

April 23, 2021

Bethany Sargent, Program Manager
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Vermont Dept. of Environmental Conservation
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Montpelier, VT 05620

Dear Bethany:

The Lake Champlain Committee, Conservation Law Foundation and Vermont Natural Resources Council submit the following comments on the proposed revisions to the 2017 Vermont Water Quality Standards (VWQS). We thank the Department for the opportunity to comment on the pre-draft revisions and look forward to continuing this dialogue as the formal rulemaking process moves forward.

§29A-101 Applicability

Removal of (b) -- We support the removal of this language under which an application would vest under the Water Quality Standard in effect at the time of filing. It is antithetical to the Clean Water Act and the Vermont Water Quality Standards that a project is permitted to be out of compliance with the Standards simply because of the date the application was filed. It is important that all projects comply with the current VWQS.

In regards to the following addition to (b) after the above language is removed: "These rules shall apply to wetlands as articulated in Sections §§ 29A-104(e) and 29A-105(e)." We support the intent of this language. As discussed at the public meetings, the proposed changes to the VWQS should reflect the final language of H.108 if it passes.

§29A-102 Definitions

Please expand the definition of "existing use" to include:

(16) "Existing use" means a use that has actually occurred on or after November 28, 1975, in or on waters, regardless of whether or not the use is presently occurring or included in these rules. An existing use of a water does not have priority over a designated use of the water in which it is located.

§29A-103 General Policies

Removal of (b)(1) – While by no means crucial to the application of the Standard, the Water Quality Policy is helpful to establish the purpose of the Standards and provide context.

We suggest adding a new section to (e) as follows:

(e) Tactical Basin Planning.

(4) So that tactical basin plans help to advance Vermont's goals for natural disaster-preparedness, climate resilience, and habitat management, the Secretary shall make recommendations pursuant to the State Hazard Mitigation Plan and Vermont Conservation Design, and, shall coordinate with the following: the Director of Vermont Emergency Management; the Commissioner of the Fish and Wildlife Department; and the Commissioner of the Department of Forests, Parks, and Recreation.

§29A-104 Classification of Water Use

A question regarding changes to (d): While it is our understanding that the Dept. made these changes to reflect the statute, does the reordering of the designated uses change the priorities of the Dept. in the protection of those uses?

§29A-105 Antidegradation

Please expand (b)(6) to include:

(b)(6) When existing uses are incompatible, or conflict with designated uses, conditions shall be imposed to attain the water quality necessary to support the highest and best use. Conditions cannot be imposed to protect an existing use if those conditions will degrade water quality to the detriment of identified designated uses.

§29A-303 General Criteria Applicable to All Waters

The pesticides listed in Appendix C need to be updated in order to assure that pesticides are properly monitored as part of the Standard. The pesticides currently listed are outdated, contain substances whose use has long since ended (like DDT), and do not reflect pesticides that are currently in heavy use in the agriculture, commercial, and residential sectors in Vermont.

Just as temperature, dissolved oxygen, toxins, and other criteria impede designated uses in a waterbody, so too do high concentrations of pesticides, having particular impacts on high-quality aquatic habitat. The current US EPA Aquatic Life Benchmarks and Ecological Risk Assessments for Registered Pesticides should be included by reference in Appendix C to ensure the list is accurate and reflects federal standards. More specifically, the list of pesticides below and their breakdown products have been found in Vermont waters to date, some above acceptable levels, and must receive priority monitoring as part of the VWQS.

In addition, the Water Quality Standards should be revised to include criteria for the cyanobacteria found in Vermont waters. Both the Vermont Department of Health and the US EPA have recognized the serious human health and ecological impacts associated with cyanobacteria toxins. See, e.g., VT Dep't of Health, Cyanobacteria (Blue-Green Algae) Guidance for Vermont Communities (2015) and US EPA, Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin (2019). The Vermont Department of Health notes that "[c]yanobacteria blooms are expected to continue to increase in the coming years due to climate change and

more nutrients—nitrogen and phosphorus—running off into waterways. Lakes and ponds previously not impacted by blooms may experience blooms.” VT Dep’t of Health, Cyanobacteria (Blue-Green Algae), <https://www.healthvermont.gov/health-environment/recreational-water/cyanobacteria-blue-green-algae>.

