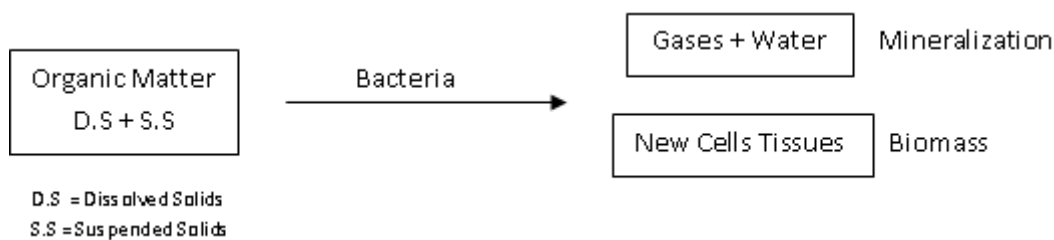


Secondary Wastewater Treatment - Biological Wastewater Treatment

- [Activated Sludge](#)
- [Trickling Filter](#)
- [Wastewater](#)

The **secondary wastewater** treatment is required to remove the soluble and colloidal organic matters which remain after primary treatment. As it is mostly biological process also called biological treatment.

In the treatment the bacteria present in sewage and other micro-organisms are allowed to use the organic matters as their food and oxidize them to stable compounds like water gases (CO_2 , NH_3 , CH_4 , H_2S etc) and new cells. The process may occur naturally at slow rate or biological treatment is done to increase the rate of reaction by having large number of organisms in a small container.



Types of Biological Waste Water Treatments

1. Attached Growth Process
2. Suspended Growth Process

Attached Growth Process

They are biological treatment process in which micro-organisms, responsible for the conversion of organic matters in waste water to gasses and new cells are attached to some inert medium such as rocks or some specially designed plastic materials etc. They are also called fixed film process. The efficiency of these processes depends on the area of inert material available for growth. Some of the processes are:

- Contact Beds
- Intermittent Filter
- [Trickling Filter](#)
- Rotating Biological Contractor

Suspended Growth Process

They are biological treatment process in which the micro organisms responsible for the conversion of organic matters to gases and new cells are kept in suspension naturally or mechanically. Examples are

- [Activated Sludge Process](#)
- Aerated Lagoon
- Oxidation Ponds
- Sludge Digestion System