

Liquid Waste Management (LWM)

is the systematic collection, treatment, and disposal of wastewater to prevent environmental contamination and protect public health. In 2026, the focus has shifted toward decentralized treatment and circular economy principles to reclaim water as a resource.

Key Components of LWM

Collection and Transport: Gathering wastewater through sewer networks, pipelines, or vacuum trucks from residential and industrial sources.

Treatment Phases:

Primary: Physical removal of solids using bar screens and sedimentation tanks.

Secondary: Biological treatment using microorganisms to break down organic matter (e.g., Activated Sludge Process).

Tertiary/Advanced: High-level purification through disinfection (UV, chlorination) and nutrient removal for safe reuse.

Disposal and Reuse: Safe release into water bodies or recycling for irrigation, industrial cooling, and gardening.