Manitoba Hydro

Bipole III Transmission Project

Transmission Construction Access Management Plan

October 2013

Table of Contents

List of Tables

List of Figures

List of Maps

List of Appendices

List of Acronyms

AC	Alternating current
AMM	Access Management Measure
AMP	Access Management Plan
ASI	Area of Special Interest
ATK	Aboriginal Traditional Knowledge
ATV	All-terrain Vehicle
DC	Direct current
CEnvPP	Construction Environmental Protection Plan
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CS	Converter Station
DFO	Department of Fisheries and Oceans
EC	Environmental Component Protection Measure
EI	Environmental Issue and Topic Protection Measure
EIS	Environmental Impact Statement
EnvPP	Environmental Protection Plan
ESS	Environmentally Sensitive Site
FPR	Final Preferred Route
GS	Generating Station
ID	Identification
kV	Kilovolt
LGD	Local Government District
MESA	Manitoba Endangered Species Act
MM	Management Environmental Protection Measure
NGC	New Generation Construction

ORV	Off-road Vehicle
PA	Project Activity Environmental Protection Measure
PAI	Protected Areas Initiative
PC	Project Component Environmental Protection Measure
PR	Provincial Road
PTH	Provincial Trunk Highway
RCMP	Royal Canadian Mounted Police
ROW	Right-of-way
WMA	Wildlife Management Area

1.0 Introduction

Consistent with its corporate Environmental Management Policy, Manitoba Hydro has committed within the Bipole III Transmission Project Environmental Impact Statement (EIS) to developing access management plans (AMPs) as part of a larger suite of mitigation measures to minimize potential negative environmental and socio-economic effects. The AMPs are a direct response to recommendations made by Project study team specialists in supporting technical reports, key person interviews, stakeholder, public and Aboriginal engagement and Aboriginal traditional knowledge (ATK) studies. General and site specific access management mitigation strategies are detailed in the Bipole III Transmission Project (the Project) Environmental Protection Plan (EnvPP). This AMP is a component of the overall Bipole III Transmission Project Environmental Protection Program.

The Project area has been divided into nine construction segments for logistical and administrative purposes (Map 1). The northern portion of the Project area between Keewatinoow Converter Station and Renwer (N1 to N4) consists largely of crown-owned lands. Land cover consists primarily of forests and wetlands that entail clearing the construction site and erecting infrastructure. Within these segments the transmission lines will utilize primarily guyed steel lattice towers. The central portion of the Project area between Renwer and Langruth (segments C1 and C2) traverses a combination of private and crown owned lands. Primary land uses on this mixture of wooded and open lands include ranching, forage cropping and intensive agriculture. A combination of guyed and self-supporting steel lattice towers will be used to support the conductors. The two southern construction segments between Langruth and the Riel Converter Station almost exclusively traverse private lands with intensive agricultural land use practices. The self-supporting steel lattice towers are most suited to this area.

In this document access management for the Bipole III Transmission Project is considered only during the construction phase of the development. The implementation of this AMP requires the performance of tasks prior to and during construction.

A high level outline of an operations and maintenance phase access management plan is discussed in section 5.0. Manitoba Hydro has committed to the development of the operations and maintenance access management plan with the understanding that much of its content will be dependent on experience and knowledge gained during the construction phase of the development.

2.0 Purpose and Objectives

The purpose of developing AMPs is to address issues of concern expressed by stakeholders, the public, and Aboriginals during Project engagement, and by study team specialists in their EIS supporting technical reports. The AMP is intended to safeguard and support the preservation of environmental, socio-economic, cultural and heritage values within the Projects' area of direct impacts. The focus of this AMP is on the construction phase of the Project. A detailed operations and maintenance access management plan will be developed prior to Project commissioning.

The objectives of the AMP are to:

- Provide for safe, coordinated access onto and along the Bipole III Transmission Project construction site;
- Support sustainable use through the protection of natural resources within the Project area;
- Support the preservation of socio-economic, cultural, spiritual and heritage values within the Project area;
- Allow Manitoba Hydro staff and contractors to construct the Project year round;
- Provide security for Project personnel and property; and
- Prescribe strategies and mitigation measures to minimize potential negative direct and indirect effects of Project access.

2.1 Construction Access Management Plan Coverage

From a geographic perspective the scope of this AMP includes the Project's transmission construction site (i.e., rights-of-way, camps, marshalling yards, borrow pits and access trails specifically constructed for Project purposes). Public access restrictions are primarily limited to the "active" construction site, for reasons of safety, and will generally not interfere with traditional traffic patterns.

This AMP also addresses Project specific issues relating to existing provincial and municipal roads and concerns relating to private lands within Manitoba Hydro's control. Manitoba Hydro will minimize damage to infrastructure and private lands from its activities, and where possible, limit third party access to the active construction site. Of greatest concern are areas with environmental sensitivities, and areas of work force concentrations (e.g. camps, marshalling yards).

A separate AMP called the Keewatinoow Converter Station Project Access Management Plan (KCS-AMP) developed and implemented by Manitoba Hydro's New Generation Construction (NGC) group addresses and assumes all access management issues (excluding transmission line ROWs) in the Keewatinoow area. This AMP is designed to support the safety and security of the high number of workers and materials required for the construction of the Keewatinoow Converter Station, the construction power station and the northern ground electrode. A manned security gate and office east of the former community of Sundance will regulate and monitor all in-coming and out-going traffic. All transmission related traffic will conform to the KCS-AMP beyond this point, as required, while also adhering to the applicable access management measures of this AMP related to the transmission components of the Bipole III Transmission Project.

3.0 Stakeholder Interests and Issues

During the course of data collection and information gathering for the Project Study Area and environmental studies (biophysical and social), access related concerns were raised. In response, Manitoba Hydro committed to developing access management plans for the construction and operation and maintenance phases of the Project. To ensure full consideration of access related issues and concerns, a thorough review was conducted of all pertinent Project information, including engagement and meeting records, key person interviews, ATK information, regulator input and discipline specific technical reports.

The results of the above review identified potential user groups, stakeholders and discipline specific specialists with a variety of potential issues and concerns related to access. Most issues and concerns relate primarily with the construction phase of the Project while some carry over to the operations and maintenance phase as well. The potentially affected stakeholders and topics are provided in Appendix A and examples are provided in Table 3-1. Many of the user groups/stakeholders and study specialists share similar concerns but are listed only once in the table.

The primary concerns for most of the user groups, stakeholders and study specialists are protection of the environment, wildlife species and interference with resource use practices/activities. Also important are safety to project personnel and the public, security of construction sites and property, minimizing the creation of new access as much as possible, and protection of cultural and heritage resources.

This AMP attempts to address and minimize potential access related effects, issues and concerns identified in Table 3-2; however, Manitoba Hydro recognizes that not all issues and concerns can be fully mitigated through the AMP and will be addressed through other components of the Environmental Protection Program.

Table 3-1 List of Identified Stakeholders & Study Specialists' Topics

- Manitoba Hydro personnel and contractors
- Regulators
- Municipalities
- Towns
- Villages
- Local government districts
- Keystone Agricultural Producers
- Private land owners
- Manitoba Lodge Owners Association
- Manitoba Trappers Association
- Mining Association of Manitoba
- Mining/exploration companies
- Omnitrax
- Manitoba Infrastructure and Transportation
- Trappers
- Outfitters
- Hunters
- Gatherers
- Aboriginal communities
- Northern communities
- Recreational off-road riding clubs
- Lands of special interest
- Protected areas
- Agriculture
- Aquatics
- Birds
- Caribou (coastal, barren ground and boreal woodland)
- Fragmentation
- Mammals
- Resource use
- Terrain and soils
- Vegetation

Table 3-2 List of Access Concerns/Issues/Opportunities

- Safety of all people
  - Safe access to/from and through construction areas
- Security of property
- Ability to conduct work efficiently
- Unimpeded access to construction site
  - Timely permission to construct/use approaches to existing roads
  - Timely permission to use/construct crossings
- Creation of new access into formerly remote areas
  - Disease/parasite movement along ROW
  - Increased number of access routes
  - Access for outsiders
  - Increased off-road traffic
  - Increased pressure on resources (game, furbearers, gathering sites, etc.)
  - Increased animal and bird mortality due to collisions
  - Disturbance to remote trapper cabins
  - Increased risk of vandalism, theft
  - Increased risk of wild fire
- Fragmentation
  - Alter wildlife movement
  - Disruption to migration pathways
  - Reduced range connectivity
  - Loss of wilderness areas
  - Loss of functional habitat

- Increased hunting, trapping, fishing pressure
  - Improved subsistence hunting/harvesting
- Sensory disturbance to wildlife
- Damage to ecologically sensitive sites, soils and enduring features
- Interference with
  - recreational activities
  - resource use activities
  - farming activities
  - transportation infrastructure
  - emergency measures routes/delivery
- ROW use as transport corridor
  - Trail network expansion by recreational off-road riding clubs, industry and the general public
- Respect for land (traditional and private)
- Unauthorized access to private land
  - Damage
  - Hunting
- ROW as access opportunity
  - Improved/expanded access
  - Improved trapping, hunting success
  - Tourism
- Increased traffic on existing roads
  - Safety
  - Sensory disturbance to people and wildlife
  - Damage to infrastructure
  - Inconvenience (temporary closures)
  - Disruption to emergency services
  - Effects of dust on plant health
- Damage to towers/farm equipment
- Loss/damage to habitat
  - Wildlife
  - Vegetation communities of concern
  - Plants of conservation concern
  - Harvestable plant species/communities
  - Introduction/spread of non-native species
- Increased social problems with increased work force
- Damage to cultural, heritage, sacred sites
- Increased predation (wolves, bears)
  - Change in prey/predator dynamics
  - Human use of trails
  - Increased predator rates of travel on packed trails
- Adjacency to protected lands
- Damage to aquatic environment/fish habitat
  - Deleterious materials
  - Stream bed/bank damage
  - Sedimentation
- Vehicle bird/mammal collisions

4.0 Construction Access – Access Management

This section discusses the proposed access strategies for construction purposes and describes the proposed access routes to be used for construction.

