

Manitoba Hydro will provide Indigenous communities and organization, landowners, interested parties and the public with ongoing opportunities to review and comment on the project. Manitoba Hydro developed a dedicated project webpage to facilitate communication with Indigenous communities and organizations, landowners, interested parties and the public. The environmental protection management team will record and review formal enquiries or complaints for response or action. Manitoba Hydro will also engage Indigenous communities in monitoring of the Project whether it be through field tours offered to community members during construction of the Project or through Indigenous monitoring positions.

9.6.6 Environmental protection plans

Environmental protection plans document environmental protection measures to provide for compliance with regulatory and other requirements, and to achieve environmental protection goals consistent with corporate environmental policies. Manitoba Hydro designed the environmental protection plans as user-friendly reference documents that provide project managers, construction supervisors and contractors with detailed lists of environmental protection measures and other requirements implemented in the design, construction and operation phases of a project.

Manitoba Hydro organized the environmental protection measures by construction component and activity, and environmental component and issue to assist project personnel in implementing measures for work sites and activities.

Manitoba Hydro will develop the environmental protection plans described in the following sections.

9.6.6.1 Construction

The construction environmental protection plan (CEnvPP) will be prepared prior to construction. It is a key element in implementing effective environmental protection and limiting the potential adverse environmental effects identified in the environmental assessment report. It also outlines actions to identify unforeseen environmental effects and implement adaptive management strategies to address them. An important component of an environmental protection plan is review and updating. This allows environmental protection measures to remain current, continually improving environmental performance.

A CEnvPP is composed of general and specific environmental protection measures that cover all aspects of the work and the environment. General environmental protection measures for the project include mitigation measures and follow-up

actions identified in the environmental assessment report, including design mitigation, provincial and federal regulatory requirements, beneficial practice guidelines, Manitoba Hydro environmental policies and commitments, and input during public and Indigenous engagement.

The CEnvPP lists the general environmental protection measures for major components and activities associated with the project. Environmental protection measures are provided for environmentally sensitive sites (ESS) identified during public and Indigenous engagement and assessment activities. Environmentally sensitive sites are locations, features, areas, activities or facilities along or immediately adjacent to the transmission line corridor or other project components that are ecologically, socially, economically or culturally important and sensitive to disturbance by the project and, as a result, require site-specific mitigation measures.

The CEnvPP will contain orthophoto map sheets that provide Manitoba Hydro project managers, construction supervisors, employees, contractors and contract employees with detailed site-specific environmental protection information that can be implemented, managed, evaluated and reported on in the field.

9.6.6.2 Operation and maintenance

As this Project is only a small portion of the entire BP6/BP7 transmission lines from Brandon to Portage, standard mitigation measures will apply during operations and a specific operation and maintenance environmental protection plan is not planned at this time.

9.6.6.3 Decommissioning

A decommissioning environmental protection plan will be prepared at the end of the project's operational life and will contain decommissioning methods, waste and recycling management, and mitigation measures to address environmental effects and legislation that is in effect at that time.

9.6.6.4 Cultural and heritage sites / objects

The fact that cultural and heritage sites / objects have intrinsic value to Manitobans is understood by Manitoba Hydro and addressed through a separate protection plan. The culture and heritage resource protection plan (Appendix H) outlines protection measures in the event of the discovery of previously unrecorded cultural and heritage sites / objects during construction and describes the ongoing monitoring of known cultural and heritage sites / objects for disturbance.

Through Indigenous engagement and previous projects, Manitoba Hydro understands and acknowledges the importance of cultural and heritage sites / objects to Indigenous communities. Manitoba Hydro has developed mechanisms such as notification of discovery and involvement in site investigations, which are further explained in the culture and heritage resource protection plan.

Results from the heritage resources monitoring program will be discussed through Indigenous engagement on an as required basis during construction, as well as through a heritage resources impact assessment to the Manitoba Historic Resources Branch per the terms of the Heritage Resources Act (1986) and heritage permit.

9.6.6.5 Management plans

Management involves the organization of activities and resources to resolve or respond to environmental problems, issues or concerns. Management plans provide reasoned courses of action to achieve pre-defined goals or objectives. Management plans will be prepared to address important management issues, regulatory requirements and corporate commitments identified in the environmental assessment report. The management plans will describe the management actions, roles and responsibilities, evaluation mechanisms, updating requirements and reporting schedules. The following management plans will be prepared prior to the start of construction of the project:

- Access
- Biosecurity
- Blasting
- Erosion protection and sediment control
- Emergency preparedness and response
- Rehabilitation and weed management
- Waste and recycling

Environmental inspectors / officers will conduct regular inspections during construction to ensure adherence to the plans. The following sections describe each plan.

