

Lake Watershed Action Plan for Maidstone Lake

STONE
ENVIRONMENTAL
100% EMPLOYEE-OWNED

Services / Expertise

Stormwater Infrastructure Improvement,
Shoreline Bioengineering, Conceptual
Designs, Stakeholder Collaboration

Markets

Local and Regional Government
Watershed Protection Organizations

Project Location

Maidstone, Vermont

Duration

2021-2023

Project Owner

Essex County Natural Resources Conservation
District

Project ID#

20211221

Project Manager

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Project Team

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View of Maidstone Lake State Park Beach from the water.

IN 2022 and 2023, Stone and Essex County NRCD (ECNRCD) staff worked together to produce the Maidstone Lake Watershed Action Plan (LWAP). This 756-acre lake suffers from increasing phosphorus concentrations due in part to development and clearing in the watershed. Eroding shorelines, hydrologically connected gravel road segments with erosion issues, and eroding stream banks all are believed to increase sediment and nutrient loads in the lake. Stone assessed the relative contributions of nutrient sources and combined this with stakeholder input to identify priority projects that will reduce sediment and nutrient loading.

Stone performed field assessments of the lake shoreline, roadways, and streams to develop a list of potential project locations in the watershed that contribute sediment and nutrients to the lake. The analysis identified eroded shorelines and cleared lawns on private property as significant sources of sediment and nutrient loading caused by the development of over 75% of the shoreline, lack of stormwater filtration, and bank destabilization.

We prioritized the project list using the VTDEC-developed Stormwater Master Planning Unified Evaluation, ranking projects based on their ability to improve water quality and reduce environmental impacts, project feasibility, and co-benefits such as habitat creation and educational benefits. This process identified ten projects to be advanced in the LWAP. After consulting with landowners, we developed conceptual designs and added the projects to the ANR Online Clean Water Project Database. Several projects identified in the Maidstone Lake LWAP were met with strong support, and Stone is working with ECNRCD to develop 100% designs.

