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VERMONT LAKE CHAMPLAIN  
PHOSPHORUS TMDLs  
PHASE 1 IMPLEMENTATION PLAN

Response to Public Comments

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March 1, 2017

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*PREPARED BY THE STATE OF VERMONT FOR THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY*

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## INTRODUCTION

The U.S. Environmental Protection Agency (EPA) released the final approved Phosphorus TMDLs for the Vermont Segments of Lake Champlain (TMDL) on June 17, 2016.<sup>1</sup> The Vermont Clean Water Act (Act 64)<sup>2</sup> directs the Agency of Natural Resources (ANR) to update the Vermont Lake Champlain Phosphorus TMDLs Phase 1 Implementation Plan (Phase 1 Plan) within three months following the release of the final TMDL. The updates are to reflect the actions necessary to meet the phosphorus pollution targets (referred to as allocations) established in the TMDL.

ANR released a draft Phase 1 Plan on August 8, 2016 and held a 30-day public comment period on the updated draft Phase 1 Plan through September 7, 2016, including public meetings on August 29 and 30, 2016. ANR released the updated Phase 1 Plan on September 15, 2016. ANR received questions and comments from 22 parties during the public comment period. This Response to Public Comments report (Report) responds to the comments of 18 parties. The remaining comments either did not pertain to the Phase 1 Plan or were limited to formatting and design, and not content.

This Report follows the order of chapters and sections presented in the Phase 1 Plan. Comments, or sub-elements of comments, are organized by subject. For example, all comments related to TMDL Development and Implementation Planning are gathered in a section with that heading.

The Report contains comments that are numbered sequentially to aid in cross-referencing. For example, the second comment in Chapter 7, Section A is designated as *Comment 7-A-2*. The comments also include in brackets the name of the person or organization that submitted the comment. Chapter 10 contains a list of all the commenters with references to comment numbers.

The Report also grouped together similar comments and provided a consolidated response. Substantially similar comments appear only once. Some responses to comments contain references to other responses elsewhere in the document. ANR makes note of those comments that raise topics considered not to be germane to the Phase 1 Plan and includes references. ANR retained any text emphasis (i.e., bold, underline, italics), text boxes and figures included in the comments received to the extent possible.

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<sup>1</sup> <https://www.epa.gov/sites/production/files/2016-06/documents/phosphorus-tmdls-vermont-segments-lake-champlain-jun-17-2016.pdf>.

<sup>2</sup> 10 V.S.A. § 1386 (2015) Act 64 § 36.

## CHAPTER 1 – INTRODUCTION

### A. PHOSPHORUS IMPAIRMENT OF LAKE CHAMPLAIN

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**Comment 1-A-1: [Neilsen]**

While it is not required to be part of a TMDL, I feel it would serve the public interest to have a brief history of the processes that lead to excessive loads of phosphorus in the impacted watershed.

**Response 1-A-1:**

ANR agrees this would be of interest to the public and added a reference to the recently published Spring 2016 issue (Volume 17, Issue 4) of the Vermont Journal of Environmental Law in the Phase 1 Implementation Plan. This issue provides insights into the scientific, policy and legal implications of the Lake Champlain TMDL, including the background and history leading up to the current implementation plan.

**Comment 1-A-2: [Conservation Baie Missisquoi]**

We know that phosphorus has a lot to do with the cyanobacterial blooms that we have been experiencing since the beginning of 2000. I believe, however, that we must also keep in mind that nitrogen has a role to play in triggering these events. The cyanobacterial species *Microcystis* for example, requires a lot of nitrogen for the maintenance of its' vacuole system. The toxin that they produce also contains a lot of nitrogen.

**Comment 1-A-3: [Skutel]**

We need to include not only phosphorus but E. Coli levels in the plan. This is our problem and we have been dragging our feet on the issue for too long.

**Response 1-A-2 and 3:**

While this TMDL is for the reduction of phosphorus inputs to the Lake, the State agrees that nitrogen, *E. Coli*, sediment and bacteria are also pollutants of concern throughout Vermont. Some of the programs and activities described in the Phase 1 Plan should have an added benefit of reducing other pollutants, including nitrogen and sediment pollution. Note that ANR's Department of Environmental Conservation (DEC) supports an extensive statewide water quality monitoring program that tracks nutrient, sediment and bacterial inputs to our rivers, lakes and streams. If Vermont Water Quality Standards are not met in any of these areas, DEC is required, through its commitments under the Federal Clean Water Act, to issue a TMDL to address the pollutant of concern. Refer to the DEC Statewide Surface Water Management Strategy, Chapter 2, for a more complete discussion about stressors and state goals to address them:

[http://dec.vermont.gov/sites/dec/files/documents/WSMD\\_swms\\_StressorPlan\\_Introduction\\_V2.pdf](http://dec.vermont.gov/sites/dec/files/documents/WSMD_swms_StressorPlan_Introduction_V2.pdf)

**Comment 1-A-4: [Brayton]**

I'm all for this proposal and assume the clean-up of the Ticonderoga paper plant mess will be included.

**Response 1-A-4:**

The Ticonderoga paper plant is in the State of New York and not under the jurisdiction of the State of Vermont. Vermont continues to work closely with the State of New York regarding the restoration of Lake Champlain.

## **B. TMDL DEVELOPMENT AND IMPLEMENTATION PLANNING**

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### **Comment 1-B-1: [CLF]**

We are alarmed by the State's cavalier disregard of statutory deadlines associated with the TMDL implementation. (Note: Examples given are the revision of the AAPs [Accepted Agricultural Practices] by July 2016, the revision of the MOU [Memorandum of Understanding] between AAFM [Agency of Agriculture, Food and Markets] and DEC, and the revision of the anti-degradation rule).

### **Response 1-B-1:**

AAFM received legislative permission to extend the deadline for the revisions of the AAPs due to the high level of interest and number of comments received from the agricultural community and others. Since the MOU between AAFM and DEC directly relates to regulatory authority including the revised AAPs, the MOU deadline was also postponed. DEC issued an Interim Anti-Degradation Implementation Procedure in December, 2010. Now that significant changes to the Vermont Water Quality Standards have successfully passed through rulemaking, DEC will initiate a pre-rulemaking stakeholder process, and then move into formal rulemaking for an Anti-Degradation Rule.

### **Comment 1-B-2: [CLF]**

The state must employ a "no regrets" approach when drafting regulatory programs to implement phosphorus load reductions.

### **Response 1-B-2:**

We agree with the commenter that a "no regrets" strategy is a precautionary approach to increase Vermont's resilience to flood hazards and other climate change related impacts, improve water quality and ultimately sustain the livability and economic vibrancy of our communities. As described in Chapter 8 of the Phase 1 Plan, actions are to:

- Benefit the public;
- Focus on reducing impacts from stormwater runoff, erosion and flooding; and
- Include policies that restore and safeguard the hydrology of watersheds and the natural and beneficial functions of floodplains, river corridors, wetlands, riparian buffer areas and lake shorelands.

The State has developed an implementation plan using the most current science and modeling to require practice implementation. The plan integrates regulatory requirements, as well as voluntary measures to meet the goals of the TMDL. This approach will improve water quality, mitigate flood hazards and improve ecosystem function.

### **Comment 1-B-3: [CLF]**

The State must adopt more stringent regulations to reduce phosphorus loading. We question the State's revised approach to protecting water quality standards. DEC proposes amendments to the anti-degradation policy that would limit the scope of adverse socioeconomic impact that could justify a lowering of water quality. In other words, the proposed changes would weaken the protective barrier that prevents a decline in water quality. This lower bar for environmental protection is then reflected in the draft rule on Stormwater management which emphasizes the importance of cost-effective treatment practices and the socioeconomic effect of requiring certain practices.

