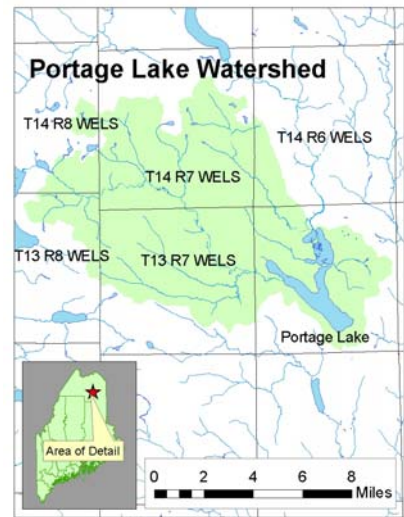


Portage Lake BMP Demonstration Project

#2001-12

Waterbody Name: Portage Lake
Location: Portage Lake, Aroostook County
Waterbody Status: Unlisted
Project Sponsor: Town of Portage Lake
Project Duration: April 2001 - June 2005
319 Grant Amount: \$25,252
Local Match: \$19,354



PROBLEM:

Portage Lake is the second lake in the western chain of the Fish River Lakes. It is a large shallow lake of 2,471 acres and a mean depth of only 10 feet. It is a colored lake (42.25 SPU) with a high flushing rate of over 11 flushes per year. The combination of shallow and colored results in the lake warming up quickly and creates an ideal environment for algal growth. The mean secchi disk is only 3.2 meters, significantly less clear than the state average 4.9 meters. Portage Lake appears to border on moderately productive to productive, or more specifically on the edge of becoming a water quality-limited lake.

Concerned residents conducted a watershed survey in 1998 and identified over 100 NPS pollution sites around the lake. These were characterized as unstable shoreline & access sites, bare soil, poor culvert installation or maintenance, ditch erosion problems, erosion associated with roads & shoulders, and lack of buffers. The survey also found that 62% of camps had a lawn that extended to the edge of the water.

PROJECT DESCRIPTION:

This project was designed to augment pollution prevention work already started in the Portage Lake watershed through an Outdoor Heritage Grant. The project aimed to conduct erosion control and buffer BMP demonstrations; provide technical assistance to individual landowners; and promote individual responsibility and stewardship.

The watershed survey highlighted the lack of buffers and poor driveway construction as major sources of soil to the lake. Therefore, buffers were enhanced or established on 7 sites and BMPs were installed on 3 driveways and 3 municipal sites.



Technical assistance for driveway work was provided by the Seven Island's Road Foreman and a local engineer. Two local nurseries provided technical assistance to homeowners on buffer planting and design. Working with MDEP and the NPS Training Center, the town also sponsored a buffer planting workshop for local residents. Presentations were conducted at the lake association meetings, articles were published in the local paper and flyers put up around town.

PROJECT OUTCOMES:

- The project stabilized and redirected water on 3 driveways, significantly reducing the sediment load to the lake.
- Seven vegetated buffers were established around the lake. This included 3 completely new buffers and 4 buffer enhancements, which now filter some of the runoff from residential development.
- Erosion problems were also eliminated at three municipal properties, including a sea plane base, boat launch/camp ground site, and Hathaway Road. At the Hathaway Road site, a quarter mile of municipal road ditch leading directly to the lake was properly shaped and stabilized, and a culvert was installed. For the town-owned sea plane base, a lake access point was discontinued and a about 250 feet of buffer was planted.
- Through anecdotal reports, questions and inquiries, it is clear that the work completed over the past five years has helped to raise public awareness of water quality issues.



PROJECT PARTNERS:

Seven Island's Land Company

CONTACT INFORMATION:

Kathy Hoppe, DEP – (207) 760-3134, kathy.m.hoppe@maine.gov

Amy Collins & Rita Sinclair, Town of Portage Lake – (207) 435-4361

Suggested Citation:

Maine Department of Environmental Protection (2006) “Nonpoint Source Management Program 2005 Annual Report,” Document# DEPLW0758. Augusta: MDEP.