

St. Joseph Wind Farm Inc.



St. Joseph Wind Energy Project

Environmental Impact Study Report

Volume 5 -

Response to Provincial Technical Advisory
Committee Comments



Submitted to :
Manitoba Conservation
Canadian Environmental Assessment Agency

June 2009



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VOLUME 5

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Appendix A. Comments from the Provincial Technical Advisory Committee

1 INTRODUCTION

The current document was prepared to address concerns brought up to the Proponent by the Provincial Technical Advisory Committee (TAC) during the review of the EISR.

The present document should be reviewed with a full understanding of the EISR documents previously submitted. More specifically, Volume 3 of the EISR, submitted to Manitoba Conservation in June 2009, should be reviewed concurrently with the present document since it provides the revised project description and associated potential effects.

2 RESPONSE TO COMMENTS

Comments from various provincial agencies were received through Manitoba Conservation. Responses to each Agency comments are provided in the next section. It should be noted that responses to federal agencies are presented in Volume 4. Comments received are presented in Appendix A.

2.1 Historic Resources Branch

(...) It is recommended that an archaeological consultant be contracted to undertake an archaeological field survey, prior to construction, of WTG structures located within 1 km from a known heritage site. It should also be pointed out that the RCMP must be contacted in the event of the identification of human remains. (...)

Response from the Proponent

As recommended, the Proponent will proceed with an archaeological field survey of WTG structures located within 1 km from a known heritage site. Also, the RCMP will be contacted in the event of the identification of human remains. Based on the desktop archaeological assessment study (Volume 1) and as per the revised layout (Volume 3), less than 10 WTG locations will need to be investigated.

2.2 Manitoba Water Stewardship

2.2.1 Application for Licence Required for Activities under the *Water Rights Act*

Response from the Proponent

The Proponent acknowledges the requirement and will apply for any necessary permit, authorization or license.

2.2.2 Requirements for Erosion and Sediment Control Measures

Response from the Proponent

Erosion and control measures will be implemented until all of the sites have stabilized.

2.2.3 Comments on Stream Crossings

Response from the Proponent

Based on the revised layout (Volume 3), less than 20 drain crossings are expected and no new stream crossing are foreseen. Nevertheless, as recommended by Manitoba Water Stewardship, temporary and permanent erosion and sediment control measures will be implemented before, during, and after construction, where required. If culverts need to be replaced or added, they will be sized appropriately to ensure they will stay in place during major precipitation events and will be placed so as not to create barriers. In the eventuality that new crossings are judged inevitable, the Proponent will discuss the new watercourse crossings post-construction monitoring requirements with Manitoba Water Stewardship. Unless the crossings are done dry, the recommended spring spawning window will be followed.

2.2.4 Clarification requested for Setbacks

Response from the Proponent

The 15-m setback from the top of the bank of the drains refers to construction activities, where the 60-m setback refers to wind turbine final locations.

2.2.5 Permit Required through Fisheries Branch

Also, it should be noted that any fish/mussel/invertebrate collection or fish/mussel salvage activities require a permit issued through Fisheries Branch, Manitoba Water Stewardship.

Response from the Proponent

The Proponent acknowledges the requirement and will apply for any necessary permit, authorization or license.

2.2.6 Concerns for Surface Water

Response from the Proponent

The Proponent will ensure that no silt, gravel, construction material or other material resulting from site preparation and stream crossings enters surface water, including sedimentation to municipal drainage. The recommendation for minimal removal of vegetation along watercourses is acknowledged and will be followed.

2.2.7 Accidental Spills of Hazardous Materials

Response from the Proponent

Accidental spills of hazardous materials will be removed immediately and disposed to an approved facility.

2.2.8 Construction Dewatering

Response from the Proponent

The Proponent acknowledges the requirement and will apply for any necessary permit, authorization or license.

2.2.9 Requirement for Designated Flood Area Permit

Response from the Proponent

The Proponent acknowledges the requirement and will apply for any necessary permit, authorization or license.

2.3 Pollution Prevention Branch

2.3.1 Recommendations on Noise Issues

Response from the Proponent

The methodology used for the revised noise impact assessment is described in the response to Health Canada's comments (Volume 4). A revised noise isocontour map is presented in Volume 3.

The Proponent will carry out any justified noise monitoring required by an Environment Officer at the point of reception, as commonly requested by Manitoba Conservation in previous wind farm Environment Act Licenses. The Proponent will also implement a complaint reporting and recording process and propose mitigation measures if noise levels exceed current regulation.

