

# Sewage Treatment, Municipal Wastewater Treatment Purpose, Classification

- [Sewage](#)
- [Treatment](#)
- [Trickling Filter](#)
- [Wastewater](#)

**Sewage treatment** or **Municipal wastewater treatment** is the combination of **physical** and **biological process** with chemical process occasionally applied additionally to bring the sewage to such a quality that it is not harmful to human health and environment.

## Purpose of Sewage Treatment

The sewage is treated before its final disposal because of the following reasons:

1. To kill the pathogenic bacteria present in the sewage which may result in water born diseases like cholera, typhoid, dysentery etc.
2. To avoid unhygienic condition in the area because of highly fouled sewage.
3. To protect aquatic life from harmful effects of sewage directly discharged into the water body (river or sea).
4. The stagnant sewage may percolate into the soil and pollute the ground water reservoir which may lead to epidemics.
5. Treatment makes the possibility of reuse of valuable fresh water for agriculture purposes.
6. The treated sewage may be used for reclamation of land.

## Classification of Sewage Treatment

1. Preliminary Treatment (Physical)
2. Primary Treatment (Physical)
3. Secondary (Biological)
4. Trickling Filter (Biological)
5. Advance Treatment Activated Sludge Process (Physical, Chemical and Biological)

### Preliminary Treatment

It consists of removal of floating material (like dead animals, tree branches, papers, plastics, wood pieces, vegetables peels etc) and also the heavy settleable inorganic solids (grit etc). Preliminary treatment includes: *Screening, Comminutors, Grit Chamber, Detritus Chamber* and *Skimming Tank* **Preliminary Treatment**

### Primary Treatment

It is a plain sedimentation process to remove suspended organic solids from the sewage. Chemical are sometimes used to remove finely divided and colloidal solids. **Primary Treatment**

### Secondary Treatment

The secondary 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. **Secondary Treatment**

### Trickling Filter

**Trickling Filter** also known as **percolating** or **sprinkling** filter is like a well having depth up to about 2m and filled with some granular media. The **sewage** is sprinkled over the media which percolates through filter media and is collected through the under-drainage system. **Trickling Filter**

### Sludge Treatment /Advanced Treatment

It may be defined as the sludge which settles down after the sewage has been agitated freely in the presence of abundant atmospheric oxygen. It contains a large number of aerobic bacteria and other organisms and acts a fertilizing constituent (agent). **Sludge Treatment**