

Friday, March 16, 2012

Minister Gord MacKintosh
Manitoba Conservation and Water Stewardship
Room 330
Manitoba Legislative Building
Winnipeg, Manitoba

Ms. Tracy Braun,
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Minister MacKintosh and Ms Braun,

INTRODUCTION:

Manitoba Wildlands is providing comments on the proposed Bipole III Transmission Project (Public Registry #5433.00) Environmental Impact Statement (EIS).

Our efforts in research and review to provide comments are intended to assist the proponent, Manitoba Hydro (MH), Manitoba Environmental Assessment and Licensing Branch (EALB) and potentially the Canadian Environmental Assessment Agency (CEAA) should a federal review begin.

Manitoba Wildlands provided comments in 2010 on the Scoping Document for the Bipole III Transmission Project. **We have attached our original scoping Bi Pole III document comments**, along with an alphabetized list of the recommendations we provided. Throughout this document we refer back to these alphabetized recommendations.

Our efforts and comments are provided in the public interest, to increase certainty, quality of assessment, consultation standards, technical and scientific content for the Environmental Impact Statement (EIS). Manitoba Wildlands efforts are intended to inform, strengthen, and support the project review, effects assessment, and licensing process for the proposed hydroelectric transmission project.

We take these steps because major public works projects impacting significant areas of Manitoba's lands and waters, that also spend or borrow significant amounts of public funds must have the very highest quality of planning, access to information, environmental effects assessment, public reviews, and licensing processes. In the present case the government is in essence licensing itself through a crown corporation and setting its own licensing and EA standards.



ACCESS TO INFORMATION:

Wuskwatim Standards Need to be Met

Manitoba Wildlands participated in all stages of public review of the then proposed Wuskwatim Generation Station and Transmission projects. In a recent article published in *The Drum*, I, Gaile Whelan Enns, Director of Manitoba Wildlands, outlined nineteen precedents established by the reviews and proceedings of the Wuskwatim Projects. The article is titled: 'Learning from Wuskwatim: Important Precedents.'

These precedents acknowledged affected communities, and showed that Manitobans were being listened to. We feel these nineteen precedents should, at minimum, be satisfied during reviews and proceedings concerning Bipole III, and all other upcoming proposed Manitoba Hydro projects, reviews, and proceedings.

- 1) **The Clean Environment Commission (CEC) asked Manitobans, and affected communities what environmental standards were needed for Wuskwatim.** The recommendations from CEC public meetings were included in the requirements for Manitoba Hydro regarding Wuskwatim – both transmission and generation stations.
- 2) **The Wuskwatim generation station is low head,** low impact for flooding, and based on decisions by Nisichawayasihk Cree Nation.
- 3) **A schedule was issued in 2002 by regulators, and updated regularly,** to let all parties know what would happen during reviews and when; where the province's Environment Act proceedings started and ended, where the Clean Environment Commission (CEC) hearings process started and ended.
- 4) **An email list serv was put in place** so that all parties to the Clean Environment Commission process had access to documents, each other, and received updates at every step. (It should be noted this list serv was turned off when the hearings started, which means an improvement in electronic document access will be needed for the next CEC proceedings.) (See: Manitoba Wildlands Bipole III Scoping Document Recommendation B)
- 5) **Pre hearing conferences were held by the CEC** with all parties, including both funded participants, and any other hearing participant who wished to attend. These started 8 months before the hearings, and assisted in planning, preparation, and technical steps.
- 6) **The Manitoba government decided that Manitoba Hydro would provide \$1,000,000** participant funding so affected communities, non profit organizations, and environmental organizations would be able to participate in the CEC proceedings. Each of the upcoming Hydro reviews/hearings/licensing processes should have at least this amount of funding – with applications, decisions, and funds administered independent of the CEC.



- 7) **Manitoba Hydro held thorough open houses in Winnipeg** about the Wuskwatim projects, including question and answer sessions, displays of materials, and attendance by engineers, consultants, and experts who worked for Manitoba Hydro on the projects.
- 8) **With hearings held in The Pas, Thompson and Winnipeg the CEC Wuskwatim hearings** were well attended. Over 9 weeks of hearings the CEC hearings room was occupied by at least 50% Aboriginal people. Evenings the room was often over 75% Aboriginal people attending.
- 9) **When the CEC hearings room was over full a second viewing area** was set up at the Radisson in Winnipeg, with sound and close circuit television provided. Students, elders, community members from North Flood Agreement First Nations were able to sit in.
- 10) **Manitoba Wildlands set up an information centre** in the hotel where hearings were held, so media could contact presenters and expert witnesses, elders could rest, and public participants could meet and talk.
- 11) **A web site was also set up** to post evidence, reports, motions, transcripts and reports from the utility, and regulators. Those are still posted on Energy Manitoba today, in a Wuskwatim archives page.
- 12) **A wide range of expert witnesses participated** at little or no cost to Manitobans, including on topics ranging from wind energy, alternatives to the generation station itself, effects of transmission corridors on woodland caribou, migratory birds and a range of other species. The economic factors need for and alternatives to the projects were combined in the same proceeding.
- 13) **The CEC made sure public registry information** about previous generation stations and transmission projects in Manitoba was available to participants for research purposes.
- 14) **Manitoba Hydro made sure both paper and digital versions of its Environmental Impact Statements were available** to any participant, funded or not. Requests for information were handled quickly, in good faith. Requests for extra maps, CDs when needed, etc. were respected and responded to.
- 15) **Manitoba Conservation made sure Manitoba Hydro filed a supplemental filing**, after review of the Wuskwatim EIS. This means deficiencies and gaps in the EIS were answered and filed by the utility. The supplemental filing was also reviewed, with public comments.
- 16) **The CEC held important motions hearings** when significant issues about the project areas, and Manitoba Hydro's failure to disclose information needed resolution before the hearings.

- 17) **The CEC made sure First Nation panelists participated** on the panel for its hearings, and honoured requests from Elders during the hearings.
- 18) **The CEC made sure that transcripts** from each day's hearing sessions were widely available the next day.
- 19) **The CEC issued a report** (which took some time to be released by the Manitoba government) with a solid, wide ranging set of recommendations about both Wuskwatim projects, and any future Hydro projects – including environmental standards for new generation stations, hearings, and outstanding legacy issues regarding the Churchill River Diversion.

We have attached a copy of the Drum article, our Bipole III Scoping Document Comments, and an alphabetized summary list of the recommendations contained in our Bipole III Scoping Document Comments.

Paper Essential - Access to EIS Materials

We feel providing paper copies of the EIS is essential for real review. Manitoba Wildlands was one of the lucky few who received a paper copy of the four volume EIS. We found this immensely helpful because of the large nature of the EIS, including at least two hundred map. It is much easier to flip through the paper version than to comb through the several dozen pdf files, which comprise the digital version of the EIS. In fact we relied on both our paper and digital copies making access to both paper and digital copies the best for thorough review.

We understand the desire to minimize paper usage, but online posting is not effective because it transfers costs and responsibilities to citizens, and communities. The entire digital EIS is 1.74 gigabytes (GB). For many northern and rural residents dial-up Internet is the only option, and downloading 1.74 GB of pdfs with a dial-up connection is a daunting and time-consuming task. Additionally, because we largely relied on the paper version of the EIS, and the technical reports were not printed so we only recently became aware of their inclusion in the digital EIS. This limited our ability to review these technical reports

It should be noted that no LIST of maps was provided with the EIS. There are also NO large whole transmission system maps provided. The scale on the segmented smaller maps is problematic, especially in the two southern map segments.

It should be noted that there is no full table of contents for the Bi Pole III EIS.

Without a full table of contents or a guide to the location of materials unnecessary time is used locating materials. For those unfamiliar with a large EIS filing these deficiencies are a barrier.

Providing Adequate Web Memory for Manitoba Conservation EALB

Without prejudice to our previous comments on the need for paper copies being made available to the public, we also support Manitoba Conservation Environmental Assessment and Licensing Branch (EALB) being given adequate web storage to host the large documents that typically accompany a Class Three environmental review, such as the EIS filed for Bipole III. It will

become fairly complicated when the EALB web page holds comments, but not the materials being commented on. The expected supplemental EIS filing for Bi Pole III will cause further complication.

Ultimately public access to respond to the EIS is best facilitated by ease of access to both paper and digital collections of an EIS. Moreover digital copies should be unlocked to enable the ability to copy sections and search for words throughout the document (this was a problem in the first filing of the Keeyask Scoping Document).

EALB staff must have difficulties in obtaining enough website space to host all licensing EIS. The Bi Pole III EIS is only posted on the Manitoba Hydro web site. In an age when memory has become quite affordable it is simply unacceptable for the Government of Manitoba to nickel and dime their licensing branch in this way, thereby impacting the quality and relevance of EIS comments – while affecting the ability of citizens to access information.

Printed Copies, Sets of CDs, or USBs at Public Registries

It is not clear that public registry locations, particularly those in rural or northern regions, have the capacity to provide a printed copy of the EIS, or even a CD/USB version. Or copies of the technical reports CDs. We have requested CD copies of other EIS documents from the main public registry located at 123 Main Street, Winnipeg. It is unclear that other public registries have this capacity. It would be useful if additional printed and/or digital copies were provided to each and every public registry in Manitoba so that the public could borrow and/or buy printed and/or digital copies.

It should be noted that NO additional public registry locations were added to the system despite these being put in place for other licensing reviews.

Difficulties Locating Additional Bipole III EIS Information Filed

We were only able to locate additional information filed February 2012 in support of the Bipole III EIS on March 14, 2012 (a mere two-days before public comments closed). Hydro Senior Environmental Assessment Officer Pat McGarry made sure we knew otherwise we would be completely unaware that additional information had been filed.

