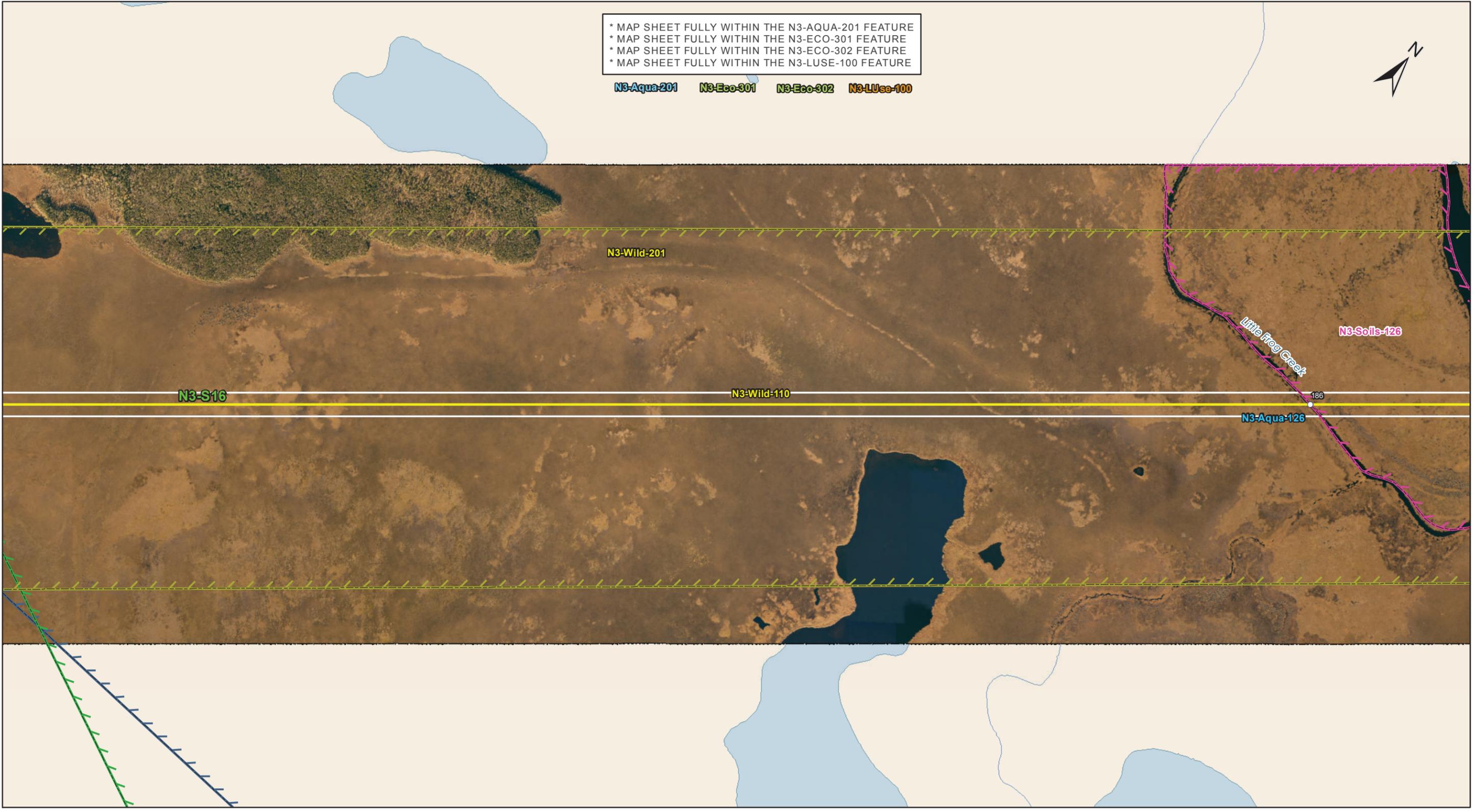


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* MAP SHEET FULLY WITHIN THE N3-AQUA-201 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-ECO-301 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-ECO-302 FEATURE
 * MAP SHEET FULLY WITHIN THE N3-LUSE-100 FEATURE

