



Sent by Facsimile 1-905-833-2300

September 15, 2009

File No.: SPD-2009-11
IMS No.: PSPC1127C6

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Ms. Sarah Armstrong, Planner
Township of King
2075 King Road
King City, ON. L7B 1A1

120 Bayview Parkway
Box 282
Newmarket, Ontario
L3Y 4X1

Dear Ms. Armstrong:

**Re: Site Plan Development Application
18781 Dufferin Street
Part Lot 9, Concession 2
Parts 1, 2, 4 – 7, Plan 65R2347
Pristine Power Inc. - Peaking Power Generation Facility
Township of King, Regional Municipality of York**

Note: This letter replaces a letter dated September 11, 2009 due to a typographical error in paragraph 3. Please destroy the original letter from this office dated September 11, 2009 and the addendum dated September 14, 2009.

Thank you for circulating the above-noted Site Plan Development Application to the Lake Simcoe Region Conservation Authority (LSRCA) for the development of a 393 mw peaking power generating facility for our review and comments.

The LSRCA has reviewed this application for conformity with the Public Health and Safety Policies (Natural Hazards) of the *Provincial Policy Statement* under the Planning Act and in accordance with the purpose and intent of the Conservation Authorities Act, and advises that the proposed site alterations which are associated with this proposal are contrary to Section 3.1.2 (d) of the Provincial Policy Statement. On this basis, it is the recommendation of the LSRCA that this application should be denied.

In a letter dated October 17, 2008 to the Ontario Power Authority (attached), the LSRCA commented that the process being followed did not seem to conform to the usual Environmental Assessment process. The Ontario Power Authority has not addressed the LSRCA's concerns.

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Watershed

If it is the direction of the Province of Ontario that this is the appropriate site for the development of the peaking power generating facility for Upper York Region, the following comments must be addressed by the proponent.

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Cut/Fill and Floodplain Analysis For Safe Access Report (July, 2009)

1. Section 3.1 – Safe Access, also needs to look at the external access to the site during a major flood event (i.e. how will vehicles access the site from areas outside of the flood plain).
2. The HEC Ras Section 500.015 needs to model the existing and proposed bridge deck including the access road using the deck / roadway portion of the HEC Ras model. In this methodology the ground elevations stay the same for both existing and proposed while the high cord elevations are used to model the flow areas that will be blocked by the bridge deck and road embankment for pre and post.
3. The other existing access road and bridge at the north limit of the property does not appear to be modeled.
4. Section 500.02 which is just upstream of the new and existing access road should be identical for post- and pre- other than in the proposed cut area.
5. As major flows from the main watercourse and the north tributary combine around Section 502, 502 needs to be modified to include flows from both the north and main creeks and be extended to cover the terrain/flood plain for both these systems. There also should be an intermediate cross section downstream of Section 502 which follows a similar approach.
6. A portion of the power plant envelope (fenced area) is in the flood plain. The entire plant envelope must be located outside the limits of the floodplain.
7. The report does not address compensation for the fill to be placed for the storm water management pond.



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Hydrological and Hydrogeological Environmental Impact Statement (July, 2009)

General Comments:

8. Can you please provide the borehole logs for the 30 boreholes and monitoring wells installed on the site? In addition, can you please provide the water well record for the test well/supply well.
9. Was a grain size analysis done for any of the soil samples? If so, can you please provide the results.
10. Were any drive points (piezometers) installed within the creek bed to determine (or confirm) minimal contributions from groundwater discharge?
11. Can you please provide information on the chemicals to be used or stored on site as part of the daily operation of the power plant and discuss the risk to water quality?

Dewatering Comments:

12. The report indicates that the proposed construction will likely require dewatering. Has any testing been conducted to quantify the amount of dewatering required? If so, can you please provide these results?
13. Dewatering has been classified as a short-term impact. Can you provide more information on the anticipated duration of dewatering (or construction) and discuss the potential impacts expected from prolonged dewatering at the site? For example, is the proposed construction/dewatering going to take a couple of months or a couple of years and how will this impact the stream and PSWs?
14. How will the high water table be managed on site in the long-term?



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Water Budget Comments:

15. Your water budget calculations assume no infiltration during the winter and high groundwater table months. Although this assumption is reasonable, is there enough monitoring data to determine the number of months the water table is high enough to support no infiltration? Since most of the water levels were taken during the spring (March/April) of 2009, can you please provide a rationale as to why 10 months of no infiltration was selected?
16. With so little infiltration occurring on site, please explain how the groundwater levels (i.e. high water table) are being maintained? Is the water being recharged off site?
17. The water budget was completed using annual averages. Given the high water table on site and the proximity to the PSWs can you please complete a water budget using monthly averages to assess seasonal fluctuations and influences to the natural features.

