

NIAGARA PENINSULA SOURCE PROTECTION COMMITTEE

NIAGARA PENINSULA

April 14, 2009

7:00 p.m.

MINUTES

MEMBERS PRESENT: M. Neufeld, (Chair)
B. Antonsen
R. Bator
M. Bellantino Perco
D. Ostryhon
D. Renshaw
T. Rigby
D. Ricker
E. Schneider
C. Shrive

MEMBERS ABSENT:

LIAISONS PRESENT: B. Baty, Niagara Peninsula Conservation Authority
M. McHugh, Ministry of the Environment

LIAISONS ABSENT: G. Hudgin, Niagara Public Health Representative

STAFF PRESENT: B. Wright, Coordinator Source Protection
M. Stack, Director, Communications
D. Gullett, Recording Secretary

OTHERS PRESENT: H. Sim, Niagara Region
A. Laflamme, Niagara Public Health Representative

ROLL CALL

DECLARATION OF CONFLICT OF INTEREST

ADOPTION OF AGENDA

BUSINESS:

The Chair called the meeting to order at 7:10 p.m., thanked the members for attending and requested that if anyone had a conflict of interest to declare it. The following resolution was then presented.

SPCR-19-09

MOVED BY: M. Bellantino-Perco

SECONDED BY: D. Ricker

THAT: The agenda be accepted as presented.

“CARRIED”

The chair introduced Andre Laflamme representing Niagara Region Public Health, and Heather Sim from Niagara Region.

(1) MINUTES – MARCH 10, 2009 SOURCE PROTECTION COMMITTEE MEETING

The Chair asked if there were any errors or omissions on the March 10, 2009 minutes. Tim Rigby requested his comment identifying a gun club near Decew WTP be added. Maria Bellantino-Perco stated her name should be deleted from the comment on turbidity at Port Colborne (Section (5) 3.4). The following resolution was then presented.

SPCR-20-09

MOVED BY: D. Renshaw

SECONDED BY: R. Bator

THAT: The minutes of the Source Protection Committee meeting held March 10, 2009 be received and approved as amended.

“CARRIED”

(2) BUSINESS ARISING FROM THE MINUTES

Maria Bellantino-Perco questioned when the technical reports would be distributed to the municipalities. The Chair advised this would be discussed with the update of the Gantt Chart.

(3) UPDATE OF GANTT CHART AND WORK BY NIAGARA REGION

Committee members were given a revised draft of the remaining tasks to be completed for the Assessment Report. Brian Wright stated we were approximately one month behind on the aggressive schedule. Tier 1 Water Budget Report should be presented in June and the Watershed Characterization Report in July.

The Chair advised that the May 12th meeting will be cancelled and after a brief discussion, the following meeting dates were scheduled:

Tuesday, June 9

Thursday, July 2

Tuesday, July 14

Above meetings will be held at 7:00 p.m. in the boardroom at NPCA office.

Heather Sim from Niagara Region updated work being completed by Stantec. They don't expect many delays with the Threats and Issues Assessment.

(4) PORT COLBORNE WTP INTAKE UPDATE – REPORT NO. SPC-08-09

The Chair asked Brian Wright to outline the report:

1. Modelling was incorrect in the original report, and the flow model was revised in the

- memorandum to show no significant flow through Lock 8.
2. Regarding the flow velocities south of the Water Treatment Plant intake, NPCA hasn't received the information back from the consultants yet.
 3. With respect to the depth of water at the intake – construction drawings were checked and a survey company was hired. The crew was unable to survey the intake elevation due to an abundance of ice on the canal.

Robert Bator outlined his comments on the Welland Canal flows at Port Colborne and agreed to provide his comments in written form so they could be easily and accurately provided in the minutes. The written comments are attached to the minutes (Attachment 1).

The Chair asked that he e-mail his concerns to the NPCA for them to address.

The following resolution was then presented:

SPCR-21-09

MOVED BY: T. Rigby

SECONDED BY: R. Bator

THAT: Report no. SPC-08-09 be received and;
That this report be accepted by the Source Protection Committee for information purposes.

“CARRIED”

(5) SURFACE WATER VULNERABILITY STUDY UPDATES - REPORT NO. SPC-09-09

The Technical Memorandum 1 Update includes Welland, Port Colborne and Niagara Falls, with the following noted:

1. Welland's vulnerability scores remained the same. On figure 5.3 the IPZ-1 limit is shown at 175 m south of the intake and should be revised to 100 m to comply with the new rules. Aqua Resources will be doing more analysis on the water level of the Welland River and Welland Canal.
2. Port Colborne and vulnerability scores remained the same. The IPZs had very few changes aside from what was previously discussed in report no. SPC-08-09.
3. Niagara Falls vulnerability scores changed and the IPZ-2 also have some minor changes.

The Chair asked for any questions or comments. David Renshaw asked the NPCA to please note any significant changes that are made be highlighted in the Executive Summary of the report.

