

Project Final Report

Nitrogen and Phosphorus Source Identification Report Project

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A. Project Goals

This project sought to prepare nitrogen and phosphorus source identification reports for 20 towns and lake-pond phosphorus control plans for 2 towns. The towns were all members of either the Neponset Stormwater Partnership or the Connecticut River Stormwater Committee.

Upon completion of this work, all project deliverables were to be provided to the Massachusetts DEP so they could be made widely available as examples for other Massachusetts municipalities seeking to complete the same task.

Qualifying municipalities are required to submit these reports with their Year 4 Annual Reports for the Massachusetts Small MS4 General Permit.

B. Project Methods

The goals of this project were completed by staff from the Neponset River Watershed Association (for Neponset Stormwater Partnership members) and the Pioneer Valley Planning Commission (for Connecticut River Stormwater Committee members). The two groups met regularly to collaborate on the process and methods. While the groups worked separately, the end results are very similar due to the frequent collaboration.

Similarly, the project team met several times with representatives from the EPA and MassDEP to ensure the planned methods would produce reports that were compliant with expectations from the Massachusetts Small MS4 General Permit. The input of these representatives was instrumental in determining an acceptable approach to report development.

The analysis used several existing GIS datasets along with local catchment delineations from each town to calculate impervious area and estimate directly connected impervious area, phosphorus loading, and nitrogen loading. Both project groups also used existing BMP siting tools to locate parcels with good potential for BMP retrofits.

This information was consolidated in reports for each municipality. The bodies of the reports present the catchments with the highest amount of impervious area, estimated directly connected impervious area, and estimated pollutant loads, while data for all catchments is included in the report appendices.

The actual methods for developing these reports are covered in detail in the submitted deliverable entitled “Nutrient Source Identification Report Methods Addendum.”

C. Project Outcome

All reports were produced on time, in-line with the proposed budget, and as expected by the project team. Copies of the reports and the shapefiles used in analysis were provided as project deliverables and are available from MassDEP.