

January 17, 2014

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Sent via electronic mail

Dear Ms. Dolan:

The Conservation Law Foundation is pleased to offer the following comments on the draft “State of Vermont Proposal for a Clean Lake Champlain.”¹ This Proposal draft clearly reflects the hard work and creative thinking of appointed leaders and career public servants at the Department of Environmental Conservation, Agency of Agriculture, Food, and Markets, and at other agencies within Vermont state government. This Proposal correctly recognizes that meeting Vermont’s clean water needs requires “new and increased efforts from nearly every sector of society.” CLF is concerned, however, that the Proposal must include more truly “new” and “increased” efforts to match its content with the aspiration of its title.

Regarding the Proposal’s title, CLF also suggests that agency officials rename this document as a “Proposal for Protecting and Restoring Clean Water in the Green Mountain State.” The EPA TMDL process sharpens the focus on Lake Champlain, but the things we must do to clean up Lake Champlain will also help us protect and restore clean water and healthy fish in the numerous rivers and streams flowing into the Lake. Moreover, there is no reason to limit the actions in this Proposal to the Champlain watershed. Some state waters outside the Champlain watershed also need restoration while others need protection from degradation. In all cases, climate change makes the job harder and more urgent, especially considering the fact that global warming is causing drought in other parts of the country that are running out of clean water at an alarming rate. For this Proposal to succeed, it will require buy-in from all Vermonters, not just those who live in or visit communities on the Lake’s shore. The State must seize every opportunity to illustrate the importance of clean water throughout the state and the need for every Vermonter to do his or her part.

In the coming months, CLF looks forward to working with the State, EPA, and other clean water stakeholders as we strengthen this Proposal and translate its final recommendations into binding regulatory programs and dedicated funding streams.

Before turning to the specifics of the Proposal, CLF takes this opportunity to recognize important indicators of Vermont’s recommitment to achieving clean water goals.

Progress on Polluted Runoff from Developed Areas

After a long delay, Vermont now has a final MS4 NPDES permit that includes water quality-based effluent limitations that will—if properly enforced—drive pollution reductions needed to achieve TMDLs for immediate receiving waters and the forthcoming Lake Champlain TMDL. Along the way, compliance activities should provide co-benefits such as flood risk mitigation, green jobs, reduction of the heat island effect, and better community aesthetics.

¹ Hereinafter referred to as the “Proposal”

Implementation of the Residual Designation Authority NPDES permit, though modest in its geographical reach, has also established a replicable model for dealing with the pollution contributions of existing commercial, industrial, and institutional development within the Lake's watershed and beyond.

Progress on Polluted Runoff and other Discharges from Farms

DEC's adoption of a Clean Water Act-compliant NPDES permit for CAFOs and dedication of staffing resources for enforcement marks an important turning point in the State's recognition that its lead environmental protection agency must do more to reduce pollution from farms. With the permit finalized, CLF expects that DEC will begin requiring discharging CAFOs to obtain coverage and comply fully with the permit's terms.

Similarly, CLF appreciates expanded efforts by AAF&M to support broader implementation of cover cropping and alternative manure management techniques that can reduce polluted runoff from farms.

Taken together, these exemplary activities should help Vermont hold the line even if they are still too modest in scope and scale to bend the overall curve dramatically. They nonetheless provide a good foundation on which to build a more comprehensive suite of programs that adequately address the significant challenge we Vermonters face when it comes to protecting and restoring clean water.

CLF's overall comments on the Proposal can be summarized as follows:

- **Now is the time for action; new and increased pollution control programs must be in place before EPA's anticipated final TMDL in summer 2014**
- **State agencies must be adequately staffed and funded to implement new and increased pollution control programs necessary to achieving our clean water goals**
- **The Proposal rightly focuses on a broad range of pollution source categories, but must include additional efforts within some of those categories to control pollution effectively and at the scale necessary**

Now is the time for action

The "Introduction" recognizes that in a lake like Champlain impairment results from a mix of point and nonpoint pollution sources. The Proposal further emphasizes that "reasonable assurances" of nonpoint source reduction² are critical to the overall allocation process at the heart of the TMDL now under

