

Water Quality Report

Canaan Street Lake

October 4, 2016

In 2016 water quality was tested at the deepest spot and at the dam outlet on 4 occasions. There are two brooks coming into the lake which have been sampled in the past, but the one on Back Bay road was too dry to sample this year, and the one on Fernwood Farms could only be sampled on June 6th, due to lack of flow. We are still awaiting about 20% of the final results from the lab, but the lab said there is nothing abnormal in the last 20%. Most parameters remain similar to last year and are generally acceptable. We do see an increase in chloride and conductivity which are both above the state lake averages. The numbers are not harmful, but the trend could eventually present problems. Both chloride and conductivity come from road salt and septic systems, with road salt being the major contributor. With limited rain this year, flushing of water and salts from the lake was reduced, thereby leaving road salt in the lake at higher concentrations. This summer NH DOT raised the sidewalk at the entrance to the beach. This barrier should reduce road salt reaching the lake from Canaan Street. This raised sidewalk diverts Canaan Street runoff to a nearby grassy area and to the gutter, bringing it to other grassy areas. Phosphorous numbers were stable this year, and the lack of rain reduced phosphorous laden stormwater runoff from reaching the lake. Phosphorous causes weeds, algae, and cyanobacteria to flourish, and that phosphorous comes from stormwater, certain fertilizers, and septic systems. The beach was tested for E. coli on three occasions, with samples taken from the left and right sides of the beach. All tests were well below the threshold of concern. There were no cyanobacteria blooms this year, but water was sampled on three occasions to look for cyanobacteria. It was present in all samples, but in very low and acceptable quantities. Please maintain your septic systems, use zero phosphorous lawn fertilizer, and use no fertilizer within 25 feet of the lake.

Sincerely,

John Bergeron