Tannery Brook Water Quality Improvement Project, Phase I #2003R-11

Waterbody Name: Tannery Brook

Location: Gorham – Cumberland County

Waterbody Status: Presumpscot River – NPS Priority Watershed

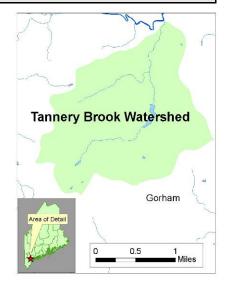
Project Grantee: Cumberland County SWCD

Project Duration: April 2003 – April 2007

319 Grant Amount: \$68,379

Local Match: \$59,291

PROBLEM:



Tannery Brook is a second order, Class B stream that flows into the Little River and then the Presumpscot River. A dam between its middle and lower reaches was breached in 1998, but the structure still blocks the passage of aquatic organisms and restricts water flow. Tannery Brook's water quality is threatened by NPS pollution from its 2.8 square mile watershed. Numerous stormwater outfalls from the downtown village area and the University of Southern Maine's Gorham campus contribute excess sediment, increased flows, and warm stormwater to the stream, and an estimated 400 septic systems adjacent to the stream have the potential to impact water quality.

Cumberland County SWCD took the lead role in monitoring Tannery Brook's water quality for 12 months beginning in November 1999. Monthly water chemistry data from six testing sites indicated that Tannery Brook met its Class B standards for the most part. However, macroinvertebrate sampling indicated that the lower reaches of the stream fail to meet Class B biological criteria. A 2004 watershed survey identified 37 pollution sites in the watershed, and a Stream Habitat and Rapid Geomorphology Survey identified areas of habitat degradation. In October 2004, 35 residents and town officials took part in a day-long community forum, which served as the foundation for the *Tannery Brook Watershed Management Plan* (December, 2005).

PROJECT DESCRIPTION:

The purpose of this project was to reduce NPS pollution in the Tannery Brook watershed. Four stormwater outfalls in the Tannery Brook watershed were improved to remove excess sediment, attenuate peak flows, and lower stream temperature and conductivity. 800 feet of trails were also stabilized in Tannery Brook Park.

Volunteers stenciled approximately 120 storm drains throughout downtown Gorham. The Gorham Public Works staff agreed to continue the stenciling program as part of their catch basin clean-out and maintenance duties. Community updates about project activities were delivered through a Gorham Times newspaper article, a presentation to the Town Council, cable access TV and a mailing to watershed residents.



Volunteers stenciled storm drains with the message, *Dump No Waste, Drains to Stream.*

PROJECT OUTCOMES:

- Stormwater outfalls draining parts of the USM campus and downtown Gorham were improved at four priority watershed sites. Large sediment basins were installed below three outfalls, and new culverts were installed and stabilized at another site. Stormwater BMPs were installed at two additional sites prior to project start up, and the Maine DOT planned to address one more site after the project ended.
- AmeriCorps volunteers stenciled the message, "Dump No Waste, Drains to Stream" on approximately 120 storm drains on 24 streets in the watershed. The Presumpscot River Youth Conservation Corps conducted a clean up of a dump site adjacent to the stream.
- Project staff collaborated with the Gorham Parks and Conservation Commission to stabilize over 800 feet of trails in Tannery Brook Park that had been severely eroded by ATVs.
- Pollutant loading to Tannery Brook and its tributaries was reduced by an estimated 230 tons of sediment per year (US EPA Region 5 Method).





Existing stormwater BMPs at the Rite Aid in downtown Gorham were undersized and unable to handle the runoff. A large rock-lined sediment basin, ditch and checkdams were installed to slow and treat the stormwater.

PROJECT PARTNERS:

Casco Bay Estuary Project
Town of Gorham
Gorham Public Works Department
Gorham Parks and Conservation Commission
Maine Department of Transportation
Nonpoint Education for Municipal Officials Program (NEMO)
Trout Unlimited
University of Southern Maine
Presumpscot River Youth Conservation Corps

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