

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Manitoba Hydro
PROPOSAL NAME: Lake Winnipeg East System Improvement
Transmission Project
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Transportation and Transmission
CLIENT FILE NO.: 5624.00

OVERVIEW:

On January 3, 2013, Manitoba Conservation and Water Stewardship received a Proposal dated January 2, 2013 from Manitoba Hydro for the construction, operation and decommissioning of the Lake Winnipeg East System Improvement Transmission Project which includes a new 115 kV transmission line from the Town of Powerview-Pine Falls to Manigotagan, a new 115-66 kV transmission station west of the intersection of Provincial Road #304 and the Rice River Road, and modifications within the existing fenced area of the Pine Falls Generating Station Switchyard.

The Proposal was distributed to the Technical Advisory Committee (TAC) for review and was advertised in the Winnipeg Free Press on January 26, 2013 and the Lac du Bonnet Leader on January 24, 2013. The Proposal was also placed in the Public Registries at the Millennium Public Library, the Manitoba Eco-Network, the Conservation Library (Main) and the town of Powerview-Pine Falls Office in Powerview, and posted on the Environmental Approvals Branch website. Comments from the TAC and the public were due on February 26, 2013.

The proponent submitted alteration notices for the project on March 26, 2013 and October 4, 2013. The first proposed alteration consisted of a change in the route at the Winnipeg River Crossing. The transmission line would cross over the river, upstream of the dam, rather than under the dam. The second proposed alteration involved moving the route to avoid two active quarries at the request of Manitoba Infrastructure and Transportation. Both alterations were distributed to TAC for review and placed in the public registries.

An information request was sent to the proponent March 5, 2013. The proponent responded on April 18, 2013. A second information request was sent to the proponent on May 13, 2013. A response was provided on August 1, 2013. The information requests and responses were placed in the public registries.

COMMENTS FROM THE PUBLIC:

No public responses were received.

ASSESSMENT OF COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE (TAC):

Following is a summary of the assessment of TAC comments received pertaining to the proposal. Copies of the original comments from TAC are available in the Public Registries.

Manitoba Conservation and Water Stewardship, Fisheries Branch

Comments on the proposal:

The preferred route follows as close as possible to PR 304 with 19 overhead line water crossings (10 natural watercourses and 9 manmade), including four watercourses which the consultant has identified as important fish habitat (O'Hanly, Black, Sandy and Manigotagan Rivers). Fish habitat, which includes both physical and chemical parameters, was selected as the valued environmental component.

The proponents appear to have identified all the associated risks with every activity related to the construction and operation of the transmission line. The process in determining the final route selection and proposed mitigation measures (including adhering to a number of provincial guidelines and DFO operational statements) should minimize any potential fisheries concerns.

There are a number of locations where the preferred route does not cross but comes close to waterbodies. The route is well within the 30 m and in some cases 15 m riparian area that we request be retained adjacent to 1st and 2nd order streams (15 m) and 3rd order and higher watercourses and lakes (Provincial Land Use Policies). In some situations this appears understandably to be due to physical limitations as well as an attempt to accommodate concerns expressed by stakeholders; in other situations the justification is not so apparent. We would hope that every effort has been made to minimize the need to infringe on riparian features even if erosion and sediment control measures will be incorporated as required.

While they have indicated complying with DFO's operational statements the crossing at O'Hanly appears to be at a bend in the river. The DFO statement on transmission lines recommends avoiding bends. Is there a reason why this crossing had to be placed at a bend?

The only monitoring suggested for aquatics is a "*visual inspection of all riparian areas within the ROW and at water crossing locations along temporary access trails and roads for signs of erosion and sedimentation. Any disturbed site will be re-vegetated. If necessary, more aggressive erosion control methods such as erosion control blankets or other means will be used*".

