

GREAT EAST LAKE WATERSHED SURVEY SUMMARY FACT SHEET

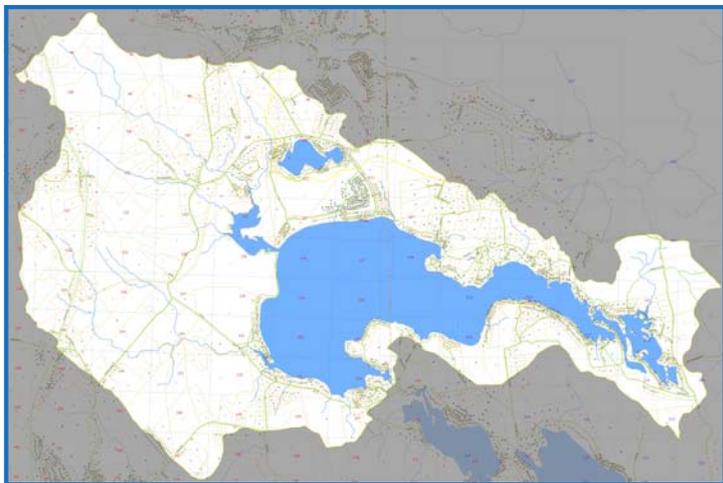
BACKGROUND:

The Great East Lake Watershed (all the land that drains to Great East Lake) covers 9,990 acres (15.6 square miles) in the towns of Wakefield, New Hampshire and Acton, Maine.

Great East Lake's water quality is above average, according to the NH Dept. of Environmental Services (DES) and Maine Department of Environmental Protection. Soil erosion is the single greatest source of pollution to Great East Lake.

- Soil contains phosphorus, a nutrient that helps plants like algae grow. When extra phosphorus enters a lake and causes excess algae to grow the lake can experience an algae bloom. Algae blooms make it undesirable for people to recreate on lakes.
- When algae living in a lake dies, it decomposes, depleting the oxygen level of the lake. Below certain oxygen levels animals living in the lake are unable to survive.
- Algae growth directly contributes to turbidity (cloudiness of water). Studies have shown that as water clarity decreases, property values also drop.

Great East Lake Watershed



WATERSHED SURVEY:

In June 2009, a team of 46 volunteers and technical leaders fanned out around the Great East and Lake Ivanhoe watersheds in 10 teams to identify areas of erosion that contribute pollution to the lakes. Technical leaders for the survey teams were from Acton Wakefield Watersheds Alliance, York County SWCD, NH DES, and Maine DEP.

The volunteers took careful notes when they identified a source of erosion using standardized data sheets. They also photographed the site for future reference. On each site where erosion was evident volunteers characterized the impact that the site was having on the lake, estimated the cost to remediate the problem and made BMP recommendations.

Volunteers and technical staff identified 177 sites that are impacting or have the potential to impact water quality.

Volunteer photos of erosion sites documented during the survey.



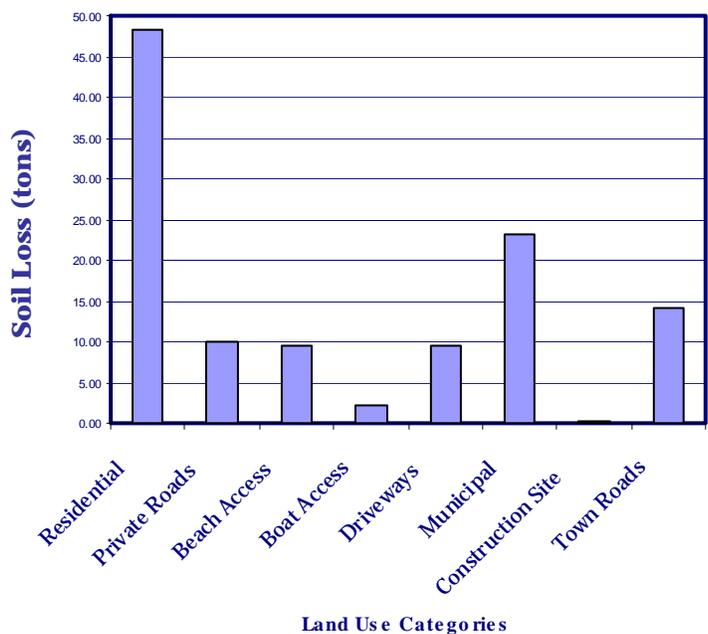
KEY SURVEY RESULTS:

- Residential properties accounted for 108 of the identified sites (62%) . Most of these sites have a low impact on water quality and will be inexpensive to fix (less than \$500) using some simple best management practices, often easily fixed by the landowner. Currently these residential sites are contributing an estimated 48.3 tons of soil per year to the lake.
- Private and state roads accounted for 29 of the sites identified (16%) . These sites have the potential to have a severe impact on the lake with higher associated costs (greater than \$2500) and often require technical experience to properly solve the erosion problems. In the Great East Lake watershed town and private roads currently add 24.1 tons of soil per year to the lake.
- The estimated soil loss to the lake from erosion sites identified during the survey is over 105 tons per year.

PROJECT PARTNERS:

Great East Lake Improvement Association, AWWA, York County Soil & Water Conservation District, NH Department of Environmental Services, and Maine Department of Environmental Protection

Soil Loss To Lake Estimates



Erosion sites were identified all around the watershed and on 9 different types of land uses and soil loss was estimated in 8 different land use categories. Everyone has a role to play in protecting Great East Lake. The Towns of Wakefield and Acton, waterfront property owners, road associations, and even people living far from the lake can all help reduce pollution entering the lake to protect this treasured resource.

NEXT STEPS:

- The information gathered from the watershed survey will be utilized in the creation of a watershed-based management plan for the Headwater Lakes of the Salmon Falls River.
- AWWA and GELIA will work together to apply for grants to help landowners, road associations, and the towns to fix some of the larger erosion problems identified in the survey.
- Landowners of identified sites will have the opportunity to meet with the AWWA Technical director and receive a site-specific remediation design as well as be considered as a YCC project host.
- Letters will be mailed to all landowners with identified erosion problems to encourage them to take action to fix their property and to provide them with access to the necessary resources.

FOR MORE INFORMATION:

A digital copy of the full survey report is available online at www.awwatersheds.org. If you would like information about fixing erosion problems on your property or a copy of the Great East Lake Watershed Survey Report, contact:

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