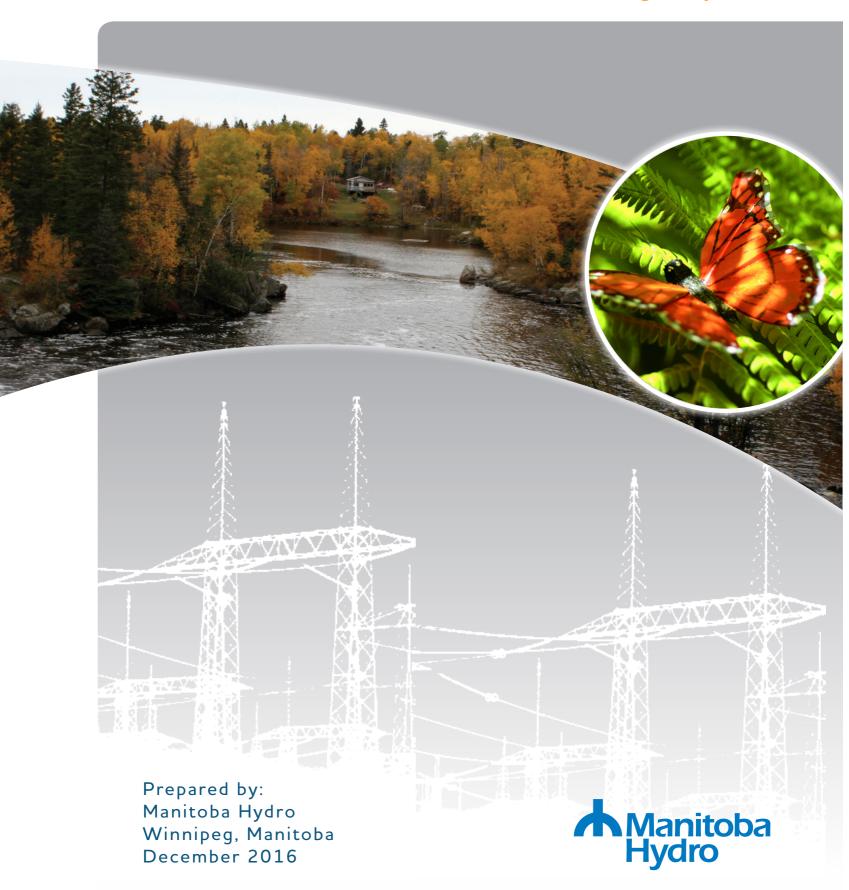
# Lake Winnipeg East System Improvement Transmission Project Environmental Effects Monitoring Report



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# **Abbreviations**

ac	Alternating Current		
ВМР	Best Management Practice		
EA	Environmental Assessment		
EEMP	Environmental Effects Monitoring Plan		
EPIMS	Environmental Protection Information Management System		
EPP	Environmental Protection Program		
GPS	Geographic Positioning System		
km	kilometre		
LWESI	Lake Winnipeg East System Improvement		
kV	kilovolt		
m	metres		
PR	Provincial Road		
ROW	Right-of-Way		
SD	Sustainable Development		

#### 1 INTRODUCTION

This report presents the results of the environmental effects monitoring plan for the Lake Winnipeg East System Improvement (LWESI) Transmission Project, hereby known as "the Project". This report is produced in compliance with clause 43 of *The Environment Act* licence No. 3210. Manitoba Hydro presents this information to inform stakeholders and the general public on progress made on construction and implementation of mitigation measures that minimize environmental effects.

This report is the first in a series of annual reports and describes the Project's first year of construction. Map 1 outlines the Project area.

#### 2 PROJECT OVERVIEW

The Lake Winnipeg East System Improvement Transmission Project involves the construction, operation, and decommissioning of a new 75km 115 kV transmission line from the Town of Powerview-Pine Falls to Manigotagan Corner Station, a new 115-66 kV transmission station west of the intersection of Provincial Road (PR) 304 and Rice River Road, and modifications to the existing Pine Falls Generating Station Switchyard.

#### 3 PROJECT STATUS

Construction of the Project began in August 2015. The forecasted in-service date is autumn 2017.