The following resolution was then presented:

SPCR-22-09

MOVED BY: D. Ricker

SECONDED BY: M. Bellantino-Perco

THAT: Report no. SPC-09-09;
That the draft report “Technical Memorandum 1 Update: Riverine and Pathway, Vulnerability , and Uncertainty Level Analyses for the Port Colborne, Welland, and Niagara Falls Water Treatment Plants” by Stantec Consulting Ltd. and dated March 2009 be received by the

Source Protection Committee.

“CARRIED”

(6) AMBIENT GROUNDWATER QUALITY STUDY ADDITIONAL COMMENTS - REPORT NO. SPC-10-09

Brian Wright reported the Chair and NPCA staff met with Mr. Bator regarding his concerns about the Ambient Groundwater Quality Report. The outcome of this meeting is shown in the above mentioned report. The Chair commented the meeting was useful in discussing and addressing Mr. Bator's detailed technical concerns. The report was meant to be the first report in a phased approach. Further work will depend on funding and available resources. Committee members requesting a copy of these comments were asked to e-mail Mr. Bator and he would forward them.

The following resolution was then presented:

SPCR-23-09

MOVED BY: B. Antonsen

SECONDED BY: D. Renshaw

THAT: Report no. SPC-10-09 be received by the Source Protection Committee for information purposes.

“CARRIED”

(7) UPDATE FROM THE CHAIR

The Chair replied to Ms. Bellantino-Perco's request about distributing the vulnerability reports to the municipalities. Brian Wright advised this would be done, when the reports are finally completed. Currently, only the municipalities directly affected by the IPZ's will be contacted.

Staff are waiting for approval from the MOE as to the classification of three intakes at the Decew Water Treatment Plant. NPCA staff, the Chair, and Niagara Region are planning a site visit to Decew on Wednesday April 15 to view the IPZs in-person.

Regarding the request to increase SPC per diems, the Source Protection Authority approved an increase to be equivalent to the meeting per diem rate for the Niagara Peninsula Conservation Authority Board member being \$67.40 for 2009 and for meetings over 3 hours in length be \$134.80 retroactive to January 1, 2009.

The Chair received a letter dated 2 April, 2009 from the MOE approving the amended Terms of Reference. The Assessment Report is due to be submitted one year from the date the notice is posted to the Environmental Registry. Maeve will check this date for us.

(8) OTHER BUSINESS

Mr. Rigby requested an update from the Chair for the public works committee.
Maria Bellantino-Perco asked if staff could forward reports as soon as they are completed instead of sending them out with the agenda packages.
The Chair reminded everyone that the May meeting is cancelled.

ADJOURNMENT

There was no further business, the following resolution was presented.

SPCR-24-09

MOVED BY: M. Bellantino-Perco

SECONDED BY: E. Schneider

THAT: This meeting does now adjourn.

Received at 8:37 p.m. "CARRIED"

"D. Gullett, Recording Secretary

M. Neufeld, Chair"

**Attachment 1:
Robert Bator's Written Comments on the Welland Canal flows at Port Colborne.**

In reference to the flow modeling for Port Colborne, the calculations that I made were based on a total combined operating season flow, through the Welland Canal, of 220 meters³/second. This combines the 180 to 182 meters³/second which is siphoned to the OPG canal to generate power at the DeCew Plant and less than 40 meters³/second for Welland Canal operations as well as St. Lawrence Seaway power generation during peak season usage. The only flow control is the baffle structure at Highway 3 which can fully shut off flow to the entire Canal. With this structure fully open the bypass flow design must be such to prevent the Canal from overflowing further along the Canal (a fail safe condition) which would be no more than about 10% excess of maximum flow.

Using the width of the bypass channel measured on Google Earth to give a cross-section for the channel of 750 meters² (Canal Lock 8 operations use 0.0 meters³) the 220 M³/second give a flow rate of 0.30 meters/second through the Lock8 bypass channel, which is well above the rate predicted by the EOMSED model.

The width of the Canal at the Port Colborne intake as measured on Google Earth is 200 meters plus or minus 10 meters. The width quite uniformly narrows to 100 meters + or – 10 meters at the south end of the IPZ1 limit. Using a mathematical average of this with depth soundings in the Canal channel (a rectangular cross-section profile is assumed for the entire channel) the average cross-sectional area through the 1000 meter length would be 3375 meters² . Using the 220 meters³/second maximum downstream flow in the Canal, the flow rate through this 1000 meters would be 0.117 meters/second. Therefore it would take water at the south limit of the IPZ1 2.174 hours to reach the intake. Therefore the IPZ2 would be contained in the IPZ1.

Another point that should be reconsidered is the effect of ships on the current. The modeling assumes that 3 ships would pass in the span of 1 hour. During the shipping season 15 cargo vessels traverse the length of the Canal in a 24 hour period. Half that amount would travel in each direction. Normally as one ship exits a lock another enters from the opposite direction so that the ship can be raised or lowered with the water level. The current produced by a north-bound ship entering the Lock 8 channel would be opposed by the inertia of the water in this channel and at some point must return since the water would overflow if it continued in the forward direction. South-bound ships would counter the normal north-bound flow. Both would have a minimum effect on flow given the large amount of time in between, to normalize flow.