



EXECUTIVE SUMMARY

In 2002, the US Environmental Protection Agency approved a joint New York and Vermont Total Maximum Daily Load (TMDL) for phosphorus within Lake Champlain. The TMDL document outlines the need for phosphorus reduction efforts on both sides of the watershed from an array of sources, most notably Wastewater Treatment Plants (point-sources) and urbanized, forested and agricultural lands (non-point sources).

In an effort to assist local and regional resource managers in New York in identifying targeted projects and programs for water quality protection and improvement, this Lake Champlain Non-Point Source Pollution Subwatershed Assessment and Management Plan (Subwatershed Assessment) has been created. The goal of this Plan is to identify specific planning and implementation efforts that, if completed, will reduce phosphorus inputs into surface waters from an array of non-point sources. Those that are of most concern include stormwater runoff from urbanized areas, agricultural operations, streambank and roadside erosion, and aging public and private wastewater infrastructure. The need for this Plan is driven by the fact that phosphorus levels in Lake Champlain still exceed the standards set forth in the TMDL documents and from pressure to ensure that funded projects are maximizing the effect of available implementation funds.

To achieve the goals set forth in the Subwatershed Assessment, the 79 HUC-12 subwatersheds within the Lake Champlain watershed were used and each was scored based on its potential for phosphorus inputs into surface water. A suite of 15 parameters were identified within five categories: water quality, geology, human use, phosphorus pollution vectors and land use and cover. The parameters include information taken from the NYS Department of Environmental Conservation Priority Waterbodies List, lake segment target reduction goals, slope, soil type, waterbody classifications, public water supplies, miles of tributaries, miles of road, identified roadside erosion sites, current land use and cover, percent impervious surfaces and percent row crops. To score each HUC-12 subwatershed, a ranking matrix was created utilizing an array of GIS information obtained from several sources. Each parameter was given an individual point system, with a total score for all 15 parameters ranging from 15 – 95

points. The higher the score, the greater the potential for phosphorus loading and associated negative effects there are within the particular HUC-12 subwatershed.

Of the 79 HUC-12 subwatershed, the highest priority subwatershed had a score of 74 points, while the lowest was 20 points (Map 4-2). Based on the scores, 19 high-priority subwatersheds were identified (scores ranging from 74 points – 44 points). Within these Priority Subwatersheds, on-the-ground projects and planning efforts were identified including upgrades of municipal stormwater and wastewater infrastructure, impervious surface reduction, replacement of undersized and/or failing culverts, implementation of agricultural buffer and cover cropping programs, streambank restoration projects, and creation of septic management districts around surface waters. Hundreds of projects throughout the Lake Champlain Watershed have been identified, totaling almost \$187,000,000 in funding needs for water quality improvement and natural resource protection efforts.

This Subwatershed Assessment was created through a strong partnership between the Lake Champlain – Lake George Regional Planning Board, Lake George Association, Champlain Watershed Improvement Coalition of New York, Lake Champlain Basin Program, NYS Department of State, NYS Department of Environmental Conservation, and the Plan's Advisory Committee. It is the intent for this Subwatershed Assessment to be a living document that will be updated as projects are implemented and new project needs arise to continue working towards the phosphorus reduction goals set forth for New York State.