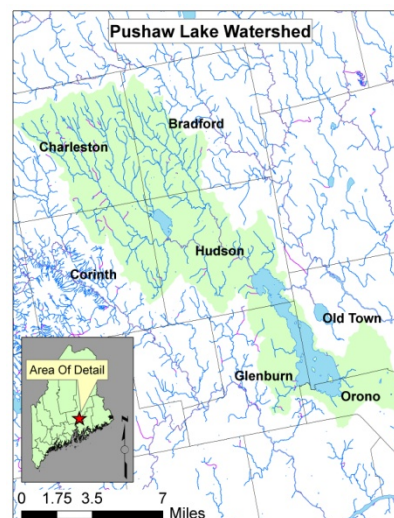


Pushaw Lake Watershed Project: Phase II & Watershed Survey 2009RR05

Waterbody Name: Pushaw Lake
Location: Old Town, Hudson– Penobscot County
Waterbody Status: NPS Priority Watershed
Project Grantee: Penobscot County SWCD
Project Duration: March 2009 – March 2012
319 Grant Amount: \$75,000
Local Match: \$55,953



PROBLEM:

Pushaw Lake is a 4,680 acre lake located in Orono, Old Town, Glenburn, and Hudson. The lake is on the NPS Priority Watersheds list due to water quality issues and high development pressure. Pushaw Lake water quality has been a concern since 1970 when the University of Maine documented an algal bloom. While the potential for nuisance algal blooms is listed as low to moderate, increasing algae growth was observed during the summers of 2001-2008 in isolated areas of the lake. Recently, phosphorous levels have increased. The five-year moving averages show an increase of three ppb phosphorous and recent results have been as high as 20.6 ppb.

In 2001-2002 twenty local citizens participated in the Watershed Stewards Program offered by the University of Maine Cooperative Extension (UMCE), and they subsequently recruited additional volunteers to conduct a watershed survey. The resulting survey documented 259 NPS pollution sites in the direct watershed of Pushaw Lake.

PROJECT DESCRIPTION:

The goals of this project were to protect and improve Pushaw Lake water quality. The goals were met through a multi-phased approach with funding and technical support to address the documented erosion and sediment problems. Phase I activities conducted from April 2006 to September 2008 targeted implementation and technical support to the towns of Glenburn and Hudson with education and outreach aimed at the entire lake community. Phase II implemented BMPs in Old Town and Hudson, and updated an NPS watershed survey which documented conservation needs at specific sites in the watershed. The Penobscot County Soil and Water Conservation District (PCSWCD) targeted the municipalities of Old Town and Hudson and provided technical and cost-share assistance to implement BMPs on private and municipal sites identified in the watershed survey. BMPs were installed on residential lots, city and private roads, the city boat launch, and private driveways. The PCSWCD contacted landowners of the identified candidate sites and assessed their capacity to implement BMPs. This was accomplished through direct mail or phone contact by the Greater Pushaw Lake Association (GPLA) and through press releases in the Bangor Daily News, Penobscot Times, The Weekly, and the GPLA newsletter.

PROJECT OUTCOMES:

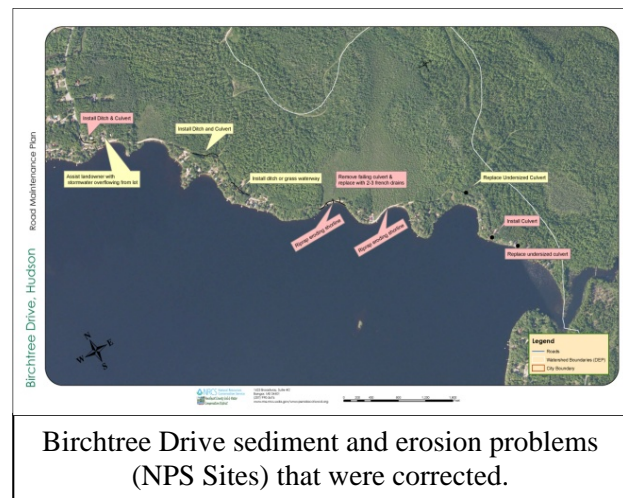
- 27 BMPs were installed in Old Town and Hudson resulting in an estimated annual reduction of approximately 189 tons of sediment, 189 pounds of phosphorous and 378 pounds of nitrogen from entering the lake.
- Watershed survey data was updated for the watershed area in the Town of Hudson. The old data was replaced, and 77 sites were identified. Out of the 77 sites only three were highest priority, most of the sites were related to the lack of buffer or shoreline protection.
- 15 people received technical assistance for erosion issues on their properties in the watershed.
- UMCE and PCSWCD developed an outreach plan based on a landowner opinion survey data and an outreach logic model. GPLA will use the outreach plan in the future to increase landowner use of BMPs in the watershed to protect lake water quality.
- The collaborative effort that took place during this project fostered a revitalized GPLA that is changing their bylaws to become a more effective organization. GPLA is also developing a new membership drive to create a stronger organization to help implement their outreach plans.

PROJECT PARTNERS:

Greater Pushaw Lake Association
Rogers Landing Road Association
Town of Old Town
University of Maine Cooperative Extension



An example of a BMP installed on Woodland Ave to prevent erosion and sedimentation.



Birchtree Drive sediment and erosion problems (NPS Sites) that were corrected.

CONTACT INFORMATION:

Greg Beane, MDEP, 299-4703, greg.e.beane@maine.gov

Chris Brewer, PCSWCD, 947-3555, chris.brewer@penobscotswcd.org

Suggested Citation:

Maine Department of Environmental Protection (2013) "Nonpoint Source Management Program 2012 Annual Report," Document # DEPLW-1245. Augusta: MDEP.