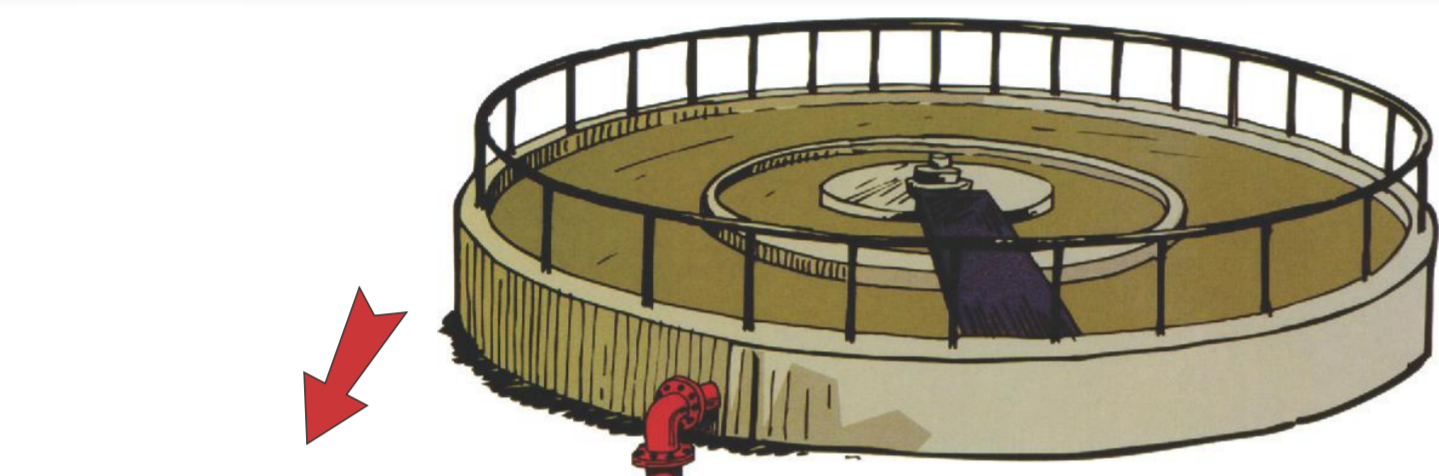
A SAWW Company

We look at what happens to waste water the moment it leaves your house!



Here we remove non-biodegradable floating objects, things that people throw down pipes and drains, like plastic, cigarette butts etc

The SEWAGE Treatment Process



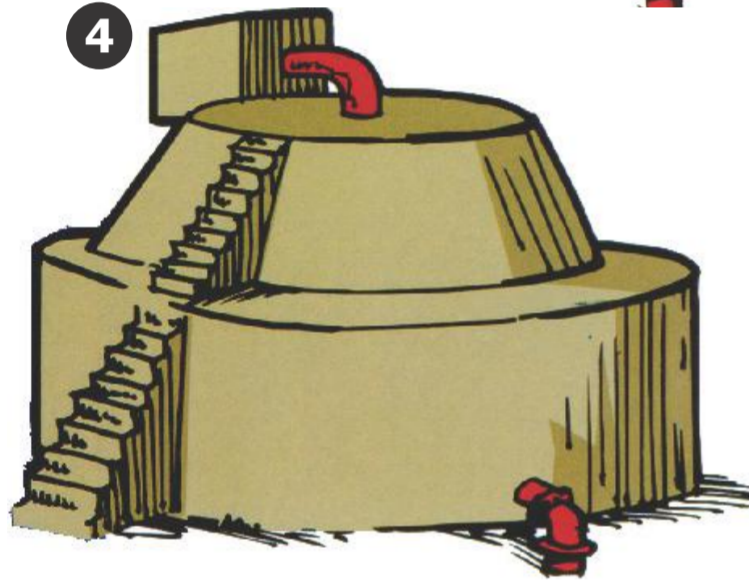
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Here we determine the hydraulic and organic loadings, after we removed all the inorganic materials, like toilet paper, plastic etc....



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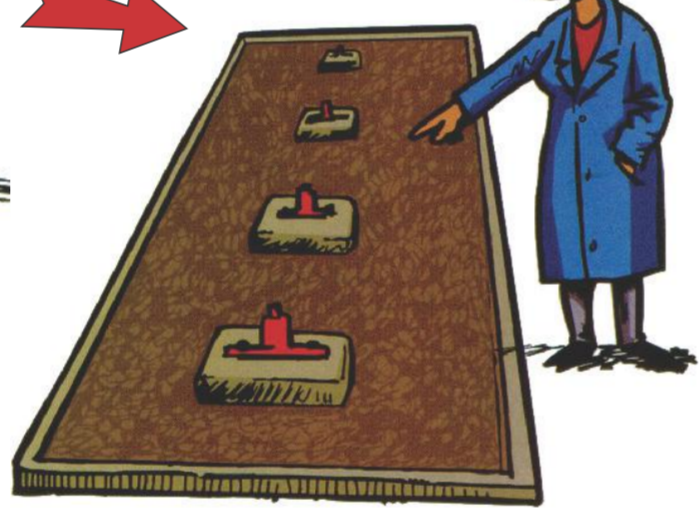
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We collect and use dried sludge for landfill.

5



1 Screen

This is the preliminary treatment phase, removing non-biodegradable floating objects. Reducing blockages in pipes, channels and sumps.

2 Grit Channel ...

Here we remove sand and grit, to protect our pumps and other mechanical equipment.