While at least on paper, the potential project effects and what is required to minimize these effects have been addressed, this does not always translate to what happens on the ground during the construction phase. Monitoring of the riparian areas within the ROW, at temporary crossings and at those locations that infringe significantly on riparian areas is important in identifying and addressing issues. It would be ideal to check these areas during the spring runoff or significant

precipitation events following construction. If no issues are identified then the need to re-visit areas could be eliminated or reduced. Also it would be good to see a summary of the temporary and transmission crossing inspections, where there were issues, how they were addressed, timeframe and follow up inspections. Ideally it would be best if regional fisheries staff were notified of an issue when it occurs.

In general, the EAL should identify, if possible, the key management plans and protection measures the proponent has identified in the EAP. They do indicate in one plan that vehicles are to be clean and inspected for seed. We would want to ensure that any equipment that is to be used in or near water and is moved between watershed basins, is visually inspected and cleaned to minimize the potential to transfer foreign aquatic biota.

Please note under the section that lists all relevant federal and provincial legislation, guidelines, etc., under federal legislation Fishery (General) Regulations was listed. These regulations do not apply to Manitoba. They are relevant to those provinces/territories where there has been no delegation of the day to day administration of fisheries management. The Manitoba relevant legislation would be THE FISHERIES ACT (F90) and Fishing Licensing Regulation and under the Federal Fisheries Act, the Manitoba Fishery Regulations.

Information Requests

1. While the proponent has indicated complying with DFO's operational statements, the crossing at O'Hanly appears to be at a bend in the river. The DFO statement on transmission lines recommends avoiding bends. Is there a reason why this crossing had to be placed at a bend?
2. Can the river crossing be built so that towers are not right adjacent to the river (ideally 30 m from the shoreline)?

Proponent's Responses to Information Requests

1. Based on the information request there are two potential concerns that could arise from construction at the bend of the river. The two concerns listed below are taken directly from DFO's operational statement for overhead crossings:
 - a) Design and construct approaches so that they are perpendicular to the watercourse wherever possible to minimize loss or disturbance to riparian vegetation.
 - b) avoid building structures on meander bends, braided streams, alluvial fans, active floodplains or any other area that is inherently unstable and may result in erosion and scouring of the stream bed or overhead line structures.

Regarding point (a), the proposed is at a meander bend, however, with our standard mitigation, the potential effects in the riparian area, will be minimized. In addition, if we move the crossing, the corner tower would be in the floodplain likely causing greater disturbance to riparian vegetation.

Regarding point (b), the corner tower would be just over 130 m from the edge of the water. This distance combined with applicable erosion and sedimentation mitigation measures would minimize potential soil stability and erosion issues as a result of tower foundation installation.

These concerns were discussed with Fisheries Branch and confirmed that the crossing as proposed is of no concern.

2. On the North side of the Winnipeg River, the tower can be at least 30 m away from the edge of the water.

On the South side of the Winnipeg River, Manitoba Hydro cannot place the tower 30 m back from the water's edge without modifying one or more of the south lines, due to the location of the egress of the proposed line (a map was attached). The towers can be placed at least 15 m from the water's edge without disruption to the surrounding area and lines.

As part of the Environmental Protection Plan for the proposed project, mitigation measures (erosion and sediment control) will be outlined to reduce the potential of deleterious substances entering the waterway.

Disposition:

Concerns to related management plans and protection measures were addressed in the licence conditions. Concerns related to the O'Hanly and the Winnipeg River crossings were addressed in the proponent's response to the information requests. The remaining comments were forwarded to the proponent for their information.

Manitoba Infrastructure and Transportation, Environmental Services

Comments on the proposal

A permit from MIT is required for any construction above or below ground level within 125 ft from the edge of any Provincial Road right-of-way or 250 ft from the edge of any Provincial Trunk Highway right-of-way.

Agreements are also required for any proposed new installations within or crossing any Provincial Road or Provincial Truck Highway right-of-way.

Disposition

These comments were forwarded to the proponent for their information.

Manitoba Conservation and Water Stewardship, Office of Drinking Water

Comments on the proposal

The EAP made general mention that the project is not anticipated to have any significant impact on surface or groundwater resources, but gave no specific information on public water systems in the project area. There are several public water systems in the project area which use surface water (Lake Winnipeg or rivers into it) as water sources. ODW would recommend, at a minimum, that the names and contact information for these water systems be included in

emergency response plans for spills into the water courses during construction or operation of the transmission line and its terminal facilities.

