

## **PLRS update to PLPO – June 5, 2010-06-03**

Carol Moen (current Chair of the PLRSC) and Ed Lawrence (current Vice Chair) were unable to come to the meeting and asked me to provide the update. My name is Patti Belbin and I am the current Treasurer for the PLRS.

I will give you an update on lake level data from last year, our strategy for this year as well as the key activities we are focusing on this year.

### **2009 Lake Level Management:**

- Apr 7, 09 - lake level at ~ 889.420 meters (elevation)
- Ice off May 2<sup>nd</sup> - lake at 889.530
- No rain – dry Spring
- May 18 high point for season - 889.550
- Jul 1 - 889.440 - rain
- Aug 5 - 889.460 - rain
- Finally were able to open pipe Aug 5 to Sep 1
- Sep 1 - 889.400 - hot days and lots of wind
- Oct 15 - 889.250
- Oct 19 - 889.260 Lots of waterfowl in area due to general dryness in region. Target lake level for freeze up was 889.250.

### **2010 Lake Level Management Strategy:**

- Opened pipe right after thaw. Apr 5, 10. Level was 889.41 on Apr 5 and Apr 23 889.525. Plan was to take logs out of weir to let water run over weir until 889.550 lake level was reached. However this was not required following thaw due to there being no significant spring run off.
- The level hit a low of 889.34 shortly following this and then the Spring snow and rain started. We started the pipe a couple of weeks ago and just recently removed logs from the weir to manage the water coming into the lake from the snow melt and rain. The lake was at 889.62 on June 2<sup>nd</sup>. We expect to replace the weir logs shortly (if they aren't replaced already) and just run the pipe.
- Our desire is to run the hypo lymnetic withdrawal system through the whole summer to remove high nutrient water in the lower part of the lake but this will be dependent on lake levels.
- The target lake level will be managed at 889.550 through the recreational season up to Sept 15. This will be consistent with last years levels.
- The plan for freeze level will again be ~ 889.250 and will be targeted for Nov 1, 2010.

### **2010 Focus Activities:**

- Review of 2007 watershed water quality study to understand high nutrient streams feeding the lake and options to manage – underway.
- Collect samples of streams feeding the lake as they open in the spring and analyze for nutrient loading – complete.
- Collect sediment samples at the locations where feed streams enter lake. Analyze for nutrient loading – complete.
- Begin collection of more detailed lake water quality data. Identify locations on lake for sampling at multiple depths. Conduct two sampling runs and data analysis through the summer season.

- Review all of above data to gain enhanced understanding of nutrient loading coming into the lake vs that which is generated in the lake itself. Work to understand benefits of up stream water treatment projects vs in lake treatment options.
- Investigate in lake treatment projects underway at Lac La Nonne and Lake Nakamum. Alberta Environment (and others) are currently supporting a pilot project using a Ferric Chloride flocculant treatment system that works to react and settle the high nutrient solids in the lake and ultimately result in improved clarity and lower algae growth. Encouraging results are being realized in the pilot. PLRS is excited about this opportunity but of course wants to investigate further to determine if a similar approach would be workable for Pine Lake.
- Finally, we are working with the County to accept the algae we remove from the lake at the waste transfer station. Alberta Environment has recommended to PLRS that landowners should remove the algae and weeds that come ashore vs leaving them in the lake to accelerate further growth. As such the County may consider waiving tipping fees for movement of this algae to the transfer station. We are still working on this and can't say for certain yet if this will happen. Stay tuned and watch our web site. **[Pinelakealberta.com](http://Pinelakealberta.com)**
- We are organizing our annual Clean Lake Days fun event. We hope you can join us on Saturday August 14<sup>th</sup> at the Hub Center for bbq, hay rides, auction and dance. This event is perfect for the whole family!