

HALIFAX REGIONAL MUNICIPALITY

HALIFAX/HALIFAX COUNTY WATERSHED ADVISORY BOARD MINUTES JUNE 18, 2003

PRESENT: Dr. Wayne Stobo, Chair
Mr. Shalom Mandaville
Mr. Keith Manchester
Mr. Walter Regan
Mr. Frank Hope
Dr. Barry Thomas
Ms. Ellinor Williams
Ms. Janis Rod
Ms. Christine Ann Smith
Dr. S. Lee
Dr. S. Ray
Mr. B. Ernst

ABSENT: Mr. Ross Evans
Mr. Jim Holmes
Mr. Peter Murray (regrets)

ALSO PRESENT: Captain John J. Owens (guest)
Ms. S. Corser, Planner
Ms. Lynne Le Boutillier, Legislative Assistant

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

The order of the agenda was changed with the agreement of the members to accommodate guests.

2. **APPROVAL OF MINUTES**

Due to the change in order of the agenda, approval of the May 21st minutes was deferred.

4. **BUSINESS ARISING FROM THE MINUTES**

4.1 **BIG SPRINGFIELD LAKE**

C A letter to the Mayor drafted by Mr. Manchester was circulated in the agenda package.

In attendance for this item was Mr. Ed Grace, a concerned resident who had brought his concerns to the Board earlier in the year.

During the review of the draft, the following changes were proposed:

C The preamble in the Origin Section contain wording routinely put into the Boards recommendations, i.e.....issues related to environmental quality.... (The Secretary will provide to Mr. Manchester)

C References be made consistently to 'Board' versus 'Committee'.

C The term 'fill pits' be changed to 'borrow pits' throughout the letter.

C Consistently use the following:

C Lakecrest Drive as one word.

C Fenerty **Drive**, not Fenerty Road.

C Various typos identified.

C Concern was expressed regarding areas of responsibility. It was decided to add an additional **point 9** to read: "If there are areas which are not HRM's responsibility, they interact with relevant jurisdictions (NSDE&L and DFO) to facilitate remedial action.

C First sentence of the Recommendation reworded as follows: The basic cause of the above problems is the removal of the forest cover in the area in question over the

years, **the** operation of the **borrow** pits and the

C Recommendation 1 changed to read: The **borrow** pits should be investigated and proper (sized for the worst storms) sediment holding ponds or other devices be **constructed** to prevent large quantities of silt from leaving the pit areas during storms. **Consideration should be given to the installation of devices to reduce flow velocities, eg. check dams.**

C Recommendation 2 changed to read: The roadside ditches along Fenerty **Drive** and Lakecrest Drive be properly sized and maintained and lined with heavy surge rock to reduce the water velocity and reduce **erosion of the** banks and roadbed.

Referring to the word 'maintained', it was suggested that reference be made to any installation should be monitored and maintained. It was suggested that a recommendation be added. Refer recommendation 8.

C Recommendation 3 changed to read: Modify the ditch at the lower end of Fenerty **Drive**.....instead of **diverting** all to go through the culvert under Fenerty **Drive** into the West **Third** Brook and into the **lake**.

Last sentence of this recommendation to be reworded so as not to start with the word 'Also look for'. For example, 'Other areas where storm water can be diverted from Fenerty **Road should be investigated**, so as to

C Only changes made to recommendations 4 and 5 related to changing the word 'Road' to 'Drive'.

C Regarding Recommendation 6, there was considerable discussion. Two of the suggestions was that it be reworded to read: Investigate the **benefits of removing the sediment on lake water quality against the immediate impact of further suspending sediments by excavation project/or Investigate the potential value to lake water quality of removal** of silt and gravel at the mouth of West Third Brook. Also added to the point was the following: **If they don't think it is practical to remove sediment, they consider planting vegetation or take other measures to stabilize existing sediment.**

C Recommendation 7 - **Monitoring programs should be conducted** yearly Last sentence of this recommendation deleted.

- C A Recommendation 8 added - **Maintenance should be conducted associated with yearly monitoring.**
- C A recommendation 9 added. See fifth bullet for wording.

