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November 1, 2016

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Sent via email: Kevin.Burke@vermont.gov

Re: Comments on the Draft 2017 Vermont Stormwater Management Manual

Dear Kevin,

Thank you for the opportunity to comment on the draft 2017 Vermont Stormwater Management Manual (Manual or VSMM). CLF appreciates the Department of Environmental Conservation's (DEC) commitment to effectively manage stormwater and meet its legal mandates under the Lake Champlain TMDL.[1]

Stormwater runoff from rooftops, parking lots, and roads is a major contributor to the degradation of water quality and increased flood risks across Vermont. In the Vermont portion of the Lake Champlain basin alone, developed lands contribute 18 percent of the phosphorus load. This phosphorus pollution has led to toxic blue-green algae blooms, a trend that will only worsen with greater precipitation and more extreme weather from climate change.

CLF continues to hold our concerns and suggestions raised in meetings, hearings, and comment letters dated April 15, 2016 (Appendix A) and October 19, 2016 (Appendix B). Our comments below fall into three categories: a reiteration of our concerns with the water quality treatment standard; concerns with ambiguity within the Manual; and questions on how DEC intends to handle specific cases.

The Manual should incorporate a clear, numeric phosphorus removal standard.

[1] Phosphorus TMDLs for Vermont Segments of Lake Champlain (June 17, 2016) (hereinafter Lake Champlain TMDL).

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The VSMM is an essential tool to meet the Lake Champlain TMDL targets for developed land. The Environmental Protection Agency (EPA) has affirmed that a 70 percent or higher total phosphorus standard is necessary to achieve wasteload allocations and be consistent with the reasonable assurance that phosphorus reductions from stormwater sources will actually occur.[2] Accordingly, DEC has committed to updating the VSMM "to employ state-of-the-art stormwater BMPs designed to *maximize* phosphorus removal"[3] (emphasis added).

In addition, the VSMM is read and interpreted by a broad community – not only as standards for stormwater designers, but also as a key milestone in the accountability framework for the Lake Champlain TMDL. It is critically important that requirements in the Manual are clear to multiple stakeholders with varying backgrounds.

The Manual should therefore clearly state that the Water Quality Treatment Standard (WQTS) for total phosphorus is at least 80 percent – the expected removal efficiency for Tier 1 Practices. If Tier 1 Practices are infeasible, designers must seek a variance to the WQTS. The permit application materials (eg., the STP Selection Tool) would serve as the paperwork required to seek either a Tier 2 or Tier 3 Practice variance. This approach – where Tier 1 Practices are the only STPs that actually meet the WQTS – makes it clear to designers and the public writ large that Tier 1 Practices, where feasible, must always be used over other practices. For specific language suggestions, please refer to Appendix B.

In addition to a permit-by-permit WQTS, the Manual should include an average 70 percent phosphorus removal standard for new development for each lake segment as referenced in the Lake Champlain TMDL. This will ensure that variances from the WQTS are appropriately limited and that wasteload allocations for each lake segment will be met. For specific language suggestions, please refer to Appendix B.

The Manual should clarify concepts and terms.

Manual Review: The Manual Review provision should contain clearer instructions on the process as well as the substance of the review. CLF agrees with our colleagues at Lake Champlain International that the Manual rule should set to expire automatically after five years from its enactment with a suspension in permit issuance until a new Manual is adopted by rule. The Manual Review provision should also clarify the metrics against which the Manual will be reviewed and what actions the Secretary will pursue should the Manual be determined an inadequate strategy to meet TMDL targets. These actions should include revising the VSMM to increase the phosphorus removal standard, increase the acreage of existing developed land subject to stormwater permit, and/or using the Agency's residual designation authority pursuant

[2] Environmental Protection Agency, Comments on Vermont's Draft Stormwater Manual (August 8, 2016).
[3] Vermont Lake Champlain Phosphorus TMDL Phase I Implementation Plan, (August 2016) pg. 56. (hereinafter Phase I Plan).

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to DEC's Stormwater Management Rule section 18(302)(a)(5). For specific language suggestions, please refer to Appendix B.

