Sebago Lake Conservation Project Phase I #2009RR04

Waterbody Name:	Sebago Lake
Location:	Sebago, Naples, Casco, Raymond, Standish and Windham – Cumberland County
Waterbody Status:	NPS Priority Watershed, Most At Risk
Project Grantee:	Portland Water District (PWD)
Project Duration:	March 2009 – June 2011
319 Grant Amount:	\$73,051
Local Match:	\$199,091



PROBLEM:

Sebago Lake is the second largest lake in Maine with a surface area of 30,513 acres. The lake's 100 miles of shoreline is developed with 2,300 seasonal and year-round homes, 12 public boat launches, eight marinas, seven summer youth camps and Sebago Lake State Park. It is the primary drinking water supply for 200,000 people in eleven communities. The lake's direct watershed covers 171 square miles, and the entire watershed covers 360 square miles.

PWD has monitored Sebago Lake's water quality since 1970. Sebago Lake is considered to have excellent water quality with average clarity over 31 feet. However, there are concerns about declining trends in recent years. To maintain the lake's high quality, PWD conducts permit reviews, site inspections, free landowner consultations, a small matching grants program, and a school-based education program. A PWD *Hotspots Survey* identified runoff from roads within 1,000 feet of the lake shoreline as one of the lake's greatest sources of sediment and phosphorus pollutants. In 2001 and 2007, PWD surveyed 418 private roads within this shoreline corridor and rated 27 percent of the roads as causing medium to high pollutant impact to the lake.

PROJECT DESCRIPTION:

The purpose of this project was to significantly reduce erosion and export of sediment and phosphorus into Sebago Lake. Due to the large size of the lake and watershed, Phase I focused work in the Towns of Naples and Sebago. PWD partnered with Cumberland County SWCD to install conservation practices at 10 high-impact private and public roads and provide technical assistance to 31 landowners. PWD staff also inspected 255 properties within the lake's shoreland zone. The Casco Bay Youth Conservation Corps installed conservation practices on two sites in the project area.



Volunteers stabilized paths, planted vegetation, and installed infiltration steps at Camp O-At-Ka.

PROJECT OUTCOMES:

- The project successfully fixed NPS problems on 10 public and private road sites. Work included resurfacing/recrowning 3,850 feet of road and installing 7,410 feet of new ditches, 19 new cross-drain culverts, nine ditch turnouts, and 13 ditch check dams. The Casco Bay YCC worked at two properties where they installed 13 infiltration steps, stabilized 100 feet of path, and planted 40 trees and shrubs.
- Technical assistance was provided to 31 landowners (more than the goal of 20) including 18 visits by Cumberland County SWCD staff and 13 watershed property consultations by PWD staff.
- PWD staff also conducted 255 inspections in the Shoreland Zone and reviewed plans for 18 large developments. PWD staff spent a total of 876 hours (109 work days) on this work, far exceeding the project goal of 476 staff hours (60 work days).
- Pollutant loading to Sebago Lake was reduced by an estimated 40 tons of sediment and 30 pounds of phosphorus per year (Region 5 Method).
- Project match totaled \$199,091, more than double the amount anticipated (\$99,274 planned).



Maine Avenue/Sebago Avenue ROW, Standish – Severely eroded road flowed directly into the lake. Numerous culverts, stone-lined ditches, level lip spreaders and 700 feet of new road material was installed, graded and shaped.

PROJECT PARTNERS:

Casco Bay Youth Conservation Corps Cumberland County SWCD Town of Naples Town of Sebago

CONTACT INFORMATION:

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