

## **Executive Summary**

The water quality management plan for the Northern Lake Champlain Direct Drainages (Basin 5 Plan) provides a description of the Basin and steps to restore and protect the Basin's surface waters. The Basin includes the northern section of Lake Champlain, beginning at the Ferrisburgh and Charlotte town line and ending at the Canadian border, and all Vermont surface waters excepting three major river watershed that drain directly into this section of the Lake (Maps 1 and 2). The three major river watersheds that also drain to northern Lake Champlain include the Missisquoi, Winooski and the Lamoille river watersheds. The Agency of Natural Resources is developing water quality management plans for these watersheds that will provide additional remediation steps for improving water quality in Lake Champlain.

Surface waters in Basin 5 support swimming, fishing, and boating. In addition, the waters provide drinking water and are appreciated for the wildlife habitat and plant communities they support. For the majority of surface waters, water quality is sufficient to protect these uses. The majority of the water quality problems in the Basin that impair, stress or threaten uses include algal blooms, high levels of pathogens or turbidity in the water, high levels of mercury and PCBs, and aquatic nuisance species. Pollutants or processes most responsible for the first three conditions include agricultural and urban runoff, and eroding river channels due to a lack of equilibrium in the river system.

The plan describes existing State and federal programs that are presently in place to address identified water quality problems. In addition, the plan includes strategies to develop or improve upon the collaborative efforts of the Agency with other partners to improve water quality. The collaborative efforts have been developed over the last five years during discussions with the Agency, community members, other state and federal groups, and non-profit organizations. Implementation of Chapter 4 strategies will support the following collaborative efforts:

- The Agency will continue to provide technical and financial assistance to the LaPlatte Watershed Partnership in its efforts to protect the LaPlatte River corridor through assessment and project implementation. Projects will continue to include: geomorphic assessments, water quality monitoring, tree planting, floodplain restoration, and education programs for the public and municipal officers.
- A multitude of partners will assist the Agency in the control of stormwater runoff in Burlington and Malletts Bay watersheds through community education and installation of innovative stormwater treatment systems. Efforts will be part of existing stormwater control permitting programs or provide supplemental stormwater treatment. Improving the recreational opportunities in these embayments will also be supported by helping communities understand and reduce pathogen loads in stormwater.
- The Agency will be aided by community efforts to reduce algal blooms in the Northeast Arm and St. Albans Bay of Lake Champlain. Efforts will continue to

include education to increase public awareness about lake friendly lawn care, stormwater infrastructure improvements, and the investigation and implementation of innovative approaches to addressing water quality problems.

- The agricultural community, including the Franklin and Grand Isle County-based Farmers Watershed Alliance, will continue to participate in phosphorus and sediment reduction efforts with assistance from the agricultural resource agencies and the community.
- The Agency will continue to assist local shoreline associations and municipalities in the Lake Champlain Islands in their efforts to reduce aquatic nuisance species populations.

Water supply operators and municipalities within the Basin will continue to assist in the protection of their water supplies to control treatment costs. Using education, support from local watershed groups and other collaborative efforts with agencies and organizations, they will maintain the water quality necessary for supplying safe drinking while minimizing costs.

Chapter 5 includes strategies for impaired waters and waters of concern. Management goals are discussed in Chapter 6, including the determination of existing uses. The plan does not include any other redesignations including warm or cold water fisheries or Outstanding Resource Waters. In addition, the plan does not propose any new classifications of surface waters.

Over the next five years, the Agency will focus its efforts in these areas in collaboration with the community and other state or federal agencies to improve and restore waters in this Basin.

