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What are Biosolids?

Biosolids are nutrient-rich organic materials resulting from the treatment of **sewage** at a wastewater treatment facility. Through biosolids management, solid residues from wastewater treatment are processed to reduce or eliminate pathogens and minimize odors, forming a safe, beneficial product for agriculture. Biosolids can be applied as fertilizer to improve and maintain productive soils and stimulate plant growth. They are used to fertilize gardens and parks and reclaim mining sites. Biosolids are carefully monitored and must be used in accordance with regulatory requirements.

Why do we need a sewer system?

Each time you flush the toilet or wash something down the drain, you create **sewage** or **wastewater**. One question that many people might ask is, "Why not simply dump this wastewater onto the ground outside the house, or into a nearby stream?" There are three main reasons you do not want to release wastewater into the environment:

1. **It stinks.** If you release wastewater directly into the environment, things get very smelly very fast.
2. **It contains harmful bacteria.** Human waste naturally contains **coliform bacteria** (E. coli) and other bacteria that can cause disease. Once water becomes infected with these bacteria, it can become a health hazard.
3. **It contains suspended solids and chemicals that affect the environment.**
 - Wastewater contains nitrogen and phosphates that, being fertilizers, encourage the growth of algae. Excessive algae growth can cloud the water and create thick scums and foul odors.
 - Bacteria in the environment will decompose the organic material in wastewater. The bacteria consume oxygen in the water, which results in lack of oxygen, killing fish and plant life.
 - The suspended solids in wastewater make the water look murky and can affect the ability of many fish to breathe and see.

The increased algae, reduced oxygen, and murkiness compromise the ability of a stream or lake to support wildlife.

No one wants to live in a place that stinks, is full of deadly bacteria and cannot support aquatic life. That is why communities build wastewater treatment plants and enforce laws against the release of raw sewage into the environment.

Next time: Private Systems, the Septic Tank