Manitoba Hydro is planning to construct the Bipole III Transmission Project over a period of five years where most of the work in northern Manitoba will be conducted during the winter months on frozen ground conditions. To meet the planning timeline, Manitoba Hydro is planning to engage multiple contractors to clear the footprint and construct the Project. The Project area has therefore been divided into nine construction segments (Map 1) which will be referred to throughout this document.

4.1 Roles and Responsibilities

The Bipole III Transmission Project is a complex, large and geographically expansive undertaking. A successful construction program requires commitment and cooperation from all participants. Instrumental for those involved is to fully understand their roles, responsibilities and lines of communication within the Project. For purposes of implementing this AMP, responsibilities rest with Manitoba Hydro's Construction Supervisor, Community Liaison, Senior Environmental Assessment Officer, Construction/Environmental Inspectors, Environmental Monitors and the Construction Contractors' Project Manager/Supervisor, and Environmental Officer/Supervisor. The communication and reporting structure is detailed in Figure 4-1. Their key responsibilities are shown in Table 4-1. For additional details, see Chapters 1.2 and 5.1 of the Project CenvPP.

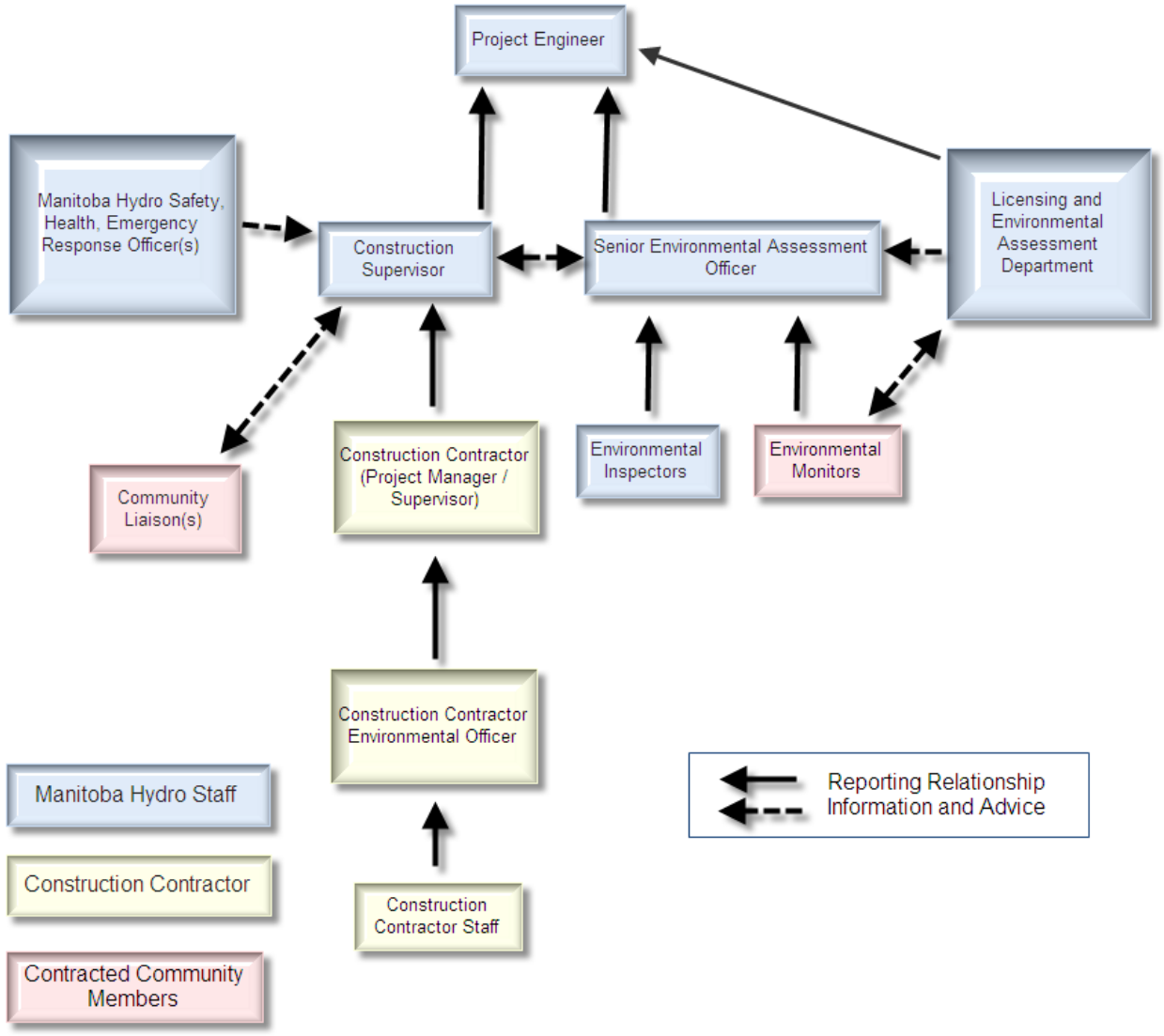

Figure 4-1. Environmental Communication Reporting Structure

Table 4-1. Access Management Roles and Responsibilities of Personnel During the Construction Phase

Role	Key Responsibilities
Licensing and Environmental Assessment Department	• Prepare list of trappers/outfitters that use area and provide to Construction Supervisors. • Develop schedule and communications protocols for communication with stakeholders, resource harvesters, outfitters, communities, community leadership, government, etc. • Develop required media for communication purposes. • Develop access monitoring plan/protocols. • Implement a communications strategy. • Annual reporting.
Senior Environmental Assessment Officer	• Advises Project Engineer and Construction Supervisors on implementation of Access Management Plan. • Liaises with Licensing and Environmental Assessment Department. • Liaises with regional regulatory authorities. • Provides advice and guidance to Construction Supervisors and Environmental Inspectors for non-compliance situations, environmental incidents and emergencies. • Supervises Environmental inspectors/monitors. • Provides support and guidance to contractors regarding the Access Management Plan. • Ensures all reporting into Environmental Protection Management System.
Construction Supervisor(s)	• Work with Community Liaison. • Contact landowners prior to start of clearing and construction. • Implement visiting non-project personnel registry system. • Provide safety information to non-project personnel and request to vacate the active construction site. • Post signage as required. • Implement access protocols with RCMP and MCWS as necessary. • Implement access monitoring plan and report issues/incidents. • Provide employment conditions information to contractors and hiring agents. • Plan and develop by-pass access trails. • Report to the Project Engineer. • Review environmental inspection reports with the Construction Contractor, and ensure remedial actions or responses to non-compliance situations or incidents are implemented as required. • Work with the Senior Environmental Assessment Officer and Inspectors to ensure implementation of environmental protection relating to the Access Management Plan. • Ensure that appropriate authorities are notified in emergency or incident situations. • Issue stop work orders. • Note construction site intersect with ORV trails; advise clubs and

	develop safety plan and minimize disruptive effects.
Environmental Inspector / Construction Inspector	• The Environmental Inspector reports to the Senior Environmental Assessment Officer and provides advice and guidance to the Construction Supervisor. • The Construction Inspector will carry out the duties of the Environmental Inspector when the Environmental Inspector is not on site. • Conducts site inspections regularly and ensures reports are submitted to the Environmental Protection Management System as required. • Has the authority to resolve environmental issues on-site with the Construction Supervisor. • Issues stop work orders for environmental non-compliance situations and incidents. • Prescribes and ensures follow up mitigation measures are implemented. • Ensures all ESS sites are correctly identified, delineated and flagged/marked in the field. • Environmental Inspectors and Construction Inspectors work cooperatively to identify ESS site locations and ensure that prescribed mitigation is being implemented and meeting regulatory requirements.
Environmental Monitor(s)	• Environmental Monitors conduct field monitoring activities as outlined in the monitoring plans (access, wildlife, vegetation monitoring). • Assists in locating and delineating environmentally sensitive sites. • Works with Environmental Inspector and reports to the Senior Environmental Assessment Officer.
Community Liaison (s)	• Primary contact for disseminating information regarding the project to their community, including access restrictions and protocols. • Develops project communication materials for their community. • Identifies community concerns and interests and communicates to Construction Supervisor.
Construction Contractor(s) (Project Manager / Construction Supervisor)	• Accountable for all regulatory and environmental prescriptions (i.e., follow CEnvPP and mitigation measures prescribed). • Ensure all contractor project staff are adequately trained/informed of pertinent environmental requirements of the Project related to their position. • Report any discoveries of non-compliance, accidents or incidents to the Construction Supervisor. • Ensure that all remedial actions are carried out as per Manitoba Hydro instruction. • Responsible for other permits as outlined in the CEnvPP.
Construction Contractor Staff	• Accountable for compliance with regulatory and environmental prescriptions (i.e., follow CEnvPP and mitigation measures prescribed). • Ensure construction staff are adequately trained with respect to, and

	informed of pertinent, environmental requirements of the Project related to their position. • Report any discoveries of non-compliance, accidents or incidents to the Construction Supervisor. • Implement all remedial actions as per Manitoba Hydro instruction.
Construction Contractor's Environmental Officer(s)	• Ensures that the contractor employees adhere to all aspects of the construction Environmental Protection Plan. • Provides information and advice to the Construction Contractor employees on environmental protection and safety matters. • Responsible for implementation of the emergency response and hazardous substances plans, and other related topics. • Liaises with Environmental Inspector and MH Field Safety Officers.

