Dear Ms. Elise Dagdick,

The Wildlife Branch has reviewed the Environmental Impact Assessment, client file # 5433 "Manitoba Hydro – Bi-pole III Transmission Project: A Major Reliability Initiative"

- The preferred route between Mafeking and Birch River (east of PTH 10 and Swan Lake) bisects critical habitat for moose, a species of considerable interest particularly in this area. In 2011, Wildlife Branch conducted an aerial survey of the moose population in Game Hunting Areas (GHA) 14/14A. The moose population in these GHAs has declined by 90% and the proposed route will run through the habitat supporting the last remaining pocket of animals. As a result of the survey, MB Conservation closed moose hunting by all licensed and rights-based hunters in GHA 14-14A to allow the moose population to recover. This area presently serves as a refuge by remoteness and by clearing a right of way through this area moose will be more vulnerable to predators and illegal hunting. Local First Nations and Métis communities have expressed serious concern to Manitoba Conservation regarding the status of the moose population in this area and have urged the department to prevent further activities that may adversely impact moose or its habitat. The right of way should be relocated further west and run parallel to PTH 10 on the east side of the highway right-of way.
- The preferred routing between PTH 373 and Highway 6 is a new option being presented to the Wildlife and Ecosystem Protection Branch. The Wildlife and Ecosystem Protection Branch was not able to comment on this portion of the route before the presentation of the final preferred route. The routing at this location is through a known wintering area of the Wabowden boreal woodland caribou herd. Indications are the adjacent former ranges of the Wabowden herd have been de-occupied presumably due to anthropogenic disturbance. The cumulative effect of proposed additional fragmentation in this area may tip the scale toward de-occupation at this location as well. This portion of the route location requires further explanation to the Wildlife and Ecosystem Protection Branch.
- The proposed preferred route is adjacent to two Wildlife Management Areas, Langruth and Whitemud watershed where Hydro electric power development is prohibited. Any impact on these WMAs is unlawful and the route should be relocated at least 800 meters from the boundaries of these WMAs.
- The final preferred route requires the use of lands in the Churchill Wildlife Management Area (~ 51 km) and Tom Lamb Wildlife Management Area (~ 57 km). These crown lands have been set aside for the management, conservation and enhancement of the wildlife resource of the province. This proposed development will negatively affect these wildlife management area lands and will result in significant impacts, such as increased vehicular access, weed encroachment, and habitat fragmentation. However, it is recognized that the right of way cannot be relocated in these WMAs. Where avoidance of impact on habitat in a WMA is not feasible, as in this case, financial compensation is required to ensure no net loss of habitat or productivity.
 - Options for providing compensation are:
 - Securing nearby land and restoring, enhancing, or creating habitat;

- Securing alternate high-value wildlife habitat and transferring ownership to a conservation agency;
- Contributing to the Habitat Compensation Fund, to be administered by MHHC
- o The proponent should contact with the Habitat Mitigation Biologist, Jonathan Wiens at <u>jonathan.wiens@gov.mb.ca</u> or 204-945-7764 to discuss this matter further.
- The draft Environmental Protection Plan provides limited detail of environmental protection measures and of the wildlife monitoring methods that will be implemented. The development of monitoring programs, especially relating to caribou, moose, and wolverine, should be undertaken with regional Wildlife and Ecosystem Protection Branch staff and then filed as part of the final Environmental Protection Plan.

The Branch also offers the following comments on the EIA:

- The EIS states incorrectly that wolverines would not be denning during the months of February through March. The denning period for gravid wolverine in Manitoba is February and March and mitigative measures may be required for this species during this time period.
- The statement in the EIS suggesting that MB Hydro will be developing woodland caribou range management plans in the future may be misleading or open to misinterpretation. Management authority for woodland caribou rests with the Province, so it is unclear what would comprise Manitoba Hydro's woodland caribou management plan.
- The maps and descriptions of sub-populations and home ranges of woodland caribou in the
 document are in error and inconsistent with those identified by Wildlife Branch. The proponent
 should take corrective action to properly identify the subpopulations and their home ranges by
 contacting appropriate Wildlife Branch biologists.

Sincerely,

Jonathan Wiens, MSc Habitat Specialist Manitoba Conservation Box 20 - 200 Saulteaux Crescent Winnipeg, Manitoba, R3J 3W3

Phone: (204) 945-7764 Mobile: (204) 918-3420 Fax: (204) 945-3077

Email: jonathan.wiens@gov.mb.ca



DATE:

March 6, 2012

TO: Elise Dagdick

Environment Officer

Environmental Assessment and

Licensing Branch

Manitoba Conservation and

Water Stewardship

123 Main Street, Suite 160 Winnipeg, Manitoba R3C 1A5

CC: Geoff Reimer

Laureen Janusz Elaine Page James Stibbard Memorandum

FROM: William Weaver, M.Sc.

Environmental Review Officer Planning and Coordination Branch

Manitoba Conservation and

Water Stewardship

200 Saulteaux Crescent, Box 14 Winnipeg, Manitoba R3J 3W3

TELEPHONE: 945-6395

FACSIMILE: 945-7419

SUBJECT: ENVIRONMENT ACT PROPOSAL FILE NO. 5433.00

BI-POLE III TRANSMISSION LINE PROJECT

A MAJOR RELIABILITY INITIATIVE

MANITOBA HYDRO

The Water Stewardship Division of the Manitoba Department of Conservation and Water Stewardship has reviewed the referenced file, forwarded for comment on December 7, 2011.

The Water Stewardship Division requires an Environment Act Licence to include the following:

- The Licencee is required to comply with the Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat (attached), including implementing measures to minimize surface water runoff, sedimentation, nutrient contribution, and erosion to those areas where a transmission line crosses surface water, including rivers, streams, creeks, wetlands, and lakes.
- The Licencee shall develop and implement an emergency response plan that includes the following:
 - All public water systems obtaining water from surface or groundwater sources in the vicinity of construction shall be listed in an emergency response plan, including emergency contact information, with instructions that, in the event of a spill or similar occurrence which activates an emergency response plan, an owner of a public water system will be immediately contacted and
 - The new Riel Converter Station will be located immediately north of the City of Winnipeg Water Treatment Plant and raw water storage cells. These raw water storage cells are large open-surface basins. The proposal notes that a substantial quantity of transformer oil and other materials will be used in the Riel Converter Station. An emergency response plan shall address the possibility of releases from the Riel Converter Station migrating into the City of Winnipeg Water Treatment Plant or raw water cells.
- Prior to beginning any activity that interferes or alters drainage patterns, the
 Licencee is required to submit an application for a Water Rights Licence to Construct
 Water Control Works, including the submission of an engineered drainage plan,
 signed and stamped by a qualified Professional Engineer, registered with the
 Association of Professional Engineers and Geoscientists of the Province of Manitoba.

