

May 2021

Vol. VI, 2021

## Urban Sewer Systems

In urban and suburban areas, sewer systems take wastewater to a wastewater treatment facility, where the wastewater is cleaned and discharged into a body of water for reuse.

A sewer system is typically gravity-powered, like a septic system. Pipes from each house or building flow to a sewer main that runs, for example, down the middle of the street.

The sewer main flows into progressively larger pipes until they reach the wastewater treatment plant. To help gravity, the wastewater treatment plant is usually located in a low-lying area, and the sewer main will often follow creek beds and streambeds (which flow naturally downhill) to the plant.

Normally, the lay of the land will not completely cooperate and gravity cannot do all the work. In these cases, the sewer system will include a grinder-pump or a lift station to move the wastewater up over a hill. After the final lift station, the wastewater flows to a wastewater treatment facility.

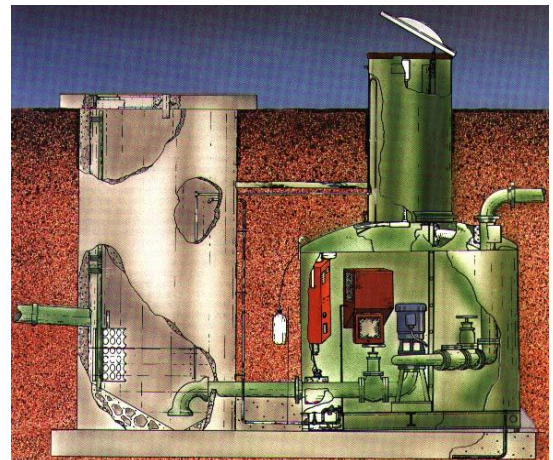
### ***Examples of pumps used in lift stations:***



**Screw Pump Lift Station**



**Self Priming Pump**



**Cross Section of a Lift Station**

*Next time: Wastewater treatment*