4.2 Transmission Line Construction Access

Consistent with issues and concerns identified in Section 3.0, Manitoba Hydro and its contractors will use existing roads, trails and linear features where possible for accessing the Bipole III Transmission Project construction site. To facilitate this, Manitoba Hydro has identified existing strategic access routes relative to the construction site and major roads to guide construction planners and contractors. This work applies primarily to northern Manitoba where major roads are few and the terrain can be difficult to navigate. Access in more southern regions of Manitoba and in agricultural areas is greatly facilitated by numerous existing highways, municipal roads and road allowances.

The existing access review work (i.e., map book) is detailed in the Manitoba Hydro Bipole III Transmission Project, Construction Access Opportunities (Stantec Inc. 2013) attached as Appendix B. The review identified a total of 97 existing access opportunities (i.e., intersections between the proposed ROW and existing highways, roads, trails and linear features) that minimizes the need for new access development to access the ROWs. The AMP will restrict Manitoba Hydro and its contractors to use the identified access options where possible, thereby minimizing Project effects as they relate to access.

4.3 Construction Access Management Measures

To address the identified issues and concerns in Section 3.0, Manitoba Hydro, its personnel, contractors and consultants will adhere to the access management measures (AMMs) outlined in Appendix C. These access management measures are drawn directly from the Bipole III Environmental Protection Plan (EnvPP). Responsibilities are assigned for each mitigation measure to ensure understanding and implementation of the measures. Site specific protection measures for Environmentally Sensitive Sites (ESS) are also provided in the CEnvPP to directly address issues and concerns identified by stakeholders and study specialists.

4.3.1 By-pass Routes and Trails

Manitoba Hydro will be accessing the ROW through existing trails and access points to the extent feasible. However, in some instances there may be a requirement for a by-pass trail located outside, but along the ROW, or the creation of a new access route to the ROW. In those situations where a new by-pass trail/access route would be required, Manitoba Hydro would undertake the following process to: 1) site the by-pass trail/access route, 2) evaluate location for environmental and cultural sensitivities, and

3) ensure any new by-pass trails/access routes follow the applicable mitigation measures as outlined in the Construction Environmental Protection Plan (CEnvPP). Figure 4-2 illustrates the process and details of the steps are provided to operationalize the process.

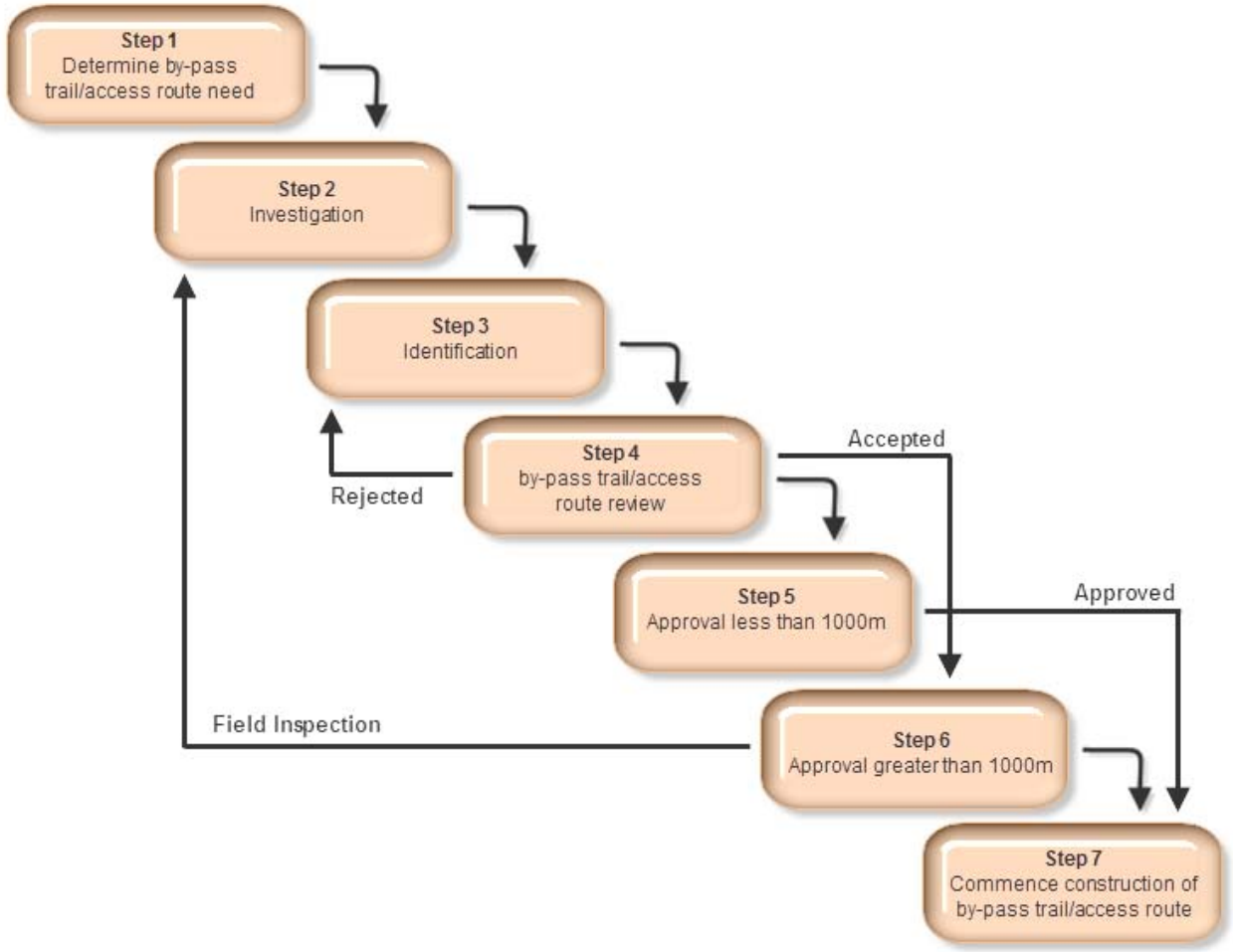

Figure 4-2. By-pass Trail/Access Route Siting and Approval Process

Step 1: Determine by-pass trail/access route need: Manitoba Hydro in conjunction with the Contractor identifies the need for a by-pass trail or new access route (i.e., rock outcrops, impassable terrain). If the trail/access route is shorter than 1000m, Manitoba Conservation and Water Stewardship will receive notification. If the new by-pass trail/access route is longer than 1000m, approval will be sought from the local Manitoba Conservation and Water Stewardship Office with regard to location and clearing method.

Step 2: Investigation: Manitoba Hydro and Contractor will assess potential by-pass area/access route area on foot for a viable location. In some instances an overflight may be required.

Step 3: Identification: MH Construction Supervisor/Inspector to identify and verify the location of the by-pass trail/access route by recording GPS coordinates and flagging the centerline and/or boundaries. Furthermore, the MH Environmental Inspector is to identify and verify any sensitive sites associated

with the area. The above information is then submitted to Environmental Protection Information Management System (EPIMS) as "Unplanned Infrastructure" for review.

Step 4: By-pass trail/access route review: MH Transmission Line and Civil Construction Senior Environmental Assessment Officer and MH Licensing and Environmental Assessment Environmental Protection Officer will review by-pass trail/access route and evaluate against known Environmentally Sensitive Sites (ESS) as well as sensitive sites identified by the Environmental Inspector's site investigation. **If Rejected**, by-pass trail/access route alternatives will be suggested for field assessment (Return to Step 3) and the process of submitting "Unplanned Infrastructure" through EPIMS will be restarted. **If Accepted** proceeds to Step 5 or 6 for approval.

Step 5: Less than 1000m by-pass trail/access route approval: When by-pass trail/access route is approved, it will be: a) added to the appropriate CEnvPP including any ESS sites; and b) Annual Harvest Plan updated and provided to project personnel and local Manitoba Conservation and Water Stewardship (MCWS) Office. Proceed directly to Step 7.

Step 6: Greater than 1000m by-pass trail/access route approval: If by-pass trail/access route is approved in Step 4, the proposed CEnvPP amendment will be submitted to Manitoba Conservation and Water Stewardship office which issued the Work Permit for approval. **If approved,** it will be: a) added to the appropriate CEnvPP including any ESS sites; and b) Annual Harvest Plan updated and provided to project personnel and the local MCWS Office and move to Step 7. **If field inspection is required for approval or alignment change** Step 3 will be conducted with MCWS staff on site, followed by Step 4, 6, and 7.

