BIPOLE III TRANSMISSION PROJECT
CONSTRUCTION ENVIRONMENTAL PROTECTION PLAN
- SECTION S1

PART II

Manitoba Hydro

Aboriginal Traditional Knowledge

Manitoba Hydro recognizes the unique relationship Aboriginal communities have with their areas of use and is appreciative to all the communities who took time to share information about their history and culture as well as their valued knowledge and perspectives with regards to the Bipole III study area and Project. The ATK that has been shared assisted Manitoba Hydro in: developing a greater understanding of the study area; identifying potential Project effects; planning and designing the Project; developing potential mitigation measures, some of which can be found throughout this document.

Document Owner:
Licensing and Environmental Assessment Department
Transmission Planning and Design Division
Transmission Business Unit
Manitoba Hydro

Final 2.03

List of Revisions- BPIII Environmental Protection Plan (S1)

Number	Nature of Revision	Page/Map #	Revised By	Date
1.01	Sensitive sites (Not ESS) are symbolized grey with white halos for visibility	Any Map that has SS	Stantec	Oct 6 2015
1.02	To prevent confusion between what is an access trail and what is an ESS, all Accss ESS features will now be called RecUse eg "N4-Accss-100" will now be "N4-RecUse-100" to avoid confusion	Maps 291,296,29 and 304	Stantec	Oct 6 2015
1.03	Updated site mitigation for S1-Soils-300 and S1-Soils-301	Page 291-293	Manitoba Hydro	Oct 6 2015
1.04	Removed the mitigation measure that indicates a timing window as this is observed throughout the project not just at that specific ESS and indicated in the appendix of the text CEnvPP document	Any map with ESS Group: Birds and Habitat on it	Manitoba Hydro	Oct 6 2015
1.05	Updated drain crossing mitigation for select drains as wording restricted construction to winter work only	Drains that had low habitat sensitivity	Manitoba Hydro	Oct 6 2015
1.06	Change in tower location for tower 6196	Located on Maps 291-292	Manitoba Hydro	Oct 21 2015
1.07	Removed labels from major stream crossings, rail crossing and transmission line crossings, and access route points. Labels for access routes remain.	Any associated Map	Manitoba Hydro	20151103
1.08	Tower Location updates received from Manitoba Hydro	Any associated maps	Stantec	20151105
1.09	Consolidated S1-Soils-300, and S1-Soils-301 into a single feature (S1-Soils-300) and assigned special mitigation for that area	Maps 291-293	Manitoba Hydro	20151109
1.10	Added Registered Archaeological sites missing from previous version (S1-Hert-106A-C,S1-Hert-108A,B)	Maps 292-293	Manitoba Hydro	20151116
1.11	Assembly error in the pdf, there are two pages of mitigation text for map 291 that are misplaced and appear after the text for map 293. The misplaced text can be removed and stapled in the correct place	Map text 291	Manitoba Hydro	20151202

1.12	Tower 6197 had been shifted from original design location, this amendment was to add Hert-104A which notes that Project Archaeologist will be on site when tower is constructed	Map 291 and Text Page 291	Manitoba Hydro	20151222
1.13	Mitigation measures for Aqua points have included a timing window statement that considered fall spawning fish "No instream works or fording from September to…" These fish are unlikely to occur in streams and therefore aren't a concern in stream crossings. This statement will be updated in subsequent versions to read "No instream works or fording from April 1 - July 15"	Text Pages 271-273; 275; 277-280; 282; 287-288; 292-294	Manitoba Hydro	20160202
2.0	Addition of Invasive Species Polygons S1-INV-400-402	Maps 291 & 292	Manitoba Hydro	20161104
2.0	Addition of Annotation of Rural Road Layer	Any associated map	Stantec	20161104
2.01	Addition of text to clarify the need for the project archaeologist to be present during tower footing excavation 6197,6199,6200 and 6207	Maps 291, 292, 293	Manitoba Hydro	20161123
2.02	Update Section-Segment IDs to account for route realignment	All S1 Maps	Stantec	20170123
2.03	Addition of legal land description labels to maps with recent route realignment	Maps 270-275	Stantec	20170208

Bipole III Transmission Project
Construction Environmental Protection Plan
S1 Planning Section
Map Index

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Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: January 23, 2017
Version: Final 2.03

0 125 250 500
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Land Base
- Transmission Line
- Highway
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- Local Road
- Railway (Operational)
- Railway (Discontinued)
- First Nation
- Mining
- Provincial Forest
- Parcel Fabric

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- Angle Tower Locations
- Towers (Preliminary)
- BPIII Final Preferred Route
- 66 m Right of Way

*Towers are subject to change, and are only used as a rough guide

Sensitive Sites
- Point Features
- Linear Features
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*Currently outside the Project footprint

Points of Access*
- Proposed Access Point
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ESS Features
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Bipole III Transmission Project
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Environmentally Sensitive Site Locations

