REGION 1
BOSTON, MA 02109

February 5, 2024

Mr. Jason Batchelder, Commissioner
Department of Environmental Conservation
1 National Life Drive, Davis Building
Montpelier, VT 05620-3520

Re: Third Action Letter for Vermont's Triennial Review of Water Quality Standards Amendments - Environmental Protection Rule Chapter 29A

Dear Mr. Batchelder:

On November 2, 2022, the Vermont Department of Environmental Conservation (DEC) submitted new and revised Water Quality Standards (WQS) contained in Environmental Protection Rule Chapter 29A (Chapter 29A) in accordance with Section 303(c) of the Clean Water Act (CWA). The public comment period for this rulemaking was held from May 25 – July 22, 2022, and a public hearing was held on July 12, 2022. Vermont's WQS revisions were adopted by the Vermont Agency of Natural Resources under the Vermont Administrative Procedures Act on October 25, 2022, and became effective on November 15, 2022. The revisions were certified by Sarah E.B. London, Chief Assistant Attorney General, on October 28, 2022, as having been duly adopted pursuant to state law.

In letters dated February 1 and November 28, 2023, pursuant to Section 303(c)(3) of the CWA and 40 C.F.R. Part 131, EPA approved numerous items and took no action on others. As more specifically described and for the reason explained in Attachment A, EPA is now approving the following items on which no action was previously taken.

- Appendix C – Revised chronic aquatic life criteria for selenium to be consistent with EPA's 2021 304(a) recommendations and associated footnotes i, p, and q.
- Appendix C - Chronic ALC for guthion, mirex, and methoxychlor to be consistent with EPA's 1986 304(a) recommendations.
- Appendix F – Water classification upgrades for Alder Brook, Blue Bank Brook, and Goshen Brook.

Consistent with the requirements of the Endangered Species Act (ESA), EPA evaluated the potential impacts of its approval of the WQS revisions on federally protected species and their

critical habitat and determined that consultation with U.S. Fish and Wildlife Service (USFWS) was necessary. In a letter dated November 28, 2023, USFWS, New England Field Office (NEFO), concurred with EPA's finding that Vermont's revised ALC for selenium may affect but is not likely to adversely affect listed species under its jurisdiction. On December 21, 2023, USFWS-NEFO concurred with EPA's finding that water classification upgrades for Alder, Blue Bank, and Goshen Brooks may affect but are not likely to adversely affect listed species under its jurisdiction. On February 22, 2024, USFWS-NEFO concurred with EPA's finding that the revised ALC for guthion, mirex, and methoxychlor may affect but are not likely to adversely affect listed species under its jurisdiction.

As previously described in EPA's February 1, 2023, letter, on May 16, 2023, Vermont requested that EPA take no action on the following items:

- 29A-101(c) in the Applicability section, which was amended to specify that the rules apply to wetlands as articulated in sections 29A-104(e) and 29A-105(e).
- The definition of "wetland" at 29A-102(53).
- 29A-104(e) in the Classification of Uses section, which incorporates the function and values for Class I and Class II wetlands as uses to be protected.
- 29A-105(e) in the Antidegradation Policy section, which provides for the protection of wetland and their functions and values.

In a letter dated May 22, 2023, EPA confirmed that it would not be taking action on these items.

We look forward to continued cooperation with DEC in the development and review of WQS pursuant to our responsibilities under the CWA. If you have any questions, please contact Dan Arsenault (617 918-1562) or Mike Knapp (617 918-1053).

Sincerely,

KENNETH MORAFF Digitally signed by KENNETH MORAFF Date: 2024.03.05 12:08:16 -05'00'

Ken Moraff, Director
Water Division
EPA Region 1

Cc: Pete LaFlamme, Director, Watershed Management Division, VTDEC
Bethany Sargent, Deputy Director, Watershed Management Division, VTDEC

Attachment A
Technical Support Document for the EPA Decisions on
VT WQS Amendments at Environmental Protection Rule 29A
Submitted November 2, 2021 – Selenium, Guthion, Mirex, Methoxychlor, and Classification Upgrades for Alder, Blue Bank and Goshen Brooks

Selenium

Vermont has updated its chronic freshwater aquatic life criteria for selenium to be consistent with EPA's nationally recommended CWA Section 304(a) Aquatic Life Ambient Water Quality Criterion for Selenium – Freshwater 2016, which reflect the latest science for the protection of aquatic life. Note, that while the EPA's 304(a) recommendation for the selenium criterion was originally published in 2016, a revision was published in 2021 that contained errata for several footnotes.

Appendix C in Vermont's references Table 1 in the 2016 criteria document and provides a link in footnote q to the criteria document. Vermont has adopted all four components of the selenium criteria in a hierarchical order with egg/ovary concentrations superseding fish whole body or muscle concentrations which supersede water column concentrations including those with waterbodies with intermittent exposure. Vermont removed footnote I, which referenced the previous water quality criterion for selenium in EPA's National Recommended Water Quality Criteria: 2002. Also, while the egg/ovary and fish whole body or muscle concentration are instantaneous values the water column criteria are based on a duration of 30 days. Vermont added footnote p, which states "For chronic criteria that utilize 30-day average duration, 30Q10 flows shall apply."

Pursuant to 40 CFR § 131.11(a), EPA's review of Vermont's revised selenium aquatic life criteria is based on whether the criteria protect aquatic life uses and are based on sound scientific rationale. EPA finds that Vermont's revised criteria are scientifically defensible and protective of designated uses for the reasons explained in the EPA's 2016 selenium criteria document.[1] EPA approves the adoption of the 2016 304(a) recommended selenium criteria. EPA also approves the additions of footnotes p and q and the deletion of footnote i.