Step 7: Commence construction of by-pass trail/access route: Implement mitigation and commence construction. The method and location of clearing will be prescribed in the harvest plan, and Manitoba Hydro will identify and document any by-pass trails/access routes that may be required post construction for line maintenance activities and incorporate into the Operations and Maintenance Environmental Protection Plan.

4.3.2 Traffic Safety and Access Management Mechanisms Overview

Manitoba Hydro will rely extensively on the provincial and municipal existing road infrastructure to transport vehicles, personnel, equipment and materials to the Bipole III Transmission Project construction site. In the interests of safety, Manitoba Hydro expects that all of its personnel and those of its contractors and consultants will adhere to all traffic laws while engaged in Project related activities and while commuting back and forth between their residences/camps/offices and the construction site.

Safety is of primary concern during the construction phase for construction workers, stakeholders and the public. During the clearing and construction process, a seasonal access trail will be constructed on the rights-of-way to facilitate the transportation of construction materials, equipment and workers. Manitoba Hydro and its' contractors will restrict non-Project traffic on and along the active construction site during this period.

For reasons of safety, options may be examined to relocate sections of off-road vehicle (ORV) trails (e.g. ATV and snowmobile trails) to create separation between Project construction activities and ORV riders. Where and as applicable, Manitoba Hydro will discuss this with Manitoba Conservation and Water Stewardship, local municipal officials and local off-road recreational riding clubs to examine alternatives. Where the construction site intersects with ORV trails, Manitoba Hydro and/or its contractors will advise the local clubs of such intersections, the schedule of clearing and construction activities, and work with the clubs to ensure safe conditions are maintained at such intersections. This will include but not be limited to warning signage on trails and the active construction site and ensuring, to the extent feasible, that the trails are kept clear of all debris and other impediments.

All Project related personnel and their vehicles will be allowed to access the construction site as required for work purposes. Province of Manitoba and Government of Canada representatives that are engaged in project related inspections, research and monitoring personnel and resource harvesters (e.g. registered trappers and licensed outfitters) whose areas are being crossed by the transmission line will be allowed to traverse the active construction site. No other individuals will be granted access to traverse the active construction site for reasons of safety. The names of registered trappers and licensed outfitters operating within the area will be provided to the Manitoba Hydro Construction Supervisor. Registered trappers and licensed outfitters wishing to traverse the active construction site will be required to check in with the Construction Supervisor to identify themselves (sign in), indicate their business, indicate the location of their business and avail themselves of orientation and safety information. All personnel will have to comply with safety protocols and be required to check out (sign out) with the Construction Supervisor when leaving the active construction site. The number of access points/routes to the construction site will be minimized to facilitate access management issues. Where Manitoba Hydro and its contractor staff encounter non-project related traffic on the active construction site, safety advisory information will be provided and individuals will be asked to vacate the area for reasons of safety.

Signs will be placed at road/rights-of-way crossings and other locations in the active construction area to discourage/minimize access and to outline safety concerns.

Various types of signage may be used to convey safety or educational information, including:

- No hunting/shooting;
- Guy wire shields/sleeves (brightly colored and/or reflective), where appropriate;
- Reflective tape on tower legs and other obstructions;
- Access restrictions to specific infrastructure sites (e.g. transformer, converter, repeater stations);
- Access restrictions to hazardous materials and petroleum storage sites;
- Warning signs on vehicles transporting hazardous materials and petroleum products;
- Private land;
- Directional guidance signs;
- High risk wildlife collision areas;
- Speed limit postings;

- Road/trail hazard warning signs;
- Bollards, signage at water wells, petroleum storage areas, etc.; and
- Other.

Manitoba Hydro will determine the type and quantity of signage required, produce them, and erect them when required.

The majority of access along the ROW in construction segments N1 to N4 and C1 to C2 is limited to the winter months under frozen ground conditions. During the non-frozen period, the rights-of-way will be self-limiting in access due to the natural terrain, the route selected for the transmission line and private property limitations.

4.3.3 Access Allowance

During the construction phase of the Project, one of Manitoba Hydro's concerns is safety for workers and others who may access the active construction site. While non-construction traffic will be limited/restricted in the active construction site, the comings and goings of registered trappers and licensed outfitters will be maintained within the limits of safety as indicated in the previous section. Access and safety issues will be monitored by the Construction Contractor, the Manitoba Hydro Construction Supervisor and the Environmental Inspector.

Manitoba Hydro recognizes that those who access Crown land adjacent to the active construction site via means other than the Project ROWs (e.g., existing trails in the area) have the right to be there. All intersecting trails/roads will be kept clear of debris so as not to impede existing travel routes. Manitoba Hydro will limit/restrict access to the active construction site as safety is a primary consideration.

Those authorized to access the active construction site (including work camps) are noted in Table 4-2. Manitoba Hydro and its contractors will carefully monitor for safety and security issues and, if problems warrant, are prepared to limit access to only those directly associated with the Project.

Table 4-2 Access Allowance and Authorization in Active Construction Areas

User	Type of User	Authority
Project Traffic	Manitoba Hydro staff	No conditions
	Contractor personnel	
	Government (provincial & federal) personnel	Construction Supervisor or delegate
	Research & monitoring personnel	
	Emergency vehicles/personnel	No conditions
Resource harvesters	Registered trappers/licensed outfitters	Construction Supervisor or delegate
Non-Project Traffic	Public	Restricted
Others	Community officials, Manitoba Hydro staff/officials/contractors/consultants, employee family members	Construction Supervisor or delegate
	School and public tours, media, etc.	

4.3.4 Recreational Vehicles

Project personnel will not be permitted to transport, use or store their personal off-road vehicles (ORV) (e.g., snowmobiles, all-terrain vehicles, boats, etc.) on the construction site where the intent of use is not Project work related. This condition will form part of the condition of employment and will be conveyed to all personnel at the time of hire. Breach of the condition will be grounds for disciplinary action, including dismissal. Manitoba Hydro and contractor ORV equipment shall be used exclusively for Project work related purposes.

4.3.5 Fishing Equipment

All Manitoba Hydro and contractor personnel will not be permitted to transport, store or use fishing equipment on the construction site or utilize construction access for fishing in N1 construction segment. For construction segments other than N1, workers will be able to store fishing equipment at the temporary camp, but use of fishing equipment on the construction site, transporting fishing equipment on the construction site (including camps), or utilizing construction access for fishing is prohibited. This will be a condition of employment and all workers will be informed of this at the time of hire. Breach of this condition by any worker will constitute grounds for dismissal from employment. Manitoba Conservation and Water Stewardship may also impose additional limitations to protect fish stocks. Manitoba Hydro will work cooperatively with Manitoba Conservation and Water Stewardship to protect fish stocks at identified sensitive sites.

4.3.6 Weapons Restrictions

Restrictions will be in place regarding firearms (e.g., rifles, hand guns, shotguns) and other weapons (bows, crossbows) on the construction site for reasons of safety. All Manitoba Hydro and contractor personnel will not be permitted to transport, store or use weapons on the construction site (including camps) or utilize construction access for hunting. This will be a condition of employment and all workers will be informed of this at the time of hire. Breach of this condition by any worker will constitute grounds for dismissal from employment.

An exception to the above may be made where the need arises to have firearms on the construction site for protection purposes (e.g., bears). In such instances the Construction Supervisor will assign such responsibilities to trained individuals who will be the only ones with the responsibility to possess and handle firearms on the construction site.

Registered Trap Line Holders, Helpers and Outfitters

Holders (and their helpers) of registered trap lines and licensed outfitters and their clients who are directly affected by Project construction activities may require firearms or other weapons to carry out their normal harvesting activities. Manitoba Hydro will work with registered trap line holders and outfitters to promote safe access practices and provide updated safety information and the location(s) of construction activities during their active harvesting periods. All registered trapline holders and licensed outfitters wishing to traverse the active construction site must meet with the Manitoba Hydro Construction Supervisor to inform the supervisor of their intentions, their destination(s) and avail themselves of safety information.

With respect to outfitters (their clients) and holders (and helpers) of registered trap lines, weapons (including long bows or cross bows) are permitted while traversing the active construction site under the following conditions:

- Firearms (including long bows and cross bows) must be unloaded, locked and cased while on the active construction site.

In addition, frequent safety information bulletins will be provided to all surrounding communities. Resource harvesters will be updated regularly on the location and timing of construction activities within the construction site.

4.3.7 Temporary Work Camps

Given the remoteness and limited services available in portions of the Bipole III Transmission Project area, temporary work camps will be required in certain locations. It is anticipated that one or more work camps may be required per construction segment in northern and central portions of the Project area (N1 to N4, C1 and C2) to accommodate between 50 and 250 people each. Camp security measures will be implemented by the contractor for the safety and security of all personnel, property and the general public.

The number of workers within the temporary camps is expected to fluctuate considerably between seasons with the maximum number of workers within camps coinciding with the winter period when frozen ground conditions lend itself to equipment and materials transporting, clearing and Project construction. The number of workers in camps is expected to be considerably reduced during the non-frozen period. Temporary camps may have marshalling yards associated with them for the storage of materials, equipment and assemblage of transmission towers.

