

NITROGEN & PHOSPHOROUS IN WASTEWATER



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The Effects of Nitrogen and Phosphorous in Wastewater

How does nitrogen and phosphorous get into wastewater and what are the effects and problems? Nutrient pollution is one of America's most widespread, costly and challenging environmental problems. It is caused by excess nitrogen and phosphorus in the air and water.

Nitrogen and phosphorous are nutrients that are natural parts of our environment and ecosystems. They support the growth of algae and aquatic plants which provide food and habitat for fish, shellfish and smaller organisms that live in water. However problems occur when too much nitrogen and phosphorous enter the water. These once beneficial nutrients in too great an amount promote pollution in streams, rivers, lakes, bays and coastal waters that can cause health issues for humans and other living beings.

Too much nitrogen and phosphorus in the water causes algae to grow faster than ecosystems can handle. Significant increases in algae harm water quality, food resources and habitats. It depletes the oxygen that fish and other aquatic life need to survive. Large growths of algae can severely reduce or eliminate oxygen in the water, leading to illnesses in fish and the death of large numbers of fish. Excess algae is harmful to humans. It produces elevated toxins and bacterial growth that can make people sick if they come into contact with polluted water, consume tainted fish or shellfish, or drink contaminated water. Infants are especially sensitive to the amount of nitrates in drinking water.

Where does this excessive nitrogen and phosphorous come from? Mostly human activities. One of these human activities is agriculture. Animal manure, excess fertilizer applied to crops and fields, and soil erosion make agriculture one of the largest sources of nitrogen and phosphorus pollution in the country. Other man made causes of nitrogen and phosphorus pollution include hard surfaces like rooftops, roads, and parking lots that allow rain to wash nitrogen and phosphorous into our groundwater and waterways.

Another big offender is a failing septic system or sewer system. Wastewater from septic and sewer systems is treated before it runs into the ground but if the systems are not working properly they do not remove enough nitrogen and phosphorous before it is released. At home, fertilizers, yard and pet waste, and certain soaps and detergents contain nitrogen and phosphorus that can contribute to nutrient pollution if not properly used or disposed of. Clean water is important for everybody and the government spends many dollars combating excess algae in our waterways which can shut down ponds and lakes from human use.

Keep Excessive Nitrogen and Phosphorous Out of Our Waterways

1

SELECT CERTAIN CLEANERS

Choose phosphate-free detergents, soaps, and household cleaners. Select the proper load size for your washing machine. Only run your clothes or dish washer when you have a full load. Use the appropriate amount of detergent; more is not better. Always pick up after your pet and avoid walking them near lakes, ponds and streams. Beware of what you use for lawn care.

2

REGULAR SEPTIC MAINTENANCE

You can also make sure you regularly maintain your septic system. Regular maintenance and scheduled pumping is essential. Avoid septic system additives and avoid garbage disposals if possible, which add a lot of solids to your septic system. Be conscious of what is put down your toilet and drains. Fats and grease in particular should be thrown away as well as any kind of wipes.

3

WATER CONSERVATION INSIDE

Practice water conservation in and around the house. Check for leaky toilets and faucets, try for shorter showers and avoid leaving faucets running. Investing in energy and water efficient appliances and toilets can go a long way as well as low-flow showerheads.

4

WATER CONSERVATION OUTSIDE

You can also use this conservation outside. Use fertilizer sparingly on your lawn and garden and only the recommended amounts. Do not apply fertilizer right near a waterway. Install rain barrels to catch rainwater for watering your lawn and garden and water sparingly in early morning or evening. Use your grass clippings and leaves as mulch around your garden to retain moisture.

We are all affected by the amount of nitrogen and phosphorous in our environment and we can all work together to keep our planet healthy.

Septic Preservation Services helps commercial businesses with their wastewater effluent and has effective maintenance programs to keep your septic system running smoothly. SPS can answer all your questions on any septic issues.

Call them at 877-378-4279 | visit www.septicpreservation.com