2.4 Manitoba Infrastructure and Transportation

2.4.1 Requirement for Permits under the *Highway Protection Act*

Response from the Proponent

The Proponent acknowledges the requirement and will apply for any necessary permit, authorization or license.

**APPENDIX A COMMENTS FROM THE PROVINCIAL TECHNICAL ADVISORY
COMMITTEE**



Memorandum

DATE: September 8, 2008

TO: Bryan Blunt
Environmental Officer
Manitoba Conservation
Suite 160-123 Main Street
Winnipeg MB

FROM: Gordon Hill
Impact Assessment
Archaeologist
Historic Resources
Branch
Main Floor 213 Notre
Dame Avenue
Winnipeg MB
R3B 1N3
PHONE NO: (204) 945-7730

SUBJECT: ENVIRONMENT ACT PROPOSAL

YOUR FILE: 5353.00

ST. JOSEPH WIND ENERGY PROJECT
RMs RHINELAND & MONTCALM

HRB FILE: E7.8.170

I have reviewed the above-noted application for an Environment Act License. The Historic Resources Branch has concerns with regard to this project's potential to impact heritage resources.

Section 5.12.2.1 of the document outlines proposed mitigation measures. It is recommended that an archaeological consultant be contracted to undertake an archaeological field survey, prior to construction, of WTC structures located within 1 km from a known heritage site. It should also be pointed out that the RCMP must be contacted in the event of the identification of human remains.

If at any time significant heritage resources are recorded in association with these lands during development, the Historic Resources Branch may require that an acceptable heritage resource management strategy be implemented by the developer to mitigate the affects of development on the heritage resources.

C. Gordon Hill



DATE: September 11, 2008

Memorandum

TO: Brian Blunt
 Environment Officer
 Environmental Assessment and Licensing
 Branch
 Manitoba Conservation
 123 Main Street, Suite 160
 Winnipeg, Manitoba R3C 1A5

FROM: William Weaver, M.Sc.
 Environmental Review Officer
 Planning and Coordination Branch
 Manitoba Water Stewardship
 200 Saulteaux Crescent, Box 14
 Winnipeg, Manitoba R3J 3W3

TELEPHONE: 945-6395
FACSIMILE: 945-7419

CC: Leureen Janusz
 Wendy Ralley
 Rob Matthews
 Brad Allum

SUBJECT: ENVIRONMENT ACT PROPOSAL FILE: 5353.00
 ST. JOSEPH WIND ENERGY PROJECT
 R. M. OF RHINELAND AND R. M. OF MONTCALM

Manitoba Water Stewardship has reviewed the referenced file, forwarded for comment on July 29, 2008. The Department has the following comments:

- *The Water Rights Act* indicates that no person shall control water or construct, establish or maintain any "water control works" unless he or she holds a valid licence to do so. "Water control works" are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If the proposal in question advocates any of these activities, application for a Water Rights Licence to Construct Water Control Works is required.
- The proponent needs to be informed that if proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.
- Some of Buffalo Channel, Buffalo Creek, Rempel Drain, Riviere Aux Marais, and tributaries to these surface waters as well as numerous agricultural drains are located within the proposed area. The proponent indicates the potential for 39 new water crossings and upgrades to existing crossings as well as electrical cable crossings. For the road crossings, the proponent is proposing standard pipe or box culverts and the electrical crossings may be installed under surface waters using directional drilling or hung overhead.
 - The majority of crossings appear to be on the agricultural drains. While the Department does not have fish inventories for a number of the drains they are proposing to cross, many of the drains lead directly to known fish bearing waters and ultimately to the Red River. For example, crossings CKC 001, 002 and 003 will be installed on a drain that empties into Buffalo Creek. In 1999, a site was sampled on Buffalo Creek in the vicinity of the drain and walleye larva and white sucker eggs were found indicating this creek provides at minimum seasonal fish habitat (spawning, nursery, feeding). At another site much further downstream at Altberghal, young of the year northern pike and black bullheads as well as walleye and carp were captured.