Disposition

These comments were forwarded to the proponent for incorporation into their emergency response plan for the project.

Manitoba Conservation and Water Stewardship, Environmental Compliance and Enforcement

Comments on the proposal

Section 7.5.2. states that all spills and leaks will be reported to regulatory authorities in accordance with provincial requirements including regulations under the *Dangerous Goods Handling and Transportation Act* and any spills of hazardous substances will be cleaned up immediately and reported to the local Natural Resources Officer.

After reporting any spill to the 24 hr Emergency Hotline at 1-204-944-4888 as per the regulatory requirements, it should be reported to an Environment Officer, not a Natural Resource Officer.

Manitoba Hydro should seek written confirmation from an approved wastewater facility, that the facility is able to handle and accept the wastewater. Note: Sullage pits are only suitable when there is no electrical service, or generators on site, to pressurize tap water.

Disposition:

Comments related to spill reporting and appropriate wastewater management were addressed in the licence conditions.

Manitoba Conservation and Water Stewardship, Eastern Region IRMT

Comments on the proposal

Construction:

- Maintain a 100 m buffer of standing vegetation between existing (open) right-of-ways and the new right-of-way.
- At those points where the new right-of-way crosses PR 304 and/or other existing right-of-ways, establish vegetation screening to obscure line of sight along both (existing and new) right-of-ways.
- Regional approval from the Eastern Integrated Resource Management Team (IRMT) is required for any work involving the creation of new access roads/trails, or improvements to existing roads/ trails.
- Any roads and/or trails which are created and/or improved for construction purposes must be decommissioned and rehabilitated at completion of the construction phase.

Maintenance

- Minimize the creation of new access roads and/or trails for right-of-way maintenance (no new roads is preferred). IRMT approval is required for any new road/trail proposals and/or improvements to existing roads/trails.
- Investigative maintenance surveys should be conducted by air rather than on-ground.
- On-ground maintenance should occur in one pass in late fall/early winter when ground is frozen/snow is minimal (preferred), or alternately, in late March. Maintenance plans (including proposed method of access, equipment needs and timing) must be submitted annually to the IRMT for review and approval.

Monitoring:

- Manitoba Hydro must establish a program to monitor moose, wolf, deer and human use of new right-of-way and adjacent lands. The program should include pre-project monitoring, as well as monitoring during the construction and post construction phases. Moose and wolf monitoring should be accomplished via the use of GPS collars, and deer and human use through other means, in collaboration with wildlife staff. The post-construction phase should include research to assess use of the right-of-way under various mitigative scenarios; e.g. utilizing techniques designed to impede movements.

Other:

- Conservation and Water Stewardship is contemplating taking steps to prohibit moose hunting within 300 m of the new right-of-way. Such action will require prior consultations with First Nations and Aboriginal communities; as well as; revisions to a Director of Surveys Plan if a moose hunting closure is eventually implemented. We are asking that Manitoba Hydro commit to paying the costs of the revised Director of Surveys Plan.
- It is our understanding that the First Nations will have consultation as initiated through Aboriginal and Northern Affairs Consultation Unit as part of the EA process.

Disposition:

Comments regarding vegetation screens at crossings, IRMT approval of new access roads and trails, monitoring, and decommissioning were addressed in the licence conditions. The remaining comments were forwarded to the proponent for their information. As discussed in the Crown-Aboriginal Consultation section below, Crown-Aboriginal Consultation is currently being carried out for this project. An Environment Act licence will not be issued until Consultation is completed.

Manitoba Conservation and Water Stewardship, Water Quality Management Section

Comments on the proposal

The mitigation measures identified in the proposal and supplementary documents should provide a reasonable level of protection to water quality in the vicinity of the project.

As identified in the proposal potential impacts from construction activities could include damage to the riparian areas, release of sediment or other contaminants into water bodies, and potential

effects from spills of petroleum hydrocarbons. Effects during maintenance operations could include accidental herbicide release into water bodies.

