

## MINUTES

October 26, 2009

### ST. MALO LAKE STEWARDSHIP WORKING GROUP MEETING

**Present:** Marc Hamonic, Luc Lahaie, Neil Loughran, Georges Beaudry, Kristy-Layne Carr, Pat Watson, Jules Gosselin, Gerry Maynard

**Regrets:** Jodi Goerzen

**Invited Guest:** Pascal Badiou

1. Adoption of the agenda
  - i) A discussion ensues regarding the IWMP and whose responsibility it is to bring up upstream issues.

**8-2009: Jules Gosselin – Gerry Maynard**

BE IT RESOLVED THAT the agenda be hereby adopted as presented.

**CARRIED**

2. Welcome of Invited Guests – Pascal Badiou – Research Scientist, Ducks Unlimited Canada
3. Question Period with our invited guest

Pascal has prepared answers to the questions that were sent to him ahead of time. He discusses the information and accepts new questions that arise.

**#1. Biological/ecological condition of the Lake**

- The lake is basically healthy with moderate phosphorus levels. The vegetation growth in the Lake is not really an ecological problem at this point as it is actually healthy for fish. It is difficult to compare a boreal lake to a southern lake (specifically St Malo Lake) as the conditions are quite different.
- A reservoir will have a natural accumulation of sediment. The life cycle of a lake involves gradual eutrophication. The lake will fill in slowly and it will become more and more productive (in terms of aquatic life) as more nutrients flow in. St Malo Lake was clear at the beginning because a clear stream was flowing into it.
- It is probably best to deal with the upstream issues rather than dredging the Lake. Harvesting vegetation is one of the worst things you can do as it can trigger algal blooms, and disturbs sediment which turn releases nutrients and

there are no plants left to uptake them. This has happened to the City of Winnipeg while trying to clean up their storm water basins.

- It is a good idea to test the nutrients coming into the Lake. Make sure to measure at the end of March – early April (most people miss this time) to catch the largest nutrient inflows, snow melt. The rate of sedimentation in St Malo is probably not unusual. It might be interesting to find historic bathymetric imagery and compare it to today. As it has been essentially manmade, St Malo Lake will always require some type of management.

## **#2. Vegetation/weed/algal growth**

- Sediment is not a huge ecological issue. There is a need to monitor the extent to which the vegetation takes over. Dissolved nutrients are available to plants, and the release of nutrients causes anoxic (less oxygen) conditions. The more oxygen that is available, the more the nutrients stay bound. Spring nutrients flow through the reservoir and downstream. The retention time would tell you if the nutrients are able to settle or not.
- Doing a drawdown with the intention of freezing out the vegetation would not work, as the plants are adapted to freezing over winter.

## **#3. Lake Bottom**

- It would be appropriate if the bathymetry of the lake were recreated. Native Plant Solutions (in Wpg) is a resource available to the group. The layout of the bottom could be reconfigured to become more sustainable. When the dam was built, the south end was not excavated (you can still see the old road in orthophotos). This could make it easier to re-contour back to natural if it was simply left to fill up in 1958. DFO could be an obstacle. If the Lake bottom was sculpted more appropriately, vegetation may not grow back all over, only in localized areas. Use a suction dredge vs. a dry bed dredge?

## **#4. Gas powered boats**

- The use of gas powered boats can increase algae by stirring up sediments and re-suspending them (making them more available). The chance of introducing zebra mussels into St Malo Lake is also increased. Wind is actually more effective at mixing oxygen into the water than boat propellers. Gas powered boats are not seen to be a huge concern but there are potential issues surrounding their use. Boats will not negatively affect shoreline erosion as wind has a greater effect.

## **#5. Fish Ladder**

- There are no ecological issues associated with the use of fish ladders. Would carp downstream have access to St Malo Lake through a fish ladder? If they are present downstream, they are likely in the Lake already as they only need a bird to carry their eggs. Would a fish ladder have an effect on pickerel? That depends on the quality of their habitat. If the habitat is better downstream, then they will leave the Lake. The worst case scenario would be for them the spawn downstream, and then the eggs die.

## **#6. Vegetation for Bank Stability**

- Native Plant Solutions can be a resource for this issue. The issue is localized and there should be solutions.

## **#7. Issue Solutions**

- Avoid the removal of plants. For sediment removal, all relevant background information needs to be gathered to satisfy DFO. The fact is, impoundments have a shelf-life (use this argument with DFO). Pascal will look for examples of dredging impoundments. Should Blue Stone be used for eco-friendly vegetation control? NO WAY, the vegetation will die and then two weeks later a massive algal bloom will form unless Blue Stone is constantly added (this leads to a build-up of copper).
- Green scum is algae or phytoplankton. Scum that is stringy and long is called "elephant snot". This is not algae and not a concern. Algae will always be present in St Malo Lake. "Grass clipping" algae is NOT good. If it looks like a concern, collect a sample when the algae are bad and Pascal will have a look at it. The algae seems to be worse in the winter and no one is sure why. Also take samples of vegetation and send it in to DU; the types of plants will tell a lot about the quality of the water.

## **#8. Monitoring the Lake**

- Look at the key nutrients. Map out the location of submersed vegetation over time. Perhaps think about a community sampling program (similar to Lake of the Woods) for algae. Pascal would look over the results.

## **#9. Change in Fall Water Levels**

- The effects on plant survival, related to changing water levels, depends on where the plants are located. If the plants are left dry, they will be OK. If they are submerged and die, this will use up oxygen.
- Manitoba Water Stewardship had approached the RM about fluctuating water levels for flood control. This could cause bank erosion. It may reduce or enhance species, being better for one but worse for another. Remember: fish kills do not always show up as fish rising to the top or ending up on shore.

#### **#10. Miscellaneous**

- Is the fish stocking working? Whitemouth Lake is similar but a bit bigger.
- Short-term retention is good for the Lake downstream.
- Should Zhoda be reinstated as a site for water quality monitoring?
- There needs to be some regulations on human waste entering the Lake. Perhaps submit receipts for pump outs?
- Plants could be using up a lot of phosphorus and when they die in the fall, phosphorus is released which is why there is so much “scum” floating in the water.
- Pascal will look into stocking issues.
- Discussion ensues regarding article by DU in Free Press. Are there algorithms for the amount of drainage area related to nutrient loading?

#### 4. Review and adoption of the minutes

##### **9-2009: Gerry Maynard – Neil Loughran**

BE IT RESOLVED THAT the Minutes of September 1, 2009 be hereby adopted.

**CARRIED**

#### 5. Old Business

Skip

#### 6. Next Steps

- a. Compile information & discuss potential projects and recommendations
- b. Inform public
  - i. Chair will put together information to inform public of what the committee is doing (local news).

- c. Pat to e-mail IWMP process to the group to discuss at the next meeting.
- d. Neil will compile information and relate it back to the issue list. He will then send it to Kristy-Layne to review.

7. Next meeting

- a. Invite Doug Leroux – Manitoba Fisheries
- b. Also invite:
  - Jason Lasuik – Environment Officer, Manitoba Conservation, Steinbach
  - Dave Stevens – Park Superintendant

8. Adjournment – Marc Hamonic