

Crooked River Watershed Survey Project

#2010PT19

Waterbody Name: Crooked River

Location: Bethel, Albany, Waterford, Norway, Otisfield, Harrison, Casco, and Naples – Oxford and Cumberland Counties

Waterbody Status: NPS Priority Watershed

Project Grantee: Cumberland County Soil & Water Conservation District

Project Duration: January 2011 – April 2012

604(b) Grant Amount: \$28,244

Local Match: \$16,201



PROBLEM:

The Crooked River is approximately 50 miles long and has a watershed area of nearly 120 square miles. It supplies over 40 % of the surface inflow to Sebago Lake; a water supply to 200,000 customers in the Greater Portland area. The Crooked River supports one of only four known indigenous populations of landlocked Atlantic Salmon (*Salmo salar*) in Maine. Eighty-five percent of the watershed is undeveloped, 10.5% is developed (primarily in the southern portion), and agricultural land covers 4.5% of the watershed with much of it in hayfields and fallow lands.

Portland Water District (PWD) monitors the river at seven sites from Naples to Albany. The PWD 2008-09 Water Quality Report documented high levels of phosphorus in the southernmost station and high levels of fecal coliform bacteria at all seven stations. The signs of stress exhibited in the Crooked River are likely due to polluted runoff from development, particularly in the southern portion of the watershed.

PROJECT DESCRIPTION:

The purpose of this project was to identify, document, and prioritize polluted runoff sites in the Crooked River watershed and to recommend Best Management Practices (BMPs) that can be installed to mitigate problems at these sites. The project capitalized on the existing efforts of project partners to continue raising awareness of the connection between land use and water quality. During the summer of 2011, Cumberland County Soil & Water Conservation District (CCSWCD), project partners, and volunteers completed a watershed survey of almost the entire watershed. The upper half of the watershed was to be surveyed using available Google Earth and topographic maps. However due to volunteer interest, the work plan was reworked to survey the upper watershed using on-the-ground watershed survey methods. In June 2011, CCSWCD and Oxford County SWCD partnered with the Sebago Chapter of Trout Unlimited to complete a riparian corridor survey. Using methods developed by Sheepscot River Watershed Council, Trout Unlimited volunteers and District staff kayaked and canoed the lower half of Crooked River and part of the upper river to conduct the survey.



Trout Unlimited volunteers conducting a riparian corridor survey by kayak.



A volunteer documents an erosion site.

PROJECT OUTCOMES:

- Due to the large watershed size (120 square miles), the watershed survey initially focused on the more-developed lower four towns. However, due to volunteer interest, three of the four upper towns were also surveyed using on-the-ground survey methods. A riparian corridor inventory documented conditions on the lower half of the river and parts of the upper river corridor.
- Two hundred NPS problem sites were identified during the watershed survey and twenty problem sites were identified during the river corridor inventory. A summary of findings was documented in the “Crooked River Watershed Survey” report completed in March 2012.
- Trout Unlimited volunteers and the riparian corridor inventory were featured on WCSH6, in “Bill Green’s Maine” television show.
- Presented a PowerPoint presentation of survey findings to municipal officials in four towns.
- Involvement and support exceeded expectations and was instrumental in success of this project. Major project partners included Portland Water District, Maine Inland Fisheries & Wildlife, Trout Unlimited, Lakes Environmental Association and Western Foothills Land Trust.
- In spring 2013, CCSWCD will begin a project to install BMPs at the high priority NPS problem sites using Clean Water Act Section 319 funds.

PROJECT PARTNERS:

Cumberland County Soil & Water Conservation District
 Oxford County Soil & Water Conservation District
 Maine Department of Environmental Protection
 Maine Department of Inland Fisheries & Wildlife

Portland Water District
 Lakes Environmental Association
 Trout Unlimited Sebago Chapter
 Western Foothills Land Trust

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