**Response 1-B-3:**

With respect to the updates to the Vermont Water Quality Standards, please refer to the following two documents:

- Final update to the Vermont Water Quality Standards, effective December 15, 2016: [http://dec.vermont.gov/sites/dec/files/documents/wsm\\_d\\_water\\_quality\\_standards\\_2016.pdf](http://dec.vermont.gov/sites/dec/files/documents/wsm_d_water_quality_standards_2016.pdf);
- DEC Response to Comments, Comment #11 and Response: [http://dec.vermont.gov/sites/dec/files/wsm/mapp/docs/2016\\_09\\_29%3B%20Responsiveness%20Summary%2C%20VWQS.pdf](http://dec.vermont.gov/sites/dec/files/wsm/mapp/docs/2016_09_29%3B%20Responsiveness%20Summary%2C%20VWQS.pdf).

DEC is seeking to maximize phosphorus removal under the revisions to the Vermont Stormwater Management Manual. The update to the manual will achieve at least 70 percent reduction in total phosphorus on new projects, which is consistent with the Lake Champlain TMDL. DEC has flexibility in implementing its stormwater permitting programs to achieve the necessary load reductions from developed lands. DEC will use its tracking and reporting systems to monitor pollutant reductions closely. Please refer to the following two documents related to the Stormwater Manual:

- Proposed 2017 Vermont Stormwater Management Manual Rule: [http://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/ManualUpdate/LCARFiling/2016\\_11\\_29%3B%20VSMM%20VOLUME1\\_LCAR%2C%20clean.pdf](http://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/ManualUpdate/LCARFiling/2016_11_29%3B%20VSMM%20VOLUME1_LCAR%2C%20clean.pdf);
- DEC Response Summary, Comments #3 and #4 and Response: [http://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/ManualUpdate/LCARFiling/2016\\_11\\_29%3B%20ResponseSummary\\_2017\\_VSMM\\_RULE.pdf](http://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/ManualUpdate/LCARFiling/2016_11_29%3B%20ResponseSummary_2017_VSMM_RULE.pdf).

**Comment 1-B-4: [VLCT]**

The estimates (for non-wastewater facility annual contributions) are six to sixteen years old and in the interim – even without a Lake Champlain TMDL – a lot of work has been done to reduce phosphorus discharges to the lake from virtually every contributing sector. ...Are more recent numbers available today on which to base Vermont’s workplans?

**Response 1-B-4:**

Refer to the U.S. Environmental Protection Agency Response to Comment 6-64.<sup>3</sup> EPA used the best information available to estimate reductions. The State via the tactical basin planning process may consider new information, as it becomes available, and make adjustments when appropriate.

**Comment 1-B-5: [VLCT]**

The Lake Champlain TMDL has created a problem that did not really exist before: the potential for an “us versus them” scenario between municipalities and agricultural enterprises, because if major sources of non-point source pollution aren’t curtailed, EPA will require wastewater treatment facilities to further reduce phosphorus discharges. Were water quality nutrient trading between municipalities and farms allowed, it would provide needed funding to make improvements on agricultural lands and motivate cooperative working relationships between municipalities and farms in the same watershed.

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<sup>3</sup> [https://ofmpub.epa.gov/waters10/attains\\_impaired\\_waters.show\\_tmdl\\_document?p\\_tmdl\\_doc\\_blobs\\_id=79165](https://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=79165)

**Response 1-B-5:**

State agencies continue to evaluate trading as a means of improving efficiency in pollutant load reductions, particularly within each sector. DEC anticipates evaluating trading, among other policy options, as part of its 2017 stormwater permit program rulemaking process. Trading between sectors to achieve pollution reduction targets, however, introduces a significant amount of complexity. For example, it is difficult to determine the conditions that equate a pound of phosphorus pollution reduction among agricultural sources with regulated wastewater or stormwater runoff sources. This complexity requires a system to audit, verify and track trading transactions, which increases the administrative costs in managing a trading program. Another challenge that is fundamental to the efficacy of any trading program is to determine the marketable credits to buy and sell, which generally are created by practices implemented that are beyond those already required.

**Comment 1-B-6: [Neilson]**

The task of preparing this TMDL might even be questioned. Many hours went into the preparation of the document. Are we to believe that nonbiased writing is being represented here? It needs to be clear that it's the citizens of Vermont that are really on the hook for this TMDL. Perhaps it might have been best to outsource its preparation so as not to be seen as a white wash of potential pitfalls in its allocation of responsibility of causation and how best to repair the damage caused by years of poor resource management. Transparency needs to be the name of the game with TMDLs.

**Response 1-B-6:**

The State is very much committed to an open and transparent process. The State and EPA provided multiple opportunities for the public to learn about, question and respond to the TMDL and Phase 1 Plan. The State first held a series of informal listening sessions in 2011. The State then held eight public meetings and 15 agricultural meetings in 2013. The State released a draft proposal for public comment in November, 2013, followed by a series of public meetings on this proposal and a public comment period. The State released to EPA and presented to the public its first draft Phase 1 Plan in May, 2014. Four more public meetings were held in November, 2014. In 2015, EPA and the State released the draft TMDL and updated draft Phase 1 Plan for public comment in 2015 and held another series of public meetings and formal public comment period on the draft documents. The State held another series of public meetings and invited public comment on the latest draft Phase 1 Plan in 2016. The State now has a tracking and reporting system and is committed to keeping the public aware and engaged in efforts to achieve the TMDL's water quality targets.

**Comment 1-B-7: [Houriet]**

The State received over 100 comments, most of which were in support of increasing protection for the Lake and the proposed policy options in the Proposal. These comments were taken into consideration in developing this Phase 1 Plan. Do the DEC and the Ag agency still stand by these assertions that "most" citizen comments supported "proposed policy options?" Does "proposed policy options" refer to key elements of the Accountability Framework that permit future load reductions theoretically effectuated by BMP's to be deducted in advance from total loads allocations?

**Response 1-B-7:**

The State considered comments received as part of the Phase 1 Plan public process, which included public meetings and comment period. The Phase 1 Plan is the Lake Champlain basin-wide plan that contains the State's policy commitments related to phosphorus reductions. Refer to Tables 1a and 1b

on pages 9–21 of the Phase 1 Plan which describes those commitments. Some of those commitments are also contained in the Accountability Framework of the Phosphorus TMDLs for Vermont Segments of Lake Champlain (Refer to Section 7.3 on pages 54–59). Adjustments to the Phase 1 Plan are documented in the Summary of Modifications document on the State’s Restoring Lake Champlain website.<sup>4</sup>

### **C. VERMONT’S TMDL IMPLEMENTATION EFFORTS TO DATE**

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#### **Comment 1-C-1: [CLF]**

Since 2012, the state has directed all of its Clean Water Act “Section 319” grant funds toward staffing needs as opposed to on-the-ground implementation projects. CLF questions the legality of this, given that section 319 funds are intended to be used in large part for implementation projects, instead of administrative costs.

#### **Response 1-C-1:**

EPA provides federal funds to help states address nonpoint source (NPS) pollution. Between 1990 and 2011, DEC managed an annual competitive grant program using these funds. The State has an agreement with EPA that allows the State to exercise the “leveraging” option in using Section 319 funds. That leveraging option allows the state to support nonpoint source control-related activities in ways other than a grant program. This option requires the State to dedicate a larger share of state funding for project implementation. See EPA Nonpoint Source Program and Grant Guidelines: <https://www.epa.gov/sites/production/files/2015-10/documents/319-guidelines-fy14.pdf>.

