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Federal grant provides opportunity to study Spofford Lake pollution | Environment

Meghan Foley, Sentinel Staff



A shallow inlet carries water into Spofford Lake by Camp Spofford. The area is one of many around the lake that has shown increases in silt levels in recent years. Michael Moore / Sentinel Staff

SPOFFORD — There are reasons to believe that Spofford Lake, upon full inspection, would get less than a clean bill of health.

Data, in fact, gathered about the water body in recent years include it having low dissolved oxygen levels, which can threaten aquatic life, that led to the lake making the state's list of threatened or impaired water bodies. Also, positive test results for high levels of E.coli bacteria in the water off Ware's Grove Beach in 2015 led to the lake's first water quality advisory.

Then there are the anecdotal observations, reported by residents to the lake's association, of increasing sediment and weeds spreading on the lake's bottom, and intensifying levels of storm-water runoff, especially on the lake's southern end, according to Steve McGrath, president of the Spofford Lake Association.

Enthusiasts of the Class A lake, and those who have property on it, including McGrath, are concerned about what will be left for future generations. It also pushes them to do something about it.

“Myself and others would hate to see this generation lose the lake,” McGrath said in March 2016.

The lake is an economic and environmental asset to the town of Chesterfield, the Monadnock Region and the state, he said, and one that should be preserved.

The Spofford Lake Association relies heavily on volunteers to keep tabs on the well-being of the lake and to help protect it, McGrath said last week. It’s well established what is causing water quality problems for the lake, he said. It’s finding out where the causes, such as storm-water runoff and septic seepage, are coming from that remains most challenging, he said.

Last year, the association decided to pursue a federal grant in hopes of using funds to explore what is happening to the lake, what is causing these troubling complications, and how the problems might be addressed.

Since then, the grant — in the sum of \$63,000 and authorized through the Clean Water Act — has been approved. The grant is being used toward collecting more-comprehensive scientific data about the lake and coming up with a plan to manage and preserve the water body, McGrath said.

“This is the first time we’ve removed the work from the hands of volunteers and brought it into the scope of a paid, professional person who has larger resources than a volunteer organization,” he said.

As part of the project, groups of professionals and volunteers conducted three different surveys of the lake’s watershed in early September, McGrath said.

Horsley Witten engineers led a field survey, FB Environmental representatives led a shoreline survey, and Southwest Region Planning Commission staff led a water quality survey, he said.

The field survey look for potential storm-water retrofit locations possibly contributing to the pollution in the lake, he said. Those sites included Ware’s Grove Beach, North Shore Beach, Spofford Camp and the boat landing on South Shore Drive, he said.

People participating in the shoreline survey documented 222 properties around the lake, using a scoring system that evaluated a site’s vegetated buffer, presence of bare soil, extent of shoreline erosion, distance of structures to the lake and slope, he said.

“During our boat view, we were very proud to see how many people around the lake already understood the issue and had addressed it,” McGrath said. “We have beautiful properties that are perfectly managed that we couldn’t find a single flaw with. But we also found some real crisis areas that need to be addressed right away to stop the degrading process.”

Volunteers participating in the water quality survey went door-to-door asking homeowners around the lake questions including how they used the lake, how they maintained their lawns and information about their septic systems, he said. Some property owners who weren’t home at the time have completed the survey online, he said.

The planning commission will use all the data to draft a management plan for the lake, he said.

The Keene-based commission is the lead agency on the project, Jeffrey D. Marcoux, watershed supervisor of the N.H. Department of Environmental Services, said. The grant, meanwhile, is administered through the N.H. Department of Environmental Services.

One of the challenges with Spofford Lake is that the terrain around it is steep, causing storm water, debris and other materials above it to flow downhill and eventually into the water, he said.

“This is a good opportunity to take proactive measures to protect the water body and learn about some potential improvements,” he said.

Spofford Lake is about 736 acres with a maximum depth of 68 feet. It abuts roads including Route 9A and Route 63 North.

The grant is good for two years, but it’s likely the desired work will be completed by the end of 2018, Lisa Murphy, senior planner with the planning commission, said.

From there, the agency would submit a management plan for a second grant to address the recommendations in the proposals, she said.

“It’s really about identifying things to keep the lake from aging at a faster rate,” she said.

Most all New Hampshire lakes deal with some form of impairment, she said, and ideally, people invested in those water bodies want them off the “threatened” list as soon as possible. Spofford Lake, she noted, isn’t so badly impaired as to send up a red flag; rather, she said, it’s more at a yellow flag.

“It’s a whole lot easier to turn things around just at the early stages, than to put a lot into expensive fixes later,” Murphy said.

The next steps are to tabulate the data collected this fall and draft the management plan, McGrath said.

In the meantime, members of the lake association plan to begin establishing good communication with owners of properties causing risks to the health of the lake, he said. The association plans to work with property owners on solutions, he said.

“We have to provide to the Department of Environmental Services that we have recognized and identified the problems and their causes, are willing to create a rescue plan, and we’re willing to fund that plan with local property owner resources, Spofford Lake Association resources, and possibly town resources for DES to match those funds,” he said.

He added, “We are fortunate to have so many people, including the town, invested in this.”

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