

Meduxnekeag Lake Shoreline Erosion Project

#2005R-23 – WIFAP

Waterbody Name: Meduxnekeag (Drews) Lake

Location: Linneus, Oakfield, New Limerick – Aroostook County

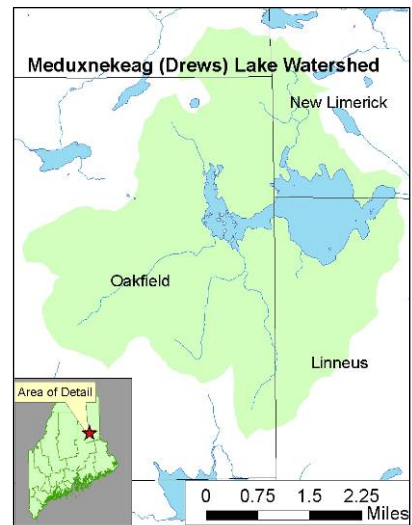
Waterbody Status: NPS Priority Watershed

Project Grantee: Southern Aroostook SWCD

Project Duration: May 2006 – September 2008

319 Grant Amount: \$30,000

Local Match: \$20,420 (local), \$20,000 (ME Dept. Ag.)



PROBLEM:

Meduxnekeag Lake, also known as Drews Lake, is 11,798 acres. It is ringed by a mix of seasonal and year round camps. There has been an increase in both seasonal conversions as well as redevelopment of lots (removing old camps and replacing with larger homes). The development pressure can be expected to continue due to the lake's close proximity to Houlton, a major community in the County, and easy access to I-95. The development pressure is compounded by steep slopes, exceeding 15% in some areas, and shallow soils. In addition, some of the lake's shoreline was historically filled, which has resulted in shoreline instability and erosion problems.

A watershed survey by volunteers in 1999 and a subsequent re-evaluation by the Southern Aroostook SWCD in 2004 identified numerous NPS sites. Roads were identified as a major source of soil and phosphorous (50%), along with shoreline erosion (30%). The Southern Aroostook SWCD carried out a 319 grant project from 2003 – 2005 and addressed several camp road and driveway sites.

PROJECT DESCRIPTION:

The project focused on reducing pollutant loading to the lake by working with residents to install BMPs on residential lots. Due to the complex nature of a few locations, the state soil scientist, NRCS staff and Maine DEP engineers were all consulted. A few innovative BMPs were installed to address driveway and roof runoff.

To encourage shoreline stabilization through the use of buffers, a local horticulturalist was consulted and provided specific native plant lists for each site. The goal was to minimize riprap use and maximize the use of native plants to create a complex root system to hold the shoreline in place. Southern Aroostook SWCD staff held a kick off educational event at the lake and a tour of BMP sites after the project was completed.



PROJECT OUTCOMES:

- BMPs were installed on 11 residential lots to reduce soil erosion and phosphorous export to the lake.
- The project reduced pollutant loading to Meduxnekeag Lake by an estimated 249 tons of soil, 249 pounds of phosphorous, and 497 pounds of nitrogen per year (EPA Region 5 Method).
- Many lake residents have been inspired by the progress that has been made to protect the lake. They are now setting their sights on starting a LakeSmart program around the lake.



Before - Unstable/eroding shoreline



After – Shoreline stabilized with riprap

PROJECT PARTNERS:

Natural Resource Conservation Service, Houlton Office
Maine Department of Agriculture

CONTACT INFORMATION:

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Suggested Citation:

Maine Department of Environmental Protection (2009) “Nonpoint Source Management Program 2008 Annual Report,” Document# DEPLW-0973 2009. Augusta: MDEP.