Map 270

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S1-S01	S1-Eco-300	Species of Concern (Plant)	Site: 1A to 1B	E-521578 N-5587566	E-521600 N-5581742	14N	5824m

Potential Effects:

Potential loss of previously known plants of conservation concern from clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing access roads and trails to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Stabilize sites immediately after construction and re-vegetate disturbed areas in accordance with site Rehabilitation Plan

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ESS Features
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Map 271

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S1-S01	S1-Eco-300	Species of Concern (Plant)	Site: 1A to 1B	E-521578 N-5587566	E-521600 N-5581742	14N	5824m

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ESS Features

Water
- Water Crossing

Ecosystem
- Species of Concern

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Map 272

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S1-S01	S1-Eco-300	Species of Concern (Plant)	Site: 1A to 1B	E-521578 N-5587566	E-521600 N-5581742	14N	5824m
S1-S02	S1-Eco-300	Species of Concern (Plant)	Site: 1C to 1D	E-521600 N-5581742	E-522408 N-5580983	14N	1108m
S1-S03	S1-Eco-300	Species of Concern (Plant)	Site: 1E to 1F	E-522408 N-5580983	E-522421 N-5578564	14N	2425m

Potential Effects:

Potential loss of previously known plants of conservation concern from clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing access roads and trails to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Stabilize sites immediately after construction and re-vegetate disturbed areas in accordance with site Rehabilitation Plan

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
S1-S01	S1-Aqua-103	Unnamed drain	521593	5581809	14N	No Data	No Data	No Data	No Data

Potential Effects:

Increased erosion and sedimentation of streams

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion. If wet conditions, one time fording is permitted
- Use existing trails, roads or cut lines whenever possible as access routes
- 7m no machine zone will restrict equipment in close proximity to the waterbody except at the trail crossing.
- Limit machinery fording of the watercourse to a one-time event (over and back) only if no alternative crossing method is available. If repeated crossings of the watercourse are necessary prior approval from the MH Environmental Inspector is required
- Locate crossings perpendicular to the bank, whenever possible.
- Immediately stabilize shoreline or banks disturbed by any activity associated with the project to prevent erosion and/or sedimentation, preferably through re-vegetation with native species suitable for the site.

Manitoba Hydro

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- 66 m Right of Way

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ESS Features
Ecosystem
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Environmentally Sensitive Site Locations

Map 273

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S1-S03	S1-Eco-300	Species of Concern (Plant)	Site: 1E to 1F	E-522408 N-5580983	E-522421 N-5578564	14N	2425m
S1-S04	S1-Eco-300	Species of Concern (Plant)	Site: 1G to 1H	E-522421 N-5578564	E-523265 N-5578564	14N	846m

Potential Effects:

Potential loss of previously known plants of conservation concern from clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing access roads and trails to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Stabilize sites immediately after construction and re-vegetate disturbed areas in accordance with site Rehabilitation Plan

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ESS Features

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Map 273A

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- Linear Features
- Area Features

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- Transmission Line Crossing
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ESS Features

Bipole III Transmission Project
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Map 273B

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ESS Features

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Map 274

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ESS Features

Water
- Water Crossing

Water
- Water Crossing

Bipole III Transmission Project
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Environmentally Sensitive Site Locations

Map 275

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S1-S07	S1-Aqua-106	Small, unnamed waterbody	Site: 9 to 10	E-520901 N-5568135	E-520901 N-5568097	14N	37m

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbances and impeded fish movement; Rutting of floodplain

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Identify and flag buffer areas prior to start of work
- Riparian Buffers shall be a minimum of 30m and increase in size based on slope of land entering waterway. Within these buffers shrub and herbaceous understory veg will be maintained along with trees that do not violate MH Veg Clearance Requirements.
- 7m no machine zone will restrict equipment in close proximity to the waterbody except at the trail crossing.
- No instream work or fording from April 1 to July 15

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ESS Features
Water
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Environmentally Sensitive Site Locations

Map 276

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
S1-S07	S1-Aqua-107	Unnamed drain	520899	5565441	14N	No Data	No Data	No Data	No Data

Potential Effects:

Increased erosion and sedimentation of streams

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion. If wet conditions, one time fording is permitted
- Use existing trails, roads or cut lines whenever possible as access routes
- 7m no machine zone will restrict equipment in close proximity to the waterbody except at the trail crossing.
- Limit machinery fording of the watercourse to a one-time event (over and back) only if no alternative crossing method is available. If repeated crossings of the watercourse are necessary prior approval from the MH Environmental Inspector is required
- Locate crossings perpendicular to the bank, whenever possible.
- Immediately stabilize shoreline or banks disturbed by any activity associated with the project to prevent erosion and/or sedimentation, preferably through re-vegetation with native species suitable for the site.