

Forest Lake Conservation Project, Phase II

#2007RR05

Waterbody Name: Forest Lake

Location: Cumberland, Gray, Windham –
Cumberland County

Waterbody Status: NPS Priority Watershed, Most at Risk

Project Sponsor: Cumberland County SWCD

Project Duration: April 2007 – March 2010

319 Grant Amount: \$75,000

Local Match: \$58,686



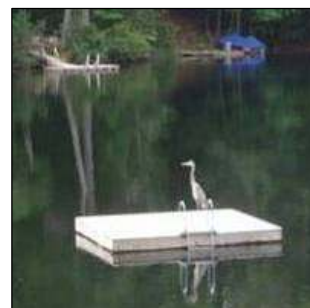
PROBLEM:

Forest Lake is a 210-acre lake that is developed with about 380 shoreline homes. The lake serves as the headwaters of the Piscataqua River, which then flows in to the Presumpscot River. Local volunteers and DEP staff have monitored the lake since 1974, and data shows moderate dissolved oxygen depletion in the bottom waters of the lake in late summer.

In 2002, the Cumberland County SWCD and Forest Lake Association (FLA) conducted a NPS Watershed survey and identified 112 erosion problems. A shoreline buffer survey found that only 18 of 176 lots had intact buffers. In April 2003, 50 watershed residents and town officials attended a day-long Community Forum and developed the framework for the *Forest Lake Watershed Management Plan*, which was completed in December 2003. A Phase I project (#2004R-01) fixed 15 high priority NPS sites in the watershed and provided technical assistance to 27 landowners. The project also hosted Cooperative Extension's *Watershed Stewards* program, where 20 local residents attended an 8-week training class and then designed and installed a large-scale buffer planting on the lake.

PROJECT DESCRIPTION:

The project goal was to significantly reduce erosion and phosphorus export into Forest Lake. The original goal was to install conservation practices at 30 sites through cost sharing, small matching grants and labor from the Presumpscot River Youth Conservation Corps (YCC). Due to dwindling interest in matching grants and a newly identified high impact road site, the project steering committee adjusted the project targets and funding allocations. Ultimately, the project fixed 3 high impact road sites and 17 residential sites.



The project steering committee conducted door to door neighborhood outreach through the 'Buffers Benefit' program, and 24 landowners signed a pledge to add at least five plants per year to their buffers. Skillins Nursery provided a 20% discount card to program participants, and participants also were entered into a drawing for a \$150 Skillins gift card. Project outreach included articles in the FLA newsletter, presentations at the FLA annual meetings and a final project brochure.

PROJECT OUTCOMES:

- The project fixed 3 significant erosion problems on roads in the watershed. Another 17 residential sites were fixed with labor from the Presumpscot River YCC.
- 17 watershed residents took advantage of small matching grants (up to \$450) and YCC labor to install over 450 plants, 33 infiltration steps and 2 rain gardens.
- The project reduced pollutant loading to Forest Lake by an estimated 9 tons of sediment and 7.7 pounds of phosphorus per year (Region 5 Method and WEPP Model).
- The 'Buffers Benefit' pilot program was established to encourage landowners to enhance or install buffers on their properties. 24 landowners signed up and pledged to plant at least 5 plants along their shoreline each year for two years. Many participants planted more than the required plants and said they planned to continue adding to their buffers in the future.
- The interest in the YCC continued to grow over the course of the project. To respond to this demand, the Forest Lake Association plans to continue hiring the YCC for at least one week per summer.



Lakeside Drive in Windham had severe road surface and shoulder erosion into a stream. Three culverts were installed to replace the two failed ones, and ditches, turnouts and new road material was installed.

PROJECT PARTNERS:

Forest Lake Association
Presumpscot River Youth Conservation Corps
Skillins Nursery
Town of Cumberland
Town of Gray
Town of Windham

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