

Williams Brook & Prestile Stream Citizen Storm Watchers

2010RR17

Waterbody Name: Prestile Stream, Williams Brook

Location: Presque Isle – Aroostook County

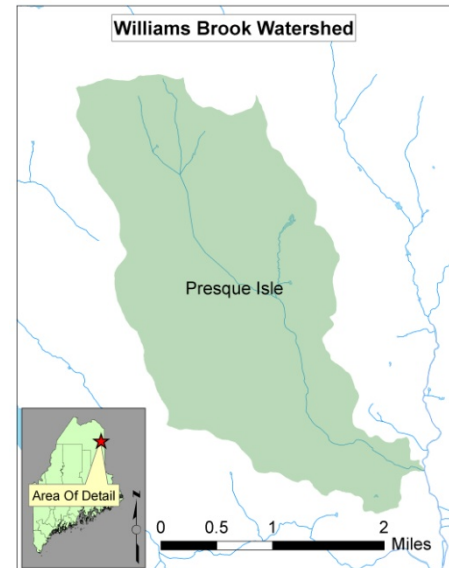
Waterbody Status: Impaired

Project Grantee: Central Aroostook SWCD

Project Duration: January 2010 – February 2012

319 Grant Amount: \$10,776

Local Match: \$9,644



PROBLEM:

The large size of the 133,000 acre Prestile Stream Watershed makes it impractical to survey the entire watershed at once, so the watershed has been segmented into nine sub-watersheds. Two have been surveyed Frost/Allen and Christina Reservoir; and a third sub-watershed, Williams Brook, was the focus of this project. Both the 2005 *Prestile Stream Watershed Management Plan* and the 2009 (Draft) *Upper Prestile Stream Watershed-based Management Plan* call for the formation of a Storm Watcher group to educate and involve the public in managing and caring for the Prestile Stream Watershed, and to prioritize sub-watersheds for future watershed surveys.

The Williams Brook sub-watershed is one of the greatest NPS contributors to Prestile Stream according to the 2008 *Prestile Stream (& Christina Reservoir) Total Maximum Daily Load (TMDL)*. This NPS loading is due to the large percentage of cropland in the sub-watershed, combined with low rates of BMP application. Using a watershed survey to determine the sources of nutrient and sediment loading will allow the CASWCD to recommend BMPs to landowners to significantly reduce NPS loading.

PROJECT DESCRIPTION:

A Storm Watcher survey collected storm event water samples to measure turbidity and Total Suspended Solids (TSS) as part of the Maine Volunteer River Monitoring Program (VRMP) administered by Maine DEP. CASWCD working with Maine DEP visited, mapped, and evaluated potential sampling sites for the survey. Eighteen sites were identified and samples collected from the main stem and tributaries.

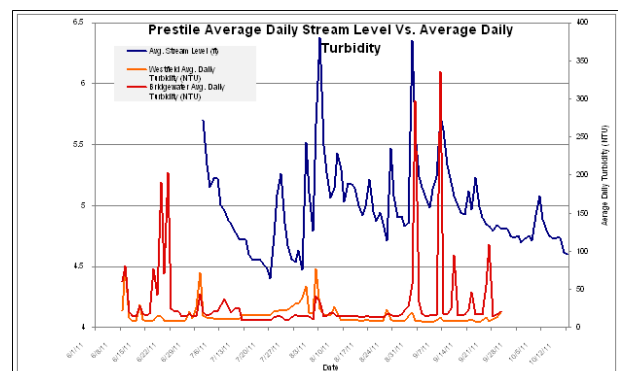


Figure 11. Daily Average Prestile Stream Level from MHWTF vs. Average Daily Turbidity at both

The Williams Brook watershed survey was completed using guidelines outlined in DEP publication, “*Stream Survey Manual Volume I: A Citizen’s Guide to Basic Watershed, Habitat and Geomorphology Surveys in Stream & River Watersheds*.” Natural resource professionals from USDA-NRCS, St. John

Aroostook RC&D, Maine Forest Service, MEDEP and CASWCD completed the survey. The survey was performed in the spring of 2010 after snow melt and before fields were plowed or planted. Survey observations, recommended BMPs, and potential cost-share sources were shared with individual landowners in the watershed.

PROJECT OUTCOMES:

- The formation of the Prestile Stream Storm Watcher group composed of 12 volunteers. For two years they collected stream samples measuring the turbidity and TSS of the Prestile Stream and its tributaries during storms. To our knowledge, this is the first effort to look at stream samples for turbidity during storm events in the VRMP program.
- Twelve new watershed stewards are applying their new knowledge to affecting the future of the watershed. One volunteer is active on their town's comprehensive planning committee.
- A Prestile Stream Storm Watchers Report that summarizes both the VMRP and sonde data results so that this information can be used to prioritize future District activities.
- A completed watershed survey of Williams Brook identifying over 150 NPS sites, 40 of which were high or medium impact.

PROJECT PARTNERS:

Maine Volunteer River Monitoring Program
USDA Natural Resource Conservation Service
Twelve Storm Watcher Volunteers
Maine Forest Service

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CASWCD and Maine DEP staff
collect water samples to
determine turbidity



Westfield sample site after a storm, note
turbid water

Suggested Citation:

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