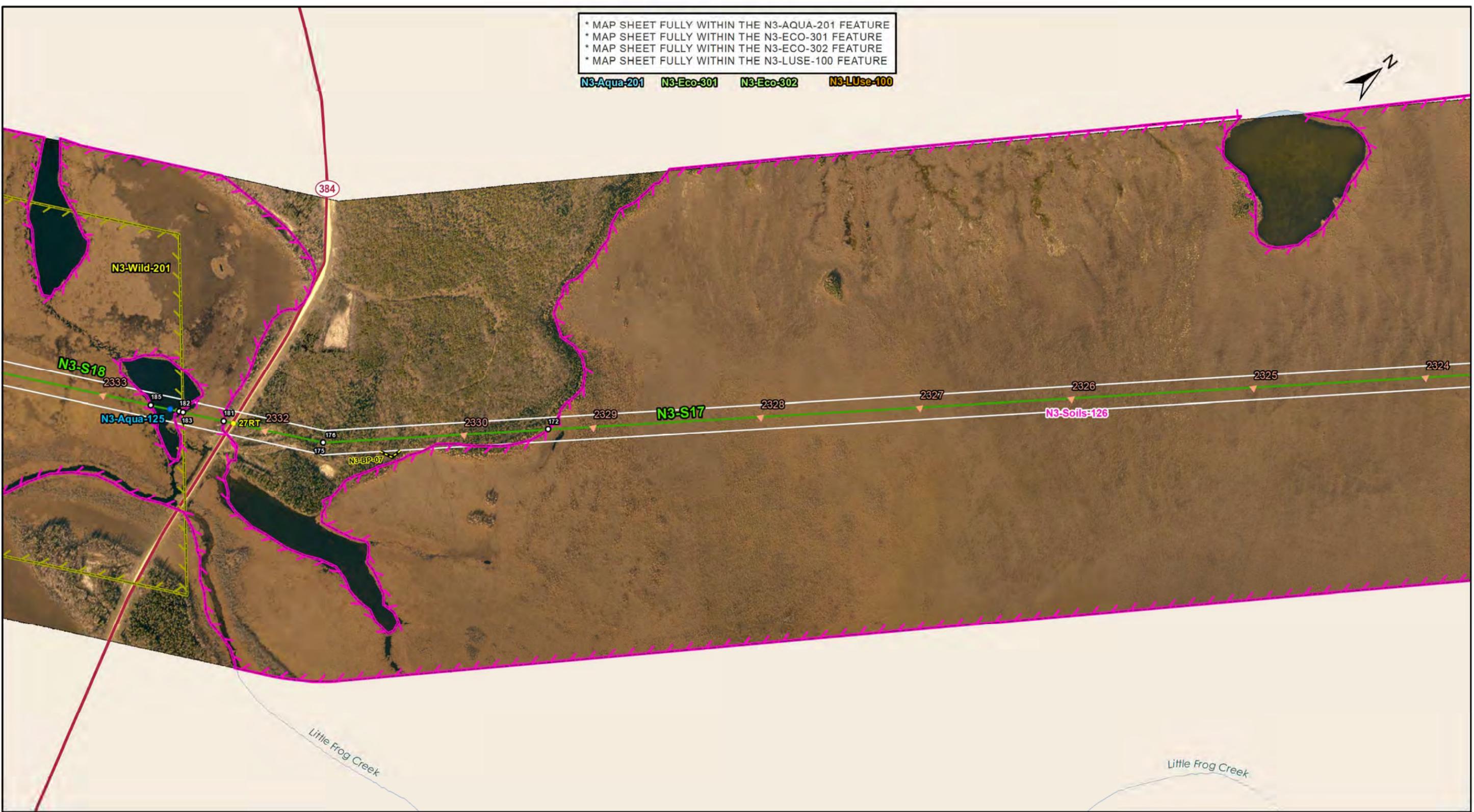


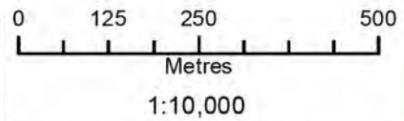
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* MAP SHEET FULLY WITHIN THE N3-AQUA-201 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-ECO-301 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-ECO-302 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-LUSE-100 FEATURE

