

## **District of Lakeland #521 2014 Water Quality Program Summary**

The 2014 Water Quality monitoring program was carried out during the open water season following the same monitoring and sampling plan used during the last three summers. The prime program objective of this monitoring program remained unchanged which is to ensure compliance with Saskatchewan Surface Water Quality Objectives for Recreation and Aesthetics and for the protection of Aquatic Life. The secondary program objective is to gather baseline physical and chemical parameter data that can be used for comparisons over time to determine trends and to monitor any parameter changes. In addition to the funding provided by the District, generous monetary support was received from the Anglin Lake Cottage Owners Association and the Emma & Christopher Lakes Association.

In 2014, sampling trips were made to Anglin, Christopher, Emma and McPhee lakes to collect physical parameter data. The sampling locations remained the same as those established in 2005 by the Saskatchewan Water Security Authority (WSA) to maintain data continuity. At each of these sites a depth profile method was used to collect data on the following parameter in the water column: water temperature, pH, dissolved oxygen, conductivity and transparency data (Secchi depth). During the middle of September, a water sample was collected at Anglin, Christopher, Emma and McPhee Lakes which was analyzed by the Saskatchewan Research Council in Saskatoon.

This program utilizes a number of volunteers at each of the lakes to provide assistance and boat transportation to the sampling locations. The District of Lakeland thanks the following individuals: Al Christensen at Anglin Lake, Rick Johnson and John Tuchek at Christopher Lake, Wayne Hyde at Emma Lake, and Louis Smith and Ray Johnson at McPhee Lake.

The 2014 data collected at all of the sampling locations remained consistent with the previous data obtained at these sites. **All of the data collected met the provincial objectives for Recreation and Aesthetics and for the protection of Aquatic Life.** As nutrients are a common water quality indicator, in 2012 the WSA recommended that additional analysis for nutrients be added to the program and that has been done for the years 2012 - 2014. Very little change has been observed in these value over this period

There were also a number of reports of increased algae and weed growth at some beaches on Emma Lake during the summer. In response to this, the District obtained samples in July of inflow to the south end of Emma Lake that was passing through ponds between South Shore Drive and the lake. These samples were analysed by the Saskatchewan Research Council in Saskatoon for nutrients and the results were very similar to those obtained at locations in Emma Lake sampled in September.

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Environmental Advisory Committee  
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