Date:

March 6, 2012

Subject:

Environment Act Proposal File No. 5433.00

Bi-Pole III Transmission Line Project: A Major Reliability Initiative

Manitoba Hydro

- A contact person is Mr. Geoff Reimer C.E.T., Senior Water Resource Officer, Water Control Works and Drainage Licensing, Manitoba Conservation and Water Stewardship, Box 4558, Stonewall, Manitoba ROC 2Z0, telephone: (204) 467-4450, email: geoff.reimer@gov.mb.ca.
- The Licencee shall comply with the provincial Drainage Policy:
 - The net loss of semi-permanent or permanent wetlands shall not occur. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water long enough to develop special characteristics including persistent water, low-oxygen soils, and vegetation adapted to wetland conditions. These include but are not limited to swamps, sleughs, potholes, marshes, bogs and fens.
 - A proponent shall establish and maintain an undisturbed native vegetation area with at least a 30-metre width.
- The Licencee is required to develop and implement a standard protocol to prevent the introduction of foreign biota. A proponent needs to contact the following:
 - Ms. Laureen Janusz, Fisheries Biologist, Fisheries Branch, Telephone: (204) 945-7789 and
 - Ms. Elaine Page, Acting Manager, Water Quality Management Section, Telephone: (204) 945-5344.
- The Water Stewardship Division submits the following concerns:
 - Please note under the section of the proposal that lists all relevant federal and provincial legislation and guidance, under federal legislation, *Fishery (General) Regulations* was listed; these regulations do not apply to Manitoba. The fisheries legislation applicable to Manitoba are:
 - The Fisheries Act (Manitoba);
 - the Fishing Licensing Regulation under The Fisheries Act (Manitoba);
 - the Fisheries Act (Canada); and,
 - the Manitoba Fishery Regulations under the Fisheries Act (Canada).
 - There must be no net increase in nutrients (nitrogen and phosphorus) to waterways as a result of construction activities.
 - The removal of vegetation and soil should be kept to a minimum during the construction and the placement of culverts.
 - The proponent should re-vegetate exposed areas along drainage channels.

Date:

March 6, 2012

Subject:

Environment Act Proposal File No. 5433.00

Bi-Pole III Transmission Line Project: A Major Reliability Initiative

Manitoba Hydro

- The Water Stewardship Division submits the following comments:
 - o The Water Stewardship Division does not object to this proposal, at this time.
 - The Water Stewardship Division's recent policy direction recommending undisturbed native vegetation areas to protect water is founded, in part, on the 135 recommendations in the Lake Winnipeg Stewardship Board's (December 2006) report titled, "Reducing Nutrient Loading to Lake Winnipeg and its Watershed, Our Collective Responsibility and Commitment to Action." All 135 recommendations were accepted in principle by the Minister of the Department, on behalf of the Government of Manitoba.
 - Maintaining an undisturbed native vegetation area immediately adjacent to wetlands and the shoreline of lakes, rivers, creeks, and streams helps stabilize banks, provides aquatic and wildlife habitat and protects water quality through filtering overland runoff. The width of an undisturbed native vegetation area should be the widest width possible and practical. In conjunction with other best management practices such as eliminating fertilizer use adjacent to surface waters, and the proper management and disposal of waste water, maintaining an undisturbed native vegetation area adjacent to surface water is important to help prevent degradation of water quality.

William Weaver, M.Sc.

MC – Sustainable Policy & Resource Management Branch and the Lands Branch: Comments for File No. 5433.00 – Bipole III Transmission Project

Lands Branch:

- The draft EPP provides limited detail of environmental protection measures and of the monitoring methods that will be implemented. The proposed construction phase environmental protection plans mentioned on page 11-17 of Chapter 11 will have to provide this detail.
- Manitoba Conservation (MC) has concerns with the portion of the route between highway 373 and Highway 6. It is understood that the change in routing of Bipole III southeast of Ponton occurred due to mining interests, following Round Four of the Preferred Route Selection Process. The final preferred routing at this location was not identified or presented to Conservation as on option throughout the review process. Conservation finally learned about it at the time the final preferred routing map was received. The routing at this location is through a known wintering area of the Wabowden boreal woodland caribou herd. Indications are the adjacent former ranges of the Wabowden herd have been de-occupied presumably due to anthropogenic disturbance. The cumulative effect of proposed additional fragmentation in this area may tip the scale toward de-occupation at this location as well.
- Recently a prosecution against Manitoba Hydro (MH) was stayed by Manitoba Justice wherein it was determined by statutory interpretation that MH is to be considered an agent of the Crown and therefore immune to prosecution under the Crown Lands Act. MC also has an earlier interpretation from Justice that states the opposite. If the Crown Lands Act continues to apply to MH then continuing to issue work permits to them makes sense. If it doesn't, then there is no point in issuing work permits to MH and MC will need to consider options. One option is to include the standard conditions of work permits as a condition of the EAL.
- More information needs to be provided with respect to access detours that will be required outside the 66 metre ROW at locations where terrain is not favourable to facilitate vehicular travel within the ROW. These detours will be created as the ROW clearing progresses and need to be pre-planned to avoid false starts and dead-ends. MH needs to describe and provide more information on how they intend to do this.
- Clarification regarding the limitation versus the prohibition of hunting is required. Table 30 on page 55 of the
 draft EPP states that hunting and harvesting of wildlife by project staff will not be permitted and that no
 firearms will be permitted at construction sites. Other areas in the EIS talk about limiting but not prohibiting
 hunting.
 - P. 8-155 Mitigation The second bullet should read that hunting and harvesting will be restricted (not limited) while working on project sites.
- When presented, the draft license should have a clause restricting construction in the North to November 1 March 31 of each construction year. As there are no mitigation measures discussed, such a restriction would help to mitigate negative impacts of activities that occur outside this span of time. The EIS states that clearing and construction activities in the North will be carried out during the winter months (November 1 to March 31), which is the best way to mitigate or avoid potential negative impacts such as rutting and erosion, sensitive timing issues such as caribou calving, bird nesting, fish spawning etc. In numerous other areas there are references that are less definite about limiting activities to the winter months.

- P. 8-108 The document makes a statement that it will perform all construction during winter months
 when wolverine are not in their dens. Female wolverine usually den up in February and have young
 during the month of March.
- The document refers to all activities stopping from April 1 July 31st. Does this mean for the entire corridor?
- In table 30 on page 55 of the draft EPP and in other places in the EIS it is stated that large stick nests will be left undisturbed until unoccupied. The common raven constructs large stick nests, nests in trees and will occupy nests as early as late February. It is quite possible that occupied nests will be encountered during right-of-way clearing in March. We will need to carefully consider the conditions in the EAL with respect to stick nests to avoid shutdown of the project.
 - Appendix H P. 7 Sec 3.7.5 MH to confirm if pre-clearing nest searches being conducted by personnel trained in bird identification where summer clearing is planned during the breeding bird period. There are multiple bird species listed in Appendix G Table 1 that are being mitigated through various setback distances and effective time periods. It would be unrealistic for construction personnel to identify the various species. It is understood that there is limited construction expected in the northern portion of Bipole III during most of the breeding/nesting seasons.
 - P. 8-138 Environmental Effects Assessment and Mitigation MH to clarify go and no-go time periods to mitigate negative effects of bird breeding and nesting seasons.
- MC would like a condition included in the licence requiring MH to meet with the NE Region prior to initial
 clearing and construction of the T-Line and prior to start-up of construction each subsequent year until the
 project is complete. The NE Region has learned from past experience that most issues can be identified and
 resolved prior to them occurring.
 - The NE region would like an opportunity to review the general specifications for the T-line clearing before the contract is tendered to ensure contract specifications will not conflict with Conservation licence and permit requirements.
- The EIS indicates that buffer zones at stream crossings would have two thirds reduced tree removal within the right-of-way. During the Wuskwatim to Grace Lake T-line construction, MH tried to justify the reasoning that all trees within these areas had to be removed to meet reliability agreements and standards. MH is to clarify if these standards have changed and Construction phase EPP's will have to address this issue in detail.
- It is proposed that there shall be no unnecessary clearing at sites where topography or mature tree height is such that spanning of the vegetation with the conductor is possible. This is not specific to stream crossings and shall apply generally. We have always thought that there are opportunities to reduce vegetation clearing that have not been taken advantage of in the past. There will be opportunities to reduce clearing the full 66 metre width of the right-of-way in low areas of black spruce and tamarack within boreal woodland caribou habitat, hilly terrain and at stream crossings where towers can be placed on high points and span the low areas in between.
- P. 8-80 lists barren ground caribou as a VEC. Barren ground caribou do not migrate far enough south to reach
 the final preferred route. Both Cape Churchill and Pen Island Coastal herds do occur within the proposed route
 in the Split Lake Gillam area.

