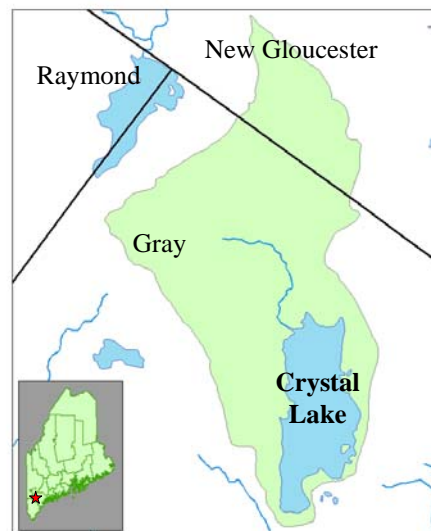


## Crystal Lake Watershed Survey

#2003P-05

Waterbody Name: Crystal Lake  
Location: Gray - Cumberland County  
Waterbody Status: NPS Priority Watershed, Most At Risk  
Project Grantee: Cumberland County SWCD  
Project Duration: April 2003 – April 2004  
319 Grant Amount: \$12,745  
Local Match: \$9,296



### PROBLEM:

Crystal Lake has a surface area of 189 acres and flushes during periods of high water into Mill Pond. Its direct watershed covers 1.7 square miles and is part of the larger Collyer Brook and Royal River Watersheds. The lake's shoreline is almost completely ringed with about 180 seasonal and year-round homes, and the lake has a public boat ramp and beach, which receives heavy summer recreational use.

The pond has been monitored since 1974, and the data indicates that the pond has moderate depletion of dissolved oxygen in the hypolimnion in late summer. As a result, Crystal Lake is listed on the NPS Priority Watersheds list and list of lakes "Most at Risk from New Development" under the Maine Stormwater Law.

### PROJECT DESCRIPTION:

The purpose of the project was to identify, document and prioritize soil erosion sites in the Crystal Lake Watershed and to recommend conservation practices for each of these sites. Survey methods were based on those outlined in the DEP publication, *Citizen's Guide to Lake Watershed Surveys*. The volunteer training session was held on May 18, 2003 and was modified to provide more hands-on training in the field. The 13 volunteers were trained to identify erosion problems, rate water quality impact and develop recommendations. About ¾ of the survey was completed on the day of the training.



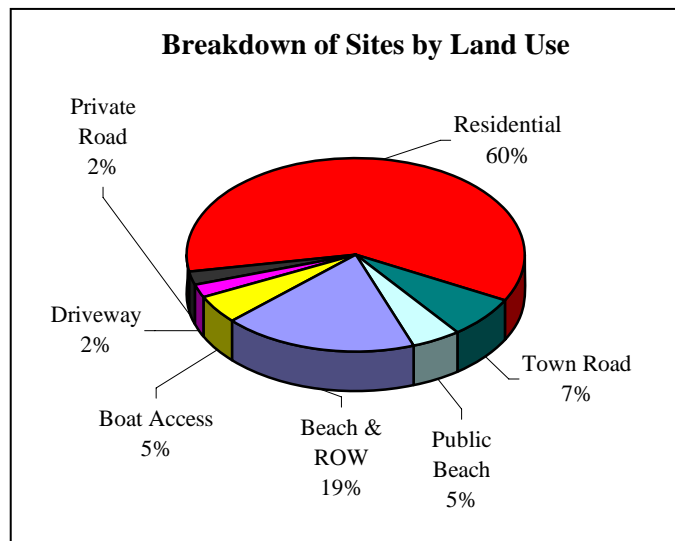
Technical staff compiled the survey data, developed maps and created the *Crystal Lake Watershed Survey Report*. In total, 42 sites were identified that are impacting or have the potential to impact Crystal Lake. None of the sites were rated with a high impact to the lake, 14 were rated as medium impact and 28 were rated as low impact. Survey reports were distributed to the public; and presentations were delivered at the Crystal Lake Association's annual meeting and a Gray Town Council meeting; and project information appeared in local newspapers and on the local cable access channel.

Suggested Citation:

Maine Department of Environmental Protection, 2005, Nonpoint Source Management Program Annual Report 2004: Document # DEPLW0701 2005.

## PROJECT OUTCOMES:

- Project staff and volunteers surveyed the entire Crystal Lake Watershed and documented 42 erosion sites. They also developed preliminary recommendations for each site and rated the impact to the lake, cost, and technical level required to fix each site.
- Project staff produced the *Crystal Lake Watershed Survey Report* (March 2004), which summarizes watershed survey findings, lists specific information on each identified site and outlines next steps for watershed stewardship.
- The project steering committee distributed copies of the report to municipal officials and all 180 lakefront households. Those residents with identified erosion sites also received a customized letter attached to the report explaining their specific issues and recommendations.
- The detailed information collected through the survey was shared with the newly formed Royal River Youth Conservation Corps (YCC). The Royal River YCC planned to use this information to identify candidate sites for their 2004 construction season.



## PROJECT PARTNERS:

Crystal Lake Association

Town of Gray

## CONTACT INFORMATION:

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Suggested Citation:

Maine Department of Environmental Protection (2005) "Nonpoint Source Management Program Annual Report 2004," Document# DEPLW0701 2005. Augusta: MDEP.