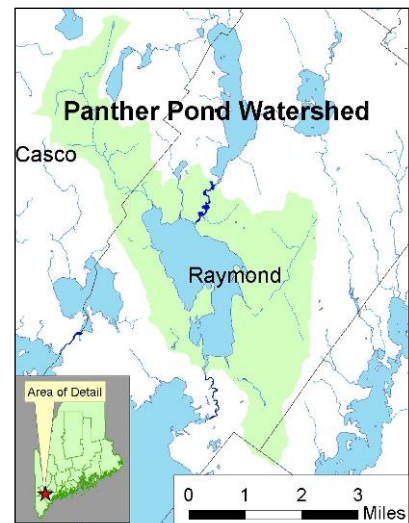


Panther Pond Conservation Project – Phase I

#2005R-17

Waterbody Name: Panther Pond
Location: Raymond, Casco – Cumberland County
Waterbody Status: NPS Priority Watershed, Most at Risk
Project Sponsor: Town of Raymond
Project Duration: April 2005 – August 2008
319 Grant Amount: \$43,945
Local Match: \$144,699



PROBLEM:

Panther Pond is a 1439-acre lake located in the Town of Raymond. Panther Pond's shoreline is developed with over 300 homes, four youth summer camps and an extensive network of unpaved camp roads. The direct watershed covers 12.3 square miles, and the larger watershed includes Crescent Lake, Raymond Pond and several smaller ponds. Panther Pond contributes about 18% of the flow into Sebago Lake, which serves as a drinking water supply for the Portland region.

The Raymond Waterways Protective Association (RWPA) and Maine DEP have monitored water quality on Panther Pond since 1974. Data indicates that the lake experiences moderate depletion of dissolved oxygen in late summer. In 2002 the Panther Pond Association (PPA) formed to promote conservation efforts in their watershed. In 2003, the PPA, RWPA, Cumberland County SWCD and Maine DEP conducted an independently-funded watershed survey and identified 84 erosion sites contributing an estimated 61 tons of sediment per year to the lake. Prior to the Phase I project, several of these sites were fixed by the Town, residents and the Maine DOT's Surface Water Quality Protection Program.

PROJECT DESCRIPTION:

The purpose of the project was to significantly reduce erosion and export of phosphorus into Panther Pond. The project also aimed to raise awareness about watershed problems and foster long-term watershed stewardship. Conservation practices were installed on a total of 46 sites in the watershed, including 26 large-scale erosion sites and another 20 smaller sites through small matching grants. A shoreline survey was also completed in 2007 to document shoreline conditions. Digital photos were taken of each shoreline property, labeled according to tax map and lot number and provided to the Town Code Enforcement Office for enforcement and permitting purposes.



Volunteers build infiltration steps and spread mulch on an eroded path to the lake.

A project brochure was mailed to all watershed landowners at the start of the project and at the beginning of the second year. Four hands-on workshops were held in conjunction with project construction, and three tours (over 66 participants) were conducted to showcase completed project sites. Project updates were presented at RWPA and PPA's annual meetings, and project materials were included on the RWPA website (<http://www.raymondmaine.org/committees/waterways/>), RWPA newsletters and PPA mailings.

PROJECT OUTCOMES:

- The modestly-sized project successfully fixed erosion problems at 26 large-scale erosion sites (four more sites than originally planned). Small matching grants (\$100 each) were awarded for another 20 sites to install conservation practices such as buffers, rubber razor diverters, waterbars and infiltration steps.
- Pollutant loading to Panther Pond was reduced by an estimated 75.1 tons of sediment and 62.2 pounds of phosphorus per year (EPA Region 5 Method). This reduction amounts to 70% of the estimated pollutant load associated with sites identified during the 2003 watershed survey and one high impact site identified after the survey project.
- Local match contributed to the project totaled \$144,699, which far exceeded the original project goal of \$39,825. The Town of Raymond and local residents proved to be extremely involved throughout the project, which accounts for much of the match. Three of the seven sites in the Plummerville complex were also funded, in part, with a \$17,700 grant from the DEP's Stormwater Compensation Fund.
- The project built local momentum for continued work in the watershed. RWPA was awarded a 319 grant to begin the second and final phase of the project in April 2009.



Prior to construction, runoff raced down the paved boat launch and created large gullies in the beach. With project cost sharing, the landowner installed a rubber blade at the base of the pavement to divert water into a new rain garden. A sediment ring catches sediment before it reaches the garden.

PROJECT PARTNERS:

Panther Pond Association
Portland Water District
Raymond Waterways Protective Association

CONTACT INFORMATION:

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