N3-Aqua-201 N3-Eco-301 N3-Eco-302 N3-LUse-100



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: October 31, 2016
 Version: Final 4.0



Land Base

- Transmission Line
- Highway
- Major Road
- Local Road
- Winter Road
- Railway (Operational)
- Railway (Discontinued)
- Mining
- Provincial Park

Project Infrastructure

- 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
- Area Features

**Currently outside the Project footprint*

Points of Access

- Proposed Access Point
- Major Stream Crossing
- Abandoned Rail Crossing
- Rail Crossing
- Transmission Line Crossing
- Bypass Trails
- Approved Access Route

ESS Features

Water

- Water Crossing
- Groundwater

Land Use

- Conservation

Ecosystem

- Species of Concern

Soils and Terrain

- Permafrost

Wildlife

- Mammals and Habitat

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N3
 Environmentally Sensitive Site Locations**

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S18	N3-Aqua-125	Unnamed tributary of Little Frog Creek	372650	5979847	14N	100m	100m	Moderate	Marginal

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 works or fording from April 1 - July 15

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Wild-201	Moose Habitat	Site: 183 to 184	E-372678 N-5979869	E-365184 N-5973830	14N	9623 m

Potential Effects:

Moose Concerns

Specific Mitigation:

- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S17	N3-LUse-100	Tom Lamb WMA	Site: 159 to 163	E-376423 N-5984938	E-372982 N-5980114	14N	5925 m
N3-S18	N3-LUse-100	Tom Lamb WMA	Site: 174 to 180	E-372982 N-5980114	E-365184 N-5973830	14N	10014 m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Must not place food for the purpose of attracting, feeding or holding bears
- All project staff must record all bears encountered/observed on a daily basis, any observations of bears or bear tracks must be reported to the MH Site Environmental Officer or MH Environmental Inspector
- All garbage must be stored in bear proof containers or within electric fencing and removed from Wildlife Management Area
- Clearing within the ROW will be kept to a minimum and with non -non-hazard trees removed. Any trees that are cleared must be cut, piled and burned under safe conditions.
- Carry out construction activities on well frozen ground in wetlands.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S17	N3-Aqua-201	Aquifers Vulnerable to contamination	Site: 160 to 166	E-376423 N-5984938	E-372982 N-5980114	14N	5925 m
N3-S18	N3-Aqua-201	Aquifers Vulnerable to contamination	Site: 175 to 178	E-372982 N-5980114	E-368783 N-5976730	14N	5392 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., spill)

Specific Mitigation:

- Marshalling yards will be located on upland sites where possible.
- An Emergency Preparedness and Spill Response Plan will be developed and an emergency response spill kit will be kept on-site at all times in case of fluid leaks or spills from machinery.
- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S17	N3-Soils-126	Permafrost	Site: 171 to 172	E-375381 N-5983478	E-373338 N-5980614	14N	3518 m
N3-S18	N3-Soils-126	Permafrost	Site: 181 to 182	E-372766 N-5979940	E-372669 N-5979862	14N	124 m
N3-S18	N3-Soils-126	Permafrost	Site: 185 to 186	E-372608 N-5979813	E-371989 N-5979314	14N	795 m

Potential Effects:

Melting or loss of permafrost due to disturbance of the active layer

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S17	N3-Eco-301	Species of Concern	Site: 161 to 164	E-376423 N-5984938	E-372982 N-5980114	14N	5925 m
N3-S18	N3-Eco-301	Species of Concern	Site: 173 to 177	E-372982 N-5980114	E-369067 N-5976959	14N	5027 m
N3-S17	N3-Eco-302	Species of Concern	Site: 162 to 165	E-376423 N-5984938	E-372982 N-5980114	14N	5925 m
N3-S18	N3-Eco-302	Species of Concern	Site: 176 to 179	E-372982 N-5980114	E-368056 N-5976145	14N	6325 m

Potential Effects:

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

Specific Mitigation:

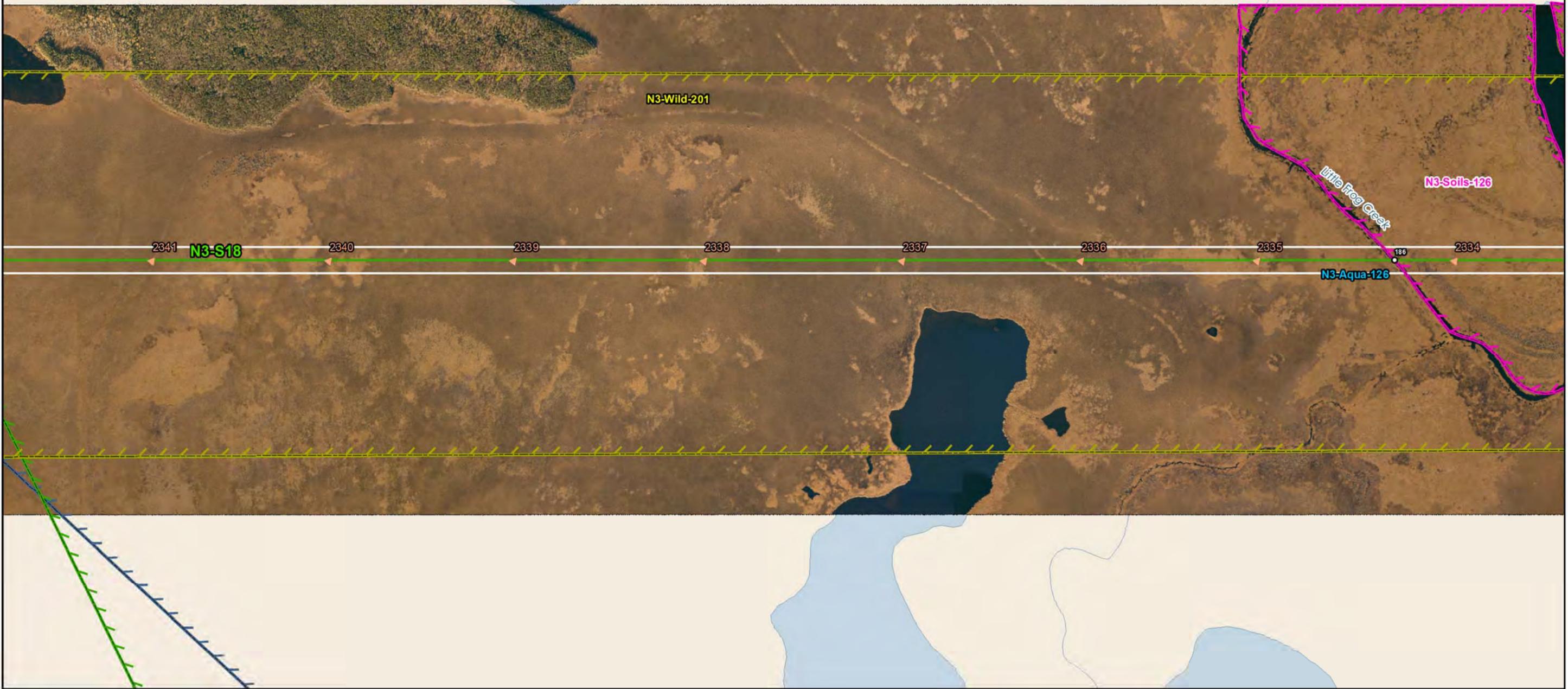
- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing access roads and trails to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Stabilize sites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

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* MAP SHEET FULLY WITHIN THE N3-AQUA-201 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-ECO-301 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-ECO-302 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-LUSE-100 FEATURE

N3-Aqua-201 N3-Eco-301 N3-Eco-302 N3-LUse-100



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: October 31, 2016
 Version: Final 4.0

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Land Base

- Transmission Line
- Highway
- Major Road
- Local Road
- Winter Road
- Railway (Operational)
- Railway (Discontinued)
- Mining
- Provincial Park

Project Infrastructure

- 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
- Area Features

*Currently outside the Project footprint

Points of Access

- Proposed Access Point
- Major Stream Crossing
- Abandoned Rail Crossing
- Rail Crossing
- Transmission Line Crossing
- Bypass Trails
- Approved Access Route