It should be noted that no notice of these additional EIS materials were posted in February or since.

We subscribe to the weekly updates of material placed in the *Environment Act* public registry but no notice of the filing of this additional information appeared. Moreover the additional information was hidden on the Manitoba Hydro website. It was only by happenstance that one of our researchers clicked on a link on the Manitoba Hydro website which stated: “We also have separate pages that contain downloadable files (large file sizes) of the EIS, technical reports, and GIS data.” This is insufficient notice about Bi Pole III materials that are under a regulatory review.

There is no indication anywhere on the Manitoba Conservation Environmental Assessment and Licensing Branch web pages, nor on the Manitoba Hydro page that hosts the Bipole III EIS, that additional information is available. It is therefore likely that the affected communities and the public at large is unaware that additional information was filed. Given our late discovery of this information we are unable to review this information before the March 16, 2012 deadline.

This situation is a deficiency in the review process itself.

Technical Advisory Committee/Government Branch Review Comments Not In Public Registry

The Technical Advisory Committee (TAC) comments on the Bipole III scoping document are available, but we have not been able to obtain and review the TAC and Government Branch Review Comments for the Bipole III EIS. It would be helpful if TAC and government branch comments on the EIS were posted online before the end of the March 16th, 2012 public review period.

This situation is a further deficiency in access to information during a review period. We would request that EALB notify all parties of a review process for the TAC and government branch/department comments to be reviewed.

Review Periods Over the Holiday Season – Other Problems

The 90-day review period occurred simultaneously with the holiday season. Many Government and community offices, and public registry locations were not open for up to three weeks during this period. This also created confusion about when the 90 day review period truly began. We recommend Manitoba Conservation implement a policy that avoids licensing reviews over the Christmas and New Years holiday period, when most government offices, First Nation Band offices, and public registries are closed.

Our recent letter to Minister MacKintosh regarding difficulties with the Bi Pole III review process is attached. In short there is confusion inside Manitoba Conservation as to when the review process starts, and which branch of government has this responsibility under the Act. Clearly the EALB starts a review once a set of steps has been taking, including public notification. This means that review of the Bi Pole III EIS started around December 17 or 18, 2011. Then the holidays occurred. Patronizing correspondence to affected communities about how this was going to be a 30 day review period shows at best ignorance of the process, and at worst self serving rhetoric.

There has not in fact been a 90-day review period for this Environment Act proposal.

Combined with the above problems is the error in the EIS itself, and the gap in access to the corrected materials. All of the above are deficiencies in the EIS review process. Both the proponent and Manitoba Conservation share responsibility.

Manitoba Wildlands Review of the Public Registry

In November 2010 Manitoba Wildlands produced a review of the Manitoba *Environment Act* Public Registry (please find a copy of this letter attached). In our review we indicated numerous ways public access to information could be improved. We know that some of our recommendations have



been implemented, but many have not. We would therefore urge the Government to provide EALB staff with the resources required to improve the public registry system, especially in light of the set of Manitoba Hydro reviews and proceedings coming up.

Improvement for Supplemental Filing

As a supplemental filing for Bipole III EIS is clearly required, we feel that access to information must improve for review of any supplemental filings required for the Bipole III EIS. The ease of access to information must continue as the Clean Environment Commission hearings on Bipole III move forward.

Need For A Clear Schedule and Process Outline

In the past environmental reviews, especially for Class 3 developments, were included an outline which laid out the steps in the review process and a schedule for when these next steps and proceedings would occur. Manitoba Hydro has indicated they would like to start building Bipole III by the end of 2012. But at the same time CEC Chairman Terry Sargent indicated that such a schedule may be too ambitious (see Bruce Owen (Dec. 3, 2011), "Bipole public hearings may start next summer" Winnipeg Free Press). It would benefit the public and the proponent to have the process and timeline clearly established up front. Additionally outlining the process in simple laymen's terms will make it easier for those who are new to Manitoba's environmental review process to participate.

Bipole III EIS Mistake Impacts EIS Review Period

Manitoba Hydro accidentally included specific location information for some rare and/or endangered plant and reptile species in the first filing of the Bipole III EIS in December 2011, according to their correspondence. They then updated the EIS in January 2012 and requested all recipients of the December 2011 EIS send their copies back in exchange for the updated EIS. This time gap simply served to limit access to information even more. We have heard from some of our contacts they are still waiting to receive the updated January 2012 EIS after mailing the requested EIS materials back to Manitoba Hydro. Clearly this limits their ability to perform any form of adequate review.

We would recommend that EALB ask the proponent for a listing of who they provided materials to with details as to when those materials were replaced. An assessment, based on standards of fairness and reasonableness, should be conducted given the number of affected communities, and the interruption in the review under the Environment Act due to this error in the EIS materials.

In the future this kind of problem could be avoided if Manitoba Conservation EALB, TAC and other government departments took 30 days to review Environment Act Proposals and EIS documents before making them public. In that way mistakes can be caught and corrected before the documents are publicly disseminated. Any significant deficiencies would also be caught, with additional EIS materials added to the EIS before public review.

This approach would also make it easier for the public to review TAC/government department comments to be filed before the end of the public review period, making those comments public and available during the review period.

OFFICIAL INFORMATION / DATA GATHERING / TECHNICAL INFORMATION

Reliance on Desktop Studies

The Bipole III EIS acknowledges (section 4.2.3.1) that during the Site Selection and Environmental Assessment (SSEA) phase “Due to the spatial scope of the Project Study Area... the majority of research ... was done by remote sensing or “desktop” studies (maps, literature studies, etc.).”

The Bipole III EIS goes on to state: “Three primary sources of information” were used following the final route selection:

- Existing published literature and unpublished information (biophysical and socio-economic) collected and synthesized during the study area characterization phase of the process;
- Information provided through Project-specific research activities, including field studies conducted to address known or expected gaps in the data. In some cases, additional research and monitoring activity will follow Project approval and securing of rights-of-way (e.g., detailed field reconnaissance and identification of site-specific avoidance or mitigation measures as part of the subsequent EnvPPs prepared for the Project); and
- ATK and local knowledge provided by residents, resource harvesters and other users, and by members of First Nations and representatives from other potentially affected communities (see section 4.2.7).

Although limited field studies were done, it is also clear that considerable reliance was placed on desktop studies, existing data, literature reviews, and in some cases aerial and google earth imagery.

To provide some examples from the Bipole III EIS:

- Soils and Terrain data relied largely on existing data with only ‘aerial reconnaissance and select ground truthing’ field studies done (see pg. 4-13);
- “No field activities were conducted” on groundwater (see pg. 4-14).
- Greenhouse gas emissions (GHGs) were determined using a desktop life cycle analysis (LCA) relying on several questionable assumptions (which we shall discuss further below).
- “Fish habitat quality was assessed for each water course within the Local Study Area using aerial photographs, aerial video, Google Earth imagery, existing published and unpublished information, and field studies (see pg. 4-15).
- Vegetation and other terrestrial components were largely examined in a Geographical Information System (GIS) using Land Cover Classification Enhanced for Bipole (LCCEB), Forest Resource Inventory (FRI), and Manitoba Conservation Centre Data (MCCDC). Some botanical studies were conducted, particularly in areas with a high potential for species of concern (see pg. 4-15).
- “Particularly attention was given to boreal woodland caribou due their status and sensitivity to resource development,” through radio collaring of wolves and caribou, *inter alia*.

However, assessment of the mammal community composition still appears to be highly dependent on pre-existing data (see pg. 4-16).

- The highest level of field sampling for birds occurred in the Project Footprint (within the Right of Way) and Local Study Area (3 mile band along the transmission line route). Owl surveys, raptor migration surveys, colonial waterbird surveys, water staging reconnaissance surveys, and breeding bird surveys were conducted but still there is a heavy reliance on desktop studies (see pp. 4-17&4-18)
- “Effects of the Project on amphibians and reptiles were assessed on the basis of information obtained from published literature, government online databases, field studies, and habitat models (see pp. 4-18).”
- Amphibian and reptile field studies were only really conducted for the identified northern prairie skink and garter snake hibernacula habitat (see pg. 4-19).

Certainly advances in aerial imagery, particularly satellite imaging, have made it easier to perform wildlife studies from an office, but this will never replace the quality of the observation derived from *in-situ* field work.

This is a significant **deficiency** in the EIS. If one billion dollars of public money is going to be spent for this transmission system then it is time for Manitoba Conservation to direct the utility to do real fieldwork during the field season that is about to start. The risk of large variances in conclusions from limited data, with few seasonal observations, and little on the ground biophysical fieldwork makes much of what is provided here regarding species deficient.

Did Manitoba Hydro access the forest sample sites, and the data for those sites over time in relation to the three corridor options, and then specific to the preferred corridor?

Did Manitoba Hydro access data which Tolko, and mining companies hold regarding the project area, study area, corridor options, and preferred corridor?

Migratory birds are essentially absent from the EIS – Manitoba Hydro needs to respond to this **deficiency** in the supplemental filing.

Problems With Desktop Data

One of the problems with utilizing desktop data is that it relies upon the frequency and quality of previous studies. The proponent therefore has no way of controlling the study methodology used and the observations taken. Moreover when collating data from multiple sources it is important to recognize that not all data sets are created equally, nor are they always comparable with one another. Significant variance in results can occur.

The fact of the matter is that much of Manitoba, particularly the northern two-thirds of the province, have only had limited field studies performed. Relying on sparse data could result in erroneously drawing the conclusion that no species of concern will be impacted, when in fact the truth may be that the species are there and they have never been recorded. It is also a concern that conclusions in the EIS could be taken as if there is extensive data available.

