



Burlington residents listen as EPA and DEC officials propose solutions to clean up Lake Champlain

Restoring a Clean Lake Champlain

By Eric Smeltzer, Environmental Scientist

Vermonters value a clean Lake Champlain. We swim and fish in the lake, we boat on it, we drink its water, and we generally like being around it. A clean lake attracts businesses and tourists to the region and provides a major driver of the state's economy.

Phosphorus pollution is the greatest threat to clean water in Lake Champlain. Phosphorus is a nutrient that stimulates excessive growth of algae in the lake, turning the water green and making it unsuitable at times for swimming or drinking. Phosphorus is found in eroded sediment and runoff from farm fields,

barnyards, roads, parking lots, and streambanks, and in wastewater discharges.

Vermont has accelerated its efforts to reduce all these sources of phosphorus over the past ten years, but the lake has been slow to recover. Phosphorus levels in the lake remain too high and we are not meeting our own water quality standards. There are several reasons for this. Decades of pollution have created a stored legacy of phosphorus in watershed soils and in lake sediments. Storms and floods are occurring with increasing frequency and these events transport enormous loads of sediment and phosphorus to the lake in a short period of time. Some of these factors are beyond our immediate control, but the biggest reason for the slow progress is that we need to do much more.

The Federal Clean Water Act requires states to establish a Total Maximum Daily Load (TMDL) for polluted waters. A TMDL places a cap on the amount of a pollutant allowed to enter a lake or river, and allocates that maximum amount among the various sources. In 2002, the U.S. Environmental Protection Agency (EPA) approved a Lake Champlain Phosphorus TMDL that was prepared by the states of Vermont and New York. In 2011, the EPA determined that Vermont's commitments to reducing phosphorus in Lake Champlain were not strong enough, and the EPA is currently developing a new TMDL for Lake Champlain.

In order to strengthen Vermont's programs aimed at reducing phosphorus in Lake Champlain, the Vermont Agency of Natural Resources and the Agency of Agriculture, Food, and Markets have developed a [Vermont Proposal for a Clean Lake Champlain](http://www.watershedmanagement.vt.gov/erp/champlain/docs/2013-11-20_DRAFT_Proposal_for_a_Clean_Lake_Champlain.pdf) ([http://www.watershedmanagement.vt.gov/erp/champlain/docs/2013-11-20 DRAFT Proposal for a Clean Lake Champlain.pdf](http://www.watershedmanagement.vt.gov/erp/champlain/docs/2013-11-20_DRAFT_Proposal_for_a_Clean_Lake_Champlain.pdf)). This proposal addresses all major sources of phosphorus to Lake Champlain and involves new and increased efforts from nearly every sector of society, including state government, municipalities, farmers, developers, and homeowners. All of us contribute to the phosphorus problem and we must commit to act together.

The state agencies and the EPA presented this proposal and other information about the Lake Champlain TMDL at a series of six public meetings in December, 2013. About 500 Vermonters participated in these meetings and many offered thoughts and good advice on how to improve the proposal. There was general agreement that it was time to take aggressive steps to clean up Lake Champlain.

These proposed policies will be discussed and refined during the coming months. Reasonable schedules will need to be established to give municipalities, farmers, developers, and the State time to plan for the higher levels of effort and expense that will be required. The costs and the question of who should pay will need to be resolved. The public meetings were the first step in this process. Written comments on the Vermont Proposal for a Clean Lake Champlain may be submitted to the Agency of Natural Resources until January 17, 2014 and should be addressed to:

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For more information:

Vermont Agency of Natural Resources Lake Champlain TMDL website:
<http://www.watershedmanagement.vt.gov/erp/champlain/>

U.S. Environmental Protection Agency Lake Champlain TMDL website:
<http://www.epa.gov/region1/eco/tmdl/lakechamplain.html>