4.3.7.1 Control Gate

Where control gates are deemed necessary by Manitoba Hydro, they will be located at the entrance of camps but a minimum of 30 meters off the main adjoining road to allow large trucks to pull off and be clear of the intersection before stopping. Where the camp is located some distance from the main

adjoining road, the control gate would be located as close to the camp location as practical to facilitate camp area security as well. The use and operation of the control gates will be determined prior to construction.

4.3.7.2 Restrictions

Manitoba Hydro and its contractors will govern activities within temporary work camps, including use and parking of personal vehicles. Personal ORVs will not be allowed to be stored at temporary camps where the intent is not project related and work ATVs cannot be used for personal use. Similarly, all Manitoba Hydro and contractor personnel will not be permitted to transport, store or use firearms (e.g. firearms, bows, crossbows, etc.) on the construction site (including camps) or utilize construction access for hunting. Furthermore, all Manitoba Hydro and contractor personnel will not be permitted to transport, store or use fishing equipment on the construction site (including camps) or utilize construction access for fishing in the N1 construction segment. For construction segments other than N1, workers will be able to store fishing equipment at the temporary camps, but use of fishing equipment on the construction site or utilizing construction access for fishing will be prohibited.

4.3.8 Temporary Work Camp Sites, Marshalling Yards and Borrow Pits

Temporary work camp sites, marshalling yards and borrow pits used for Project purposes form part of the construction site. All Project related access management measures shall apply to these sites. When any of the new sites are no longer required for Project purposes, and if not required by other non-project parties (e.g. Manitoba Conservation and Water Stewardship, Manitoba Infrastructure and Transportation, etc.), access into such sites will be decommissioned and all Project personnel will be restricted from entering such sites. Access decommissioning could include the placement of impediments (e.g., berms, boulders, debris, etc.) to restrict public access.

4.3.9 Trail Decommissioning

The existing access review work (*Manitoba Hydro Bipole III Transmission Project, Construction Access Opportunities* (Stantec Inc. 2013)) identified a number of existing access opportunities (i.e., intersections between the proposed ROW and existing highways, roads, trails and linear features) that minimizes the need for new access development to access the ROWs. In instances where new access is required and it is determined that the access is not required for maintenance purposes, all trails will be decommissioned. Once it is determined by the contractor if new access is required for each construction segment, a decommissioning plan will be prepared and submitted to Manitoba Conservation during the construction process. Manitoba Hydro will also remove any temporary construction access routes and rehabilitate disturbed areas within MIT's ROW and controlled areas in locations identified in Clause 54 of the Bipole III licence.

4.3.10 Invasive Plant Species and Disease Management

Manitoba Hydro recognizes that biosecurity is a growing concern in the agricultural sector on a global scale. With the increased awareness of animal and crop safety, the implementation of biosecurity protocols is necessary to ensure the health of agricultural operations and the surrounding environment.

Manitoba Hydro staff and contractors have the potential to impact agricultural biosecurity through construction of the Bipole III project that requires accessing agricultural land. Manitoba Hydro staff and

its contractors will adhere to the corporation's Agricultural Biosecurity Policy and follow the relevant Business Unit's Agricultural Biosecurity Standard Operating Procedures.

4.3.11 Compliance

Manitoba Hydro Environmental/Construction Inspectors will regularly inspect all aspects of the clearing and construction work to ensure compliance with the Project license, work permits, regulations, applicable guidelines and the applicable CEnvPP. Manitoba Hydro and its' contractor personnel will limit/restrict non-project related vehicles and personnel on the construction site with particular emphasis on the active construction site. Information about safety, firearms/weapons rules will be distributed, as required, through:

- Signage at access points and on the construction site;
- Orientation of all workers;
- Information sessions with resource harvesters, outfitters and Aboriginal communities; and
- General information dissemination to the public and recreational organizations.

Breach of stated employment conditions (e.g., ORV, weapons, fishing) by Manitoba Hydro employees or contractor staff will result in disciplinary action, including potential dismissal from employment.

Clear communication of restrictions and safety measures, included in the construction access management plan, to workers, resource harvesters, stakeholders and local Aboriginal communities will contribute to safe work practices and the prevention of conflicts.

4.3.12 Environmentally Sensitive Sites

A number of environmentally sensitive sites (ESS) have been identified on and adjacent to the Bipole III Project construction site through the public engagement process and biophysical and socio-economic studies conducted leading up to the development of the EIS. Additional ESS may be identified prior to and during the construction program, including potential heritage resources sites. Standard access management measures and responsibilities for implementation are provided in Appendix C. A full list of specific environmental protection measures is included in the relevant Bipole III Transmission Project CEnvPPs.

Relative to access issues identified, the following ESS warrant particular attention:

- The Wabowden Boreal Woodland caribou range;
- The Bog Boreal Woodland caribou range;
- Moose – Affected Game Hunting Area closures;
- Sites of importance identified from ATK and community engagement;
- The Lake Winnipegosis Salt Flats Ecological Reserve and adjacent springs;
- Dry upland prairie ecosites;
- Rare and single enduring features within Stephens Lake ASI; and
- Wildlife management areas.

Specific access management measures for the above ESS are included in the CEnvPP and include decommissioning of access trails in very sensitive areas (e.g., boreal woodland caribou critical habitat areas, Stephens Lake ASI) where access is not required for operations and maintenance purposes. Impediments (e.g. berms, debris, etc.) may be employed to dissuade traffic during and post construction. A short description of the key ESS and their sensitivity to access are provided below.

Boreal Woodland Caribou

Boreal woodland caribou are listed as "threatened" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and under Manitoba's Endangered Species Act (MESA). The Final Preferred Route (FPR) intersects the Wabowden and Bog woodland caribou ranges and core winter habitat within those ranges. Given the species' sensitivity to disturbance, specific access management measures are being implemented to protect this species.

Wabowden Boreal Woodland Caribou Evaluation Range

The Wabowden boreal woodland caribou range is located south of Wabowden and Ponton between PR 373 and Talbot Lake (southern portion of construction segment N2 and northern portion of N3). For additional details regarding this ESS, refer to the Bipole III Transmission Project CEnvPP.

The Bog Boreal Woodland Caribou Evaluation Range

The Bog boreal woodland caribou evaluation range is located south of the Pasquia River agricultural zone and north of Red Deer Lake (in construction segment N4). It extends from the shores of Cedar Lake and Lake Winnipegosis into Saskatchewan. For additional details regarding this ESS, refer to the Bipole III Transmission Project CEnvPP.

Sites of Community Concern

A review of sites of community concern will occur prior to project construction. Manitoba Hydro will work with communities to identify measures to mitigate effects on any known sites that could be affected by increased access.

Moose

In select locations changes were made to the route to minimize impact on moose. Some affected Game Hunting Areas have experienced a decline in the local moose population and ESS sites and mitigation have been identified and will be monitored during construction. For additional details regarding this ESS, refer to the Bipole III Transmission Project CEnvPP.

Lake Winnipegosis Salt Flats Ecological Reserve Springs

The Lake Winnipegosis Salt Flats Ecological Reserve and springs are located south of the Overflowing River and north of the Red Deer River (in construction segment N4). The salt water springs that feed the salt flats are located west of PTH 10 and outside of the ecological reserve. For additional details regarding this ESS, refer to the Bipole III Transmission Project CEnvPP.

Dry Upland Prairie Ecosites

Refer to the Bipole III Transmission Project CEnvPP for a map and further details regarding these ESS. Dry upland prairie ecosite types remain as remnant small patches within the construction site in the southwestern portion of the Project area. Applicable access management measures are provided in the Project CEnvPP.*Rare and Single Enduring Features within Stephens Lake ASI and Wildlife Management Areas*

Stephens Lake ASI is located in construction segment N1. Wildlife Management Areas traversed by the Bipole III Transmission Project include the Churchill (N1) and Tom Lamb WMAs (N3). Refer to the Bipole III Transmission Project CEnvPP for maps and further details regarding these ESS.

4.4 Education and Communication Strategy

4.4.1 Purpose

An education and communication strategy for the AMP is vital to ensure successful implementation of the Plan. Manitoba Hydro Transmission Line and Civil Construction will be meeting with affected communities prior to construction. Furthermore, community liaison positions will be the primary contact for disseminating information regarding the project to communities, including access restrictions and protocols. Early, effective and frequent communication with project personnel and non-project parties is critical:

- To ensure the safety of workers and the public at large;
- To protect the environment from access related effects;
- To create an understanding among specific relevant groups and the public at large regarding what access management measures are being used and why;
- To gain the cooperation and support of parties (including leaders in neighbouring communities and Aboriginal communities and government agencies) in encouraging citizens to respect the intent of the Plan and abide by its measures;
- To provide clear information about the mechanisms by which access management will be implemented; and
- To foster a sense of trust between stakeholders, Aboriginal communities, municipalities, landowners, the public and Manitoba Hydro.

4.4.2 Methods

The education and communications strategy will be implemented by Manitoba Hydro. Table 4-3 lists the target audiences and sets out a variety of communication methods that could be used.

Table 4-3 Target Audiences and Proposed Communication Methods

Target Audience	Purpose	Responsibility	AMP Document	Brochure	Meeting	Website	Broadcast/ Print Media
Aboriginal communities	• Understand restrictions, pre-notification procedures and rationale for same • Engage leadership to encourage membership to respect restrictions	LEA/TL and Civil Construction		X	X	X	X
Resource Management Boards	• Understand restrictions, pre-notification procedures and rationale for same	LEA	X	X	X	X	
Non-First Nation resource harvesters, outfitters and associations	• Understand restrictions, pre-notification procedures and rationale for same	LEA		X	X	X	X
Province of Manitoba & Federal Government	• Understand restrictions, pre-notification procedures and rationale for same	LEA/TL and Civil Construction	X	X	X	X	

Target Audience	Purpose	Responsibility	AMP Document	Brochure	Meeting	Website	Broadcast/ Print Media
Neighbouring communities/ municipalities − Leadership − Interest groups − Northern media − Public-at-large	• Understand restrictions, pre-notification procedures and rationale for same • Engage leadership to encourage membership to respect restrictions • Engage interest groups (e.g., snowmobile clubs, fish and game organizations) to respect restrictions	LEA/TL and Civil Construction		**X**	**X**	**X**	**X**
Private land owners	• Gain understanding of landowner concerns and specific land sensitivities • Inform landowner of access management measures to be implemented • Develop additional specific access management measures, as required	MH Construction Supervisor or delegate			**X**	**X**	
Project Personnel	• Understand restrictions, pre-notification procedures and rationale for same	Manitoba Hydro Construction Supervisor Contractor supervisor	**X**	**X**	**X**	**X**	
Job referral agents	• Help to communicate restrictions during referral process	LEA		**X**	**X**	**X**	

Target Audience	Purpose	Responsibility	Full AMP	Brochure	Meeting	Website	Broadcast/ Print Media
RCMP, emergency services	• Understand restrictions and types of incidents that they may be called to address; • Provide advance information regarding temporary access restrictions;	Manitoba Hydro Construction Supervisor	**X**	**X**	**X**	**X**	

4.4.3 List of Activities

A comprehensive task/schedule list is required to ensure successful implementation of the AMP. The following sets out a general schedule of communication activities:

- Planning and preparation of materials;
- Planning of initial round of meetings;
- One-on-one meetings with landowners prior to start of clearing and construction;
- Notify landowners prior to start of construction;
- Initial round of communication; and
- Periodic reinforcement of access management measures.

4.5 Monitoring and Follow-up

Access related monitoring shall occur for the following purposes:

- To determine whether the measures set out in this AMP are effective; and
- To adapt and improve measures in this AMP in response to actual experience (adaptive management).
-

Sources of monitoring information may include the following:

- Camp Security reports;
- Voluntary harvest and sighting information (e.g., animal sightings (location, date); harvested flora and fauna (location, date, amount harvested);
- Construction supervisor, senior environmental assessment officer, environmental inspector and environmental monitor, contractor personnel, documentation and reports;
- Manitoba Conservation and Water Stewardship resource officers and Manitoba Workplace Safety and Health inspectors and RCMP (as applicable);
- Input from resource harvesters, outfitters, Aboriginals, stakeholders, municipal leaders, landowners and the general public; and
- Other biophysical, socio-economic and community based monitoring.

The following factors are intended for monitoring:

- Issues and concerns raised by resource harvesters/outfitters;
- Non-construction related traffic on the construction site (type, volume, purpose, date, location, safety issues);
- Incidents or problems with access on the construction site (all traffic); and
- Incidents or problems with non-construction traffic on the construction site (circumstances, timing, and location).

Access management monitoring will be undertaken and compliment other biophysical and socio-economic monitoring conducted during the construction phase of the Project. Access related issues will be summarized by Environmental Inspectors and the Construction Supervisor in their respective monthly reports. Monitoring information will be acted upon, as necessary, by the Construction Supervisor.

5.0 Operations and Maintenance Access Management Plan Development

The Operations and Maintenance Access Management Plan (O&MAMP) will be developed prior to project commissioning. Experience gained during the construction phase of the Project will contribute to a more effective O&MAMP through the process of adaptive management. The Operations and Maintenance Access Management plan will consist of the following components:

- Purpose and objectives;
- Access management measures;
- Education and communications; and
- Monitoring and follow-up.

6.0 References

6.1 Literature Cited

Dave Wotton Consulting, 2011. Bipole III Lands of Special Interest and TLE Lands Technical Report. Prepared for MMM Group and Manitoba Hydro. Winnipeg, MB.

J. & V. Nielson and Associates Ltd., 2011. Bipole III Transmission Project, Agriculture Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Joro Consultants Inc., 2011(A). Bipole III Transmission Project, Caribou Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Joro Consultants Inc., 2011(B). Bipole III Transmission Project, Habitat Fragmentation Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Joro Consultants Inc., 2011(C). Bipole III Transmission Project, Resource Use Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Joro Consultants Inc. and Wildlife Resources Consulting Services MB Inc., 2011. Bipole III Transmission Project, Mammals Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Landmark Planning & Design Inc., 2011. . Bipole III Transmission Project - Environmental Assessment Public Consultation Technical Report. Appendix B - Meetings Held. Created for Manitoba Hydro. Winnipeg, MB.

Manitoba Hydro. 2012. Bipole III Transmission Project. Construction Environmental Protection Plan. Winnipeg, Manitoba.

MMM Group Limited., 2011. Bipole III Transmission Project Existing Socio-Economic Environment Baseline Report. Appendix B - Key Person Interviews. Prepared for Manitoba Hydro. Winnipeg, MB.

North/South Consultants Inc., 2011(A). Bipole III Transmission Project, Aquatic Environment Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

North/South Consultants Inc., 2011(B). Terrestrial Invertebrates, Amphibians, and Reptiles Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Stantec Inc., 2012. Bipole III Transmission Project, Construction Access Opportunities. Prepared for Manitoba Hydro. Winnipeg, MB.

Stantec Inc., 2011(A). Bipole III Transmission Project, Groundwater Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Stantec Inc., 2011(B). Bipole IdentificationIII Transmission Project, Terrain and Soils Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Szwaluk Environmental Consulting Ltd., Calyx Consulting, and MMM Group Ltd., 2011. Bipole III Transmission Project, Terrestrial Ecosystem and Vegetation Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

Wildlife Resources Consulting Services MB Inc., 2011. Bipole III Transmission Project, Birds Technical Report. Prepared for Manitoba Hydro. Winnipeg, MB.

6.2 Websites

Manitoba Government, 2012. Manitoba Laws. Consolidated Regulations of Manitoba. The Wildlife Act. C.C.S.M. 130. On-line at: http://web2.gov.mb.ca/laws/regs/w130e.php Accessed on May 8, 2012.

Manitoba Hydro, 2012 (A). Environmental Management Policy (2008). On-line at: http://www.hydro.mb.ca/environment/policy/ems_policy.pdf Accessed on April 11, 2012.

Manitoba Hydro, 2012 (B). Bipole III Project, Environmental Impact Statement, Chapter 8, Effects Assessment and Mitigation. On-line at: http://www.hydro.mb.ca/projects/bipoleIII/eis/chapter8_effects_assessment_and_mitigation.pdf Accessed on April 11, 2012.

Manitoba Hydro, 2012 (C). Bipole III Project, Environmental Impact Statement, Chapter 11, Environmental Protection, Follow-up and Monitoring. On-line at: http://www.hydro.mb.ca/projects/bipoleIII/eis/chapter11_environmental_protection_followup_and_monitoring.pdf Accessed on April 11, 2012.

Manitoba Weed Supervisors Association, 2012. Weeds of Concern. On-line at: http://www.mbweeds.ca/resources.htm Accessed on August 21, 2012.

MAPS

APPENDIX A

USER GROUPS, STAKEHOLDERS AND STUDY SPECIALISTS

ACCESS ISSUES AND CONCERNS

User Groups, Stakeholders and Study Specialists Access Issues and Concerns

Group	User Groups/Topics	Season	Construction Segment	Motivation	Concerns/Issues
1	Manitoba Hydro staff and contractors	All	All	• Construct, operate, maintain;	• Safety, security; • Ability to conduct work; • Unimpeded access
2	Regulator (Manitoba Conservation & Water Stewardship)	All	All	• Inspect, regulate; • Sustainably manage land base; • Sensitive site protection;	• Safety, security; • Creation of new access; • Access into new hunting areas; • Fragmentation; • Increased hunting pressure; • Sensory disturbance to caribou populations and other wildlife; • Protection of ecologically sensitive sites; • Protection of enduring features;
3	RMs, Towns, Villages, LGDs, Keystone Agricultural Producers	All	All, but primarily in agricultural settings, private lands	• Project is within their jurisdiction/ vicinity; • Concern for populace and environment & RM/town economics; • Protect interests of agricultural producers;	• Safety to public, recreational ATV/snowmobile riders, farmers; • Interference with recreational activities; • Increased recreational ATV/snowmobile traffic & gathering activities; • Environmental damage from recreational riders (rutting, vegetation); • Unauthorized access to private lands; • ROW may facilitate access to private lands/hunting; • Permission to use ROW for recreational ATV/snowmobile riding; • Increased traffic levels during construction, damage to road & drain infrastructure, noise disturbance with trucking; • Compensation for damages; • Road closures during construction, inconvenience to residents & farm operations, interruption to emergency services; • Access opportunities and disadvantages.
4	Private Land owners (ranchers, farmers)	All	C1, C2, S1, S2	• Maintain farm operations; • Protection of private property;	• Access for hunters onto property; • Damage to property/assets; • Inconvenience/interference to operations during construction; • Fences, gates and livestock.