In our March 31, 2010 comments on the Bipole III Scoping Document we noted (pg. 20):

“We would caution the proponent regarding other species to avoid the pitfall shown in recent project EIS under our Environment Act, where limited data sets that do not provide adequate species information for assessment are used to:

- Indicate there are few of a species present
- Indicate that there are no significant risks or impacts to the species

Manitoba Hydro holds or has access to considerable data about species in the project area, corridor options. But more will be needed to be able to fulfill biophysical and species information for the EIS. It will also be important to make sure reports, and analysis, are provided with the EIS, rather than interpretations of non disclosed reports.”

In many ways the Bipole III EIS is an opportunity for us to improve the quality of the wildlife data we hold in Manitoba, but this will require field studies, and transparency on the results of these field studies by the proponent.

It should also be added that Manitoba Wildlands has not had the resources to review the technical reports for Bi Pole III EIS. We anticipate making such a review part of a Manitoba Wildlands application for participant funding for the CEC hearings. We reserve the right to provide further clarifications and/or updates when we have adequate resources to review the technical reports. At that time, depending on what is included in the supplemental filing, we will do more analysis on these conclusions.

Pembina Institute GHG Emissions Life Cycle Analysis (LCA)

We were able to conduct an initial review of the Pembina Institute Greenhouse Gas (GHG) Emissions Life Cycle Analysis Technical Report.

After an initial review of the document we consider this GHG LCA insufficient to meet recommendation T (outlined in our Bipole III Scoping Document comments) that the Bipole III transmission project be a showcase for how Manitoba Hydro and Manitoba Conservation will verify carbons stocks and report emissions. We also do not think this analysis meets the requirements outlined by Manitoba Auditor General’s audit of Manitoba’s climate change policies and programs. The EALB needs to ask the proponent whether this is only estimates, and projections on a narrow definition of climate change impacts.

In total the transmission line right-of-away will disturb over 9,000 ha of forestland, with 3,000 ha of this permanent disturbance. It should be noted that this is only analysis of GHGs due to land change. There is not sufficient information about a carbon inventory before land change and the corridor occur.

It appears the Pembina Institute has only quantified the 3000 ha of permanent disturbance in it's GHG Emissions LCA. It is not clear why Pembina did not include the GHG implication of the full

9,000 ha of land use changes. Nor is there any analysis about GHGs during the construction of Bi Pole III. Nonetheless, on a 3000 ha basis the permanent land use change associated with this disturbance is at least the second largest GHG contributor over the project life cycle, and possibly the worst. Base estimates put the GHG contribution of land clearing and land change at 303,395 tonnes of carbon dioxide equivalent emissions (tCO₂eq) over the life of the project; while higher estimates more than double the GHG contribution to 660,768.00 tCO₂eq over the life of the project.

Pembina Institute Limitations

As the Pembina Institute notes in the sensitivity analysis at pg. 21:

“Calculations in this report are from the Canadian Forest Service’s “An Ecosystem Carbon Database for Canadian Forests.” Further refinement would require measured carbon content values along the current transmission corridor. ... **Carbon contents can vary significantly by region.** For example, the IPCC notes a range of 12.3 to 131 tonnes dry matter/ha² for coniferous forests in Eurasia. ... When using the high range of carbon contents land use change emissions become the single largest source of emissions and increase overall life cycle emissions by 39%. **This is a significant change to the results. Manitoba Hydro could reduce the uncertainty of the land-use-change emissions by using carbon content values specific to the right-of-way of the transmission line (emphasis added).**”

It is not clear why the Pembina Institute used only one source, rather than comparing the federal data with information from Manitoba's Forest Resource Inventory. Further analysis would answer questions as to the scale of the data in the federal government source used versus improved scale from other sources. Certainly the commissioned study should have at least compared analysis from a second source.

Being a desktop study the Pembina GHG LCA is heavily reliant on the assumptions made. The assumptions can be found at pg. 35-36.

“Pembina used the following overarching assumptions to guide calculations. These assumptions are followed by details on the carbon contents used for each forest type cleared.

- Forest land is converted to grassland/shrub land. Total forested area disturbed is 3,253 ha.
- Other land types (grassland, agricultural land, shrub land etc...) remain unchanged except for the area directly beneath the tower. The total land area directly beneath the transmission towers is 16.62 ha.
- Wetlands remain undisturbed along the length of the right-of-way.
- CO₂ is released at the time of clearing because all biomass is combusted.
- There is no significant decay.
- There is no change in the intensity of land use. That is the carbon content of soils is unchanged after clearing.
- There are no new road right-of-ways. Access will be along existing road structure or the transmission line right-of-way.
- The carbon content of all forest types being cleared are based on Manitoba specific carbon contents.

Table 3: Additional detail on Land use change calculations

Forest Type	Carbon Content (tonnes C/ha)
Coniferous	31.4
Broadleaf	55.1
Mixed	69
Grassland/Shrub	15.3

[Source: Canadian Forest Service, cited in Pembina GHG LCA Technical Report (pg. 36)]

Certainly all studies make some assumptions but many of the assumptions made in the Pembina GHG LCA, and in the EIS in general, are overly optimistic. It is unclear whether Manitoba Hydro included in its commission to the Pembina Institute using and communicating the baseline information prior to construction of the corridor. This of course would be best practice with regard to any GHG emissions assessment. References to the Right of Way only repeat through these sections of the EIS. This means we have a variety of **deficiencies** with respect to species that will require more analysis by our organization. Hopefully some of these deficiencies will be solved in the supplemental filing. But the width of the ROW only disappeared as a credible basis for species analysis during the Wuskwatim proceedings.

Any Wetlands?

One of the most surprising assumptions in the EIS is that not a single wetland, peat, bog, fen, or muskeg area is disturbed by building or operation over the entire length of 1,384km corridor, including by access in and out of the new corridor or deleterious run off into waterways.. Given our previous comments about the lack of *in-situ* studies (i.e. no ground water field studies were performed, fish habitat studies only performed via aerial photography and google maps) the onus should be placed on the proponent to demonstrate that this statement about wetlands is in fact correct. (We shall be returning to this point when discussing the potential for federal triggers under the Canadian *Fisheries Act*.)

There is a significant **set of deficiencies** in the EIS with respect to wetlands.

As discussed in Chapter 6, the bedrock geology of “[t]he northern portion of the Project Study Area [is] characterized primarily by wetland and forested land-uses,” (see pg. 6-3).

In the description of the various ecozones (see pg 6-5 to 6-9) it is clear there exists: permafrost, peat lands of varying depths, veneer bogs, flat bogs, horizontal fens, and wetlands. Disturbance to these result in much higher GHG emissions from land use changes than disturbances to forested lands. Disturbance to any of the range of wetlands would release significant GHGs. Effects to a range of species, including moose, from loss of wetlands is ignored in the EIS.

It is therefore problematic to assume that no wetlands, bogs, fens, or peat lands are disturbed by the extremely long Bi Pole III transmission corridor.

Can the proponent or Manitoba Conservation provide evidence to back these claims up? This is deficiency (wetlands) affects several aspects of the EIS.

WUSKWATIM CLEAN ENVIRONMENT COMMISSION (CEC) REPORT

In our March 31, 2010 comments on Bipole III Scoping Document (pg. 22) we highlighted the primary recommendation from the CEC Wuskwatim Projects report on environmental assessment:

“7.8 The practice of environmental assessment in Manitoba be enhanced by requiring higher standards of performance. In this regard, the Government of Manitoba should:

- enact environmental assessment legislation,
- provide guidance for proponents, consultants and practitioners,
- establish protocols for best professional practice that includes cumulative-effects assessment.

The process should include use of traditional scientific knowledge, selection of appropriate Valued Environmental Components (VECs), establishment of baseline conditions, and establishment of thresholds in the conduct of environmental assessments. The protocols should reduce uncertainty, enhance effectiveness and improve predictability of future environmental assessments.”

Given that these recommendations have not been acted on, it is essential that any **deficiencies** in this EIS be solved before CEC hearings begin. A supplemental filing is needed.

Despite the 2005 CEC recommendations Manitoba is still one of the few jurisdictions in Canada without environmental assessment legislation or regulations. This led us to make Recommendation Y in our 2010 comments on the Bipole III Scoping Document. We would direct you to look at that recommendation about the need for Manitoba Conservation to perform an internal assessment regarding their lack of environmental assessment legislation in advance of Environment Act and CEC hearings for Bipole III.

Maps

See the comment above. There is no listing of the maps – which dramatically increases time spent identifying and reviewing the maps provided. The lack of large map sheets that show at one time, the entire corridor with respect to VECs or other factors is a significant deficiency in the EIS

products. We believe this is the first time a Class Three Development EIS has been filed under Manitoba's Environment Act without full size map sheets.

The standards which Wuskwatim EIS materials and maps set are missing in action here.

An example exercise was comparing the three options for corridor in the turn back towards the east side of Winnipeg to the converter location. The bottom or south segment map is lacking place names, and is at such a wide scale that even those who living in the region, and know the Red River Valley well would have difficulty comparing in order to see where the preferred corridor is located.

STANDARDS AND BEST PRACTICES: HYDRO & MANITOBA CONSERVATION:

In our March 31, 2010 comments on the Bipole III Scoping Document we identified sets of standards in regards to social responsibility and environmental protection, which we suggested Manitoba Hydro adopt. As a public utility their responsibilities to all Manitobans demand the highest standard possible for effects assessment, access to information, and open, accessible reviews and public hearings. It appears that there is a **deficiency** in the EIS because the public utility has not indicated to the public whether/ which of these standards they support, or use when preparing a significant EIS.

