

August 2015 WQ Program Field and Lab Audit

Passamaquoddy Tribe at Indian Township

After completing the fourth month of water quality sampling for the 2015 season, we have compiled the following information. This information is to be used to help measure the success of the 2015 season, and to determine if any changes need to be made for the duration of this season.

Sites: Twenty-two (**22**) total Water Quality sites are being sampled in 2015, all lakes and ponds. As we did in 2011-2014, nineteen of these sites are sampled twice a month, approximately every (15) days. The lakes being sampled twice a month are as follows: **Big Lake, Long Lake, Lewey Lake, Grand Falls Flowage, Junior Lake, Scraggly Lake, Sysladobsis Lake, Pocumcus Lake, Side Pistol Lake, Upper Chain Lake, Middle Chain Lake, Killman Pond, Shaw Lake, Mill Privilege Lake, Pleasant Lake, East Musquash Lake, West Musquash Lake, West Grand Lake, and Bassett Pond.** Bassett Pond is a small fishless pond that has been sampled to some extent the last two years. When the schedule allows, we will make a trip to the Jackman area to sample the 3 ponds there, I hope to do this twice in 2015.

Field Audit 87%: (33/38) We were able to sample the majority of lakes and ponds in August this year. A stretch of bad sampling weather caused us to miss 4 lakes and low water levels on Shaw accounted for the 5th missed sample. We sample Shaw lake by launching on its outlet stream, which is usually beaver dammed. This dam has been removed and dropped the water level down to make access difficult. There was a stretch of very hot weather mid month and a very heavy rain event on 8/26/15, both of which likely had a noticeable effect on water quality readings.

Sampling equipment: The Pro-DO that was put into service starting July 2011 continues to be a reliable piece of equipment. The Conductivity meter was replaced in 2014 and is working well. Our pH probe and meter has been put back into service on June 11 and worked well all month, passing all QA/QC tests. Maine's VLMP director Scott Williams met with us on the morning of August 14th to recertify us on taking Secchi readings and check our ProDO meter calibration. Certification went well, both Mark and Joe were recertified as Secchi disk samplers and our DO meter passed VLMP's calibration protocol. Scott borrowed the boat to certify local volunteers in the afternoon. Scott meets with us every summer.

Lab Audit 98%: (130/132) All samples but two have been processed and/or delivered on time this month that were collected. We had a leaky TP bottle that was discarded and lost a CHL-a sample due to broken filter/spill. We process samples for 4 parameters in the lab: Total Phosphorus, Chlorophyll-a, True Color, and Alkalinity. TP is collected and mailed out to the Health and Environmental Testing Lab in Augusta (HETL) every two weeks. CHL-a is filtered and frozen here at the office by our field assistant Mark Richter and then mailed out with the TP samples to HETL. The data from July has arrived from the lab.

Alkalinity is titrated in the office by Joe Musante and has had no problems to report. True Color is being done in the office also by Joe Musante using our DR2700 Spectrophotometer. Things are working well.