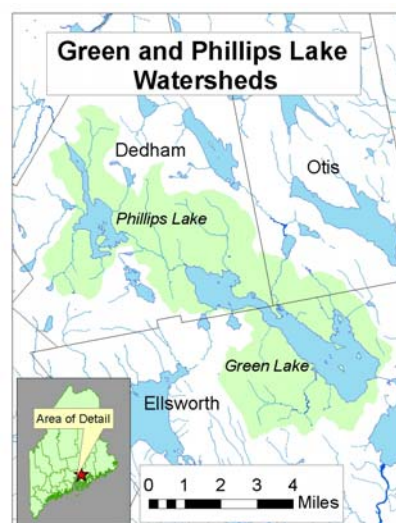


Green and Phillips Lake Improvement Project

#2001-04

Waterbody Names: Green and Phillips Lakes
Location: Dedham and Ellsworth
Waterbody Status: NPS Priority Watersheds
Project Sponsor: Hancock County SWCD
Project Duration: April 2001- September 2005
319 Grant Amount: \$51,675
Local Match: \$34,484



PROBLEM:

Green and Phillips Lakes are located midway between Ellsworth and Bangor. They are connected by Mann Brook, which flows from the southern end of Phillips Lake into the northern end of Green Lake. The fisheries in these lakes are primarily self-sustaining with supplemental stocking in some years. Both lakes have traditionally had seasonal camps around them. However, in recent years there has been a growing trend of seasonal camp conversions to year round homes. Between 1980 and 1990, the number of year round residences around the lakes increased by 51%. This trend has continued through the 1990's.

Transparency data indicate good water quality in both lakes with secchi disc readings averaging 7-9 meters. Recent data, however, show a disturbing trend. Data taken by the volunteer lake monitors show significant reductions in Green Lake's water clarity following rain events. Additionally, dissolved oxygen levels during the late summer in the hypolimnium near the outlet have decreased to 3.2 mg/l. This is roughly half the pre-1990 historic average, and below that required for a healthy salmonid habitat.

PROJECT DESCRIPTION:

The purpose of this project was to improve water quality and reduce sediment runoff into the lakes by installing BMPs at major problem areas identified by the watershed surveys and through technical assistance to road associations and municipalities.

BMPS were installed at 21 NPS sites, including several residential sites, camp roads and the Lucerne Beach Club. Project staff also completed more than 35 technical assistance visits with watershed landowners and provided professional buffer design plans and buffer cost-sharing to 10 landowners.

Outreach included press releases, field tours of completed sites, a Family Lake Day event, public presentations and newsletters to all lakefront owners.



PROJECT OUTCOMES:

- The project installed BMPs at 21 NPS sites, which reduced pollutant loading to Green and Phillips Lakes by an estimated 14.8 tons of sediment per year (Region 5 Method).
- Camp road improvement projects included the installation of 8 new culverts and 900+ feet of roadside ditching (with rip/rap or seed) and the development of long-term maintenance plans.
- Project staff and numerous volunteers completed a large-scale restoration project at the Lucerne Beach Club, Phillips Lake. Installed BMPs included shoreline stabilization, stream bank restoration, rain gardens and open-top culverts, which were highlighted in a brochure. The work culminated in a Family Lake Day celebration, which included hands-on watershed education activities for families and tours of the project sites.
- 10 residential properties participated in the project's buffer cost-share program, which included a technical assistance visit from District staff (addressing erosion issues) and a free vegetative buffer landscape design plan from the LakeSmart-certified Kalmia Landscape Design. In addition, cost-share funding was available for the purchase of buffer plants.
- The Hancock SWCD conducted more than 35 technical assistance visits with watershed landowners. Many of these visits resulted in on the installation of erosion control practices on the part of the landowner.
- Over 2200 hours of volunteer time were contributed by lake residents and members of the Green & Phillips Lake Association and project steering committee.



PROJECT PARTNERS:

Green and Phillips Lake Associations
Kalmia Landscape Design
University of Maine Cooperative Extension

Town of Dedham
City of Ellsworth
Lucerne Village Corporation

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