ISO Standards

According to the EIS: "Manitoba Hydro has voluntarily developed and implemented an Environmental Management System (EMS) and registered the system to the ISO (International Organization for Standardization) 14001 EMS standard (pg. 1-5)."

It would also appear that the Pembina Institute Bipole III Greenhouse Gas Life Cycle Assessment Technical Report utilized ISO 14040 standards.

However, it appears Manitoba Hydro has not implemented the ISO 2600 on Social Responsibility as outlined in our 2010 Bipole III Scoping Document Recommendation L (also see pg. 16 of our Scoping Document comments). As stated in our recommendation Manitoba Hydro should support and follow this standard, and failing that, an explanation should be provided as to why this standard was not adhered to.

International Hydropower Sustainability Assessment Protocol (HSAP)

Manitoba Hydro is a signatory and partner to the International Hydropower Association's (IHA's) Hydropower Sustainability Assessment Protocol (HSAP). Yet the EIS contains no reference to HSAP. This is a **deficiency**.

HSAP sets out four assessment tools for reviewing a proposed hydropower project at different stages of development (includes transmission projects):

- 1) Early stages
- 2) Preparation (construction)
- 3) Implementation

4) Operation

Based on the protocol hydropower projects are given a rank from 1-5 (with 5 being best) in terms of sustainability.

Aboriginal Cultural Heritage – EIS and HSAP

Preparatory tool in HSAP “P-17 Cultural Heritage” is a noteworthy section, which, “...addresses cultural heritage, with specific reference to physical cultural resources at risk of damage or loss by the hydropower project and associated infrastructure impacts (e.g. new roads, transmission lines). The intent is to identify physical cultural resources; their importance is understood, and measures are in place regarding those identified to be of high importance (see Hydropower Sustainability Assessment Protocol pg. 86).”

We assume that this tool in HSAP would be relevant in Manitoba’s north with respect to Aboriginal cultural resources. It would appear from our initial review of the EIS that a Rank of 2 would be appropriate in relation to the contents of the EIS. (i.e. ‘most relevant element of basic good practice have been undertaken, but there remains significant gaps’). Certainly we are not seeing an indication in the EIS of which other standards the utility has applied to Aboriginal heritage resources.

The following statements in the EIS and supporting technical documents provide support for this rank (i.e. they highlight efforts at good practice made, but also highlight the significant gaps which remain): (Comments follow EIS statements.)

- “The results of the [Aboriginal Traditional Knowledge (ATK)] study suggest that effects of the Bipole III transmission Project **on presently known ATK** may cause subtle changes to culture because of changes to cultural landscapes remove mnemonic cues associated with memory mapping. **This runs the risk of disrupting the continuity of cultural expression and thought (emphasis added)** (see: ATK Technical Report pg. 91).”
- This demonstrates that at least the proponent undertook an ATK study, but due to insufficient information about risks of cultural disruption significant gaps remain. It should be noted that more thorough review of the technical reports regarding ATK will be conducted when Manitoba Wildlands has the resources needed, and such analysis will be included in our participant funding application for the Bi Pole III hearings. It is unclear what literature reviews, and desk research the proponent undertook with respect to ATK and the project area.
- **“In the last 60 years, the First Nations and Aboriginal people** living in the regions roughly corresponding to the Split Lake Resource Management Area (RMA) and the Fox Lake RMA **have experienced significant, adverse disruptions in their traditional ways of life as a consequence of a number of factors including, importantly, the development of major hydro-electric generating and transmission facilities by Manitoba Hydro (emphasis added)** (see EIS 9.3.3.1 at pg. 9-23).”

- This clearly states that there have been past significant, adverse environmental effects on 'cultural heritage' from Hydro projects in the project area (and study area) – all of which included transmission components. On a precautionary basis then, the proponent needs to verify that such adverse environmental effects on 'cultural heritage' will not occur with the Bi Pole III project – anywhere in the preferred corridor, study area, project area, or in adjacent traditional lands.

The EIS is **deficient** in this area, and assurances with respect to the First Nations most impacted by previous hydro projects does not provide sufficient assurances regarding risks to the 'cultural heritage' and traditional lands of the rest of the 26 or more First Nations affected by Bi Pole III.

Manitoba Wildlands requires resources to review the archeological, cultural, and ATK technical reports in further detail. Doing a more thorough analysis will be a part of a Manitoba Wildlands application for participant funding for the Bi Pole III CEC hearings. When we undertake this kind of review regarding the culture and heritage of Aboriginal peoples affected by a project we use Aboriginal experts for the analysis.

Given that Manitoba Hydro seems to ignore the HSAP throughout the EIS, we would like a clear indication from Manitoba Hydro if they intend to assess the Bipole III project in accordance with Hydropower Sustainability Assessment Protocol .

Principles of Environmental Impact Assessment Best Practice

Manitoba Wildlands encourages Manitoba Conservation and Manitoba Hydro to abide by and adopt best practices standards, such as those outlined in Principles of Environmental Impact Assessment Best Practice by International Association for Impact Assessment (IAIA). In our 2010 comments on the Bipole III Scoping Document we asked if Manitoba Conservation agrees with these principles. And, whether Manitoba Hydro would apply these principles to Bipole III. We have still not received an answer to these questions.

FEDERAL RESPONSIBILITIES – CEAA AND FEDERAL LAW

The Manitoba Conservation June 2010 Scoping document for Bipole III states:

"It is anticipated that Manitoba Conservation will coordinate a cooperative environmental assessment process with the Canadian Environmental Assessment Agency (CEAA) in accordance with the "Canada-Manitoba Agreement on Environmental Assessment Cooperation". The cooperative process will ensure provincial-federal coordination and compliance with respective legislated mandates under The Environment Act and the Canadian Environmental Assessment Act." (pg. 3)

Yet the EIS for Bipole III now states:

"In the case of Bipole III, Manitoba Hydro is of the opinion that an environmental assessment will not be required pursuant to federal legislation." (pg. 1-11)

Woodland Caribou

In fact the Bipole III EIS frankly acknowledges that the project will have an impact on woodland caribou (listed by both Manitoba Endangered Species Act, and Canada Species at Risk Act, stating:

"Boreal woodland caribou (listed at Medium Risk in two ranges and Low Risk in a third range) will be negatively affected by the Bi Pole III HVdc transmission line. A number of core winter use and summer calving and calf-rearing areas in Wobowden range are being traversed... the potential of long term residual impacts are not certain and will require ongoing monitoring and adaptive management..." (pg. 8-128).

NOTE: 7 herds in total may be impacted by the BP3 project (habitat, calving, wintering, food sources, etc. We are highlighting those ignored in the EIS 1) Naosop (overlay with Reed Lake herd and heavily impacted by fire in 2010); 2) WimWap - on other side of Wabowden herd location; 3 & 4) Wheadon & Harding Lake herds further away but still in project area. Wabowden, Reed Lake, Bog herds are acknowledged as being impacted in the EIS

The EIS is **deficient** in that all woodland caribou herds that utilize the project area, or study area should be included in the EIS. The range area for these woodland caribou herds are as relevant as the proponent's areas. That is the question is not just how the caribou affect the project, study, corridor areas. It should be noted that the preferred corridor appears to actually put more woodland caribou at risk than other options for the corridor.

Given that woodland caribou are listed as threatened under the federal Species At Risk Act (SARA) (as well as the Manitoba Endangered Species Act (MESA), a trigger to a review under CEAA may exist.

In Manitoba Wildlands March 31, 2010 comments on the Bipole III Scoping Document we cited Section 68 of SARA, which states:

"No person shall destroy any part of the critical habitat of a listed endangered or a listed threatened species that is in a province or territory and that is not part of federal lands."

It should be noted that the EIS seems to ignore the fact the preferred corridor will impact at least 4 woodland caribou herds. The utility selected the preferred option for this transmission corridor – which the EIS admits impacting woodland caribou including calving areas. Also one of the **deficiencies** in the EIS scope artificially decreases the stated impact on these woodland caribou herds. A three kilometer buffer on each side of the transmission corridor in no way reflects the current scientific OR traditional knowledge regarding woodland caribou range areas, wintering or

calving areas. We do not see information about risk to the primary winter food source for woodland caribou: lichen.

Manitoba Hydro needs to solve the **deficiencies** in the EIS about woodland caribou. There is considerable information in the records for the Wuskwatim projects review regarding woodland caribou. And since those reviews and hearings the scientific work across woodland caribou range areas in Canada has increased dramatically. We expect to see additional information in the supplemental filing.

It should be noted that Manitoba Wildlands has limited resources at this time regarding species at risk from this project, and that we intend to do further analysis. In particular the proponent seems to have lost its way with respect to ungulates, size of range, and the impact area around a transmission corridor. Further analysis will be needed but we are concerned about the information about tundra caribou and the various sub species in the northern sections of Bi Pole III.

Federal Responsibilities

The EIS does claim that the federal *Navigable Waters Act* and *Fisheries Act* will not be triggered by construction and operation of the Bipole III project, stating: “Manitoba Hydro is confident that there will be no interference to navigation on any of the rivers and streams which will be crossed by transmission lines... [and that] provisions for treatment of ... waste will result in neither the loss of any fish or fish habitat nor the release of any substance into a fish bearing river or stream that is deleterious to fish.”

Despite the proponent’s confidence the federal Department of Fisheries and Oceans (DFO) and Transport Canada are still reviewing these assumptions of the proponent.

