

Hart Brook Watershed Management Plan Development

#2004R-32

Waterbody Name: Hart Brook

Location: Lewiston – Androscoggin County

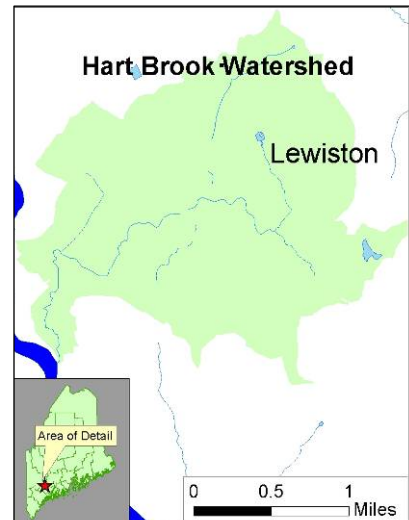
Waterbody Status: Urban Impaired Stream

Project Grantee: City of Lewiston

Project Duration: January 2007 – August 2008

319 Grant Amount: \$73,400

Local Match: \$54,163



PROBLEM:

Hart Brook (also known as Dill Brook) is a small Class B urban stream located in Lewiston. The brook is approximately 3.7 miles long with a watershed of 3.4 square miles and flows into the Androscoggin River. The watershed includes residential, commercial, industrial and undeveloped land and is approximately 22% impervious. The watershed also includes the area around the Maine Turnpike Exit 80, which is a prime new commercial development area in Lewiston.

Hart Brook was first tested by Maine DEP in 1998, at which time modeling showed that the stream would not meet its water quality classification for aquatic life. Hart Brook was again tested in 2003 and results showed that aquatic life remained impaired and dissolved oxygen levels exhibited drastic swings. Additional site investigation in 2005 showed continuing impairment issues related to aquatic life, stream bank and channel erosion, and illicit discharges. A draft TMDL was released in August 2007.

PROJECT DESCRIPTION:

The purpose of this project was to develop a Watershed Management Plan (WMP) for the Hart Brook Watershed that would allow for continued development in the watershed while also working to improve the water quality of the brook and return it to Class B standards.

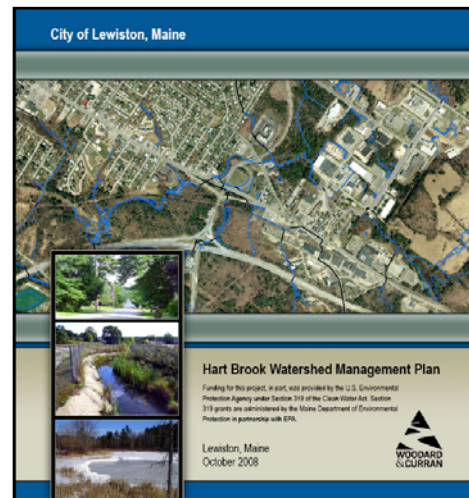
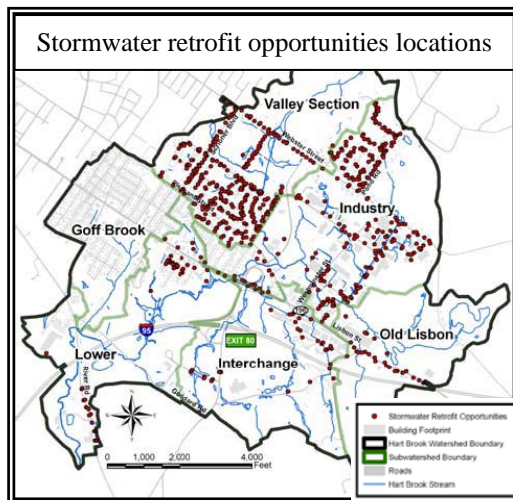
The WMP was developed by the City of Lewiston and a stakeholder group with technical assistance provided by a consultant and Maine DEP. A public meeting was held at the start of the development process, and a mix of 26 residential, commercial, and government entities attended. Approximately 1/3 of those attending continued on as part of the stakeholder group, which met three more times. To develop the plan, project staff assembled and evaluated data; conducted public outreach; monitored stream hydrology and water quality; developed mitigation measures, cost projections and prioritizations; and wrote and reviewed the watershed management plan. The result of this work was a comprehensive watershed management plan document, including an Action Plan which outlines the actions for each of the involved entities.



Field assessment of a possible structural retrofit location.

PROJECT OUTCOMES:

- Project staff evaluated potential stream impairments; analyzed subwatershed contributions to urban runoff pollutant loads; and identified 659 structural retrofit locations within the priority developed areas of the watershed. These retrofits were then prioritized using a ranking evaluation and used to develop a list of 65 top retrofit sites.
- An action plan with prioritized structural and non-structural stormwater management practices was developed with input by watershed stakeholders at two public meetings.
- Public outreach and education about Hart Brook's water quality included several newspaper articles and a stormdrain stenciling project by local students.
- The *Hart Brook Watershed Management Plan* was completed in October, 2008. The plan includes background stream and watershed information, methods and results of the watershed assessment and stormwater source assessment, structural and non-structural alternatives reviews, maps and an action plan. Available at www.ci.lewiston.me.us/stormwater/hartbrook/index.htm.



PROJECT PARTNERS:

Woodward & Curran
Jacobs Edwards and Kelcey
Pike Industries
Androscoggin River Alliance
Lewiston-Auburn Economic Growth Council
Androscoggin Valley Council of Governments
GZA for the Maine Turnpike Authority
Central Maine Power
Geiger Industries
Elmet Technologies
Wahlco Metroflex
Androscoggin Valley Soil and Water Conservation District

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Suggested Citation:

Maine Department of Environmental Protection (2009) "Nonpoint Source Management Program 2008 Annual Report," Document# DEPLW-0973 2009. Augusta: MDEP.