

## **Septic Tanks And Phosphates**

**It Stinks** if you release wastewater directly into the environment things get very smelly very fast.

**It Contains Harmful Bacteria.** Human waste naturally contains **coliform bacteria** and other bacteria that can cause disease. Once water becomes infected with these bacteria, it becomes a health hazard.

### **It Contains Suspended Solids and Chemicals that effect the environment**

1. Wastewater contains organic nitrogen and phosphates that being fertilizers, encourage the growth of algae. Excessive algae growth can block sunlight and foul the water.
2. Wastewater contains organic material that bacteria in the environment will start decomposing. When they do, these bacteria consume oxygen in the water. The resulting lack of oxygen kills fish.
3. The suspended solids in wastewater make the water look murky and can affect the ability of many fish to breathe and see.

## **NITRATES**

All nitrates are soluble, so whatever amount is not taken up by plants in a field is washed away into ground water and, eventually, into rivers, streams and ponds and lakes. In these bodies of water, the nitrates become sources of food for algae and other plant life, resulting in the formation of algae blooms. Algae blooms are usually the first step in the eutrophication of a pond or lake.

As a result of eutrophication, a pond or lake slowly evolves into a marsh or swamp, then into a bog, and finally into a meadow.

Aquatic plants and mats of algae scum may cover the surface of the water. As these algae mats and aquatic plants die they sink to the bottom, where their decomposition by microorganisms uses most of the oxygen dissolved in the water. The decrease in oxygen severely inhibits the growth of many aquatic organisms especially fish and may lead to massive fish kills. Controlling the amount of phosphates entering the surface water from domestic use and industrial discharge is necessary to prevent eutrophication.

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