IMPACTS FROM CONVERTER STATIONS:

These potential impacts require more complete treatment than the EIS currently contains:

- insulator oil leakage
- coke leachate from ground
- leak of gases from sealed insulators, etc.
- risk of fire at converter stations
- EMF risks – cancer, communication troubles

IMPACTS FROM TRANSMISSION CORRIDOR AND HARDWARE

These potential environment effects require more complete treatment than the EIS currently contains, especially given the reliance on literature reviews and desk studies.

- loss of wetlands & peatlands carbon
- loss of forest cover/forest fragmentation
- bird deaths
- risk of artesian saline aquifers contaminating fresh ground water sources



WILDLIFE HABITAT DISRUPTION (see Chapter 8 *inter alia*)

MAMMALS

These potential environment effects require more complete treatment than the EIS currently contains, especially given the reliance on literature reviews and desk studies.

- Woodland Caribou (Wabowden, Reed Lake, Bog) and 4 other herds
- Barren ground caribou
- Moose
- Elk
- American marten
- Beaver
- Wolverine

BIRDS

These potential environment effects require more complete treatment than the EIS currently contains, especially given the reliance on literature reviews and desk studies.

- Waterfowl (Mallard, Sandhill Crane, Yellow Rail)
- Colonial Waterbird VECs (great Blue Heron and Least Bittern)
- Birds of Prey (Bald Eagle, Ferruginous Hawk, Burrowing and Short-eared Owl)
- Upland Game Bird VECs (Sharp-tailed Grouse and Ruffed Grouse)
- Pileated Woodpecker and Red-headed Woodpecker
- Songbirds and Other Bird VECs (Common Nighthawk, Whip-poor-will, Olive-sided Flycatcher, Loggerhead Shrike, Sprauge's Pipit, Golden-winged Warbler, Canada Warbler and Rust Blackbird)

AMPHIBIANS AND REPTILES

These potential environment effects require more complete treatment than the EIS currently contains, especially given the reliance on literature reviews and desk studies.

- Northern Leopard Frog (MESA)
- Wood Frog
- Red-sided garter snake
- Northern prairie Skink
- Plains Spadefoot

It should be noted that there are risks, variances and **deficiencies** resulting from the approach taken by Manitoba Hydro to providing species information (flora and fauna) for the project. The woodland caribou information and taiga/tundra caribou comments above are just a beginning on our concerns regarding species. In particular recent announcements by Manitoba Conservation that suddenly the moose population has stabilized in the Duck Mountains and Porcupine Hills means that independent analysis for moose is needed. We assume that estimates and projections are not good enough for decision making on this project, especially as they may have a variance as high as

30 or 40 %. Manitoba Hydro needs to **solve these deficiencies** by including the actual field work they will conduct this year in their supplemental filing – and report on more complete species data and analysis before licensing hearings start.

PUBLIC POLICY FOR PUBLIC UTILITY

This EIS is **deficient** in regards to the range of public policy relevant to this project which the utility needs to fulfil. Class Three Development EIS guidelines in Manitoba need to return to requirements for the proponent, and assurances from the proponent that public policy, programs, and regulations or law in Manitoba will be fulfilled for this project.

It is unclear why the Sustainable Development Act and its principles and guidelines are missing in this EIS. We expect the supplemental filing for Bi Pole III EIS to correct this **deficiency**.

CLIMATE CHANGE

The GHGs from land change report from the Pembina Institute is a beginning *only* in terms of the contents needed in this EIS regarding climate change mitigation measures. A **deficiency** exists here, one we identify for further review. It is long overdue for the utility to use baseline data, carbon inventory data and fully identify all the emissions from the start of a project, through all stages of the project.

It should be noted that a range of other sets of data are needed for a climate change analysis for this project.

SOCIAL LICENSE TO OPERATE

As a public utility Manitoba Hydro needs to be more mindful of its social license to operate – and while there were workshops and opens houses held during planning stages for this transmission project – communication since a year ago regarding the project has been absent.

Manitobans deserve clearer information, and respect for their questions, especially when they would pay for a project via debt. In particular the confusion and controversy about location for this transmission corridor *AND* the reason for building Bi Pole III stretch the loyalty, and credulity of Manitobans. The EIS **does not address sufficiently** either of these issues. We expect the supplemental filing materials to investigate and explain whether the need for Bi Pole III is energy reliability for Manitoba homes, businesses, and public sector *OR/AND* for export revenues.

Manitoba Hydro has a social license to operate investment in the next steps for Bi Pole III reviews, and hearings to be respectful, open, with information and services to Manitobans being accessible. This is especially true for the 26 First Nation communities and numerous municipalities and towns affected by the project. In the last year Manitoba Wildlands believes the project lost its way, and lost some of its social license to operate, and build Bi Pole III. At this time the Bi Pole III undertaking is in terms of the needs of Manitobans – who will be paying for the project.

To date there is no information about the Needs for and Alternatives to analysis for this project. This is a **deficiency** that must be corrected. We assume a public process.



CONSULTATIONS

Our staff have been informed that First Nation & Aboriginal consultations for Bi Pole III have *NOT* started as yet. Given the stated policy of our provincial government – that First Nations approval is needed for this project – it is a clear **deficiency** on the part of the Crown that these consultations have not started. It is unclear how the assumed timelines for this Project can be met without progress on First Nation consultations. At least twenty-six First Nations and several Metis communities plus Northern Affairs communities deserve the respect upon which Aboriginal consultations are based.

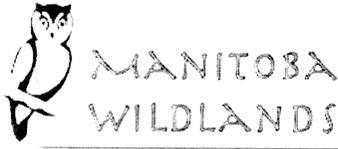
Also Northern Flood Agreement (modern day treaty in northern Manitoba) First Nations are entitled to consultations with respect to any new Hydro project. We wonder if those consultations have started.

IN CLOSING - This set of EIS review comments will be accompanied by a set of attachments which we have referenced in this document, or which we are providing to assist others in their due diligence. We anticipate that various deficiencies will be addressed in the supplemental filing.

Submitted by

Gaile Whelan Enns, Director
Manitoba Wildlands

See Attachment List and materials



February 21, 2012

Honourable G MacKintosh, Minister
Manitoba Conservation and Water Stewardship
Room 330
Manitoba Legislative Building
Winnipeg, Manitoba

Dear Minister MacIntosh

Re: Public reviews - Manitoba Conservation mandate - Various Acts

This letter is about recent anomalies in public reviews within your department's mandate and responsibilities. The requested response is clarity from yourself about how your department will be handling public review periods in the future.

Parks Act Reviews

Saturday February 11 the Parks Branch in Manitoba Conservation posted a notice regarding the Walter Cook Caves park reserve, and a public review about its status and potential renewal. The notice included a public review regarding the Poplar Nanowin Rivers Park Reserve, and its potential removal. This combined notice was in the Winnipeg Free Press on the above date. The two notices arrived in our office mail the previous day. The deadline for comments is Monday February 20, 2012. This date is a *holiday* and only 12 days and 5 business days from the time of the public notice in the paper to the close of comments. Essentially this means that you only allowed *5 business days for public comments, with a deadline on a holiday*. We would recommend these reviews be extended to meet the standard you intend the department to maintain for public reviews under the Parks Act.

Please advise our office of steps you are taking to put standards in place for reviews under the Parks Act, as these recent steps would pose a high risk precedent. We would point out that there was a time when a public registry file was opened for any review under the Parks Act, based on COSDI recommendations. Currently there is essentially nothing public regarding the response to a review under the Parks Act. The 'what you told us' mechanism is not an adequate replacement.

Bi Pole III Environment Act Reviews

Currently there are conflicting communications coming from different branches in your department regarding the regulatory steps, review period, and timelines with regard to the Bi Pole III EIS review. One branch in your department thinks this review started December 1, 2011 when Manitoba Hydro deposited the EIS. This same branch of the department persists in communicating as if the 90 day review period is one we all should be thankful for, because the initial period was going to be 30 days only. There has never been, to the best of our knowledge, a 30 day review period for a Class Three

Development EIS under Manitoba's Environment Act. Certainly major hydro project EIS materials have never been reviewed in 30 days.

Specifically the review period starts when the Licensing Branch indicates. There are steps that must occur upon receipt of an EIS and before the review period starts. These of course include review of the EIS materials, deposit of the materials for public access in public registries, and public notification for access and review. Then the review period begins. Public notices were not published until between December 17 and December 20. And then the Christmas, New Year's holiday commenced. In First Nation communities in particular (26 First Nation communities are affected by Bi Pole III.) the year end holidays is at least three weeks long. Conflicting information about something as basic as a Class 3 EIS review does not assist the proponent or your department fulfill its mandate.

Both the utility staff and your non licensing branch staff may need to be updated on the review periods under the Environment Act, and the regulatory process, steps etc. The non licensing staff should at all costs avoid communicating inaccurate information.

So we have a 90 day review period which includes all of the holiday season. This is contrary to best practice, and risks confidence in the public review process. Over the last decade review periods under the Environment Act have either avoided holiday periods or increased the length of the review period because of holidays included.

Bi Pole III materials continue to be largely unavailable. No additional public registries were set up to facilitate access. Our offices made several suggestions – thinking they would be acted on. If the licensing branch can set up additional public registries for localized projects of 1/100th the impact and cost of Bi Pole III then additional public registries should have been set up for this Bi Pole III EIS review, and must be put in place for subsequent Bi Pole III public reviews for the EIS Guidelines, and any subsequent EIS filings.