In the Description section, third sentence, insert the word 'currently' between the words 'still' and 'active'. Delete words 'at present'. Second to last sentence changed to read: Over theafter wash outs by constructing barriers to prevent further erosion. Last sentence to read - All of theselargely ineffective **in preventing further** lake infilling.

Mr. Mandaville confirmed that Dan Hiltz has are retired from NSDE&L. Mr. Grace would also like to be copied the letter to the Mayor.

3. **NEW BUSINESS**

3.1 **REVIEW OF EROSION AND SEDIMENTATION CONTROL PLAN AND STORMWATER MANAGEMENT, PHASE 1A - WESTGATE - EDM PRESENTATION**

Circulated with the agenda package were the following plans related to the Westgate Community and Golf Course Development:

- C Environmental Management Plan
- C Stormwater Management Plan
- C Stormwater Floodplains, Stormwater Detention Map
- C West Ponds and Control Structures, Plan and Profile
- C East Ponds and Control Structures, Plan and Profile

Provided at the meeting:

- C Environmental Construction Plan
- C Environmental Protection Plan
- C Baseline Sampling Results - April 2003

Mr. Mark VanZeurmeren, Project Manager, EDM (Environmental Design and Management Limited) was in attendance to discuss the above noted plans with the Board.

He noted the following:

- C The Environmental Construction Plan contains very site specific environmental protection measures.

- C The Environmental Protection Plan is a condensed version of the Stormwater Management Plan. It outlines practices during operation of the golf course and community following construction.
- C Referring to the Environmental Construction Plan, he quoted from Section 6, Environmental Training and Documentation, noting they are trying to emphasize the need to minimize detrimental effects. Rather than providing the Contractor with a detailed list, the approach they are taking is to educate designers and contractors of potential problems and make suggestions of specific mitigation measures. Rather than putting in measures which may or may not be effective, the biggest focus will be on determining what is effective and if not effective, what needs to be done to make the measures work. It is the intention to hold contractors and detail designers responsible for the effectiveness of environmental protection measures.
- C Reference was made to the results of a Baseline Water done in April 2003, provided in the previously noted spreadsheet. It was observed that the water is generally of a high quality except for a couple of components. They plan to conduct a second set of tests in July to compare high flow and low flow conditions.
- C He noted that it is intended that treated effluent from the sewage treatment plant could be a supplementary source of water to irrigate the golf course. Up to 5,000 gallons a day.

Questions posed and observations made to Mr. Van Zeurmeren related to the following:

- C Dr. Stobo: How much effluent will leave the treatment plant?
- C Ms. Smith: Whether they will be filling in a couple of wet lands identified as 'treed bogs' in Figure 4.4, Environmental Protection Plan? It was noted that the larger area of the three has been identified as covered with high density development on another map. Mr. VanZeurmeren described the areas in question, emphasizing which will be protected.
- C Dr. Thomas: Understood from the reading the documents that there are bogs and wetland which would be infilled, but new areas would be created to compensate. Provincial guidelines were referred to in the document and it was noted that infilling would not involve areas exceeding two hectares. The Chair reflected that the biological survey did not uncover any special or venerable species.
- C Referring to the Baseline Sampling Results, Mr. Mandaville noted Phosphorous being measured to mg/L. He questioned who had produced the test results. Mr. VanZeurmeren indicated Phillips Laboratories had done the work. Mr. Mandaville explained that the Board recommends the use of the VG's facilities as they are the only accredited laboratory in the area. It was noted that the detection limit for phosphorous should be at the microgram/L and the VG is the only laboratory able to

do this.

Cadmium was high. Should be equal to Water Quality Guidelines, Mr. Ernst observed.

C What procedures in place to ensure contractors are meeting the requirements? The Board was referred to page 27 of the Stormwater Management Plan which illustrates compliance measures built in. In the event environmental provisions are not followed by the contractor(s), the owners will be held responsible. The owners want to ensure they don't incur the liability.

C Mr. Regan referred to Page 4, Environmental Management Plan, item 2.2.5 Services. It was noted, under the Sewage Treatment section, that a report was completed by Dillon Consulting Ltd. in February 2003. He wondered if his interpretation of this section meant that the present plant is polluting Nine Mile River? During the ensuing discussion, it was indicated that the plant uses UV not chlorine in treatment. Dillon recommends an upgrade to tertiary treatment if an increase in capacity is required, i.e. from 50L/s to 100 L/s. The present facility serves 8,000 people. Any increase beyond 100 L/s "may be feasible with additional monitoring and/or a diversion of effluent; however, this is the upper level acceptable design flow recommended based on data analyzed during the study".

