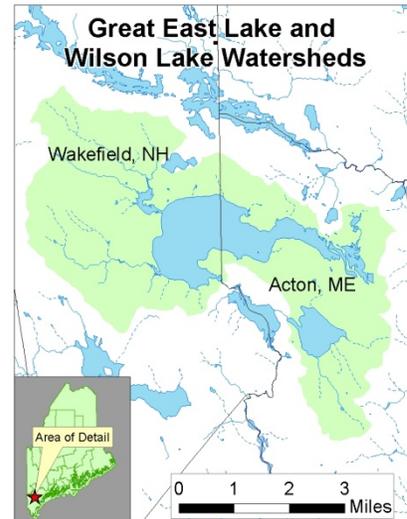


Great East Lake and Wilson Lake Watershed Implementation (Phase I Maine) #2012RR01

Waterbody Name: Great East Lake and Wilson Lake
Location: Acton – York County
Waterbody Status: NPS Priority Watershed
Project Grantee: Acton Wakefield Watersheds Alliance
Project Duration: February 2012 – February 2014
319 Grant Amount: \$67,641
Local Match: \$83,616



PROBLEM:

Wilson Lake lies entirely in Maine and Great East Lake lies on the border between Wakefield, New Hampshire and Acton, Maine. Great East Lake covers 1,707 acres and its watershed covers 15.3 square miles. Wilson Lake covers 208 acres with a watershed of 3.9 square miles. Great East Lake is developed with over 700 homes, and Wilson Lake is surrounded by over 200 homes. Each lake has a public boat launch, and Great East Lake is widely used for recreation with an average of 1500 visiting boats each season. Both lakes drain into Horn Pond and comprise the headwaters of the Salmon Falls River, which flows along the state border and serves as a drinking water supply for over 28,000 people.

Volunteers have monitored water quality on both lakes for several decades. Water quality on Great East Lake is considered outstanding, and Wilson Lake's water quality is average with high oxygen depletion in late summer. In 2006 the Acton Wakefield Watersheds Alliance (AWWA) formed to protect the water quality of ten lakes in Acton and Wakefield. AWWA's summer Youth Conservation Corps (YCC) has since installed BMPs on numerous properties on Great East and Wilson Lakes. In 2008, AWWA received a NH 319 grant to complete a watershed-based plan for the upper Salmon Falls River watershed. The project included a watershed survey on Great East Lake, which identified 177 NPS sites. In 2009, DEP and the Wilson Lake Association carried out a watershed survey that identified 72 NPS sites. In 2010, NH DES funded a project to fix NPS problems on the NH side of Great East Lake's watershed.

PROJECT DESCRIPTION:

The purpose of the project was to reduce erosion and pollutant loading to Wilson Lake and Great East Lake. All work was focused in Maine. Cost-sharing assistance was provided to road associations to fix priority NPS problems on seven road sites and AWWA's YCC provided labor to address 16 residential sites. Project staff provided technical assistance to 42 landowners and carried out three septic socials and one road social, which led to the formation of a road association. Project information was shared with the community through lake association newsletters, the AWWA website, annual YCC video tours, and YCC project signs.



2012 YCC Crew holding a rubber razor

PROJECT OUTCOMES:

- The project installed conservation practices on seven private road sites to remedy high priority, chronic erosion problems identified in the watershed surveys. The initial work plan called for work on five road sites, but the projects were completed under budget, which allowed the project to complete more work than anticipated.
- AWWA's YCC program installed 73 BMPs on 16 project sites in the project areas on Great East (12 projects) and Wilson Lake (four projects). Seven of the projects on Great East Lake were in the Langley Shores neighborhood where the project's road work helped spark landowner interest and participation in the YCC.
- Work completed through the project reduced pollutant loading to Great East Lake by an estimated 29.1 tons of sediment and 24.6 pounds of phosphorus per year and to Wilson Lake by an estimated 9.9 tons of sediment and 8.3 pounds of phosphorus per year (Region 5 Method and WEPP Model).
- Approximately 40 local residents attended the project's three septic socials and one road social. The road social took the form of a meeting with residents of Lakeside Drive interested in forming a formal road association. The group has now drafted bylaws and is planning to hold their first meeting in 2014. A follow-up survey was sent to septic social participants to find out if the workshop led to behavior changes. Although only seven people participated, several people changed their water use, detergent use, and septic system maintenance because of what they learned.



Abbott and Jericho Roads – 400' of eroding gravel road was crowned and paved, and water redirected into ditches. The grant provided \$3,500 and the road association provided almost \$2,000 in match.



Langley Shores Road – 150 feet of steep gravel road was paved, and a catch basin was installed at the base to infiltrate runoff and capture sediment before it washes into the lake.

PROJECT PARTNERS:

Great East Lake Improvement Association
New Hampshire Department of Environmental Services
York County Soil and Water Conservation District

Town of Acton
Wilson Lake Association

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Suggested Citation:

Maine Department of Environmental Protection (2014) "Nonpoint Source Management Program 2013 Annual Report," Document # DEPLW-1269. Augusta: MDEP.