

HALIFAX REGIONAL MUNICIPALITY

HALIFAX/HALIFAX COUNTY WATERSHED ADVISORY BOARD MINUTES APRIL 16, 2003

PRESENT: Dr. Wayne Stobo, Chair
Ms. Ellinor Williams
Mr. Walter Regan
Mr. Glen Williams
Ms. Christine Smith
Mr. Shalom Mandaville
Dr. Barry Thomas
Mr. Ross Evans
Mr. Lawrence White
Mr. David Dwyer (part)
Mr. Frank Hope
Mr. Jim Holmes
Dr. S. Ray

ABSENT: Ms. Janis Rod (regrets)
Dr. Spencer Lee (regrets)
Mr. Peter Murray (regrets)
Mr. Bill Ernst (regrets)
Mr. Keith Manchester

ALSO PRESENT: Ms. Susan Corser, Planner
Ms. Lynne Le Boutillier, Legislative Assistant

TABLE OF CONTENTS

0.1	Lake Carrying Capacities and Cumulative Impacts from Nutrients and Cumulative Impacts from Nutrients, Metals, Hydrocarbons and Pesticides - Presentation	3
1.	Approval of Agenda, Additions and Deletions	3
2.	Approval of Minutes	3
3.	New Business	
3.1	Proposed Water Quality Monitoring Program for Parcel D - 36 Townhouse Condominium Project - Glen Arbour	3 - 6
4.	Business Arising from Minutes/Status Sheet	
4.1	Water Resource Management Strategy	6 - 8
4.2	Sewage Outfall - Five Island Lake	8
	Status Sheet	8
5.	Concept Plans	
5.1	Withrow Avenue/Hubley Lake Road, Five Island Lake - Amended Concept Plan	8 & 9
6.	Items to be added to the next Agenda	9
7.	Date of Next Meeting	9
	Information Items	9
	Workshop - Halifax Harbour	9
8.	Adjournment	9

0.1 **LAKE CARRYING CAPACITIES AND CUMULATIVE IMPACTS FROM NUTRIENTS AND CUMULATIVE IMPACTS FROM NUTRIENTS, METALS, HYDROCARBONS AND PESTICIDES - PRESENTATION**

Mr. Mandaville gave a comprehensive presentation to the Board and guests. He had provided the members with a package of materials related to the presentation in the agenda package.

There followed a question and answer session.

At the conclusion of the presentation, Mr. Mandaville referred to Board member Christine Smith having recently completed her thesis and her obtaining a Masters of Environmental Science from Dalhousie University.

1. **APPROVAL OF AGENDA, ADDITIONS AND DELETIONS**

The following addition was made to the agenda:

Item 4.2: Sewage Outfall - Five Island Lake

2. **APPROVAL OF MINUTES**

MOVED by Mr. Williams and seconded by Mr. Regan that the minutes of the March 19, 2003 be adopted, as circulated. MOTION PUT AND PASSED.

3. **NEW BUSINESS**

3.1 **PROPOSED WATER QUALITY MONITORING PROGRAM FOR "PARCEL D" - 36 TOWNHOUSE CONDOMINIUM PROJECT - GLEN ARBOUR**

C Copy of a letter dated February 20, 2003 to the Annapolis Basin Group from CWRS.

C Stormwater Management, Erosion & Sediment Control, Access Driveway plans for Parcel D

In attendance were Mr. Sooriyakumaran, CWRS and Mr. Laycock, representing the Annapolis Basin Group.

During the presentation, Mr. Laycock noted that the project had been initially brought to the Board's attention 1.5 years ago. He referred to various elements of the Development Agreement.

Mr. Laycock described the work to date, i.e. road construction. He noted methods being undertaken not to disturb acid slate and reduce sedimentation and erosion from disturbed areas.

The location of the on site septic system was discussed with the Board and the effluent's eventual direct discharge into Bottle Lake. Aspects of the location of the system were discussed and how the system is designed to deal with power outages.

Disappointment was expressed that the effluent isn't being discharged into the ground via a contour bed system for diffusion. It was noted that the intermittent sand filter system is not very effective in removing phosphorus. It was explained to the Board that the subject of phosphorus loading was raised with NSDOE&L, but they preferred the sand filter system. Mr. Mandaville requested a copy of the CBCL report to NSDOE&L and enquired as to which limnologist was involved in its preparation.

The Chair recalled the Board's recommendations referring to a contour bed system. He noted that by effluent being pumped straight to the lake, the filtering affect is removed.

