# Long Pond NPS Watershed Project, Phase I

## #2009RT07

Waterbody Name: Long Pond

Location: Belgrade, Rome, Mt. Vernon, Vienna –

Kennebec County

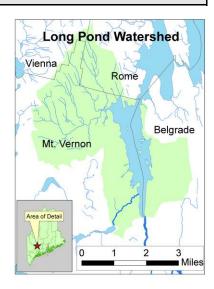
Waterbody Status: Impaired, NPS Priority Watershed

**Project Grantee:** Belgrade Regional Conservation Alliance

April 2009 - April 2011 **Project Duration:** 

319 Grant Amount: \$49,750

Local Match: \$44,525



#### PROBLEM:

Long Pond (2666 acres) is a part of the Belgrade chain of lakes and has a direct watershed of 22 square miles. Water quality data, which has been collected since 1970, shows a declining trophic trend and increasing phosphorus concentrations over the last decade. As a result, Long Pond does not meet state water quality standards and is listed as impaired.

In 2002, Belgrade Regional Conservation Alliance (BRCA) led a watershed survey and documented 211 NPS sites. Of these, 69 percent of these were associated with residential sites; an additional 11 percent were associated with driveways; and six percent were found on private camp roads. During 2007 and 2008, the Colby Environmental Assessment Team detailed an additional 400+ sites (buffer and road sites) that were rated "fair" or "poor" and made recommendations for specific improvements. A Phosphorous Control Action Plan (PCAP) and Total Maximum Daily Load (TMDL) were approved in April 2008, and a watershed-based plan was completed in 2009.

## PROJECT DESCRIPTION:

The purpose of this project was to begin to implement the 2008 TMDL and 2009 Watershed Based Plan in order to reduce phosphorus loading to the lake. The project implemented 15 BMPs on four camp roads and four BMPs at the Belgrade Town Beach. An additional 21 NPS sites were addressed by the BRCA Youth Conservation Corps,



Long Pond viewed from French Mountain

primarily at private residences needing riparian buffers, rain gardens or additional erosion control work.

A porous paver demonstration project was completed at Day's Store, a highly visible public location. One of the visitors to the demonstration site was so inspired by the effectiveness of the demonstration project as a teaching tool that he became the driving force (and major donor) behind the multi-million dollar Maine Lakes Resource Center in Belgrade Lakes. The Lakes Resource Center was completed and opened in the fall of 2011 and has implemented various low impact development (LID) techniques such as porous pavers, grass pavers, rain gardens, and advanced wastewater treatment technologies.

# **PROJECT OUTCOMES:**

- The project constructed BMPs on 19 NPS sites, exceeding the project goals by 50 percent. Work included reducing erosion to the pond by rebuilding and resurfacing eroding roads, replacing undersized culverts, and installing ditches and ditch turnouts.
- A porous paver demonstration site was installed at Day's Store in downtown Belgrade. Over 200 people toured the site, and countless others viewed the signage and explored the site independently.
- The BRCA's Youth Conservation Corps installed conservation practices on 21 residential sites, exceeding project goals by 40 percent. Work included three rain gardens, ten vegetated buffers, nine infiltration trenches, three sets of infiltration steps, seven stabilized paths, ten armored culverts, and three ditch and shoreline stabilization projects.
- Local contractors and town officials learned about erosion and sediment control through an all-day workshop and presentations at town board meetings.
- The project's road-related work reduced pollutant loading to Long Pond by an estimated 17.6 tons of sediment and 22 pounds of phosphorus per year (Region 5 Method).



NPS pollution loading from the above road to Long Pond was reduced by replacing a crushed and undersized culvert; armoring the ditch and outlet; and rebuilding the road segment with geotextile, base gravel and crushed bluestone.

### **PROJECT PARTNERS:**

Belgrade Lakes Association Kennebec County SWCD Town of Belgrade

#### CONTACT INFORMATION:

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#### Suggested Citation:

Maine Department of Environmental Protection (2012) "Nonpoint Source Management Program 2011Annual Report," Document # DEPLW-1237. Augusta: MDEP.