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<sup>4</sup> <http://dec.vermont.gov/sites/dec/files/wsm/erp/docs/2016-08-04%20Summary%20of%20Modifications.pdf>

## **CHAPTER 2 – EPA’S DEVELOPMENT OF PHOSPHORUS ALLOCATIONS**

### **Comment 2-1: [Jackson]**

To my understanding the Missisquoi watershed includes all of the land that drains into the river including the land in Quebec. The omission of Quebec in the discussion hints of one political and bureaucratic obstacle that is slowing the progress of cleaning up the Lake... Any scientific analysis of the watershed needs to include the areas north of the border regardless of any political and bureaucratic complexities... I would appreciate an explanation of why the watershed in Quebec seems to be omitted from the science and discussion regarding the water pollution which is occurring in Missisquoi Bay.

### **Response 2-1:**

The State agrees that working collaboratively with our Canadian partners is critical to the long-term health of all waters shared by the two countries. ANR and other state agencies work closely with Quebec and have a standing memorandum of understanding that details our communication and coordination. The Lake Champlain Basin Program assists in coordination of the three jurisdictions on Lake Champlain—Vermont, New York and Quebec—and the partners share research, education, and best management practices.

While both Quebec and New York are major partners for water quality improvement in Lake Champlain, the Phase 1 Implementation Plan only addresses those aspects for which the State of Vermont has authority and jurisdiction.

## **CHAPTER 3 – VERMONT COMMITMENTS TO REDUCE POINT SOURCE POLLUTION**

### **A. INTRODUCTION**

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*No comments received.*

### **B. WASTEWATER TREATMENT FACILITIES (WWTFs)**

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#### **Comment 3-B-1: [Crawford]**

This plan does not address the significant water quality problem of Combined Sewage Overflows from Vermont towns and municipalities in the Lake Champlain watershed. There is a need for state and federal funding to improve Stormwater infrastructure and the Clean Water Act violations of these polluters should be fined and put into a fund for improvements. How would you like to drink filtered water from Lake Champlain like my family does?

#### **Comment 3-B-2: [Skutel]**

We need to address the sewage treatment overflows immediately...this is a health issue.

#### **Response 3-B-1 and 2:**

The State disagrees that the Phase 1 Plan does not address Combined Sewer Overflows (CSOs). As indicated in Chapter 3, Section B, eleven facilities are subject to DEC's new CSO Rule for reducing CSO discharges.<sup>5</sup> The phosphorus load from the Burlington Main WWTF is included in the load allocation of the TMDL and the remaining ten combined systems are included in the developed land wasteload allocation for the applicable lake segment watershed.

#### **Comment 3-B-3: [Nielsen]**

The bullet points (on page 7) might give the reader the mistaken impression that wastewater accounts for a rather large percentage of the problem since it is first on the list.

#### **Response 3-B-3:**

The Phase 1 Plan provides a bulleted list of all major sources of phosphorus loading in no particular order and with no prioritization. The list provides a basis for the policy commitments made in the later chapters of the Phase 1 Implementation Plan.

#### **Comment 3-B-4: [Nielsen]**

Why should all of us pay for the large cities to improve their wastewater treatment plants if less than half of us live in them?

#### **Response 3-B-4:**

The State finds that wastewater treatment is a small percentage of the phosphorus loading in Lake Champlain. As a result, the Phase 1 Plan provides policy commitments that prioritize nonpoint sources of phosphorus pollution, and emphasize the favorable cost-benefit ratio of prioritizing nonpoint pollution sources. Nonpoint sources are diffuse sources such as precipitation or snowmelt-driven stormwater runoff from that landscape including agricultural lands, parking lots, roads and

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<sup>5</sup> [http://dec.vermont.gov/sites/dec/files/wsm/Laws-Regulations-Rules/2016\\_08\\_26%3B%202015\\_WSMD\\_005%3B%20Final\\_Adopted\\_CSO\\_Rule.pdf](http://dec.vermont.gov/sites/dec/files/wsm/Laws-Regulations-Rules/2016_08_26%3B%202015_WSMD_005%3B%20Final_Adopted_CSO_Rule.pdf)

other developed areas.<sup>6</sup> Stream channel erosion is also considered a type of nonpoint source and is partly due to traditional channelization practices (e.g., dredging, straightening, berming and armoring) and increased stormwater runoff.<sup>7</sup>

### **C. URBAN STORMWATER – MS4s**

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*No comments received.*

### **D. NPDES CONSTRUCTION STORMWATER DISCHARGES**

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*No comments received.*

### **E. STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES**

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*No comments received.*

### **F. RESIDUAL DESIGNATION AUTHORITY DISCHARGES**

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*No comments received.*

### **G. CONCENTRATED ANIMAL FEEDING OPERATION DISCHARGES**

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*No comments received.*

### **H. DEVELOPED LANDS – STORMWATER**

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*DEC received several comments related to the Stormwater Management Manual and its regulatory relationship to load reductions. Most questions were not considered to be directly relevant to the Phase 1 Plan. Commenters were referred to the DEC response to comments on the Stormwater Management Manual.<sup>8</sup>*

#### **Comment 3-H-1: [VNRC/VCV]**

While the [Stormwater] Manual represents an improvement over the existing regulation, it falls short in terms of requiring reductions in phosphorous from new development and redevelopment. With regards to redevelopment, the State has decided to allow existing inadequate stormwater systems to remain in place while other parts of a previously developed site undergo renovations. This is a significant missed opportunity to achieve reductions in phosphorous loading from older, outdated systems either through system retrofits or offsets when sites are redeveloped.

#### **Response 3-H-1:**

DEC expects the practices included in the revised Stormwater Management Manual will achieve at least 70% reduction in total phosphorus on new projects, consistent with the TMDLs. Whereas DEC sought to maximize phosphorus removal under the revisions to the Vermont Stormwater Management Manual, DEC has flexibility in implementing its stormwater permitting programs to

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<sup>6</sup> Nonpoint sources of pollution are sources that do not meet the Clean Water Act's legal definition of point source. Nationally, nonpoint source pollution is the leading causes of water quality degradation. U.S. Environmental Protection Agency, Nonpoint Source Pollution: The Nation's Largest Water Quality Problem, EPA841-F-96-004A: <http://water.epa.gov/polwaste/nps/outreach/point1.cfm>

<sup>7</sup> US EPA, "Polluted Runoff: Nonpoint Source Pollution;" Available at: <http://www.epa.gov/polluted-runoff-nonpoint-source-pollution/what-nonpoint-source>

<sup>8</sup> [http://dec.vermont.gov/watershed/stormwater/manual\\_update](http://dec.vermont.gov/watershed/stormwater/manual_update)

achieve the necessary load reductions from developed land, provided DEC's tracking system demonstrates these reductions are occurring.

**Comment 3-H-2: [CCRPC]**

*Comments regarding three acres of impervious surface.*

1. Could this apply to less than 3 acres if it was shown that the site was a critical source?
2. What will be the monitoring system for this?
3. How do individual site owners work through a town to move forward in this structure?
4. Explain and elaborate whether measures applying to existing developed land will take the form of regulatory enforcement on private property owners or will this be a municipal obligation. More discussion about how this will be enforced would be helpful (liens, etc.).
5. How will this apply to existing private roads that did, or did not, have previous Stormwater permits?

**Response 3-H-2:**

Pursuant to Act 64, DEC will develop by January, 2018 a developed lands general permit for discharges from impervious surfaces of three or more acres and an accompanying revised stormwater rule that will address the technical and procedural issues associated with the permit program. The rule will also address DEC's authority under 10 V.S.A. 1264(e) to regulate stormwater discharges from impervious surfaces less than three acres. The adoption of the general permit and rule are public processes, where questions such as who is subject to the requirements, how the regulations are enforced, and the role of municipalities will be addressed.