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: November 29, 2013

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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
- BPIII Final Preferred Route
- 66 m Right of Way

Points of Access*

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

*Labels correspond to BPIII Access Management Database

ESS Features

- Water**
- Water Crossing
- Wildlife**
- Birds and Habitat
- Wildlife**
- Mammals and Habitat
- Ecosystem**
- Species of Concern
- Land Use**
- Conservation

Soils and Terrain

- Permafrost
- Water**
- Groundwater

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

MAP NUMBER : 151

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Aqua-201	Aquifers vulnerable to contamination	Site: 165 to 166	E-376422 N-5984936	E-372982 N-5980114	14N	10329m

Potential Effects:

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

Specific Mitigation:

- Marshaling 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

ESS Group : Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-LUse-100	Tom Lamb WMA	Site: 177 to 178	E-372982 N-5980114	E-365184 N-5973831	14N	10015m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Subject to permit conditions

ESS Group : Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Eco-301	Plant Species of Concern	Site: 175 to 176	E-372982 N-5980114	E-369067 N-5976145	14N	5028m

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 roads and access 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 : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Wild-110	Waterfowl and colonial bird sensitivity area	Site: L13 to L14	E-372764 N-5979938	E-365184 N-5973830	14N	9734m

Potential Effects:

Higher risk of wire collision, disturbance during breeding and nesting, risk of wire collision is localized to the right-of-way while construction disturbance can effect colonies up to 1000 meters away

Specific Mitigation:

- Adhere to reduced risk timing windows for protection of birds (August 1- April 30)
- Maintain applicable setback during nesting and breeding timing window
- Conduct priority assessment for bird diverters and other measures prior to transmission line stringing
- Install bird diverters or other measures at high priority sites

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Soils-126	Permafrost	Site: 185 to 186	E-372640 N-5979838	E-371989 N-5979314	14N	835m

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
- Avoid organic soils containing permafrost to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods

MAP NUMBER : 151 cont'd

- 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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N3-S16	N3-Aqua-126	Little Frog Creek	371988	5979313	14N	N/A	8m	Important	Moderate

Potential Effects:

Habitat loss & contamination from structure foundations & installations; increased erosion & sedimentation of streams; damage to stream banks; loss of riparian vegetation; fish habitat disturbance & 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.
- Adhere to Department of Fisheries and Oceans (DFO) Operational Statements for Temporary Stream Crossings, Ice Bridges and Snow Fills, and Overhead Line Construction
- No instream works or fording from April 15 - July 15

ESS Group : Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Wild-201	Sensitive Moose Range	Site: 182 to 183	E-372678 N-5979869	E-365184 N-593830	14N	9630mm

Potential Effects:

Potential disturbance to and loss of sensitive moose habitat

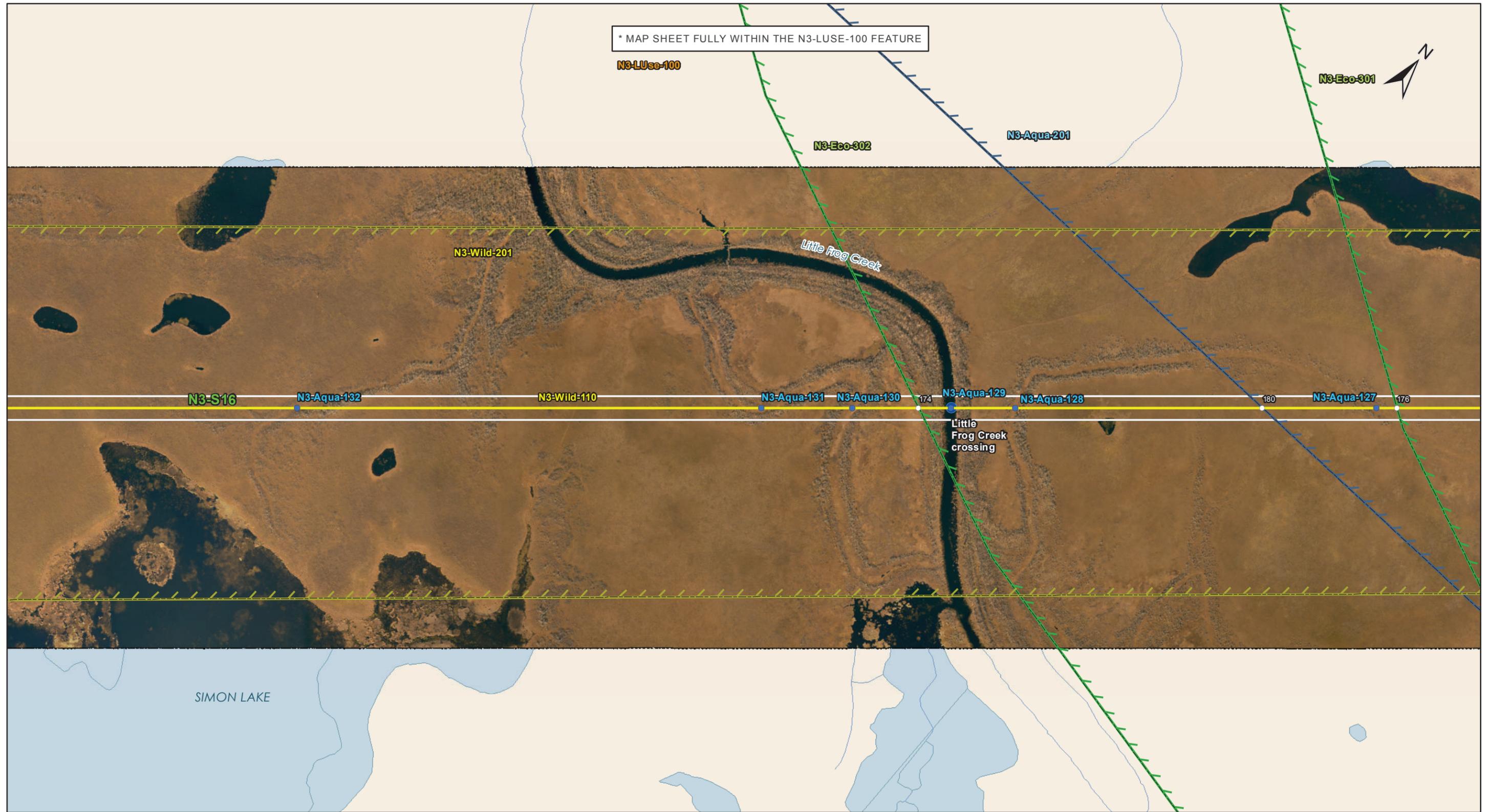
Specific Mitigation:

- Manitoba Hydro will not support development of designated motorized recreational trail use within areas described above if requested

- No shear blading to clear the ROW in the sensitive range. Majority of t-line in this area will not require clearing due to the absence of tree cover. Selective cutting methods to be used for any treed areas leaving low shrub and plant communities on the ROW. Access approaches from Moose lake road will be decommissioned
- Any access trails used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash < 1 m in height will also be evenly distributed over the access trail to reduce the possibility of use be ATV traffic

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Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: November 29, 2013

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 Metres
 1:10,000

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

- Project Infrastructure**
- Angle Tower Locations
 - BPIII Final Preferred Route
 - 66 m Right of Way

- Points of Access***
- Proposed Access Point
 - Major Stream Crossing
 - Abandoned Rail Crossing
 - Rail Crossing
 - Transmission Line Crossing
 - Proposed Access Route
- *Labels correspond to BPIII Access Management Database

- ESS Features**
- Water**
 - Water Crossing
 - Groundwater
 - Wildlife**
 - Birds and Habitat
 - Mammals and Habitat
 - Ecosystem**
 - Species of Concern
 - Land Use**
 - Conservation