9.6.6.6 Access management plan

Prior to the start of construction, Manitoba Hydro will prepare an access management plan to minimize the need to construct new access roads and trails.

The access management plan will outline:

- The use of existing roads and trails to the extent possible during construction

- Management objectives and principles
- Contact requirements for municipalities, landowners, resource users and other parties consulted prior to accessing lands
- Security requirements, including
 - Terms and conditions for access
 - Restrictions on firearms
 - Hunting and fishing
 - Other resource use activities
- Environmental protection measures including
 - Timing windows
 - Vehicle cleaning and servicing
 - Gate protocols
 - Load restrictions
 - Warning signage
 - Speed limits
 - Sensitive area avoidance
 - Stream crossings
 - Other environmental issues
- Access management issues and mitigation strategies
- Safety of construction workers and the general public
- Respect for First Nation and Métis rights and resource users
- Protection of natural, cultural and heritage sites / objects

9.6.6.7 Biosecurity

Prior to the start of construction Manitoba Hydro will prepare a biosecurity management plan for the project to provide guidance to Manitoba Hydro staff and contractors in order to prevent the introduction and spread of weeds and other pests, including invasive species, in agricultural land and livestock operations through project pre-construction and construction activities.

9.6.6.8 Blasting

Prior to the use of explosives, the contractor will prepare blasting plans to manage the storage and use of explosives at construction sites in accordance with environmental protection measures, provincial and federal legislation and guidelines, and corporate policies for explosives.

9.6.6.9 Emergency preparedness and response

Prior to the start of construction, each contractor will prepare an emergency preparedness and response plan to prepare for and respond to emergencies at construction sites in accordance with provincial legislation and guidelines, and corporate policies and procedures for the protection of human health and the environment. The plan will include the following:

- Spills or releases of hazardous substances, including petroleum products
- Accidents involving hazardous substances
- Medical emergencies
- Explosions and fire
- Measures prescribed for
 - Provision of emergency response planning
 - Responsibilities
 - Training
 - Exercises
 - Procedures
 - Containment
 - Clean-up equipment and materials

9.6.6.10 Erosion protection and sediment control

Prior to the start of construction, Manitoba Hydro will develop an erosion protection and sediment control framework to guide each contractor in preparing an erosion protection and sediment control plan to limit adverse environmental effects of sediment releases on the aquatic environment in accordance with provincial and federal legislation and guidelines, and corporate environment policies and guidelines.

The plan will prescribe environmental protection measures including:

- Frozen ground conditions
- Establishment of buffer zones
- Avoidance of sensitive areas
- Use of bioengineering techniques

9.6.6.11 Rehabilitation and weed management

Prior to the start of construction, Manitoba Hydro will prepare a rehabilitation and weed management plan in accordance with environmental protection measures and provincial guidelines for rehabilitation.

The plan will prescribe measures for:

- Washing equipment and vehicles prior to entering construction sites
- Controlling vegetation at construction sites
- Restoring and re-vegetating disturbed sites

9.6.6.12 Waste and recycling

Prior to the start of construction, Manitoba Hydro or the contractor will develop a waste and recycling management plan to manage waste at construction locations in accordance with provincial legislation and guidelines, and corporate policies and procedures for the protection of human health and the environment.

The plan will include measures for:

- Waste reduction
- Recycling and reusing initiatives
- Storage of kitchen wastes
- Recycling and disposal of construction wastes
- Disposal of wastes at licenced facilities

9.7 Follow-up and monitoring

Follow-up and monitoring are conducted to verify the accuracy of the environmental assessment of a project, assess the effectiveness of measures taken to mitigate adverse effects and determine compliance with regulatory requirements. Manitoba Hydro implements the follow-up and monitoring activity using two programs called inspection and monitoring, which are discussed further in the sections below.

9.7.1 Indigenous engagement

Manitoba Hydro will offer Indigenous communities and organizations environmental protection program meetings to review and discuss the findings of the environmental assessment and engagement and how the information shared will inform the EPP.

Manitoba Hydro will also engage Indigenous communities in monitoring of the Project whether it be through field tours offered to community members during construction of the Project or through Indigenous monitoring positions. Manitoba Hydro will further discuss with Indigenous communities to determine the preferred and most meaningful option for monitoring.