² The Introduction links the Proposal to TMDL "reasonable assurances" yet some aspects of the Proposal discuss new or increased efforts to deal with point sources, e.g., Section 3.1 "Stormwater from Roads: State Highways." As State and EPA officials know, EPA regulations require that point sources be assigned wasteload allocations in a TMDL. Thus, because "reasonable assurances" deal solely with nonpoint source reductions to balance between load allocations and wasteload allocations, any new or increased point source regulation would not count toward a showing of "reasonable assurances." CLF agrees, nonetheless, that Vermont must implement "new and increased" NPDES-based regulatory

development. The Proposal rightly cites EPA's disapproval of the 2002 Lake Champlain Phosphorous TMDL to illustrate the centrality of "reasonable assurances" to the overall integrity of a TMDL—especially if that TMDL proposes point source wasteload allocations that are greater than zero.

CLF understands that it is the State's desire to have wasteload allocations that are greater than zero for point sources of pollution to Lake Champlain—especially municipal sewage treatment plants and separate storm sewer systems. Thus, timely presenting EPA with legally sufficient "reasonable assurances" must be a priority for the State. In the Proposal, CLF sees the broad outlines of "reasonable assurances" taking shape. The Proposal takes several steps in the right direction. Getting to "reasonable assurances" that meet the appropriately rigorous standards EPA has set forth—most recently in the disapproval letter for the 2002 TMDL—will require many additional steps.

Vermont must take comprehensive action without further delay. Under the Clean Water Act, EPA has a mandatory obligation to establish a TMDL within thirty days of disapproving a state-drafted TMDL. EPA disapproved the State's prior Lake Champlain Phosphorous TMDL in January 2011. Three years later, Lake Champlain and the many major rivers and streams that flow into it lack the protection a TMDL is supposed to provide.

EPA's delay has not been wholly without positive side effects. It has allowed for the updating of key scientific data, a rough methodology for assessing the effectiveness of different implementation activities, extensive public participation, and the forging of better working relationships between federal and state officials. That said the State has not taken full advantage of the delay to create and begin implementation of "new and increased" pollution control efforts of the scope and scale needed to provide EPA with "reasonable assurances." More importantly, the State has not used that time to implement sufficient new and increased efforts to stem the constant flow of pollutants to the Lake and its tributaries.

With EPA poised to finalize a TMDL in 2014, the State must do more than propose enhancements to existing regulatory programs and creation of new programs. EPA's disapproval of the 2002 Lake Champlain TMDL (p. 11) makes clear that "reasonable assurances" must be more than "recommendations" or proposals about programs that the State may create in the future. To make a legally sufficient claim that its "reasonable assurances" justify wasteload allocations greater than zero, Vermont must enhance existing programs and establish new programs before EPA issues a final TMDL. Because many of those regulatory actions require legislative approval and appropriations, the Administration must act quickly.

Vermont must invest adequately in its clean water regulatory structure

CLF recognizes and appreciates the role that voluntary incentive and grant-based programs have played and must continue to play as part of the State's overall clean water strategy. Unfortunately, these programs alone are not enough. The 2002 TMDL's overreliance on such programs undermined its on-the-ground effectiveness and ultimately its legal underpinning.

For this reason, CLF applauds the Proposal's emphasis on new and increased regulatory programs dealing with all major sources of pollution. At the same time, CLF is concerned that decades of budget cuts coupled with an increase in the number of new and newly-regulated pollution sources has strained the capacity of Vermont regulators to implement and enforce the law. CLF strongly supports the addition of staffing resources to all Vermont agencies that will play a meaningful role in the implementation and

programs for point sources—especially stormwater point sources—if Vermont is going to meet its overall clean water goals under both state and federal law, including attainment of the forthcoming EPA TMDL.

enforcement of existing and proposed regulatory programs outlined in the Proposal. CLF believes that a final version of this Proposal must contain a description of the full-time equivalents needed to implement the Proposal versus those that currently exist. Such a description must inform the pre-TMDL appropriations process in the legislature and EPA's final assessment of whether Vermont can truly provide "reasonable assurances that nonpoint source control actions will occur" (EPA Disapproval p. 9).

Moreover, to the extent that Vermont proposes to rely on a "Clean Water Improvement Fund" to fund regulatory program implementation, that fund should be in place to generate revenue prior to this coming summer. A conceptual framework, without more, is insufficient to provide "reasonable assurances."

