

4-30-25

Follow up Notes for Secretary Julie Moore's testimony

House Environment Committee

Lake in Crisis H113

Submitted by Peggy Stevens

These are questions that came to me as I listened to Secretary Moore's testimony this morning:

1. Secretary Moore described the criteria for the Impaired designation that Lake Memphremagog has received in the Lake Scorecard as being Aesthetic due to cyanobacterial blooms that are occurring on the lake with greater frequency. **Note:** Cyanobacteria blooms present a risk to public health as well, including acute lethal poisonings of domestic and wild animals and humans due to toxins in the algae blooms. Aesthetics are a concern, but not the major concern in this case. Public health is.

https://www.researchgate.net/profile/Wayne-Carmichael/publication/248719951_Health_Effects_of_Toxin-Producing_Cyanobacteria_The_CyanoHABs/links/0f31753276593cfdd3000000/Health-Effects-of-Toxin-Producing-Cyanobacteria-The-CyanoHABs.pdf

2. While conceding that "Vermont has a disproportionate role to play" in terms of responsibility for monitoring water quality in the lake, due to the fact that 75% of the water in the lake comes from the US watershed, Sec. Moore maintained that a Lake in Crisis designation was not warranted because of the \$30 million of investments the State has already made in the lake: e.g. Phosphorus reduction programs have resulted in a 17% reduction in phosphorus; the Quebec / Vermont Steering Committee meets twice a year to discuss phosphorus concerns about the lake. PFAS concerns were raised recently (at the Que/Vt steering Committee last fall). **Note:** PFAS concerns in the lake water surpass Phosphorus concerns in terms of environmental and public health and safety. Phosphorus levels can be mitigated. PFAS are "forever", persist, accumulate and bioaccumulate.

3. Chair Sheldon then asked if a Lake in Crisis designation would expedite a focus on PFAS chemicals, "Are there concerning concentrations?" Sec. Moore responded that there is no surface water standard for PFAS and that only one sample detected PFAS at an elevated level. **Note:** That was 2.8 ppt for hazardous PFOS, when 4.0ppt is the Maximum Level of Exposure. Is the Secretary unaware that 2.8 ppt PFOS is a cause for concern given that PFOS are deemed to have *no safe level of exposure*?

<https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>

4. Sec. Moore referenced the Casella leachate pretreatment pilot but did not note that effluent from a variety of treatment technologies, including the one Casella chose, still contains thousands of PFAS chemicals and "The results show that the landfill leachate treatment process (designed to improve water quality) is generating the

banned PFAS; PFOA and PFOS. Approximately 80% of locations tested showed an increase in PFOS, with an increase of 1,335% in one sample. The highest concentrations of PFOS and PFOA in treated leachate were 2,460 ng L⁻¹ and 26,900 ng L⁻¹, respectively. When compared against the environmental quality standard of 0.65 ng L⁻¹ for PFOS this leachate could pose a significant concern.

<https://www.frontiersin.org/journals/water/articles/10.3389/frwa.2024.1480241/>

Further, Dr. David Burns, lead scientist for the SAFF technology Casella is piloting, said this about the effluent from the SAFF treatment system, “Of course, there is no suggestion that the treated landfill leachate should be used directly as potable water or allowed to discharge or otherwise migrate into receiving waters reserved for drinking water use.”

<https://onlinelibrary.wiley.com/doi/full/10.1002/rem.21720>

Note: There was no mention in today’s testimony that Lake Memphremagog is a drinking water reservoir for 175,000 plus Quebec citizens. This is a top priority when considering a Lake in Crisis designation. The Precautionary Principle states, “if a product, an action or a policy has a suspected risk of causing harm to the public or to the environment, protective action should be supported before there is complete scientific proof of a risk. (Olsen and Motarjemi, 2014). Based on this principle, policy-makers have taken precautionary actions to various issues where scientific uncertainty is high, arguing that precautionary stances are legitimate if they prevent or reduce exposure to risk”. <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/precautionary-principle#:~:text=The%20precautionary%20principle%20states%20%E2%80%9Cif,or%20reduce%20exposure%20to%20risk.>

5. Rep. Tagliavia asked if there are cancerous Brown Bullhead anywhere else in a lake designated as a Lake in Crisis. Sec. Moore explained Lake Carmi is the only lake with that designation and does not have Brown Bullhead with cancers. **Note:** In fact, there are no other Vermont waterbodies with Cancerous Brown Bullhead. Is the Secretary aware of that?

Sec. Moore added that the cause of the cancers may be a virus, however, in an August 1, 2024 email exchange I had with Dr. Blazer, lead USGS researcher, she said, “It is my understanding that they have looked for viruses through their molecular analyses and have found no evidence for a viral etiology” and “ I have not ruled out chemical contamination as one of the risk factors.” The cause of the cancers is yet to be determined, but they are multifactorial and occur in combination with environmental contamination wherever the diseased Brown Bullhead are found. Why aren’t the cancerous Brown Bullhead counted as criteria for Lake in Crisis designation? This population of sick fish make Lake Memphremagog uniquely Impaired.

6. Sec. Moore clarified that Quebec’s watershed contributes 25% of the water in the lake, while 75% of the lake itself is in Quebec. Another question came up about PFAS surface water standards, to which Sec. Moore stated “We thought we could rely on the EPA” which is now in doubt, and that “these are not generally undertaken by

independent states.” **Note:** Vermont has 75% responsibility for the health of the lake at least. Science will not change its assessment of PFAS hazards, including PFOS, even if the EPA is dismantled. What is Vermont’s plan?

7. Secretary Moore reiterated that the Que/ VT Steering Committee meets twice a year, oversees lake water quality, and is a forum to address concerns. **Note:** An advantage of the Lake in Crisis designation would be to establish a Lake Action Planning Committee that will meet more than twice a year, and be specific to addressing how to mitigate not only phosphorus but also PFAS and other chemical contaminants, a priority given the lake is a drinking water reservoir. The surest way to prevent further contamination is to designate Memphremagog as a Lake in Crisis. In the language of the bill H113, “ *Instead, the crisis designation will now be based on the lake being listed as impaired and having the potential to cause harm to public health or damage to the environment.* The bill mandates that the crisis response plan for Lake Memphremagog include controls on effluent discharges into the lake's tributaries.”

If the waters of the lake flowed north to south, with contamination coming from Quebec to pollute the drinking water reservoir of a Vermont community of 175,000, wouldn’t a Lake in Crisis designation be considered an appropriate, even necessary, response?