



How You Can Help the WPCF crew Keep Hypoxia at Bay

The Long Island Sound Watershed touches six states plus Canada. Growth in this region has created stress on the Sound. One of those stresses is **HYPOXIA** or low dissolved oxygen (DO) in water. Like us, marine life needs oxygen to survive. Oxygen gets into water by surface diffusion (water churning against air) and by some plants which produce it.

Hearing the word “nutrients,” many think of vitamins in our food. But nutrients provide nourishment for *all* life forms.

Nitrogen and **phosphorus** are common nutrients which occur naturally in water. However, too much can reduce oxygen and cause hypoxia. What conditions cause problematic levels? Here are two:

Nitrogen and phosphorus are two ingredients used in fertilizers that ‘feed’ gardens. When rain carries excess fertilizer to storm drains & surface waters, the nutrients act as they do in gardens: increasing plants and algae. This unwanted marine growth is called *eutrophication*. All growing plants use oxygen, so the increase depletes ‘DO’. When amounts used up are more than nature makes— *that* is hypoxia. A cycle begins. Things die, break down, more nutrients are made, and surface algae or scum results.

Nitrogen and phosphorus are also found naturally in many foods. We humans eat, and any surplus exits through our bodies and kitchens, entering water via toilets and sinks. Wastewater goes down the drain to a Treatment Plant to be cleaned for return to the Sound. The Water Pollution Control Facility (WPCF) must meet strict guidelines for its effluent (the water it releases). Careful calibration must balance competing priorities. WPCF operators strive to continuously improve processes including nutrient removal.

The WPCF receives a daily average of 730 lbs. of nitrogen in our wastewater. Recent improvements means a dramatic 85% is now removed! This occurs while wastewater flows at a rate of 1500 gallons per minute nonstop! But if *incoming* nitrogen was less, Groton could reduce nutrient release even more.

How can you help?

Make a difference by keeping food waste out of household drains. Less food waste means less nitrogen to remove at the plant.

The simple act of scraping your plates and cutting boards into the trash, instead of down the drain or into a toilet, may seem inconsequential— but adds up to help Long Island Sound. Following instructions when fertilizing lawn & gardens too (so you don’t use more, or more often, than necessary) is another way to help.



Water conditions in Long Island Sound are slowly improving and the WPCF does its part, but there is still work to be done, in the Sound and in our local rivers and streams. Learn more at: www.soundhealthexplorer.org Or www.epa.gov/waterdata/hows-my-waterway

A CCSMM UPDATE

from the team working to solve our CT waste crisis:
The CT Coalition for Sustainable Materials Management

◆ Covid-19 stalled purchase of waste worldwide (i.e. recycling). But with lock-downs ended, demand for paper, Old Corrugated Cardboard (OBC), and #1 & #2 plastics returned. There is still no end market for #s 3-7.



In the past 20 years, U.S. export of recyclables grew dramatically. China was the main buyer but changes to trade restricted that path. It is good that new U.S. facilities now turn paper into marketable pulp and plastics into resin, much of which is exported to places such as Vietnam and India. However, more must be done.

But the largest obstacle to recycling is not the market but transportation costs: from homes and businesses to recycling centers & then back to the business. Waste disposal is expensive whether items are recycled or not.

Notes from SCRRRA

◆ A record high **837** people came to the Residential Hazardous Waste & Paper Shredding Day July 10th at Fitch H.S.!

Currently, there is no **commercial food composting** in our region. But SCRRRA has started a pilot program combining grocers’ food waste with woodchips SCRRRA generates from brush grinding. Eventually they’ll add food waste collected by local haulers. The compost must cure for 16 weeks to be suitable as an end product. But this is merely step 1 of the process to site and bring commercial food waste composting to our area. Stay tuned!