The Proposal focuses on the right categories of pollution sources, but does not go far enough to control pollution from every category

It has been stated, correctly, that Vermonters will not succeed in cleaning up Lake Champlain unless and until we pursue an approach that involves "everything, everywhere, eventually." While that statement contains a bit of hyperbole, it articulates the long-overdue paradigm shift reflected in this Proposal. Historically, Vermont pollution control efforts have proceeded piecemeal. Polluters in one category often resisted proposals for new legislation or regulations requiring greater accountability of those polluters by pointing the finger at another group of polluters and arguing that those other polluters should be a higher priority. By initiating a comprehensive process, the Proposal has Vermont poised to break that unproductive cycle of shifting blame.

Notwithstanding the Proposal's categorical comprehensiveness, CLF has many concerns about the sufficiency of the specific actions proposed within each source category. Those comments are set forth below in greater detail.

2.1 LFO, MFO, CAFO

Of the programs detailed in this section, only the CAFO program is "new." AAF&M maintains that the vast majority of LFOs and MFOs are in full compliance with their permits. If this is true, then there is no basis for claiming that continuing to implement these programs without enhancing their requirements will result in any additional reductions in nonpoint source pollution above the baseline. EPA can only give reasonable assurances credit for reductions in nonpoint source pollution. Regulatory programs that simply maintain the status quo loading rates play no role in reducing pollution below the levels observed at the time of TMDL establishment. Moreover, the CAFO permit governs point source discharges that EPA must assign to the wasteload allocation. Accordingly, the CAFO program also cannot count toward reasonable assurances.

Stepping out of the TMDL's reasonable assurances context and focusing instead on the bigger picture, CLF acknowledges the importance of having both state and federal permitting programs to control pollution from farms that confine large numbers of manure-generating animals. Based on its review of numerous public records from both AAF&M and DEC, CLF is concerned that compliance with the LFO and MFO programs is not universal. For that reason, CLF applauds the suggested "Implementation Steps" that would enhance existing enforcement activities, especially as regards bringing consistency in the inspection process across all agencies.

Among the improvements AAF&M could make to its existing programs would be addressing the loophole whereby numerous MFOs in common ownership evade the LFO requirements, including requirements aimed at regulating the addition of animals. If a farmer owns multiple MFOs in a Lake Champlain

watershed or other watershed impaired in whole or in part by agricultural runoff and discharges, the regulatory program should treat those as a single LFO subject to all the restrictions of the LFO program.

2.2 AAP Rule Update and Compliance

CLF strongly supports the reopening of the AAPs. During the AAP rulemaking process that culminated in 2006, CLF filed extensive comments suggesting enhancements to the AAPs. These comments covered a range of concerns, including:

- inadequate requirements for the sizing of vegetative buffers
- failure to afford protection to all blue-line streams
- allowance of haying and pesticide application in vegetative buffers
- inadequate soil testing requirements and associated record keeping
- enforcement
- tying the manure spreading ban solely to dates on a calendar without extending the ban to days on which local conditions result in frozen ground or snow cover prior to or after the specified dates

Unless AAF&M better addresses these issues in its updated AAPs, they will not provide sufficient pollution reductions, and thus will provide little in the way of reasonable assurances for TMDL purposes.

Strengthen Vegetated Buffer Requirements

CLF applauds the Proposal requiring vegetative buffers for streams and ditches, although the AAF&M must strengthen the Proposal. CLF continues to believe that the term “perennial stream” as used in the AAP is misleading and leaves many streams unprotected. The AAPs should require vegetative buffers for all “blue-line” streams as indicated on the most recent USGS maps. Furthermore, there is no explanation as to why a lesser buffer is required for ditches. Farmers often engineer ditches to drain runoff efficiently in concentrated volumes. The AAPs must maximize pollutant filtering from that runoff before it reaches the ditch. Further, a bigger buffer can also slow the velocity of runoff reaching the ditch to reduce both wash-off and endogenous sediment loading. Revised AAPs must also address the issue of ditching in buffers. A buffer is of little value if a ditch bisects it because much of the runoff that the buffer was supposed to filter would bypass the buffer via the ditch. Such a result is a lose-lose situation because the farmer loses cropland to a buffer that provides little water quality value and the receiving waters lose the water quality benefit of the buffer. This issue may be alleviated by requiring larger buffers on all ditches. In addition to standardized minimum buffers for all fields, the AAPs should contain a sliding buffer requirement that recognizes the need for larger buffers based on site-specific conditions such as slope.

