

# Unity Pond and Sandy Stream NPS Watershed Survey II

#2005R-06

Waterbody Names: Unity Pond, Sandy Stream

Location: Unity, Thorndike, Knox, and Freedom – Waldo County

Waterbody Status: Unity Pond – Impaired, NPS Priority Watershed

Project Sponsor: Waldo County SWCD

Project Duration: March 2005 – November 2006

319 Grant Amount: \$10,800

Local Match: \$8,183



## PROBLEM:

Unity Pond is a 2,569 acre waterbody with a watershed of 62.1 square miles. The pond has a history of supporting excessive amounts of algae in the late summer-early fall. Unity Pond is listed on the Maine DEP's list of impaired waterbodies and the State's Nonpoint Source Priority Watersheds List. Declining water quality trends and low dissolved oxygen levels in Unity Pond have been attributed to nonpoint source pollution.

Sandy Stream usually flows from the south and into the wetland area southwest of the Unity Pond outlet and then into Twenty-Five Mile Stream. However, during significant rain events and when lake water levels are low, Sandy Stream bypasses Twenty-Five Mile Stream and flows directly into Unity Pond. When this occurs, the watershed doubles to 126.7 square miles, and there is a subsequent associated phosphorus and sediment loading. Although the Sandy Stream watershed is primarily an agricultural and forested area, the lower Sandy Stream area is highly developed. A TMDL report was completed for Unity Pond in 2004 and NPS survey work has been conducted on the pond and Twenty-Five Mile Stream.

## PROJECT DESCRIPTION:

The purpose of the project was to assess conditions in the Sandy Stream watershed. One portion of the project consisted of a Stream Habitat Survey and Rapid Geomorphic Assessment of the lower reaches of Sandy Stream. The Maine Stream Team Program provided training and support to conduct field work with the assistance of Unity College faculty and student volunteers. Six stream reaches along the lower Sandy Stream were evaluated during September 2005.



The second portion of the project involved conducting a watershed survey of state and town roads within the Sandy Stream drainage to identify, evaluate, and prioritize NPS sites. The survey was completed during the summer and fall of 2006 and identified 29 high priority sites. The findings of both the NPS watershed road survey and the stream survey were included in a Survey Report and distributed to project participants and interested parties. The results of this work will be used to assist in prioritizing for the *Unity Pond Watershed Restoration: Phase II project*.

## PROJECT OUTCOMES:

- Project staff and volunteers completed a Stream Habitat Survey and Rapid Geomorphic Assessment for six stream reaches along the lower Sandy Stream.
- A watershed survey of state and town roads was completed for the Sandy Stream Watershed. The survey documented 29 erosion sites of high priority.
- The stream survey data supports the connection between problems in the watershed and the negative impact of such development on Sandy Stream.
- The *Summary of the Unity Pond and Sandy Stream Survey: Phase II Project* report was produced in October 2006. The report summarizes watershed and stream survey findings and includes photos and descriptions of erosion sites and surveyed stream reaches.
- The Town of Unity formed the “Road Improvement and Maintenance Committee” and will partner with Waldo County SWCD to develop a five year road improvement and maintenance plan to address sediment and nutrient loading from roads to Unity Pond.
- The Town of Freedom showed interest in the project and its outcomes by requesting that their town roads also be included in the watershed road survey.



Stream survey work in a constricted channel



Road culvert erosion

## PROJECT PARTNERS:

Unity College  
Maine DEP Stream Team Program  
Town of Unity  
Town of Freedom  
University of Maine Cooperative Extension  
Unity Barn Raisers

## CONTACT INFORMATION:

Mary Ellen Dennis, DEP – (207) 287-7729, [mary-ellen.c.dennis@maine.gov](mailto:mary-ellen.c.dennis@maine.gov)  
Shawn Biello, Consultant for Waldo SWCD – (207) 948-3744, [sbiello@unity.edu](mailto:sbiello@unity.edu)

Suggested Citation:

Maine Department of Environmental Protection (2007) “Nonpoint Source Management Program 2006 Annual Report,” Document# DEPLW0836 2007. Augusta: MDEP.