..... and Flow Measuring Unit

This is where we measure the volume of sewage we receive.

3 Primary Settling Tank

In this process we separate solids that settle to the bottom of the tank. The solids (raw sludge) is removed daily for further treatment.

4 Anaerobic Sludge Digestion

The sludge from the Primary Settling Tank and Secondary Settling Tank are mixed together and then treated in the Anaerobic Digester. The tank is airtight, warmed to about 30 degrees Celsius and after about 20 days, the sludge is broken down by bacteria into methane gas and carbon dioxide. About half the sludge is converted into gas. The gas is used to maintain the temperature of the process.

5 Sludge Drying Beds

The treated sludge is spread into drying beds where it dries. Sludge drying relies on an underground drainage system as well as sunshine. Liquid from the drains is returned to the sewage treatment for further treatment. The dried sludge is used for landfills.

6 Biological Treatment

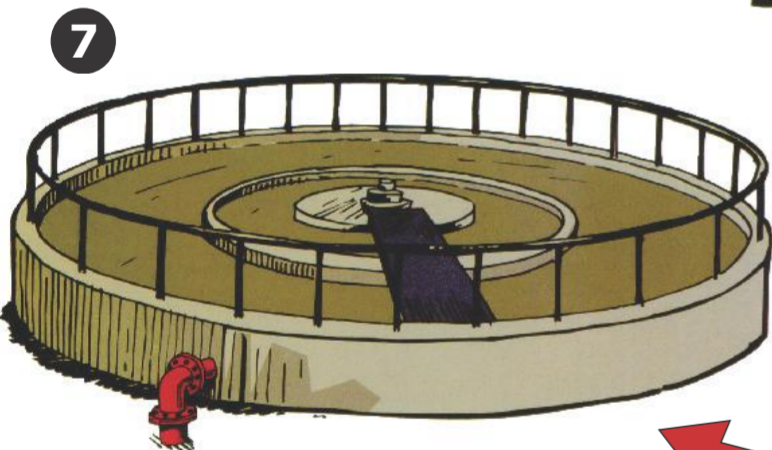
This is where we treat the liquids that flow from the Primary settling tank. The liquid trickles over a bed of stones on which a layer of bacteria grow. The bacteria convert polluting material into Carbon Dioxide and Nitrates.

7 Secondary Settling Tank

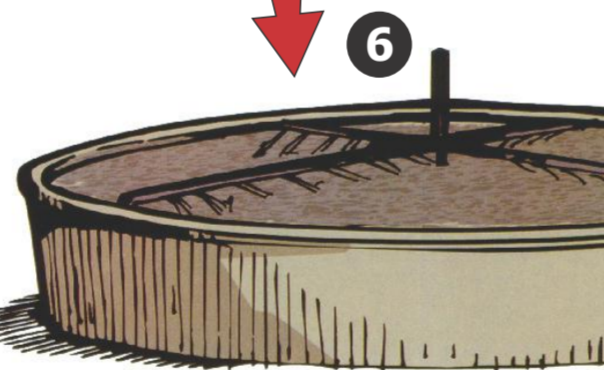
Biological treatment produces more solids. These solids settle to the bottom of the tank. The solids (human sludge) is removed daily for further treatment.

8 Disinfection

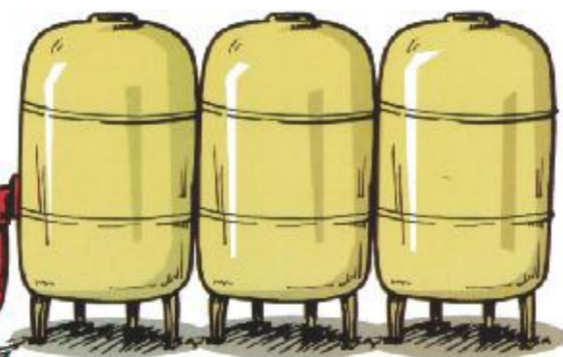
The final treatment effluent that flows from the secondary settlement tanks may still contain harmful bacteria. To destroy these bacteria the final effluent is disinfected by chlorine (similar to the bleach you use at home) before discharge into the river.



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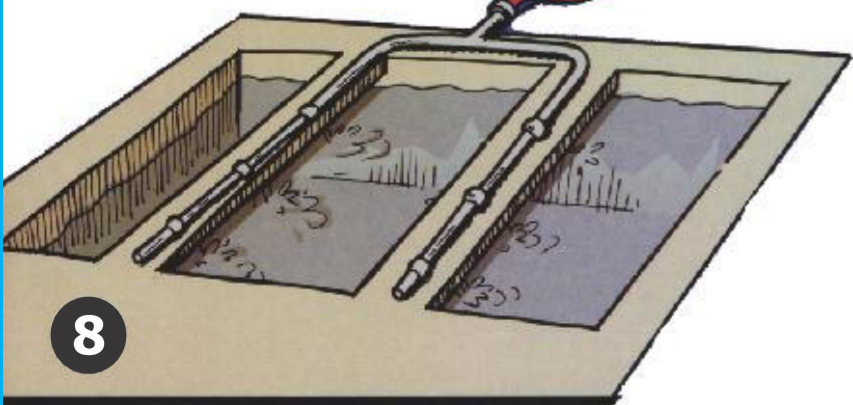
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Effluent needs to be disinfected to destroy harmful bacteria. Chlorine gas is used for disinfection.



After disinfection the water is released to the stream/river. This water is not for human consumption, but can be used for irrigation purposes.



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