



Kevin McAllister, president of the nonprofit advocacy group Defend H2O, at Lake Agawam in Southampton Village.

DANA SHAW

Troubled Waters

Experts disagree on sewer's potential impact

BY ALYSSA MELILLO

The Southampton Village Planning Commission wants the Village Board to hire Dr. Christopher Gobler to explore to what extent a new sewer system and wastewater treatment plant would help clean up Lake Agawam.

Meanwhile, Defend H2O

President and founder Kevin McAllister has come forward with a study maintaining that, despite proponents' claims, a new sewer system will not significantly improve conditions in the lake. According to Mr. McAllister, it is phosphorus—not nitrogen, which is

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Lake Agawam in Southampton Village.

AGAWAM: At Odds Over Sewer District

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what the proposed sewer system would target—that is causing the persistent, damaging blue-green algae blooms in the lake.

The proposed sewer district would encompass the whole village but serve only the business district and also include a wastewater treatment plant behind the Village Police Department on Windmill Lane. Village officials have said the system is needed not only to help with economic development, which the district would promote, but also to improve the quality of Lake Agawam by removing nitrogen believed to come from wastewater.

At a Planning Commission meeting last Thursday night, January 7, Dr. Gobler, an East Quogue resident and marine science professor at Stony Brook University who has been studying the lake for more than a decade, said the study he would conduct would calculate the loading levels and sources of excess nutrients in the lake and ultimately determine how much a new sewer system would reduce the levels of nitrogen.

According to Dr. Gobler, surface runoff, lawn fertilizers, wastewater, droppings from swans and geese, and atmospheric deposits are just some of the sources of both nitrogen and phosphorus pollution in Lake Agawam. With those factors in mind, he said it is important to address the health of the lake sooner rather than later because the algae, also known as cyanobacteria, pose a health threat to humans and animals when it is present in high numbers.

Dr. Gobler explained that the solution is to “starve [the bacteria] of nitrogen and phosphorus. ... If you remove nitrogen and phosphorus, they die,” he said. “They need these nutrients to grow.”

In the days following the meeting, Dr. Gobler said in an email that he was unsure of how much money it would cost the village for him to conduct a study, as he still needs “a little more information from the village about the precise details of their needs and expectations.”

Others say that investing millions of dollars into a new sewage treatment plant is not the best solution to Lake Agawam's problem. Mr. McAllister, who is also a former Peconic Baykeeper, agreed that the nitrogen and phosphorus loading levels need to be determined, but said ad-

ressing phosphorus should take precedence over nitrogen—something the proposed sewer system will not do.

Mr. McAllister referred to a study conducted by Massachusetts-based Lombardo Associates Inc., which he engaged to do research in 2013 while he was serving as Baykeeper. According to the study, which refers to some of Dr. Gobler's past work, it is phosphorus, not nitrogen, that determines the water quality of Lake Agawam, as the nutrient makes up 89 percent of the lake's benthic release—essentially, a nutrient release from sediments at the lake bottom.

The study is also accompanied by an action plan that lists several ways the village could address the phosphorus problem. They include installing a permanent watershed monitoring system, constructing an engineered wetland for stormwater treatment, or treating the lake itself to remove the benthic phosphorus, as well as implementing a waterfowl management plan—work that is estimated to cost about upward of \$8 million. Mr. McAllister said dredging is also an option.

Mr. McAllister, who was at last Thursday's meeting, said in an interview with *The Press* that the village should reevaluate its sewer district proposal pitch to residents, especially since it may mean going back to them in the future when the lake is still not completely cleaned.

“Are you going to ask the community, five years down, 10 years down, ‘Oh, you know, the district didn't clean up Lake Agawam. Boy, it's still green every summer. Oh yeah, it must be the sediments?’” he said. “Or, ‘Yeah, stormwater's still a problem. We need \$5 million, or \$10 million, to address these problems?’”

“They keep hitching the wagon to Lake Agawam—just be clear,” he continued. “If you want the district, and if it means allowing for expansion of a restaurant, or putting an apartment over a hardware store, affordable housing, whatever goes into this district ... you know, that's wonderful, and that's for the community to decide, relative to quality-of-life issues. But when we're talking about water quality, it's science-based. It's not rhetoric. I see a problem here by linking it to Agawam, where it's not going to have that effect that you're telling people it will.”

Another study has suggested a similar argument. Although commissioned by Southampton

Inn owner Dede Gotthelf to look only at the hotel's impact on Lake Agawam, Bohemia-based P.W. Grosser Consulting concluded in December that the inn's sewer discharge did not affect the lake's water quality, contrary to the sewer district proposal, which includes the inn in the proposed sewer service area.

Frank M. Russo, senior vice president of the Melville-based firm H2M Architects and Engineers, which drafted the proposal, said that he believed Dr. Gobler's study will show that nitrogen in the groundwater “significantly contributes to the degradation of the lake's water quality”—which, in turn, is “an indicator of failing on-site sanitary systems, like the archaic cesspools found in the business area of the village.”

Mr. Russo noted, though, that in order for the project to be affordable for the village—it is expected to cost \$33 million to install—the village needs to apply for grants, and they are not available solely for downtown revitalization projects. “There has to be an environmental component in that sewerage will help to mitigate toxic algae blooms caused by failing on-site systems, while also providing the means to diversify the mix of wet and dry businesses,” he said.

After Thursday's meeting, Dr. Gobler contested the argument that focusing on the removal of nitrogen in Lake Agawam would



Dr. Christopher Gobler talks about the health of Lake Agawam at a Southamptton Village Planning Commission meeting last Thursday night.

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not improve the water quality.

"While it had been assumed that phosphorus would be the factor controlling blue-green algae in Lake Agawam, our research has continually showed that they are actually controlled by nitrogen," he said. "In addition, there is now scientific consensus that nitrogen also controls the toxicity of the species of blue-green algae in Lake Agawam.

"While I believe phosphorus should also be controlled," he continued, "ignoring nitrogen would be ignoring the best available scientific data for the lake and the organisms present."

Planning Commission Chairman Paul Travis said that until it is known how much nitrogen would be removed with a new sewer system and wastewater treatment plant, the commission will take its time with dis-

cussions on the sewer system.

He emphasized last Thursday night, though, that the sewer district is not the only way to clean up the lake—it is just one of many different steps the village can take. "I don't think anyone on the Planning Commission has ever said this is the sole, or the prime way, to solve Lake Agawam," he said. "We're going to do the study ... and then we'll have something to talk about."