As serious is the poor response to requests for Bi Pole III EIS materials. As your staff and consultants will be aware, response to requests for these EIS materials, sending sets of Bi Pole III EIS materials to affected communities, and access to the pen drive set of materials are **all slow**. How can affected communities, concerned citizens, and community organizations respond to this volume of material without a copy? Are they supposed to drive back and forth to a distant public registry each day for a week? Do any of these public registries have copies of the CDs, or ability to copy them for citizens? Essentially we are most of the way through a dubious review period for these EIS materials without access to them. Our office waited for three weeks to receive the materials, and as long to receive the pen drive. We are aware of various outstanding requests for the Bi Pole III EIS materials.

There was an error made in the original EIS. Exchanges are being made now to provide the correct CD, pen drives, etc. Please ask you executive staff what approach

Manitoba Hydro is taking to these exchanges, as our understanding is that there will be considerable delay before communities and organizations who held the 'in error' version will have updated and correct versions.

A deposit of additional Bi Pole III EIS materials was made last week. To date we are not aware of how these will be included or excluded from the current EIS review under the Environment Act, and how these materials will be made available to all parties who currently hold the former 'in error' version.

We formally request that you, as minister responsible under the Act for all steps in the filing, posting, and review of EIS materials, extend this EIS review period and assess the steps taken and not yet taken with regard to Bi Pole III EIS review, access to the materials, etc in order to immediately improve the situation. You should know that:

- The EIS is not posted on the Manitoba Conservation web site, but linked to Manitoba Hydro's web site. It is unclear whether / how next stages of review and materials for the Bi Pole III project will be based. All materials must remain available to the public throughout the two proceedings under the Act.
- Few if any offices in affected communities have the capacity to download all these materials. Offloading printing of this volume of material is a spurious assumption. None can print in colour...
- Review of maps and charts, larger materials is largely impossible on a computer screen.
- Any steps taken so far regarding Bi Pole III fall far below the standard set for the review of the Wuskwatim projects EIS, and subsequent filings. We are available to assist your department and the proponent to make sure that the practices and approaches taken for the most recent Manitoba Hydro project are maintained.
- The Licensing Branch weekly list of proposal postings and additions to the public registry is only held for one week and there are no archives maintained on line. We do not know if these listings are sent to public registries and kept available. An immediate step that would improve credibility is for these public registry listings to be maintained on line.

It is our suggestion and hope that you take immediate action before the process of **reviews under the Parks Act, and the Environment Act** becomes further compromised.

Certainly the standards for access to information through proceedings under the Environment Act *were magnitudes better* than what is currently occurring for Bi Pole III.

In closing we would ask that you ensure a **schedule for the Bi Pole III reviews**, proceedings etc be made available immediately. This is the first time in our experience of 20 years where a Class 3 project has been reviewed under the Environment Act without a schedule posted and available to all parties.



MANITOBA
WILDLANDS

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Yours truly

A handwritten signature in cursive script that reads "Gaile Whelan Enns".

Gaile Whelan Enns
Director
Manitoba Wildlands

Copy to:
VP for Transmission, Manitoba Hydro

Bipole III Recommendations from Manitoba Wildlands are listed below – based on the March 2010 review of the Manitoba Hydro Bi Pole III Scoping Document. Recommendations below are taken from the full set of comments submitted by Manitoba Wildlands at that time. (Compiled March 2012).

A) Access to Information

Manitoba Wildlands recommends that once the corridor is selected and the project area defined on that basis that the utility and Manitoba Conservation design a notification system that will work both during the next stages under the Environment Act, but will also be in place throughout the building of Bipole III. This plan should be posted to the public registry, on Manitoba Hydro web pages, and be advertised as soon as it is in place. Given the number of affected communities in northern and southern Manitoba we assume regular updates will go by mail to all communities.

The utility should be required to make public any report that may be needed by affected communities, landowners, municipal authorities and public participants to be able to participate in Bipole III processes.

Manitoba Wildlands recommends that Manitoba Conservation and Manitoba Hydro arrive at an access to information policy for this project that is more than minimum compliance, and more timely than has been the practice. In particular the community sessions and open houses, municipal meetings etc must be combined with ongoing access to information. Manitoba Hydro can on its own take steps beyond minimum compliance so that information that supports citizen engagement, and best decision making, is available as early as possible in the process.

B) Electronic Information – Reviews & Hearings

Manitoba Wildlands recommends that an electronic list and other tools for all parties, including public participants and affected communities, regarding the Environment Act review, CEC proceedings, hearings etc be operational *before and during the hearings* for Bipole III. Significant time and resources can be saved by ensuring access to information by more than one medium during the reviews, CEC proceedings, and especially the hearings.

C) Information Plan

Manitoba Wildlands recommends that the EIS for Bipole III include a review of past practices, and issues regarding access to information, with a resulting plan and practices. This discussion may well need to include the Manitoba government entities involved in all steps under the Environment Act. See our comment about access to information throughout the project's construction.

D) Full Set of Guidelines

Manitoba Wildlands recommends that guidelines for actions to build transmission lines - planning, design, EA, licensing, construction and operations - should be available through Manitoba Conservation, Environmental Assessment and Licensing Branch. These should be applied to all stages or reviews and decision making under The Environment Act and any other Act triggered by a new transmission line. Manitoba Conservation also needs to make available to the public its policies and procedures standards for a scoping document under the Environment Act.

E)Protected Areas

Manitoba Wildlands recommends that Manitoba Conservation and Manitoba Hydro work together for decisions for new protected areas in the regions impacted by Bipole III, with establishment being in advance of any construction, ideally this year.

F)Fulfill Public Policy

Manitoba Wildlands recommends that Manitoba Conservation provide Manitoba Hydro with the information its needs to fulfill public policy, and avoid contradiction to policies, commitments, reviews, and standards in place with regard to current and future parks, protected areas, crown land designations, and treaty land entitlement selections.

Manitoba Wildlands further recommends that the EIS for Bipole III contain the analysis done in the project area/ corridor to verify the steps taken or to be taken based on our comments and recommendation above.

G)Assemble all Government Policies and Procedures

Manitoba Wildlands recommends that Manitoba Conservation assemble the existing policies and procedures from relevant government departments in order to provide Manitoba Hydro with the requirements for a range of impacts from Bipole III that include logging, road building/ decommissioning, drainage and culvert installations, etc. We further recommend that these policies and procedures be posted, put in the public registry and included in the EIS so that it is clear what Manitoba Hydro is expected to fulfill, and which government departments are responsible for work permits, etc.

H)Cumulative Impacts

The cumulative impact approaches outlined by Manitoba Hydro should be explained explicitly in the EIS on a performance basis. For Manitoba Conservation to act on cumulative impact assessment, Manitoba Wildlands recommends Manitoba Conservation and Manitoba Hydro take the overdue step of discussing regular reviews of cumulative impacts of the Bipole III project, with public component and transparency. The EIS can then reflect how this ongoing or living cumulative impact assessment will be conducted. We would suggest five year

intervals for these cumulative impact assessments – which must be based on operations and performance versus a policy / paper assessment.

I)Regulatory Framework

The scoping document is vague regarding Manitoba’s policy and regulatory framework. We recommend the Bipole III EIS be more specific and clear about the policies, existing agreements, and regulatory framework which the proponent need to fulfill or take into account for this project.

J)Include Policy and Strategic EA

Manitoba Wildlands recommends that Manitoba Conservation and Manitoba Hydro identify contents needed in the Bipole III EIS to provide the essential elements of a policy and strategic EA. Manitoba Wildlands further recommends that Manitoba Conservation and Manitoba Hydro design tools so that advance policy and strategic EA becomes part of the process with all Manitoba Hydro proposals under the Environment Act.

K)Hydro’s Standards – social licence to operate

Manitoba Wildlands recommends that the Bipole III EIS contain a thorough discussion of Manitoba Hydro’s support for, and monitoring of its social responsibility standards, and actions. In particular we recommend that Manitoba Hydro explain how it is maintaining its ‘social licence to operate’ in preparing for Bipole III.

L) ISO Standards

Manitoba Wildlands recommends that the EIS for Bipole III indicate whether Manitoba Hydro agrees with and supports the contents of ISO 2600 Standard on Social Responsibility. If it does not an explanation should be provided. If it does then the EIS should include the ways the utility is applying the ISO Standard 2600 to the Bipole III planning and decision making process.

M) ISO and other Standards Applies

Manitoba Wildlands recommends that the proponent indicate whether Manitoba Hydro supports and applies these ISO standards in its operations. As a public utility which espouses corporate social responsibility Manitoba Hydro needs to inform its shareholders whether these principles of social responsibility, including with environmental principles, are integrated into its project planning. In addition we recommend that the proponent include in its EIS clear statements as to its approach to social responsibility for this project.

N) US Transmission Requirements/ Reporting

Manitoba Wildlands recommends Manitoba Hydro create guidelines or requirements related to its membership in continental energy organization publicly available. Manitoba Hydro then needs to outline which standards, agreements and reporting requirements under the US Federal Energy Regulatory Commission (FERC), the Mid-Continent Area Power Pool (MAPP), and Midwest Independent Transmission System Operator (Midwest ISO) affect the Bipole III project design, construction, operation (including interconnections).

Further Manitoba Wildlands recommends the EIS for the Bipole III project identify these, as per above, while indicating what is required by Manitoba Hydro's membership in these continental organizations, and what the impact on the project would be.

O) Midwest ISO Standards

Manitoba Wildlands recommends the EIS for Bipole III respond to the Midwest ISO Principles (see above), indicating how the Bipole III project will uphold these Principles. We further recommend that Manitoba Hydro indicate in the EIS which sets of EIA standards, criteria, methods etc the utility applies to transmission line planning, design, and operation. Then the EIS can include identification of how Manitoba Hydro will be transparent about, and uphold the principles, standards, or criteria it subscribes to, for this project.

