



3. Elements of Wastewater Treatment

Wastewater treatment involves the following:

3.1 Generation

Wastewater originates from domestic, industrial, commercial or agricultural activities. The characteristics of wastewater vary depending on the source. Types of wastewater include:

- **Domestic Sewage:** wastewater derived principally from dwellings, business buildings, institutions, and
- **Industrial Sewage:** liquid waste from industrial processes

Typical per person generation of wastewater in the USA is about 70-100 gallons per day

3.2 Collections

- Wastewater is collected from its point of origin - home, businesses, industries etc. and conveyed via sewer lines to a centralized wastewater treatment facility.
- When the rainwater drainage is made part of the sewer system, the system is termed as **Combined System**.
- The system where the sewage is conveyed separately from the stormwater flows is termed as **Separated System**.
- In the Separated System, the Sanitary Sewers convey the wastewater and the Stormwater Sewer conveys the storm water flows.
- For the Combined System, rainstorms pose the threat of overwhelming the sewers and the treatment plant