Lake Champlain International Comments

Water Quality Remediation, Implementation, and Funding Report
Draft 12/14/12

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Dear Program Manager Dolan,

Thank you for the opportunity to express our thoughts on the Water Quality Remediation, Implementation, and Funding Report. We appreciate the long hours and effort that was invested in this report and understand the complexity of the task at hand. We are confident that you will find our comments helpful with determining the most effective methods for funding clean and healthy waters throughout the state of Vermont.

Understanding the volume of comments you are receiving from many invested individuals and organizations and the limited amount of time available for moving forward with this report, we have kept our comments brief. Please contact us at any time if further elaboration is needed for any of the comments below.

As a partner in the effort to protect our water resources, we look forward to strong and successful results of Act 138 given the declining state of our streams, rivers, lakes, and ponds. With proper funding in place, we will find that our investment in healthy water resources will lead to a prosperous future for those who live in and visit Vermont for many generations to come.

On behalf of Lake Champlain International, thank you for considering our comments.

Sincerely,

Ross Saxton
Director of Conservation & Education

Page 5, paragraph 1, line 4

First occurrence of a number of uses of the word "significant" which should be used carefully as the word can be a technical term. Here, it is more ambiguously representative than descriptive.

In a scientific context, significant relates to a probability value or level. Of course, that is not the intended use here.

Consider replacing with:

Successful abatement of agricultural pollution, control of stormwater runoff, and completion of critical maintenance at wastewater treatment facilities are tasks that will require a sizable investment.

Page 5, paragraph 4, line 8
"The cumulative impact of this pollution is significant…"

A statistical Phosphorus value is required to prevent this from being perceived a "testimonial."

Consider replacing with:

The cumulative impact of this pollution is considerable. It is negatively affecting Vermont's socio-economic and environmental health. Rain washes soil, manure, nutrients, and other pollutants from crop lands, pastures and barn yards into streams. Commercial, residential and agricultural development and use of floodplains has lead to increased stream bank and stream bed erosion and unstable stream channels. Loss of stream channel stability increases risks and costs to public infrastructure, private property and public safety associated with flooding. Inadequately treated wastewater from septic systems and wastewater treatment facilities also contributes to water pollution and can threaten the health of aquatic communities as well as that of the public.

Page 6, paragraph 1, line 1
"Over time, however, nonpoint sources of water pollution from our land use activities have grown in significance in Vermont and nationally."

Use of the term "significance" leads to a vague understanding of this sentence.

Consider replacing with something more specific, such as:

…have grown in magnitude and changed in nature as agricultural and other development practices evolved through time.

Page 6, paragraph 1, line 1:
"Nationally…"

It would be helpful to explain how increased "National Consciousness" helps to accomplish less water pollution in Vermont. Are there specific examples available for reference?

Page 7, paragraph 2, line 2
"…Legislature also identifies preserving, protecting and restoring the quality of surface waters is necessary…"

Perhaps the "is" should be "as." If not, clarification or rewording may be needed for this sentence.

Page 8, paragraph 2, beginning with line 1
"Farms face similar challenges. Agricultural runoff is another major source of nutrient loading to Lake Champlain and other watersheds of the State. Agricultural land uses contribute nearly 40 percent of the total phosphorus load.[8] A recent study of the Missisquoi Bay Basin reports that agricultural land uses contribute over 60 percent of the total phosphorus contribution.[9]"

Footnote 8 cites:

7 Troy, Austin, et. al, Updating the Lake Champlain Basin Land Use Data to Improve Prediction of Phosphorus Loading. LCBP Technical Report #54, May 2007, page 45, Table 2-11.
8 Ibid, page 44.
"Agricultural land uses contribute nearly 40 percent of the total phosphorus load."

> It is unclear to which body of water this is referring. Looking at the footnote: Troy et. al. refers to Lake Champlain.
>
> Given the findings of the more recent study, it is highly unlikely that agriculture contributes as little as 40% of the total phosphorus loading to Lake Champlain. Even the 60% value reported in the more recent study is likely understated and artificially low because the more recent study does not attribute any of the stream bank phosphorus as originating from agriculture sources. This cannot be true as storage and erosion (release) of sediments and associated nutrients in and from floodplains (including stream banks as part of floodplains) is a well documented process within stream systems. If the original source of nutrients stored was from agriculture, it is disingenuous to attribute it to a non-agricultural source when it subsequently enters the water. One might expect that some portion of the agriculturally derived nutrient load will be stored within the stream system each year and some portion of the previously stored nutrients will re-enter the stream (with annual variation related to timing and magnitude of rainfall and flood events).
>
> It is our opinion that understating the relative magnitude of the agricultural contribution will risk diversion of resources away from those activities and actions that will truly lean towards fixing the problem. Vermont simply can not afford to misidentify priorities and misallocation or even the waste of its resources while at the same time delaying or forgoing the socio-economic opportunities that clean water provides.