York Energy Centre, Natural Environment Summary. Progress Report (July 28, 2009)

18. The Site Plan (May 2009) does not show the relocation of the access road from Dufferin Street; or it is unclear. During earlier discussions, it was indicated that the road would be relocated to the northern property boundary to lessen the fragmentation on this section of the provincially significant wetland (PSW).
19. Drawing L-1 includes two non-native, non-invasive species (i.e. *Larix deciduas* and *Picea pungens*). If proposed within 120 metres of the PSW, they must be replaced with a native, non-cultivar, non-invasive species. Drawing L-1, includes two non-native, non-invasive species (i.e. *Larix decidua* and *Picea pungens*). If proposed within 120m of the PSW, they must be replaced with a native, non-cultivar, non-invasive equivalent. At present, only the *Picea* species is proposed within proximity to the wetland/riparian area. The seedmix consists of 100% non-native invasive species and are generally used in manicured lawns. It appears that the hydroseeding is proposed within the southwestern corner of the property - this is actually part of the PSW as recently delineated by the MNR. This area must remain undisturbed and afforded a suitable naturalized buffer. Please revise the area proposed for hydroseeding on the drawing indicated by the hatching.



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20. Drawing CR-1 - Creek Restoration Plan, includes acceptable OSC seedmixes. If machinery is to be used during the restoration plantings, tree protection fencing should be installed along the woodland/PSW edge to protect tree roots from compaction from vehicles; this should be included on this drawing. For discussion purposes at this time, the riparian restoration appears to be satisfactory.

Outstanding and requiring review is the:

21. Complete and final Biological EIS, including a Noise Study, ensuring that noise emissions meet or exceed municipal standards and cause no adverse impacts to wildlife. Noise has not been discussed in the July 2009 progress report.
22. Updated lighting plan will need further review by LSRCA.

Fisheries

The LSRCA will require the submission of detailed designs to address vegetation buffers, culvert design, pond remediation and watercourse rehabilitation.

Functional Servicing Report (July 2009) & Stormwater Management Report (July 2009)

The following comments take into consideration our letter dated April 7, 2009.

1. We acknowledge receipt of a sediment and erosion control plan. Please use the Lake Simcoe Region Conservation Authority (LSRCA) details of the mud mat, silt fence, etc. and include these on the drawing (see attached). The consultant is requested to indicate what controls and where they will be installed regarding the entrance road and the creek crossing. Also, provide for the removal of the existing roadway. Provide sediment fence along the extent of the proposed roadway (both sides).
2. Addressed.
3. Addressed.
4. Addressed.



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5. Although you have indicated where topsoil or other stockpiled earth will be located, the stockpiles should have silt fence surrounding them. Please revise.
6. The consultant is requested to remove the rip-rap from the existing watercourse where it meets the pond outlet channel. Also, extend section 'B' to the existing watercourse and provide a typical section.
7. As previously requested, please show and label the 100 year and Regional floodlines on the drawings. They should be on the site plan and landscape plans.
8. As previously requested, please provide all detailed calculations regarding the determination of imperviousness and/or runoff coefficients and CN values.
9. Please provide supporting information, as Section 2.3 of the report references the soils classification system.
10. As previously requested, also model the 4 hour Chicago storm and to use rainfall data/IDF curves for the Township of King. Provide this information in the report. Only the 5 year Chicago storm event was modeled. Please update all sections of the report.
11. Addressed.
12. As previously requested, please provide detailed wet pond sizing calculations, as per the MOE manual, for enhanced (Level 1) quality control. Provide a table to show required VS provided. The permanent pool depth differs between the drawings and Appendix D and does not meet MOE guidelines. The sideslopes do not meet MOE guidelines. See item 8 regarding imperviousness.
13. Please provide detailed calculations to show that 24 hours extended detention of the 25mm storm event is attained, when the calculation in Appendix D indicates an orifice different than that shown on the drawings and a water level which differs from the drawings.



