

Branch Lake Watershed Improvement Project – Phase I

#2007RR01

Waterbody Name: Branch Lake

Location: Ellsworth, Dedham, Orland – Hancock County

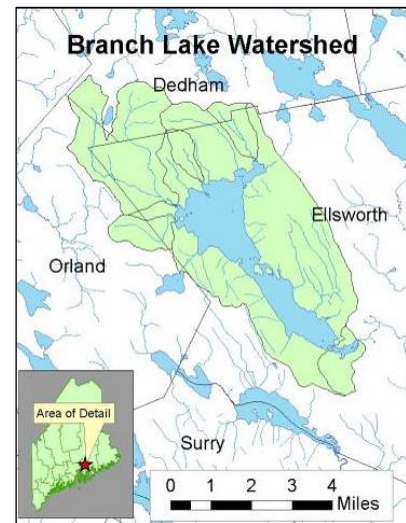
Waterbody Status: NPS Priority Watershed, Most at Risk

Project Grantee: Hancock County SWCD

Project Duration: April 2007 – March 2009

319 Grant Amount: \$73,165

Local Match: \$69,517



PROBLEM:

Branch Lake, also known as Branch Pond, is a 2703-acre waterbody that serves as the public water supply for the City of Ellsworth. The lake's 27 mile shoreline is fringed with over 200 shorefront camps. Although the lake's 23.4 square mile watershed is largely undeveloped, there is continued development pressure due to Branch Lake's proximity to Bangor and Ellsworth.

In 1998, the University of Maine Cooperative Extension (UMCE) conducted a Watershed Stewards program for Branch Lake residents. This led to a volunteer watershed survey that identified 140 erosion sites. From 1999 - 2002, the *Branch Lake BMP Demonstration 319 Project* fixed 15 priority sites and conducted watershed outreach. Hancock County SWCD received Phosphorous Compensation Funds from the Maine DEP to mitigate another four high priority gravel road sites. In 2005, Hancock County SWCD started updating the 1998 survey in the northeast region of the watershed and documented 62 sites with the potential to negatively affect water quality.

PROJECT DESCRIPTION:

The goal of the project was to reduce sediment loading to Branch Lake by fixing NPS sites in the northeast section of the watershed. The project addressed 33 sites in the target areas, including a vegetative buffer and ramp stabilization demonstration project at the public boat launch. The project also completed 38 technical assistance visits to help camp owners fix NPS problems, completed the watershed survey update, and trained 23 local residents through UMCE's Watershed Stewards Program.



Ditch stabilization project

UMCE staff held an Outreach Planning Session for steering committee members and watershed residents to guide long term public outreach and education efforts. This outreach session used the LOGIC-model to help the group develop specific, measurable outreach objectives, a target audience, methods for delivering their message, indicators of success, an implementation strategy and evaluation techniques.

PROJECT OUTCOMES:

- A total of 33 sites (26 road sites and 7 residential sites) were addressed in the northeastern section of the watershed to reduce erosion and help protect water quality. Some of the conservation practices installed included vegetative buffers, new culverts, ditching, open-top culverts, and turnouts.
- Annual pollutant loading to Branch Lake was reduced by an estimated 180 tons of sediment, 159 pounds of phosphorous and 318 pounds of nitrogen (Region 5 Method and WEPP Model).
- A long range plan for education and outreach needs in the Branch Lake watershed was completed. This plan guided the project's gravel road maintenance workshops (83 participants), LID workshop, watershed survey trainings (33 volunteers) and boat cruise for City of Ellsworth staff and city council.
- The project completed an updated watershed survey and identified 130 erosion sites. Results were documented in the report, *Branch Lake Watershed Survey 2008*.



Before



After



Before



After

PROJECT PARTNERS:

City of Ellsworth
Branch Pond Association
University of Maine Cooperative Extension

CONTACT INFORMATION:

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Suggested Citation:

Maine Department of Environmental Protection (2010) “Nonpoint Source Management Program 2009 Annual Report,” Document# DEPLW-1159 2010. Augusta: MDEP.