P) Environmental Management Plan

Manitoba Wildlands recommends that environmental management plans for the elements of the Bipole III project be part of the EIS filing. We further recommend that Manitoba Conservation ensure that these plans, and their updates, over the life of the project remain part of the public registry.

Q) Manitoba Conservation EIS Standards

Manitoba Wildlands recommends that Manitoba Conservation consider how best to include in EIS contents clear indications of the standards, principles, and methods they ascribe to, and use in the EIS and planning for new projects. In particular we recommend that this EIS include Manitoba Hydro's statements to this effect.

R) Climate Change in EIS

Manitoba Wildlands recommends that Manitoba Hydro include in the EIS information as to the approach to project planning, engineering, and all stages of construction and operation of Bipole III in relation to climate change. We also recommend that Manitoba Conservation begin to consider how to make sure that scoping of effects and impacts from projects on climate are thoroughly scoped in advance of EIS preparation for projects under our Environment Act.

S) Carbon and GHG Planning, Reportin

Manitoba Wildlands recommends that Manitoba Conservation and Manitoba Hydro use the Bipole III project as a demonstration of methods for carbon and green house gas planning, reporting, and mitigating to fulfill public policy and commitments made by the Manitoba government.

T) Carbon Inventory & Budget

Manitoba Wildlands recommends that the Bipole III transmission project be designed, and planned, as a showcase for how Manitoba Hydro and Manitoba Conservation will verify carbon stocks inventory, set a project carbon budget, report emissions during construction, and mitigate carbon loss with the aim of reporting in a transparent manner all steps to achieve a no net loss of carbon goal for the project.

U) Data – Hydro Emissions

Manitoba Wildlands recommend that the EIS specifically address our recommendation above, while addressing the coming 25,000 tonne reporting requirement for GHGs in Canada, for each project or installation. The context for this recommendation is the current lack of public data about Manitoba Hydro emissions, including for annual emissions from each reservoir, during construction of projects, during operation of projects, and especially during high water years which produce extra methane. We would further recommend that Manitoba Hydro conduct a survey of electrical utilities – especially those publicly owned – to share expertise in this matter, and in order to provide relevant contents in the EIS.

V) Why 500 KV ?

Manitoba Wildlands recommends that the Bipole III EIS include a specific discussion as to why Bipole III is limited to 500 kv and what steps to consider alternative Kv the utility has taken.

W) Alternatives to Transmission Land Corridor

Manitoba Wildlands recommends that a status report regarding Manitoba Hydro's consideration of this alternative (underwater transmission) be included in the EIS. In particular the technical work and reports commissioned to consider the ingredients in underwater transmission systems in Lake Winnipeg should be filed, or made public as soon as possible, with the EIS containing a discussion of the steps in consideration of this alternative taken by the utility.

X) Consultations

Manitoba Wildlands recommends that the EIS contain clear identification of methods for consultation with affects communities, and affected lands owners. Then the specifics of mitigation, negotiations and mitigation methods will need to be described.



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Manitoba Wildlands further recommends the Manitoba government, Manitoba Conservation consultation guidelines for Aboriginal communities be provided in the EIS – ideally filed in the public registry immediately – with the EIS containing a description of consultation protocols for affected First Nation and Aboriginal communities. Specific risks and impacts, and steps that could be taken with consent of affected communities will need to be clearly stated in the EIS. For clarification purposes Manitoba Wildlands also recommends that Manitoba Conservation and Manitoba Hydro consider steps necessary so information regarding the selected routes, and steps for consultation reach the affected communities. That information should include full access to public registry information. (see our earlier recommendation regarding land designations and land selections.)

Y) EA Legislation

Manitoba Wildlands recommends that Manitoba Conservation ensure that the proponent for Bipole III fulfill the intent of the text above, and any other recommendations that will assist in requiring higher standards for EA in Manitoba, and for this project. In particular we recommend that Manitoba Conservation conduct an internal process about the current lack of environmental assessment legislation and regulation in Manitoba. The result of that review should be available to the CEC and the proponent in advance of the hearings for Bipole III.

BiPole III Comment Letter References and Materials

Links Identified as Relevant to contents of Manitoba Wildlands comments re bi pole III scoping document, March 2010.

*** Quote or Reference Inside Comments Letter.*

****International Standards Organization - ISO standards**

http://www.lsd.lt typo_new/fileadmin/Files/N172_ISO_DIS_26000_E.pdf

High Voltage Direct Current (HVDC) Transmission Systems Technology Review Paper

http://www2.internetead.com/pub/energy/technology_abb.pdf

****Guide to Risk Assessments and Public Health Assessments**

http://www.eoearth.org/article/Guide_to_Risk_Assessments_and_Public_Health_Assessments

Life cycle assessment

http://www.eoearth.org/article/Life_cycle_assessment

Restructured Rivers: Hydropower in the Era of Competitive Markets

http://www.centrehelios.org/en/Studies_and_Reports_by_Philip_Raphals

Market-Based Transmission Expansion Planning

<http://motor.ece.iit.edu/papers/01350848.pdf>

****International Association for Impact Assessment**

<http://www.iaia.org/publications/>

Social Problems, Community Trauma and Hydro Project Impacts

<http://www2.brandonu.ca/Library/cjns/15.2/loner.pdf>

Electrical power systems quality

<http://books.google.ca/books?hl=en&lr=&id=Y4HvySjqlbMC&oi=fnd&pg=PA1&dq=Building+DC+Electric+Transmission+Systems+&ots=HsVcG9pQw&sig=-wdNPMwoAllyjZmS5KSC1HPvM4#v=onepage&q=&f=false>

Wuskwatim Transmission and Generation Station Archives: Presenters / Presentations

http://www.energymanitoba.org/wusk_archives/presenters.htm

A Compendium of Electric Reliability Frameworks Across Canada

<http://www.nelb.gc.ca/elf-nsi/mrgy/nfntn/mrgy/rprt/letrety/cmpndmletrrebltyend2004-eng.pdf>

Mid-Continent Area Power Pool Website Links and Pages

<http://www.mapp.org/DesktopDefault.aspx>

Reliability Performance Project: Manitoba Hydro and SASK Power both inside doc

<http://www.mapp.org/ReturnBinary.aspx?Params=584e5b5f4558560000000253>

Transmission and Distribution World

http://tdworld.com/news/power_minnesota_power_joins/

Midwest ISO's system Planning Reserve 2010/2011 Margin

http://www.midwestmarket.org/publish/Document/4dfde8_124a04ca493_-71510a48324a/Planning%20Year%202010%20Findings_final.pdf?action=download&_property=Attachment

Midwest Independent System Operator: 2009 Long-Term Assessment Reliability Report

http://www.midwestmarket.org/publish/Document/2c2ca5_12511ba6cdc_-7fab0a48324a/2009%20Long-Term%20Assessment%2009-02-09.pdf?action=download&_property=Attachment

Midwest Independent Transmission System Operator 2009-2010 Winter Reliability Assessment Midwest ISO Market Footprint

http://www.midwestmarket.org/publish/Document/2c2ca5_12511ba6cdc_-71bc0a48324a/2009-2010%20Winter%20Assessment_FINAL_v3.pdf?action=download&_property=Attachment

Department of Energy US - reporting requirements via Mid-Continent Area Power Pool and MISO

http://www.midwestmarket.org/publish/Document/66d196_115dc8fa4a2_-7c9c0a48324a/EIA%20411%20definitions.pdf?action=download&_property=Attachment

****Planning Standards MISO**

http://www.midwestmarket.org/publish/Document/6b6059_1239ec7b046_-7fd90a48324a

<http://www.midwestmarket.org/page/Expansion%20Planning>

Contains various MISO transmission planning and transmission expansion manuals, and protocols

****International Organization of Standards: Guidance on Social Responsibility**

http://isotc.iso.org/livelink/livelink.fetch/-3929321,8929339,8929348/3935837/ISO_DIS_26000_Guidance_on_Social_Responsibility.pdf?nodeid=8385026&vernum=-2

****Australian Government. Department of Environmental Assessment**

<http://www.environment.gov.au/epbc/assessments/index.html>

(contains one perspective and process for strategic assessments)

****The Ceres Roadmap for Sustainability**

<http://www.ceres.org/ceresroadmap>

Considering Aboriginal traditional knowledge in environmental assessments conducted under the *Canadian Environmental Assessment Act -- Interim Principles*

<http://www.ceaa.gc.ca/default.asp?lang=En&n=4A795E76-1>

PDF References and Materials Used for Manitoba Wildlands Comments Re bi pole III March 2010

****Overview of Transmission Lines Above 700 kV**

Raymond Lings, July 2005

Guidelines for Development Near Overhead Transmission Lines in BC
BC Hydro

****Treatment of biodiversity issues in impact assessment of electricity power transmission lines: A finnish case review.**

Soderman, 2006.

Multi-Jurisdictional Environmental Impact Assessment: Canadian Experiences

Fitzpatrick and Sinclair, 2008.

****A Reference Guide for the Canadian Environmental Assessment Act: Addressing Cumulative Effects by the Federal Environmental Assessment Review Office. 1994.**

****Canadian Environmental Assessment Act: An Overview by Canadian Environmental Assessment Agency**

Executive Summery on Energy Efficiency by the International Energy Agency

Transmission investment and expansion planning in a restructured electricity market
by F.F Wu, F.L. Zheng and F.S. Wen

Guide to Environmental Assessment Requirements for Electricity Projects by Ministry of the
Environment Environmental Assessment and Approvals Branch

**Guide for Social Responsibility by International Organization for Standardization (ISO).

High Voltage Direct Current (HVDC) Transmission Systems Technology Review Paper

**Principles of Environmental Impact Assessment Best Practice by the International
Association for Impact Assessment (IAIA) 1996.