ESS Features

Water

- Water Crossing
- Groundwater

Land Use

- Conservation

Ecosystem

- Species of Concern

Soils and Terrain

- Permafrost

Wildlife

- Mammals and Habitat

Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N3 Environmentally Sensitive Site Locations

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S18	N3-Aqua-126	Little Frog Creek	371989	5979314	14N	N/A	8m	Moderate	Important

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 works or fording from April 1 - July 15

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Wild-201	Moose Habitat	Site: 183 to 184	E-372678 N-5979869	E-365184 N-5973830	14N	9623 m

Potential Effects:

Moose Concerns

Specific Mitigation:

- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S17	N3-LUse-100	Tom Lamb WMA	Site: 159 to 163	E-376423 N-5984938	E-372982 N-5980114	14N	5925 m
N3-S18	N3-LUse-100	Tom Lamb WMA	Site: 174 to 180	E-372982 N-5980114	E-365184 N-5973830	14N	10014 m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Must not place food for the purpose of attracting, feeding or holding bears
- All project staff must record all bears encountered/observed on a daily basis, any observations of bears or bear tracks must be reported to the MH Site Environmental Officer or MH Environmental Inspector
- All garbage must be stored in bear proof containers or within electric fencing and removed from Wildlife Management Area
- Clearing within the ROW will be kept to a minimum and with non -non-hazard trees removed. Any trees that are cleared must be cut, piled and burned under safe conditions.
- Carry out construction activities on well frozen ground in wetlands.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Aqua-201	Aquifers Vulnerable to contamination	Site: 175 to 178	E-372982 N-5980114	E-368783 N-5976730	14N	5392 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., spill)

Specific Mitigation:

- Marshalling yards will be located on upland sites where possible.
- An Emergency Preparedness and Spill Response Plan will be developed and an emergency response spill kit will be kept on-site at all times in case of fluid leaks or spills from machinery.
- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Soils-126	Permafrost	Site: 185 to 186	E-372608 N-5979813	E-371989 N-5979314	14N	795 m

Potential Effects:

Melting or loss of permafrost due to disturbance of the active layer

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Eco-301	Species of Concern	Site: 173 to 177	E-372982 N-5980114	E-369067 N-5976959	14N	5027 m
N3-S18	N3-Eco-302	Species of Concern	Site: 176 to 179	E-372982 N-5980114	E-368056 N-5976145	14N	6325 m

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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	<p>Coordinate System: UTM Zone 14N NAD83 Data Source: MB Hydro, ProvMB, NRCAN Date Created: October 31, 2016 Version: Final 4.0</p>	<p>Land Base</p> <ul style="list-style-type: none"> Transmission Line Highway Major Road Local Road Winter Road Railway (Operational) Railway (Discontinued) Mining Provincial Park 	<p>Project Infrastructure</p> <ul style="list-style-type: none"> Angle Tower Locations* Towers (Preliminary)* BPIII Final Preferred Route 66 m Right of Way <p><small>*Towers are subject to change, and are only used as a rough guide.</small></p> <p>Sensitive Sites*</p> <ul style="list-style-type: none"> Point Features Linear Features Area Features <p><small>*Currently outside the Project footprint</small></p>	<p>Points of Access</p> <ul style="list-style-type: none"> Proposed Access Point Major Stream Crossing Abandoned Rail Crossing Rail Crossing Transmission Line Crossing Bypass Trails Approved Access Route 	<p>ESS Features</p> <p>Water</p> <ul style="list-style-type: none"> Water Crossing <p>Land Use</p> <ul style="list-style-type: none"> Conservation <p>Ecosystem</p> <ul style="list-style-type: none"> Species of Concern <p>Water</p> <ul style="list-style-type: none"> Groundwater 	<p>Wildlife</p> <ul style="list-style-type: none"> Mammals and Habitat 	<p align="center"> Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N3 Environmentally Sensitive Site Locations </p> <p align="right">Map 152</p>