Strengthen Soil Loss Standards

CLF strongly supports requirements that farmers stabilize gully erosion. AAF&M should provide greater detail regarding the “site-specific agricultural management practices” that would be required to accomplish this objective.

Given the water quality problems facing Lake Champlain and many other lakes, rivers, and streams, “T” is an insufficient standard for soil loss. “T” is an agronomic standard rather than a measure of a given receiving water’s assimilative capacity. Vermont should adopt a more stringent target expressed either as a fraction of “T” or instead should require management to the more protective “P” standard.

2.3 Livestock Exclusion

CLF urges the long-overdue adoption of livestock exclusion as a mandatory practice. Vermont has understood the benefits of this practice since at least 2001. D.W. Meals, Lake Champlain Basin Agricultural Watersheds Section 319 National Monitoring Program Project, Final Project Report: May, 1994-September 2000 Vt. Dept. of Env. Conserv., 227 (2001). Now that Vermont is poised to reap those benefits, we must maximize this opportunity regardless of cost-share availability. The Proposal misses the mark when it suggests limiting livestock exclusion only to those areas where streambanks are eroding. This limitation reflects a mistaken belief that erosion is the only concern related to livestock watering in public trust waters of the State. It ignores the presence of nutrients, bacteria, antibiotics, and other pollutants in the wastes that livestock deposit directly into waters to which they have direct access. While it may be appropriate to phase in livestock exclusion, starting in areas of greatest concern, blanket livestock exclusion must be the end-state objective.

2.4 Nutrient Management Planning Assistance and Requirements

CLF is concerned that driving more farms to complete Nutrient Management Plans will be of little value unless the state develops a better system to monitor and enforce NMP compliance. A reliable NMP enforcement program requires the regulator to go beyond determining whether the math in the written plan adds up and whether all the boxes are checked. Unless a farmer is utilizing an NMP to guide day-to-day operations, it is not worth the paper it is printed on. Regulators must do a better job ensuring that the plan genuinely informs the timing and rate of nutrient application. This requires soil testing and regulator observation of actual fertilizer and manure application. CLF sees no evidence that this level of on-the-ground NMP verification is occurring in Vermont.

In fact, the Proposal's suggestion of the need to relax Vermont's winter manure spreading ban belies the contention that all farmers are adhering faithfully to NMPs. The Proposal states that "[t]he ban forces farmers to spread manure at very high rates using heavy tractors and tanks in the spring—the time of year when the soils are often wet and risk of increases in runoff and concurrent bankfull flows are the greatest." (Proposal at 11 emphasis added). If farmers are spreading under the conditions laid out above, they have not scaled the number of animals they confine to the available manure storage. Moreover, spreading under wet conditions with increased risks of runoff suggests activity that is much more about using land to dispose of animal waste product than taking up the nutrients in that waste. In short, a farm that engages in manure overapplication immediately before or after the ban takes effect (which is the clear implication of the Proposal and its suggestion to alter the ban) either does not have a useful NMP or does not follow the NMP that it has. CLF strongly objects to a lifting of the winter spreading ban and cites this suggestion as evidence that Nutrient Management Planning, as currently enforced in Vermont, is of questionable value without more rigorous enforcement. Finally, the Proposal fails to mention that AAF&M already enjoys the authority to waive the spreading ban and has done so on a number of occasions every year. While this is not a basis for relaxing the ban, it is further evidence of the serious problem Vermont farmers have when it comes to scaling their operations to their capacity to dispose of their wastes without using waters of the state as their waste disposal conduits.

Agricultural Pollution Issues Requiring Additional Attention

Contract applicator regulation

Many farms in Vermont rely on custom or contract applicators to spread their manure. In terms of its potential to cause pollution, few activities present a higher risk than manure application. Yet those contract applicators are currently unregulated under state law. At present, if an applicator applies manure in a manner that causes unlawful pollution, the farmer is the only party that the State holds accountable.

