

Phil Dwyer, C.E.T., D.P.A.
Manager of Public Works

The Corporation of the Town of South Bruce Peninsula
P.O. Box 310, 315 George Street
Warton, ON
N0H 2T0

Telephone: (519) 534-1400 ext. 131
Telephone Toll Free 1-877-534-1400
Fax: (519) 534-4976

e-mail: tsbppwmanager@bmts.com

REPORT RE: COW October 5, 2010 REPORT NO: PW 58-2010

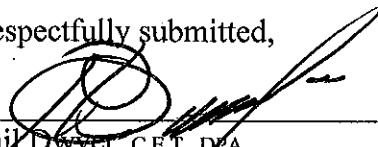
SUBJECT: REPORT ON WATER AND SEWAGE WORKS STUDY SAUBLE BEACH ADDENDUM NO. 3

RECOMMENDATION: THAT Council note the contents of the consultant's report;

AND FURTHER THAT the report be presented at the Public Meeting scheduled for October 9, 2010.


BACKGROUND: In April 2010, Council accepted the recommendation from the Manager of Public Works to re-open the Environmental Assessment for this project. Much work has been done by the consultant on this project, in consultation with the Manager of Public Works. Council will find a letter from the consultant attached, as well as a number of drawings that generally outline what will be presented at the Public Meeting on October 9, 2010 at the Amabel Sauble Community School. As Council will note in the attachments, the recommendation is to put forward for consideration an Option 5(a), which modifies the previous Option 5 by adding the Sauble Falls Provincial Park and eliminating developmental lands along County Road 13 and also along Silver Lake Road, sighting a wastewater treatment plant north of the school in the County forest and directing the effluent from the treatment plant into Lake Huron at Sixth Street North.

Respectfully submitted,



Phil Dwyer, C.E.T., D.P.A.
Manager of Public Works

Date: Sept 29 2010



Rhonda Cook, CMO
CAO

Date: Sept. 29, 2010



OS-05-142-11-OS

September 27, 2010

Mr. Phil Dwyer, Manager of Public Works
Town of South Bruce Peninsula
Box 310, 315 George Street
Wiarton, ON N0H 2T0

**Re: Draft Materials for October 9, 2010 Public Meetings
Water and Sewage Works Study – Addendum No. 3
Sauble Beach, Town of South Bruce Peninsula**

Dear Mr. Dwyer:

As requested, I provide an outline of the materials we propose to present at the upcoming Public Meeting for the proposed Sauble Beach sewer system.

Drawings

I've attached the following drawings and summarize as follows:

- Figure 1.1 that includes reduced drawings showing the sewer system collection options 1 through 4, which were presented at the July, 2010 Open House.
- Figure 1.2 showing preferred sewage collection Option 5A, which is the same as Option 5 from our July, 2010 Open House except that in two areas where there is no existing development we indicate these would be serviced in the future and that such servicing would be at the expense of future land developers. We have also included Sauble Falls Provincial Park in the sewer collection area.

This figure also shows in better detail, our proposed layout of gravity sanitary sewers and areas where we need to use grinder pump and low pressure sewers. We recently completed additional elevation measurements of all major intersections of the overall area, and using this information, we can better determine sewer servicing methods. In some areas, such as the area around Jewel's Bridge, Graham Crescent and London Street in the north, providing gravity sewers in all cases is very difficult due to land topography. Grinder pumps are proposed in certain areas.

- Figure 1.3 showing overall schematic drawing of our preliminary, recommended option which has the following major components:
 - Utilize collection area Option 5A;
 - Wastewater treatment plant located at Site 2 (Bruce County property) north of school;
 - Main sewage pumping station on 5th Street North and 2nd Avenue North pumping to treatment plant.
 - Treated effluent outfall running south down Sauble Falls Parkway to 6th Street North and from there proceeding westerly off-shore at least 800 m before effluent discharged near bottom of Lake Huron.

Note that his drawing also shows our secondary, preferred effluent outfall option to mouth of the Sauble River at the boat launch.

- Figure 1.4 (aerial photo) of outline of new pumping station at 5th and Second Avenue North.

- Figure 1.5 showing proposed marine outfall into Lake Huron at 6th Street North. Outfall pipe would turn just north of the washroom at this location before it proceeds off-shore. Though subject to modeling and water quality assessments, we would recommend the outfall go at least 800 m from the edge of water to approximately 17 feet of water depth. Potentially, this may have to be extended out another 400 m to 20 feet of water. Water depth and distance off-shore are based on our assessment we did from a boat on September 17, 2010 under calm, clear conditions. A GPS was used to determine a number of way points off-shore from 6th Street North (and 5th Street North) and the accompanying water depth at each location.