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S18	N3-Aqua-127	Unnamed tributary of Little Frog Creek	369024	5976925	14N	23m	N/A	Low	No Fish Habitat
N3-S18	N3-Aqua-128	Unnamed tributary of Little Frog Creek	368260	5976310	14N	19m	N/A	Low	No Fish Habitat
N3-S18	N3-Aqua-130	Unnamed tributary of Little Frog Creek	367917	5976033	14N	30m	N/A	Low	No Fish Habitat
N3-S18	N3-Aqua-131	Unnamed tributary of Little Frog Creek	367723	5975877	14N	26m	N/A	Low	No Fish Habitat
N3-S18	N3-Aqua-132	Unnamed tributary of Little Frog Creek	366743	5975087	14N	16m	N/A	Low	No Fish Habitat

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation

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.

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S18	N3-Aqua-129	Unnamed tributary of Little Frog Creek	368125	5976201	14N	28m	28m	Moderate	Important

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 works or fording from April 1 - July 15

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Wild-201	Moose Habitat	Site: 183 to 184	E-372678 N-5979869	E-365184 N-5973830	14N	9623 m

Potential Effects:

Moose Concerns

Specific Mitigation:

- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-LUse-100	Tom Lamb WMA	Site: 174 to 180	E-372982 N-5980114	E-365184 N-5973830	14N	10014 m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Must not place food for the purpose of attracting, feeding or holding bears
- All project staff must record all bears encountered/observed on a daily basis, any observations of bears or bear tracks must be reported to the MH Site Environmental Officer or MH Environmental Inspector
- All garbage must be stored in bear proof containers or within electric fencing and removed from Wildlife Management Area
- Clearing within the ROW will be kept to a minimum and with non-hazard trees removed. Any trees that are cleared must be cut, piled and burned under safe conditions.
- Carry out construction activities on well frozen ground in wetlands.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Aqua-201	Aquifers Vulnerable to contamination	Site: 175 to 178	E-372982 N-5980114	E-368783 N-5976730	14N	5392 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., spill)

Specific Mitigation:

- Marshalling yards will be located on upland sites where possible.
- An Emergency Preparedness and Spill Response Plan will be developed and an emergency response spill kit will be kept on-site at all times in case of fluid leaks or spills from machinery.
- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Eco-301	Species of Concern	Site: 173 to 177	E-372982 N-5980114	E-369067 N-5976959	14N	5027 m
N3-S18	N3-Eco-302	Species of Concern	Site: 176 to 179	E-372982 N-5980114	E-368056 N-5976145	14N	6325 m

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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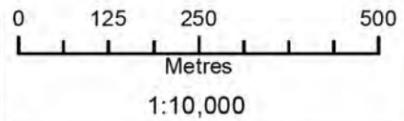
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* MAP SHEET FULLY WITHIN THE N3-LUSE-100 FEATURE

N3-LUse-100



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: October 31, 2016
 Version: Final 4.0



- Land Base**
- Transmission Line
 - Highway
 - Major Road
 - Local Road
 - Winter Road
 - Railway (Operational)
 - Railway (Discontinued)
 - Mining
 - Provincial Park

- Project Infrastructure**
- Angle Tower Locations*
 - Towers (Preliminary)*
 - BP/III 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
 - Area Features
- *Currently outside the Project footprint

- Points of Access**
- Proposed Access Point
 - Major Stream Crossing
 - Abandoned Rail Crossing
 - Rail Crossing
 - Transmission Line Crossing
 - Bypass Trails
 - Approved Access Route

- ESS Features**
- Water**
- Water Crossing
 - Groundwater
- Land Use**
- Conservation
 - Erosion
 - Terrain
- Wildlife**
- Mammals and Habitat

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N3
 Environmentally Sensitive Site Locations**

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S19	N3-Aqua-133	Unnamed pond	364204	5972084	14N	N/A	N/A	Low	No Fish Habitat

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.

