

Messer Pond Upper County Road Brook Sub-Watershed Investigation and Best Management Practices



Services / Expertise

Watershed Assessment
Stormwater Retrofit BMP Design
Stream Crossing Improvements
Culvert Upgrades
Site Survey
Development of Construction-Ready Plans
BMP Sampling Plan
Stakeholder/Community Engagement and Collaboration

Markets

Watershed Organizations
NGOs/Nonprofits

Project Location

New London, New Hampshire

Date Completed

2018-2019

Project Owner

Messer Pond Protective Association

Project ID#

18-001

Project Manager

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Project Team

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Photo showing drainage in the survey area within the Upper County Road Brook sub-watershed.

IN 2018, the Messer Pond Protective Association (MPPA) hired Stone Environmental to investigate and develop stormwater management Best Management Practices (BMPs) to mitigate nonpoint source nutrient and sediment loading conveyed to Messer Pond.

Stone performed a focused watershed survey within the Upper County Road Brook sub-watershed, identifying opportunities for stormwater BMP implementation designed to reduce phosphorus and sediment loadings to adjacent water resources hydrologically connected to Messer Pond. Stone reviewed data collected during the 2015 watershed survey, gathered information on activities that occurred in the watershed since the survey, and identified areas not previously inspected.

For each site, Stone provided an assessment survey of stormwater issues and discussion of proposed BMPs, including their anticipated effectiveness and estimated costs of construction and maintenance. Stone assisted the MPPA in engaging landowners associated with projects identified in the survey, as well as selected BMPs to bring to design. Stone submitted preliminary design drawings and opinions of probable costs to the MPPA, as well as a technical memo, calculation of estimated pollutant load reductions for sediment and nutrients, and recommendations for modifying the MPPA's water sampling program to monitor BMP practices.

More recently, MPPA retained Stone to develop design and construction-ready plans for three stream crossings improvements and two stormwater BMPs. The objective is to replace two undersized culverts on Forest Acres Road, review the placement and possible resetting of a third culvert and mitigate the amount of road material and up-stream sand from entering these three culvert systems on the road. The overall effort includes a site survey, a wetland delineation, the development of a construction plan, an initial and on-going maintenance plan, and a sampling plan to evaluate the BMP's performance.