Given the sensitivity of this activity, CLF believes that the State must establish a licensing program for contract manure applicators and an enforcement program tailored to bringing accountability to this profession.

Tile drains

Under the present regulatory system, Vermont takes a completely hands-off approach to tile drain installation. As a result, little is known about its true impacts on Vermont water quality. At a minimum, Vermont should require registration of all tile drain installations and should conduct a paired monitoring study of similar fields with and without tile draining to better ascertain whether tile drains are improving or worsening the pollutant loading profiles of Vermont farm fields. If data shows the latter scenario, then the state should take steps to limit tile drain installation or mitigate its impact.

Conversion of agricultural land from pasture to row crops

In some parts of the state, farm consolidation continues apace. Anecdotal evidence suggests that as smaller and medium-sized farms are consolidated into larger operations, the larger operators convert pasture to row crop, a land use that is worse for water quality. Sustaining reductions of current load achieved through near-term control actions will be difficult if meaningful amounts of pasture are converted to row crops. Vermont should consider a combination of incentives and regulations to minimize or mitigate the effect of land conversion from pasture to row crop.

3.0 Stormwater Management

Climate change is subjecting Vermont to increasingly-frequent extreme precipitation events. EPA modeling indicates that Vermont will become a wetter place as the century progresses. We know that much of the pollutant load into Lake Champlain is precipitation-driven runoff from areas of the landscape that have been developed in a manner that limits the landscape's natural ability to soak up precipitation and instead concentrates flows, thereby exacerbating erosion and flooding risks and collecting and concentrating pollutants such as phosphorous. A greater emphasis on stormwater management—especially from existing development—is essential to reducing pollutant loads to all Vermont's waters. CLF strongly supports the Proposal's emphasis on more aggressive stormwater management.

3.1 State Highways

CLF supports a NPDES-based TS4. The pollutant contribution from state highways and the unique linear nature of highway development warrants heightened scrutiny and a dedicated permitting approach. Of course, the effectiveness of this proposal will depend entirely on the terms of the general permit and the compliance and enforcement efforts associated with it. CLF looks forward to participating in the development of the permit, especially as regards any provisions that "allow for prioritization of maintenance, upgrade of stormwater infrastructure, and implementation of remediation based on environmental benefit." This sounds like code for a compliance schedule for activities that would comprise the permit's water quality-based effluent limitations for phosphorous. Under Vermont Water Quality Standards, compliance schedules are appropriate only for attainment of new or newly interpreted water quality standards. The WQS standards in Lake Champlain are not new or newly interpreted. All discharges of phosphorous from VTTrans roadways must comply immediately with such WQBELs; they are not eligible for compliance schedules.

3.2 Stormwater From Municipal Roads

CLF agrees that stormwater from municipal roads is a source of phosphorous that must be better controlled. Municipal road runoff is also a major source of pollutants such as sediments that are causing localized water quality degradation. This pollution source is especially important given that many roadways are located in close proximity to waters of the State. Again, as with any proposed permitting program, the details of the permit and adequate enforcement are key ingredients. CLF looks forward to participating in the permitting process and hopes it will commence soon.

3.3. Existing Developed Lands

As a long-time proponent of the long-overdue, broader exercise of Clean Water Act Residual Designation Authority, CLF strongly supports the Proposal's recognition that Vermont will not meet its clean water goals without reducing pollution from existing developed lands. Moreover, CLF strongly supports permitting these sources under NPDES-based regulatory authority. CLF appreciates the throughput issues associated with bringing a large number of existing properties into a new permitting program. For that reason, CLF recognizes the need for phased implementation. Nonetheless, CLF is concerned that the thresholds suggested in the Proposal will reach an insufficient number of parcels in the first phase. CLF looks forward to making more specific recommendations for the appropriate RDA thresholds as part of EPA's TMDL development process. See 40 C.F.R. 122.26(a)(9)(i)(C)(linking RDA to TMDL wasteload allocations).

