

# Highland Lake Conservation Project, Phase III

#2008RT27

Waterbody Name: Highland Lake

Location: Falmouth, Windham, Westbrook –  
Cumberland County

Waterbody Status: Restored, NPS Priority Watershed, Most at Risk

Project Grantee: Cumberland County SWCD

Project Duration: May 2008 – September 2010

319 Grant Amount: \$106,867

Local Match: \$60,693



## PROBLEM:

Highland Lake covers 623 acres and its 8.4 square mile watershed is part of the Presumpscot River watershed. DEP staff and Highland Lake Association (HLA) volunteers have monitored Highland Lake's water quality since 1974. The lake was placed on the State's list of impaired waters due to a declining water quality trend, and the lake's TMDL report was completed in 2003. Highland Lake's water clarity has gradually stabilized and now meets water quality standards, which prompted the Maine DEP to remove the lake from its 303(d) impaired waters list in 2010.

Cumberland County SWCD and HLA volunteers started watershed work in 1997 with a watershed survey that identified 104 erosion sites. The *Highland Lake Watershed Management Plan* was completed in 1999, and the Phase I grant project ran from 1999 – 2002. BMPs were installed on residential and road sites, and the newly-formed Highland Lake Youth Conservation Corps (YCC) installed BMPs on 88 sites. From 2004 – 2008, the Phase II project installed conservation practices at 100 residential and road sites.

## PROJECT DESCRIPTION:

This project continued efforts to reduce erosion and the export of sediment and phosphorus to Highland Lake. The project addressed 11 priority sites on roads, driveways and a residential property. 21 additional sites were treated by the YCC. The project surpassed its goal of fixing 24 sites despite a substantial loss of funds from the Town of Windham.



Highland Lake Watershed Forum

The project inspected construction projects from Phase I and II and assessed BMP effectiveness and maintenance needs. Over 50 watershed residents attended a half-day watershed forum in September 2009. Forum participants discussed land use, zoning, and access/invasive aquatic plant issues and appointed leaders to convene future meetings. A presentation and project update was presented to municipal staff in both towns, and a DVD was created for interested stakeholders. Project updates were advertised through flyers, press releases and presentations at the HLA Annual meeting.

## PROJECT OUTCOMES:

- Conservation practices were implemented at 11 large abatement sites, thereby reducing pollutant loading to Highland Lake by an estimated 56 tons of sediment and 45 pounds of phosphorus per year (WEPP Model and Region 5 Method).
- In 2010 Highland Lake was removed from the DEP's impaired water body list (303d) and added to the EPA's NPS Success Story webpage ([www.epa.gov/owow/NPS/success/](http://www.epa.gov/owow/NPS/success/)). Articles about the Highland Lake success story were featured in the Portland Press Herald and Boston Herald.
- The YCC addressed 21 sites (11 residential and 10 roads) over the course of three summers.
- Project staff inspected BMPs installed through the Phase I and II projects and found that the majority of the BMPs were functional or effective with most of them in good to fair condition.



Haven Road – road stabilization, ditching and turnouts into buffers



YCC installs infiltration steps

## PROJECT PARTNERS:

Casco Bay Youth Conservation Corps  
Highland Lake Association  
Highland Lake Youth Conservation Corps  
Maine Department of Transportation  
Town of Falmouth  
Town of Westbrook  
Town of Windham

## CONTACT INFORMATION:

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