



## Lake Champlain Phosphorus TMDL Factsheet

January 2016

### What is a TMDL? Why do we need one?

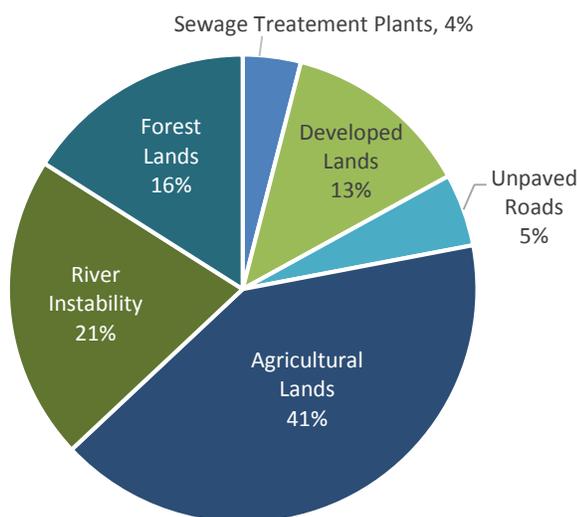
Total Maximum Daily Load, or TMDL, is the amount of a pollutant a waterbody can safely absorb and still meet water quality standards. The maximum pollutant load is divided among the various pollutant sources and locations. In the case of Lake Champlain, the TMDL outlines the phosphorus reductions required to restore the Lake and meet Vermont's Water Quality Standards.

In 2002, the U.S. Environmental Protection Agency (EPA) approved Vermont and New York's phosphorus TMDL for Lake Champlain. The TMDL limited the amount of phosphorus allowed to enter Lake Champlain. In 2011, in response to concerns about the adequacy of the TMDL, EPA revoked its prior approval of the Vermont portion of the TMDL and has developed a new TMDL based on up-to-date water quality data and modeling techniques.

### Sources of Phosphorus in Lake Champlain

Phosphorus in the Lake comes from many sources - primarily nonpoint sources. Nonpoint sources deliver phosphorus from the land to our waterways by rain or snowmelt. Nonpoint sources of phosphorus come from roads, parking lots, lawns, and agricultural and logging operations. Other phosphorus sources include eroding stream channels and discharges from sewage treatment plants.

*Sources of Phosphorus in Lake Champlain*



### Phosphorus' Impact on Lake Champlain

Phosphorus pollution is a significant threat to clean water in Lake Champlain, which is important for recreational and drinking water uses, as well as aquatic life and habitat function. Phosphorus is a nutrient that stimulates excessive growth of algae in the Lake, turning the water green, making it unsuitable at times for swimming, and increasing the costs for drinking water treatment.

### All-in to Clean-up the Lake

All sectors contribute to water quality degradation in Lake Champlain, and all sectors must be part of the solution. Plans to implement the Lake Champlain TMDL involve new and increased efforts from nearly every sector of society, including homeowners, developers, farmers, municipalities, and state government.

### Benefits of a Clean Lake

Investments in a clean Lake Champlain will support local and regional economies, enhance tourism and recreation-based businesses, support property values, help our communities reduce future flood damage risk, support the viability of our public infrastructure, and improve the ecological functions within the watershed.

### How long will it take to see the benefits?

The sooner we act to restore Lake Champlain, the better! However, we need to accept that the restoration of Lake Champlain could take decades in some areas. Accomplishing all the necessary phosphorus reduction actions on the land that drains to the Lake will require many phases of action, and progress must be tracked incrementally. It will also take considerable time for the lake, and the rivers that flow into the lake, to stabilize and use up the excess phosphorus already in their sediment.

### Resources to help you Take Action!

We acknowledge that all sectors need technical, educational, and financial assistance to reduce nutrient and sediment pollution loading. We also recognize that our successes depend on an informed and engaged citizenry. Statewide, regional and local organizations play an important role in delivering technical and educational assistance. These existing programs will become the foundation for an expansion of existing grant and loan programs. **Learn more at [www.CleanWater.vermont.gov](http://www.CleanWater.vermont.gov)**