3.4 Non-Regulatory Stormwater management for Non-MS4 Municipalities

Before CLF can support any "non-regulatory" management of municipal stormwater, DEC must comply with its obligations to designate small MS4s for NPDES permit coverage based on the "[d]evelopment of criteria to evaluate whether a storm water discharge results in or has the potential to result in exceedances of water quality standards...." 40 C.F.R. § 123.35(b)(1)(i). At present, DEC has developed and selectively applied only a single criterion contained in its January 2010 "Procedure for Designation of Regulated Small MS4s":

Criterion 1: A small MS4 discharging to a state water that the Secretary determines is significantly impaired by discharges of stormwater runoff and is listed as being impaired due to stormwater runoff on the EPA-approved State of Vermont 303(d) List of Waters prepared pursuant to 33 U.S.C. Section 1313(d).

This criterion focuses solely on stormwater-impaired watersheds, completely ignoring the role that MS4 discharges play in contributing to the exceedance of phosphorous water quality standards in Lake Champlain.

To comply with its obligations as the NPDES permitting authority in Vermont, DEC must amend and broaden its 2010 Designation Procedure. A legally-sufficient Procedure must consider the role that all MS4s play in contributing to downstream WQS exceedances, including exceedances of the numeric Phosphorous criteria for Lake Champlain. DEC must then designate all those currently-unregulated MS4s that satisfy the legally-sufficient criteria of an amended Small MS4 Designation Procedure. In most cases, the NPDES MS4 permit will prove to be the most effective mechanism for reducing Phosphorous pollution from currently-unregulated MS4 discharges.

3.6 Green Infrastructure Initiative

CLF strongly supports and is actively participating in the implementation of DEC's GSI strategic plan, including in the revision of the Vermont Stormwater Management Manual. It is important to note that, like many other aspects of this proposal, revision of the VSMM is not likely to reduce existing pollutant loads. Rather, if done well, it will help to reduce the growth in pollutant loading as more land is developed and redeveloped. To maximize those prospective benefits, the State should expand the exercise of its default jurisdiction below the levels in 10 V.S.A. § 1264. The proposal contained in H.586 is a good starting point for that discussion.

Stormwater Issues Requiring Additional Attention

Municipal Planning and Land Use Requirements

Many aspects of state and federal stormwater permitting programs focus on mitigating the polluted runoff impact of a proposed or existing development. This approach, while critical, has its limitations. Engineered solutions can only approximate the benefits of the natural landscape. Minimizing the overall land disturbance from development is also essential. Unfortunately, many land-use requirements in municipalities across the state can have the unintended consequence of increasing the challenge associated with polluted runoff control. For example, many local ordinances require minimum numbers of parking spaces based on the square footage of commercial establishments. The result in those situations is often the creation of large areas of pollution-generating impervious surfaces that are seldom used except on very heavy shopping days. Similarly, minimum requirements for road and driveway widths and structure setbacks compel developers in many places to convert more of the landscape to impervious surfaces than may be wise or even necessary to accommodate reasonable human use and ensure minimal pollution impact.

State taxpayer dollars should not subsidize development that proceeds according to local requirements that needlessly worsen water quality effects. Accordingly, Vermont should establish review criteria that limit the availability of grant funding or TIF eligibility in municipalities that have not adapted local standards to best practices for compact development.

4.0 River Channel Stability

The Proposal rightly recognizes the interconnection of flooding and phosphorous loading. CLF supports the laudable goal of allowing rivers to attain and maintain equilibrium over time. Doing so would achieve many important societal goods that go well beyond pollution control, including protecting health and safety, minimizing property damage, and minimizing disruption and destruction of critical infrastructure. But as regards pollution loading associated with streambank erosion specifically, the State must acknowledge and account for the fact that things will get worse before they get better. Depending on the present state of certain streams, a more hands-off approach will inevitably result in a sustained period of additional phosphorous loading from eroding streambanks as they naturally restore themselves to an equilibrium state. Thus, an approach to river management that may reduce overall phosphorous loading in the distant future, will result in increased loading over the near and medium term. The State must make an honest appraisal of this increased loading and identify specific offsets in pollution loading from other categories to compensate.



Thank you for considering these comments. CLF looks forward to providing additional comments as this Proposal evolves and becomes intertwined with legislative and rulemaking efforts that must begin without delay.

Very truly yours,

Anthony Iarrapino
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