

Four common methods to treat wastewater are physical, biological, chemical and sludge processes.

Physical processing includes screening, sedimentation and skimming. No chemicals are used in this process. Sedimentation suspends the insoluble particles from wastewater. These insoluble particles settle at the bottom which can then be separated from pure water. Aeration circulates air through the water to provide oxygen and filtration consists of filtering out all the contaminants.

Biological treatment breaks down organic matter like human waste, oils, food and soap. There are three ways microorganisms can metabolize this matter aerobically, anaerobically and composting. Aerobic treatment uses bacteria to decompose organic matter which converts into carbon dioxide and can be used by plants. Anaerobic treats the waste in the absence of oxygen and treating wastewater by mixing with carbon sources composts the wastewater.

Chemical processes treat the wastewater with chemicals such as chlorine. This technique neutralizes the wastewater by adding an acid or base to return the water to its natural pH.

Sludge treatment separates the solid and liquid. The solid phase is where the least possible residual moisture is maintained and the liquid phase contains the lowest possible solid particles.

NLCA uses a combination of all four treatment processes to ensure the water that is discharged into our waterways is clean and safe for our environment.