- Page 8-93 talks about the potential residual impacts of access with respect to human harvest of caribou and determined that the potential harvest is not significant. The Northeast region believes the potential impacts are underestimated. The Cape Churchill herd periodically occurs along highway 280 near Stephens Lake south of the final preferred route and is the southern extent of the winter range for this caribou herd. There is no hunting season for licenced hunters in this area; however rights based hunters have in the past successfully harvested several hundred caribou in just a few days when the caribou are down to the road. There is potential for periodic significant harvest along the T-line corridor as the herd will likely be present more often, in higher numbers and for longer periods than they occur along the road.
 - o P. 8-87 How is MH defining the difference of Coastal Caribou?
 - Map 6-19 Wheadon Lake Caribou range. This range does not exist.
 - P. 8-100 Summary of Residual Effects on Boreal Woodland Caribou; Paragraph 4 The fifth bullet indicates that black bear studies will be initiated to determine predation in calving areas. MH to indicate what types of studies are being planned.
 - P. 8-101 Summary of Residual Effects on Boreal Woodland Caribou paragraph 8 Indication that MH will be developing range management plans for Wabowden, The Bog and Reed Lake ranges. MH is to verify if this correct? Wildlife is regulated under authority of the Province and MC is responsible for developing range management plans.
 - The document makes a statement that it will collaborate with MC to protect from excessive harvest of caribou. MH to clarify the definition of excessive harvest.
 - P. 8-132 The document makes a statement of a project for caribou between MH, MC and the University
 of Manitoba. There is a project presently active involving the two caribou herds that come into the
 Gillam area. It is recommended that we continue with this project.

Ch 6 Existing Environment:

- P. 6-76 Taiga Shield Ecozone American marten are common mammals in this ecozone and should be added.
- P. 6-77 Boreal Plain Ecozone Wolves and woodland caribou are common mammals in this ecozone and should be added.
- P. 6-79 Beverly-Qamanirjuaq **The information in this section is incorrect.** Barren ground caribou that winter in northern Manitoba are from the Qamanirjuaq herd. All the information presented is about the Beverly herd.
- P. 6-81 Boreal Woodland Caribou; Paragraph 3 This section discusses new range boundaries delineated based on recent GPS collar data. It should be well noted throughout the EIS and future related documents that the "revised boundaries" illustrated in this document have been delineated by MH for their internal use. MC will be officially revising boundaries for all provincial caribou ranges as part of the Provincial Caribou Strategy to be released in 2012.
- P. 6-146 Table 6.3-6 Partridge Crop Hill ASI, south of Nelson House is within the Project Study are and should be included in this table.

- P. 6-173 Trapping; Paragraph 2 Fox Lake registered trapline is also partially within the Bipole III study area.
- Map 6-15 Although Qamanirjuaq caribou have made the occasional migration as far south as Thompson or Gillam in previous years, this is not part of their typical annual range.

Ch 11 Draft EPP Attachment 11-1

- P. 21 Sec 2.8.1 The Draft EPP is to cover the period from submission of the Environment Act Proposal to receipt of the Environment Act License (P. 18 Sec 2.8; paragraph 2). It also indicates that any changes to the EPP or monitoring activities will be reviewed in consultation with appropriate regulatory authorities. During the SSEA process for Bipole III, there has been a lack of formal communication on monitoring plans and results. The WildlifeBranch previously requested that annual monitoring plans be submitted to MC but these were not received. Submission of monitoring plans would allow MC to ensure that planned studies are necessary and that methodologies and timing of activities are suitable. Knowledge of the timing and types of monitoring activities being conducted related to Bipole III would assist MC in minimizing conflicts with other activities (development and monitoring related to other projects) occurring on the landscape.
- P. 24 Sec 2.10; Paragraph 1 It indicates that activity reports on environmental protection for the project will be
 prepared on an annual basis. Are these reports the same as the monitoring reports referred to later on related
 to Biophysical monitoring? MH is to confirm if these reports will be submitted to MC.
- P. 54 Table 30 EC-9,12: MH to address if areas of known high quality lichen production that MH has identified
 and mapped are available to MC. Lichen richness may not be the best indicator of areas to mitigate along the
 transmission line through maintenance of low, non-danger trees. Known wintering areas or traditional
 movement corridors are a better indicator of key areas to mitigate impacts through vegetation management
 and access controls. There is substantial caribou location information collected to date through GPS collaring
 studies to identify these important life requisite areas.
- Appendix G Sec 4.1; Paragraph 1 It indicates that the final Biophysical Environmental Effects Monitoring Plan
 will be submitted to MC for review and comment prior to implementation and commencement of construction.
 MH to confirm if updated monitoring plans be submitted on an annual basis as well. How often will these
 monitoring reports be provided?
- Appendix H P. 13 Sec 4.8.1 It is understood that this is only a Biophysical Environmental Effects Monitoring Framework at this point. There has been substantial monitoring and surveys conducted related to boreal woodland caribou populations within the Bipole III Study Area as part of the SSEA process that is not reflected here. It is expected that the final monitoring plan will provide much more description including study methodologies, timing and duration of studies, etc.
- P. 8-81 Beaver are listed as a VEC. I would recommend removing beavers from this status.
- The document makes a statement the "Existing collars from Cape Churchill and Pen Island ranges will be monitored during construction". MH to clarify whether they will be supporting the present MC/Resource Management Board project that is now in progress.
- P. 8-100/8-103 These two pages seem to contradict each other regarding firearm use in camp.

- P. 8-111 Map of marten habitat is wrong. There is a strong potential of marten along the entire corridor within the Boreal Forest Region. How do you determine habitat for Moose, Caribou, Marten and Beaver?
- P. 11-13 The document refers to ATK identifying culturally and environmentally sensitive sites along the corridor. Will these sites become available to MC?