Group	User Groups/Topics	Season	Construction Segment	Motivation	Concerns/Issues
5	Manitoba Lodge Owners Association	All	All	• Hunting, fishing, tourism, wilderness experience; • Protect interests of outfitters.	• Safety; • Opening up of formerly remote areas; • Increased traffic, hunting and fishing pressure; • Inconvenience to outfitters; • Potential disruption or interference to operations; • Access improvements.
6	Resource users (Trappers, MB Trappers Association, hunters	All	All	• Resource harvest, trapping, hunting; • Protect interests of trappers, resource harvesters;	• Increased public, recreational traffic; • Increased access for outsiders; • Increased traffic during construction; • Increased hunting pressure; • Potential for snowmobile clubs to use ROW as route, • Sensory disturbance to game and furbearer species during construction; • Negative effect on trapping success; • Vandalism, theft; • Loss/damage to habitat; • Inconvenience/interference during construction period; • Improved access for trapping/hunting; • Infringement/competition on trap lines by other trappers; • Access to new, formerly undisturbed areas, cabin locations; • Increased illegal hunting;
7	OmniTrax	All	N1, N2, N3	• Provide support services; facilitate planning/ implementation.	• Facilitate freight/equipment delivery; • Advance planning and timely/safe installation of required rail crossings; • Potential provision of rail based work camps.
8	Mining Association of MB., mining/exploration companies	All	N1, N2, N3, N4	• Unimpeded access to explore/mine.	• Limitations on access and activities on ROWs.
9	Aboriginal Communities	All	All	• Protection of traditional and reserve lands, RMA; • Natural resources.	• Influx of workers for major projects/pressure on natural resources (game, fish) from work force; • Over harvesting; • Illegal hunting; • Effects on traditional hunting grounds/hunting success; • Sensory disturbance to furbearers; • Creation of new access/access into

Group	User Groups/Topics	Season	Construction Segment	Motivation	Concerns/Issues
					formerly remote areas/cabin locations; • Increased number of access routes; • Habitat fragmentation; • Increased predation; • Negative effects to wildlife populations; • Sensory disturbance of game and furbearers species during construction; • Use of ROW by snowmobile clubs without consultation; • Increased public/outsider access to area; • Disrespect to land; • Safety on major roads with increased traffic; • Opportunity for increased tourism; • Potential damage to cultural, heritage /sacred sites; • Increased social problems.
10	Recreational ATV/snowmobile riders	All but frozen primarily	All	• Recreational riding.	• ROW creates new opportunities; • Interference during construction phase.
	Scientific/ATK Studies				
11	Lands of Special Interest (TLE, ASI, WMA, Parks, ecological reserves, crown lands)	All	All	• Protection	• New access into previously inaccessible areas and community lands; • Disturbance of cultural/heritage/ spiritual values and natural features; • New/additional access traditional lands; • Increased off-road vehicle access; • Sensory disturbance to wildlife; • Loss of wildlife; • Access to traditional gathering sites; • Adjacency to parks, WMAs, ecological reserves, community pastures; • Crossing of crown lands in west-central MB; • Traversing WMAs, ASIs, enduring features;
12	Agriculture	All	N3, N4, C1, C2, S1, C2	• Protection	• Unauthorized access onto private lands; • Effects on private lands (damage, disturbance, interference).

Group	User Groups/Topics	Season	Construction Segment	Motivation	Concerns/Issues
13	Aquatics	All	All	• Protection	• Stream crossings; • Construction at water course crossings, erosion, sedimentation, stream bank and bed damage; • Spills of deleterious materials; • Improved access to sensitive habitat; • Increased fishing pressure; • Increased access to streams/waterbodies by livestock with related damage (soil compaction, bank erosion, sedimentation, reduced riparian cover and water quality).
14	Birds	All	All	• Protection	• Increased access/access into new areas; • Vehicle/bird collisions; • Increased legal and illegal hunting/mortality; • Increased recreational traffic; • Sensory disturbance; • Increased predation along access roads/ROW; • Fragmentation may alter movements.
15	Caribou (coastal, barren ground)	All	N1, Ac Collectors and Construction Power (ACCP)	• Protection	• Sensory disturbance; • Disruption to migration pathways; • Increased mobility of wolves/increased predation; • Increased/improved access; • Increased hunting opportunities/ over hunting.
16	Caribou (woodland)	All	N2, N3, N4;	• Protection	• Increased mobility of wolves/increased predation; • Sensory disturbance causing stress; • Change in predator/prey dynamics; • Increased access opportunities by predators to /caribou habitat and calving areas; • Increased predator rates of travel; • Human use of ROWs encourages wolf use; • Increased human legal/illegal hunting/harvest; • Disease/parasite movement along corridors; • Increased recreational traffic/sensory disturbance/loss of functional habitat; • Range fragmentation.

Group	User Groups/Topics	Season	Construction Segment	Motivation	Concerns/Issues
17	Fragmentation	All	N1, N2, N3, N4, C1, C2	• Protection; • Minimization	• Altered predator/prey dynamics; • Influx of competition/disease; • Increased human access; • Altered wildlife movements/habitat use; • Division/separation of habitat areas; • Increased industrial and recreational access; • Increased pressure on resources; • Loss of wilderness areas; • Increased mortality to wildlife; • Increased edge effects; • Potential increase in wolf mobility/presence.
18	Mammals	All	All	• Protection	• Sensory disturbance; • Habitat fragmentation; • Increased hunting (legal/illegal)/trapping; • Increased ungulate/furbearer mortality; • Increased recreational traffic; • Potential increase in disease/parasite transmission in ungulates; • Increased travel rates by wolves; • Increased predation by wolves; • Loss of functional habitat; • Reduced range connectivity; • Decreased recruitment rates; • Improved access for resource users/outfitters; • New access to remote areas; • Vehicle collisions; • Improved subsistence hunting/harvesting.
19	Resource use (commercial/non-commercial, gatherers, wild rice growers)	All	All	• Protection	• Improved access for resource users/hunters (negative & positive); • Access restrictions during construction; • Increased public access/increased pressure on resources (e.g. snowmobilers, illegal hunting); • Potential for recreational use/traffic; • Increased theft, vandalism; • Sensory disturbance to trapper cabins.

Group	User Groups/Topics	Season	Construction Segment	Motivation	Concerns/Issues
20	Terrain & Soils	All	All	• Protection	• Loss of soil structure; • Reduced soil productivity; • Soil compaction; • Rutting; • Degradation of soil quality; • Increased soil temperature; • Visible scarring; • Melting or loss of permafrost; • Surface settlement.
21	Vegetation	All	All	• Protection	• Loss of plants of conservation concern; • Damage to environmentally sensitive sites; • Loss of plant communities of concern or used by Aboriginal people; • Introduction/spread of non-native species; • Habitat fragmentation; • Effects of dust on plant health; • Increased risk of wildfire; • Increased access by outsiders.

APPENDIX B

MANITOBA HYDRO BIPOLE III TRANSMISSION PROJECT

CONSTRUCTION ACCESS OPPORTUNITIES

APPENDIX C

ACCESS MANAGEMENT MITIGATION MEASURES

(Subset of Project General Mitigation Measures)

Summary of General Mitigation Requirements
Access Roads and Trails (PC-1)
Access roads and trails no longer required will be decommissioned and rehabilitated in accordance with the Rehabilitation and Vegetation Management Plan.
Access roads and trails required for future monitoring, inspection or maintenance will be maintained in accordance with the Operations and Maintenance Access Management Plan.
Access roads and trails will be constructed to a minimum length and width to accommadate the safe movement of construction equipment
Access roads and trails will be located, constructed, operated and decommissioned in accordance with contract specifications.
Access roads and trails will be provided with erosion protection and sediment control measures in accordance with the Erosion Protection and Sediment Control Plan.
All season access roads will not be permitted within established buffer zones and setback distances from waterbodies, wetlands, riparian areas and water bird habitats.
Approach grades to waterbodies will be minimized to limit disturbance to riparian areas.
Bypass trails, sensitive sites and buffer areas will be clearly marked prior to clearing.
Contractor will be restricted to established roads and trails, and cleared construction areas in accordance with the Access Management Plan.
During winter construction, where necessary (i.e. unfrozen wetlands, creeks), equipment will be wide-tracked or equipped with high flotation tires to minimize rutting and limit damage and compaction to surface soils.
Equipment, machinery and vehicles will only travel on cleared access roads and trails, and will cross waterways at established temporary and permanent crossings.
Existing access roads, trails or cut lines will be used to the extent possible. Permission to use existing resource roads (ie forestry roads) will be obtained.
MCWS Work Permits will be obtained prior to the commencement of the project.
No chemical melting agents are to be utilized.
Only water and approved dust suppression products will be used to control dust on access roads where required. Oil or petroleum products will not be used.
Public use of decommissioned access routes will be controlled through the Access Management Plan.
Public use of project controlled access roads and trails during construction will be controlled through the Access Management Plans.
Routing for access roads and trails should follow natural terrain contours to the extent possible and should be minimized adjacent to and approaching waterbodies.
Surface water runoff will be directed away from disturbed and erosion prone areas but not directly into waterbodies.
Vegetation control along access roads and trails during construction will be in accordance with Rehabilitation and Vegetation Management Plan.
Agricultural Areas (EC-1)
All fences and gates will be left in "as-found" condition.
Any necessary access on agricultural lands will be discussed in advance with the landowner.
Construction areas and sites will be assessed for compaction and if required will be deep ploughed by the contractor to mitigate any compaction prior to returning them to agricultural use.

