

Moose Brook Watershed Survey

#2005P-03

Waterbody Name: Moose Brook
Location: Auburn and Poland – Androscoggin County
Project Grantee: Royal River Conservation Trust
Project Duration: June 2005 – January 2007
604(b) Grant Amount: \$10,215
Local Match: \$7,748



PROBLEM:

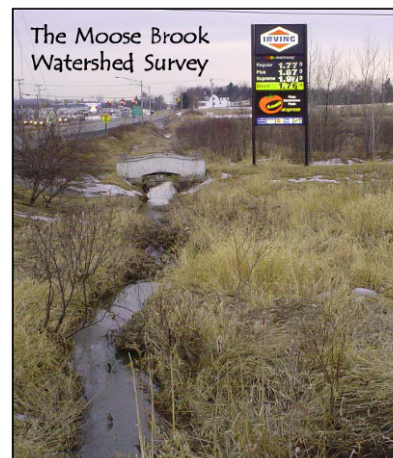
Moose Brook, a small headwater stream of the Royal River, is located almost entirely in a rapidly developing commercial area in the city of Auburn. Based on 1998 aerial photographs, watershed land use is about 67% forested, 8% residential and 16% commercial/industrial. The watershed includes the Auburn industrial park, the Route 202/I-95 interchange area, various commercial developments and mixed residential use.

Water quality data collected on Moose Brook in the mid-1990s indicated that most sites failed to meet dissolved oxygen and *E. coli* standards for Class B streams. Continued development in the I-95 interchange area and residential areas will contribute additional nutrient and bacteria loading to the stream. Heavy metals and increased peak flows from impervious surfaces also pose a threat to this urbanizing stream.

PROJECT DESCRIPTION:

The purpose of the project was to identify and document sources of NPS pollution entering Moose Brook. The watershed survey used the methods outlined in the *Citizen's Guide to Watershed Surveys* to survey erosion sites and also incorporated an inventory and assessment of impervious surfaces in the watershed.

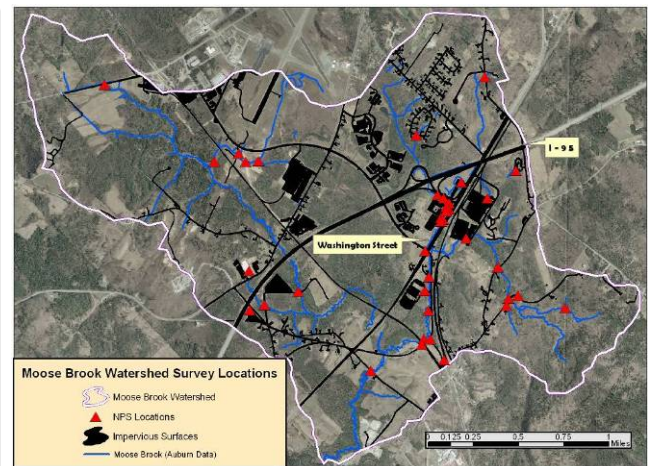
Technical personnel and 12 trained volunteers conducted the surveys over the summer and fall of 2005. Surveyors included local residents and members of the Royal River Youth Conservation Corps (YCC), a summer program that hires local high school students to fix pollution problems and plant buffers in the watershed. The *Moose Brook Watershed Survey Report* (January 2007) includes information and GIS maps of the 38 NPS sites.



The project included outreach to businesses and residents of the Moose Brook watershed. The Royal River Conservation Trust (RRCT) sent letters to landowners in the watershed to inform them of the survey and explain the project goals and methods. The mailing also included an article explaining the importance of individual homeowner actions in relationship to water quality.

PROJECT OUTCOMES:

- Thirty-eight (38) NPS sites were identified and documented in the Moose Brook Watershed.
- The *Moose Brook Watershed Survey Report* was completed in January 2007. The report includes descriptions and recommendations of all survey sites. The following GIS maps were developed and incorporated into the report: NPS site locations, impervious surfaces in the watershed, land-use types within 100 feet of the stream channel and current Auburn zoning overlay.
- The Auburn Municipal Airport used the *Moose Brook Watershed Survey* report to select a mitigation project for their expansion request.
- The *Lewiston Sun-Journal* printed an article on August 9, 2005 about the project, the problems facing the watershed and Royal River YCC's role in the survey.



PROJECT PARTNERS:

Royal River Youth Conservation Corps
City of Auburn
Hillier Associates
Androscoggin Valley SWCD

CONTACT INFORMATION:

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Maine Department of Environmental Protection (2008) “Nonpoint Source Management Program 2007 Annual Report,” Document# DEPLW-0913 2008. Augusta: MDEP.