

**RECORD OF A MEETING OF THE NORTH BAY-MATTAWA
SOURCE PROTECTION COMMITTEE
AND PRESENTATION TO THE PUBLIC FOR THE CALLANDER AREA
7:00 PM, THURSDAY, MAY 06, 2010
Held at the Callander Community Centre, 1984 Swale St. Callander, ON**

1. Administration

a) Meeting called to order @ 7:05 PM by Chair, Barbara Groves.

b) Attendance – No Quorum. Abandoned agenda items requiring quorum.

S P C	Staff and Liaisons	Regrets
Barbara Groves, Chair	Sue Miller, Manager DWSP	
Dennis MacDonald	Rob Pringle, Source Protection Planner	Ian Kilgour (SPC)
John MacLachlan	Francis Gallo, Water Resources Specialist	
George Onley	Sue Buckle, Communications Advisor	Absent
Maurice Schlosser	Scott Higgins, GIS Specialist	Lucy Emmott (SPC)
George Stivrins	Neil Gervais, MOE Liaison	Laurier Therrien (SPC)
Roy Warriner	Chuck Poltz, NBPSDHU	
	Tammy Karst-Riddoch, Hutchinson E.S.L.	
35 Members of the Public, including staff & council of the municipality, and reps from local groups.		

c) Introductions

Barb Groves welcomed the committee and members of public to the presentation.

Sue Miller provided a quick summary of the process which occurred since May 2009 towards the revision of the Callander study (intake location and microcystin issue), then introduced Tammy Karst-Riddoch of Hutchinson Environmental Sciences Ltd, who is the consultant on the project.

2. Callander Technical Study Revisions and Updates – Tammy Karst-Riddoch

Tammy presented the findings of the revised technical study, which include modifications based on changes in technical guidance, verification of the system intake location, and the introduction of a recognized issue based on changes to legislative interpretation.

It was necessary to revise mapping for the intake protection zones 1 and 2 based on the changed location of the intake. Members of the public must be aware that the area on-land which is now covered by these zones has changed significantly since the report was released in May 2009. Changes in the technical guidance also added or modified threat circumstances, which changes some of the final listing of potential significant threats.

Based on a change of interpretation of the *Clean Water Act* and *Regulations*, it was decided that an existing “drinking water issue” could be identified by having a measured concentration of an algae taxae

which has the potential to produce the harmful Microcystin toxin. Previously, measured concentration of the toxin itself would have been required, which is difficult because of the unpredictability of its production. Factors contributing to the production of this type of algae include phosphorous (combined with light, temperature, stratification/mixing, and other nutrient loading). The issue approach identifies all sources of chemical contamination as Significant Threats in the Issue Contributing Area. The Issue Contributing Area for the Microcystin issue is 120 m on either side of the contributing watershed, which is coincident with the entire IPZ-3.

This has added a large number of threats to the final report, however as the process moves towards the completed Assessment Report, there will be a Phosphorous Budget completed to identify all areas of Phosphorous contribution in the Issue Contributing Area. This will identify what proportion of the phosphorous is originating from human sources, and the location and composition of natural or sediment phosphorous loads in the watershed. This will include extensive research and field study.

A slide deck of the presentation slides are attached to this meeting record.

3. Questions from the audience.

A record of questions and answers is attached to this meeting record.

4. Adjourn

Meeting adjourned at 8:25 p.m.

Original Signed By

Barbara Groves, Chair

Original Signed By

Sue Miller, Project Manager

**Comment Record for Public Consultation Session
Callander Municipal Technical Study
Thursday, May 06, 2010 – Callander Community Centre**

Q. What other impacts are covered in the Phosphorous Budget? Does it count natural sources?

A. Yes, natural sources are incorporated in the Budget. It is relatable to balancing a chequebook, all transactions are accounted for. In a Phosphorous Budget, transactions include atmospheric, sediment, and human sources. There are models developed for calculating the natural phosphorous contributions.

The budge will attempt to determine what levels of phosphorous should be occurring naturally, and how much is being contributed from human impacts. This will include some analysis of past human impacts.

Q. 2009 was not a typical year for the Callander Bay algae bloom, do we know why?

A. There was also a non-typical weather year. A warm spring led to lots of overland runoff. Weather conditions in early June, including high wind events, created ideal conditions for algae growth earlier than normal.

Q. What about this season. We saw lower precipitation overall, does that mean we'll have a completely different growth year?

A. Either extreme – high runoff or low runoff – could cause significant algae blooms. If the water levels are lower this year, it increases the likelihood of overall increased concentrations of phosphorous and algae. Again, conditions may change still – it is impossible to predict what will happen exactly.

Q. What is the significance of the ratio of phosphorous to nitrogen which was mentioned in the presentation?

A. Blue Green Algae can fix nitrogen from the air which is then used for the growth of the bloom. Low nitrogen concentrations (ratio compared to phosphorous) do not necessarily mean that the cyanobacteria will not grow, because even at low nitrogen loads, atmospheric nitrogen can be used. This is one of the reasons it is more important to focus on the Phosphorous loads.

Q. The study is taking this special case of 2009's conditions for granted, but residents have seen a trend over a five year period. Why is this just now becoming an issue?

A. This study is being done because there is a mandate now to complete the work. Last year was a special case. It wasn't an unlikely event, but it was a significant occurrence for Callander. It should be noted that there will always be a community of Blue Green Algae in Callander Bay, but the conditions will restrict or promote growth, and those conditions will always be in flux.

Q. What is the intention of this study? Will there be a plan for remediation?

A. The goal is to manage the human impacts related to phosphorous loading. This is a complex issue, but the project team includes one of the top experts on phosphorous budgets. The study aims to find out how the Bay works – what are the patterns that cause the growth of the blooms. We know the bloom has been more apparent in the last 5 years, and we know it can get worse because of human activity, but it will not just go away, even if we cut all phosphorous inputs form human sources.

Q. Last year was the first time that there was a noticeable taste and odor issue. Why it just now, and is there a way to fix it?

A. Odor issues are normally a result of biomass decay – so when there are larger blooms, there is more biomass that will decay. There is also increased production of chemicals, which give off an odor and can produce a poor taste.

Q. How detrimental to health is the odor?

A. Health issues are a result of the neurological and liver toxins which are produced from certain types of the algae. So far there have not been any recorded levels of toxins that would be hazardous to human health. The odor is not necessarily indicative of a health risk; it is more of an inconvenience. Exposure to the algae can produce skin irritation.

Q. What is the timeline to solutions? To the residents this is urgent!

A. This has been an ongoing issue since the mid-1950s. Scientists are still attempting to figure out what changes are happening. A lot of good work has been done to decrease phosphorous usage, especially in fertilizers and detergents, but remediation takes time.

Q. What is the plan?

A. We don't have a plan yet. We need to understand more of the science and conditions, and then set out policy. *It was noted afterwards that the question was directed at immediate remediation plans, rather than source water protection. Follow up was done with the individual after the presentation to clarify the scope of the Phosphorous Budget and Source Protection Plan. Additionally, members of the Callander Sustainable Communities Committee were on hand and advertised events which are designed to slow the human loads.