Sustainable Resource and Policy Management Branch:

Stephens Lake Area of Special Interest (ASI):

The PAI had concerns regarding the routing of the final preferred route which bisects Stephens Lake ASI. This ASI was designed to capture the confluence of four natural regions in Manitoba. The natural regions are representative of different geographic, vegetative, climatic and soil composition zones. Ecologists believe that the highest levels of biodiversity occur at the edges of transition zones because they tend to contain species from both zone types. These species are living at the edge of their tolerance for the conditions; they're robust and may be more likely to survive change.

The PAI acknowledges that Manitoba Hydro has made extensive investigations and evaluations of alternative routing options west of the Keewatinoow converter station through the Stephens Lake ASI to minimize the Preferred Proposed Route's (PPR) impact to the unique ecology and sensitive habitat found in this ASI. This includes minimizing the number of streams that are crossed by the PPR and limiting the crossings to smaller streams in the headwaters. Efforts were also taken to minimize effects on rare enduring features while avoiding the esker to the north of the PPR leaving it available as an important wildlife corridor for species moving through the area (i.e. barren-ground caribou, wolf, arctic fox, marten, moose, etc.) and single enduring feature to the south.

The PAI would prefer the route avoided the Stephens Lake ASI completely, but realizes that Manitoba Hydro has made substantial effort to minimize impacts to the ASI. Disturbance to the ecosystems in this ASI should be minimized during all phases of this project (construction, maintenance, operation, and decommissioning of the line).

Lake Winnipegosis Salt Flats Ecological Reserve and Proposed Addition:

Please refer to Parks and Natural Areas Branch response.

Crown lands:

The PAI continues to assess and protect Crown lands on the west side of Lake Winnipegosis and Lake Manitoba. This includes targeting critical habitat in community pastures and WMAs (which are designated but not currently protected), and on undisturbed undesignated Crown lands. There is limited opportunity to protect enduring features in this area as minimal Crown land remains in southern Manitoba. Although these lands are not considered as economically valuable as lands further west for agricultural production, they do provide a wide range of ecological goods and services such as air and water filtration, and providing critical wildlife habitat. The PAI prefers the PPR not bisect the contiguous blocks of undisturbed Crown land parcels which provide connectivity between Westlake WMA and Alonsa WMA, and along the west side of Lake Winnipegosis and Lake Manitoba.

Community Pastures:

Community Pastures provide some of the largest ranges of intact mixed-grass habitat in southwest Manitoba, critical to the survival of a variety of endangered grassland birds. Community pastures are being considered as candidate protected areas by the PAI. The PAI prefers that the final preferred route provide a buffer of 1 mile from community pasture boundaries.

Langruth Wildlife Management Area, and two units of Whitemud Watershed Wildlife Management Area:

Please refer to Wildlife and Ecosystem Protection Branch response.

In Chapter 8 of the EIS, Quote from page 228:

"Areas of Special Interest (ASIs) - The final preferred route crosses through one ASI (ASI 114 Stephens Lake) under the Protected Area Initiative (PAI). The final preferred route crosses through approximately 76 km of the ASI and was selected to avoid *rare* enduring features where possible"

Add the word <u>rare</u> above, as the ROW is going through a number of enduring features of which a few are rare. All of Manitoba is covered in enduring features, which are based on surficial geology, soil type, and terrain features.

As the Bipole III EIS moves to consideration by the Clean Environment Commission (CEC) it may well be that the CEC Recommendations with respect to the earlier Wuskwatim Generation and Transmission Projects (October 2004) may provide another baseline for Bipole III, in that the earlier CEC Recommendations and subsequent MH compliance may become a reference point or lens through which the CEC considers the current proposal. Among other things, the CEC Wuskwatim Recommendations included: documentation of baseline conditions (7.1.B), mitigation, monitoring, and reporting (7.1.B), Employment/Training Requirements (7.1.C, 7.2.B), using Traditional Scientific Knowledge (TSK) and Western Scientific Knowledge in mitigating, monitoring and reporting on effects on valued environmental components (7.2.A), protocols for cumulative-effects assessment (7.8), development of a climate change policy (7.9) and attention to requirements of The Sustainable Development Act (7.9, 7.10).

Chapter 3 - Description of Project

- p. 3-33, MH indicates that supplementary right-of-ways (ROW) and maintenance access roads in the North may be required but that they cannot be indentified until post-approval field surveys. This could present serious compromises to habitat integrity and increased hunting pressure. The negative impacts of access roads cannot be understated. Efforts should be made in advance to identify any needed access roads and mitigation efforts that will be undertaken and for decommissioning of roads. It is strongly encouraged that any bypass trails be identified as much in advance as possible, with approvals by MC.
- p. 3-37, Easements will only be offered to landowners that have legal title to land. There are no identified easements/compensation being offered to traditional land use area users/communities who will be affected by the transmission lines. Rationale/policy could be included as a basis for this decision.
- p. 3-39, Community Development Initiative (CDI) will be available to 60 communities for projects undertaken within 25 km of the transmission ROW. There is no rationale provided for the 25 km distance eligibility. Resource management areas, resource trap lines and traditional land use areas could be well beyond 25 km but still be affected in the long term by the transmission project.
- p. 3-47, Following construction camp decommissioning, MH states that damaged vegetation will be allowed to generate naturally. Impacted areas should be rehabilitated and restored to original vegetation conditions as much as possible.
- p. 3-49, EMF emissions from DC electric fields were studied and reported on as having no effects according to MH's technical report, but many other studies are still inconclusive.

Additional, ongoing research is suggested to study the effects EMF from transmission lines, in addition to more public communication to address public perceptions about EMF, especially given that EMFs were often cited as an area of public and Aboriginal concern in the EA consultation program.

p. 3-52, During the EA consultation process, public and Aboriginal concerns were raised with vegetation management and use of herbicide application, including aerial foliar spray, as described in 3-52. Impacts to humans, wildlife, vegetation and water may still unknown. It is strongly encouraged to minimize herbicide use when possible or seek alternatives or less toxic and harmful chemical herbicides.

p. 4-13, typo 'cliamtge'

Chapter 5 - EA Consultation Program & Aboriginal Consultation

MH has made great strides in its awareness of and sensitivity towards the Aboriginal reality in Manitoba, when compared with the previous generation of "developments" in Northern Manitoba (Kelsey, Kettle, etc.). Language used, is often the most readily available indicator of underlying attitudes, and in the vast majority of instances MH demonstrates a welcome maturity in navigating the necessary terminology. In only a few cases was language used that could be flagged for possible reconsideration, for example:

Page 1-5 of the Introduction sees the use of the following: "...to open Manitoba's north for the benefit of all of its citizens." This phrase stands out as possibly a hold-over of an attitude that might deemed to be somewhat "colonialist". And though most First Nations peoples might comfortably consider themselves to be Manitoba citizens, the situation today and moving forward may reflect a greater complexity in the collective status of First Nations and Aboriginal communities.

For the most part the EIS document manages to maintain the distinction between "stakeholders" and First Nations and Aboriginal peoples who by virtue of treaty rights and Constitutional affirmation may be stakeholders in a general sense, but consider the category to be inadequate in that it vitiates the reality of their contemporary status. Examples of where use of the term "stakeholder" might be considered to subsume the First Nations category include, Introduction, page 1-5 ("...stakeholders who may be affected...") and page 1-13 ("... Hydro's approach to stakeholder engagement..."). And while recognising that MH is not prepared to enter into "partnership" on its transmission lines, with respect to First Nations, the underlying attitudes implicit in the concept of "partnering" may be more fruitful than the "stakeholder" concept.