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-Wild-201	Moose Habitat	Site: 183 to 184	E-372678 N-5979869	E-365184 N-5973830	14N	9623 m
N3-S19	N3-Wild-201	Moose Habitat	Site: 188 to 189	E-365184 N-5973830	E-363617 N-5971038	14N	3202 m

Potential Effects:

Moose Concerns

Specific Mitigation:

- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S18	N3-LUse-100	Tom Lamb WMA	Site: 174 to 180	E-372982 N-5980114	E-365184 N-5973830	14N	10014 m
N3-S19	N3-LUse-100	Tom Lamb WMA	Site: 187 to 190	E-365184 N-5973830	E-363617 N-5971038	14N	3202 m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Must not place food for the purpose of attracting, feeding or holding bears
- All project staff must record all bears encountered/observed on a daily basis, any observations of bears or bear tracks must be reported to the MH Site Environmental Officer or MH Environmental Inspector
- All garbage must be stored in bear proof containers or within electric fencing and removed from Wildlife Management Area
- Clearing within the ROW will be kept to a minimum and with non -non-hazard trees removed. Any trees that are cleared must be cut, piled and burned under safe conditions.
- Carry out construction activities on well frozen ground in wetlands.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Aqua-202	Freshwater artesian areas	Site: 191 to 192	E-364203 N-5972083	E-363617 N-5971038	14N	1198 m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); Also, potential level drop in the aquifer.

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture.

ESS Group: Erosion

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 195 to 197	E-363934 N-5971603	E-363617 N-5971038	14N	648 m

Potential Effects:

Loss of topsoil due to wind erosion (e.g. creep, saltation, suspension) on disturbed surfaces.

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
- Avoid dry soil conditions with high and severe wind erosion risk to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Soils-401	Enduring Features (Unique Terrain/Soil Features)	Site: 193 to 194	E-364115 N-5971927	E-363617 N-5971038	14N	1019m

Potential Effects:

Impairment or loss of approximately 67 ha (0.18 %) of single occurrence PAI enduring feature from right-of-way establishment.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid development of new borrow areas, access routes and other activities within enduring features
- Maintain 100m setback around feature outside of ROW
- Minimize movement of vehicles, machinery and equipment during construction
- Prevent off-ROW activities and equipment use within terrain feature, during construction

ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Soils-400	Steep/Unstable Slopes	Site: 196 to 198	E-363934 N-5971603	E-363617 N-5971038	14N	648 m

Potential Effects:

Loss of topsoil due to water erosion (e.g. sheet, rill, gully) on disturbed surfaces; mass-movement due to slope destabilization.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid construction on steep slopes or the creation of steep slopes to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

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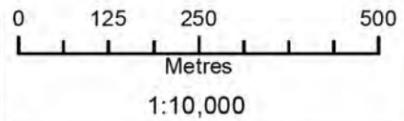
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* MAP SHEET FULLY WITHIN THE N3-SOILS-401 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-AQUA-202 FEATURE



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: October 31, 2016
 Version: Final 4.0



- Land Base**
- Transmission Line
 - Highway
 - Major Road
 - Local Road
 - Winter Road
 - Railway (Operational)
 - Railway (Discontinued)
 - Mining
 - Provincial Park

- Project Infrastructure**
- Angle Tower Locations*
 - Towers (Preliminary)*
 - BP/III 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
 - Area Features
- *Currently outside the Project footprint

- Points of Access**
- Proposed Access Point
 - Major Stream Crossing
 - Abandoned Rail Crossing
 - Rail Crossing
 - Transmission Line Crossing
 - Bypass Trails
 - Approved Access Route

- ESS Features**
- | | |
|--------------------------|---------------------|
| Heritage | Water |
| Archaeological | Groundwater |
| Water | Water Crossing |
| Water Crossing | Wildlife |
| Land Use | Mammals and Habitat |
| Conservation | |
| Soils and Terrain | |
| Erosion | |
| Terrain | |

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N3
 Environmentally Sensitive Site Locations**

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N3-S19	N3-Hert-104	Saskatchewan River	363610	5970734	14N

Potential Effects:

Potential disturbance to Heritage Resources

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Identify and flag prior to start of work
- Conduct site investigation with Archaeologist post clearing and prior to construction
- Minimize surface disturbance around the site to the extent possible
- Inspect excavated materials or surface disturbance for heritage resources and report any finds to Environmental Inspector
- Implement additional mitigation from site investigation

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S20	N3-Aqua-134	Saskatchewan River	363606	5970575	14N	250m	250m	Moderate	Important