Guthion, Methoxychlor and Mirex

Vermont has adopted chronic freshwater aquatic life criteria for guthion, methoxychlor and mirex to be consistent with EPA's CWA Section 304(a) nationally recommended chronic aquatic life criteria found in EPA's Quality Criteria for Water 1986 (EPA 440/5-86-01). The chronic aquatic life criteria for guthion, methoxychlor and mirex are 0.01, 0.03 and 0.001 ug/l, respectively.

Pursuant to 40 CFR § 131.11(a), EPA's review of Vermont's adoption of chronic aquatic life criteria for guthion, methoxychlor and mirex is based on whether the criteria protect aquatic

[1] https://www.epa.gov/system/files/documents/2021-08/selenium-freshwater2016-2021-revision.pdf

life uses and are based on sound scientific rationale. EPA finds that Vermont's revised criteria are scientifically defensible and protective of designated uses for the reasons explained in EPA's Quality Criteria for Water 1986 (EPA 440/5-86-01).[2] EPA approves the adoption of the 304(a) recommended chronic aquatic life criteria for guthion, methoxychlor and mirex.

Waterbody Classification Upgrades from Alder, Blue Bank and Goshen Brooks
Vermont also added three waterbodies to Appendix F in the Lower Otter Creek watershed. These include:

- Alder Brook. Alder Brook and all waters within its watershed.
- Blue Bank Brook. Blue Bank Brook and all waters within its watershed.
- Goshen Brook. Goshen Brook and all waters within its watershed upstream to the boundaries of the federally designated Joseph Battell Wilderness Area of the Green Mountain National Forest.

Each of these waterbodies has been upgraded from Class B(2) to A(1) for the aquatic biota, habitat, and aesthetic designated uses. Alder Brook is located in Chittenden County while Blue Bank and Goshen Brooks are located in Addison County. Table 1 below summarizes the differences between Class B(2) and Class A(1) protections for these designated uses.

Table 1 – Comparison of Standards Applicable to Class A(1) and Class B(2) Waterbodies for Aquatic Biota, Aquatic Habitat and Aesthetic Designated Uses

Parameter	Class A(1)	Class B(2)
Temperature (cold water fish habitat)	No increase from natural condition.	Total increase from ambient temperature due to all discharges and activities shall not exceed 1.0° F.
Streamflow	Changes from the natural flow regime shall not cause the natural flow regime to be diminished, in aggregate, by more than 5% of the 7Q10 flow at any time.	Any change from the natural flow regime shall provide for maintenance of flow characteristics that ensure the full support of uses and comply with applicable water quality criteria.
Turbidity	Not to exceed 10 NTU as an annual average under dry weather base flow conditions.	Not to exceed 25 NTU as an annual average under dry weather base flow conditions
Aquatic Biota and Wildlife - Management Objectives	Waters shall be managed to achieve and maintain excellent biological integrity and aquatic biota consistent with waters in their natural condition.	Waters shall be managed to achieve and maintain good biological integrity.
Aquatic Biota and Wildlife -	Measures of biological integrity for aquatic macroinvertebrate and fish	Change from the natural condition for aquatic macroinvertebrate and

[2] https://www.epa.gov/sites/default/files/2018-10/documents/quality-criteria-water-1986.pdf

Biological Criteria	assemblages consistent with their natural condition.	fish assemblages not exceeding moderate changes in the relative proportions of taxonomic, functional, tolerant, and intolerant aquatic organisms.
Phosphorus Criteria	Blue Bank and Goshen Brooks (both small high gradient) = 10 µg/l TP Alder Brook is a hybrid low gradient stream. No applicable TP criteria.	Blue Bank and Goshen Brooks (both small high gradient) = 12 µg/l TP Alder Brook is a hybrid low gradient stream. No applicable TP criteria.
Aquatic Habitat - Management Objectives	Waters shall be managed to achieve and maintain excellent habitat. The physical habitat structure, stream processes and flow characteristics of rivers and streams and the physical habitat of and water level of lakes and ponds shall be managed consistent with waters in their natural condition.	Waters shall be managed to achieve and maintain high quality aquatic habitat. The physical habitat structure, stream processes, and flow characteristics of rivers and streams and the physical habitat and water level of lakes and ponds necessary to fully support all life-cycle functions of aquatic biota and wildlife, including overwintering and reproductive requirements, are maintained and protected.
Aquatic Habitat - Criteria	No change in flow characteristics, physical habitat structure, and stream processes outside the range of natural conditions.	Changes to flow characteristics, physical habitat structure, and stream processes limited to moderate differences from the natural condition and consistent with the full support of high quality aquatic habitat.
Aesthetics – Management Objectives	Waters shall be managed to achieve and maintain excellent aesthetic quality.	Waters shall be managed to achieve and maintain good aesthetic quality.
Aesthetics - Criteria	Water character, flows, water level, bed and channel characteristics, and flowing and falling waters in their natural condition.	Water character, flows, water level, bed and channel characteristics, and flowing and falling water of good aesthetic value.

The classification upgrades from Class B(2) to A(1) for the aquatic biota, habitat, and aesthetic designated uses increase the protections for Alder, Blue Bank and Goshen Brooks. Pursuant to 40 CFR § 131.11(a), EPA approves these classification upgrades.