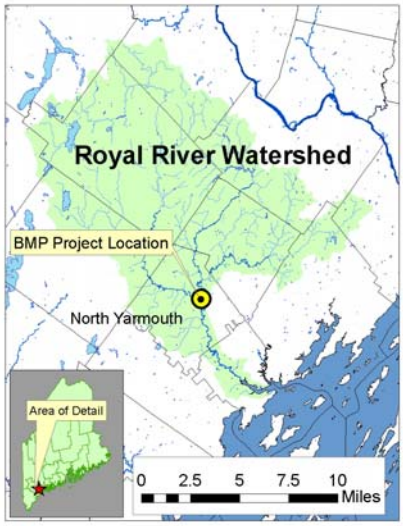
North Yarmouth Erosion Control BMP Demonstration Project

#2001–18



Waterbody Name:	Royal River
Location:	North Yarmouth, Cumberland County
Waterbody Status:	NPS Priority Watershed
Project Sponsor:	Town of North Yarmouth
Project Duration:	March 2001 – May 2004
319 Grant Amount:	$7,750
Match:	$5,121

PROBLEM:

The Royal River watershed covers approximately 150 square miles and includes portions of 12 towns. The river and stream corridors contain prime wildlife habitat and are an exceptional recreational resource for the people of Greater Portland. Most of the river and its tributaries have been designated as Class B waters, but a few of the western tributaries have recently been upgraded to Class A.

The Friends of the Royal River monitored water quality in the main stem and tributaries from 1993-1999. A summary report, which was completed in 2001, indicated that there are dissolved oxygen and E. coli problems at some sampling locations on the mainstem and several tributaries. This water quality degradation is the result of polluted runoff. One source of polluted runoff is associated with stream bank trampling for recreational access near the river. Several traditional points of access throughout the watershed have caused long-term erosion of the silty-mucky soils on the river banks and adjacent areas leaving sediment deltas at the toe of the stream banks.

PROJECT DESCRIPTION:

The purpose of this project was to reduce pollutant loading to the Royal River by stabilizing the eroding parking lot, access trail and boat launch located at Route 9 in North Yarmouth. In addition, the project was intended to demonstrate Best Management Practices for reducing or preventing soil erosion and storm water runoff at canoe launch sites to watershed landowners, canoeists and towns.

Geoweb cellular grids and crushed stone were installed on the parking area and boat launch to stabilize bare soil and promote infiltration. An open top culvert was placed at the top of the slope leading down to the river to divert runoff into adjacent vegetation. Native shrubs were planted along the boat launch, river banks and around the parking lot.

Project outreach included press releases, fliers in town halls and libraries and a grand opening potluck at the site. A local grade school also erected a sheltered notice board to post environmental flyers at the site.

PROJECT OUTCOMES:

- The project reduced pollutant loading to the Royal River by stabilizing a chronically eroding parking lot and canoe launch.
- Stream banks adjacent to the canoe launch and parking area were stabilized by planting sweet gale, sweet fern and red osier dogwood. Plants were staked for stability and prevention of accidental mowing. One year after construction, all BMPs were functioning as designed and all plantings were thriving.
- North Yarmouth's Public Works Department installed the BMPs at the canoe launch and parking area for less time and money than had been estimated. Public Works employees were proud to have been part of a water quality improvement project. They also learned how to properly install Geoweb and an open top culvert.
- A local grade school erected a sheltered notice board to post environment flyers at the site.
- Bell Atlantic contributed $500 towards match.
- The project assisted the Casco Bay Estuary Partnership meet one of the goals of the Casco Bay Plan. This goal was a public education goal to create sites around the Bay demonstrating how vegetation reduces polluted runoff and how sensitive the riparian zone is to moderate to intense human activities.

Before –erosion on parking area & launch

During - Geoweb installation on parking area

PROJECT PARTNERS:

Friends of Royal River

Yarmouth Water District

Bell Atlantic

Contact Information:

Donald Kale, DEP – (207) 822-6319, donald.kale@maine.gov

Scott Seaver, Town of North Yarmouth – (207) 829-3705

Suggested Citation:
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