

**BONNECHERE RIVER WATER MANAGEMENT PLAN
STANDING ADVISORY COMMITTEE (SAC)**

**Minutes of Meeting #2 - November 23rd, 2005
Bonnehcchere Valley Township Office, Eganville**

Attendees:

SAC: Kevin O'Connor, Ross Campbell, Murray Borer, Lucy King, Don Pouliot, Steve Munger, Niall McArdle, Murray Bimm

Algonquins of Pikwàkanagàn: Jan Leroux

MNR: Michael Radford, Joanna Samson, Paul Moreau, Nick Paroschy

Waterpower Producers: Peter Boldt (RPG), Andreas Vornweg (Vornweg Waterpower), Frank Scheer (Eganville Generation Corporation), Janusz Rydel (Multistream Power Corp.)

Other: George Comfort & Andrew Liddiard (BMT Fleet Technology Ltd.)

Regrets:

Aurel Boucher

1. **Ice Damage Study**

1.1 A hard copy of the ice damage study was distributed to every SAC member and a presentation by George Comfort, BMT Fleet Technology Ltd. followed. (An electronic copy of the presentation will be provided)

1.2 Questions & Answers

The following is a summary of the questions asked to the consultants during and following the presentation:

(Kevin O'Connor (KO)) What is the process of taking the temperature of the ice?
(George Comfort (GC) *Using a diagram on the flip chart* – Coefficients have been calculated regarding temperature change VS the rate of conductivity. We would look at the air temperature data from Combermere and the amount of snow cover. Ice temperature is very important as expansion is a result of temperature change.

(Don Pouliot (DP)) Asked about the direction of the cracks and therefore the direction of push and where damage occurs.

(GC) Ice will push in all directions across the lake (5cm/1km/C°) 5cm of movement for each kilometre of ice per degree change.

(DP) Doesn't the sand berm get pulled back with the water during the spring?

(GC) Some soil will stay depending on the material.

(DP) On Round Lake, berms don't last. They get washed away by the water. Some cottagers rake them out but mostly they get washed away. Berms won't be much help for you as they disappear.

(GC) If they are stabilized with vegetation, they'll have a better chance of staying and not being pulled back.

(Michael Radford (MR)) With spring flooding this year, the berms got pulled back. However, this year may have been an anomaly. We don't always have an event like we did this year.
(DP) I don't believe that the berms are stable enough; however agree with leaving them if the conditions allow it.

(Murray Borer(MBorer)) If you want to build a berm, how high would it need to be?
(GC) Not high, 1-2ft. You want a slope.
(DP) So therefore rock abutments are not really good.
(GC) Yes, they are not.

(KO) Was there a deliberate raise in water levels over the three years with ice push?
(Andrew Liddiard (AL)) There was an increase in water levels due to rain events.
(GC) But you can't single out just one factor. You need a combination of events. For example in '95-'96, we had the highest ice temperature increase in the 11yrs but didn't get an ice push because there was good shoreline bonding. In '01-'02, there was no major temperature increases in ice, got a lot of snowfall.

(KO) How long will it take to lower the lake?
(DP) Can't respond fast enough to a large rain event. I imagine it's hard to react to unique situations.

(KO) So if the water drops, this is a good thing.
(GC) Yes.
(KO) And the power producers can contribute to this.
(GC) Yes, but in 1994-1995 we got a significant rainfall.

Question to Peter Can we pass enough water to keep up with a rainfall event?

(Peter Boldt (PB)) Depends on the amount of rain but by the time you realize you got it and you send someone up to pull the logs, it may not be fast enough.

(DP) If there is no rain fall, no catastrophic events – and RPG starts drawing down @170.8, how confident are you that there won't be an ice event?
(GC) Hard to say with so many factors at play, however, if I were to guess and go with a gut feel – I would say 95% confident that there wouldn't be an ice push event. This is with no rain, or catastrophic events, and no rise in water levels.

(MR) Where/when is the actual start point for freezing, upon which you are suggesting the water level be dropped and not raised?
(GC) When the lake is completely covered with ice.

(Jan Leroux (JL)) But Golden Lake doesn't completely freeze over. Some areas of it don't freeze.
(GC) Open areas need to be pretty big – greater than 10% of the entire area, to have an effect. It's better to be safe than sorry and err on the side of caution. When at least the majority of the lake is frozen approximately 90%, I would suggest you pick that as the freeze up date.

(Steve Munger (SM)) What percent, or how much of a proportion, of ice movement is due to wind?

(GC) You get ice push either from wind, which is not the cause here, or from thermal expansions (increase in temperature) two separate events that are generally mutually exclusive. You would need to have large areas of open water to have ice push from wind.

(SM) So for here, the influence of wind is negligent if the lake is completely frozen over.

(GC) yes.

(SM) If snow cover impedes freezing, have you ever come across a management situation where you might plough the snow in front of your property so freezing isn't impeded and you can increase the shoreline bond?

(AL) No. You could however; the effect would not be great. The bigger question is still how much ice/shoreline bond exists. We have seen situations where a hole is drilled, and a fire pump is used to spray water into the air. This adds mass so when ice starts moving, it's that much harder for it to go up the slope.

(KO) What has been done in the past with respect to the water level? Has it been dropped before?

(Peter Boldt (PB)) It's always been dropped. The difference now will be when we start to drop it.

(JL) Could you dig on your shoreline to make a natural revetment?