Should vegetation control be required, we recommend manual grubbing in areas adjacent to water crossings instead of chemical application.

We also recommend utilizing to the extent practicable existing infrastructure in the area such as forestry roads, and existing water crossings instead of clearing new right of way.

Pursuant to the proposal the practice of maintaining machine free zones adjacent to water crossings is encouraged. As eluted to in the proposal reference to these zones can be found in the Forest Management Guidelines for Riparian Management Areas developed by Manitoba Conservation and Water Stewardship. Should riparian areas be disturbed they should be immediately stabilized with biodegradable erosion control materials and then re-vegetated using a seed mix native to the area.

Standard conditions such as fueling equipment a minimum of 100 metres distance from water, and prevention of uncured concrete or washwater from entering water courses are recommended as license conditions.

It is not known if blast rock will be required for construction of the proposed transmission lines. Should blast rock be required the proponent should ensure that any rock utilized for the proposed road is of a quality such that it is not acid or alkali generating. The proponent will also have to ensure that if ammonium based explosives are used, residual ammonia from blasting operations does not leach into surface water.

Disposition

Concerns related to construction in riparian areas and fuel handling and storage were addressed in the licence conditions. The remaining comments were forwarded to the proponent for their information.

Manitoba Conservation and Water Stewardship, Wildlife Branch

Comments on the proposal

Wildlife Branch appreciates involvement in the early planning portion of this project, especially in providing input to routing options. Wildlife Branch does not anticipate any significant impacts to woodland caribou or any other rare and endangered species as a result of this project.

However, due to conservation concerns for low moose populations in eastern Manitoba, the Wildlife Branch has considered the contents of this report and formed the following specific comments:

- Game Hunting Area (GHA) 26 is currently being managed under a partial moose hunting conservation closure. This closure is in place because of a recent precipitous decline in this moose population and suspends hunting for all First Nations, Métis and licensed hunters.

- The LWESI Wildlife Technical Report, scientific literature, and previous Wildlife Branch experience suggests that the development of the Final Preferred Route (FPR) or any of the Alternate Routes (AR) will create human access, disease transmission, and wolf predation challenges for the management of moose in GHA 26.
- Habitat fragmentation, disease transmission from whitetail deer, and the development of new access routes into previously inaccessible regions are considered to contribute to recent declines in the moose population in GHA 26.
- Over the last three years, Manitoba Conservation and Water Stewardship has applied considerable effort to remove unnecessary human access points, lower the population of whitetail deer, and encourage the trapping of wolves for the benefit of moose in GHA 26. These efforts have been done in cooperation with First Nations and stakeholders in the region.
- In reviewing this application, the Wildlife Branch considered all available information relevant to moose management in eastern Manitoba, including habitat quality, habitat fragmentation, historical fragmentation, disease transmission, historical and current moose population densities, predation levels, local knowledge, and past effectiveness of access mitigation efforts.
- After considering all available wildlife information, the Wildlife Branch notes that moose management concerns will be reduced by adopting the FPR. However, impacts to moose will need to be mitigated.
- The proponent is expected to collaborate with Wildlife Branch staff to fund and implement mitigation efforts. These efforts shall include, but will not be limited to the following:
- Minimizing line of sight:
 - Vegetation screens must be maintained at all points where the corridor bisects an existing roadway (e.g. PR 304) or access trail, to limit the ability of humans to observe wildlife along the corridor.
- Minimizing human access points:
 - Construction phase: All new access roads and/or trails proposed to develop the project will require Integrated Resource Management Team (IRMT) review and approval. New access roads and trails should be kept to the minimum extent possible, and any new roads/trails created must be fully decommissioned and removed upon completion of the construction phase of the project, according to direction provided by the IRMT. This may include road ripping, trenching, and spreading of woody debris and/or the placement of berms, boulders or other physical obstructions.
 - Operations and Maintenance Phase: IRMT approval will be required for any new roads/trails, and/or any improvements to existing roads/trails which may be proposed to facilitate maintenance of the new right of way.
- Vegetation management
 - To the best extent possible, the vegetation understory should be allowed to grow in a manner that minimizes line of sight along the right of way.
- Hydro Line Maintenance:
 - Investigative/reconnaissance surveys should be conducted using aircraft rather than by on-ground means.

