



REGION 1

BOSTON, MA 02109

April 30, 2024

Jason Batchelder, Commissioner
Vermont Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3522

Re: Lake Champlain TMDL Implementation Interim Report Card for Northern Lake Champlain Direct Drainages (Basin 5) and Final Report Card for the Winooski River (Basin 8)

Dear Commissioner Batchelder:

Thank you for your progress report on implementation of the Lake Champlain TMDL for phosphorus contained within the "Vermont Clean Water Initiative 2023 Performance Report" submitted to EPA on January 16, 2024. The Department of Conservation's (DEC) comprehensive report has provided a strong basis for EPA's evaluation of Vermont's progress towards completion of the work described in the Accountability Framework section of the 2016 TMDL document. EPA commends Vermont's staff who administer these programs and produced this annual report.

The primary purpose of this letter is to communicate EPA's evaluation of Vermont's progress on its Phase 2 milestones – a mid-cycle review of implementation progress for the Northern Lake Champlain Direct Drainages Tactical Basin Plan (TBP) and the final review of Phase 2 implementation for the Winooski River TBP. As outlined in the 2016 Lake Champlain TMDL accountability framework, TBPs have a five-year implementation cycle with a mid-point review of progress, at which point EPA will review and provide an assessment of the state's completion of these actions.

After reviewing Vermont's Lake Champlain TMDL Implementation Reports, EPA concludes that the state is on track to accomplish most of the five-year actions identified in the implementation tables for the Northern Lake Champlain Direct Drainages TBP. EPA also concludes that Vermont has satisfactorily completed the five-year actions identified in the implementation tables for the Winooski River TBP. The basis for this conclusion is explained below.

While the progress on implementation of these TBPs is encouraging, EPA is concerned about the overall pace of phosphorus reductions in Lake Champlain. As discussed further below, we strongly encourage Vermont to continue to evaluate whether projected actions over the next five years are

sufficient to produce the necessary reductions, and whether other steps are necessary to keep this critical program on track.

2020 Northern Lake Champlain Direct Drainages (Basin 5) Tactical Basin Plan Interim Progress Assessment

To assess state progress in implementing the Basin 5 TBP, EPA focused its review on Appendix B of the 2023 Performance Report. The report assesses progress for each action in the plan implementation tables using four categories: complete, in progress (for actions that have a clear end point), ongoing (for actions that are anticipated to continue indefinitely), and not started.

Vermont's TMDL implementation progress report identifies 53 strategies in the Basin 5 TBP. Seventy-five percent of these strategies are ongoing projects that are making meaningful progress toward completion, six percent are in progress with a high likelihood of completion, and 17 percent have been completed. One project is not yet started (a stream geomorphic assessment for Jewett Brook), and while it is not likely to be completed as noted by DEC, there does appear to be the opportunity to utilize the Functioning Floodplains Initiative to provide similar insights for planning purposes. Additionally, Basin 5's Clean Water Service Provider (CWSP), the Chittenden County Regional Planning Commission, was awarded \$645,340 to reduce the estimated total phosphorus load by 41.9 kg in 2024. Given the progress made to date, and the commitments made by the CWSP, EPA considers the state to be making strong progress towards completing the five-year implementation actions in Basin 5.

2019 Winooski River (Basin 8) Tactical Basin Plan Final Implementation Assessment

Appendix C of the 2023 Performance Report is the final report card for the 2018 Winooski TBP. Strategies are categorized by sectors – agriculture, developed lands, natural resources, forestry, and wastewater – and are located within the TBP implementation tables. An explanation is provided for each strategy that describes how the action was supported and the resulting outcomes of the work, showing that meaningful progress was gained. Overall, the basin has achieved 14 percent of the total load reduction targets set by the TMDL.

The implementation tables for the Winooski River TBP identify 52 strategies that if successfully completed would ensure that TMDL implementation moves forward at the necessary steady rate. Of the 52 strategies identified, 32 were successfully completed, 17 are in progress, two will continue, and one strategy was discontinued. EPA and DEC's Watershed Planning Program met to discuss progress on the implementation table and evaluate strategies that were identified as In Progress. Details provided by DEC indicate that 14 of the strategies identified as In Progress had largely completed the defined tasks in the Basin 8 TBP and had identified further steps or actions that could be taken to further support the goal. These additional steps or actions will be carried forward as strategies in the Phase 3 plan and were thus counted as In Progress. EPA and DEC will continue to work together to ensure the most accurate reporting of progress.