Date: September 11, 2008
Subject: *Environment Act* Proposal File 5353.00
St. Joseph Wind Energy Project
R.M. of Rhineland and R.M. of Montcalm

- The proponent indicates that all crossings will be reviewed by the Department of Fisheries and Oceans Canada and Manitoba Water Stewardship's Fisheries Branch. As specific information for each water crossing has not yet been provided, the need to consult with the Department of Fisheries and Oceans Canada prior to installation should be a condition of their *Environment Act* Licence. Given the number of crossings it is important that ongoing sediment loading is minimized. Temporary and permanent erosion and sediment control measures need to be implemented before, during and after construction. Culverts need to be sized appropriately to ensure they will stay in place during major precipitation events and they need to be placed so as not to create barriers. There should also be a requirement of the proponent to monitor the watercourse crossings and provide annual reports documenting failure, corrective measures and timeframe. Unless the crossings are done in the dry, given the potential to provide or contribute to downstream spring spawning habitat the spring spawning window of April 1st to June 15th should be followed.
 - It is noted near the front of the proposal that there will be a 60 metre set back along water courses, water bodies, marshes and swamps yet further in the document it is stated that "...except crossings, construction activities will respect a 15 metre buffer from the top of the bank of drains." Please clarify which setback will be utilized.
 - Also it should be noted that any fish/mussel/invertebrate collection or fish/mussel salvage activities require a permit issued through Fisheries Branch, Manitoba Water Stewardship.
 - During the construction phase, the proponent must ensure that no silt, gravel, construction material or other material resulting from site preparation and stream crossings enters surface water.
 - While proponent states in Section 5.5.2.1 that the turbines will be located away from most surface water, consideration has not been given to sedimentation to municipal drainage ditches as a result of surface water runoff during the construction phase. Municipal drainage ditches include those along roadways. Most of the turbines are planned along roadways for easy accessibility.
 - A minimal removal of vegetation along watercourses is recommended. Disturbance and removal of permanent riparian vegetation should be kept to a minimum including along roadside ditches, and larger ordered drains.
 - In addition to mitigating impacts to drainage courses (seeding, replanting vegetation, etc.), as outlined in Section 5.3.2, the proponent must prevent soil / silt from entering watercourses. Manitoba is committed to reducing nutrient input to surface water as part of the Lake Winnipeg Action Plan.
 - Accidental spills of hazardous materials must be removed immediately and disposed to an approved facility.
 - Construction de-watering requires an authorization under *The Water Rights Act*.
-

Date: September 11, 2008
Subject: *Environment Act* Proposal File 5353.00
St. Joseph Wind Energy Project
R.M. of Rhineland and R.M. of Montcalm

- Section 6.2.4 Flooding of the proposal states "The eastern portion of the Project Area, nearest to the Red River, is located in the 1997 Red River Valley flooded area. (Manitoba Water Stewardship, 1997). Other flooding events may occur during the operation phase of the Project. If the transformers are to be located at the base of the towers instead of within the nacelle, specific measures to prevent any damage to transformers due to flooding events will be implemented."
 - A very significant portion of the Project Layout Area, as shown on Map 2.1 (found in *The Environment Act* Proposal) lies within the boundary of the Red River Valley Designated Flood Area. As such, many of the sites indicated on Map 2.1 are subject to flooding by the Red River. The severity of flooding at any given location is site specific.
 - The Department recommends that an *Environment Act* Licence include a requirement for the proponent to obtain a Designated Flood Area Permit, which will specify appropriate flood protection measures for each site, for each tower regardless of method of construction. The proponent is required to obtain a Designated Flood Area Permit under the *Designated Flood Area Regulation of The Water Resources Administration Act*.

William Weaver, M.Sc.

Blunt, Bryan (CON)

From: Streich, Laurie (CON)
Sent: Tuesday, September 09, 2008 3:12 PM
To: Blunt, Bryan (CON)
Cc: Rostkowski, Debbie (CON); Bezak, Dave (CON); Molod, Rommel (CON)
Subject: FW: St. Joseph Wind Energy Project (5353.00)

Bryan, please find comments from P2 branch on the proposal 5353.00.

Laurie Streich
Director
Pollution Prevention Branch
Manitoba Conservation
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Winnipeg MB R3C 1A5

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Before printing, think about the environment
Avant d'imprimer, pensez à l'environnement

From: Bezak, Dave (CON)
Sent: Monday, September 08, 2008 3:26 PM
To: Streich, Laurie (CON)
Cc: Molod, Rommel (CON)
Subject: FW: St. Joseph Wind Energy Project (5353.00)

Rommel's comments on the above Env't Act development proposal are attached – some potential issues with noise exposure are identified. Thanks. DB.

From: Molod, Rommel (CON)
Sent: Monday, September 08, 2008 3:12 PM
To: Bezak, Dave (CON)
Subject: St. Joseph Wind Energy Project (5353.00)

Hi Dave. These are my comments for the above proposal.

