Our Lake

The WQ Committee met last Saturday and discussed some of the activities we must undertake if we are to restore Culver Lake. The lake condition (at present) looks pretty good. So you might ask "restore the lake to what condition"? This depends on your perspective. My perspective goes back more than 50 years. I remember in the 1950's, I could look down through more than 15 feet and clearly see details at the bottom. I could see when a fish took the bait on the end of the hook. I am referring to lake water clarity that is 3-4 times better than present. Could we ever see that clarity again?

In order to begin to see this degree of water clarity, we need to undo some of the causes of the lake's condition we find ourselves in. I'm laying out quite a challenge here. The lake's surroundings are not the same as in the 50's. Few people lived at the lake year round. Summer living prevailed. Each house converted to year round living increases the nutrient loading by four times - 12 month vs 3 months. Princeton Hydro for years has recommended minimizing impacts of fertilization, siltation, soil management, water runoff, and septic influence. We must employ what is called Best Management Practices (BMPs). These are environmental practices designed to lessen our impact on the lake.

Few lakeside properties are designed to buffer nutrients from entering the lake. Plantings along the shore front slow the surface water flow and help absorb nutrients. Swales can be used to retain runoff in certain instances. Rain gardens are a popular way to reduce impacts from the land to the lake. Our biggest problem that needs attention is the storm water runoff from streets and driveways.

Lawn fertilizers no longer contain phosphorus but they do contain nitrogen and that is a nutrient. To minimize the release of nitrogen getting to the lake, slow release fertilizers should be used. Fertilize in the grass growing season – spring and fall. Summer is not a good time. A certain amount of grass clipping left on the lawn recycles some of the nutrients. Never blow your leaves into the lake.

Septic systems are the greatest management challenge. To some extent, we have to overcome an "out of sight out of mind" way of thinking. One step that can save the effort and cost of digging is to bring your septic tank access cover to the surface. This conforms to present code and it reminds you that it exists. By pumping your septic tank on a regular frequency, substantial nutrients are exported out of our watershed. Perhaps as much as 10-15% of the septic system's phosphorus resides in the sludge. The liquid also contains nutrients that are exported away when the tank is pumped. A pumper will check the outlet baffle to assure it is in place and no solids will carry over to the disposal bed.

Higher technology devices will help mitigate the septic influence on the lake. I have been testing my septic system for about a year now. I installed a device that I am testing that has reduced phosphorus effluent going to the disposal field. There are other high technology systems that treat the effluent to reduce phosphorus. I have hope that eventually each house in the watershed will be able to have a system to reduce phosphorus. By elimination of much of the phosphorus input from septic systems and controlling the internal phosphorus recirculation in the lake, we will achieve much higher water clarity – maybe enough to see down 15 feet!

We are seeing increasing Eurasian Milfoil spread around the lake. Improved clarity exacerbates the weed problem. This invasive weed grows in deep water along the shore. Please avoid cruising close to shore or through these areas to prevent further spread: Causeway Cove, West Shore, Stehr Cove and near the dam. We have contacted the weed harvester to come in and begin harvesting.

The WQ Committee will have a short meeting on Saturday at 9AM before the membership meeting. Hope to see you there.

Paul Sutphen