Overall, Vermont has successfully advanced 94 percent of the identified strategies from the 2018 Winooski TBP. This meaningful progress will be further supported in Phase 3 of the Basin 8 TBP. DEC awarded \$1,040,947 to the Central Vermont Regional Planning Commission (CVRPC), the Basin 8 CWSP to achieve an additional 69.6 kilograms of phosphorus reduction in state fiscal year 2023. CVRPC

received an additional \$1,097,230 to achieve an additional 69.6 kilograms of phosphorus reduction. Given Vermont's progress completing the 2018 Winooski River TBP implementation table and the commitments made the CWSP, EPA considers the state to have made sufficient progress implementing the Basin 8 TBP.

Overall Progress Implementing the Lake Champlain TMDL for Phosphorus

EPA also reviews Vermont's Annual Clean Water Initiative Performance Report to track overall progress in meeting the 2016 Phosphorus TMDL for Lake Champlain. The Report states that Vermont agencies awarded \$92.5 million to support projects across the state, an increase of \$30 million from 2022. In the Lake Champlain Basin, \$59 million was awarded in 2023, an increase of \$22 million from 2022. Vermont has experienced several major flooding events over the past year, which may only exacerbate phosphorus loading, and the impact of a changing climate underscores the importance of installing practices capable of withstanding large storms. EPA continues to believe that sustainable long-term funding is vital to realizing the restoration of Lake Champlain.

Vermont estimates that total phosphorus load reductions have plateaued for the first time since promulgation of the TMDL in 2016. Vermont reported in 2022 that the pace of phosphorus loading reductions across the Lake Champlain basin slowed to 45 metric tons of phosphorus, a modest increase over 2021's 42.7 metric tons. In 2023, the pace of reported reductions continued to decrease with 41.5 metric tons of phosphorus reduction reported, which is approximately 20 percent of the total reduction necessary to meet the TMDL. With a significant decrease in the pace of phosphorus load reductions coming from annual agricultural practices, EPA is concerned about Vermont's ability to meet necessary reductions to meet the TMDL target.

EPA recognizes that water quality management needs and conditions change over time, and we support an adaptive approach to watershed management. At this critical stage of TMDL implementation, EPA continues to observe a decrease in annual load reductions. Over the next year, EPA would like to work with DEC through a series of conversations to closely examine any hinderances and discuss possible adaptations to the approach of Lake Champlain TMDL implementation. If the pace of progress does not increase, we are likely to request a series of evaluations to analyze and look objectively at whether the state is on track to meet its sector-based reductions. For instance, necessary reductions in phosphorus loads from the agricultural sector may not be achieved with only best management practices. Vermont should look at other programs within the state and ensure they are doing their part to address phosphorus, including the issuance of National Pollutant Discharge Elimination System permits for regulated agricultural practices such as Concentrated Animal Feeding Operations. Additionally, EPA may also recommend a review of agricultural operations' nutrient management plans to ensure they are being maintained and implemented, as well as an in-depth consideration for how reductions from annual agricultural practices may be reliably counted from year-to-year, when not publicly funded. If new actions and approaches are necessary, EPA would encourage Vermont to evaluate whether current long-term funding mechanisms will be sufficient to support future restoration activities.

We recognize that the efforts necessary to restore Lake Champlain are challenging and by continuing to invest in an adaptive management approach we believe the state is well-positioned to succeed. We

look forward to continuing to collaborate with you and wish to thank you and the Water Investment Division staff for a comprehensive report on this important body of work.

Sincerely,

Melville P. Cote, Jr.

Melville P. Coté, Jr., Chief
Surface Water Protection Branch

Cc (via email): Neil Kamman, VT DEC
Ethan Swift, VT DEC
Emily Bird, VT DEC
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