The EIS sections/chapters with respect to Aboriginal Consultation and additional materials of independently conducted Aboriginal Traditional Knowledge (ATK) studies, e.g. Fox Lake, some of which have only recently been filed, are comprehensive and represent compelling baseline measures of anticipated First Nations disruption and loss. The issue of "Cumulative Effects" was justifiably highlighted as of considerable importance.

Common concerns expressed by Aboriginal communities regarding the transmission lines included effects of EMF on people, plants and animals, increased access and roads, fragmented land for wildlife especially caribou, access of construction workers to area (especially Fox Lake Cree Nation area), herbicide use on ROW, and the effect of altered landscapes to Aboriginal's historical relationship to the land. The traditional land use areas will be impacted by the transmission line and will present challenges to First Nations and Aboriginal Community members who rely on these areas for their livelihoods. Ongoing relationship building and engagement with affected First Nations and Aboriginal communities is strongly encouraged by MH.

<u>Chapter 6 - Socioeconomic Issues</u>

MH is proposing a Community Development Initiative (CDI) as part of the project (over ten years, annual distributions of \$5.0 Million to rural municipalities, First Nations and incorporated towns and villages within 25 kilometres of the project for environmental sustainability, resource rehabilitation, cultural and social development, or community economic development initiatives. Given that the transmission line will have a lifespan of at least 50 years, and given that expected

dislocations and cumulative negative effects in the vicinity of the route will have an impact for many years, it would seem that criticisms of the very short 10 year CDI time-frame are valid. The \$5 million annual distribution also seems modest in the extreme when spread over the affected communities and First Nations. Given the long-term benefits to all Manitobans, a doubling of the annual amount under consideration or of the term of the CDI program does not seem unreasonable.

Chapter 6 – Biophysical Issues

Section 6.2.4.7 (Pages 6-42 and 6-43)

The text and tables on Aquatic Invasive Species may create some confusion for readers about which species have been confirmed in Manitoba, and in particular, in the project study area, and which species are only to be flagged as being on a watch list. Readers could get the impression that several of the listed invasive aquatic species occur in the project area, when some of the associated references suggests that they are not known to occur there at this time.

On page 6-42 the report states that "Invasive species within the Project Study Area include ... Eurasian watermilfoil, Myriophyllum spicatum)", while on page 6-43 the table states that the this species is found in the "Red River Watershed". However, the reference provided in the table states that Eurasian watermilfoil is "reported but unconfirmed in Manitoba" and that it is "confirmed in the Red River Watershed in North Dakota, southwest of Fargo".

The table on page 6-43 indicates that Zebra Mussel is found in "Winnipeg River (N. Dakota, USA)" but the Winnipeg River does not extend into North Dakota. The reference provided in the table states that Zebra Mussel has been found in the US portion of the Red River Watershed in Wahpeton, North Dakota.)

Section 6.2.8.2 (Pages 6-112 and 6-113)

Several amphibian species listed in the table on page 6-113 are listed in "Division 5 - Amphibians and Reptiles" of Schedule A of The Wildlife Act – Northern Leopard Frog, Tiger Salamander, Red-sided Garter Snake, Snapping Turtle and Painted Turtle. Although not considered "Protected Species" (those listed under Division 6), the table title suggests that the status of all species listed under The Wildlife Act are mentioned in the table.

Section 6.2.8.5 (Page 6-121)

The report states "The northern prairie skink is Manitoba's only true lizard, and Manitoba's only

endangered or threatened herptile." Herptiles are defined as both reptiles and amphibians, and as stated earlier, there are listed amphibian species. To be correct, this should say "reptile".

<u>Chapter 8 – Effects Assessment and Mitigation</u>

Section 8.2.1.4 (Page 8-12)

The report states that to mitigate against possible terrain destabilization, "Where vegetation is removed from sloped terrain, the area will be replanted with deep-rooted shrubs, such as willow, where feasible to prevent slope degradation". At later points in the chapter (page 8-66), specific mention is made of using native species. It is therefore understood – and hoped – that this means that "...deep-rooted native shrub species..." will be used in the mitigation outlined on page 8-12.

Section 8.2.6.3 (Page 8-90)

The report rightfully pays a significant amount of attention to boreal woodland caribou, as well as to barren ground caribou. One boreal woodland caribou range (Wabowden) is acknowledged as likely to be most affected by the project. On page 8-90, the report states that:

"In the Wabowden area, a deviation in the Preliminary Preferred Route paralleling existing linear features along PTH # 6 was necessary to accommodate competing resource interests in the Wabowden area. These entailed concerns relating to the Thompson Nickel Belt and the potential loss of future exploration capability and subsequent mine development as a result of the electromagnetic shadow created by the HVdc. Accordingly the resulting FPR in Wabowden area was not a preferred alternative from the caribou SSEA perspective."

MH further acknowledges the need to work closely with MC to mitigate the possible effects of this routing decision. The full implications of this routing, in which the Wabowden range is bisected to a greater degree than preferred, cannot be fully determined at this time from either a biological or operational perspective, but will entail alteration of habitat and increased access, with associated effects clearly outlined in the report. MH commits within the document to an active adaptive management approach in the Wabowden area to mitigate effects on the caribou range, and also commits to a number of mitigation measures specific to the Wabowden caribou range. As a result, MH expects that the successful implementation of its mitigation measures will keep the residual effects of the project at a level that is not significant.

Requirements under Canada's Species at Risk Act to designate Critical Habitat within each boreal woodland caribou range are likely to be affected by the placement of the transmission line. This may have broader implications for other future activities within the Wabowden caribou range (as well as other ranges that intersect the final preferred route), and will require ongoing collaboration between MH and provincial and federal government departments responsible for the recovery of boreal woodland caribou and other activities taking place on the land base.

Chapter 10 - Sustainability Assessment

Chapter 10 of the Bipole III EIS outlines MH's "Sustainability Assessment" and its commitments to Sustainable Development in general. MH notes that it's 1993 SD policy predates The Sustainable Development Act of 1998 and outlines its own 13 sustainability principles. The "Indicators" corresponding to the 13 principles are as yet incomplete and MH indicates they are to be finalized prior to construction. MH also indicates that it is a member of the Canadian Electricity Association (CEA) Sustainable Electricity Program. It would appear that MH considers Chapter 10 of the Bipole III EIS to constitute its "sustainable-development strategy" in accordance with the earlier CEC Wuskwatim recommendations. The 2004 Wuskwatim recommendations, 7.9 and 7.10, urge that MH develop a climate change policy with respect to future large scale hydro electric developments. Cumulative climate change implications of MH projects would appear to have received only minimal attention and may be an area that MH could consider augmenting.

