October 26, 2009

Kevin Gauthier, Sr. 107 Sutliff Avenue Rhinelander, WI 54501

Re: Project No. SPL-200-09

Dear Kevin,

This is the final report for project SPL-200-09. The period covered in this report is April – October, 2009.

Subsequent to receiving notification of grant application approval (April 13, 2009) a Hach HQ30D digital meter, Hach LDO IntelliCAL probe and 30 meters of cable were ordered. The equipment arrived April 20, 2009. Initial use of the equipment determined that the probe was defective. The initial equipment was returned to Hach and a second meter, probe and cable was received May 22, 2009.

Before training on the equipment was to begin and before it was to be placed in the Phelps Public Library, the equipment was tested over several weeks by comparing readings with other DO meters and with water samples analyzed using the Winkler Method. These test dates and comparison equipment/methods are listed below.

Date	Comparison	<u>Location</u>
<u>5/22/09</u>	LaMott Kit (Winkler Method)	Imogene Lake
5/30/09	LaMott Kit (Winkler Method)	imogene Lake
6/17/09	LaMott Kit (Winkler Method)	Imogene Lake
6/23/09	YSI Meter	Kentuck Lake
7/6/09	Hach HQ30D Meter & Probe	Big Sand Lake
7/7/09	YSI meter	Anvil Lake

While the comparisons did not yield exactly the same results, the readings were close and noted trends were the same, e.g. If readings 3 & 4 in a series were greater than reading 1 & 2, both the comparison and the Hach meter identified the trend. The comparison between the two Hach meters on 7/6/09 produced similar results to the tenth mg/l of DO.

A wooden carrying box was constructed for the DO equipment. Along with the unit, a distilled water dispenser, paper towels and extra batteries were placed in the box. The box was dropped off at the Phelps Public Library on July 20, 2009.

Training others to use the DO meter was handled through the Phelps Town Lakes Committee. At the June 9, 2009 meeting, I indicated that I had the DO meter and asked the various lake representatives to have their lake monitors contact me and I would come out to provide the training. On July 7, 2009, prior to our town lakes committee meeting, I trained the volunteer monitor from the Long Lake District. Unfortunately, the monitors from the other lakes did not contact me or, in one case, preferred to continue using their YSI DO meter. And, on North and South Twin Lakes the previous lake monitor did not take readings during the summer and a replacement was not found until September. Training of this new volunteer monitor by Sandy Wickmann will take place the spring of 2010 and I have requested that the volunteer let me know and I will also attend.

Using the Phelps Public Library as a central location for housing the DO meter should work out nicely. The library personnel are easy to work with and keep good records. The unit was checked-out six times after July 20th. Unfortunately, I was the only one to check the equipment out.

The final component of this project is to address the inputting the lake monitoring data into the WDNR SWIMS system prior to November 1, 2009 and by November 1st each subsequent year. A reminder has been send to each lake representative on the Phelps Town Lakes Committee to remind their lake monitor to submit this data prior to November 1st.

Later this fall or winter, whenever the data is finalized in SWIMS, I will download and compile the information, charts and graphs. This information will be presented at a future town lakes committee meeting.

In summary, the new Hach DO unit readings have been compared with other such units or water sample analyses to insure confidence in the new equipment. The time saved over the water sample collection and analysis method is fantastic. I look forward to training more lake monitors on the equipment next spring.

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