9.7.2 Inspection program

Inspection is the organized examination or evaluation involving observations, measurements and sometimes tests for a construction project or activity. The results of an inspection are compared to specified requirements, drawings and standards for determining whether the item or activity is in conformance with these requirements. Environmental inspection is an essential and key function in environmental protection and implementation of mitigation measures.

Manitoba Hydro has established a comprehensive integrated environmental inspection program to comply with regulatory approvals and meet corporate environmental objectives. The program includes environmental inspectors onsite during construction activities. Manitoba Hydro's approach to environmental inspection includes:

- Compliance with regulatory approvals
- Adherence to environmental protection plans
- Onsite environmental inspectors
- Training and education
- Regular monitoring and inspection during construction
- Interaction with contractors (e.g., pre-construction meeting, daily discussion)
- Regular review of inspection and monitoring information
- Quick response to incidents or changing conditions
- Monthly summary reports
- Regular reporting to regulators
- Notification of regulators of emergency or contingency situations

Environmental inspectors / officers will:

- Visit active work sites to inspect for compliance with licence, permit or other approval terms and conditions, and adherence to environmental protection plan general and specific mitigation measures
- Report all instances of non-compliance to the construction supervisor, contractor and applicable regulatory authority
- Report incidents such as accidents, malfunctions, spills, fires, explosions and environmental damage to the construction supervisor and applicable regulatory authority
- Record all inspection activities in a daily journal and complete daily inspection forms

- Provide daily and monthly inspection reports electronically to the environmental protection information management system for review and viewing by applicable Project staff

Incidents will be dealt with immediately and followed up in subsequent daily inspection reports.

9.7.3 Monitoring program

Due to the small scope of the project and minimal natural habitat, an environmental monitoring plan has not been prepared for this project. However, should inspection discover unknown effects, one will be prepared and implemented.

Should it be required, monitoring will be carried out by Manitoba Hydro and may be contracted to environmental consultants that possess the necessary expertise, equipment and analytical facilities. As well, Manitoba Hydro will also engage Indigenous communities in monitoring of the Project whether it be through field tours offered to community members during construction of the Project or through Indigenous monitoring positions.

9.7.4 Environmental protection information management system

An environmental protection information management system (EPIMS) is the internal central repository of environmental protection information, including:

- Environmental protection documents
- Reference information such as regulations and guidelines
- Inspection reports
- Monitoring field data and reports

The environmental inspection program will employ modern electronic recording, reporting and communication systems using field computers, geographic positioning systems and digital cameras. Field computers will have project and other reference information needed for effective implementation of environmental protection measures, including regulations, guidelines, licences, permits, engineering drawings, specifications, maps, reports and data.

EPIMS is a tool that helps Manitoba Hydro monitor and report on environmental protection implementation, regulatory compliance and incident reporting. EPIMS will be the mechanism to provide reporting and tracking of environmental protection performance, and the foundation of an auditable EPP.

9.8 Pre-construction activities

Manitoba Hydro will undertake several activities prior to commencing construction of the project to set the direction for environmental protection and compliance with legislated requirements. Manitoba Hydro will endeavour to meet with interested Indigenous communities and organizations during the finalization of the construction environmental protection plan to discuss, address and mitigate concerns, to the extent possible, with cultural and environmentally sensitive sites.

Manitoba Hydro will obtain licenses, permits, authorizations and other approvals, including property agreements, right-of-way easements and releases, prior to commencement of construction of each project component. Additional terms and conditions of these approvals will be incorporated into the construction environmental protection plan. Additional approval requirements to be obtained by the contractors will be identified and communicated to the successful bidders.

The Licensing and Environmental Assessment Department will typically participate in the tender / direct negotiated contract development process to make sure environmental requirements are included as contract specifications. Bidders are required to list and defend their environmental record and must have an environmental policy, including a commitment to environmental protection.

Meetings will be held with the contractors to review the environmental protection requirements, establish roles and responsibilities, management, monitoring and other plans, inspection and reporting requirements, and other submittals. Prior to the start of construction, contractor employees will be trained and/or oriented on environmental protection requirements.

9.9 Work stoppage

The duty to stop work rests with everyone encountering situations where the environment, including biophysical, socio-economic and heritage sites / objects, are threatened by an activity or occurrence that has not been previously identified, assessed and mitigated. Work stoppage is also to occur in the event of an environmental accident, extreme weather event or exposed human remains. Individuals discovering such situations are to inform their supervisor who will report the matter to the construction supervisor or environmental inspector / officer immediately. The contractor is also required to stop work voluntarily where construction activities are adversely affecting the environment or where mitigation measures are not effective in controlling environmental effects. Remedial action plans or other environmental protection measures will be developed and implemented

immediately after discussion and prior to resumption of work if previously halted. Work is not to resume until the situation has been assessed and responded to and Manitoba Hydro approves the resumption of work. Stop work orders will be documented, reported to regulatory authorities (if applicable) and reviewed at construction meetings.