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14. The forebay depth also does not meet MOE guidelines. We calculate the settling length to be 10.0m. Please provide supporting information regarding the inlet flow rate used for the dispersion length calculation.
15. The consultant has provided a stage-storage-discharge chart for the pond, indicating the locations of all storm events. However, this chart must show the outlet controls (orifice and weir) and their associated flows. Provide all details.
16. You have provided calculations to size riverstone at the outlet from the outlet channel. Please provide information regarding the determination of the flow used and the value of the 'shear stress' used.
17. Please provide a series of regularly spaced rock check dams in the driveway swales to enhance the quality control for the driveway swales that drain uncontrolled toward Dufferin Street.
18. Acknowledged. Contained in the "Cut/Fill and Floodplain Analysis for Safe Access" report.
19. As previously requested, provide a copy of the model input and output files in hardcopy as well as digital format on a CD for our review.
20. Acknowledged. Landscape plans have been submitted.
21. Please provide a detail of the orifice plate installation and notes regarding a permanent and tamper proof installation.
22. Please provide supporting information regarding the determination of the rating curve used in the pond model.
23. Please provide an overland flow route on the plans.
24. Please provide 0.30m freeboard for the pond.



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25. Please provide an emergency overflow from the pond including details and sizing calculations.

If you have any questions regarding these comments, please do not hesitate to contact the undersigned and I will direct your comments to the appropriate member of our technical team.

Regards,

A handwritten signature in black ink, appearing to read "Beverley G. Booth".

Beverley G. Booth, MSc., MCIP, RPP
Manager, Planning

- c. Mario Buszynski, Dillon Consulting Limited – (416) 229-4692 – Fax
Allan Windrem, Dillon Consulting Limited – (416) 229-4692 - Fax
Councillor Virginia Hackson, Town of East Gwillimbury and Chair of Lake Simcoe Region Conservation Authority
Councillor Jack Rupke, Township of King and Member of LSRCA Board of Directors
Gayle Wood, C.A.O – Lake Simcoe Region Conservation Authority
Michael Walters, Director of Watershed Management, Lake Simcoe Region Conservation Authority

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20 Bayview Parkway
Box 282
Jewmarket, Ontario
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October 17, 2008

File: Bradford West Gwillimbury

Shawn Cronkwright, Manager, Technical Services
Ontario Power Authority
Electricity Resources
Suite 1600
120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Cronkwright:

RE: Peaker Power Plants

The purpose of this letter is to seek clarification with respect to the process being utilized to establish Peaker Power Plants within the Lake Simcoe watershed and to request additional information. The following are our concerns and questions.

1. The Ontario Power Authority has identified the need within north York Region for additional power supply to ensure that there are no interruptions to service within the area. The Authority would like to obtain copies of the reports outlining the analysis which resulted in this conclusion in order to better understand the magnitude of the problem.
2. The process being followed does not seem to conform to the usual Environmental Assessment process. Normally a proponent identifies the project and then evaluates a number of alternatives, obtains public feedback, selects a preferred solution and receives some form of public acceptance before being granted approvals to proceed. Has this process been followed to justify that construction of Peaker Power Plants are indeed the preferred alternative? Has the potential benefit of enhancing power conservation programs or evaluating clean energy sources such as solar, hydro or wind generation been evaluated? Could the Authority receive copies of the reports or analysis which has led to the conclusion that Peaker Power Plants are the preferred alternative to address the energy shortfall?

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Shawn Cronkwright, Manager, Technical Services
Ontario Power Authority
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3. Given that Peaker Power Plants are the preferred alternative moving forward to supply the needed power, why is the Ontario Power Authority not conducting an Environmental Assessment to select a preferred site for the plant? The tried and true "traditional approach" would be for the Ontario Power Authority to undertake a study to locate an appropriate site and then proceed to entertain bids for construction. The Authority is currently dealing with a number of consulting firms representing individual companies who are competing for the contract to build the plant and sell energy back to Ontario Power Generation. Each firm is evaluating site locations based on its ability to be constructing a facility based on the planning process. Who then will conduct the study or analysis to determine which site overall is the best suited to locate the facility? Have the proponents been provided with consistent Terms of Reference for them to follow and what quality assurances are being implemented to ensure that proponents are complying? Under this scenario, how will the Ontario Power Authority select a preferred site and are there criteria or Terms of Reference which will be used to evaluate the results from the different private companies? The Authority would request that the criteria or method for selecting the preferred site for the Peaker Power Plant be provided for our information and understanding.

The Authority understands the magnitude of the work being conducted and the difficulty associated with a project of this nature. I look forward to receiving the information requested so that I can convey the results to our Board of Directors. Thank you for your consideration in this regard. If you have any questions or require further information, please contact the undersigned at this office.

Yours truly,



Michael Walters
Director, Watershed Management

MW/sam

Copy to: Board of Directors, LSRCA