**Comment 3-H-3: [Composting Association of Vermont]**

Add more specificity/requirements regarding town level infiltration of Stormwater, per page 160 [Phase 1 Implementation Plan]. Increase education efforts and strategies on the role of soil function to achieve higher infiltration rates.

**Response 3-H-3:**

Multiple comments were received regarding the importance of infiltration in managing stormwater. The revisions to the Vermont Stormwater Management Manual include an increase in the volumetric infiltration requirements for regulated projects, balancing the benefits of infiltration with feasibility. This manual also includes new requirements related to "post construction soil depth and quality," assuring that post-development soil structure is sufficient to provide water quality benefits.

**Comment 3-H-4: [CCRPC]**

Any new [permit] requirement should be included in the existing permit if there is one, or combined into one permit so that there is only one permit per municipality or property owner.

**Response 3-H-4:**

Act 64 amended Vermont's stormwater statute (10 V.S.A. 1264) to require a stormwater permit for a site with three or more acres of impervious surface, where the site was not previously permitted, or was permitted under standards in place prior to adoption of the 2002 Stormwater Management Manual. This requirement will be implemented through existing permits, where applicable, or in the form of a new permit, where the site was previously unpermitted. The objective is to manage discharges from developed land using one permit. For non-MS4 municipalities with more than one municipally-owned three or more-acre site, the municipality may combine those sites under a single

stormwater permit. MS4 communities will incorporate municipally-owned three or more-acre sites into their MS4 General Permit authorization.

## **I. DEVELOPED LANDS – TRANSPORTATION**

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*No comments received.*

## **J. ADDED COMMITMENTS TO ADDRESS STORMWATER RUNOFF FROM STATE ROADS AND NON-ROADS**

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### **Comment 3-J-1: [Composting Association of Vermont]**

Municipalities will implement a customized, multi-year plan to stabilize their road drainage system. The plan will include bringing road drainage systems up to basic maintenance standards and additional corrective measures to reduce erosion as necessary to meet a TMDL or other water quality restoration effort. We recommend that you include infiltration in ditch networks and on adjacent private property as primary BMPs to reduce flows and velocity, and need for “corrective measures.”

### **Response 3-J-1:**

DEC prioritizes infiltration in all of its road and ditch recommendations and requirements for road drainage systems.

## **CHAPTER 4 – CURRENT PROGRAM CAPACITY TO REDUCE NONPOINT SOURCE POLLUTION**

### **A. INTRODUCTION**

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**Comment 4-A-1: [Knauft]**

I would challenge the State to include language in the Implementation Plan that places a priority on the role that watershed specific education and outreach efforts play in ensuring that we have clean water and resilient communities well into the future.

**Response 4-A-1:**

The State agrees that education and outreach are critical to achieving water quality goals outlined in the TMDL. The State has integrated education and outreach efforts into all areas of the Phase 1 Implementation Plan, is part of the State’s tracking system and is a priority for support using the Clean Water Fund.

**Comment 4-A-2: [CCRPC and other RPCs]**

We received several requests to acknowledge the supportive role of the Regional Planning Commissions.

**Response 4-A-2:**

The RPCs and other organizations continue to be important partners of the State in our collective efforts to support the implementation of the Phase 1 Plan and other clean water priorities. No changes were made to keep program descriptions appropriately succinct.

### **B. ILLICIT DISCHARGE DETECTION AND ELIMINATION**

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*No comments received.*

### **C. GREEN STORMWATER INFRASTRUCTURE**

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*No comments received.*

### **D. AGRICULTURE**

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*See Chapter 6, Section A. Agriculture, for agriculture-related comments.*

### **E. FORESTRY**

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*No comments received.*

### **F. RIVER AND FLOODPLAIN MANAGEMENT**

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**Comment 4-F-1: [Bockus]**

The clean-up needs to start with the small streams in VT. If the State cannot clean these than [sic] Lake Champlain will not get clean. These are the veins that flow into this Lake. Sick veins, sick lake!

**Response 4-F-1:**

The State agrees that water quality improvement in Lake Champlain is dependent on improving water quality in the streams and rivers of all sizes that drain to Lake Champlain. DEC will continue

to assess water quality conditions in these smaller tributaries. Assessments that identify local water quality concerns will inform the Phase 2 Tactical Basin Plans. We agree with the commenter that addressing these concerns will result in improved localized conditions and conditions downstream.

### **G. WETLANDS PROTECTION**

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*No comments received.*

### **H. UPLAND LAKES PROTECTION AND MANAGEMENT**

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*No comments received.*

## CHAPTER 5 – INTRODUCTION TO WATERSHED RESTORATION USING TACTICAL BASIN PLANNING AND FUNDING

### A. INTRODUCTION

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*No comments received.*

### B. TACTICAL BASIN PLANNING

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#### **Comment 5-B-1: [CLF]**

The State must maintain a transparent and consistent approach to Tactical Basin Plans. ... While it is clear the trend is toward specificity when comparing basin plans over the past cycles and looking at upcoming plans, it is largely unclear to stakeholders how the plans are transforming until the new plans are released. CLF urges DEC to educate stakeholders on the details of the process, including how DEC translates watershed assessments into specific priority projects and whether the same degree of project specificity in implementation tables will be consistent across basin plans.

#### **Response 5-B-1:**

DEC has worked since 2010 to evolve the basin planning process from a generalized, strategy-oriented approach to a geographically-explicit, tactical planning approach. The current tactical basin planning process endeavors to identify priority projects at the subwatershed level to address the stressors identified by the Surface Water Management Strategy. Stakeholder outreach and education are valuable components of tactical basin planning. We agree with the type of outreach contemplated by the commenter. DEC has engaged in a formal partnership with the Regional Planning Commissions (RPCs) to support outreach, and is committed to working closely with other traditional basin planning partners, such as the natural resource conservation districts, watershed associations, and state and federal agency partners.

DEC has developed a new geographic information system (GIS)-based prioritization tool for use in tactical basin planning referred to as the Clean Water Roadmap. The Roadmap was developed in partnership with Keurig Green Mountain Coffee Roasters and The Nature Conservancy, and is integrated into EPA's pollution modeling tool and the State's tracking database. The Roadmap will be used to identify the priorities of tactical basin plans and geographically display prospective projects contained within DEC's tracking system. While modeling does not replace observation to substantiate opportunities for pollution reduction, the Clean Water Roadmap will provide an increased level of transparency on why specific actions may be targeted for phosphorus reduction. For additional details on the evolution of tactical basin planning, please see Kamman and Swift, 2016, in Vermont Journal of Environmental Law, Volume 17, Issue 4.<sup>9</sup>

DEC appreciates the comment and welcomes continued involvement on how to better educate and engage stakeholders and the public in the tactical basin planning process.

#### **Comment 5-B-2: [CLF]**

While priority projects may be established, it is uncertain whether partner organizations always exist to implement these projects. CLF would like to better understand what DEC is doing to address this issue. Similarly, many voluntary projects depend on the willingness of landowners.

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<sup>9</sup> [http://vjel.vermontlaw.edu/files/2016/08/VJEL\\_VOL\\_17\\_ISSUE\\_4\\_LAKE\\_CHAMPLAIN\\_SMALLER.pdf](http://vjel.vermontlaw.edu/files/2016/08/VJEL_VOL_17_ISSUE_4_LAKE_CHAMPLAIN_SMALLER.pdf)

To what extent are key projects being delayed to accommodate disinclined individuals? Is DEC considering regulatory programs that would provide greater authority to implement conservation practices on environmentally sensitive parcels?

