

PHOSPHOROUS REDUCTION for ANNUAL MEETING MAY 18, 2024

Phosphorous is the single most important cause of algae growth in our lake. Plants can grow without nitrogen but not without phosphorous. *Look at the label on any bag of fertilizer and you'll see phosphorus and nitrogen at the top.*

1. So reduction of phosphorous will, over time, reduce both algae and weeds, An increase in the nitrogen to phosphorus *ratio*, is an environmental adjustment that actually helps the growth of beneficial algae (which is food for fish), and a generally healthier lake ecosystem. Full removal of phosphorus is not required; small reductions (e.g. 25%) can yield significant benefits.
2. We are applying Lanthanum (which is a natural element, number 57 on the Periodic Table of Elements) encapsulated in bentonite, a clay. [Used successfully in Europe and the U.S.] Lanthanum binds with phosphorous to create an inert compound. 5 lbs of Lanthanum will nullify one lb of phosphorous. This is a state of the art treatment. There are two versions available. Phoslock which is 5% lanthanum & EutroSorb which is 10%.
3. Over the last few years we have done studies that show that the majority of the phosphorous in our Lake comes from the lake sediment and watershed run off, - not from feeder streams, making this treatment more probable of success..
4. After our annual meeting last year I called Sepro, a company which is probably the leading supplier of aquatic treatments. I was connected to their chief scientist, Byran Furman. At his request, Doug, David and I sent Sepro **all** the relevant data on the lake we had. The scientist, and the company's regional representative, had sampling done on the lake, and became advisors, albeit unpaid, helping on lake chemistry, the total quantity of Lanthanum needed, the quantity to apply each year, and distribution of the application around the Lake.
5. **Back last June**, P&L made a proposal to treat our Lake with [a limited amount of] Phoslock. We however conducted a bidding competition. Four companies were invited. P&L submitted the best proposal. P&L's proposal from last June, amounted to \$3.58 per pound *all in* (meaning cost of labor and the boat). The price we contracted for in April comes to \$2.17 per lb, *all in*. [The difference I believe is the competitive process.] [39% less] \$2.17 vs \$3.58.
6. On April 30 Phoslock was applied across the whole Lake, evenly as.
It turns out
7. We have been told we will probably not see the impact this year (but post-treatment samples, to be taken later this year, should show a positive sediment change). We can implement either a three or four-year plan depending on how it all goes. And we can stop at any time. The treatments should also lead to some reduction in the application of expensive herbicides.

8. The treatments will not affect swimming, fishing, or drinking, This product is, in fact, approved for use in drinking water reservoirs.

Marty Gold