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 works or fording from April 1 - July 15

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Wild-201	Moose Habitat	Site: 188 to 189	E-365184 N-5973830	E-363617 N-5971038	14N	3202 m
N3-S20	N3-Wild-201	Moose Habitat	Site: 207 to 210	E-363617 N-5971038	E-363610 N-5970769	14N	268 m

Potential Effects:

Moose Concerns

Specific Mitigation:

- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-LUse-100	Tom Lamb WMA	Site: 187 to 190	E-365184 N-5973830	E-363617 N-5971038	14N	3202 m
N3-S20	N3-LUse-100	Tom Lamb WMA	Site: 205 to 211	E-363617 N-5971038	E-363601 N-5970423	14N	614 m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Must not place food for the purpose of attracting, feeding or holding bears
- All project staff must record all bears encountered/observed on a daily basis, any observations of bears or bear tracks must be reported to the MH Site Environmental Officer or MH Environmental Inspector
- All garbage must be stored in bear proof containers or within electric fencing and removed from Wildlife Management Area
- Clearing within the ROW will be kept to a minimum and with non -non-hazard trees removed. Any trees that are cleared must be cut, piled and burned under safe conditions.
- Carry out construction activities on well frozen ground in wetlands.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Aqua-203	Aquifers Vulnerable to contamination	Site: 199 to 200	E-363758 N-5971290	E-363617 N-5971038	14N	289 m
N3-S20	N3-Aqua-203	Aquifers Vulnerable to contamination	Site: 202 to 214	E-363617 N-5971038	E-363395 N-5962364	14N	8676 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., spill)

Specific Mitigation:

- Marshalling yards will be located on upland sites where possible.
- An Emergency Preparedness and Spill Response Plan will be developed and an emergency response spill kit will be kept on-site at all times in case of fluid leaks or spills from machinery.
- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Aqua-202	Freshwater artesian areas	Site: 191 to 192	E-364203 N-5972083	E-363617 N-5971038	14N	1198 m
N3-S20	N3-Aqua-202	Freshwater artesian areas	Site: 201 to 212	E-363617 N-5971038	E-363480 N-5965689	14N	5350 m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); Also, potential level drop in the aquifer.

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture.

ESS Group: Waterbody/ Riparian Buffer

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S20	N3-Aqua-135	Unnamed agricultural drain	Site: 215 to 216	E-363569 N-5969183	E-363569 N-5969162	14N	20 m

Potential Effects:

Increased erosion and sedimentation; rutting of floodplains; loss of riparian vegetation

Specific Mitigation:

- 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.

ESS Group: Erosion

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 195 to 197	E-363934 N-5971603	E-363617 N-5971038	14N	648 m
N3-S20	N3-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 206 to 209	E-363617 N-5971038	E-363611 N-5970823	14N	214 m

Potential Effects:

Loss of topsoil due to wind erosion (e.g. creep, saltation, suspension) on disturbed surfaces.

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
- Avoid dry soil conditions with high and severe wind erosion risk to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Soils-401	Enduring Features (Unique Terrain/Soil Features)	Site: 193 to 194	E-364115 N-5971927	E-363617 N-5971038	14N	1019m
N3-S20	N3-Soils-401	Enduring Features (Unique Terrain/Soil Features)	Site: 203 to 213	E-363617 N-5971038	E-363395 N-5962364	14N	8676m

Potential Effects:

Impairment or loss of approximately 67 ha (0.18 %) of single occurrence PAI enduring feature from right-of-way establishment.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid development of new borrow areas, access routes and other activities within enduring features
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ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S19	N3-Soils-400	Steep/Unstable Slopes	Site: 196 to 198	E-363934 N-5971603	E-363617 N-5971038	14N	648 m
N3-S20	N3-Soils-400	Steep/Unstable Slopes	Site: 204 to 208	E-363617 N-5971038	E-363611 N-5970823	14N	214 m

Potential Effects:

Loss of topsoil due to water erosion (e.g. sheet, rill, gully) on disturbed surfaces; mass-movement due to slope destabilization.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid construction on steep slopes or the creation of steep slopes to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan