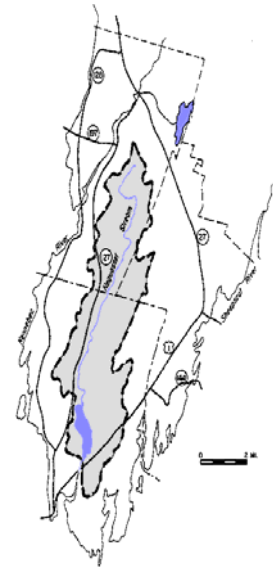




NEQUASSET LAKE WATERSHED SURVEY SUMMARY SHEET

BACKGROUND:

The Nequasset Lake watershed* is located in the towns of Dresden (32%), Woolwich (61%) and Wiscasset (7%). The total watershed area is 21.59 square miles, including direct and indirect watersheds. It is comprised of undeveloped land, forests, farmland and low-density residential development. The lake is relatively warm and shallow, with a mean depth of 30 feet. It supports both cold and warm fisheries as well as recreational boating. Swimming was prohibited by the State legislature in 1905 and in 1915 the State gave Bath Water District (BWD), a quasi-municipal organization, the right to use it as a public water supply (replacing Bath Water Company). BWD serves Bath, Brunswick, West Bath and Woolwich, as well as parts of Wiscasset and Edgecomb via the Wiscasset Water District.



In 1990, a land use management strategy for the watershed was prepared by the three towns and BWD. The report states, "existing water quality in the lake is marginal; it could decline within the next ten years because of algae blooms unless the amount of phosphorus entering the lake is strictly limited". The report also states that the lake was considered by the Department of Environmental Protection (DEP) to be a "moderate quality/sensitive" lake with *average water quality* and a high risk of being further degraded.

In 2003, a study was done by the Maine Drinking Water Program, under the Source Water Assessment Program, that identified potential threats to the water supply. It also ranked the susceptibility of the water quality and made recommendations for future protection. In 2005, *A Sourcewater Protection Plan* was developed by the Nequasset Lake stakeholders. The group includes representatives of all three towns, DEP, BWD, Maine Rural Water Association and Androscoggin Valley Soil & Water Conservation District (AVSWCD). The plan considers public education and watershed protection of equal importance.

A recent Maine Volunteer Lake Monitoring Program report states that water quality is now *below average* and has a high potential for nuisance algal blooms. Because the lake is a drinking water supply, it is on the DEP non-point source priority watershed list.

WATERSHED SURVEY:

This watershed survey was conducted to identify areas of soil erosion within the watershed. It focused on direct impact sources such as improperly installed or maintained culverts. Soil erosion is the single greatest threat to water quality in Maine. Soil contains phosphorus, a nutrient having the potential to promote algae blooms when it enters a lake in high enough quantities. Algal blooms will cause oxygen depletion, threatening the survival of fish and animals. A blooming lake will turn the water green and can make the lake virtually unusable. Studies have shown that as water clarity decreases, property values also drop.



22 local volunteers received training, conducted the survey and identified 66 sites that are contributing polluted runoff to Nequasset Lake. Pictures were taken, standardized field data sheets were filled out and an assessment of cost with recommendations for fixing the site was completed when possible. Staff from DEP and AVSWCD checked all of the high and medium impact sites and reviewed all of the volunteer data. 58 erosion sites were associated with roads (town, private and driveways). Three eroded off-road vehicle trails with direct access to the Lake or tributaries were identified. Two public access sites, two residential sites and one commercial road site were also found.



# Sites	Impact
10	High
32	Medium
24	Low

- High impact sites are large, have significant erosion and flow into a stream or lake.
- Medium impact sites do not have a high magnitude of sediments transported off site.
- Low impact sites have limited transport off site.

- High cost exceeds \$2500
- Medium cost estimates range from \$500 to \$2500
- Low cost is estimated to be less than \$500

# Sites	Cost to fix
10	High
19	Medium
37	Low

NEXT STEPS:

Lake protection requires an effort by all of the towns and citizens of the watershed and partnerships are necessary for many projects to be successful. Teamwork has been effective in many multi-town projects across the state, with sharing of resources to protect water resources and watersheds that extend across town boundaries. In order to improve the water quality and decrease phosphorus, action must be taken to ensure that eroded sites are fixed and that new erosion is prevented. The benefits to the lake, to wildlife and to the towns and citizens are many.

What can be done?

- Fix areas of erosion that have been identified and work to prevent further erosion, using lake water quality and habitat protection practices.
- Ensure compliance with federal, state and local erosion and sedimentation laws and shoreline zoning especially in shoreline areas or areas that may directly impact tributaries.
- Support your local stakeholders in their efforts to obtain grant funding for projects that will benefit the Lake.
- Educate yourself and others about watershed management and what is needed to protect the Lake.
- Enter into an open and constructive dialogue about the direction the towns need to take in order to implement watershed management practices that will be of long term benefit.
- Seek cooperation with each other, towns as well as citizens. Working together is economically advantageous as well as in the best interest of the watershed.

If you would like more information, please contact your local Stakeholder or AVSWCD at 753-9400, ext 400

*A watershed is all the land surrounding a waterbody that drains or sheds its water into the resource through streams, ditches, both over the ground or through ground water.

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