# 3.1 Pine Falls Generating Station Switchyard Modifications

Improvements to the Pine Falls Generating Station switchyard are required to accommodate the Project. Staging and outage coordination activities are proceeding on schedule, which include relay building modifications, cable trench extensions, breaker replacements and zone box installation. Bus relocation to accommodate the installation of a new bus conductor occurred in summer 2016.

#### 3.2 115-66kv Transmission Station

The new 115-66kv switching station near Manigatagan will accept power from the generating station via a 75 km transmission line. Preparation of the station site began in summer 2016. Site clearing and geotechnical drilling are complete with station construction expected to begin fall 2016.

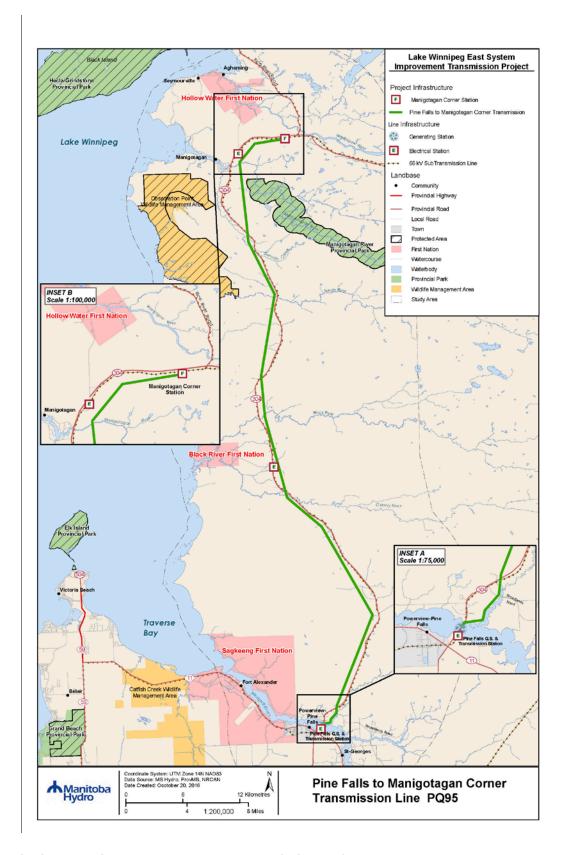


Photo 1: Right-of way during the vegetation clearing process

### 3.3 115 kV Transmission Line

Clearing of the 60 meter ROW was conducted in the winter 2015/16 in joint ventures with Sagkeeng First Nation, Black River First Nation and Hollow Water First Nation. Geotechnical work was completed by spring 2016. Tower assembly was completed in autumn 2016. Foundation construction, tower erection, and line stringing are planned for winter 2016/17.

During Project clearing over 3000 cords of fuelwood were salvaged and delivered to Sagkeeng First Nation, Black River First Nation and the communities to of Manigatogan and Ahgaming.



Map 1: Lake Winnipeg East System Improvement Transmission Project Area

### 2015/16 Environmental Effects Monitoring Highlights

Key monitoring highlights during this reporting period described in further detail in this document include:

- Surveys conducted in July 2016 identified that most vegetation species of conservation concern were in good condition with some potentially benefitting from the right-of-way clearing activities as a result of additional sunlight and reduced competition afforded to herbaceous plants
- Sixty audio recorders have been deployed and retrieved to identify breeding activity of common nighthawk and whip-poor-will within the project study area.
- No bird stick nests affected or damaged as a result of the project.
- Aerial and ground surveys have been conducted for moose, white-tailed deer, and wolves. Preliminary results will provide valuable baseline data for future surveys.
- With the support of Manitoba Hydro, a wolf telemetry study has been initiated by a PhD student from Memorial University within and neighbouring the project study area.
- Of the 15 water crossing sites where construction was underway or had been completed, only 4 had evidence of non compliance with the environmental protection plan. These will be inspected, cleaned up and monitored in future years.

# 4 ENVIRONMENTAL EFFECTS MONITORING PLAN OVERVIEW

Manitoba Hydro's commitment to environmental protection includes the development of a comprehensive Environmental Protection Program (EPP) for the Project. This includes monitoring and follow-up of biophysical environmental components identified in the environmental assessment. The Environmental Effects Monitoring Plan (EEMP) was approved by the Department of Sustainable Development (SD) on August 9th, 2016, and outlines the various monitoring activities that will occur during the different phases of the Project.