The Chair noted that during wet periods, the plant is currently overflowing. He felt action has to be taken by HRM or the problem will be exacerbated. Mr. VanZeurmeren indicated the treatment plant is meeting the treatment objectives. Nevertheless, Mr. Regan asked what is the effect of the proposed development on Nine Mile River which will generate extra sewage. Mr. VanZeurmeren pointed out the area falls within the Service Boundary.

C Fish passage, or lack thereof, associated with two brooks flowing under highway 103.

C Buffers, whether 30 feet or 30 meters associated with Nine Mile River and the HRM Park. A 30 feet treed undisturbed zone is proposed between existing houses. The members had interpreted the measurements to have been in meters. Mr. VanZeurmeren indicated there is a 30 meter buffer along Nine Mile River, but in the Development Agreement a 30 feet non-disturbance zone is specified.

Whether there were any buffers associated with watercourses going through the golf course and residential development. Mr. VanZeurmeren referred to the channels running through the golf course collecting stormwater.

- C Concern was expressed regarding the burning of any grubblings.
- C Maintenance Schedules - Would someone be checking that these are conducted, including catchments and stormsewer systems which had been turned over to HRM? The Board would like to get copies of inspection reports.
- C It was concluded that there are a lot of good elements contained in the plans.
- C Pesticide monitoring - Board referred to the Environmental Protection Plan, sections 3 and 4. Reference was made to recommendation 10 in the report which went to Western Region Community Council, April 2002.
- C Groundwater monitoring associated with the golf course. It was felt that conducting some baseline ground water monitoring might be helpful in the future.
- C Blasting

The Chair enquired of the Board how they wished to proceed. He summarized some of the points the Board may wish to address, i.e. how do you ensure contractor compliance; the big issue of the existing sewage treatment plant and baseline groundwater monitoring. He noted that the recommendations, prepared in April 2002, dealt with a number of these issues. He proposed either the minutes of the meeting could suffice for input or separate recommendations be made, indicating the Board has reviewed the information provided and there are certain areas of concern. The Board has some suggestions they would like considered.

Dr. Thomas observed that from the above noted discussions, there appear to be no real issues, except ones associated with the STP (sewage treatment plant).

Other issues pointed out related to the detection limits associated with phosphorous and level of cadmium.

It was proposed that the members be given more time to review the previous recommendations and the plans presented this evening. Ms. Rod queried whether the Board had seen the Dillon Report. Ms. Smith and Mr. Regan volunteered to review the report and report back to the July meeting. Ms. Corser will endeavour to provide them with copies.

In closing the Chair:

- C Reviewed notes he had made on various aspects of the stormwater management plan. He encouraged the members to review these elements.

- C Referring to concerns expressed about contractor compliance, he felt there should be some clause in the development agreement, prepared by HRM, which insists on contractor compliance.
- C Concerns regarding the STP.
- C If there would be value in baseline monitoring of groundwater.
- C The members review the baseline sampling results provided, to see if there are any other areas to be followed up on in addition to phosphorus and cadmium. It was observed that aluminum appears quite high.

The Chair questioned whether the owner would consider resampling given the error associated with phosphorus. He asked that Mr. VanZeurmeren alert them of the need for more precise detection levels being used.

Referring to the fish passage, via two brooks under Highway 103 being blocked because of the culverts, it was noted that DOT (Department of Transportation) is preceding with twinning the highway at one of the locations and during this process it would be an opportunity to redress one of the situations.

A question was posed regarding monitoring for fecal coliforms given some water being directed to the golf course will be recycled from the STP. Mr. VanZeurmeren indicated effluent will be tested to ensure its purity. Mr. Regan referred to sampling proposed in the Environmental Protection Plan. No baseline is proposed.

The whole item will be reviewed next month again and a decision made on how the Board wishes to forward its comments on to HRM.