**Response 5-B-2:**

Partners, including regional planning commissions, conservation districts, watershed associations, agricultural extension services and other organizations, enhance Vermont’s capacity to implement tactical basin plans. As new permit programs become established, we envision that much of the improvements will be tied to regulatory compliance.

We acknowledge that natural resources restoration activities, such as river corridor and floodplain restoration, can be viewed as discretionary. For those types of projects without specific regulatory authorities, such as in the case of a valuable river corridor easement project, landowner willingness will remain a factor used by the State in determining when to allocate funding. We continue to offer incentives and financial assistance to encourage landowner participation in priority areas.

**C. CLEAN WATER INITIATIVE PROGRAM**

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*No comments received.*

## **CHAPTER 6 – VERMONT COMMITMENTS TO FURTHER REDUCE NONPOINT SOURCE POLLUTION**

### **Comment 6-1: [VLCT]**

The Vermont Lake Champlain Phosphorus TMDL Phase 1 Implementation Plan enumerates the major categories to implement the TMDL. They include regulatory requirements, financial incentives, technical assistance, monitoring, assessment and planning, funding, education and outreach. We urge you to affirm that funding, financial incentives, and technical assistance are the highest priority and primary instruments the agency will use to implement the Lake Champlain TMDL.

### **Response 6-1:**

The Phase 1 Implementation Plan includes commitments to offer financial and technical assistance as well as enforcement of existing and new regulatory programs.

### **Comment 6-2: [Maroney]**

For a fraction of the projected \$35 million per year for twenty years that Act 64 would charge the taxpayers to clean up the “runoff from agriculture,” converting the state’s dairy industry to organic would near triple the industry’s gross revenue and in the very first year cut by half the “runoff from agriculture” going into the lake. The parts of the TMDL and Act 64 having to do with agriculture and the MOU [memorandum of understanding] that gave responsibility for clean water to VAAFMM should be repealed.

### **Response 6-2:**

The implementation of the agricultural commitments described in the Phase 1 Plan will result in agricultural nutrient pollution load reductions, of which manure is a major contributing factor, regardless of whether a farm is conventional or organic.

## **A. AGRICULTURAL PROGRAMS**

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### **Comment 6-A-1: [Bald]**

I see that a new practice is gaining in popularity across the country – the desiccation of crops with glyphosate to speed up the harvest process. We do not need that here, and with a damaged, dysfunctional lake, we cannot afford that practice. This new twist on uses for glyphosate needs an outright ban in the Lake Champlain watershed. This is not something we need to look to EPA for. They offer no meaningful guidance or assistance whatsoever; the ban on this glyphosate-desiccation practice is based simply on the presence of phosphorus in the molecular structure and the threat of runoff on compacted soils.

### **Response 6-A-1:**

The use of pre-harvest glyphosate is to remove the last perennial weeds and kill cereal crops before harvest. The goal for the crop itself is to speed up and even out the ripening of the seeds so that harvest can be conducted more efficiently. We plan to inquire into the options for other desiccants in the market to meet this need.

Although glyphosate is a small source of total phosphorus, compared to other sources, DEC will continue to work with the Agency of Agriculture to encourage farmers to manage pesticide use carefully. Sound use of pesticides potentially could reduce glyphosate use, reduce overall toxics

burden in the environment and save farmers money. The State will also continue to stay abreast of new research about the effects of glyphosate on water quality.

**Comment 6-A-2: [VNRC/VCV]**

As VNRC and VCV have noted in our comments on the proposed RAPs [Required Agricultural Practices], while improvements over the status quo, the RAPs are not nearly stringent enough to meet these load reduction targets. ...Unless the RAPs are strengthened, VNRC and VCV do not believe the State will come close to meeting the load reduction goals for agricultural non-point sources.

**Response 6-A-2:**

Refer to the AAFM response to comments on the RAPs.<sup>10</sup> AAFM finds the RAPs consistent with the commitments made in the Phase 1 Plan and directives contained in Act 64.

With regards to the general comment that the RAPs are not stringent enough to meet the load reduction goals for agricultural non-point sources, also refer to EPA’s response summary to the TMDL, comment 7-1 on p. 118. EPA states, “The package of agricultural measures EPA evaluated in determining that the load allocations for agriculture are sufficient to implement the water quality standards contains the measures required by Act 64 and is consistent with the proposed revisions to the RAPs.”

EPA and the State agree that additional measures beyond the RAPs will be necessary in some areas to meet the load reduction goals.<sup>11</sup> The decision of the Secretary of Agriculture in response to the CLF petition to require mandatory Best Management Practices (BMPs) in Missisquoi Bay demonstrates the State’s concurrence that BMPs are generally necessary on farms in the Missisquoi Bay watershed to achieve compliance with state water quality goals.<sup>12</sup> AAFM has also committed to farm-specific assessments and implementation of conservation plans to identify water resource concerns where needed.

**Comment 6-A-3: [Bald]**

Farmers and landowners should be incentivized to build healthy soils. Burn piles are a common scene across Vermont and rather than banning the practice, a restoration plan should pay people to create soil through vegetative decomposition rather than useless burning. The resulting product, put to use on depleted landscapes, is high in organic content and microbial activity. This would be a widespread positive in water retention and filtration.

**Comment 6-A-4: [Composting Association of Vermont]**

The commenter pointed out several areas in the Phase 1 Plan where wording related to soil health was suggested and requested additional soil health recommendations.

**Response 6-A-3 and 4:**

We appreciate the comment about the importance of building healthy soils. The Phase 1 Plan

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<sup>10</sup> <http://agriculture.vermont.gov/water-quality/regulations/rap>

<sup>11</sup> Refer to EPA’s response summary to the TMDL, specifically its response to comment 6-65 [Lake Champlain Committee. EPA’s response acknowledges that measures beyond the RAPs will be necessary to achieve targets for the Missisquoi Bay watershed. <https://www.epa.gov/tmdl/lake-champlain-phosphorus-tmdl-commitment-clean-water>

<sup>12</sup> <http://agriculture.vermont.gov/water-quality/news-events/clf-petition>

addresses soil health. Furthermore, the State agrees in supporting practices and actions that improve soil health, for water quality benefits and for flood resiliency. In its responsiveness summary regarding comments on the Required Agricultural Practices, AAFM explains that building soil health is a key part of the RAPs and agricultural nutrient management. Section 6.04 of the RAPs is specific to soil health and how conservation practices improve it. Vermont statute instructed the Agency to establish standards for nutrient management on farms, including recommended practices for improving and maintaining soil quality and healthy soils.<sup>13</sup>

In addition, AAFM is developing an incentive program to reward farmers who take action to exceed regulatory requirements for conservation and water quality practices, which will include an incentive for building soil health.

**Comment 6-A-5: [Composting Association of Vermont]**

Lake Champlain’s phosphorus loading problems are largely associated with Stormwater runoff and erosion across all sectors – developed areas, roads, agricultural and forest lands. The major problem is not runoff but infiltration. Recommendation: Increase education efforts and strategies on the role of soil function to achieve higher infiltration rates.

**Response 6-A-5:**

Refer to response to Comment 6-A-2. The State agrees to the importance of providing educational assistance on the soil health to improve infiltration. The Phase 1 Plan and the Required Agricultural Practices<sup>14</sup> address this topic.

**Comment 6-A-6 [Skutel]**

We need to stop farm runoff by putting in place immediate support for the changes for farmers and more importantly strict and immediate enforcements.

**Response 6-A-6:**

The State agrees with the commenter about the importance of controlling farm runoff through new practice changes and enforcement where necessary and appropriate. The Phase 1 Plan, the Required Agricultural Practices, and AAFM’s increased regulatory authority pursuant to Act 64 demonstrate the State’s commitment to controlling agricultural runoff.

