

Trout Brook: Development of a Watershed-Based Management Plan

#2010PT20

Waterbody Name: Trout Brook

Location: South Portland and Cape Elizabeth –
Cumberland County

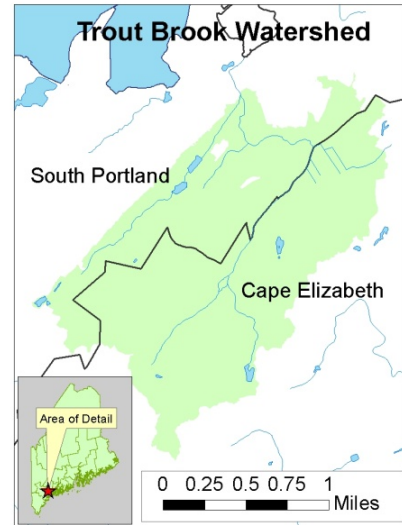
Waterbody Status: Urban Impaired Stream (Kimball and Trout)

Project Sponsor: City of South Portland

Project Duration: January 2011 – December 2012

604b Grant Amount: \$35,300

Local Match: \$36,151



PROBLEM:

Trout Brook is approximately 2.5 miles long, originates in Cape Elizabeth and includes Kimball Brook and several unnamed tributaries. Its 2.35 square mile watershed transitions from woodland headwaters through agricultural lands, wetlands, the newly established Trout Brook Nature Preserve, and dense residential developments before flowing into Mill Cove, and eventually Portland Harbor. The stream supports a brook trout fishery, likely due to its abundant cold water springs. However, neither Trout Brook nor Kimball Brook meets Class C standards for habitat or aquatic life. In 2002, the South Portland Land Trust and Maine DEP conducted a watershed survey and stream habitat walk (#2002P10) and identified 86 NPS sites in the watershed. The Trout Brook TMDL study was completed in 2007.

PROJECT DESCRIPTION:

The purpose of the project was to develop a locally-supported watershed management plan that outlines a strategy to restore Trout Brook. The project was coordinated by the City of South Portland and Cumberland County SWCD and guided by a steering committee. Information about Trout Brook was compiled from past studies, and extensive additional information was also collected to better understand stream impairments, stressors, and pollution sources. Water quality data were collected; a stream corridor survey was conducted to identify erosion, buffer, and other issues adjacent to the stream; watershed boundaries, stormwater outfall catchments, and impervious cover were mapped; and stormwater retrofit options were evaluated.

A project web site was created, and a mailing was sent to watershed residents to publicize the project. A community meeting was held in June 2011 and was attended by 49 residents. Residential and Stream/Technical workgroups helped develop plan strategies and priorities. A draft plan was posted for public comment and stakeholder comments were incorporated into the final plan. An overview of the plan was presented to the Cape Elizabeth and South Portland Councils in December 2012. Both Councils provided positive feedback about the plan and future municipal involvement.



Brook trout from the 1999
fish survey

PROJECT OUTCOMES:

- The water quality monitoring and watershed studies completed through the project identified specific impairments, stressors, and pollution sources for different parts of the stream. This understanding of the stream and its watershed formed the basis for an informed watershed management plan.
- The *Trout Brook Watershed Management Plan* was completed in December 2012. The Plan includes background information, results of stream and watershed assessments, maps and an action plan. Available at: www.cumberlandswcd.org/publications/ws_pubs/trout_brook/wmp/TB_wmp.pdf
- The project helped focus local attention on Trout Brook. The Portland Water District selected Trout Brook as the location to release brook trout that they had raised with local schools during the year. In May 2012, 300 elementary and middle school students visited the stream and released trout fry.
- The project also laid the foundation for upcoming restoration efforts in the watershed. Several problem sites identified in the stream corridor survey have already been addressed, and local farms have already changed some practices to reduce nutrient loading to the stream. In September 2012, the City of South Portland used a small grant from the Casco Bay Estuary Partnership to implement several stream habitat improvement projects recommended in the plan. The City was also awarded a 319 grant for the *Trout Brook Restoration Project- Phase I*, which will begin in spring 2013.

PROJECT PARTNERS:

Casco Bay Estuary Partnership
Cumberland County SWCD
Maxwell's Farm
Maine Board of Pesticide Control
South Portland Land Trust
South Portland Conservation Commission
Town of Cape Elizabeth
University of Southern Maine
Unity College
University of Maine Orono



Inadequate buffer and yard waste problems noted at a site during the stream corridor survey.

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Suggested Citation:

Maine Department of Environmental Protection (2013) "Nonpoint Source Management Program 2012 Annual Report," Document # DEPLW-1245. Augusta: MDEP.