

Natural Resources Department Director Heinz Proft was before the conservation commission last week with the proposal for an aluminum sulfate/sodium aluminate alum application to bind phosphorus which accumulates in the bottom of the pond, creating algae blooms that rob oxygen and lead to fish kills. The blue/green algae blooms and fish kills have taken place in the pond in recent years, the most recent being two years ago, he said. Several years ago the pond had to be closed to swimmers and pets because conditions were so bad.

Blue/green algae is natural, but when driven by too much nutrients, density levels of the algae can be harmful to humans and animals. The cyanobacteria in such densities can create toxicity levels causing gastroenteritis, liver and kidney problems and even neurotoxicity issues. A routine state Department of Environmental Protection test of the pond on the day it was closed registered counts well in excess of an action level. While there had been other algae and fish kills in the pond, that event raised concern about the water body's health. Proft said the town provided \$30,000 to study conditions in the pond and to identify a means of addressing the problem. Excessive amounts of phosphorus entering the pond providing fertilization was identified as the cause, and the study recommended an alum treatment.

Proft said funding the treatment was an issue. Officials went to the community preservation committee twice seeking funding and got turned down. This past year, he said, Community Preservation Act funds were finally approved. Town meeting voted \$650,000 for Hinckley's Pond remediation and improvements, which included \$75,000 for better access, viewing platforms, a kiosk and picnic tables off the bike trail which runs past the pond. The alum project was estimated to cost in the \$575,000 range.

Proft told the commission the biggest hurdle is using chemical treatment in the pond, but he said the benefit of alum is its safety. He pointed out it is used to clean drinking water ponds. The plan is to do the application in late fall of this year, when there is little activity in and around the pond, with a deadline of mid December. The application process would take between 10 and 12 days. It could be done in March or June of next year, but apply the treatment during the herring migration will be avoided. Proft said bids have not yet been sought, but a draft request for proposals is being worked on.

Conservation Administrator Amy Usowski said she has worked on the permitting with Proft and it would be a conflict for her to offer recommendations to the commission. She said officials are waiting for a response from the state Natural Heritage and Endangered Species Program on the proposal, which is necessary before the commission can act. A response from the agency usually takes 30 to 60 days, she said. Usowski said the commission will have to weigh the adverse impacts on the water body, wildlife, herring migration and bordering vegetated wetlands, all outlined in the study. The commission has to determine if this is the most technically appropriate alternative with the least adverse impact, she said, adding that the treatment won't solve the problem permanently due to septic discharges, including phosphorus, moving through groundwater from the approximately 20,000 acres surrounding the pond.

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