**Comment 6-A-7: [Jackson]**

From a science standpoint, shouldn’t we already know whether tiling a field reduces phosphorus?

**Response 6-A-7:**

Subsurface drainage (tiling) is a practice employed by farmers across the country to drain wet fields to increase crop production. DEC and AAFM submitted a joint report to the legislature that recommends how to mitigate water quality impacts of tile drains<sup>15</sup> and explains that the effect that tile has on water quality is unclear. The Lake Champlain Basin Program funded a tile drain literature review that demonstrated the extent of variability in research on tile drains and the water quality

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<sup>13</sup> 6 V.S.A. §4810a(a)(4)(B), Section 6.04(a).

<sup>14</sup> <http://agriculture.vermont.gov/water-quality/regulations/rap>

<sup>15</sup> <http://dec.vermont.gov/sites/dec/files/wsm/erp/docs/Vermont-Subsurface-Agricultural-Tile-Drain-Report-01312017.pdf>

impacts. (The literature review is attached to the legislative tile drain report footnoted below.) While studies confirm tiles have the potential to contribute phosphorus to waterways via ditches and pipes, the concentration, load and impact on water quality are influenced by a large number of factors. The tile drain report provides further detail and recommends additional work needed to fully evaluate the impacts of tile drains on water quality.

**Comment 6-A-8: [Maroney]**

Two practices (artificial NPK fertilizer and high phosphorus feed supplements) bring along about 4,000 tons of phosphorus. They are alone the proximate cause of agriculture being responsible for half the pollution in Lake Champlain. When the state is looking for a reduction of only 300 tons of phosphorus, does it not seem odd that the new RAPs make no mention of, let alone any effort to regulate, these two practices?

**Response 6-A-8:**

The State respectfully disagrees that the RAPs make no effort to regulate the management of imported phosphorus to Vermont. According to the RAPs, certified small farms (along with medium and large farms under past regulations) are required to obtain and implement nutrient management plans (NMPs). NMPs include purchased fertilizer as an input, and this must be accounted for in developing the individual field recommendations, and the assessment of the farm's ability to appropriately manage its nutrients.

The RAPs also require that a phosphorus reduction strategy be identified in the NMP for fields above 20 parts per million for soil test results. This strategy should create opportunities for reductions in fertilizers or purchased feeds. The Agency of Agriculture is evaluating alternative phosphorus reduction opportunities with support of the Clean Water Fund. Additionally, the University of Vermont received funding from USDA/NRCS to revise the NMP phosphorus index, which assesses the potential for phosphorus runoff from fields and identifies opportunities for additional nutrient reductions on farms.

**Comment 6-A-9: [Neilson]**

It appears that we have been throwing money at the agricultural business for years trying to reduce their load share and it's still at 40% of the total allotment. One must really question whether or not Vermonters can continue to prop up an industry that is not in the best position financially. So we really need to explore ways to be much more responsible with an eye toward the future. Is dairy really a sustainable industry for Vermont?

**Response 6-A-9:**

Agriculture represents an important element in the economy of the State of Vermont. The State is committed to supporting the agricultural sector in a way that is both economically and environmentally sustainable.

**Comment 6-A-10: [Houriet]**

The single most outstanding change to emerge is Vermont's unilateral and peremptory declaration of a uniform and drastically minimal 20 percent reduction rate applied to agricultural sources of phosphorous pollution.

**Response 6-A-10:**

The EPA TMDL used watershed modeling, scenario analyses and best available science to determine phosphorus reduction targets for each segment of Lake Champlain. There is no unilateral or uniform reduction rate for agricultural sources. Each segment was evaluated separately.

**Comment 6-A-11: [Houriet]**

Was the Nancy Stoner memorandum (credited with having encouraged the Florida Legislature to preempt EPA standards and supervisory authority) an influence in establishing a minimum standard for agricultural load allocations?

**Response 6-A-11:**

There is no minimum standard for agricultural load allocations. This memorandum was not an influence in the State's commitments described in the Phase 1 Plan.

**B. NON-REGULATORY STORMWATER MANAGEMENT FOR NON-MS4 MUNICIPALITIES**

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*No comments received.*

**C. RIVER CHANNEL STABILITY**

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**Comment 6-C-1: [VNRC/VCV]**

The Phase 1 plan should outline the steps ANR will take to eliminate the building of replacement structures in areas where we know there is river instability.

**Response 6-C-1:**

The DEC Flood Hazard Area and River Corridor Protection Procedure<sup>16</sup> establishes a "No Adverse Impact" standard for building in a river corridor. This is essentially a "no build" standard which is applied with allowances for infill and redevelopment (i.e., replacement structures). For an infill and replacement structure to meet Act 250 Criterion 1D, it must meet the river corridor performance standard, in that it will not cause or contribute to fluvial erosion hazards. The Secretary must find that a proposed (replacement) development will be placed no closer to the river and will:

1. Not cause the river reach to depart from or further depart from the channel width, depth, meander pattern and slope associated with natural stream processes and equilibrium conditions; and
2. Not result in an immediate need or anticipated future need for stream channelization, solely as a result of the proposed development, that would increase flood elevations and velocities or alter the sediment regime triggering channel adjustments and erosion in adjacent and downstream locations.

This standard creates the opportunity to protect river corridors by not allowing the replacement structure if it will cause a fluvial erosion hazard because it is being proposed in a location where there is repetitive or imminent erosion damage due to ongoing channel adjustments at the site (even if it meets tests 1 and 2 above).

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<sup>16</sup> <http://dec.vermont.gov/sites/dec/files/documents/dec-fharcp-2014-12-5.pdf>

It would require additional statutory authority to prohibit the replacement of structures for water quality purposes or for public safety purposes under Act 250 (criterion 1D) where there was no repetitive or imminent erosion hazard and the replacement was not going to cause or contribute to a new fluvial erosion hazard.

**Comment 6-C-2: [VNRC/VCV]**

ANR should strengthen river protection regulations in statewide regulatory programs like Act 250 and Section 248 and ensure that municipalities properly regulate development in river corridors.

**Response 6-C-2:**

This comment points to the gap in state protection of river corridors: municipally regulated development that does not fall under Act 250 or Section 248 jurisdiction (e.g., the single residential housing development). Closing this regulatory gap would require new statutory authority and an expansion of Rivers Program capacity, including river corridor and floodplain mapping. State agencies will continue to encourage stronger river corridor protection by municipal jurisdictions through the incentives required by the Flood Resilient Communities Program.<sup>17</sup>

**D. FOREST MANAGEMENT**

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**Comment 6-D-1: [VNRC/VCV]**

The Acceptable Management Practices (AMPs) are required by Act 64 to be revised by 2016. The Phase 1 plan explains that AMPs or equivalent requirements, are mandatory on nearly 60 % of forest land in the State and a similar percentage applies to forest land within the Lake Champlain basin in Vermont. This means that approximately 40% of the remaining forest land remains vulnerable to harvest activities that may or may not, comply with AMPs. Unless the AMPs are made mandatory on all lands, there will remain a large gap in the implementation of the AMPs, calling into question whether load reduction targets can be reached with such a large reliance on voluntary compliance. The Phase 1 plan should clarify whether the revised AMPs will be made mandatory to meet the phosphorous reduction targets.

**Response 6-D-1:**

The Department of Forests, Parks and Recreation disagrees with this statement. AMPs, although not fully mandatory, are not voluntary either, as they are the best protection against discharges and water quality violations. Revisions to the AMPs, as required by Act 64, established a standard that will address the targets as established by the TMDL. Act 64 does not modify the AMPs' compliance structure. Past performance indicates a very high level of compliance.