4.2 **BASELINE FECAL COLIFORMS**

Renee Roberge, HRM Stormwater & Wastewater Engineer, was in attendance to provide some background information on fecal coliform results which had been provided for the Board's March meeting. These results pertained to a baseline sampling program conducted of sixty (60) lakes in HRM.

Ms. Roberge noted that the project had started in August 2001. Lakes in the vicinity of HRM sewers were sampled for fecal coliforms. The purpose was to have background information on fecal contamination. Sampling is done in the spring, summer and fall. Should there be a significant change in results, HRM can follow up to see if a sewage system is leaking.

Questions were posed to Ms. Roberge about where samples are taken. She indicated that in the case of lakes, they are taken at the outfall. Sampling of brooks, streams and rivers is site specific. In the instance of the Sackville River, it is done under the Highway

102 overpass.

Further sampling was done in June of this year. She will provide hard copies of the test results to the Board's Secretary.

Ms. Roberge was queried as to whether any leaking pipes or faulty pumping stations have been uncovered through the testing to date. She noted that problems were detected with Duck and Whimsical Lakes. While the owners of a private trailer court were notified there was a problem, whether anything was fixed wasn't known but the counts were down in the fall.

Mr. Regan felt the project to be very worthwhile and HRM should be congratulated on the initiative.

A discussion followed on the source of the fecal coliforms. Mr. Mandaville referred to work in this area associated with Maynard Lake and the testing required to determine if the contamination is human or not. Ms. Roberge noted that HRM is still looking for the source of contamination.

Mr. Ernst questioned whether there is any difference when human or animal coliforms are involved. It was noted that the Medical Officer of Health would close an affected area to swimming, no matter what the source.

Ms. Roberge advised that the results of the baseline testing have been sent to Dr. Strange and NSDE&L.

During the ensuing discussion, Ms. Roberge noted that HRM is considering discontinuing the program. Mr. Regan felt that it would be worthwhile continuing the program. It was suggested that testing once a year would suffice, in July or August. In conclusion, it was decided that the Chair would draft a letter a Mayor for consideration at the next meeting.

4.4 GLEN ARBOUR GOLF COURSE - AUDUBON PROGRAM

Circulated at the meeting was a letter dated May 31, 2003 from Dr. Thomas to Glen Arbour enquiring as to which of the Audubon categories the golf course is certified under. To date there has been no reply. If there is not a reply by the next meeting, the Board will address.

4.5 SEWAGE TREATMENT - SIR JOHN A. MACDONALD HIGH SCHOOL

C Letter dated May 22, 2003 from Gerald Porter, Project Manager, Nova Scotia, Transportation and Public Works, Environmental Services in response to the

Board's letter of April 22, 2003.

The members reviewed the response and decided that the a letter should be written to the Mayor indicating the Board doesn't feel HRM should allow this project to proceed without consultation. The letter from Mr. Porter does not indicate there was any consultation with HRM and no intention to address the Board's concerns was indicated.

In particular, Mr. Hope expressed concern regarding a statement in paragraph 4 which reads "we will be constructing an artificial wetland that is totally within lands owned by the School Board". He noted the issue isn't ownership. He felt they were avoiding the point. Secondly, Mr. Hope noted the reference to "we anticipate that the artificial wetland will discharge to the ditch adjacent to the recreational trail only once yearly". It had been previously stated "during heavy rains". The statement was inconsistent with the document he had submitted at the March meeting which refers to "occasional events", as it is now implied only once a year.

Mr. Ernst sought clarification as to what the issue is that the Board has with the project. The Chair indicated that the Board felt that the Province could do better, i.e. design a system that would not overflow directly into the lake during heavy rainfall events.

4.3 **PRESENTATION RE DEVELOPMENT IN HALIFAX IN GENERAL AND OVERALL IMPACT ON WATERSHEDS IN AREA**

Ms. Christine Anne Smith decided, due to the time limitations, to break her presentation into two parts. The second part will be given at the July meeting.

The slide presentation she gave discussed conserving nature in new residential developments. She illustrated the importance of forests and natural areas. She noted that the areas set aside for parks in HRM are quite small. She provided slides of an area in the vicinity of Hemlock Ravine Park and others which illustrated grade changes, clear cutting of old growth and the filling in of wetlands. She provided examples of how development can be done differently, by for example inserting homes into the forest.

