CASE STUDY: Inversion oxygenation and bioaugmentation in a ½ acre private pond

The Challenge

A ½ acre local pond had issues with water clarity (brownish), water quality (high levels of nutrients P and N), and invasive plant growth (water meal/algae/lilies) caused by the nutrients and lots of muck build up (12" or greater). The owner of this pond had tried many different types of pesticides to attempt to reduce the problem to no avail. The pond is downhill from a cow farm and a corn field, which causes a lot of nutrient run off during rain events feeding water meal and algal growth.

The Solution

We installed one of our inversion/oxygenation systems with 1 diffuser as the pond was small but somewhat deep (5-6' with 12" of muck). As the system was installed over the winter we began dosing the pond with our Winter Warrior cold water bacteria. The following summer the pond developed a massive water meal problem. We worked with the customer to develop a skimmer to skim off the water meal while simultaneously giving the pond bi-weekly doses of our specialized microbial and enzyme formulations for muck reduction and water quality.

The Results

By the end of the summer the pond improved dramatically. The water-meal and algae were completely gone and had not returned due to the decrease of nutrients in the water. Lily pads were receding and were limited to the edges of the pond due to the significant decrease in the muck levels. Many areas in the pond were starting to show hard sand bottom instead of soft muck bottom. The pond was now appealing to the eye and had a beautiful dark color, almost as if it had been dyed. However this was all a result of changing the health and ecology of the pond.