The scope of this plan includes physical and biological components of the environment. The purpose of the EEMP is to identify the key activities that will be conducted as part of the monitoring and follow-up component of the Environmental Protection Program that will verify potential effects and effectiveness of mitigation.

The objectives of the EEMP are to:

- Confirm the nature and magnitude of predicted environmental effects as stated in the EA;
- Assess the effectiveness of mitigation measures implemented;
- Identify unexpected environmental effects of the Project, if they occur;
- Identify mitigation measures to address unanticipated environmental effects, if required;
- Confirm compliance with regulatory requirements;
   and

 Provide baseline information to evaluate long-term changes or trends.

Environmental components requiring follow-up monitoring are discussed further in this annual Environmental Effects Monitoring Report include:

- Aquatics;
- Vegetation;
- Birds;
- Mammals; and
- Access

#### **Adaptive Management**

Manitoba Hydro has accumulated a wealth of knowledge and lessons learned from previous monitoring programs. The successes of those programs have been useful in developing the EEMP for the Project. This previous experience has been used to improve upon the plan's approach, methods and key environmental monitoring activities.

Going forward, an adaptive management framework will continue to be used to deal with unexpected outcomes or events based on monitoring information gathered. Data will be reviewed as collected to determine if any of the environmental thresholds specified in the EEMP have been exceeded due to shortfalls in impact prediction, ineffective mitigation measures or inadequate monitoring approaches. Actions will be developed in response to these contingencies.

# 5 IMPLEMENTATION OF MONITORING AND FOLLOW-UP ACTIVITIES

Environmental monitoring helps validate the accuracy of the environmental assessment and effectiveness of mitigation measures. Manitoba Hydro utilizes internal staff for the implementation of the EEMP, funded participation of community representatives, and retained highly qualified specialists in appropriate disciplines. Manitoba Hydro's Environmental Protection Information Management System (EPIMS) will also play a major role in managing the EEMP implementation, coordination of field work, data collection and communications amongst the monitoring team.

#### **Environmental Inspection Staff**

Reporting to a Senior Manitoba Hydro Environmental Assessment Officer, an on-site Construction Environmental Inspector was retained and trained for the 2015/16 transmission line construction season. In addition, Manitoba Hydro's Licensing and Environmental Assessment Department provides advice and guidance to environmental inspectors on all conditions outlined in The Environment Act licence.

#### **Community Involvement**

In addition to providing employment and business opportunities through the Project, Manitoba Hydro is committed to engaging local community-based environmental expertise during the construction of the Project. Manitoba Hydro is funding qualified and interested individuals from Indigenous communities to work as community representatives. Sagkeeng First Nation, Black River First Nation, and Hollow Water First Nation all selected representatives from their respective communities.

These individuals were accompanied by an Environmental Protection officer two days a week to perform site visits and observe ongoing construction activities. The community representitives were trained in environmental protection procedures, equipment and inspection documentation. Environmentaly sensitive sites were evaluated for proper signage and identification and mitigation measure compliance (Photo 2). The community representitives served as both environmental monitors and community liaisons. As community liaisons they kept community leadership informed on the status of constructions activities and also informed the Manitoba Hydro construction supervisor of any community related concerns. Community representatives also supported a program to salvage timber for use as fuel wood in nearby communities. (Photo 3).

Outside of the construction season, community representatives were also employed to assist in Manitoba Hydro's biophysical effects monitoring programs, including moose, deer and wolf surveys.

Manitoba Hydro also supplied support for an ongoing outdoor education program with Frontier School Division in Hollow Water First Nation. Manitoba Hydro provided outdoor equipment, traps, and trail cameras. Learning outcomes for the eight students included outdoor survival training, outdoor navigation, animal identification, harvesting, and hide preparation.

### **Data Management**

As the Project's EEMP requires and generates large amounts of data, the EPIMS was developed to manage, store and facilitate the transfer of Environmental Protection Program data and information amongst the Project team. The EPIMS will facilitate the transfer of knowledge and experiences encountered on a daily basis during construction activities from environmental inspectors and community environmental monitors to specialists that are responsible for monitoring project effects on a real time basis. As well, monitoring results and mitigation measure adaptations will be communicated back to construction staff and contractors.



