Treeways

2014 - 8

Algae Blooms

Those who live on Sunfish Lake know that the lake gets green with algae either earlier or later every summer. Chemical treatments have been done yearly for decades to improve the appearance of the lake. The chemical nutrient most responsible for the algae blooms is phosphorus and in akes without serious algae blooms the nutrient limiting the growth of algae, even if other nutrients are higher than desirable, is phosphorus.

In Sunfish Lake at least 80% of the phosphorus used by algae each year is already present in the lake sediments. This phosphorus is rereleased each year due to lake vegetation decay and wave action stirring up sediments. The cost of extracting phosphorus from the lake water or tying it up chemically in the lake sediments is huge plus these treatments, while effective, are not permanent due to the substantial historic load of phosphorus in the lake bottom sediments.

Another item not usually discussed is what would happen if Sunfish Lake suddenly became a crystal clear nutrient rich lake. One of the effects would be prolific growth of the leafy green plants that grow up from the lake bottom that are currently shaded out by the surface algae blooms. The sunlight reaching down through the water column plus the store of nutrients in the lake sediment would lead to rampant vegetative growth. A rule of nature is that if you have light, water, nutrients, and adequate temperatures then plants will grow. Take a nutrient rich lake like Sunfish Lake, remove the algae bloom, apply lots of sunlight and underwater weeds will grow wild.

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