Comments

- o With reference to the submitted Simulated Noise Isocontour map (Map 5.1), many dwellings are within a kilometre from a WTG or a cluster WTG. Similarly, it can be noted from same map that there are potential dwellings that may fall within the 40-45 dB (A) zones (one-storey dwelling @1.5 M height). In the absence of a criterion for WTG in the province of Manitoba, the proponent has been referring the Ontario MOE as reference criteria.
- o With reference to "Wind Turbines and Sound: Review and Best Practice Guidelines" posted on the Canadian Wind Energy Association (CanWEA) website, a technical assessment of the sound impact of the project

should be undertaken since there are potentially sensitive (residences) receptors within a kilometer (the setback adopted in this project is at least 550 meters). Although not included in the submission, there was a mention of a noise impact assessment in page 104 of the Report (Volume 1) which I think resulted to the isocontour map.

- Based on the submitted wind rose (Figure 3-1), the wind speed for most days is from 1 m/s to 11 m/s. However, there are instances of wind speed exceeding 11 m/s coming from the south, south-southeast, north, north-northeast, east-northeast and east. With reference to the Ontario MOE Criteria, there may be few incident(s) of exceedances depending on the background noise. Background noise is from agricultural activities and ambient noise induced by wind (on trees, etc.). It is worthy to note that, if most (if not all) of the dwellings mentioned above (falling within a kilometer from a WTG) are also owner of land where the WTG are located, they may have an economic gain on the proposal, hence may have a higher tolerance on the effects of noise.

Link to best practices document:

http://www.canwea.ca/images/uploads/File/CanWEA_Wind_Turbine_Sound_Study_-_Final.pdf

Recommendations

- Although seemingly the impact from noise will not be significant, it is suggested that noise measurement/management be included in the EA license conditions.
- The noise study report is suggested to be included in the submission and not only the results.

Rommel Molod
Air Quality Specialist
Pollution Prevention Branch
Manitoba Conservation
Suite 160 123 Main Street
Winnipeg MB R3C 1A5
T (204) 945-7077
F (204) 945-1211



Memorandum

DATE: September 15, 2008

TO: Tracey Braun
Director
Environmental Assessment and
Licensing Branch
Manitoba Conservation
123 Main St., Suite 160
Winnipeg, MB R3C 1A5

FROM: Joseph Romeo
Sr. Environment Engineer
Manitoba Infrastructure and
Transportation
14th Floor – 215 Garry Street
Winnipeg, MB R3C 3Z1

Fax: 945-0593
Phone: 945-2369

SUBJECT: **St. Joseph Wind Energy Project**
Town of St. Joseph – RM of Rhineland and Montcalm
(Client File No. 5353.00)

We have reviewed this proposal as requested in your letter dated 29 July 2008 and we are submitting the following comments for your consideration.

The proposal is located in the vicinity of Provincial Trunk Highway (PTH) 75 and PTH 14 and Provincial Road (PR) 412 and PR 201.

PTH 75 and PTH 14 are Limited Access Highways under the jurisdiction of the Highway Traffic Board. Under The Highways Protection Act, any new, modified or relocated access to these highways or their service roads (including the change in use of an existing driveway) requires a permit from the Highway Traffic Board. A permit is also required from the Highway Traffic Board for any change in the use of the land or the buildings, or to place, construct or alter any structures within 76.2 m (250 ft) from the edge of the right-of-ways of the highways.

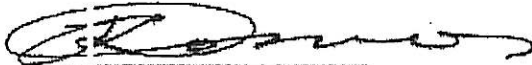
Any new modified or relocated access connection onto either PR 421 or PR 201 requires a permit from Manitoba Infrastructure and Transportation (MIT). A permit is also required for any construction above or below ground level within 38.1 m (125 ft) of these provincial roads.

In addition, a permit is required from Manitoba Infrastructure and Transportation for any planting placed within 15.2 m (50 ft) from the edge of the right-of-way of these highways.

It is expected that this development will not alter the existing drainage patterns and flows along the existing provincial highway ditches. If this assumption is not correct, additional information will have to be submitted to us in order to identify alteration requirements.

If additional information or clarifications are required about the above-noted requirements, please ask the applicants to contact Mr. Richard Nichol, Senior Access Management Analyst at telephone number (204) 945-5658 or Prokopis Papadimitropoulos, Regional Technical Services Engineer at telephone number (204) 781-7586.

Thank you for giving us the opportunity to comment on this proposal.



Joseph Romeo, P. Eng.
Sr Environment Engineer

Cc: Richard Nichol, Sr. Access Management Specialist
Prokopis Papadimitropoulos, Technical Services Engineer
Murray Donald, Regional Planning Technologist