The second part of Ms. Smith's presentation will relate to the availability of drinking water in HRM, focusing on Pockwock and Lake Major.

Mr. Mandaville reflected that he has been rethinking the whole idea of promoting wetlands, given the potential health risks mosquitoes, etc. can play in transmitting viruses to humans.

Ms. Rod noted that there are a lot of standards in effect now such as the Lot Grading By-law which deter from creating the sort of development Ms. Smith felt would be preferable.

3. **NEW BUSINESS (cont')**

3.2 **REPRESENTATIVE OF NSDE&L ATTEND BOARD MEETINGS**

Reflecting on the number of issues the Board contends with which fall outside its jurisdiction, Mr. Mandaville proposed the a letter be written to Minister Ron Russell requesting a senior representative of his department attend H/HCWAB meetings. Mr. Mandaville indicated that this had been the practice of the former Halifax Waterways Committee.

Concern was expressed that there is no provision in the Board's terms of reference, related to provincial representation.

Ms. Corser noted that it is not uncommon for representatives of other levels of government to be invited to meetings associated with special projects. She was not aware of this being the case for standing committees, but will look into. If there appears that this initiative would present no problem to HRM, a letter can be written to the Minister.

3.3 **NOVA SCOTIA LAKE HYPOLIMION PROJECT**

A copy of the report on the project, prepared by Mr. Brylinksy. was provided by Mr. Hope several months ago. Since that time, Mr. Regan, Mr. Mandaville, Dr. Thomas and Ms. Rod requested copies of the report and they were provided. Mr. Mandaville provided an overview of the project, which involved surveying all the lakes in Nova Scotia to determine which ones were suitable for trout. Mr. Mandaville felt that Mr. Brylinksy may have made a mistake in coming to his conclusions, i.e. using the criteria for lake trout and projecting to brook trout. He plans to clarify, particularly for the Woodens River Environmental Organization.

4. **BUSINESS ARISING FROM MINUTES/STATUS SHEET (cont'd)**

4.6 **JOINT MEETING ON HRM WATER RESOURCE MANAGEMENT STUDY**

No date yet arrived at.

4.8 **SHELDRAKE LAKE HYPOLIMINATION PROJECT - COMPARATIVE LAKE STUDY**

Circulated at the meeting was a draft letter to Mayor Kelly re the Comparative Lake Study discussed at the June meeting. The Chair sought input from the Board on whether the tone of the letter fit with the Board's decision in May. A lengthy discussion ensued. It was argued that the letter wasn't an agreement in principle. It was recalled that it might be

premature to make such a request when the HRM Water Resources Management Study has yet to be adopted.

It was suggested by Mr. Hope that the Board has been asked to comment on the draft Study. Given Mr. Hope's association with the Woodens River (Watershed) Environmental organization, the Chair noted Mr. Hope has a vested interest.

A number of members indicated they would like to review the proposal again, from a scientific standpoint, to determine whether the Board should support. They would like to see details of the proposal, as only a high level review had taken place at the May meeting. Mr. Hope noted that Dr. Ryan is drafting an outline of the Study. The preliminary report should be ready for next month's meeting.

GIVEN THE LATE HOUR, THE BALANCE OF THE AGENDA COULD NOT BE DEALT WITH CONSISTING OF THE FOLLOWING ITEMS:

2. **APPROVAL OF MAY 21, 2003 MINUTES**

Deferred to the July meeting.

3.4 **COMMUNITY-UNIVERSITY RESEARCH ALLIANCE REQUEST FOR SUPPORT**

Deferred.

4.7 **MAKING OIL OUT OF GARBAGE**

Deferred in Mr. Evan's absence.

5. **CONCEPT PLANS**

5.1 **ANNAPOLIS GROUP INC, LOTS 1, 2, AND 3 GLENDALE AVENUE/TEMPLE STREET, LOWER SACKVILLE**

Copies of the plan circulated in the agenda package for the members information.

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

Water Testing Results (Ms. Williams)

7. **DATE OF NEXT MEETING**

Wednesday, July 16, 2003.

8. **ADJOURNMENT**

Meeting adjourned at 10:00 p.m.

Lynne Le Boutillier
Legislative Assistant