Not referenced in the Chapter 10 "Sustainability Assessment" is that MH is also member and "sustainability partner" of the International Hydropower Association (IHA). In June 2011 the IHA launched its "Hydropower Sustainability Assessment Protocol", a tool that was under development beginning in 2008 and designed to assess impacts and minimize detrimental effects of the hydropower development process. The assessments enabled by this IHA tool include consideration of associated facilities such as transmission lines, roads and buildings. Solidly based on a sustainability perspective, the IHA assessment protocol includes attention to both environmental issues and social issues, including issues of cultural heritage. Given that MH is an IHA member and partner it is somewhat surprising that it has not taken advantage of, or referenced, this very useful lens by which sustainability issues can be manage.

Technical Comments on Chapter 3 - Need for Project

Area	Section/Page	Description	Comments/ Questions
Project Description	3.4.8.2 Transmission Line Construction /3-46	Suitable material for backfill of excavated organic soils may be hauled from newly developed borrow areas along the right-of-way. Potential borrow locations have not been specifically identified at this time	If those sites haven't been identified, how can MH measure possible impacts What percentage, how many ha?
		Selection, development and reclamation of new borrow sites will be undertaken in accordance with provincial regulations and with the approval of the local Natural Resources Officer and local government authorities. Where borrow pits are required, exposed soils will be reclaimed by promoting re-growth of native vegetation and	
	3.4.9.1 Electric and Magnetic Fields and Corona /3-50	other mitigation measures in accordance with The Mines Act. In the case of the HVdc line, modelling included dc EMF, audible noise (AN) and radio interference (RI) levels associated with a representative range of right-of-way configurations, operating scenarios	What does RN means? Do they mean RI, (radio interference)?
		In the case of the calculated levels for the proposed HVdc transmission line, the studies found that "the levels of magnetic fields, electric fields, AN, RN, and small air ions outside the right-of-way of Bipole III are all below limits recommended by provincial, national and international agencies.	
		The levels of EMF, AN, and RN of the proposed 230-kV and 138 kV transmission lines, that will provide power to Keewatinoow Converter Station and Bipole III from existing generation sources are	

	all below provincial, national, and	
	international guidelines".	
3.5.2.1 Converter Station Site Infrastructure	The tanks will provide for storage of up to a maximum of 300,000 litres.	MH should be using the latest available technology.
Oil Containment /3-53	Primary containment, at the location of equipment containing large oil volumes, will	The use of one <i>OR</i> the other is ambiguous.
&	involve the use of either a concrete, clay, or a membrane barrier, extending a minimum	
Riel Converter station	of 1.5 m beyond the edge of any such equipment	
Oil Containment /3-143	The details of the oil containment system will be determined pending further site investigation studies and detailed design.	Page 3-53 &3-143 exact same description
Fire Suppression	Water for fire suppression will be distributed	MH should ensure that
Systems /3-66	throughout the converter station site through underground pipe buried below the frost line. Piping is typically polyvinyl	the final material has a successful track record for the application being
	chloride (PVC) or high density polyethylene (HDPE)	considered.
	The details of the fire suppression system will be determined pending further site	
	investigation studies and detailed design	
3.5.2.2 230 kV ac Switchyard	Approximately 1,100 capacitors, each containing approximately 16 litres of	Are any safety barriers or containers necessary?
ac Harmonic Filters	insulating fluid, will be required for each ac harmonic filter bank.	
/3-72		
&		
3.6.2.2		Page 3-74 &3-149 exact same description
230 kV ac switchyard		·
/3-149		
3.5.2.2 230 kV ac	Approximately 1,300 litres of battery acid will be	Are any safety barriers or

 0 11 1		
Switchyard	contained within the batteries in each control building	containers necessary?
Control Buildings	Sanding	
/3-74		
3.5.2.2 230 kV ac	Outdoor power centres may utilize oil-filled	Are any safety barriers or
Switchyard	transformers, each containing	containers necessary?
Switchgear Buildings and Auxiliary Power	approximately 2,200 litres of insulating oil.	
Distribution/3-75	,	
&		
/3-150		Exact same description for Keewatinoow
Valve Groups	The cooling systems typically use an ethylene	Converter
/3-80	glycol/water mixture as the cooling medium. Each of the four valve group cooling	Station & Riel
&	systems will typically contain 14,000 litres	
3-152	of the coolant mixture	
dc Filter Banks	A total of six dc filter banks are anticipated for the	
/3-84	dc switchyard. Each bank will contain approximately 2,800 litres of insulating fluid.	
&		
/3-154		
/Switchgear	Approximately 13 high speed switches will be	Any safety and monitoring
3-84	required for the dc switchyard.	procedures for SF6, CF4?
	Combined, these switches will contain approximately 400 kg of SF6 and 120 kg of CF4	
&	or N2 gas.	
/3-154		Exact same description for Keewatinoow
dc Voltage and Current Measuring Devices	Approximately 19 dc current transducers and eight dc voltage dividers will be required. Each voltage divider will contain approximately 66 kg of SF6	Converter Station & Riel
/3-84	insulating gas.	