- When on-ground maintenance work is required, it should occur in one pass in late fall/early winter when the ground is frozen and snow cover is minimal (preferred), or alternately, in late March.
- Maintenance plans (including proposed method of access, equipment needs, planned works and timing/schedule for works) shall be submitted annually to the IRMT for review and approval.
- The proponent is expected to collaborate with Wildlife Branch staff to fund and implement wildlife mitigation monitoring in the affected area (GHA 26). This shall include a pre and post moose monitoring component area that employs various techniques, including the placement of GPS collars on moose and wolf, to evaluate moose, wolf, human and white-tailed deer use of, response to, and movements associated with, the new right of way. The results of this monitoring will need to be provided to the Wildlife Branch.
- Conservation and Water Stewardship will be consulting with First Nations on a proposed expansion of the GHA 26 Moose Protection Zone to include the new transmission line right of way. Any revisions to the Moose Protection Zone will require that the corresponding Director of Survey Plan be revised. We are requesting that the proponent pay the costs associated with revising the Plan.

Information Requests

1. Please provide additional comment on the mitigation measures submitted by Wildlife Branch as it relates to moose, specifically:
 - a. minimizing line of sight
 - b. minimizing human access points
 - c. vegetation management
 - d. hydro line maintenance
 - e. pre/post moose monitoring in the affected GHA 26
2. Will the proponent be employing bird strike mitigation measures along this altered portion of the route? Chapter 6.8 of the Wildlife Technical Report outlines that the proponent may use bird diverters and aerial markers in high traffic bird areas. Wildlife Branch would like clarification as to whether the proponent considers this site to be a high traffic bird area, and if so what type of bird diversion techniques they plan to employ.

Proponent's Responses to Information Requests

1. Response:
 - a. A visual barrier of existing shrub and herbaceous understory where the ROW intersects existing roads and trails will be maintained with the exception of a minimal trail for construction purposes where required. The trail will be allowed to re-vegetate to a minimal width to allow for snowmobile and flex track access for maintenance activities.
 - b. Manitoba Hydro will seek Integrated Resource Management Teams (IRMT) approval for any new access roads or trails required to develop the project. Manitoba Hydro agrees to work with IRMT in the development of decommissioning plans to mitigate continued access for roads and trails not required for operations and maintenance.

- c. The vegetation within the right-of-way (ROW) and adjacent danger trees will be managed to maintain Manitoba Hydro clearances for the safe operation of its facilities. Manitoba Hydro's vegetation management prescriptions are designed to establish shrub and understory vegetation compatible with the safe operation of its facilities. In areas of concern for line of sight, initial clearing will be selective in nature to include tree removal only - except at tower locations and along the access trail. Ongoing vegetation management prescriptions will favor the maintenance and establishment of shrub understory within the area of line of sight concern.
- d. Manitoba Hydro inspects its facilities on an annual basis using both ground and aerial surveys methods. Where ground surveys are required by snowmobile they will be conducted in early winter in one pass or late winter to minimize the establishment of packed trails. Manitoba Hydro requires continuous access to its facilities for maintenance and emergency repairs to ensure safe operation. Manitoba Hydro will inform IRMT of any scheduled maintenance activities and will follow mitigation measures for wildlife prescribed within the Operations and Maintenance Environmental Protection Plan. Manitoba Hydro will consult with IRMT on the development of the Operations and Maintenance Environmental Protection Plan.
- e. To evaluate moose, wolf, human and white tailed deer use of, response to, and movements associated with the new ROW, Manitoba Hydro is not considering the use of moose and wolf collars. Due to the fact that wolves are social animals, the collar does not function on average for more than a few months due to damage from teeth from other pack members. Out of 49 deployed for the Wuskwatim Transmission Project, 46 failed within the first 5 months.