Photo 2: Environmental protection signage erected to help assist clearing crews



Photo 3: Timber salvage was conducted to provide fuelwood to neighbouring communities

Table 1: 2015/16 Monitoring Activities by Environmental Component				
Component	Environmental Indicator	2015/16 Monitoring Status		
Aquatics	Condition of Watercourse and Banks	Stream crossing assessment completed		
	Vegetation Species of Conservation Concern	Plant survey completed		
Vegetation	Plants and Plant Communities important to Aboriginal peoples	Plant survey completed		
	Rehabilitation	Plant survey completed		
	Invasive and Non-Native Species	Plant survey completed		
	Stick Nests	None identified within the project ROW		
Birds	Bird Collision and Bird Diverter Monitoring	Scheduled to begin after construction		
	Bird Species of Conservation Concern	Breeding surveys completed for whip-poor-will and common nighthawk		
	Moose	Aerial and ground surveys completed		
Mammals	White-tailed Deer	Ground surveys completed		
	Wolves	Aerial and ground surveys completed		
Access	Humans on ROW	Human access survey completed		

# 6 ENVIRONMENTAL COMPONENT MONITORING

Multiple environmental components were identified for follow-up in the environmental assessment and technical reports. For each environmental component, one or more environmental indicators were selected to focus monitoring and follow-up efforts as indicated in the EEMP (Table 1). All monitoring programs relied on ROW inspections (Photo 4).

### 7 AQUATICS

One of the main risks to existing fish habitat from transmission line construction is damage to stream banks and riparian vegetation leading to loss of cover and in-stream sediment delivery. In recognition of this, mitigation measures such as buffers were prescribed to protect streams and habitat. The monitoring program for this component is focused on evaluating the effectiveness of mitigation at stream crossings and prescribing any remedial actions.

#### 7.1 Stream Crossings

Of the 15 crossing sites that were investigated the majority were cleared, constructed and cleaned up in compliance with the environmental protection plan. Three sites were found in non-compliance. One site had excessive clearing of the riparian buffer and a second site may have been cleared with mechanical equipment within a hand-clearing buffer zone. No evidence of erosion or bank instability were found. These areas will be revegetated naturally, but monitored for revegetation success and assisted with replanting, if required.

At a third stream crossing site construction litter was left in

the riparian area. At the fourth site, a small oily sheen was found near the shoreline. Althought the oil appeared to be from naturally occuring from vegetation decomposition, environmental inspectors are monitoring the site to determine the possibility of an undocuemnted fuel spill.

All vegetation clearing required for project construction has now been completed. Environomental Inspectors are continuing to work with all contractors to maintain compliance with the environmental protection plan, including any construction works near stream crossings.



Photo 4: Environmental monitoring relied on right of way inspections, such as this mammal ground survey

#### 8 VEGETATION

Vegetative change can be an important indicator of environmental effects of the Project.

### 8.1 Species of Conservation Concern

Surveys conducted in July 2016 identified that most species of conservation concern (SCC) were in good condition with some potentially benefiting from the right-of-way clearing activities as a result of additional sunlight and reduced competition afforded to herbaceous plants.

A population of dwarf bilberry (*Vaccinium cespitosum*) at one site could not be relocated by surveyors. It is anticipated that the thick mulch in the vicinity may be smothering the plants. Follow up surveys will be conducted to see if the plant is able to grow through the mulch. If required, project staff will investigate options to remove the mulch to allow plant regeneration at this site in 2017.

Two additional populations of Hooker's Orchid (*Platanthera hookeri*) were also documented. Several plants are present within the right-of-way immediately west of the known SCC site for this species, while a second population occurs on the right-of-way northwest of the former Tembec log yard site approximately 5 km north of the Town of Powerview-Pine Falls. While both populations exhibited flowering stems and appeared healthy, the thick mulch covering parts of these plants and lack of canopy may present impacts for these plants. Future monitoring of these populations will help identify if mitigation activities are required.

Surveys documented a number of new occurrences of Inflated Sedge (*Carex vesicaria*), within the right-of-way. A GPS point was recorded for all observed locations. It is noted that this species is seemingly widespread and abundant. The removal of tree and shrub cover related to transmission line clearing is unlikely to have an effect on this species. Surveys for species of conservation concern will continue as the project construction continues.