However, Vermont has only developed guidance levels for recreation for three cyanotoxins and has not adopted water quality criteria. *Id.* In addition, in some cases, these guidance levels are not as protective as other states. See US EPA, Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin. DEC should include water quality criteria that protects human health and the environment for all cyanobacteria found in Vermont waters.

Finally, DEC should develop water quality criteria for Per- and Polyfluoroalkyl substances (PFAS). Testing conducted by DEC reveals that these toxic forever chemicals have been found at unsafe levels in ground and surface waters, public water supplies, and soils. Surface water quality standards that prevent exposure to unsafe levels of the PFAS class of chemicals are necessary to protect both the health of Vermonters as well as aquatic life that live in and depend on surface waters. There is a strong scientific basis for regulating these chemicals as a class. At a bare minimum, the data needed to develop numeric water quality criteria, at least for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), are available and ANR should establish human health water quality standards at least for these two chemicals.

Proposed language to add:

(7) Toxic substances

(D) Pesticides and Toxic Substances

(ii) The following pesticides shall be incorporated by reference from the EPA Aquatic Life Benchmarks and Ecological Risk Assessment for Registered Pesticides and shall not exceed the standards applied by EPA, including:

<u>PESTICIDES FOUND IN THE WATERS OF VERMONT 2002 – 2019</u>		
PESTICIDE	MAXIMUM DETECTED	LOWEST EPA BENCHMARK
	UG/L	UG/L

2,4-D	7.45	299.2
ACETOCHLOR	<u>5.6</u>	1.43
ACETOCHLOR ESA	9.45	9900
ACETOCHLOR OA	1.54	
ALACHLOR	0.05	1.64
ALACHLOR ESA	1.52	3600
ALACHLOR OA	0.16	>47500
AMPA	XXX	249500
ATRAZINE	<u>114.2</u>	<1
BICYCLOPYONE	0.86	13
CHLOROTHALONIL	<u>6.64</u>	0.6
CHLORPYRIFOS	<u>0.12</u>	0.04
CHLORSULFURON	<u>0.66</u>	0.35
CLOTHIANIDIN	<u>1.37</u>	0.05
CYANAZINE	0.15	
DESETHYL ATRAZINE	5	1000
DESIOPROPYL ATRAZINE	2.16	2500

DICAMBA	0.1	61
DIMETHENAMID	2.92	8.9
DIMETHENAMID ESA	0.49	
DIMETHENAMID OA	0.12	
DIURON	<u>82.8</u>	2.4
GLYPHOSATE	XXX	11900
HYDROXY ATRAZINE	1.97	>1500
IMAZAPYR	3.6	24
IMIDACLOPRID	<u>0.2</u>	0.01
INDAZIFLAM	0.07	
IPRODIONE	4.21	120
MCPA	0.101	170
MCPP	0.07	14
MESOTRIONE	0.82	17.7
METOLACHLOR	<u>64</u>	1
METOLACHLOR ESA	24.5	24000
METOLACHLOR OA	21.97	7700
METSULFURON METHYL	<u>2.58</u>	0.36

PCNB	4.28	13
PENDIMETHALIN	0.13	5.2
SIMAZINE	<u>7.92</u>	6
SULFOMETURON METHYL	<u>2.18</u>	0.45
THIAMETHOXAM	<u>1.73</u>	0.74
TRIADIMEFON	1.25	52
TRICLOPYR	0.66	32500
<u>XXX = MAXIMUM DETECTED GREATER THAN LOWEST</u>		

These pesticides currently found in Vermont surface and groundwater must be added to Appendix C. Further, the Department should develop a methodology to assess which pesticides that are registered in Vermont are likely to appear in our waters at potentially toxic levels, based on use patterns and chemistry. Many methods and models are available, but a combination of likelihood to leach into water and aquatic toxicity would be appropriate. In future, this prediction of possible aquatic toxicity risk must be made prior to registration of the product in Vermont.

Thank you again for the opportunity to comment and we look forward to discussing our proposals.

Sincerely,

Lori Fisher, Executive Director
Lake Champlain Committee

Jen Duggan, Vice President and Director, CLF Vermont
Conservation Law Foundation

Jon Groveman, Water and Policy Program Director
Vermont Natural Resources Council