(GC) Not really. Rain would erode it away.

(KO) What about retaining walls? Can ice really move anything?

(GC) For a retaining wall to work you really have to have a good foundation and would be a major engineering project. Forces are tremendous.

(GC) Recommendation: Round Lake and Golden Lake draw down of 4cm/week upon freeze up but lakes are not the same size so you will need to explore what this really means in term of number of logs.

(DP) If you were to assume that every year will have ice damage, at what level do you think the water level should be to minimize the encroachment of the ice on properties? How much can ice move?

(GC) Worst case scenario is that you would have a couple hundred feet of ice push so you would want to be at the lower end and try to account for that. But you need to be careful because you can't exceed the lower part of the operating regime in the water management plan. You would need to drop a reasonable amount to be safe. You may want a more conservative approach – lower water so you don't get ice push. One foot lower is 30cm or .3 metres. This is complicated by the fact that it is not just thermal expansion but ice jacking. A better approach conceptually is to not have ice events. You need to remember that a rise in water level alone isn't enough for an ice push without a corresponding rise in temperature. We saw this some years and without the ice temperature increase, we didn't have ice push.

(SM) What role does the SAC have with this? Is it the role of this group to recommend to municipalities that people are being allowed to build too close to the water?

(Paul Moreau (PM)) No. That is a role for MNR. We have a District Planner whose job is to comment on Official Plans and Zoning By-Laws to this effect. The role of the SAC is to advise on the water management plan – operating regimes, proposed amendments, and information needs.

(KO) What is the message or recommendation? Is the biggest change the start date of drawdown which is Dec 15th?

(PB) Yes. However the start date of the drawdown is going to depend on when freeze over occurs. It needs to be fluid. Sometimes freeze-up may be earlier – Dec 15 or later, after Jan 1st. The important thing that I'm hearing is that we need to be on our draw-down upon freeze-up.

Thanks was given to George Comfort and Andrew Liddiard for the coming and presenting the study. They departed when the questions were answered.

2. Approval of Minutes of Meeting #1 – Sept. 29/05

There was discussion regarding confidentiality of draft minutes and whether or not SAC members could discuss what occurred at meetings prior to the minutes being finalized. Paul responded that the SAC is at liberty to discuss the information provided at the meetings; however asked that SAC members not share the minutes of the meetings until they are approved by everyone. This will eliminate the potential for confusion between the approved minutes and the draft minutes.

Murray Bimm – Corrected his postal code

Jan Leroux – Provided an updated email address

Action: Joanna to send updated contact list to SAC

Murray Borer moved to approve the minutes. Minutes of Meeting #1, Sept 29/05 were approved as is.

3. Further Discussions of Ice Damage Study

Peter Boldt has committed that RPG will draw down Round Lake as per the recommendation of the study, paying particular attention to freeze-up. Similarly with Golden Lake, however RPG may need to change the way it is being operated to ensure that the power producers don't freeze their equipments.

Paul clarified that a continuous drawdown on Golden Lake depending on freeze-up is necessary and will be drawn down as low as it can.

Peter Boldt explained that RPG is not out to damage or hurt anyone and that he is very aware that they need to be careful of shoreline adhesion. Based on BMT Fleet's recommendation, RPG will need to ensure that their next move is that at freeze up, they are

drawing down. RPG needs to watch for and understand when freeze over is actually freeze-over.

Murray Borer asked if there was an information need that we need to get out to the landowner's with respect to berms as this would be something the SAC can recommend as opposed to telling Peter how to operate.

Michael agreed with Murray and mentioned that MNR would be sending out a news release regarding the completion of an ice damage study.

Discussion took place around the responsibility of the SAC was with respect to the ice damage study. It was explained to the SAC the study was presented to them for information purposes only, however, they can recommend a change to the plan or a change to the operating requirement if they feel one is necessary. Any recommendation would be brought the Steering Committee. However, it was emphasized that both MNR and the power producers would like the SAC to be more comfortable with the plan prior to having the group make recommendations.

4. News Release

Thank you to everyone for their bios!

A copy of the draft news release was distributed to everyone to have final look. It is being sent to the media outlets on Friday (November 25/05)

Niall McArdle provided Joanna with some minor corrections to his bio.

5. Terms of Reference

The latest draft of the Terms of Reference was sent by email prior to the meeting

5.1 Selection of Chair

Discussion regarding the election of a chair was deferred to the next meeting.

5.2 Terms of Reference

Steve Munger discussed performance indicators and questioned whether we could use them to help the committee see how the plan is being managed. He made links to where he thought performance indicators could fit into the roles of the Standing Advisory Committee in the Terms of Reference.

Paul Moreau explained that during the planning process, the issues that arose were the performance indicators. Issues were ranked, however they were difficult to quantify. Steve Munger suggested that he would think about some key performance indicators and put them in writing.

Further discussion around finalizing the Terms of Reference was deferred to the next meeting as a result of time constraints.

6. **Date of Next Meeting**

Bonnechere SAC meeting #3 @ 6pm in Eganville – ~~Wednesday, January 25, 2006~~
PLEASE NOTE: Date has been changed to January 18th, 2006

Joanna will attempt to find a new meeting location in Eganville. The location will be sent the SAC with the meeting agenda. **Frank Scheer** to book the the Township Office as a back-up.

The next meeting will focus on the Terms of Reference and education, i.e. plan development.

7. **Adjournment**

The meeting was adjourned at 8:50 pm.