# 8.2 Plants and Plant communities important to Indigenous Peoples

Surveys conducted with community representatives identified that most of the gathering sites were in good condition. Numerous plant species gathered by Indigenous peoples for food or medicine were observed and all appeared to be responding well to the clearing. It is noted that some blueberry patches (2 species) had light to moderate amounts of mulch on them which may not be ideal for this species which is adapted to bare rocky outcrops. As the mulch settles and decays these habitats should continue to function and support these plants. Other edible or medicinal species including cranberry (2 species), highbush cranberry, wild

ginger, sweetflag, raspberry (various species), wild rice, beaked hazel, wild plum were found incidentally during the surveys. A number of  $10 \times 10 m$  future monitoring plots were established to monitor the edible and medicinal species in future years.

#### 8.3 Rehabilitation

A number of monitoring plots were established to monitor the rehabilitation of the ongoing project construction sites.

#### 8.4 Invasive and Non Native Plants

Some non-native and invasive plant species such as white sweet clover (*Melilotus alba*) and Canada thistle (*Cirsium arvense*) were noted to be present sporadically within the right-of-way. These herbaceous invasive species were almost certainly present prior to clearing and seem to have responded positively to the clearing showing vigorous growth. These species show some affinity to areas where PR 304 intersects with the right-of-way, although not exclusively. As outlined in the environmental protection plan, measures such as winter construction, access management, and site rehabilitation will mitigate the spread of invasive and nonnative plants. Vegetation monitoring will continue as project construction continues.



Photo 5: Vegetation monitoring survey along the ROW

#### 9 BIRDS

# 9.1 Bird Collision and Bird Diverter Monitoring

The presence of transmission lines in proximity to areas of high bird activity may lead to bird – wire collisions. Manitoba Hydro has committed to installing bird diverters along transmission line sections that transect areas of high bird activity. Pre-construction surveys identified sensitive sites for birds, which were used to select locations for bird diverters. Bird-wire collision monitoring will initiate in 2017, after the transmission lines and bird deterrents are installed.



Photo 6: Bird diverters will help prevent bird strikes (photo courtesy of Preformed Line Products)

#### 9.2 Stick Nests

The clearing of forested areas to develop the project had the potential to damage or destroy stick nests used by raptors or other large birds. Manitoba Hydro committed to conducting pre-clearing stick nest surveys to identify any stick nests that may be affected by the project clearing, and allow for mitigation actions (i.e. buffers, nest relocation, monitoring).

An aerial stick nest search conducted by an experienced biologist prior to clearing did not detect any stick nests.

#### 9.3 Bird Species of Conservation Concern

Species of conservation concern include species that are protected under *The Endangered Species and Ecosystem Act* (Manitoba), *Species At Risk Act* (Canada) or are listed as rare by the Manitoba Conservation Data Centre. These species generally exist in low numbers and are sensitive to changes in habitat. Point count surveys in 2015 did not detect any golden wing warblers, a species identified as high concern by local communities. In response to this, efforts shifted to whippoor-will (*Caprimulgus vociferous*) and common nighthawk (*Chordeiles minor*). Other listed species observations were

collected incidently including Canada warbler (*Cardellina canadensis*), olive-sided flycatcher (*Contopus cooperi*), rusty blackbird (*Euphagus carolinus*), and red-headed woodpecker (*Melanerpes erythrocephalus*).

During 2016 monitoring program, passive audio recorders were deployed at 60 locations around the project site during the breeding season in a paired control-impact study design. Data analysis will be conducted during the winter of 2016/2017. Early results indicated that both whip-poor-will (*Caprimulgus vociferous*) and common nighthawk (*Chordeiles minor*) were detected in the project study area post-clearing.



Photo 7: Canada Geese observed during an aerial survey



Photo 8: Installation of passive audio recorders to monitor for bird species of conservation concern

### **Compliance Monitoring Summary 2015/16**

- The Lake Winnipeg East System Improvement Transmission Project employed environmental inspectors who conducted compliance monitoring to ensure mitigation measures outlined in the environmental protection plan, licences, permits and approval were adhered to during construction.
- Construction related activities did not result in any wildlife mortalities.
- Throughout the winter construction season, the environmental inspector conducted daily inspections of all
  project sections. Inspection reports indicated there were no major issues and work was in compliance with
  applicable approvals and permits. Minor spills, excessive vegetation clearing, and garbage issues were
  quickly addressed and remediated.
- On numerous occasions the regional Conservation Officer toured the site with Manitoba Hydro staff to ensure compliance with the project licence and environmental protection plans.

