

# Forest Lake Conservation Project, Phase I

#2004R-01

Waterbody Name: Forest Lake  
Location: Cumberland, Gray and Windham –  
Cumberland County  
Waterbody Status: NPS Priority Watershed, Most at Risk  
Project Sponsor: Cumberland County SWCD  
Project Duration: April 2004 – December 2006  
199 Grant Amount: \$59,635  
Match: \$51,824



## PROBLEM:

Forest Lake is a 210-acre lake that is developed with about 380 shoreline homes and located in the Towns of Gray, Windham and Cumberland. Each of these towns has frontage on the lake and comprises a significant portion of the 3-square-mile watershed. A small portion of the upper watershed is also located in the Town of Falmouth. The lake serves as the headwaters of the Piscataqua River, which then flows in to the Presumpscot River.

The lake has been monitored by the DEP and volunteers since 1974, and data indicates that there is moderate dissolved oxygen depletion in the bottom waters of the lake in late summer. In 1994 the Forest Lake Association (FLA) conducted a watershed survey with technical assistance from Lake and Watershed Resource Management Associates and an independent septic system survey. Cumberland County SWCD and Forest Lake Association (FLA) conducted another watershed survey and identified 112 remaining erosion problems in 2002 and completed the *Forest Lake Watershed Management Plan* in December 2003.

## PROJECT DESCRIPTION:

The purpose of the project was to significantly reduce soil erosion and polluted runoff sources to Forest 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 27 landowners. The project also hosted a Watershed Stewards course, which was coordinated by the University of Maine Cooperative Extension. Over the course of this 8-week training, 20 local volunteers learned about a variety of lake protection issues.

The project also mailed an initial project fact sheet to all watershed households; delivered presentations at three FLA annual meetings; held four hands-on workshops; and printed a final project brochure.



Volunteers install gabion baskets to replace failed retaining wall.

## PROJECT OUTCOMES:

- The project fixed 15 significant erosion problems in the watershed including 6 road sites, 2 driveway sites, 2 beach access sites and 5 residential sites. Ten watershed residents took advantage of small matching grants to plant approximately 340 trees, shrubs and groundcover plants on their properties.
- The project reduced pollutant loading to Forest Lake by an estimated 70 tons of sediment and 58 pounds of phosphorus per year (EPA Region 5 Method).
- Project staff provided technical assistance to 27 landowners through the projects – exceeding the goal of 10 written into the original workplan.
- 20 local residents completed the University of Maine Cooperative Extension’s Watershed Stewards course. In this 8-week program, participants learned about Forest Lake’s water quality, shoreland zoning, road maintenance and other lake protection issues. The training culminated with a large-scale buffer design and installation, where they planted over 230 native shrubs (see photos below).
- The project initiated a Gravel Road Network among the six road associations around the lake. The network formed so that the road associations could share information about road maintenance issues, coordinate road improvements and save money by purchasing bulk material.
- An Interlocal Municipal Workgroup met three times over the course of the project to discuss erosion control ordinances, phosphorus ordinances and other lake protection measures. Participants included municipal officials from the three waterfront towns as well as interested decision-makers from six other communities and two state agencies.



## PROJECT PARTNERS:

Forest Lake Association  
Town of Cumberland  
Town of Gray  
Town of Windham  
University of Maine Cooperative Extension

## CONTACT INFORMATION:

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Suggested Citation:  
Maine Department of Environmental Protection (2007) “Nonpoint Source Management Program 2006 Annual Report,”  
Document# DEPLW0836 2007. Augusta: MDEP.