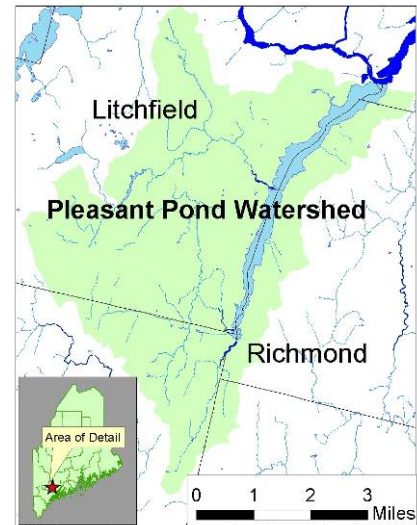


Pleasant Pond NPS Abatement: Phase 3 Agricultural BMPs #2008RT31

Waterbody Name:	Pleasant Pond
Location:	Litchfield and Richmond – Kennebec and Sagadahoc Counties
Waterbody Status:	Impaired, NPS Priority Watershed, Most at Risk
Project Grantee:	Cobbossee Watershed District (CWD)
Project Duration:	December 2008 – September 2011
319 Grant Amount:	\$31,553
Local Match:	\$28,003



PROBLEM:

Pleasant Pond is a shallow, five-mile-long pond with a 23.4 square mile watershed. The pond does not meet state water quality standards due to high concentrations of phosphorus, recurring algal blooms for the past 20 years, and low transparency readings. The pond's 2004 TMDL report indicated that agriculture accounted for 39 percent, public and private roads for 15 percent, and residential sites and septic systems for 7 percent of the phosphorus load.

Two phases of Pleasant Pond NPS Abatement Projects (#2006R-05 completed in 2008, and #2008RT06 completed in 2010) addressed sources of phosphorus from roads and residential development. The projects were led by the Kennebec Soil and Water Conservation District and supported by the Four Towns Watershed Association. Work included road BMPs, residential conservation projects installed by the Friends Youth Conservation Corps, educational workshops, technical assistance, and water quality monitoring conducted by CWD.

PROJECT DESCRIPTION:

This project's purpose was to reduce phosphorus runoff from farmlands by implementing BMPs that would stabilize soil and increase on-site retention of animal waste nutrients. CWD staff reached out to farmers and encouraged them to utilize, or further utilize, the technical services of the Natural Resource Conservation Service (NRCS) and funding available through their Environmental Quality Incentives Program (EQIP). A cost sharing program requiring a match of cash or services was also available.

The project helped coordinate and install a variety of conservation practices on two dairy farms, an eroded shoreline, and one camp road in the watershed. Cost sharing was provided for one of the dairy farms. The other farm project tapped into EQIP funding and only needed technical assistance. The project provided a framework for maximizing resources and communication between water quality specialists, farm technical services, and the agricultural producers.



Several BMPs were installed on two dairy farms in the watershed.

PROJECT OUTCOMES:

- The project constructed a 5,520 square-foot concrete, roofed manure storage facility and 9,000 square-foot adjacent heavy use area with a vegetated treatment area. This work covered the manure storage area and treated any remaining runoff, which resulted in an estimated reduction of 96 pounds of phosphorus entering Pleasant Pond each year (Region 5 Method).
- At a second dairy farm, BMPs were installed to collect manure leachate runoff from a manure storage area and divert it to a vegetated treatment area. Pollutant loading to Pleasant Lake from this site was reduced by an estimated 21 pounds of phosphorus each year (Region 5 Method).
- Project staff provided technical assistance to support the installation of an 11,250 square-foot concrete heavy use area and vegetated treatment area, which was paid for with EQIP funds. In addition, a heavy use area at a barn entrance was stabilized.
- Two additional projects were completed on non-agricultural sites. One hundred feet of eroding shoreline was stabilized with rip-rap and plantings. A section of camp road that previously drained to the pond was graded and ditched, and check dams and a culvert were installed to redirect road runoff away from the pond.
- Pollutant loading to Pleasant Pond was reduced by an estimated 125 pounds of phosphorus and eight tons of sediment per year (WEPP Road Model and Region 5 Method).



A covered, concrete manure storage facility, adjacent heavy use area and vegetated runoff treatment system were installed at a watershed dairy farm to minimize and treat phosphorus runoff.

PROJECT PARTNERS:

Agricultural landowners
Natural Resource Conservation Service
Maine Department of Agriculture, Food, and Rural Resources

CONTACT INFORMATION:

Kristin Feindel, DEP – (207) 215-3461, kristin.b.feindel@maine.gov
Wendy Dennis, CWD – (207) 377-7111, cwd@fairpoint.net

Suggested Citation:

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