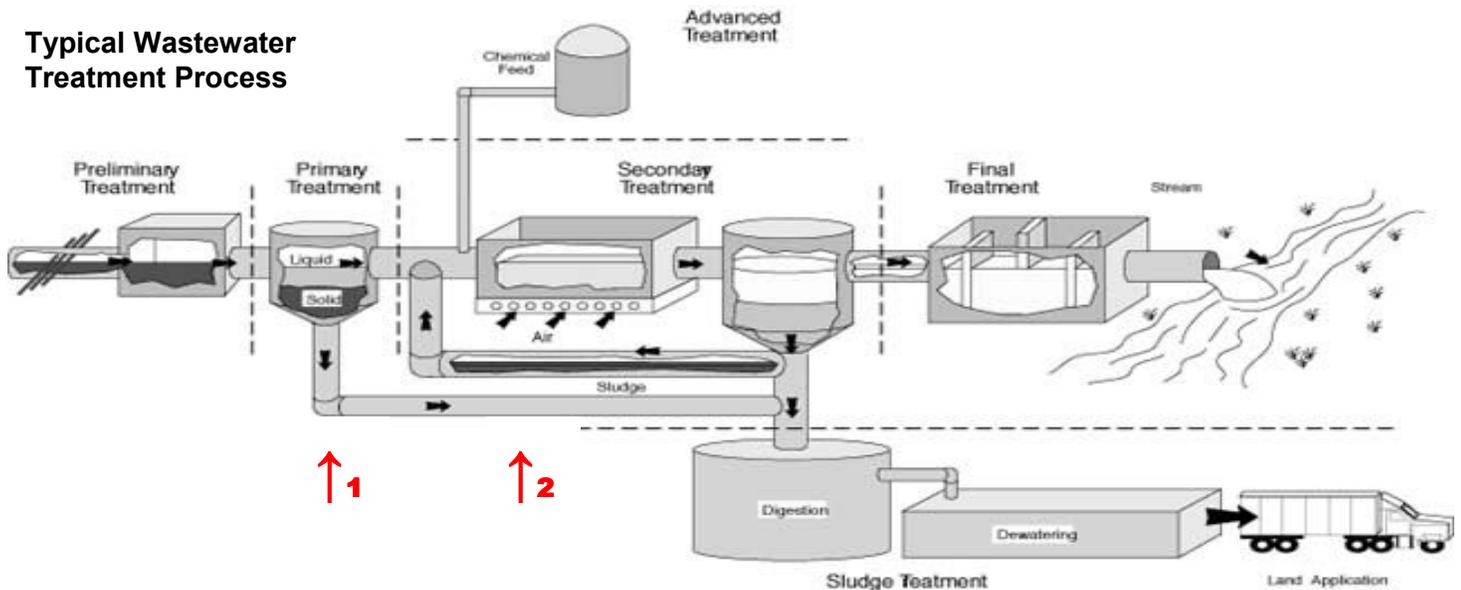


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Urban Wastewater Systems *(continued)*

Primary and Secondary Treatment:



1 Primary treatment is the first major treatment process in a wastewater treatment facility, used for the purpose of sedimentation or clarification. The **primary sedimentation tank** (the first settling tank) is used for the removal of settleable solids, sometimes called a **primary clarifier**. Primary treatment removes a substantial amount of suspended matter with little or no colloidal and dissolved matter. Screens, settling tanks, and skimming devices are most commonly used for the separation. Primary treatment removes 45 to 50 percent of the pollutants.

2 Secondary treatment. After primary treatment, wastewater still contains solid materials either floating on the surface, dissolved in the water, or both. Under natural conditions, these substances would provide food for such organisms as fungi, algae, and bacteria that live in a stream or lake. Many public wastewater treatment plants now provide this second stage to remove more of the pollutants up to 80 or 90 percent altogether. Secondary treatment is largely a biological process. Air is supplied to stimulate the growth of bacteria and other organisms to consume most of the waste materials.

Next week: Final Treatment and Sludge Treatment