

Dyer River Watershed NPS Survey Project

#2010RT16

Waterbody Name: Dyer River
Location: Jefferson and Newcastle – Lincoln County
Waterbody Status: Impaired
Project Grantee: Sheepscot Valley Conservation Association
Project Duration: January 2010 – April 2011
319 Grant Amount: \$13,000
Local Match: \$10,000



PROBLEM:

The Dyer River is located in mid-coast Maine and is a tributary of the Sheepscot River. Flowing from the outlet of Dyer Long Pond for 12.84 miles, the upper portion of the Dyer River is freshwater while the lower portion is tidal estuarine. Much of the 10.2 square mile watershed is rural and forested, but there is also some agriculture and residential development. Recreation includes fishing, kayaking, and canoeing. Atlantic salmon, alewife, and eel fisheries in the Sheepscot River are listed as endangered species under the Federal Endangered Species Act.

The Dyer River does not meet its Class B classification and is listed as impaired by bacteria and low dissolved oxygen. The river is included in the Maine Statewide Bacteria TMDL. An NPS survey conducted as part of the development of the 319-funded *Sheepscot River Watershed Management Plan* (2007) identified roads as a primary NPS source throughout the Sheepscot watershed. However, that survey did not focus on sources of bacteria, the major cause of the Dyer's impairment.

PROJECT DESCRIPTION:

The purpose of this project was to identify bacteria sources and NPS sites in the Dyer River Watershed that contribute to bacteria contamination and sediment and nutrient loading. The survey project consisted of a stream corridor survey, watershed NPS survey, and bracketed bacteria sampling.

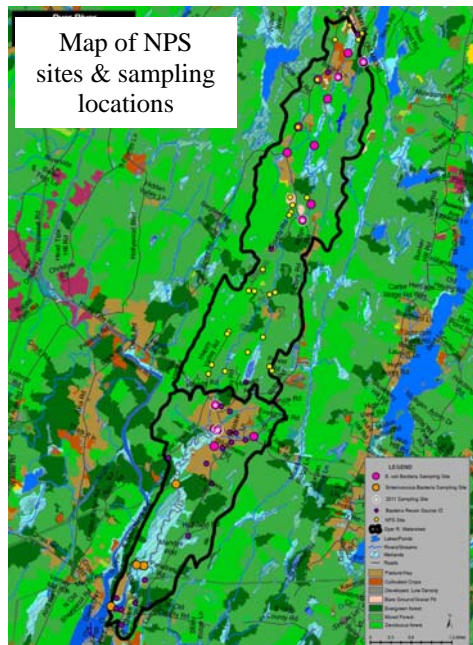
In the summer and fall of 2010, a survey team walked or canoed the entire stream length, conducting a modified Stream Corridor Survey and watershed/NPS survey based on Maine DEP's *Stream Survey Guidance for NPS Projects* and *Stream Survey Manual*. Bacteria sampling was conducted in an effort to bracket the location and extent of bacteria sources. Stream and watershed surveys found that the riparian corridor is, for the most part, forested or in wetlands with little residential or commercial development along stream banks, and with moderate NPS issues. Bacteria testing, however, found several high bacteria sites and these appear to be associated with agricultural sources, although septic and wildlife sources may also be present.



Upper Section of the Dyer River

PROJECT OUTCOMES:

- The project completed extensive surveys of the Dyer River watershed, including a watershed survey, stream corridor survey, bacteria source reconnaissance and an aerial survey from a small plane (provided at no cost to the grant or the grantee).
- The watershed survey documented 18 NPS sites with a rating of high or medium impact to water quality. These sites were primarily gravel roads, active and recent forestry sites, and gravel pit activity.
- Bacteria monitoring was conducted in the Dyer River and its tributaries during seven sampling events. Several locations were identified with bacteria levels exceeding state criteria.
- In March 2011, the project completed the *Dyer River Watershed Bacteria and NPS Survey Report*, which describes the survey methods, findings, and recommendations. A public factsheet, *Dyer River Watershed Survey – Facts and Figures*, was also created for more widespread distribution.
- Momentum from the grant resulted in continued discussion and information exchange between the local organizations, DEP, and the Maine Department of Agriculture.



Aerial view of the Dyer River



Large NPS erosion site



Lower section of the Dyer River

PROJECT PARTNERS:

Sheepscot River Watershed Council
FB Environmental Consultants

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Suggested Citation:

Maine Department of Environmental Protection (2012) “Nonpoint Source Management Program 2011 Annual Report,” Document # DEPLW-1237. Augusta: MDEP.