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

MAP NUMBER : 152

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Aqua-201	Aquifers vulnerable to contamination	Site: 179 to 180	E-372982 N-5980114	E-368783 N-5976731	14N	5393m

Potential Effects:

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

Specific Mitigation:

- Marshaling 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

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-S16	N3-Aqua-127	Unnamed tributary of Little Frog Creek	369023	5976925	14N	23m	Dry	No Fish Habitat	Low
N3-S16	N3-Aqua-128	Unnamed tributary of Little Frog Creek	368260	5976309	14N	19m	Dry	No Fish Habitat	Low
N3-S16	N3-Aqua-130	Unnamed tributary of Little Frog Creek	367916	5976032	14N	30m	Dry	No Fish Habitat	Low
N3-S16	N3-Aqua-131	Unnamed tributary of Little Frog Creek	367723	5975877	14N	26m	Dry	No Fish Habitat	Low
N3-S16	N3-Aqua-132	Unnamed tributary of Little Frog Creek	366742	5975086	14N	16m	Dry	No Fish Habitat	Low

Potential Effects:

Habitat loss & 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.
- Adhere to Department of Fisheries and Oceans (DFO) Operational Statements for Temporary Stream Crossings, Ice Bridges and Snow Fills, and Overhead Line Construction

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-S16	N3-Aqua-129	Little Frog Creek	368260	5976309	14N	28m	28m	Important	Moderate

Potential Effects:

Habitat loss & contamination from structure foundations & installations; increased erosion & sedimentation of streams; damage to stream banks; loss of riparian vegetation; fish habitat disturbance & 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.
- Adhere to Department of Fisheries and Oceans (DFO) Operational Statements for Temporary Stream Crossings, Ice Bridges and Snow Fills, and Overhead Line Construction
- No instream works or fording from April 15 - July 15

ESS Group : Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Eco-301	Plant Species of Concern	Site: 175 to 176	E-372982 N-5980114	E-369067 N-5976145	14N	5028m
N3-S16	N3-Eco-302	Plant Species of Concern	Site: 173 to 174	E-372982 N-5980114	E-368057 N-5976145	14N	6326m

Potential Effects:

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

MAP NUMBER : 152 cont'd

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing roads and access 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 : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Wild-110	Waterfowl and colonial bird sensitivity area	Site: L13 to L14	E-372764 N-5979938	E-365184 N-5973830	14N	9734m

Potential Effects:

Higher risk of wire collision, disturbance during breeding and nesting, risk of wire collision is localized to the right-of-way while construction disturbance can effect colonies up to 1000 meters away

Specific Mitigation:

- Adhere to reduced risk timing windows for protection of birds (August 1- April 30)
- Maintain applicable setback during nesting and breeding timing window
- Conduct priority assessment for bird diverters and other measures prior to transmission line stringing
- Install bird diverters or other measures at high priority sites

ESS Group : Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-LUse-100	Tom Lamb WMA	Site: 177 to 178	E-372982 N-5980114	E-365184 N-5973831	14N	10015m

Potential Effects:

Potential disruption to resource use activities

Specific Mitigation:

- Subject to permit conditions

ESS Group : Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S16	N3-Wild-201	Sensitive Moose Range	Site: 182 to 183	E-372678 N-5979869	E-365184 N-593830	14N	9630mm

Potential Effects:

Potential disturbance to and loss of sensitive moose habitat

Specific Mitigation:

- Manitoba Hydro will not support development of designated motorized recreational trail use within areas described above if requested
- No shear blading to clear the ROW in the sensitive range. Majority of t-line in this area will not require clearing due to the absence of tree cover. Selective cutting methods to be used for any treed areas leaving low shrub and plant communities on the ROW. Access approaches from Moose lake road will be decommissioned
- Any access trails used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash < 1 m in height will also be evenly distributed over the access trail to reduce the possibility of use be ATV traffic

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