9.10 Review and updating

9.10.1 Incident reviews

CEnvPP will be subject to review in the event of an incident, including environmental accidents, fires and explosions, reportable releases of hazardous substances and non-compliance situations.

9.10.2 Auditing

Auditing is a systematic approach to defining environmental risk and/or determining the conformance of an operation with respect to prescribed criteria. An environmental audit typically involves a methodical examination of evidence that may include interviews, site visits, sampling, testing, analysis, and verification of practices and procedures. Environmental protection plans for the project will be subject to internal and external audits through Manitoba Hydro's ISO 140001 registration process. The audit results will help to evaluate the effectiveness of environmental protection measures, to learn from inspection and monitoring programs, and to improve project planning and environmental assessment performance.

9.10.3 List of revisions

A list of revisions will be maintained at the beginning of each environmental protection plan that identifies the nature of the revision, section revised and dates.

9.11 Summary

This chapter outlined the environmental protection program where environmental protection commitments, mitigation measures and follow-up actions identified in this environmental assessment report will be implemented, managed, reported and evaluated. The purpose, organization, responsibilities, management, communication and other aspects of the environmental protection program were described. Environmental protection plans are described as they relate to the construction, operation and decommissioning stages in the project planning cycle and environmental assessment and licensing process. Implementation of follow-up

actions, including inspection, management and auditing are discussed. Environmental management and monitoring plans are also identified.

10.0 Conclusion

The environmental assessment for this project examined potential effects on biophysical and socioeconomic components. Biophysical components assessed include climate, noise and air quality, geology and hydrogeology, terrain and soils, fish and fish habitat, vegetation, and wildlife and wildlife habitat.

Socioeconomic components assessed include human health and safety; parks and recreation, property value, residential development and visual quality; agriculture; and traditional practices, culture and heritage.

The primary mechanism to mitigate potential effects involved the short construction period (four months) during the winter, and a routing process involving studies of the natural and built/socioeconomic environment and including engagement with Indigenous groups, affected landowners, interested parties and the public. The final preferred route was modified based on input and environmental conditions.

Mitigation measures were developed to address effects that were not avoided by routing. In terms of physical environment effects, such as those relating to soil erosion, air quality and noise, the assessment determined that they will typically be localized and short in duration. Effects to the natural environment in the project region consist mainly of agricultural land and there are few areas of natural habitat that would be crossed by the project. Natural terrestrial habitat is limited. There are several wildlife species of conservation concern that may occur in the region, but few natural areas near the transmission line where they could occur. The presence of the transmission line may result in bird-wire collisions, but not at levels that would have measurable effects to regional populations. The route crosses Crescent Lake and is adjacent to the Assiniboine River for several hundred meters. With mitigation, no effects to fish habitat are expected.

The project is expected to result in positive economic benefits to the region, through the presence of the workforce, but also indirectly, through facilitating development of industry. There will be a slight increase in traffic associated with the workforce, but the volume will be low and outside of traditionally heavy traffic periods.

Known heritage sites were mostly avoided during the routing process, with measures developed to manage previously un-discovered cultural or heritage sites / objects.

The proposed route avoids private residences

The route runs adjacent to several recreational facilities and there are over 50 within 500 m that would experience some noise and/or visual intrusion.

A full description of effects to harvesting as a result of the project are provided within each Indigenous Knowledge report. Manitoba Hydro understands the severity of the residual effects to vary between communities but overall, the project has low impacts due to its presence within a relatively exurban location.

The proposed route travels on or adjacent to agricultural land so there will be effects associated with the inconvenience, nuisance and increased production costs associated with operating farming equipment and crop production. Manitoba Hydro has developed a compensation policy for landowners that grant an easement for a transmission line right-of-way and for incidental and or physical damages to property during construction.

The environmental assessment includes an evaluation of potential cumulative effects and effects of the environment on the project, as well as an analysis of potential accidents, malfunctions and unplanned events. It also includes a description of the environmental protection program developed for the project, including the various roles, communication protocols, and commitments to monitor project activities and manage potential effects.

Based on the routing process, and the measures developed to mitigate and manage any potential adverse effects, the conclusion of environmental assessment was that the residual effects were predicted to be considered not significant.

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