Mr. Regan also was disappointed with the direct discharge method proposed. He felt an engineered wetland should be considered.

Mr. Regan requested that the Board be provided with copies of the sewage treatment reports monthly. The proponents noted that they submit such reports only annually to the NSDOE&L.

Mr. Regan questioned whether stormceptors are planned for the outfalls of the storm sewers. The Board was advised they are not. The proponents explained measures being taken which make their installation not necessary. Reference was made to swales being incorporated for this purpose, Mr. Regan questioned whether they will be sodded. The proponents responded in the affirmative.

In response to a query from Mr. Regan regarding testing of water courses, it was noted that the development agreement requires water testing of Bottle Lake for two years after construction.

Upon the departure of the proponents, Ms. Smith volunteered to draft the Board's recommendations. Areas to be dealt with related to the proposed water quality monitoring, sewage and storm water discharge. Due to the tight time line, the Board agreed with Ms. Smith and the Chair preparing the final recommendations.

During the ensuing discussions, the following opinions were expressed and recommendations made:

- C Despite what NSDOE&L approved, the direct discharge of effluent into the lake was felt undesirable from the standpoint of phosphorous. It was noted that a constructed wetland would not aid in the removal of phosphorus, so this was not an option. It was concluded that a **contour bed should be used in conjunction with the sewage treatment plant to disperse effluent and promote diffusion through soil, as referred to in the Board's original recommendations, rather than directly into the lake.** The method proposed to the Board would allow high levels of phosphorus to enter the lake and affect water quality.

Referring to the water sampling regime proposed in the CWRS correspondence, page 2, 3rd paragraph, **it was recommended that 'total' nitrogen, not 'kjeldahl' nitrogen be analyzed. Secondly, that the total phosphorus be sampled to the microgram per litre level. It will also be noted that the only accredited lab in the area is at the Victoria General.**

It was felt that the frequency of testing, as detailed on page 1, was acceptable, i.e. quarterly.

Testing should take place at the deepest part of the lake, near the outlet.

The Board would like copies of the baseline water sampling results and the monitoring reports.

- C The Board recommended the swales be sodded as soon as possible in order to mitigate erosion.**

The Board strongly disagreed with direct pipe discharge into Bottle Lake because of phosphorus problems associated with the effluent. An alternative would be discharge into a wetland before it goes into the pond and into the lake.

- C Disappointment was expressed that sewer lines were not identified on the map. Mr. Regan would like a copy of associated reports. Staff noted that there is no requirement in the development agreement for the developer to provide these.

A discussion followed on whether the Board could provide the above noted recommendations based on the scope of the Development Agreement, i.e. monitoring reports related to the septic system, etc. Ms. Corser felt these were relevant.

- C The Board desired to monitor the reports submitted annually to NSDOE&L of the on site system.**

4. **BUSINESS ARISING FROM MINUTES/STATUS SHEET**

4.1 **WATER RESOURCE MANAGEMENT STRATEGY**

- C Review by the Halifax/Halifax County Watershed Advisory Board - March 19, 2003
(circulated with agenda package)

The Board reviewed the summary prepared by Ms. Williams starting at 9-2.

This point was eventually written as follows:

(First sentence of recommendation replaced)

It is recommended that HRM undertake a water quality monitoring program to cover one or more watersheds each year. A sufficient number of samples should be taken to ensure a full characterization of each watershed under review. Samples should be taken once a quarter for a suite of chemical parameters (such as RCap) augmented by nutrients and bio-indicators that deal with site specificities.

In addition to this, HRM will undertake lake based or watershed based studies to establish community based quality objectives, targets and monitoring parameters and to establish comprehensive development criteria. These studies will be phased over time and be implemented based on need and when funding is available.

9-4 to read as follows:

It is recommended that water quality monitoring/performance measures data be reviewed as it becomes available in HRM on an annual basis and to assess the effect of development as measured against the objective standard established for water quality. **These levels should be established prior to development as the target levels to be maintained. Typically, they could include limits for Total Phosphorus (TP) - 10 micrograms/litre, Total Nitrogen (TN) - 300 micrograms/litre, and Chlorophyll-a (Ch-a) - 2 micrograms/litre.** As established water quality standards/targets are approached, consider further actions to avoid exceeding water quality targets and performance measures.

New recommendation 9-5:

A maximum allowable mean yearly Chlorophyll-a (Ch-a) level should be set for each lake as the 'lake carrying capacities'. These values could be set at 30%

maximum over the pre-development mean Ch-a.

