

2012 Washington Lakes Water Quality Report

Summary of 2012 Washington Lakes Water Quality Report

Each lake and pond responds in a unique way to the influences of weather, changes in land use in the watershed, and other forces upon the ecosystem. This is because of the wide range of physical, chemical and biological characteristics of each lake basin and its watershed. Most lakes and ponds experience a moderate amount of natural annual variability.

Overall, Washington Pond experienced a somewhat below average year in 2012, based on water clarity readings, total phosphorus and chlorophyll-a samples and dissolved oxygen profiles. The water was less clear, and there was more algae growth in 2012, (based on a limited number of samples). Even though the single phosphorus sample taken in August was relatively low for the pond, other factors, including the persistent loss of dissolved oxygen during late summer, indicated that overall conditions were somewhat below the historical average for the lake.

Based on a single set of readings and samples, Crystal Pond appears to have experienced a somewhat above average year. In late August, the water was very clear, and the concentration of both phosphorus and algae were relatively low. However, as has been the case with most of the limited historical data for Crystal Pond, late summer dissolved oxygen levels were depleted in the deepest areas of the pond.

Note that in addition to the water quality assessment that was done in 2012, Lake and Watershed Resource Management Associates staff also surveyed the immediate area of the public boat launch sites for both ponds for invasive aquatic plants. None were observed.

Both ponds were also checked for the presence *Gloeotrichia echinulata*, a planktonic blue-green algae that has been on the increase in Maine lakes in recent years. There was no evidence of this alga on August 24 in either pond.

As has been noted in the past, both ponds experience a severe loss of oxygen during the late summer. This phenomenon has the potential to depress overall water quality over a period of time. Low oxygen levels may lead changes in other indicators of lake water quality by as much as two decades.

The most effective way to insure that all indicators of lake water quality remain stable – or even improve over time – is through watershed stewardship. This includes raising awareness among landowners about ways in which the effects of development on water quality can be minimized, and developing a community plan to protect and manage the watershed. . Citizen watershed surveys can be very effective in raising community awareness and identifying and resolving land use problems. The Maine Volunteer Lake Monitoring Program offers workshops for groups interested in conducting watershed surveys. The LakeSmart program offered by COLA is also an excellent way to effect positive change in lake watersheds.