Erosion protection and sediment control measures will be established before construction work commences in agricultural areas where necessary.
Excess construction materials (i.e. waste, granular fill; clay) will be removed from construction sites and areas located on agricultural lands. Area will be restored to pre-existing conditions.
Existing access to agricultural lands will be utilized to the extent possible.
Required travel off existing roads will be minimized and restricted to previously designated and approved routes.
Vehicular travel on agricultural lands will follow existing roads, trails and paths to the extent possible.
Aircraft Use (EI-1)
Fuel storage, handling and dispensing at aircraft landing areas will conform to provincial legislation and guidelines.
Borrow Pits and Quarries (PC-2)
Vegetated buffer areas will be left in place when borrow pits are cleared in accordance with provincial guidelines.
Borrow pits and quarries will not be located within established buffer zones and setback distances from identified Environmentally Sensitive Sites.
Borrow pits and quarries will be designed, constructed and operated in compliance with provincial legislation and guidelines.
Previously developed borrow sites and quarries will be used to the extent possible before any new sites are developed.
Vegetation in active Manitoba Hydro permitted borrow pits and quarries will be maintained as per the Rehabilitation/ and Vegetation Management Plan
Clearing (PA-3)
Clearing and disturbance and equipment use will be limited to the project footprint and associated access routes.
All clearing and construction equipment is to remain within the bounds of access routes and the Project footprint identified.
Construction vehicles where possible will be wide-tracked or equipped with high floatation tires to minimize rutting and limit damage and compaction to surface soils.
The Construction Supervisor will issue a stop work order if extreme wet weather or insufficient frost conditions results in soil damage from rutting, and soil erosion is resulting in sedimentation of adjacent waterbodies.
Construction vehicles, machinery and heavy equipment will not be permitted in designated machine-free zones except at designated crossings.
Access to clearing areas will utilize existing roads and trails to the extent possible.
Demobilizing and Cleaning Up (PA-4)
Stream crossings and drainages will be left free of obstructions so as not to impede natural runoff.
Construction access roads/trails that are no longer required will be decommissioned and rehabilitated to prevent access.
Emergency Response (EI-1)
All vehicles hauling petroleum products will carry spill containment and clean-up equipment.

Fish Protection (EC-3)
Project personnel will be prohibited from fishing at project locations or along rights-of-way.
Grading (PA-7)
Grading for gravel pads for construction areas and access roads will be limited to areas where it is needed for the safe and efficient operation of vehicles, machinery and construction equipment.
Gravel pads will be graded so the surface runoff is directed away from waterbodies, riparian areas and wetlands.
Hazardous Substances (EI-4)
Hazardous substances will be transported, stored and handled according to the procedures prescribed by provincial legislation and at a minimum follow Manitoba Hydro policies.
Access to hazardous materials storage areas will be restricted to authorized and trained Contractor and Manitoba Hydro personnel.
Hazardous materials storage sites will be secured, and signs will be posted that include hazard warnings, contacts in case of a release, access restrictions and under whose authority the access is restricted.
Wet batteries will be stored and transported to licensed or approved waste recycling facilities.
Waste oil will be transported by licensed carriers to licensed or approved waste oil recycling facilities.
Management Measures (MM)
All licenses, permits, contracts, project specifications, guidelines and other applicable documents will be in the possession of both the Contractor and Manitoba Hydro prior to commencement of work.
All project participants will ensure that project activities are carried out in compliance with applicable legislation, guidelines, contractual obligations and environmental protection plan provisions.
The Contractor will review terms and conditions of all authorizations, contract specifications, agreements, etc prior to project start-up and will discuss any questions or concerns with Manitoba Hydro.
Relevant documents including licenses, permits, approvals, legislation, guidelines, environmental protection plans, orthophotos maps, etc will be made available to all project participants.
Manitoba Hydro will meet the Contractor at the beginning of each new contract to review environmental protection requirements including mitigation measures, inspections and reporting.
Manitoba Hydro will provide the contractor with a stakeholders list with names, organizations and contact information for the purpose of contacting stakeholders as necessary.
Manitoba Hydro will contact local municipal authorities prior to project start-up.
Manitoba Hydro will contact First Nation and Aboriginal community representatives prior to project start-up.
Manitoba Hydro will contact local resource users, lodge operators, outfitters and recreational resource users and associations to the extent feasible and practical prior to project start-up.
Manitoba Hydro will notify trappers in advance of clearing and construction schedules in their trapline areas.
Marshalling Yards (PC-5)

Contractor employees responsible for receipt and distribution of hazardous substances will be trained in handling and transportation of dangerous goods, and WHMIS.
Waste hazardous substances, fuel containers and other materials will be stored in approved containers and transported to licensed or approved waste disposal facilities by a licensed carrier.
Vegetation control at marshalling yards will be in accordance with Rehabilitation and Vegetation Management Plan.
Petroleum Products (EI-5)
Petroleum products will be transported and handled according to the procedures prescribed by provincial legislation.
Transfer of petroleum products between storage areas and work sites not exceed daily requirements and will be in accordance with provincial legislation and guidelines.
Petroleum products will display required signage, placards and labelling, and will be stored and handled in accordance with provincial legislation.
Warning signs will be posted in visible locations around petroleum product storage areas. Signs will indicate hazard warning, contact in case of a spill, access restrictions and authority.
Portable petroleum product storage containers will be placed on spill trays with a capacity of 110% of the largest container when not in use.
Fuelling of equipment or portable storage tanks will be a minimum of 100 m from the ordinary high water mark of any waterbody.
Slip tanks and barrels will be securely fastened to the vehicle during transport and fuelling operations.
Vehicles hauling petroleum products will carry equipment and materials for emergency spill containment and clean-up.
Used petroleum products (including empty containers) will be collected and transported to a licensed oil recycling facility in approved storage containers.
Contractors will inspect all mobile and stationary equipment using petroleum products on a regular basis to ensure that measures are taken immediately to stop any leakage discovered.
Petroleum product storage sites and mobile transportation units will be equipped with fire suppressant equipment and products.
Rights of Way (PC-8)
Access to transmission line rights-of-way for clearing and construction will utilize existing roads and trails to the extent possible.
In situations where the ROW doesn't have completely frozen or have dry ground conditions alternate products such as construction mats will be used.
Clearing and disturbance will be limited to defined rights-of-way and associated access routes to the extent possible.
Construction vehicles will be wide-tracked or equipped with high floatation tires to minimize rutting and limit damage and compaction to surface soils.
Clearing of rights-of-way will occur under frozen or dry ground conditions during established timing windows to minimize rutting and erosion where applicable .
Stream Crossings (PC-9)
Access road crossings will be at right angles to waterbodies to the extent possible.
Transmission Towers and Conductors (PC-10)

The Construction Supervisor will issue a stop work order if extreme wet weather conditions result in soil damage from rutting and erosion is resulting in sedimentation of adjacent waterbodies.
Vehicle and Equipment Maintenance (EI-9)
An Emergency Preparedness and Response Plan and spill control and clean-up equipment will be provided at all designated vehicle, equipment and machinery maintenance areas.
Emergency vehicle, equipment and machinery maintenance repairs will contain waste fluids and will use drip trays and tarps.
Unnecessary idling of vehicles, equipment and machinery will be avoided to the extent practical.
Vehicle, equipment and machinery maintenance and repairs will be carried out in designated areas located at least 100 m from the ordinary high water mark of a waterbody, riparian area or wetland.
Vehicle, equipment and machinery operators will perform a daily inspection for fuel, oil and fluid leaks and will immediately shutdown and repair any leaks found. All machinery working near watercourses will be kept clean and free of leaks.
Vehicles transporting dangerous goods or hazardous products will display required placards and labelling in accordance with provincial legislation and Manitoba Hydro guidelines.
Vehicles, equipment and machinery must arrive on site in clean condition free of fluid leaks and weed seeds.
Vehicles, equipment and machinery that carry fuel, hydraulic oil and other petroleum products will also carry spill control and clean-up equipment and materials.
Wildlife Protection (EC-9)
Wildlife will not be fed, befriended or harassed at construction areas.
Vehicles will not exceed posted speed limits and wildlife warning signs may be installed in high density areas and at known crossings locations as a result of wildlife monitoring.
Problem wildlife will be reported immediately to Manitoba Conservation and Water Stewardship.
Hunting and harvesting of wildlife by project staff will not be permitted while working on the project sites.
No firearms will be permitted at construction sites.
Wildlife and wildlife habitat will be protected in accordance with provincial and federal legislation and provincial and federal guidelines.
Orientation for Contractor and Manitoba Hydro employees will include awareness of environmental protection measures for wildlife and wildlife habitat.
Any wildlife killed or injured by vehicles will be reported to Manitoba Conservation.
Understory vegetation will be managed at access routes to limit line of sight.
New by-pass trails and access routes will be sited where possible to utilize existing natural terrain features and existing vegetation to minimize line of site.