The substantial harvest of wolves by resource users within GHA 26, previous Manitoba Hydro experience with high collar failure rates due to damage, and that wolf collars degrade the value of the fur are some of the contributing factors in the decision to not consider wolf collaring in the monitoring program.

Collaring of moose is an ideal tool to understand regional habitat use and calf recruitment; however it is not an efficient or effective tool for monitoring of moose use patterns or uses frequency within a small project area. Aerial and ground monitoring methods are much more efficient for gathering moose use and frequency data.

Examples of Manitoba Hydro's planned approach to monitoring of the effects of the LWESI Transmission Project on moose includes involving aboriginal communities, IRMT, local resource harvesters and other local stakeholders/committees in the monitoring program. Manitoba Hydro has had success in the use of trail cameras deployed along the ROW, pre, during and post construction to monitor use by moose, predators and humans. This type of monitoring can be done in conjunction with schools, trappers, stakeholders and other groups that would like more involvement with projects that are happening in their local areas. An aerial survey of the proposed transmission ROW will be conducted to find high moose use sites and cameras will be deployed within these sites. A control group of cameras will also be deployed in a similar habitat outside of the project area to measure animal activity in an area of no disturbance. All triggered events will be characterized and stored in a trail camera database for statistical and spatial analysis. Through this method we

can learn about movements along ROW of predators, humans and prey species. An analysis of movement frequency, time and relation to linear features can also be developed.

Manitoba Hydro will also monitor for any moose mortality sites located in proximity to the transmission ROW and investigate cause and linkages to access created by ROW (i.e predator (human or animal) use of ROW to facilitate mortality). Manitoba Hydro through its monitoring plans will also solicit wolf and moose harvest information from local resource harvester's interviews to gather any change in harvest as a result of the new transmission line ROW.

As described above, Manitoba Hydro will work with local Integrated Resource Management Teams, and their respective Branches within Manitoba Conservation and Water Stewardship. Manitoba Hydro will share monitoring program results in Annual Monitoring Reports and meetings.

2. Manitoba Hydro will use Swan Flight TM style bird diverters. This is the standard that hydro uses and has been tested on the Wuskwatim transmission line. The line will also include aerial markers as required by Transport Canada.

Wildlife Branch's Response to the Proponent's Response to the Information Request

This above-referenced correspondence was forwarded to Wildlife Branch for comment on October 7, 2013. Wildlife Branch's comments relate to the proponent's response to the following question:

Please provide additional comment on the mitigation measures submitted by Wildlife Branch as it relates to moose, specifically:

- a) *Minimizing line of sight*
- b) *Minimizing human access points*
- c) *Vegetation management*
- d) *Hydro line maintenance*
- e) *Pre/post moose monitoring in the affected GHA 26*

Our comments on Manitoba Hydro's response to this question are indicated below:

- a) Please specify the minimal width required for snowmobile and flex track access maintenance.
- b) Please contact the IRMT to clarify our mutual understanding of what constitutes a "new" access road or trail.
- c) To the best extent possible, shrubbery should be retained to minimize line of sight along the entire right of way, rather than just at intersections with roads and trails.
- d) Please indicate approximately when consultation will be occurring with the IRMT on the Operations and Maintenance Environmental Protection Plan..
- e) This section addresses the wildlife monitoring activities requested by Wildlife Branch, and the alternate monitoring activities proposed by Manitoba Hydro.

Monitoring activities requested by Wildlife Branch:

- Wildlife Branch's response to the EIA stated that: *The proponent is expected to collaborate with Wildlife Branch staff to fund and implement wildlife mitigation monitoring in the affected area (GHA 26). This shall include a pre and post moose monitoring component that employs various techniques, including the placement of GPS collars on moose and wolves, to evaluate*

moose, wolf, human and white-tailed deer use of, response to, and movements associated with, the new right of way. To date, Wildlife Branch staff have not been contacted by Hydro for collaborative discussions on a wildlife monitoring plan related to this project. We are requesting that these discussions occur prior to a Wildlife Monitoring Plan being submitted for review.

