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Chair Helm and members of the House Committee on Energy and Environment,

Please support HB 2656. This bill would greatly reduce, on forestland supplying drinking water for one or more public water systems, clear cutting, the building of new forest roads and the application of pesticides and fertilizers.

There are clear public health reasons to pass this bill.

The OHA maintains archived[1] and current[2] cyanobacteria bloom advisories. The Oregon Health Authority (OHA) issued a health advisory regarding blue-green algae (cyanobacteria) for Detroit Lake in May 2018.[3] While blooms are not uncommon, Salem became the first water system in the state known to have cyanotoxins in its treated water.

OHA Director Patrick Allen stated, “As harmful algal blooms become the norm in Oregon, as they are around the country, we must address this emerging threat to our drinking water supplies.” As a consequence, new regulatory rules mandate testing for harmful contaminants of algae blooms in nearly 100 of Oregon’s public water systems.[4]

In late May 2018, the Statement Journal reported that Salem Mayor Chuck Bennett was calling for an investigation[5] of a toxic algae bloom at Detroit Lake in May 2018. Mayor Bennett attributed factors such as fire damage, fire suppression practices, historic logging activities and weather conditions as potential culprits. Extreme logging practices have long been associated with dangers to waterway health. [6]

Following that, Think Out Loud (an OPB weekday program) featured the Environmental Working Group[7] to discuss their report on the threat of toxic algae in lakes across the country.[8],[9] This report was published on May 15, 2018—just weeks before the OHA reported the bloom at Detroit Lake.

The Safe Drinking Water Act (SDWA) protects public health by regulating the nation's public drinking water supply and its sources: rivers, lakes, reservoirs, springs, and ground water wells. Cyanotoxins produced by several species of cyanobacteria. No federal regulatory guidelines for cyanobacteria or their toxins in drinking water or recreational waters exist at this time in the U.S. Certain populations[10] are more vulnerable to the health effects from exposure to these toxins.[11]

Table 1. Cyanotoxins on the Contaminant Candidate List (CCL)

Cyanotoxin	Number of Known Variants or Analogues	Primary Organ Affected	Health Effects[1]	Most Common Cyanobacteria Producing Toxin[2]
Microcystin-LR	80~90	Liver	Abdominal pain Vomiting and diarrhea Liver inflammation and hemorrhage	*Microcystis* *Anabaena* *Planktothrix* *Anabaenopsis* *Aphanizomenon*
Cylindrospermopsin	3	Liver	Acute pneumonia Acute dermatitis Kidney damage Potential tumor growth promotion	*Cylindrospermopsis* *Aphanizomenon* *Anabaena* *Lyngbya* *Rhaphidiopsis* *Umezakia*
Anatoxin-a group[3]	2-6	Nervous System	Tingling, burning, numbness, drowsiness, incoherent speech, salivation, respiratory paralysis leading to death	*Anabaena* *Planktothrix* *Aphanizomenon* *Cylindrospermopsis* *Oscillatoria*

[1]Source: *Harmful Algal Research and Response National Environmental Science Strategy (HARRNESS)*
[2]Not all species of the listed genera produce toxin; in addition, listed genera are not equally as important in producing cyanotoxins.
[3]The anatoxin-a group does not include the organophosphate toxin anatoxin-a(S) as it is a separate group. In the US, the most common member is thought to be anatoxin-a, and thus this toxin is listed specifically.

Please keep our water systems safe. Please support HB 2656.

Respectfully,
Kris Alman MD

[1] https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/HARMFULALGAEBLOOMS/Pages/archive.aspx
[2] https://www.oregon.gov/OHA/PH/HealthyEnvironments/Recreation/HarmfulAlgaeBlooms/pages/index.aspx
Douglas County Permanent Recreational Use Health Advisory: South Umpqua River and Lawson Bar Pools in the bedrock along the rivers edge are known to develop cyanobacteria (blue-green algae) blooms that can be harmful to pets and people if accidental ingestion occurs.
[3] https://1190kex.iheart.com/content/2018-05-24-blue-green-algae-causes-detroit-lake-health-advisory/
[4] https://www.nwnewsnetwork.org/post/nearly-100-oregon-water-systems-will-test-algae-toxins-plaguing-salems-water
[5] https://www.statesmanjournal.com/story/news/2018/05/31/salem-water-crisis-detroit-lake-toxic-algae-bloom/661462002/
[6] https://salemweeklynews.com/they-come-from-somewhere-sources-of-algal-blooms/
[7] https://www.ewg.org/
[8] https://www.ewg.org/toxicalgalblooms/
[9] https://www.opb.org/radio/programs/thinkoutloud/segment/toxic-algae-tribal-museum-daycare-closed-madras-graduation-rates/
[10] Infants, children age 5 and younger; People with compromised immune systems, receiving dialysis treatment, with pre-existing liver conditions, pregnant women or nursing mothers, the elderly and pets.
https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/PREPAREDNESS/Documents/Cyanotoxins-Detroit-Lake-What-it-means-for-your-health.pdf
[11] https://www.epa.gov/sites/production/files/2014-08/documents/cyanobacteria_factsheet.pdf