Much of the important data in monitoring Lake Chemung is developed during the late summer when we see how the lake acts under its worst conditions. The water gradually separates into a warm top layer and cold bottom layer during the summer. The upper warm waters are constantly wind mixed which 'folds in' oxygen. Isolated bottom waters below the thermal barrier are prevented from receiving this replenished supply of oxygen.

Too many nutrients, such as phosphorous, compound this lack of oxygen. As phosphorus levels increase, the amount of algae increases too. Algae in a lake are usually a good thing. Algae, or phytoplankton, form the basis of the food chain and most life in the lake depends on it for food and oxygen production. However, too much algae or the wrong kind of algae can be problematic. Excessive nutrients, such as phosphorus, cause algae to proliferate to nuisance levels by providing too much food for the algae. As algae die and decompose, the process consumes oxygen. Without enough dissolved oxygen in the water, fish and other organisms suffer and die because they can't breathe.

Lake Chemung participates in rigorous monitoring to keep an eye on this delicate balance including phosphorus testing, which is an accurate estimate of a water body's summer status. A five year synopsis of our phosphorus levels is shown below. We have a "middle of the road" lake in terms of phosphorus, which about 60 percent of all lakes in Michigan are. If our number was to go above 20 and stay there for several years, it would mean we had some incoming phosphorus pollution that wasn't there before.

2013: 18
2012: 34
2011: 37
2010: 13
2009: 11

As you can see, our lake needs protection from phosphorus and other nutrient pollution that robs it of oxygen and aquatic life. Please help.

- Refrain from using fertilizer. If you must, use the proper amount and don't fertilize within 48 hours before a rainstorm.
- Install rain barrels to reduce the amount of storm water runoff entering the lake.
- Repair eroded driveways or steep slopes on your property. When it rains, the bare soil carrying phosphorus particles is washed into the lake.

Thank you for all you're doing to help ensure the health of our lake.