This drawing also shows the proposed pumping station at 5th Street North and 2nd Avenue North and if you look closely, the forcemain route to the treatment plant and the outfall for the effluent from the treatment plant back to the outfall location to Lake Huron.

See also Figure 1.7 for detailed water depth information and distance to shore.

- Figure 1.6 showing close up of wastewater treatment plant (schematic) at preferred Site 2, and the setbacks of the treatment plant from the north, the west, the south and the westerly edge of Sauble Falls Parkway.

We also show, in a dashed line, the recommended property acquisition, if possible, from Bruce County forest with an area of 16 Ha. As you can see on the drawing, this area provides a significant buffer zone around the treatment plant. Other than for the actual treatment plant itself, the great majority of this area can remain in the existing vegetative condition.

It should be noted that the trees at the location of the treatment plant now consist largely of sparse white pine with minimal other vegetation. Over the years, the lands between the treatment plant and the Sauble Falls Parkway will naturally re-forest or could be enhanced with planting of new trees such that, from the Sauble Falls Parkway, the treatment plant would not be visible in time, and would not be visible from the north, west or south property lines of the treatment plant site.

- Figure 1.7 - see description of Figure 1.5.
- Figure 1.8 showing locations of water quality samples taken on September 17, 2010 off-shore of the 5th and 6th Street North area (5 samples in total) in addition to sixth sample taken at boat launch in the Sauble River. Water quality data also provided on drawing.
- Figure 1.9 showing results of testing for E.Coli at surface drains that drain across Lakeshore Boulevard north of Main Street and south of the Sauble River. Results of E.Coli in all cases but one are above 100 cts/100 mL (MOE and Health Unit standard for swimming purposes).

Note that we are re-sampling these sites plus four additional sites to confirm these high counts of E.Coli. The results of the second round of testing will be added to this drawing when available (later this week).

- Figure A - Side (elevation) views of main pumping station at the intersection of 5th Street North and Second Avenue North – Conceptual drawing.
- Figure B showing dimensions and offset dimensions of above pump station at same location.

Powerpoint Presentation

As per our July, 2010 Open House we propose to provide a hard copy handout of a Powerpoint Presentation to all parties. This is currently being worked on, and we hope to have it to you as soon as possible.

As a guide, what we propose to include in the Powerpoint handout is as follows:

- 20% of material – a review of the materials provided at the July Open House.
- 10% of material – a review of the comment sheets we received, including a review of our comment sheet summary that is now posted on the FTP site.

- 20% - Review of frequently asked questions from the comment sheets and our collective response to those questions.
- 50%-- New materials which is a discussion of the above drawings and new tables described below

Tables

You may recall we had a handout of tables at the last meeting. These tables included:

- our estimate of capital costs for the various collection options (which also included the pumping station, forcemain, outfall and treatment plant costs for each size of collection area)
- our estimate of operating and reserve fund contribution costs for the 5 sewer collection options
- a summary of sewage flow estimates for the five collection area options
- a summary of effluent dilution in the Sauble River for the 5 options assuming tertiary treatment
- a review of the different options available for us, within reason, for wastewater treatment
- a summary of Sauble River water quality between years 2006 and 2010.

We would provide an update of these tables in addition to some additional tables. For instance, many comment sheets that expressed concern of discharge of final effluent (even extremely high quality effluent) to the Sauble River. Hence, our focus now on discharging treated effluent to Lake Huron a significant distance off-shore. We would provide an analysis showing the dilution of secondary and tertiary effluent given the background water quality information we now have from our recent sampling. We are also working on a table which generally reviews the social, economic and environmental impacts of each of our major options.

We will introduce Option 6 (do nothing) for all tables.


We will also provide a Frequently Asked Question and Answer sheet that addresses the commonly asked questions in the comment sheets. This is still being finalized.

We apologize we do not have all of our materials completed as yet in final form, but we will continue to work on them this week, and hopefully have them in final form prior to attending the Committee of the Whole meeting next Tuesday.

Please contact me with any questions.

Yours truly,

GENIVAR Consultants LP



Jeff Graham, P.Eng.
JTG/mmo
Encl.

Cc: Mr. Michael Meyers, P.Eng., Genivar Consultants LP
Ms. Sheila Douglas, Genivar Consultants LP