

# Echo Lake Watershed Improvement Project

## #2003R-16A - WIFAP

Waterbody Name: Echo Lake

Location: Presque Isle – Aroostook County

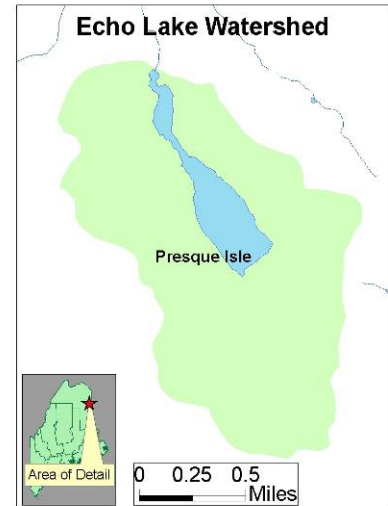
Waterbody Status: NPS Priority Watershed, Impaired

Project Grantee: Central Aroostook SWCD

Project Duration: February 2004 – April 2007

319 Grant Amount: \$54,000

Match: \$52,216 (local), \$18,000 (ME Dept. Ag.)



### PROBLEM:

Echo Lake is a shallow (9 feet maximum depth) 90-acre lake located on the east side of Quaggy Joe Mountain on the south end of Presque Isle Township. Land use in the watershed includes seasonal and year-round residential lots, a state park (Aroostook State Park), forest and agricultural lands. The watershed covers approximately 1.4 square miles. With the exception of a small tributary, Echo Lake is the headwaters for the west branch of Presque Isle Stream.

Echo Lake faces a high risk of water quality problems since it is a small shallow lake with a small watershed and concentrated shoreline development. The lake has been monitored by the DEP and volunteers since 1976 and was placed on the State's list of impaired waters due to declining water quality. In 2001 a watershed survey was completed, and approximately 315 NPS sites were identified. Sixty-six percent (66%) of the identified sites were associated with residential areas, 24% with the state park, and 7% with municipal roads. The DEP's Phosphorus Control Action Plan (TMDL Assessment) was finalized in 2007.

### PROJECT DESCRIPTION:

The purpose of the project was to fix NPS pollution problems in the Echo Lake watershed. The project addressed erosion problems on 19 residential lots and provided technical assistance for another 130-140 NPS sites. The City of Presque Isle addressed five town road sites identified in the 2001 survey. Activities included replacing culverts, reestablishing and stabilizing ditches, and installing plunge pools and sediment basins.



The District partnered with Aroostook State Park to address NPS sites identified in the watershed survey. Upgrades were made to the beach and boat launch parking lots; a steep gravel bank was reshaped and stabilized; and rubber diverters were installed on the Campground Road. The Park independently developed a strategic plan to address erosion and NPS issues within the Park and fixed many of the identified NPS sites on the park's trail system. Project staff also coordinated 11 information and education meetings during the project and worked with the Echo Lake Association to identify and meet with landowners who were interested in fixing their properties.

## PROJECT OUTCOMES:

- The project succeeded in fixing NPS problems on five town roads, 19 residential lots and four state park sites. Technical assistance was provided for another 130-140 sites.
- Annual sediment loading to Echo Lake was reduced by an estimated 30.5 tons per year (WEPP Method and US EPA Region 5 Method).
- Phosphorous loading was reduced by an estimated 30 pounds per year. According to the DEP's 2007 TMDL report, this amounts to 32% of the annual reduction needed to improve lake water quality.
- 60% of the high priority NPS sites from the 2001 survey were addressed.
- Cooperative partnerships were developed with the Echo Lake Improvement Association, City of Presque Isle and Aroostook State Park to address water quality issues.



Project site visit in March 2004.

## PROJECT PARTNERS:

Echo Lake Improvement Association

USDA Natural Resources Conservation Service, Presque Isle Office

City of Presque Isle, Public Works and Economic & Community Development Departments

Maine Department of Conservation, Aroostook State Park

## CONTACT INFORMATION:

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Suggested Citation:

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