**Comment 6-D-2: [VNRC/VCV]**

VNRC and VCV suggest strengthening the steps (in the Healthy Forest Cover Strategy) that relate to maintaining forest cover as part of land use planning in the LC basin.

**Response 6-D-2:**

In 2016, the Vermont Legislature passed Act 171, which requires town and regional planning commissions to consider forest cover in land use planning. More specifically, starting in 2018, town and regional plans will need to identify areas that are important or require special consideration as

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<sup>17</sup> 10 V.S.A. §1428(c) River corridor protection

forest blocks and habitat connectors, and to plan for land development in those areas to minimize forest fragmentation and promote the health, viability, and ecological function of forests. In addition, Act 171 establishes a Land Use Regulation and Forest Integrity Study Committee to study potential revisions to Act 250 and 24 V.S.A. chapter 117, subchapter 7 (bylaws) to protect contiguous areas of forestland from fragmentation and promote habitat connectivity between forestlands.

**Comment 6-D-3: [VNRC/VCV]**

Target legislation that addresses both town plans and regulatory review through Chapter 117 and Act 250 (to achieve the goal of maintaining forest cover).

**Response 6-D-3:**

As referenced above in Response 6-D-2, Act 171, Section 18 creates a Study Committee on Land Use Regulation and Forest Integrity. The purpose of the committee is to study potential revisions to Act 250 and chapter 117 of title 24 (municipal bylaws) to protect contiguous areas of forestland from fragmentation and promote habitat connectivity between forestland. The Committee is composed of: Commissioner of FPR; Commissioner of Housing and Community Development; Chair of the Natural Resources Board; an officer of a municipality appointed by the Vermont League of Cities and Towns; a representative of the Vermont Association of Planning and Development Agencies appointed by that association; a representative of Vermont Natural Resources Council (VNRC) to represent VNRC and provide input from the Vermont Forest Roundtable; and a representative of the Vermont Working Lands Enterprise Board appointed by that board; a representative of the Vermont Forest Products Association; and a representative of the Vermont Woodlands Association. They have had one meeting to date, but expect to make recommendations available prior to the January 15, 2017 deadline.

**Comment 6-D-4: [Wood]**

The Lake Champlain TMDL Implementation Plan is flawed because the TMDL developed by the EPA is incorrect and improperly calculated. There are no changes to the Implementation Plan despite the incorrect information on forests. The Implementation plan cannot and will not achieve the planned reductions because they are simply wrong. To put forward an implementation plan based on flawed science means that the plan must be flawed as well. The plan needs to address the real allocations from a corrected model using realistic inputs.

**Response 6-D-4**

The Phase 1 Plan is based on the TMDL developed by the EPA in coordination with the State. The EPA confirmed, by its approval of the TMDL in June, 2016 that it has used modeling, sound science and best available information, in conjunction with the Phase 1 Plan, to meet the TMDL's reasonable assurances that the nonpoint source pollution control measures will achieve expected phosphorus pollutant load reductions.

**E. WETLAND PROTECTION AND RESTORATION**

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*No comments received.*

**F. UPLAND LAKES PROTECTION AND MANAGEMENT**

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*No comments received.*

**G. INTERNAL PHOSPHORUS LOADING IN ST. ALBANS BAY**

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*No comments received.*

**H. MISSISQUOI BAY – ENHANCED IMPLEMENTATION**

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*No comments received.*

**I. PHOSPHORUS DETERGENT AND FERTILIZER USAGE**

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*No comments received.*

## **CHAPTER 7 – ENHANCEMENTS TO THE WATERSHED PROTECTION AND RESTORATION PROGRAMS**

### **A. FUNDING AND CAPACITY**

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*Note: All comments specifically referencing the Clean Water Fund appear in Section C. Clean Water Fund.*

#### **Comment 7-A-1: [CLF]**

CLF believes that EPA’s Clean Water State Revolving Fund (WRF) disbursements to Vermont are unlawful given the lack of any up-to-date Clean Water Act “Section 208” Areawide Management Plan. Based on information and belief, Vermont’s most recent Clean Water Act “Section 208” Areawide Management Plan was adopted in 1981. It is arbitrary and capricious for EPA to issue SRF disbursements and conduct annual reviews of such funding awards pursuant to CWA section 606(e) based on a 35-year-old outdated “Section 208 plan”.

#### **Response 7-A-1:**

DEC takes no position on this comment, which neither poses a question nor makes a recommendation of relevance to the Phase 1 Plan.

#### **Comment 7-A-2: [VNRC/VCV]**

VNRC and VCV request that the state work with the EPA, Vermont Legislature and stakeholders to establish a minimum level of annual funding necessary to implement the Lake Champlain TMDL, along with a plan for how the state will raise the funds in the Phase 1 plan.

#### **Response 7-A-2:**

See response to Comment 7-C-1 and 7-C-2 under Section C.

#### **Comment 7-A-3: [VLCT]**

There must be sufficient funding to pay for Stormwater management on municipal roads and developed lands and for reducing discharges from wastewater treatment facilities and State Treasurer Beth Pearce understands the need for a stable long-term funding source that will not be diverted to other uses. That funding source cannot be the already significantly overburdened property tax.

Vermont legislators and the administration have yet to provide a detailed response to the long-term fiscal challenge and this is our biggest concern. The Phase 1 Plan is ambitious but it will not happen without adequate funding to support its initiatives and programs, many of which apply to local governments.

#### **Response 7-A-3:**

See response 7-C-1 regarding the Treasurer’s report on long-term funding for water quality. This report provides recommendations to the legislature. The legislature is responsible for authorizing future funding for clean water improvements.

#### **Comment 7-A-4: [VLCT]**

The VLCT Municipal Water Quality Coordinator works with municipalities and regional commissions on projects that can sometimes be accomplished only by someone outside of ANR. The position must be appropriately funded if it is to accomplish its extensive responsibilities.

**Response 7-A-4:**

VLCT, under a cooperative agreement with ANR, provides water quality-related technical assistance to municipalities across the state. ANR looks forward to continued collaboration with VLCT in delivering water quality-related support to municipalities.

**Comment 7-A-5: [Maroney]**

Act 138 projected the cost of achieving a clean lake at \$156M/year for twenty years or \$3.1B. That figure is now projected to be \$1.4B or \$70M/year for twenty years. This amount, to be divided roughly in half, with the first for “agricultural runoff” and the other, to design and rebuild our Stormwater and municipal waste water infrastructure, is to be raised from a combination of federal money, grant money and state appropriation. Is that right?

How much of this \$1.4B cost do you project that the taxpayers of Vermont will be willing and able to raise for this project and how much has the legislature appropriate for it to date?

**Response 7-A-5:**

The Office of the State Treasurer, in coordination with DEC, the Tax Department and other state agencies, recently submitted a report to the legislature on funding options for clean water improvements. That process involved significant stakeholder input to evaluate the amount of state subsidy that could support clean water improvements across the state to meet state and federal requirements.

**Comment 7-A-6: [Maroney]**

If we must be “all in” to fix the lake, are we to suppose that Act 64 will hold 600 conventional dairy farmers accountable *per stirpes* for their share of the Stormwater wastewater half of the problem and then 100% of the cost of the second half?

**Response 7-A-6:**

The Vermont Agency of Agriculture is responsible for conducting assessments and inspections of farms in the state, individually evaluating their water quality and natural resource concerns, and providing appropriate technical and financial resources, where available. Farms are responsible for containing and managing their farm stormwater, as well as any other nutrient runoff from their facilities and fields that could potentially negatively impact water quality. Farms, per the Required Agricultural Practices, and per Section 1259 of Title 10 in the Vermont Statutes, are prohibited from discharging any wastes to waters of the State.