3.5.4.2 Electrode Construction Activities 3-92 3-92 3-162 Represents a big difference on possible impacts and costs. Represe	 1		
3.5.4.2 Electrode Construction Activities 3-92 3-92 3-92 3-162 A m VS 40m? Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs. Pending analysis of detailed resistivity surveys, which will be ongoing into the construction phase, a shallow ring electrode may not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 kV ac Circuit Breakers and Disconnect Switches 3-148 Approximately 22 three-phase 230 kV circuit breakers are required for the ac switchyard expansion. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Station Service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers and English and approximately 60 single phase voltage transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain Each lubricating and jacking oil system will contain	&		
Construction Activities 3-92 Gearing (only of that portion of the site to be occupied by the ring electrode and associated infrastructure); excavation of the electrode trench to a depth of approximately three to four metres Pending analysis of detailed resistivity surveys, which will be ongoing into the construction phase, a shallow ring electrode may not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 KV ac Circuit Breakers and Disconnect Switches 3-148 Approximately 22 three-phase 230 kV circuit breakers are required for the ac switchyard expansion. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Station Service Transformer Transformer Angles and Sproximately 35,000 litres of insulating oil. The 230 kV ac switchyard expansion will require approximately 35,000 litres of insulating oil. The 230 kV ac switchyard expansion will require approximately 80 single phase current transformers, each containing roughly 100 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain apack and costs. Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs.	/3-154		
Construction Activities 3-92 Gearing (only of that portion of the site to be occupied by the ring electrode and associated infrastructure); excavation of the electrode trench to a depth of approximately three to four metres Pending analysis of detailed resistivity surveys, which will be ongoing into the construction phase, a shallow ring electrode may not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 KV ac Circuit Breakers and Disconnect Switches 3-148 Approximately 22 three-phase 230 kV circuit breakers are required for the ac switchyard expansion. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Station Service Transformer Transformer Angles and Sproximately 35,000 litres of insulating oil. The 230 kV ac switchyard expansion will require approximately 35,000 litres of insulating oil. The 230 kV ac switchyard expansion will require approximately 80 single phase current transformers, each containing roughly 100 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain apack and costs. Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs. Represents a big difference on possible impacts and costs.	3.5.4.2 Electrode	Major activities for construction of a shallow ring	4 m VS 40m2
clearing (only of that portion of the site to be occupied by the ring electrode and associated infrastructure); excavation of the electrode trench to a depth of approximately three to four metres Pending analysis of detailed resistivity surveys, which will be ongoing into the construction phase, a shallow ring electrode may not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 kV ac Circuit Breakers and Disconnect Switches 3-148 Approximately 22 three-phase 230 kV circuit breakers are required for the ac switchyard expansion. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Station Service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain Each lubricating and jacking oil system will contain	Construction		4 III VO 40III :
electrode trench to a depth of approximately three to four metres Pending analysis of detailed resistivity surveys, which will be ongoing into the construction phase, a shallow ring electrode may not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 kV ac Circuit Breakers and Disconnect Switches 3-148 Instrument Transformer 3-148 Instrument Transformers 3-1		occupied by the ring electrode and	difference on possible
Transformers 3-148 Instrument Transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Mechanical Mechanical	٥	·	impacts and costs.
which will be ongoing into the construction phase, a shallow ring electrode may not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 kV ac Circuit Breakers and Disconnect Switches 3-148 Disconnect Switches 3-148 The station service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers a-148 Instrument Transformers A-re any safety barriers or containers necessary? Safety procedures, hauling, etc Safety procedures, hauling, etc Mechanical Mechanical Each lubricating and jacking oil system will contain		three to four metres	
not prove feasible. An alternative design would be a vertical well ground electrode. In that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres 230 kV ac Circuit Breakers and Disconnect Switches 3-148 Station Service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Mechanical Mechanical Approximately 22 three-phase 230 kV circuit breakers are required for the ac switchyard expansion. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Any safety and monitoring procedures for SF6, CF4? Any safety and monitoring procedures for SF6, CF4? Are any safety barriers or containers necessary? Are any safety barriers or containers necessary? Safety procedures, hauling, etc		which will be ongoing into the	
that case, major construction activities would include land clearing; drilling of electrode wells to a depth of approximately 40 metres Approximately 22 three-phase 230 kV circuit Breakers and Disconnect Switches 3-148 Disconnect Switches 3-148 The station service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Instrument Transformers 4- Any safety and monitoring procedures for SF6, CF4? Are any safety barriers or containers necessary? Are any safety barriers or containers necessary? Safety procedures, hauling, etc Safety procedures, hauling, etc Mechanical Mechanical Each lubricating and jacking oil system will contain			
electrode wells to a depth of approximately 40 metres Approximately 22 three-phase 230 kV circuit Breakers and Disconnect Switches 3-148 Breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Station Service Transformer 3-148 Instrument Transformers 4re any safety barriers or containers necessary? Safety procedures, hauling, etc Safety procedures, hauling, etc Safety procedures, hauling, etc Instrument Transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain			
230 kV ac Circuit Breakers and Disconnect Switches 3-148 Station Service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Mechanical Approximately 22 three-phase 230 kV circuit breakers are required for the ac switchyard expansion. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. The station service transformer will contain approximately 35,000 litres of insulating oil. Any safety and monitoring procedures for SF6, CF4? Are any safety barriers or containers necessary? Safety procedures, hauling, etc Mechanical Any safety and monitoring procedures for SF6, CF4?			
Breakers and Disconnect Switches 3-148 Breakers are required for the ac switchyard expansion. Each Switches 3-148 Station Service Transformer 3-148 Instrument Transformers 3-148 Instrument Transformers 3-148 Mechanical Breakers are required for the ac switchyard expansion will require approximately 35,000 litres of insulating oil. Mechanical Breakers are required for the ac switchyard expansion will require approximately 75 kg of insulating of approximately 75 kg of insulating of approximately 50% SF6 and 50% CF4 or N2. Are any safety barriers or containers necessary? Are any safety barriers or containers necessary? Safety procedures, hauling, etc	-	approximately 40 metres	
breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2. Station Service Transformer approximately 35,000 litres of insulating oil. The station service transformer will contain approximately 35,000 litres of insulating oil. The 230 kV ac switchyard expansion will require approximately 60 single phase voltage transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain	Breakers and Disconnect	breakers are required for the ac switchyard	
Station Service Transformer 3-148 Instrument Transformers 3-148 The 230 kV ac switchyard expansion will require approximately 60 single phase voltage transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical The station service transformer will contain Are any safety barriers or containers necessary? Safety procedures, hauling, etc			
Transformer 3-148 Instrument Transformers 3-148 The 230 kV ac switchyard expansion will require approximately 60 single phase voltage transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain		50% SF6 and 50% CF4 or N2.	
Instrument Transformers 3-148 The 230 kV ac switchyard expansion will require approximately 60 single phase voltage transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain			
Transformers approximately 60 single phase voltage 3-148 transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain	3-148	approximately 35,000 litres of insulating oil.	,
Transformers approximately 60 single phase voltage 3-148 transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain	Instrument	The 230 kV ac switchvard expansion will require	
3-148 transformers, each containing roughly 100 litres of insulating oil, and approximately 114 single phase current transformers, each containing roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain			Safety procedures.
roughly 200 litres of insulating oil. Mechanical Each lubricating and jacking oil system will contain	3-148	1	
and justify and justiffy on oyotom will contain			

 	T	
3-157	of oil	
	A typical hydrogen seal system will contain 600	
	litres of oil	
Electrical Support	The excitation transformer will contain	1
Systems	approximately 500 litres of insulating oil	
- Cystollis	approximately 500 littles of insulating oil	
3-158		
J-100	1	
	Approximately 4 200 literate 51, 11	
	Approximately 1,300 litres of battery acid will be	
	contained within the battery banks.	
		*
Synchronous	Each will contain approximately 68,000 litres of	
Condenser Unit	insulating oil	
Transformers and		
Switchgear		
904.		
3-159		
0 100	İ	

From: Sent:

Campbell, Lyle (CON)

To:

March-21-12 9:24 PM Kaita, Adara (CON); Dagdick, Elise (CON)

Cc:

Joynt, Brian (CON); Roberts, Dave (CON); Keenan, Phil (CON); Klein, Geoff (MWS); Reimer,

Geoff P (MWS); Nedotiafko, Rob (CON); Stevenson, Lori (CON)

Subject:

RE: EA Proposal - Manitoba Hydro - Bipole III Transmission Project - File 5433.00 -

Comments due March 12

The Central Region has reviewed the information provided. The IRMT response is limited to that area of the proposed right of way that is located within the regional boundaries. The proposed line within the region's boundaries is (according to the information in the EIS) located on private lands and does not occupy any Crown Land. The preferred line location as identified for the R.M. of South Norfolk is in proximity to existing two parcels of land identified as WW/PA. These parcels are located in the East ½ of the NW 36-9-9W and NW 25-9-9W. It is the understanding of the IRMT that line construction and pole placement will not involve any of these properties. Should an Environment Licence be issued, due to their proximity the IRMT recommends that Hydro contact the region in advance of construction.

It is noted by the IRMT that Peguis First Nation is not identified in any of the technical reports dealing with Culture and Heritage Resources through the ATK process, self directed studies and Key Person Interviews (KPIs). First Nations identified in the portion of the project in the Central Region have provided comments to Hydro in the associated technical reports.

