

## **Sherbrooke Lake Stewardship Committee Meeting**

**January 11, 2018**

### **Municipality of the District of Chester Municipal Office**

Those in attendance: Mat Whynott, Blake McDonald, Garth Bangay, Terry Matheson, Robin McAdam, Shanna Fredericks, and Trudy Payne.

Regrets: Chad Haughn

Moved by Garth Bangay and seconded by Terry Matheson that the minutes of December 2017 be approved as circulated.

#### **Nomination of Chair and Vice-Chair**

Moved by Mat Whynott and seconded by Robin McAdam that Garth Bangay be appointed as Chair. Motion Carried.

Moved by Mat Whynott and seconded by Blake McDonald that Robin McAdam be appointed as Vice-Chair. Motion Carried.

#### **Continued Discussion of water quality monitoring program**

North Branch sub-watershed – survey done by Coastal Action – send it out to the whole group to fill out if feel they have the knowledge. Coastal Action has partnered with Nature NB on an ecosystem services modeling project. Shanna will circulate the survey questions to the members of the committee.

Since the Committee had not met since early December 2017 Shanna reviewed what was previously discussed concerning types of sites, frequency of sampling, parameters for testing.

#### **Types of Sites**

1. Lake (previously identified on maps as DP2, DP3, DP4, DP5) these would YSI and grab samples
2. Depth Profile Sites include DP1 to DP5
3. Public Access – swim area
4. Inlet streams
5. Sediment sites

#### **Sampling Frequency – Monthly**

1. Four lake sites (DP2, DP3, DP4, DP5)
2. Public Access site
3. At the mouth of Zwicker Brook
4. At the mouth of Pine Lake Brook
5. At the mouth of Sherbrooke River
6. At the mouth of Forties River

It was decided to include the mouth of Sherbrooke River to the list and not do the Franey Corner site. Coastal Action has been monitoring the Franey Corner sample site for over 10 years and this site will

remain independent of this water quality program. It is not possible, logistically, to conduct both the Sherbrooke Lake Monitoring Program and the LaHave River Watershed Monitoring Program on the same days to allow for this sample site to be shared between the programs.

### **One-time Sampling Events**

- . Depth Profiles at all 5 sites (DP1 to DP5) and sediment sampling. These are to be done on the same day either in July or August each year. This will involve collecting YSI data and sampling nutrients at the surface and 1 m from the bottom of the lake (under the thermocline).

- . Seven inlet streams will be sampled after a heavy rainfall (within 12-24 hours of rainfall) of more than 25 mm of precipitation. It would be great to find someone with an existing rainfall gauge near the lake to determine rainfall amounts.

### **Parameters at Site Types**

Lake Sites and public access site – YSI water meter parameters, hydrocarbons, total suspended solids, total phosphorus, total nitrogen, fecal coliforms, and Chlorophyll *a*.

Sediment Sites – three sediment sites (DP5, Public Access, and mouth of Forties River) have been selected for the analysis of the following parameters: heavy metals, fecal coliforms, total phosphorus, orthophosphate, and total nitrogen. Sediment sampling will be done on the same day as the depth profiles.

Inlet streams – YSI water meter parameters, total suspended solids, total phosphorus, total nitrogen, fecal coliforms, and Chlorophyll *a*.

Depth Profile Sites – YSI water meter parameters, total phosphorus, and total nitrogen, sampled at the surface and 1 m from the bottom of the lake.

It was decided not to include monitoring for shoreline erosion as it was felt that this parameter was not a significant issue as most of the lake's shoreline is rock. There is a cost to each activity included in the program and it was felt that other factors were more important to include in the program and the budget.

### **Budget**

Shanna was asked to draft a budget based on the discussion of the sites, what to include for testing and how often. She was asked to do a budget based on Coastal Action doing everything and another one that involved volunteers. Equipment was discussed. As program manager, Coastal Action could borrow from the Community-Based Environmental Monitoring Network (CBEMN) equipment bank – it will come down to scheduling of pickup and return of the equipment to Saint Mary's University. It was recommended that purchasing a new YSI water meter should be included in the budget to be presented to both MODL and MODC. Having our own equipment makes scheduling so much easier. It could be stored, maintained, and calibrated at the Coastal Action office.

The CBEMN folks provide online training modules on how to use a YSI. People can complete this training on their own time – no cost for the online training. Coastal Action will do on-site training for all other aspects of the monitoring program.

Trudy to check out with insurance if volunteers use their own boats. She will also check with Chad to see how this works with the Fox Point Lake Water Quality Monitoring Program.

Quality Insurance Quality Control (QA/QC) samples – add that into the program and to the budget. At least 10% of the samples should include a field replicate or blind sample sent to the lab for quality assurance.

It was mentioned that we should soon do a call for volunteers. It was estimated that we would require about 6 volunteers to be trained in all aspects of the proposed monitoring program.

Terry Matheson said he will try to get DFO's safe operating procedures and pass them on to Trudy concerning boat use.

### **Algae Bloom**

It was discussed that in the case of an algae bloom, volunteers should collect a sample in the lab-provided bottles and deliver them to the Maxxam lab or Coastal Action right away. It was discussed that several of these bottles should be obtained from the lab and given to volunteers living in different parts of the lake as some algae blooms may not be visible in all parts of the lake. It was discussed that the provincial government provides a fact sheet for homeowners on the risks associated with an algae bloom. Blake will send links to include in the minutes.

Sherbrooke Lake Camp – It was noted the camp is open from May 15 to end of August with staff living at camp the whole time. They are looking at hosting a number of Water schools. There may be an opportunity with a staff person on site to assist with the water quality monitoring program in some way. The question was raised does DFO have a boat that Camp staff could go with staff of DFO to take water samples? The question for everyone to think about is “How can the camp be involved?”

### **Next Meeting**

Next meeting date: January 25, 2017 at the Municipality of the District of Chester Municipal Office.

### **Adjournment**

Meeting was adjourned at 9:02 p.m.