

WATER QUALITY SUMMARY

COLD STREAM POND, ENFIELD

MIDAS: 2146, 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 Cold Stream Pond have been collected since 1970. During this period, 16 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Cold Stream Pond is considered above average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Cold Stream Pond is low.

Water Quality Measures: Cold Stream Pond is a non-colored lake (average color 9 SPU) with an average SDT of 10.2 m (33 ft). The range of water column TP for Cold Stream Pond is 3 - 7 parts per billion (ppb) with an average of 5 ppb. Chla ranges from 0.4 - 3.4 ppb with an average of 1.6 ppb. Recent dissolved oxygen (DO) profiles show minimal DO depletion in deep areas of the lake. 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 (ppm) can stress certain cold water fish and a persistent loss of oxygen may eliminate habitat for sensitive cold water species. Monitoring to date suggests these low oxygen levels are not developing in the larger basin of Cold Stream Pond. The DEP, Maine Department of Inland Fisheries and Wildlife (MDIFW) (Enfield Office) and the towns of Enfield and Lincoln have cooperated in monitoring Cold Stream and Upper Cold Stream Ponds for several years. The excellent water quality makes Cold Stream Pond an especially valuable recreational and fishery resource worthy of special protection.

Sample Station # 2

Water quality monitoring data for Cold Stream Pond have been collected since 1972. During this period, 10 years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Cold Stream Pond's smaller basin is considered above average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Cold Stream Pond (north basin) is low.

Water Quality Measures: Cold Stream Pond is a non-colored lake (average color 14 SPU) with an average SDT of 6.6 m (22 ft). The range of water column TP for Cold Stream Pond is 4 - 8 parts per billion (ppb) with an average of 6 ppb. Chla ranges from 1.1 - 3.4 ppb with an average of 2.1 ppb. Recent dissolved oxygen (DO) profiles show slight to moderate DO depletion in deep areas of the lake. 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 (ppm) stress certain cold water fish and a persistent loss of oxygen may eliminate habitat for sensitive cold water species. Oxygen concentrations in the north basin of Cold Stream Pond frequently drop below 3 ppm; if oxygen levels deteriorate further, water quality may worsen. The DEP, Maine Department of Inland Fisheries and Wildlife (MDIFW) (Enfield Office) and the towns of Enfield and Lincoln have cooperated in monitoring Cold Stream and Upper Cold Stream Ponds for several years. The high water quality makes Cold Stream Pond an especially valuable recreational and fishery resource worthy of special protection.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.