#### 10 Mammals

The potential effect of the Project on mammals was the focus of the environmental assessment especially for moose, white-tailed deer and wolves. All species occur within the Lake Winnipeg East System Improvement Transmission Project study area.

The overall objectives of the mammals monitoring program are to expand baseline knowledge, ensure compliance with regulatory requirements and environmental report commitments, monitor and measure mammal responses to ROW creation, and assess the success of mitigation measures. The EEMP outlines the species specific monitoring commitments for moose (*Alces alces*), wolves (Canis lupus), and white-tailed deer (Odocoileus virginianus).

#### 10.1 Moose

Manitoba Hydro contracted the "Alaskan Trackers" to conduct an intensive population survey for moose and white-tailed deer in the Project study area. 47 survey blocks were identified ('3 minute grid' – 3.5km x 5.5km) that intersect a five kilometer buffer of the LWESI final preferred route. These survey blocks were derived from the same spatial grid Manitoba Sustainable Development utilizes in conducting Gassaway-style moose population surveys in Game Hunting Area 26.

The Alaskan Trackers have a reputation for conducting accurate wildlife related aerial surveys using two pilots and two Super Cub airplanes. The 47 survey blocks were divided into two equally sized areas with each pilot systematically surveying their area at approximately 750 m intervals. The pilots used GPS technology to track flight lines and record wildlife detections, and frequently circled and searched for animals off the flightlines based on track observation. In the rare case where a moose was detected at the edge of the outer boundary of a survey block it was included in the survey results.

A total of 100 moose were detected during the survey with the bull:cow:calf ratio of 16:60:24. This equates to an average density of approximately  $5 \text{ moose}/100 \text{ km}^2$ . Moose appeared to have an uneven distribution in the survey area, but were generally found in higher numbers to the east of the project area. These results are comparable to a similar aerial survey that was conducted as part of the environmental assessment.

Replicates of this baseline survey in future years will help in understanding changes in moose distribution and provide some inferences on changes in relative abundance of both moose and white-tailed deer in the project.

Ground track surveys were also conducted at 5 monitoring blocks on and off the ROW to identify the presence of moose, white-tail deer, and wolves. These surveys occur at regular intervals with community representatives throughout the year and have provided baseline data on the presence of moose along and adjacent to the work project area. Early results indicate that moose sign was present before and after the clearing activities at most monitoring blocks. Ongoing monitoring of these survey blocks will allow for inferences to be made on the possible effect of the project on moose presence after the project's development.

In addition, Manitoba Hydro has sponsered a Memorial University PhD student who is investigating the movements patterns of wolves along linear features near and adjacent to this project area. This multi year study will help inform Manitob Hydro on the extent wolves use roads, trails, existing transmission lines, new transmission lines, and other natural features to move within their environment. Wolf predation has been implicated as a possible cause for moose population declines in south eastern Manitoba.

No moose were killed or injured as part of the project activities in 2015/16. In addition, no mineral licks were identified. In late September 2016, Project monitoring staff discovered parts of a moose carcass adjacent an access route near PR 304. The carcass appeared to be the discarded remains of a human harvested moose. A description of the

site was reported to Manitoba Sustainable Development.



Photo 9: Moose tracks found on a ground track survey

#### 10.2 White-tailed Deer

Manitoba Hydro contracted the "Alaskan Trackers" to conduct an intensive population survey for moose and white-tailed deer in the project study area. No white-tailed deer were observed as part of this survey. White-tailed deer tracks were only detected in limited numbers within the south west portion of the study area.

Replicates of this survey in future years will help in understanding changes in white-tailed deer presence and distribution and provide some inferences on relative abundance of both moose and white-tailed deer in the study area.

Ground track surveys were also conducted at 5 monitoring blocks on and off the ROW to identify the presence of moose, white-tail deer, and wolves. These surveys at regular intervals throughout the year and have provided baseline data on the presence of white-tailed deer along and adjacent to the work project area. Early results indicate that white-tailed deer sign was present before and after the clearing activities at the two monitoring blocks in the southern portion of the project area. Ongoing monitoring of these survey blocks will allow for inferences to be made on the possible effect of the project on white-tailed deer presence before and after the project's development.

