

# Wastewater Conveyance System

## Introduction:

Wastewater conveyance system is an important aspect of centralized wastewater treatment plant such as Common Effluent Treatment Plant (CETP) and large scale Sewage Treatment Plant (STP). Additionally, conveyance system plays major role where treated wastewater is recycled back to the industries.

## Components/ Techniques involved in Wastewater Monitoring Systems:

Popular wastewater conveyance systems include:

- Tankers,
- Underground or above ground pipelines and
- Open channels.

While, for Sewage treatment plant all over the world, underground conveyance pipeline is always preferred, industrial wastewater conveyance system comprises any of three types mentioned above or sometimes it is combination based on characteristics and volume of industrial wastewater to be conveyed.

## Brief Description of each component /Technique:

- **Tankers**
  - Generally employed where small scale industries are available.
  - Fixed capacity road tankers are employed to convey wastewater from industry to the treatment unit (CETP).
- **Underground or above ground pipelines**
  - Generally used for large scale industries.
  - RCC or MS pipes are generally used.
  - Connects each industry with the CETP through network of pipelines
- **Open Channel**
  - Generally used for conveyance of treated wastewater for final disposal.
  - Open RCC structure.

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## Pros and Cons of Wastewater conveyance system:

Tanker	Underground / above ground pipelines	Open channels
<b>PROS</b>		
Suitable for small scale industries due to smaller volume of wastewater generation	Suitable for transportation of large volume.	Suitable for transportation of large volume
Easy control over inlet quantity to incoming wastewater.	Easy maintenance	Easy maintenance
	Important part of town planning for sewage conveyance of entire city.	
<b>CONS</b>		
Not suitable for large industries	Not suitable for heterogeneous wastewater transportation	Require open land
Additional security measures such as vehicle tracking is required.	Requires detailed planning before installation such as future expansions.	Not secure against illegal dumping of untreated wastewater.
Frequent maintenance related to leakages and vehicle servicing	Exceedingly difficult to upgrade if not planned properly	More suitable for treated water conveyance
Increase vehicular pollution during frequent to &fro travel.	Geographical limitation i.e not suitable for hilly areas	-
	Sometimes required pumping stations for better conveyance	