Water Testing Subcommittee Report BLPA Annual Meeting July 25, 2020

Sampling:

Since the 2019 annual meeting Blaisdell Lake water quality has been tested 3 times; August, October, and June. NH DES Lakes Monitoring Program staff were supposed to sample the lake this summer, but that was postponed due to COVID19 restrictions. BLPA will sample in August instead. DES hopes to visit in 2021. Sampling locations include:

- In the lake locations are the "Deep spot" (off of Bass Pont) and the outlet (near the dam) in the lake,
- Tributary locations (when flows and water levels are high enough) are Brown, Russell, Billings, Bum Carter, sheep dip, and north shore,
- Billings Pond and Russell Pond (which drain to Blaisdell).

Each spot is sampled for: pH, phosphorous, chloride, conductivity, turbidity, and alkalinity. In addition, the deep spot is sampled for chlorophyll A and water clarity.

Water Quality Results:

In general, the water quality remains stable and good. However, there are negative or worsening trends in chloride and conductivity for sheep dip, Bum Carter, Russell inlet and Russell Pond. DES indicated this could be the result of winter road salt application. The higher inflow concentrations also resulted in slightly greater than the state medians, yet less than a level of concern, for the deep spot and outlet sampling locations in the lake. Russell Pond and Inlet are consistently identified as areas with the lowest quality water. See DES's Volunteer Lake Assessment Program 2019 Individual Lake Report for a great summary of the data and what it means at https://www4.des.state.nh.us/OneStopPub/TrophicSurveys/2019-blaisdell-sutton.pdf.

What We Can Do:

Blaisdell's water quality is a function of the cumulative actions of every property owner in the watershed and especially of those with lake front property. Keeping native vegetation and plants on the shoreline and inland areas, maintaining septic systems, not using fertilizers, and limiting impervious surfaces are simple but critical steps that everyone can take to help maintain the lake's water quality.

Preventing invasive species from entering the lake is also critical as these can degrade water quality and limit recreation. Maintaining and cleaning your watercraft, especially if you use them in other lakes, is critical. Weed watch is also a key part of protecting the lake's water quality.

One of the newest emerging issues is Harmful Algal Blooms or HABs, sometime referred to as cyanobacteria. When these blooms occur, they display bright green surface scums or dingy green water. They can leave toxins in the water that make swimming or any exposure to the water dangerous. See https://www.des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-10.pdf for more info.

For more info check out the NH Lakes Mapper: https://www.arcgis.com/apps/webappviewer/index.html?id=1f45dc20877b4b959239b8a4a60ef540

Submitted by: Steven Domber July 25, 2020