Clary Lake Watershed NPS Pollution Control Project
#2004R-04

Waterbody Name: Clary Lake

Location: Whitefield and Jefferson – Lincoln County

Waterbody Status: NPS Priority Watershed

Project Sponsor: Knox-Lincoln SWCD

Project Duration: April 2004 – December 2006

319 Gant: $33,750

Local Match: $59,421

PROBLEM:

Currently, Clary Lake (674 acre surface) has good water quality. Monitoring data since 1976 shows that average lake water clarity is 3.7 meters (Secchi disc transparency) and average total phosphorus concentration is 16 ppb. Given the relatively high phosphorus concentration, there is potential for nuisance algal blooms in the future if export of phosphorus from the watershed increases. There are considerable rural residential developed areas in the 7.5 square mile watershed and about 75 seasonal camps and year round homes on the lake shoreline.

In 2001, Clary Lake Association organized and conducted a citizen-led NPS watershed survey. The survey identified and documented the most important sources of phosphorus, primarily erosion and sediment sites in the watershed. The 90 documented NPS sites were rated based on potential for impact to lake water quality (10 rated high impact; 25 medium impact; and 55 low impact). Of the high impact sites 8 were state highway sites and 2 were boat access sites. Town roads and residential land uses accounted for 34% of the sites. Driveways, commercial properties, boat accesses and private roads were also identified as sources of NPS pollution.
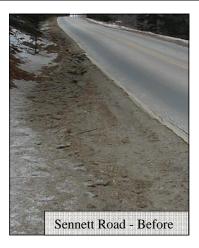
PROJECT DESCRIPTION:

The goal of the project was to reduce sediment and phosphorus loading in the lake by installing BMPs on 20 of the medium and high priority sites documented in the watershed survey.
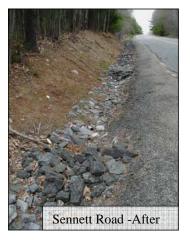

Erosion on Cookson Lane - Town Road

The Knox-Lincoln SWCD and Clary Lake Association worked with town officials, Maine DOT and private landowners to coordinate design and installation of conservation practices at many NPS sites in the watershed. These sites were mostly along town and state roads, but also included eroding shorelines and private boat landings. A Gravel Road Maintenance and Front Runner Training workshop helped inform landowners about better methods to maintain the surface of unpaved roads to prevent erosion.

PROJECT OUTCOMES:

- Maine DOT planned to design and construct upgrades and maintenance work on Route 126 and Route 215. The Knox-Lincoln SWCD asked DOT to give special attention to highway sites that were documented in the watershed survey and look for other opportunities to reduce erosion. Four sites on Route 126 and 8 sites on Route 215 were ultimately treated with BMPs (reshaping and stabilizing ditches, installing riprap, new culverts, and stabilizing culvert inlets and outlets).

- Erosion and sediment problems were eliminated on portions of Cookson and Sennett town roads. The project redefined ditches, replaced and/or stabilized culverts, and installed ditch turnouts to direct runoff water into vegetated buffers.

- The project stabilized eroding shoreline on 1 private property and 2 eroding private boat launch sites

- Pollutant loading to the lake was reduced by an estimated 79 tons of sediment and 67 pounds of phosphorus per year.

- Project work raised the awareness and knowledge of town officials and many residents about how erosion and sedimentation from the watershed, especially roadways, can adversely affect Clary Lake.

- The investment of local matching funds was more than anticipated (planned $22,500; actual $59,000) because of good cooperation from Jefferson, Whitefield and Maine DOT on road improvement projects.

Sennett Road - Before

Sennett Road -After

PROJECT PARTNERS:

Clary Lake Association
Towns of Jefferson
Town of Whitefield
Maine Department of Transportation
Sheepscot River Watershed Council

CONTACT INFORMATION:

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