- Manitoba Hydro states that they are not considering use of GPS collars for moose or wolves. Reasons stated by Hydro for not collaring wolves include: ***the substantial harvest of wolves by resource users within GHA 26, previous Manitoba Hydro experience with high collar failure rates due to damage and that wolf collars degrade the value of the fur.***
 - i. Wildlife Branch maintains that wolf collaring be a required monitoring component for this transmission line improvement project. Wolf studies involving GPS collaring are occurring in many jurisdictions across North America. We have contacted wolf researchers in two Canadian provinces and one US State to discuss their experiences. All jurisdictions report that collar failure rates due to chewing damage by other pack members have been, and continue to be, low or negligible. All jurisdictions also indicate that while failure rates due to manufacturer defects were variable and problematic in the past, problems have decreased significantly in recent years and they are now experiencing high success rates.
 - ii. Our records indicate that a large proportion of wolf pelts from this area are affected by mange or rub, and therefore; already degraded in value. The \$250.00 fee paid to RTL trappers for each wolf harvested through the incentive program takes the generally low value of pelts into account. Additionally, none of the pelts are wasted as tissue/hair sample are collected from all the trapped wolves.
 - iii. While trapper harvests of wolves have increased in GHA 26 since the trapper incentive program was initiated, harvests have not been substantial in the areas likely to be identified for wolf collaring. The overall harvest rate in the GHA has remained below 50%, indicating that any wolf has a less than 50% chance of being removed by a trapper; i.e. trappers harvested 45% of the estimated wolf population in 2011/12, but only 25% of the population in 2012/13. Most of these wolves were harvested south of the Translucence Road - only 21 and 13 wolves were harvested respectively, in 2011/12 and 2012/13, north of the Translucence Road.
 - iv. Wolf predation is a significant factor influencing moose populations in GHA 26. Deployment of GPS collars within wolf packs provides the means to collect quantitative and qualitative data on ungulate kill rates in the spatial context appropriate to an assessment of the affects of the transmission line on moose mortality. This component is therefore required to enable a meaningful evaluation of impacts related to wolf predation on moose. We have discussed the value of such data with moose biologists in other jurisdictions, who concur that wolf collaring should be prioritized for action if it is not possible to obtain moose mortality data through the use of GPS collars on moose.
- Manitoba Hydro states ***that collaring of moose is an ideal tool to understand regional habitat use and calf recruitment; however it is not an efficient or effective tool for monitoring of moose patterns or uses frequency within a small project area. Aerial and ground monitoring methods are much more efficient for gathering moose use and frequency data.***
 - i. We disagree with this statement in that ground and aerial methods will never provide the detailed, verifiable level of data that can be obtained through GPS collaring. Ground and

aerial methods can be considered as alternates to collaring only if: a) the ground and aerial methods are implemented at an appropriate intensity and frequency, and; b) the sample size of collared moose under consideration (as an alternate method to ground/aerial methods) is too to ensure an adequate dataset. It should also be recognized that while wolf predation and hunting are proximate causes of moose mortality, landscape disturbances indirectly influence mortality rates from these sources by affecting the movement patterns/rates of predators and humans. Accordingly, the benefits of collaring even a small number of moose will increase if GPS movement data from collared wolves is available for the same area. Accordingly, we would like further discussion with Manitoba Hydro on the possibility of placing a small sample of moose collars in this area.