Infeasible: The Manual relies on permit application materials, including but not limited to the STP Selection Tool to define what is feasible. CLF has two concerns with this approach: first, the STP Selection Tool's definition of feasible is contentious. For example, while the Selection Tool determines Tier 1 Practices are infeasible when a site's soils have an infiltration rate of less than 0.2 inches per hour, EPA disagrees. With the addition of underdrains, EPA argues Tier 1 Practices are feasible despite low infiltration rates.[4] Second, DEC has yet to develop many of the accompanying permit application materials. As a result, we are forced to comment on the VSMM without fully understanding the implications of this rule. Actual phosphorus removal will largely depend on DEC's interpretation of what is feasible. We would welcome further engagement as these materials are crafted, and highlight DEC's commitment to maximize phosphorus removal.

Not possible: The Manual includes two standards for allowing designers to implement Tier 2 or Tier 3 Practices: "infeasible" and "not possible." For clarity, DEC should remove reference to "not possible" and rely solely on "infeasible" to determine which tier of STP is implemented.

Designer: Designers are entrusted to certify what is feasible. Currently, however, there is no certification process to ensure consistency of knowledge, education, or professional experience across the designer community. In addition, without certification there is no method of reprimanding an individual for misrepresenting information within a permit application. We urge a clear and transparent definition of designer within the Manual.

Anti-degradation: It is unclear why the State has chosen to emphasize a cost-benefit analysis in the anti-degradation section of the Manual. Cost should not justify implementing poorer performing practices. While cost is excluded as a justification for using Tier 2 or Tier 3 Practices within the WQTS, the reference to cost in the anti-degradation section is unclear and misleading.

Removal Efficiencies: The Manual acknowledges the range in removal efficiencies for STPs. To ensure DEC's accounting and tracking tool does not overstate the amount of phosphorus removed, we strongly urge DEC to rely on conservative removal efficiencies. Incorporating low removal rates into any tracking mechanisms will help maintain honest accounting.

Tier 3 Practices: DEC staff has repeatedly told us that they cannot imagine a justification that would warrant the use of a Tier 3 Practice in lieu of a Tier 2 Practice. To manage expectations, maintain clarity, and achieve the highest water quality outcome, we encourage DEC to remove Tier 3 Practices from section 2.2.4 (WQTS and Water Quality Practice Selection).

[4] Environmental Protection Agency, Comments on Vermont's Draft Stormwater Manual (August 8, 2016).

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Redevelopment: It is unclear what the WQTS is for redevelopment. While capturing and treating 50 percent of the water quality volume from the redeveloped impervious surface area appears to be one acceptable approach, it is unclear what Tier of Practice must be applied. The inclusion of a numeric phosphorus removal standard would clarify the redevelopment standard. We also remain concerned that the entire water quality volume is not treated. Please refer to Appendix A.

DEC should clarify how it will address the following case studies.

Scenario 1: A designer applies for a stormwater permit for a new development. The site is comprised entirely of Class D soils. Due to the hydrologic soil group, infiltration is infeasible. The designer decides to utilize two areas of lined bioretention, an accepted Tier 2 Practice, for some treatment. The designer then justifies the use of a wet pond, an accepted Tier 3 Practice, to treat the remainder of the volume. The justification provided is that space is too limited to meet the WQTS and the Channel Protection Standard with the bioretention system. Will DEC accept this justification? In this case, how much of the water quality volume must be treated with a Tier 2 Practice?

Scenario 2: A site has a pond present as the current STP. There is insufficient space to implement an STP prior to the pond, but there is an adjacent parking lot. The designer proposes using the existing pond as treatment. Will DEC accept this justification? Or, assuming that elevations allow for subsurface storage to drain without requiring pumping, will DEC require the designer to tear up the parking lot to install subsurface storage?

Thank you for the opportunity to provide comment on the Manual. While a step in the right direction, the VSMM remains ambiguous. CLF strongly urges DEC to incorporate our drafting comments from our public letter dated October 19, 2016 to clarify the WQTS and reinforce the State's commitment to clean water. CLF also encourages DEC to address the additional areas of confusion highlighted above.

Sincerely,

Rebekah Weber
Lake Champlain Lakekeeper
Conservation Law Foundation

Elena Mihaly
Staff Attorney
Conservation Law Foundation

cc. Padric Monks, DEC Stormwater Program
Stephen Perkins, EPA Region 1
Eric Perkins, EPA Region 1

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Appendix A

Comments on the Draft Vermont Stormwater Management Manual, April 15, 2016.
Please find attached.

Appendix B

Follow up on the draft 2017 Vermont Stormwater Management Manual Rule, October 19, 2016.
Please find attached.