

Sabbathday Lake Water Quality Improvement Project

#2001R-24A WIFAP

Waterbody Name: Sabbathday Lake

Location: New Gloucester, Cumberland County

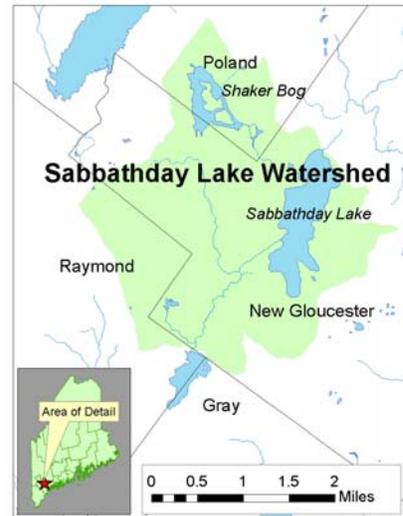
Waterbody Status: NPS Priority Watershed, Most at Risk

Project Sponsor: Cumberland County SWCD

Project Duration: October 2001 – December 2004

319 Grant Amount: \$54,000

Match: \$25,094 (local), \$36,000 (ME Dept. of Ag.)



PROBLEM:

Sabbathday Lake is a 331-acre lake in the Town of New Gloucester. Its shoreline is developed with over 100 seasonal and year-round homes and includes Barefoot Beach, a privately owned beach and boat launch. Sabbathday Lake's watershed covers 5.3 square miles and includes a considerable amount of forested and agricultural land owned by the Sabbathday Shaker Community. The lake serves as the headwaters of the Royal River.

The DEP and volunteers have monitored the lake's water quality since 1975. The data indicates that the lake is below average and that the potential for nuisance algal blooms is high. In addition, the lake has high oxygen depletion in the bottom waters and has a high potential for internal loading problems.

The Sabbathday Lake Association (SLA) and Cumberland County Soil and Water Conservation District (SWCD) conducted a watershed survey in 1997 and identified 75 erosion sites. From 1999-2001, the groups carried out a 319 grant project, during which they installed conservation practices at eight demonstration sites, provided technical assistance to 27 landowners.

PROJECT DESCRIPTION:

The purpose of the project was to reduce erosion and polluted runoff sources to Sabbathday Lake and to ultimately improve or stabilize lake water quality.

The project stabilized erosion problems at 17 sites in the watershed and provided technical assistance to 38 landowners. In addition, the Sabbathday Lake summer Youth Conservation Corps (YCC) installed conservation practices at an additional 19 sites.

Education and outreach activities included an initial project fact that was mailed to; signs at 12 locations around the lake; two presentations at SLA annual meetings; two hands-on workshops; a public tour by pontoon boat to showcase completed YCC projects; and a final project brochure. Over 20 articles were also printed in the local newspapers and SLA newsletter, and WMTW (Channel 8) also did a story on the YCC program.



PROJECT OUTCOMES:

- The project fixed erosion problems at a total of 17 high and medium priority sites including 8 residential sites, 6 private road sites, 1 public road site, 1 commercial beach and 1 right of way.
- The Sabbathday Lake YCC program was started in the summer of 2002. During their five-week season, the crew fixed erosion problems and planted vegetated buffers on another 11 residential sites.
- Staff estimated that the erosion control projects reduced pollutant loading to the lake by 29 tons of sediment each year (US EPA, Region 5 Method).
- Project staff provided technical assistance to 38 landowners through the projects – exceeding the goal of 20 written into the original workplan.
- The Sabbathday Lake YCC was featured in several stories in the media, including a television story by WMTW (Channel 8) and a full page story in the Lewiston Sun Journal. This high-profile coverage helped build widespread support for the YCC program and other lake protection efforts.
- The Sabbathday Lake YCC was so successful during its one season that the Sabbathday Lake Association took up the charge to find a way to continue the program. The SLA partnered with the Maine DEP, Cumberland County SWCD, Friends of the Royal River and Friends of Casco Bay to form the Royal River YCC program. The Royal River YCC completed its first field season in 2004, and has since fixed another 5 sites around Sabbathday Lake and 38 sites in the larger watershed.



PROJECT PARTNERS:

Sabbathday Lake Association
Town of New Gloucester
Maine Department of Agriculture
Sabbathday Shaker Community

CONTACT INFORMATION:

Don Kale, DEP – (207) 822-6319, Donald.Kale@maine.gov
Jami Fitch, Cumberland County SWCD – (207) 856-2777, jami-fitch@cumberlandsxcd.org

Suggested Citation:

Maine Department of Environmental Protection (2006) “Nonpoint Source Management Program 2005 Annual Report,”
Document# DEPLW0758. Augusta: MDEP.