From: Kaita, Adara (CON) Sent: December-08-11 2:29 PM

To: Holmes, Glen (CON); Beaubien, Yvonne (CON); Roberge, Elvira (CON); Sobkowich, Dale (CON); Misanchuk, Lorne

(CON); Armstrong, Mike (CON); Campbell, Lyle (CON); Roberts, Pierce (CON)

Subject: EA Proposal - Manitoba Hydro - Bipole III Transmission Project - File 5433.00 - Comments due March 12

The Sustainable Resource and Policy Management Branch and the Land Programs Branch are in receipt of an EA Proposal for Manitoba Hydro for the Bipole III Transmission Project (File 5433.00).

A copy of the full proposal is available for review at 123 Main Street, Millennium Public Library, Manitoba Eco-Network, Thompson Public Library, MKO, The Pas Public Library, Dauphin Public Library, Northwest Regional Library, Minitonas Library, Snow Lake and Gillam Town Offices, Western Manitoba Regional Library, Jake Epp Public Library, Portage la Prairie Public Library, the electronic registry and from A. Kaita (200 Saulteaux Cres.). Please review and provide me and copy W. Barto with your comments or concerns via e-mail by March 12, 2012.

Please indicate our due date and subject information on your response.

A non-reply by the due date will be considered as indicating your area has no concerns and the file will be actioned accordingly.

From:

Crocker, Peter (CON)

Sent:

March-14-12 1:42 PM Dagdick, Elise (CON)

To: Subject:

Bipole III EIS review CF 5433.00 Due March 16, 2012

Elise,

I have the following comments regarding the Bipole III EIS:

- -Any wastewater treatment system generating over 10,000 litres per day of effluent will require a separate Environment Act License application
- -Any wastewater disposal system with flows less than 10,000 litres per day must be registered, permitted and installed in compliance with the Onsite Wastewater Management System Regulation
- -The disposal of greywater on the surface of the ground is in contravention of The Environment Act and its regulations
- -The use of sullage pits is in contravention if the building generating the greywater is serviced by pressurized water

Peter Crocker B.Sc.

District Supervisor / Environment Officer Environmental Operations - Western Region Manitoba Conservation & Water Stewardship 1129 Queens Avenue Brandon, MB R7A 1L9 Phone 204-726-6565 Fax 204-726-6567

Email: Peter.Crocker@gov.mb.ca

From:

Kasur, Dean (CON)

Sent:

March-16-12 2:14 PM

To: Cc:

Dagdick, Elise (CON)
Gilbertson, Mike (CON)

Subject:

Bipole III EIA

Hello Elise, here are my comments for the Bipole EIA.

Chapter 8 - pg 362, says spills will be reported to local NRO, they should be reporting spills to the Environmental Emergency Response number.

Draft Environmental Protection Plan - Table 37, no mention that MB Cons has to approve all remedial action plans before they start remediation. Missing RAP submission guideline in Appendix D of draft EPP.

Regards, Dean Kasur

From:

Elliott, Jessica (CON)

Sent: To: March-09-12 1:53 PM Dagdick, Elise (CON)

Cc:

Harms, Jenny (CON); Roberge, Elvira (CON); Beaubien, Yvonne (CON); MacCharles, Rod

(CON); Jones, David (CON); Richmond, Kelly-Anne (CON); Bentham, Barry J (CON); Elliott,

Jessica (CON)

Subject:

MANITOBA HYDRO - BI-POLE III Transmission Project : AMajor REliability Initiative (file

5433)

Parks and Natural Areas Branch has reviewed the proposal filed pursuant to the Environment Act for the Manitoba Hydro Bi-Pole III Transmission Project (file 5433.00). The Branch has the following comments to offer. Despite the deficiencies in the proposal in incorrectly reporting the status of provincial parks and ecological reserves as being protected or not, the concerns of the Branch brought forward in early discussions have mostly been mitigated for with the exception of the area of greatest concern to the Branch – the Lake Winnipegosis Salt Flats Ecological Reserve and proposed Expansion.

Parks and Natural Areas Branch is not satisfied with the proposed mitigation measures outlined to protect the Ecological Reserve and proposed expansion. Ecological reserves are the most highly protected of all lands within Manitoba's network of protected areas (the proposal does not identify ecological reserves as being protected). Lake Winnipegosis Salt Flats Ecological Reserve and proposed expansion are significant as they support halophylic (salt loving) vegetation and invertebrate communities only otherwise found along the Hudson Bay coastline in Manitoba.

Bullet 2 on page 8-231 of the proposal states the following mitigation measure during construction:

"Where technically and economically feasible structure placement decisions will incorporate more detailed preconstruction evaluation of the right-of-way as well as location preferences identified through discussions with Manitoba Conversation PAI representatives. To date, this request has been made with respect to potential issues relating to the salt spring in the Lake Winnipegosis Salt Flats Ecological Reserve."

This proposed mitigation measure is not adequate or acceptable. First off the Branch has always stated that the salt spring is not within the ecological reserve, but on the opposite side of Highway 10. The information in the technical reports and EIS does not reflect this fact. Despite the presence of Highway 10 and an existing transmission line this salt spring acts as the source of salt water to the ecological reserve, as these developments were planned with appropriate mitigation. If this salt spring is directly damaged by construction or operation of BiPole III it is highly likely that the entire ecological reserve will be destroyed as the water and salt regime that provides the source of the ecologically unique and significant attributes will be compromised. Despite what is presented in the technical reports, Highway 10 will not act as a buffer between the potential impacts of BiPole III on the ecological reserve or proposed expansion with respect to the salt spring.

The only acceptable construction mitigation is as follows:

- All construction in this area is to take place in winter.
- The source salt spring will be identified, marked with permanent signage identifying the significant feature, and avoided during construction.
- Structure placement will avoid the salt spring as directed in previous discussions and correspondence between Manitoba Hydro, their consultants and Parks and Natural Areas Branch representatives.
- Only clearing of the ROW to remove trees in direct conflict with the transmission line is to occur. A buffer of 50 m is to be left surrounding the salt spring.

No mitigation measures are provided in the proposal for the operation of the transmission line. This is not acceptable to Parks and Natural Areas Branch. To prevent damage to the salt spring, and by direct association the Lake Winnipegosis Salt Flats Ecological Reserve and proposed expansion, Parks and Natural Areas Branch requires the following mitigation measures to be established:

- The source salt spring will be identified, marked with permanent signage identifying the significant feature, and avoided during operation.
- Only clearing of the ROW to remove trees in direct conflict with the transmission line is to occur. A buffer of 50 m is to be left surrounding the salt spring.
- Maintenance of the ROW is only to occur in winter.
- Only mechanical means of vegetation control will be permitted; no chemicals are to be used.

Jessica

Jessica Elliott, M.E.Des.
Ecological Reserves and Protected Areas Specialist
Parks and Natural Areas Branch
Manitoba Conservation and Water Stewardship
Box 53, 200 Saulteaux Cres
Winnipeg MB R3J 3W3

fax: 204-945-0012 phone: 204-945-4148 email: <u>Jessica.Elliott@gov.mb.ca</u>



Before printing, think about the environment

Avant d'imprimer, pensez à l'environnement