



Jill Thompson <jill@cowichanwatershedboard.ca>

RE: Province won't fund aeration for toxic algae in Quamichan Lake

Jay White <jay.white@aquality.ca>

18 December 2023 at 10:45

To: "editor@cowichanvalleycitizen.com" <editor@cowichanvalleycitizen.com>

Cc: "communications@northcowichan.ca" <communications@northcowichan.ca>, "environment@northcowichan.ca" <environment@northcowichan.ca>, "council@northcowichan.ca" <council@northcowichan.ca>, "kai@quamichanlake.ca" <kai@quamichanlake.ca>, "info@cowichanlandtrust.ca" <info@cowichanlandtrust.ca>, "info@cowichanwatershedboard.ca" <info@cowichanwatershedboard.ca>

I read the above noted article this week with great interest, and have been discussing this issue with locals for months now. As a limnologist, I have devoted my career to managing freshwater systems, and felt the need to write the letter to the editor below:

LETTER TO THE EDITOR

Algal problems in Quamichan Lake are due to excessive phosphorus, likely due to internal loading from the sediments. We can treat the symptoms (algal blooms and nuisance plant growths) or we can treat the root cause (bioavailable phosphorus). An inexpensive method for treating nuisance algal blooms is with peroxide and this has been done around the world including neighboring Alberta (Summerside Lake in Edmonton). Peroxide is an inexpensive and powerful oxidizer that immediately breaks down into oxygen and water after killing the bacteria in blue green algae and neutralizing any produced toxins(!). Treating the root cause will be more expensive and require micro-dosing with alum, which is effective at binding excessive phosphorus (whether from the watershed or from legacy sediment) and slowing/eliminating bacterial growth. Alum has been recognized by the North American Lake Management Society as a safe treatment option for North American Lakes and has also been applied at Lake Summerside in Edmonton (and other sites in Alberta). Finally, I'd strongly recommend that expertise be sought from the BC Lakes Stewardship Society for comment/review. These are expert limnologists and professional biologists who can help! I'd also be happy to share some of this work with the Municipality of North Cowichan.

Jay White,

Duncan

PS: I can fact-check all the above for you, if needed.

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7405413/>
2. <https://www.nalms.org/nalms-position-papers/the-use-of-alum-for-lake-management/>
3. <https://lake-summerside.app1.nfweb.ca/archives/news-articles/water-treatment-and-restriction-notice>

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Principal

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