

## Keoka Lake Improvement Project, Phase II Implementation

#2002R-21A WIFAP

Waterbody Name: Keoka Lake

Location: Waterford, Oxford County

Waterbody Status: NPS Priority Watershed, Most at Risk

Project Sponsor: Oxford County SWCD

Project Duration: October 2002 – December 2005

319 Grant Amount: \$54,000

Match: \$38,170 (local), \$16,000 (ME Dept. Ag.)



### PROBLEM:

Keoka Lake is a 445-acre lake located in the Town of Waterford. The watershed covers 5.7 square miles and drains into Long Lake and then Sebago Lake, a public drinking water source for over 200,000 people in Southern Maine. Keoka Lake's shoreline is developed with about 100 camps and year-round homes. The lake draws significant recreational use due to the presence of two public boat launches and beaches, a private 130-site campground on the lake and the close proximity to Waterford's Village Center.

The lake has been monitored by the DEP and volunteers since 1977 and is considered to be slightly above average based on measures of secchi disk transparency, total phosphorus and chlorophyll a. However, there is high depletion of dissolved oxygen in the bottom waters of the lake in late summer. As a result, Keoka Lake is listed on the NPS Priority Watersheds list and list of lakes "Most at Risk from New Development" under the Maine Stormwater Law.

The Oxford County Soil and Water Conservation District (SWCD), Lakes Environmental Association (LEA) and Keoka Lake Association (KLA) conducted a 319-funded watershed survey in 2001 to identify erosion problems around the lake.

### PROJECT DESCRIPTION:

The purpose of the project was to reduce soil erosion and polluted runoff sources to Keoka Lake, foster long-term watershed stewardship and, ultimately, to improve water quality.

Project staff and volunteers coordinated and installed conservation practices at 15 erosion sites and provided technical assistance to 18 landowners. The project also mailed three project updates to all watershed households; delivered presentations at two KLA annual meetings and two Waterford Select Board meetings; held two hands-on workshops at construction sites; hosted two public tours; and printed a final project brochure. Numerous articles were printed in local and regional newspapers and the KLA newsletter.



## PROJECT OUTCOMES:

- The project fixed 15 large-scale erosion problems in the watershed including 10 state, town and private road sites; 1 town boat launch; 3 residential sites; and 1 scenic turnout.
- The project's total estimated pollutant load reduction was 91 tons of sediment per year (EPA Region 5 Method).
- The watershed's most severe erosion problem, Hawk Mountain Access Road, was successfully repaired by installing rock-lined ditches, a cross culvert, several turnouts and runoff diverters and new road surface material. Estimated soil loss avoidance on this site alone totaled 27 tons per year.
- Project staff provided technical assistance to 18 landowners through the projects – exceeding the goals of 16 written into the original workplan.
- The project accomplished work through a variety of innovative partnerships and funding sources. The Maine Department of Agriculture provided \$16,000 in cash match through the WIFAP program. One state road site was fixed by DOT's SWQPP grant program, and DOT road crews completed another two sites with state funding. Local volunteers and town road commissioners completed most of the other construction projects. As a result, local and state match totaled \$54,170 – \$16,000 over the original project goal.



## PROJECT PARTNERS:

Lakes Environmental Association  
Keoka Lake Association  
Town of Waterford  
Maine Department of Agriculture  
Maine Department of Transportation

## CONTACT INFORMATION:

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Suggested Citation:

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