

WATER QUALITY SUMMARY

LOVEJOY POND, FAYETTE

MIDAS: 5664, Sample Station # 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring datasets for Lovejoy Pond have been collected since 1976. During this period, 6 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Lovejoy Pond is considered slightly above average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Lovejoy Pond is low.

Water Quality Measures: Lovejoy Pond is a non-colored lake (average color 14 SPU) with an average SDT of 5.4 m (17.7 ft). However, the pond is actually clearer than this, since on several occasions the SD hit bottom before it went out of sight. If the sample location had been deeper the SDT measure would have been greater. The range of water column TP for Lovejoy Pond is 5 - 37 parts per billion (ppb) with an average of 17 ppb. It is likely that the actual phosphorus level is lower, since two of the samples are probably uncharacteristically high. Chla ranges from 1.7 - 5.1 ppb with an average of 3.2 ppb. Recent dissolved oxygen (DO) profiles show some small amount of DO depletion in deeper areas of the lake. However, since the lake is shallow, and has only limited areas of water deep enough to be isolated by warm water layers in the summer, oxygen loss is not a serious problem. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is low. Oxygen levels below 5 parts per million stress certain cold water fish, and a persistent loss of oxygen may eliminate or reduce habitat for sensitive cold water species and other aquatic organisms.

Lovejoy Pond is managed as a warm-water fishery.

See the Maine DEP *Explanation of Lake Water Quality Monitoring Report* for measured variable explanations. Additional lake information can be obtained by contacting Maine DEP at 207-287-3901 or VLMP at 207-783-7733, and at these Websites:

<http://www.lakesofmaine.org> and <http://www.maine.gov/dep/water/lakes/index.html> and <http://www.mainevolunteerlakemonitors.org>.

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