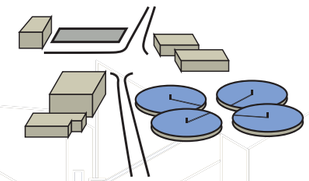
The Water Infrastructure Beneath Your Feet

Making the connection to your home, business and quality of life.

WATER PLANT



Water Treatment

Water treatment facilities in the United States take untreated water from groundwater sources — wells and aquifers — or surface water sources — rivers, lakes, and reservoirs — to produce drinking water that is safe for human consumption. Using a combination of physical, chemical, and biological processes, these facilities remove more than 90 federally regulated contaminants including bacteria, algae, viruses, fungi, and chemical pollutants. Although the complexity of the processes may vary, there are three basic stages of the water treatment process: primary, secondary, and tertiary treatment.

About 800 U.S. cities have "combined sewer systems" that mix stormwater with wastewater. If stormwater adds more water than the system can handle, water can back up into homes or spill untreated into rivers, lakes or oceans

Distribution mains are fed by trunk mains

Sewer mains may be 24 inches in diameter or larger

Service or branch lines connect city water to plumbing systems

Sewer manhole covers have vents in them to provide for ventilation of gas or odors building up underground.

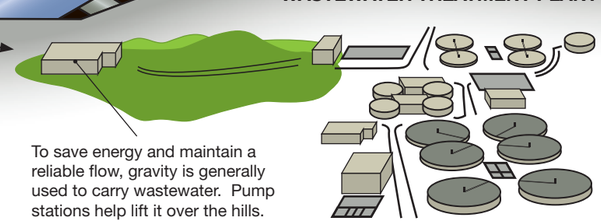
WASTEWATER

WATER

Vertical shafts meet the main water tunnels at roughly one-mile intervals, and carry the water to trunk mains which are generally between 24 and 84 inches wide.

In large apartment buildings sewage lifts are used to raise the level of the waste from a building cellars to the street conduits.

WASTEWATER TREATMENT PLANT



Sewer manholes consist of a shaft, generally with built-in stairs, that widen from two to five feet at the bottom for cleaning the sewer lines.

To save energy and maintain a reliable flow, gravity is generally used to carry wastewater. Pump stations help lift it over the hills.

Wastewater Treatment

Wastewater treatment facilities in the United States receive wastewater from domestic and industrial sources, sometimes including stormwater runoff. Using a combination of physical, chemical, and biological processes, these facilities treat wastewater to levels that meet stringent federal standards that are designed to protect public health and the integrity of receiving waters. Although the complexity of the processes may vary, there are four basic stages of the wastewater treatment process: primary, secondary, tertiary, and disinfection/discharge.

www.WaterIsLife.net