Lake Water Filtration For Excess Algae Removal and Prevention

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Abstract:

Last summer, many fresh water lakes began their mornings with the stench of hundreds of dead fish. The cause was an overgrowth of algae in lakes.

Algae is eaten by bacteria, when this happens, oxygen is taken out of the water. Fish need this oxygen to survive. When there is too much algae, there is not enough oxygen for the fish, and they die, in large quantities.

Unnaturally large amounts of algae in lakes is becoming more common, making it a bigger and bigger problem. The Minnesota Pollution Control Agency, amongst other organizations and researchers, have been struggling to find a safe, efficient, and simple solution for reducing the algae population to normal levels. The goal of our project is exactly that. To create a device that is easy to use, removes algae quickly, and does so without disturbing each lake’s fragile ecological system, to save our lakes and our fish.

Using natural water collected from a pond, we created an environment ideal to promoting algae growth. We used special cloth filters normally used in landscaping, and sent samples of our pond water through a variety of filter types and sizes. We tested each filter to determine which one removed the most algae, and worked the fastest.
Our results are displayed in our presentation, please stop by and check out our unique solution.