

# Capisic Brook Watershed Management Plan

#2009SP04

Waterbody Name: Capisic Brook  
Location: Portland, Westbrook – Cumberland County  
Waterbody Status: Urban Impaired Stream  
Project Grantee: City of Portland  
Project Duration: September 2009 – September 2011  
ARRA 604(b) Grant: \$97,795  
Local Match: \$55,968



## PROBLEM:

Capisic Brook is located on the west side of Portland and drains a watershed of approximately 1400 acres to the Fore River. Land uses are primarily residential development with significant commercial and light industrial development. About 31 percent of the watershed is covered by impervious surfaces. The brook is considered impaired because it does not attain Class C water quality standards. Maine DEP designated it as an urban impaired stream under Chapter 502 of the Maine Stormwater Management Rules.

In upstream sections near Evergreen Cemetery, Capisic Brook has a healthy macroinvertebrate community, good water quality, and adequate habitat. The downstream station above Capisic Pond has impaired biota, poor water quality, and degraded habitat. Impairments are caused by polluted stormwater runoff and increased peak flows due to the extensive impervious cover and combined sewer overflows. Since 1996, Portland has made significant progress toward the separation of the sanitary and storm sewer systems. These efforts are expected to be completed over the next several years.

## PROJECT DESCRIPTION:

In 2009, Maine DEP awarded Portland an American Recovery and Reinvestment Act (ARRA) grant to develop a watershed restoration plan that focuses on addressing the many causes of stormwater pollution in the Capisic Brook watershed. Steps in the plan development included the following:

1. Determine watershed restoration needs through a review of existing studies and resources;
2. Identify and engage key watershed stakeholders in the planning process;
3. Utilize community social marketing research to develop a targeted marketing strategy;
4. Identify opportunities within the brook corridor to improve recreation and community space;
5. Identify specific structural and nonstructural stormwater improvement projects;
6. Outline an appropriate financing strategy for plan implementation; and
7. Develop a program to monitor for water quality improvements.



## PROJECT OUTCOMES:

- The *Capisic Brook Watershed Management Plan* was completed in July 2011 as a final draft pending review and adoption by the Portland City Council. It is anticipated that the plan will be submitted to the City Council for formal adoption in 2012.
- A structural stormwater retrofit inventory was completed following guidelines developed by the Center for Watershed Protection. Priority was given to drainage areas with the most impervious cover, roadway miles, and known stormwater “hot spots” such as the Exit 48 commercial area, Riverside Street, Sagamore Village, and Warren Avenue. Detailed plans and cost estimates for structural stormwater retrofit projects were incorporated into the plan.
- Woodard & Curran worked with city staff to characterize the costs associated with existing stormwater management, MS4 General Permit compliance, combined sewer overflow (CSO) abatement efforts, stormwater retrofit projects, and other actions proposed in the plan. The total capital cost to implement the plan is estimated at \$18 million. The project team explored potential financing options for implementation of the plan. Final recommendations are incorporated into the plan.
- Portland, with the support of Cumberland County SWCD, was awarded a grant from the Casco Bay Estuary Partnership to survey residential landowners to gain a basic understanding of the level of public awareness of stormwater and watershed issues. A consultant, *Water Words That Work*, used results of the survey to create a social marketing program to encourage residential landowners to adopt stormwater pollution prevention BMPs. It would become the *Greener Neighborhoods, Cleaner Streams* program, now being implemented by the City. The plan also recommended development of a voluntary commercial/industrial pollution prevention program for the watershed.
- Portland also explored a variety of planning and policy issues, developing recommendations for reducing the impacts of impervious surfaces through its technical and design standards, and land use code. City planners also recommended expansion of the Stream Protection Overlay Zone along critical sections of the brook to protect wetland/riparian areas.

## PROJECT PARTNERS:

Casco Bay Estuary Partnership  
City of Westbrook  
Cumberland County SWCD  
Friends of Casco Bay/Baykeeper  
Maine Department of Transportation  
Maine Turnpike Authority  
University of Maine  
University of Southern Maine  
Water Words That Work  
Woodard & Curran, Inc.

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Suggested Citation:

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