

Bolton Lakes Regional Water
Pollution Control Authority
(BLRWPCA)

Sewer Project



Town of Bolton

STEAP Grant

Scope of Services

1. Project:

This grant award shall be used by the Town of Bolton (the “Town”) to conduct water quality monitoring in Lower Bolton Lake and its drainage basin and to treat the Lower Bolton Lake with herbicides as determined appropriate by DEEP (the “Project”). The Department of Energy and Environmental Protection, Bureau of Water Protection and Land Reuse, Division of Planning and Standards (DEEP) is administering this grant.

Description of Services

a) Water Quality Monitoring

The Town of Bolton shall hire a consulting limnologist (Consultant) to monitor water quality in Lower Bolton Lake and the associated drainage basin. Each year prior to monitoring, the Town shall submit an annual water quality monitoring plan to DEEP for review and approval. Upon completion of the annual water quality monitor, the Town shall ensure that the Consultant submits a written report in electronic format and makes a public presentation of the results of the annual monitoring.

b) Drainage Basin Assessment

Coupled with the Water Quality Monitoring task above, the Town shall ensure that the consultant assesses the Lower Bolton Lake drainage basin for sources of nutrient and sediment loading. Prior to initiating this task, the Town shall submit a scope of study to DEEP for review and approval. Upon completion, the town shall ensure that the Consultant submits an electronic report and makes a public presentation of the findings of this effort.

c) Improvements to Municipal Infrastructure

Based on the findings of the Drainage Basin Assessment, the Town may use funds from this grant to make improvements in municipal infrastructure that will reduce nutrient and sediment loading to Lower Bolton Lake. Prior to initiating any activities that will reduce nutrient and sediment loading with funding from this grant, the Town must obtain approval from DEEP.

d) Algal Toxin Monitoring

Upon approval from DEEP, the Town is eligible to use a portion of the funds from this grant to monitor algal toxins and conduct algae cell counts in Lower Bolton Lake.

e) Herbicide treatments

Upon annual approval from DEEP, the Town may use funds from this grant to hire an aquatic herbicide applicator, licensed in the state of Connecticut, to treat Lower Bolton Lake with herbicides and algaecides.



Northeast Aquatic Research Project

Task 1: In-lake Assessments

Northeast Aquatic Research will visit Lower Bolton Lake monthly between March and November, and twice a month during the months of May and August.

1. During each visit, water samples will be collected at set locations and depths (water flow measurements will also be made at the time of the inlet-outlet collections.)
2. Water samples will be analyzed for plant nutrients phosphorus and nitrogen (nitrate, ammonia, and organic nitrogen).
3. Water temperature, dissolved oxygen, and water clarity will be measured.
4. One sample will be collected for phytoplankton assessment.
5. Once during 2014 season, sediment samples will be collected to determine phosphorus and nitrogen contents in lake bottom sediments.

Task 2: Aquatic Plant Assessment

During the 2014 season beginning in May, Lower Bolton Lake will be assessed to determine growth of naiad and the two invasive aquatic plants; variable-leaf milfoil and fanwort. Surveys will be coordinated with the herbicide applicator should the need arise for additional herbicide treatments to control naiad, fanwort or milfoil.

Task 3: Watershed Investigation

NEAR will review the condition of the whole watershed of Lower Bolton Lake using both aerial imagery and ground investigation to develop mapping of all land-use within the watershed. Most, but not all storm-water conveyance was mapped using GPS during winter 2013-2014. Additional mapping will be conducted in 2014.

Task 4: Meetings, Presentations, and Reporting

Northeast Aquatic Research staff will be available, during the course of this project, to attend internal Town meetings as well as public meetings as the need arises so that findings are regularly disseminated.