**B. CLEAN WATER INITIATIVE PROGRAM**

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*No comments received.*

**C. CLEAN WATER FUND**

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**Comment 7-C-1: [CLF]**

The Implementation Plan should include at least an estimate of how much funding is required in the Clean Water Fund to support TMDL implementation.

**Response 7-C-1:**

The Phase 1 Plan provides policy commitments related to nonpoint source phosphorus reductions basin-wide, as directed by EPA. As required by Act 64, the Office of the State Treasurer worked with state agencies, stakeholders and the public, to identify costs and revenue options for meeting clean water requirements over the next twenty years. A report recommending a long-term funding solution for the Clean Water Fund was presented to the Vermont Legislature in January, 2016<sup>18</sup>.

**Comment 7-C-2: [CLF]**

How can EPA be reasonable assured that the State will meet the TMDL targets when the Implementation Plan rests precariously upon an as-yet-to-be-determined financing mechanism for the Clean Water Fund?

**Response 7-C-2:**

Refer to Section 7 of EPA's TMDL response summary that describes EPA's determination of reasonable assurance—the test as to whether pollution reductions from: (a) nonpoint sources and (b) non-National Pollution Discharge Elimination System (NPDES)-regulated point sources can and will be achieved.<sup>19</sup>

**D. TACTICAL BASIN PLANNING AND CRITICAL SOURCE AREA**

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*No comments received.*

**E. TRACKING PHASE 2 TMDL IMPLEMENTATION AND BEYOND**

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**Comment 7-E-1: [CLF]**

The BMP Accounting and Tracking Tool (BATT) should rely on conservative phosphorus removal and efficiencies as well as be ground-truthed by monitoring. To ensure BATT does not overstate the amount of phosphorus removed, we strongly urge the State to rely on conservative removal efficiencies. While we understand DEC intends to conduct this type of monitoring, it remains unclear to what extent and for which sectors. We emphasize the need for across-every-sector BMP monitoring.

**Response 7-E-1:**

DEC makes note of this recommendation. BATT is currently configured to incorporate practice efficiencies used by EPA in the development of the TMDL. As more refined removal efficiencies are derived, particularly for designed phosphorus reduction practices, these reduction efficiencies will be incorporated into the BATT.

**Comment 7-E-2: [VNRC/VCV]**

An element that appears to be missing from the Phase 1 plan is an opportunity for EPA and the public to review and comment on the tracking indicators to be able to determine if we are making sufficient progress and to have the opportunity to recommend adjustments to the plan. VNRC and VCV recommend that provisions explicitly providing such an opportunity be added to the Phase 1 plan.

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<sup>18</sup> <http://dec.vermont.gov/news/state-treasurer-releases-clean-water-report>

<sup>19</sup> <https://www.epa.gov/tmdl/lake-champlain-phosphorus-tmdl-commitment-clean-water>

**Response 7-E-2:**

As required by Act 64 and indicated in the Phase 1 Plan, Vermont has developed a comprehensive implementation tracking and reporting system that tracks progress under the TMDL. EPA has also developed an Accountability Framework with milestones for tracking and assessing the State's progress in implementing the TMDL. DEC intends for its tracking and accounting process to be as transparent as possible and will continue to invite user input in the process of tracking and reporting on BMP implementation.

## **CHAPTER 8 – CLIMATE CHANGE AND RESILIENCE**

### **A. INTRODUCTION**

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*No comments received.*

### **B. SUMMARY AND PERSPECTIVE ON THE TETRA TECH CLIMATE RESPONSE MODELING REPORT**

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*No comments received.*

### **C. ACTIONS TO MINIMIZE THE CURRENT AND FUTURE WATER QUALITY IMPACTS OF CLIMATE CHANGE**

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*No comments received.*

### **D. CONCLUSION**

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*No comments received.*

## **CHAPTER 9 – IMPLEMENTATION SCHEDULE AND ACCOUNTABILITY FRAMEWORK**

*Also see comment 7-E-2.*

### **Comment 9-1: [Houriet]**

The State remarks that a previous (2013) draft “included suggested policy commitments for enhancing existing programs and developing new programs to continue to reduce nonpoint sources.” Did the aforesaid “policy” deal largely with the EPA’s newly developed “Accountability Framework”? Did the aforesaid “commitment” relate to Vermont’s acceptance of this “framework” specifically more flexible tests to determine Reasonable Assurance in particular application to the effectiveness of Best Management Practices?

### **Response 9-1:**

The Accountability Framework, described in the Phosphorus TMDLs for Vermont Segments of Lake Champlain (Section 7.3, pp. 54–59), contain some of the policy commitments described in the Phase 1 Plan. The State of Vermont has developed systems to account for pollutant reductions from installing Best Management Practices and track the State’s progress in achieving pollutant reduction targets. The Plan has incorporated flexibility in these policy commitments, as described on pp. 45–46 of the Plan, and how progress is tracked.

### **Comment 9-2: [Houriet]**

Given that EPA’s tacit transfer of authority for implementation of TMDLs; along with that transfer, the responsibility devolves on Vermont to develop de nova standards e.g. tests for Reasonable Assurance capable of being sufficiently explicit to withstand judicial review of challenges as to abuse of discretion in rule making. What steps are you taking to ensure that these de nova standards for rule making related to reasonable assurance can withstand judicial review of challenges (as to abuse of discretion in rule-making)?

### **Response 9-2:**

The Phase 1 Plan outlines our commitments to achieving the phosphorus reduction targets of the TMDL. The State has legal authorities in place to implement the commitments described in the Phase I Plan. The State is committed to a transparent and open process that allows for public input should the state seek changes in its policy commitments via legislative action, including rule-making.

## CHAPTER 10 – LIST OF COMMENTERS AND COMMENT NUMBERS

|  |  |
|--|--|
| Bald, Mike   | 6-A-1, 6-A-3   |
| Bockus, Suzanne  | 4-F-1  |
| Brayton, Abbott  | 1-A-4  |
| Chittenden County Regional Planning Commission (CCRPC) | 3-H-2, 3-H-4, 4-A-2  |
| Composting Association of Vermont                      | 3-H-3, 3-J-1, 6-A-4, 6-A-5   |
| Conservation Baie Missisquoi                           | 1-A-2  |
| Conservation Law Foundation (CLF)                      | 1-B-1, 1-B-2, 1-B-3, 1-C-1, 5-B-1, 5-B-2, 7-A-1, 7-C-1, 7-C-2, 7-E-1 |
| Crawford, Peter  | 3-B-1  |
| Houriet, Robert  | 1-B-7, 6-A-10, 6-A-11, 6-A-12, 9-1, 9-2                              |
| Jackson, Steve   | 2-1, 6-A-7   |
| Knauft, Breck  | 4-A-1  |
| Maroney, James   | 6-2, 6-A-8, 7-A-5, 7-A-6,  |
| Neilsen, Eric  | 1-A-1, 1-B-6, 3-B-3, 3-B-4, 6-A-9                                    |
| Skutel, Mary Berney                                    | 1-A-3, 3-B-2, 6-A-6  |
| Vermont League of Cities and Towns (VLCT)              | 1-B-4, 1-B-5, 6-1, 7-A-3, 7-A-4                                      |
| Vermont Natural Resources Council (VNRC)/              | 3-H-1, 6-A-2, 6-C-1, 6-C-2, 6-D-1, 6-D-2                             |
| Vermont Conservation Voters (VCV)                      | 6-D-3, 7-A-2, 7-E-2  |
| Wood, Jonathan   | 6-D-4  |