The low number of white-tailed deer in the study area has also been noted by others. Manitoba Sustainable Development conducted an intensive moose survey in February 2016 of Game Hunting Area 26. Anecdotal evidence from that survey showed that white-tail deer appeared to be less numerous then observed in previous moose surveys. This however has not be validated or statically analyzed (K. Leavesley per comm.) In addition numerous community

members assisting in the project also remarked that they had observed less white-tailed deer in the region, possibly because of severe winters in recent years.

No white-tailed deer were killed or injured as part of the project activities in 2015/16. In addition no deer mortalities were observed by project staff (i.e. hunter or road killed).

#### 10.3 Wolves

Ground track surveys were conducted at 5 monitoring blocks on and off the ROW to identify the presence of moose, white-tail deer, and wolves. These surveys at regular intervals throughout the year and have provided baseline data on the presence of wolves along and adjacent to the work project area. Early results indicate that wolf sign was present before and after the clearing activities at the three monitoring blocks in the project area. Ongoing monitoring of these survey blocks will allow for inferences to be made on the possible effect of the project on wolf presence.

In addition, Manitoba Hydro has sponsered a Memorial University PhD student who is investigating the movements patterns of wolves along linear features near and adjacent to this project area. This multi year study will help inform us on the extent wolves use roads, trails, existing transmission lines, new transmission lines, and other natural features to move within their environment. Wolf predation has been implicated as a possible cause for moose population declines in south eastern Manitoba.

No wolves were killed or injured as part of the project activities in 2015/16. In addition no wolf mortalities were observed by project staff (i.e. hunter or road killed).

#### 11 ACCESS

In September 2015, Manitoba Hydro began monitoring with camera traps on existing all-weather access trails along the project area. In January 2016, the cameras were retrieved and downloaded ahead of the right-of-way clearing portion of the project. Over the course of 4 months, these access trail camera traps documented the presence of humans, moose, wolves, and lynx. None of the photos documented animal harvest along the access trails.

In June 2016, all camera traps were redeployed along the existing sites as well as 4 along the cleared ROW to document the frequency of access along the access road as well as the ROW. The cameras will continue to be maintained in the 2016/17 monitoring period. Analysis of the photos captured will assist in documenting change of wildlife and human use of the project area.

In addition, Manitoba Hydro contracted the "Alaskan Trackers" to conduct an intensive population survey for moose and white-tailed deer in the study area. As part of that survey, all recent snowmobile trails were marked. The replication of this survey in future years will assist in understanding changes in access as a result of the Project.

#### 12 COMPLIANCE MONITORING

Compliance monitoring involves reviewing project activities for adherence to legislation, licence conditions, permits, and/or environmental protection.

The compliance monitoring program included the use of a dedicated environmental inspector to observe and verify the implementation of all project related mitigation measures. Community representatives also supported these efforts towards compliance monitoring. Information generated from this program is used within adaptive management to improve both mitigation measure effectiveness and overall monitoring program design.

A Manitoba Sustainable Development Conservation Officer conducted routine inspections of the project. For the 2015/2016 construction season, two enforcement notices, by way of warnings, were issued on two separate occasions. One was issued regarding for the improper storage of timber on Crown land without a permit, and the other was due to the development of an unapproved access trail without a permit. In both occasions correctives measures were immediately undertaken to return to compliance. The timber was moved to approved locations as per the scaling plan and the unapproved access trail was decommissioned.

#### 13 FUTURE MONITORING

The following monitoring activities are planned for 2016/17. The environmental effects monitoring plan contains detailed descriptions of all monitoring activities. Community representatives from local indigenous communities will continue to participate and and provide input into the

monitoring program.

#### **Aquatics**

Post construction surveys will continue in 2016/17 in accordance with the EEMP. This includes post clearing monitoring of stream crossings.

#### Vegetation

Post construction surveys will continue in 2016/17 in accordance with the EEMP. This includes surveys for species of conservation concern, non-native and invasive plants, plants and plant communities important to Indigenous peoples.

#### **Birds**

Post construction surveys will continue in 2016/17 in accordance with the EEMP. These include breeding bird surveys for species of conservation concerns and bird-wire collision monitoring.

#### **Mammals**

Post construction surveys will continue in 2016/17 in accordance with the EEMP. These include winter aerial surveys, and transect surveys for moose, white-tailed deer, and wolves.

#### **Access**

Surveys will continue in 2016/17 in accordance with the EEMP. These include trail camera surveys along the project area, including access points.