Biodiversity in Impact Assessment by the International Association for Impact Assessment
(IAIA) . 2005

Class Environmental Assessment For Minor Transmission Facilities Pursuant to the
Environmental Assessment Act, Ontario, Canada

2009 Long-Term Assessment Reliability Report Midwest Independent System Operator

Overview of Transmission Lines Above 700 kV
Raymond Lings

Environmental Assessment in Canada: Encouraging decisions for sustainability
by A. J. Sinclair and M. Doelle

Conceptualizing learning for sustainability through environmental assessment: Critical
reflection on 15 years of research by A. J. Sinclair, A. Diduck and P. Fitzpatrick

Framework for the Transmission Lines Standard by Alberta Electric System Operator

**Ontario Energy Board Transmission System Code. October, 2009.

Market-Based Transmission Expansion Planning by M. O. Buygi, G. Balzer, H. M. Shanechi,
and M. Shahidehpour

**Manitoba Wildlands Lands and Waters Policies 1999-2009

**Questionnaire Checklist for Cumulative Impacts
by L. W. Canter and J. Kamath, 1995.



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Climate Change and Infrastructure Engineering: Moving Towards a New Curriculum By the Canadian Standards Association. October 2007.

**Manitoba Wildlands Analysis of Recommendations - Report on Public Hearings - Wuskwatim Generation and Transmission Projects

Learning from Wuskwatim – Important Precedents

By Gaile Whelan Enns

It is eight years since the Wuskwatim projects environmental hearings – both transmission and generation station/dam. Right now Manitobans and affected communities are seeing the start of public reviews, hearings, and possible licensing for several Manitoba Hydro projects.

Churchill River Diversion closed meetings started in 2010. The scoping for Bi Pole III started in 2010, with the Environment Impact Statement currently under public review until March 16, 2012. Premier Selinger promised public hearings regarding Lake Winnipeg regulation at the beginning of 2011. These hearings now appear to be pushed back into late 2013. In the meantime the Keyask scoping for environmental standards review ended January 31, 2012. The Manitoba government has signed an export agreement, which includes a transmission line to Wisconsin. Conawapa generation station is part of the same negotiations as Keyask.

Important precedents happened during the Wuskwatim proceedings, which started in winter 2001-2002. These precedents acknowledged affected communities, and showed that Manitobans were being listened to.

1) The Clean Environment Commission (CEC) asked Manitobans, and affected communities what environmental standards were needed for Wuskwatim. The recommendations from CEC public meetings were included in the requirements for Manitoba Hydro regarding Wuskwatim – both transmission and generation stations.

2) The Wuskwatim generation station is low head, low impact for flooding, and based on decisions by Nisichawayasihk Cree Nation.

3) A schedule was issued in 2002 by regulators, and updated regularly, to let all parties know what would happen during reviews and when; where the province's Environment Act proceedings started and ended, where the Clean Environment Commission (CEC) hearings process started and ended.

4) An email list serv was put in place so that all parties to the Clean Environment Commission process had access to documents, each other, and received updates at every step. (It should be noted this list serv was turned off when the hearings started, which means an improvement in electronic document access will be needed for the next CEC proceedings.)

5) Pre hearing conferences were held by the CEC with all parties, including both funded participants, and any other hearing participant who wished to attend. These started 8 months before the hearings, and assisted in planning, preparation, and technical steps.

6) The Manitoba government decided that Manitoba Hydro would provide \$1,000,000 participant funding so affected communities, non profit organizations, and environmental organizations would be able to participate in the CEC proceedings. Each of the upcoming Hydro reviews/hearings/licensing processes should have at least this amount of funding – with applications, decisions, and funds administered independent of the CEC.

7) Manitoba Hydro held thorough open houses in Winnipeg about the Wuskwatim projects, including question and answer sessions, displays of materials, and attendance by engineers, consultants, and experts who worked for Manitoba Hydro on the projects.

8) With hearings held in The Pas, Thompson and Winnipeg the CEC Wuskwatim hearings were well attended. Over 9 weeks of hearings the CEC hearings room was occupied by at least 50% Aboriginal people. Evenings the room was often over 75% Aboriginal people attending.

9) When the CEC hearings room was over full a second viewing area was set up at the Radisson in Winnipeg, with sound and close circuit television provided. Students, elders, community members from North Flood Agreement First Nations were able to sit in.

10) Manitoba Wildlands set up an information centre in the hotel where hearings

were held, so media could contact presenters and expert witnesses, elders could rest, and public participants could meet and talk.

11) A web site was also set up to post evidence, reports, motions, transcripts and reports from the utility, and regulators. Those are still posted on Energy Manitoba today, in a Wuskwatim archives page.

12) A wide range of expert witnesses participated at little or no cost to Manitobans, including on topics ranging from wind energy, alternatives to the generation station itself, effects of transmission corridors on woodland caribou, migratory birds and a range of other species. The economic factors need for and alternatives to the projects were combined in the same proceeding.

13) The CEC made sure public registry information about previous generation stations and transmission projects in Manitoba was available to participants for research purposes.

14) Manitoba Hydro made sure both paper and digital versions of its Environmental Impact Statements were available to any participant, funded or not. Requests for information were handled quickly, in good faith. Requests for extra maps, CDs when needed, etc. were respected and responded to.

15) Manitoba Conservation made sure Manitoba Hydro filed a supplemental filing, after review of the Wuskwatim EIS. This means deficiencies and gaps in the EIS were answered and filed by the utility. The supplemental filing was also reviewed, with public comments.

16) The CEC held important motions hearings when significant issues about the project areas, and Manitoba Hydro's failure to disclose information needed resolution before the hearings.

17) The CEC made sure First Nation panelists participated on the panel for its hearings, and honoured requests from Elders during the hearings.

18) The CEC made sure that transcripts from each day's hearing sessions were widely available the next day.

19) The CEC issued a report (which took some time to be released by the Manitoba government) with a solid, wide ranging set of recommendations about both Wuskwatim projects, and any future Hydro projects – including environmental standards for new generation stations, hearings, and outstanding legacy issues regarding the Churchill River Diversion.

There are other outstanding matters from the Wuskwatim process, which may require comment in a future article for The Drum.

Meaningful Aboriginal consultations for Bi Pole III and Keyask are essential. There are 26 First Nations, plus the Métis communities, affected by Bi Pole III. Some of these communities are funded with respect to consultation and accommodation about impacts from Bi Pole III. Some First Nations are being assisted by Manitoba Hydro to document traditional knowledge about the preferred corridor for Bi Pole III. Currently there is little indication of the Crown's intention with respect to consultation, accommodation and compensation with regard to Bi Pole III. The set of precedents identified above from Wuskwatim may well be at risk, as Manitoba moves into the next set of steps for Bi Pole III review and licensing.

One simple test – access to Manitoba Hydro EIS materials – shows a dramatic failure, compared to the Wuskwatim process. As we approach the end of the Bi Pole III EIS review many affected communities and potential participants do not have a copy of the materials. Requests for a copy of the electronic copies or paper versions (essential for use of maps and charts) have consistently taken weeks to fill. Errors in Manitoba Hydro's first set of materials have meant replacement materials are required, with further delays in access to the updated EIS materials.

Each of the precedents listed above are a test of the status of Manitoba Hydro project reviews, proceedings under the Environment Act, and CEC proceedings. They are also tests of the Crown. Both Manitoba and Canada need to show the honour of the Crowns in all aspects of each Manitoba Hydro project.

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Bipole III EIS Comment Letter

References and Materials

Attachments and Links Identified as Relevant to contents of Manitoba Wildlands comments re Bipole III Environmental Impact Statement (EIS), March 2012

***Attached to EIS submission*

****Manitoba Wildlands (March 2012) “List of Recommendations from Manitoba Wildlands March 2010 Bipole III Scoping Documents”**

****Gaile Whelan Enns (February/March 2012) “Learning from Wuskwatim – Important Precedents-Wuskwatim Standards” The Drum Vol. 21, Issue 2 & 3**
http://manitobawildlands.org/pdfs/MWL_DRUM-15Mar2012.pdf

****Manitoba Wildlands (February 21, 2012) Letter to Manitoba Conservation Minister MacIntosh “Re: Public reviews - Manitoba Conservation mandate - Various Acts”**

International Hydropower Association (November 2010) “Hydropower Sustainability Assessment Protocol”
http://www.hydro sustainability.org/IHAHydro4Life/media/PDFs/Protocol/hydropower-sustainability-assessment-protocol_web.pdf

Manitoba Wildlands (November 2010) “Public Registry Assessment”
<http://manitobawildlands.org/pdfs/MWLPublicRegistryAssessRecsNov2010.pdf>

Manitoba Wildlands (March 31, 2010) “Comments: Bipole III Scoping Review (PR #5433.00)”
<http://manitobawildlands.org/pdfs/MWL-BiPoleIII-ScopingComments-31Mar2010.pdf>

****Manitoba Wildlands (March 31, 2010) “Bipole III Scoping Review – Materials and Resources”**
http://manitobawildlands.org/pdfs/MWL-BipoleIII_Resources_March2010.pdf

Ceres (March 2010) “The 21st Century Corporation: The Ceres Roadmap For Sustainability”
<http://www.ceres.org/resources/reports/ceres-roadmap-to-sustainability-2010/view>

Manitoba Clean Environment Commission (October 2004) “Summary of Public Hearings: Wuskwatim Generation and Transmission Projects”
http://www.cccmanitoba.ca/resource/reports/Commissioned-Reports-2004-2005-Wuskwatim_Project_Cree_Summary.pdf