Great Pond Watershed NPS Pollution Remediation Project, Phase I

#2002R-16

Waterbody Name: Great Pond

Location: Belgrade, Rome, Mercer and Smithfield

Kennebec and Somerset Counties

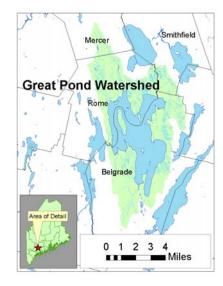
Waterbody Status: NPS Priority Watersheds

Project Sponsor: Belgrade Regional Conservation Alliance

Project Duration: February 2002 – December 2005

319 Grant Amount: \$63,670

Local Match: \$58,235



PROBLEM:

Great Pond has a surface area of 8,186 acres and is part of the Belgrade Chain of Lakes. Salmon Lake and North Pond drain to Great Pond, which then flows to Long Pond and on to Messalonskee Lake. Great Pond is listed as a Nonpoint Source Priority Watershed because of concern about low levels of oxygen in the hypolimnion during the summer months. These low levels pose a threat to the survival of cold water fish species and could potentially trigger a release of phosphorus from bottom sediments. Great Pond still has exceptional clarity with an average secchi disc depth of 21.6 feet.

Concerns over threats to water quality throughout the Belgrade Lakes spurred the Belgrade Regional Conservation Alliance (BRCA) to apply for a 319 grant in 1998 to 1) survey the watersheds of East Pond, North Pond, and Great Pond for NPS pollution sites, and 2) to develop a watershed management plan for the Great Pond watershed. The report on the Great Pond watershed survey identified 357 sites of varying severity that threaten water quality in the watershed.

PROJECT DESCRIPTION:

The goal of the project was to begin addressing soil erosion sources through cost share assistance, youth conservation corps and technical assistance. BMPs were installed at 24 sites including a town beach, 4 large buffer plantings, town road, 12 camp roads and a severely eroded ditch. The project also involved the Belgrade Region Conservation Corps, a team of supervised, local high school students that provide free labor to fix erosion problems in the watershed. Through the project, the Corps addressed 33 erosion sites with buffer plantings and mulch and installed 4 rubber razor water diversions and 8 riprap projects.

Project outreach included several articles in the local weekly newspaper and lake association newsletter; presentations at lake association meetings; mailings to property owners associated with sites identified in the watershed survey; and a "Model Buffer" program that places a banner in front of a different buffer each week in the summer.



PROJECT OUTCOMES:

- Soil erosion and polluted runoff was addressed through installation of BMPs at 24 sites including a town beach, town road, 4 large buffer plantings, 5 driveways, 12 camp roads and 1 severely eroding ditch. The project rebuilt 2.86 miles (15,144') of camp roads and planted 12,464 square feet of buffer garden.
- The BRCA Conservation Corps addressed 32 shoreline sites with buffer plantings and mulch. Property owners are more willing to plant buffers rather than riprap, which is an indicator that education efforts are working. The Corps also installed rubber razors water diverters at 4 sites and riprapped 8 ditches or culvert inlets/outlets.
- There was an estimated total reduction of 16.3 lbs. of phosphorus and 12.7 tons of sediment per year (Region 5 Method).
- The lake association and property owners learned about the importance of controlling erosion and runoff. Local contractors were educated about water quality best management practices.
- The Belgrade Lakes Association became a strong partner through the project.





PROJECT PARTNERS:

Belgrade Regional Conservation Alliance BRCA Conservation Corps Belgrade Lakes Association Town of Rome

CONTACT INFORMATION:

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Suggested Citation:

Maine Department of Environmental Protection (2006) "Nonpoint Source Management Program 2005 Annual Report," Document# DEPLW0758. Augusta: MDEP.