Page 8, paragraph 4, line 2
"Vermont is the last remaining northeast state without adequate programs in place to restore and protect lake health."

> Do we truthfully believe that all other northeast states believe that their own programs are "adequate?"

Page 21, section 1.19
Facts: 1. Annual loading of phosphorus to Lake Champlain averages over 500 metric tons (see page 21 this report); Loading of phosphorus to Lake Champlain from septic systems 2.2-extreme worst case 13.3 metric tons per year (2% of annual load); 2. Annual loading from VT wastewater treatment plants about 30 metric tons (http://www.lcbp.org/phospsum.htm) (6 % of annual load).

We need to spend money where it will go furthest towards reducing the pollution problem. With the "elephant in the room" being agriculture, does the proposed annual costs truly reflect the cost of actions that will lead to a solution to the pollution problem? The summary referenced above suggests an expenditure of $8,577,500 (6% of proposed Total Cost) will solve the agricultural pollution problem (which is likely 60-80% of the Total Problem) while the cost of solving stormwater, wastewater and other pollution problems (20-40 % of the Total Problem) will cost $123,664,000 (80% of proposed Total Cost). Intuitively, the ratio of funds seems insufficient to address the causes of pollution properly.

Are we positive that we have identified all the possible options needed to succeed? If an historic amount of funds will be spent without reaching the desired outcome and socio-economic benefits, public support for pollution control expenditures and for funding of state agencies should be expected to erode through time based on failure to perform.

It is not clear where the funds are for manure digester systems, which are designed to remove excess nutrients from farms that do not have enough assimilation capacity within their fields to properly handle the manure they produce. Silage treatment is listed with an $11.3 million capital cost to treat the leachate which could simply be diverted into the manure digester. Community digester systems could be a viable and effective opportunity to reduce nutrient runoff. Reference:
http://www.oregon.gov/energy/renew/docs/creff/volbedafeasiblitystudy.pdf

If information exists describing the cost-effectiveness of nutrient management using manure digesters, that information should be in this report as it would likely provide additional insight to the decision-making process.

Additional technological changes that will likely help to solve the pollution problem should be included in this report. Particularly technologies that are proven effective should be included as potential solutions.

Are there proposed changes in law that would require that farms have no more animals for which they have capacity to properly utilize or remove from the pollution stream (i.e. Products leaving the farm) and the waste products that they produce?

If approximately 40 applications for winter spreading of manure were received and granted last winter by the Agency of Agriculture, it would seem that farms are not accountable for storage of waste products. What other industries are

allowed this freedom from pollution accountability? What mechanism will responsibly hold all industries accountable for their pollution loads and contributions?

Are there proposed changes in law that would at least partially eliminate the categorical exclusion that agriculture has from the freedom of information act? How can the public or other state regulatory agencies understand the nature of the problem if it is illegal for the Agency of Agriculture to provide farm operation information to them? How can the public and state agencies know whether or not the Agency of Agriculture is gathering the information necessary to understand and solve the agricultural pollution problem in order to assist agriculture towards being a profitable and non-polluting industry?

Page 28
Table 1: Tools for Financing a Statewide Water Quality Trust Fund

Would establishing laws that enforce the most effective pollution prevention practices and deter pollution-causing practices be more cost effective than many of the included proposed actions?

Page 54, paragraph 5
"Agricultural land managed according to best management practices has far few negative stormwater impacts than developed property."

Data or evidence to support this statement is lacking. Are recent studies available that can be referenced to support this statement?

From where will the funds be derived? The options listed suggest that Vermont residents pay more while the agricultural sector receives additional exemptions.

Page 74
D.5.4. Increased Fines
"Additional revenue to finance a water quality trust fund could be raised by increasing fines for water quality violations. However, higher fines may place an unreasonable burden on municipalities for violations due to structural limitations or other causes that are financially impracticable to solve in the short term. In addition, fines are generally intended to reduce water quality violations rather than raise revenue."

Balancing fines with the ability of a municipality to upgrade outdated infrastructure is an important and necessary consideration. However, there is no discussion of any fines for the "the bad actors" of agriculture. Are there none or were they left out of this report?

Page 75

D.6.1. Supplemental Environmental Projects (SEP)

"The VANR Compliance & Enforcement Division ("CED") brings enforcement actions for violations of environmental laws, permits, and regulations. Examples of violations include: municipal sewage treatment facilities exceeding discharge limits into surface waters; excessive sediment runoff on construction sites; illegal dumping of solid waste; violating air quality standards; and many more."

> The causes of pollution listed above are important to consider, however failure to include agricultural pollution enforcement actions minimizes the prominence of agricultural pollution. Given that 60-80% of the pollution problem is coming from agriculture, how effective will we be with mitigating water pollution if a major source of pollution is excluded?