

# Lake Auburn Nonpoint Source Improvement Project

## #2005R-16

Waterbody Name: Lake Auburn

Location: Auburn and Turner, Androscoggin County

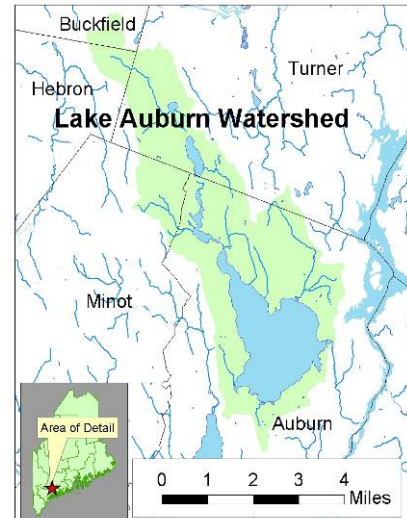
Waterbody Status: NPS Priority Watershed, Most at Risk

Project Grantee: Lake Auburn Watershed Protection Commission

Project Duration: March 2005 – October 2007

319 Grant Amount: \$53,770

Local Match: \$47,708



### PROBLEM:

Lake Auburn is a 2,290 acre lake located in the City of Auburn. Its 15.3 square mile watershed extends into the towns of Turner, Minot, Hebron and Buckfield. Lake Auburn has been the public water supply for the City of Auburn since 1887, and it currently provides water for 45,000 people in Lewiston and Auburn. Lake Auburn's water quality has been monitored since 1977, and its water quality is considered to be above average. However, rising development pressures and increases in impervious area continue to threaten water quality through the input of stormwater and its associated NPS pollutant load.

Several studies have taken place within the Lake Auburn watershed area over the last decade. These studies have identified many sources of NPS contaminants including shoreline erosion and urban development such as roadways, the community college, contractor facilities and petroleum storage facilities. Studies by the Lake Auburn Watershed Protection Commission (LAWPC) and Drumlin Environmental identified 53 existing or potential NPS sites. In addition, these studies identified the need for the continuation of public education with area residents.

### PROJECT DESCRIPTION:

This project installed major structural BMPs at six of the 45 sites identified in the watershed survey. Central Maine Community College (CMCC) installed infiltration dividers, infiltration islands, grassed infiltration strips, and a retention pond between its parking areas and the lake. A section of severely eroded shoreline at the CMCC site was stabilized using rip-rap, geosynthetic fabric and new vegetation. The Holbrook Road boat launch was closed to vehicle traffic and stabilized. A general store and boat rental business adjacent to the lake was purchased and torn down, and the site was replanted to return it to a natural condition. Finally, a stretch of shoreline eroded by unauthorized boat access and roadside parking was blocked off with posts to prevent further erosion and promote the growth of new vegetation.

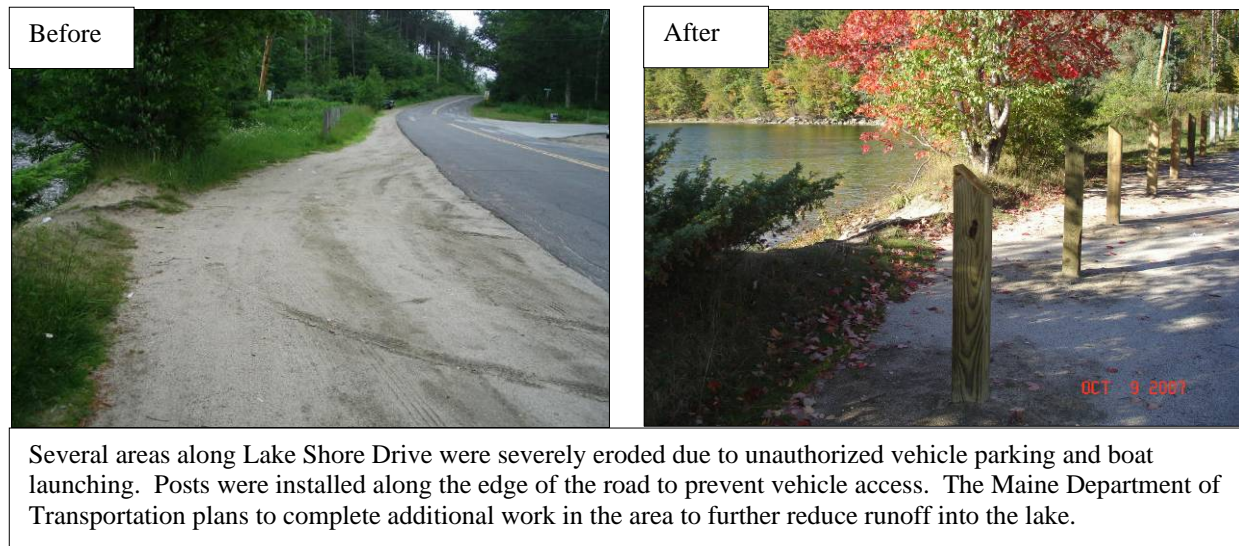


Holbrook boat launch was closed & stabilized

LAWPC staff provided landowners and businesses with technical assistance for another 29 sites. NPS awareness brochures were purchased and mailed to watershed residents, and a 28-page newspaper supplement was created and printed in the 9/30/07 edition of the Lewiston Sunday Paper.

## PROJECT OUTCOMES:

- The project helped fund the installation of innovative structural BMPs at the six priority sites. This work reduced pollutant loading to Lake Auburn by an estimated 25.7 tons of sediment and 29.6 pounds of phosphorus each year (RUSLE Method).
- Approximately 100 linear feet of severely eroded shoreline were stabilized using rip-rap, geosynthetic fabric and new vegetation.
- Technical assistance was provided to 29 landowners and businesses.
- Flyers on NPS prevention were mailed to all watershed residents. A 28-page supplement, which highlighted project accomplishments and other work by the LAWPC, was included in the Lewiston Sunday newspaper on 9/30/07.
- 2.85 acres of impervious area were treated by BMPs, which reduced the annual sediment load from these areas by 80 - 89% and the annual phosphorus load by 64 - 92%.



## PROJECT PARTNERS:

Auburn Water District  
Lewiston Water Division  
Central Maine Community College  
Comprehensive Environmental Incorporated  
Maine Department of Transportation

## CONTACT INFORMATION:

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Suggested Citation:

Maine Department of Environmental Protection (2008) “Nonpoint Source Management Program 2007 Annual Report,” Document# DEPLW-0913 2008. Augusta: MDEP.