The Board continued by reviewing the **priorities** listed on page 4 of the March 3, 2003 "Review by the Halifax/Halifax County Watershed Advisory Board", circulated in the previous agenda package.

The Board agreed that the following are priorities:

5-1 (as written in the report)

7-11 (new recommendation, Section 7 - Wastewater Management *or is it 5-5, under Chapter 5. Watercourse Wetland and Coastline Protection?*)

The Board recommends that HRM move towards requiring a 100 metre setback from lakes for on-site septic systems in new developments.

7-8 (as written in the report)

Chapter 8 - Stormwater Management

8-17 (new recommendation)

The Board recommends the development of a Stormwater Treatment Methodology for Urban Areas, (as noted on page 8-14) to mitigate the cumulative impacts of pollutants on receiving water bodies.

8-6 (wording amended slightly to read as follows)

It is recommended that floodway designation and zoning mapping reflecting the 1:20 Floodway and the 1:100 year Floodway Fringe, (as defined by the Canada-Nova Scotia Flood Damage Reduction Program, for the Sackville River and the Little Sackville River) be developed for all rivers.

Chapter 9 - Performance Measurements - The Board felt a priority to be the establishment of Performance Measurements.

As a **high priority** the following:

The Board recommends that HRM should enact by-laws or other means to mitigate phosphorous entering water courses. Since lawn fertilizers are a prime source of phosphorous that should be an area of immediate attention. (For example the by-law

enacted by the City of Minneapolis).

Reference was made to staff asking the Boards for comments about what they did not like about the report. The following points were made:

- C There is very little reference in the report to what is being done locally. There appears to be a lack of recognition of work being done in Nova Scotia related to water standards and water quality.
- C Drinking water not included in the report. However, it was pointed out that drinking water was not included in the terms of reference. Nonetheless, it was felt that there was merit to pointing out that the Board isn't pleased with this omission.
- C While it is a water resource management study, the concentration appears to be on stormwater, as opposed to taking a holistic view of watershed management.

While it was suggested that the deadline for submissions of the Boards' responses had been extended to the end of May, it was confirmed that the submission has to be made by the first of May.

4.2 **SEWAGE OUTFALL - FIVE ISLAND LAKE**

The Chair circulated a draft letter re the sewage treatment related to Sir John A. MacDonald High School. During the course of the review, it was felt that the correspondence should invite Mr. Moir to the May meeting. The Chair will make this change and the correspondence will be sent out in due course.

STATUS SHEET

Sobeys Fall River - Empire is awaiting a report from Jacques Whitford. Copy to be provided to Mr. Williams. Mr. Williams will keep the Chair informed of developments. Mr. Williams may consider turning over the file to Mr. Manchester eventually.

MPS Amendment for District 2 - delete

Voyageur Lake Subdivision - delete

5. **CONCEPT PLANS**

5.1 **WITHROW AVENUE/HUBLEY LAKE ROAD, FIVE ISLAND LAKE - AMENDED CONCEPT PLAN**

This item was related to 4.2 - Sewage Outfall - Five Island Lake.

6. **ITEMS TO BE ADDED TO THE NEXT AGENDA**

- C Glen Arbour Golf Course - Audubon Program (Mr. Evans)
- C Springfield Lake - The Graces
- C "Why does a Watershed Advisory Board Work?" David Dwyer (15 minute presentation)
- C Making Oil out of Garbage (Mr. Evans)
- C ..Fecal Coliform (Renee Robarge) - Mr. Mandaville

7. **DATE OF NEXT MEETING**

Wednesday, May 21, 2003.

INFORMATION ITEMS

Meeting Schedule - Copies of a meeting scheduled dated April 11, 2003 were provided at the meeting.

List of Board Recommendations - The Chair asked that the members check this list to see if anything was missing. Some missing dates were provided to the Secretary. One duplication was noted related to Sobeys on the list.

Water Testing Results Requested by HWAB - Table provided by Ms. Williams. Mr. Mandaville indicated he could add to this table. The Secretary to provide him with an electronic copy of the submission.

WORKSHOP - HALIFAX HARBOUR

Mr. Regan and Mr. Hope advised that they had attended the Workshop. Mr. Regan indicated it had been a very positive session, attended by members of the public and government representatives. The attendees broke off into small groups to develop lists of ideas.

Mr. Hope noted that a Public Participation Committee was formed on which the Board will have a representative.

A written report is expected which will be shared with the Board.

8. **ADJOURNMENT**

The meeting adjourned at approximately 9:30 p.m.

Lynne Le Boutillier
Legislative Assistant