- ii. We acknowledge that the ground methods identified by Manitoba Hydro, i.e. mortality monitoring and use of trail cameras, will provide interesting data. However, we consider the resulting information to be only supplementary to other methods, as it is unlikely that these methods can be employed at the intensity or standard required for a valid assessment of affects. We have discussed the proposed ground survey methods with other jurisdictions, who concur with Manitoba that the only way to effectively monitor moose mortalities is via the GPS collaring of animals. Regular “mortality” inspections on the right of way may provide data on moose carcasses found along the right of way, but not the causes of these deaths; e.g. a carcass exhibiting signs of feeding by wolves may actually represent a hunter-wounded/killed or a disease-killed moose that was subsequently scavenged by wolves. These types of inspections will also be inadequate for quantifying hunter kills along the right of way, as we are finding that hunters are increasingly removing whole carcasses rather than field dressing their kills. Furthermore, such inspections will not likely be able to detect all moose mortalities even a short distance off the actual right of way.
- iii. We acknowledge that the information gained through resource harvester interviews will be useful; however, this information will again be supplementary to other data sources.
- iv. We concur that aerial monitoring will be a valuable tool for an assessment of affects. To ensure consistency in approach with Wildlife Branch’s requirements for proponents of other types of linear developments, the aerial survey must encompass an area reasonably approximating the normal home range of a moose. While moose home ranges can vary significantly, Wildlife Branch is currently requiring proponents to conduct intensive surveys (total count, 500 m transects) 20 km on each side of the proposed corridor.

In Summary:

- We are requesting that Manitoba Hydro contact Wildlife Branch to begin collaborating on a Wildlife Monitoring Plan.
- The Wildlife Monitoring Plan should at minimum, include a wolf collaring component, and potentially, a moose collaring component. Design for the aerial survey component should at minimum, include an intensive count of moose within 20 km on either side of the proposed corridor.

Disposition

Comments regarding IRMT approval of new access routes, vegetation screens at access points, retention of understory species in the right-of-way, vegetation management plans, and monitoring were addressed in the licence conditions. The comments relating to and bird strike

mitigation measures were addressed by the proponent in the response to the information request. Adherence to the commitments made in the supporting information to the proposal, including Manitoba Hydro's response to the information requests, is required in the licence. The remaining comments were forwarded to the proponent for their information.

Manitoba Conservation and Water Stewardship, Aboriginal Relations Branch

Comments on the proposal

ARB has concluded that a crown aboriginal consultation initial assessment and record of conclusion needs to be filled out by a Steering Committee for the project.

Consultation will be required since most of the project is proposed to take up Crown Lands to build a new transmission line and transmission station. A number of First Nation communities are identified in the EA as well as people from the Métis community as being potentially affected by the project.

Manitoba Conservation and Water Stewardship is the department responsible for conducting the process that allows for meaningful Crown Aboriginal Consultation and Accommodation.

Disposition

As discussed in the Crown-Aboriginal Consultation section below, Crown-Aboriginal Consultation is currently being carried out for this project. An Environment Act licence will not be issued until Consultation is completed.

Canadian Environmental Assessment Agency

Comments on the proposal

As you know, the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) came into force in July 2012, focusing federal attention on those project proposals that have a greater potential for significant adverse environmental effects in areas of federal jurisdiction. The *Regulations Designating Physical Activities* identify the activities which, if carried out individually or in combination, would constitute a "designated project" that is subject to the requirements of CEAA 2012.

The proponent is responsible for confirming its federal regulatory responsibilities associated with its project. In your response to the proponent, please advise it to review the noted regulations (<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2012-147/index.html>) and contact the Canadian Environmental Assessment Agency if its proposal includes any activity described.

Thank you for your effort to ensure coordination and close communication between provincial and federal levels of government.

Disposition

The proponent was made aware of their responsibilities regarding the Canadian Environmental Assessment Act.

PUBLIC HEARING:

No requests were received for a public hearing on the project. Technical issues surrounding the project are sufficiently understood. A public hearing is not recommended for the project.

CROWN-ABORIGINAL CONSULTATION:

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with First Nations, Métis communities and other Aboriginal communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or Aboriginal right of that First Nation, Métis community or other Aboriginal community.

Crown-Aboriginal Consultation is currently being carried out for this project. An Environment Act licence will not be issued until Consultation is completed.

RECOMMENDATION:

It is recommended that an Environment Act Licence be issued for the project subject to the limits, terms and conditions as described on the attached draft licence. Administration of the licence should be assigned to the Eastern Region, with technical assistance to be provided by Environmental Approvals Branch upon request.

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