



## Local private school will study Kitsap Lake algae blooms

School project looks to prevent recurrent algal blooms at Kitsap Lake

By Tyler Shuey

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The Poulsbo Adventist School was recently chosen by Bremerton Mayor Greg Wheeler to participate in the 2020 Mayor's Challenge for their project to reduce recurring algal blooms in Kitsap Lake.

The 2020 Mayor's Challenge gives the chance for students to pick a project topic to solve in Bremerton. In this case, the private school was chosen to receive a \$500 stipend to support the development of the project and was given an entry to the Washington State Science and Engineering Fair in March, where the school will present their findings.

Lead Teacher for Poulsbo Adventist School, Judelle Johnson first heard about the challenge back in October when the parent of one of the students notified her of the ongoing issues at Kitsap Lake. The school of only 12 students decided to tackle the project.

"That's when we started compiling research and doing some background," Johnson said. "I started educating the kids on harmful algal blooms and what they actually are and how they are disruptive to the water and how they affect people. This kind of stuff is close to my heart and I'd like to influence my students to be passionate about that kind of thing too. I can see that their interest is growing, which is kind of cool."

The school was notified Jan. 10 that they would be receiving a \$500 stipend to begin conducting research for the challenge. Johnson said to be recognized by the mayor is “such a huge thing” given how small the school is and the fact that they don’t get much publicity.

Before the school was notified about being chosen for the challenge, they had been doing preliminary research on the algae patterns of Kitsap Lake. A cyanobacteria warning (blue-green algae) that was in effect since late August at the lake was lifted in early January.

“Basically what we found was that the problem becomes worse in the summer months because of the warm weather,” Johnson said. “One of the challenges in this project is that the algae is not present right now so we are just trying to find a way to prevent it from coming back in the summer, which is when we are told it will come back.”

Algal blooms are a rapid increase or accumulation in the population of algae in fresh or saltwater systems and is often recognized by the discoloration in the water from their pigments.

“The algae likes to grow in environments that are rich in nutrients — so things like nitrogen and phosphorus — they love that, they feed off of that and then they kind of grow out of hand because of those nutrients,” Johnson said.

“We were thinking it was possibly two things that are related to this — the runoff from fertilizers because surrounding the lake, there is a lot of residential areas. The other thing we were told was that there are geese that like to come and hang out at the Kitsap Lake park and their feces are actually nutrient-rich. When it rains, the nutrients from their feces get washed into the lake and the algae feed off of that and they grow into excessive amounts.”

Johnson noted the need to tackle harmful algae blooms, not just in Kitsap Lake, but across the globe.

“I think these harmful algal blooms are a problem worldwide and the fact that it’s happening in our community is a big deal. It affects water quality and Kitsap Lake is an important part of the Bremerton community. In the summer, people like to go and swim there and go fishing. When you have these algal blooms in the lake, you can’t do any of that stuff. It takes a big part of the community aspect away. That’s why preserving that natural resource is so important.”

The Poulsbo Adventist School will present its findings at the Washington State Science and Engineering Fair March 27 and 28 at Bremerton High School.



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