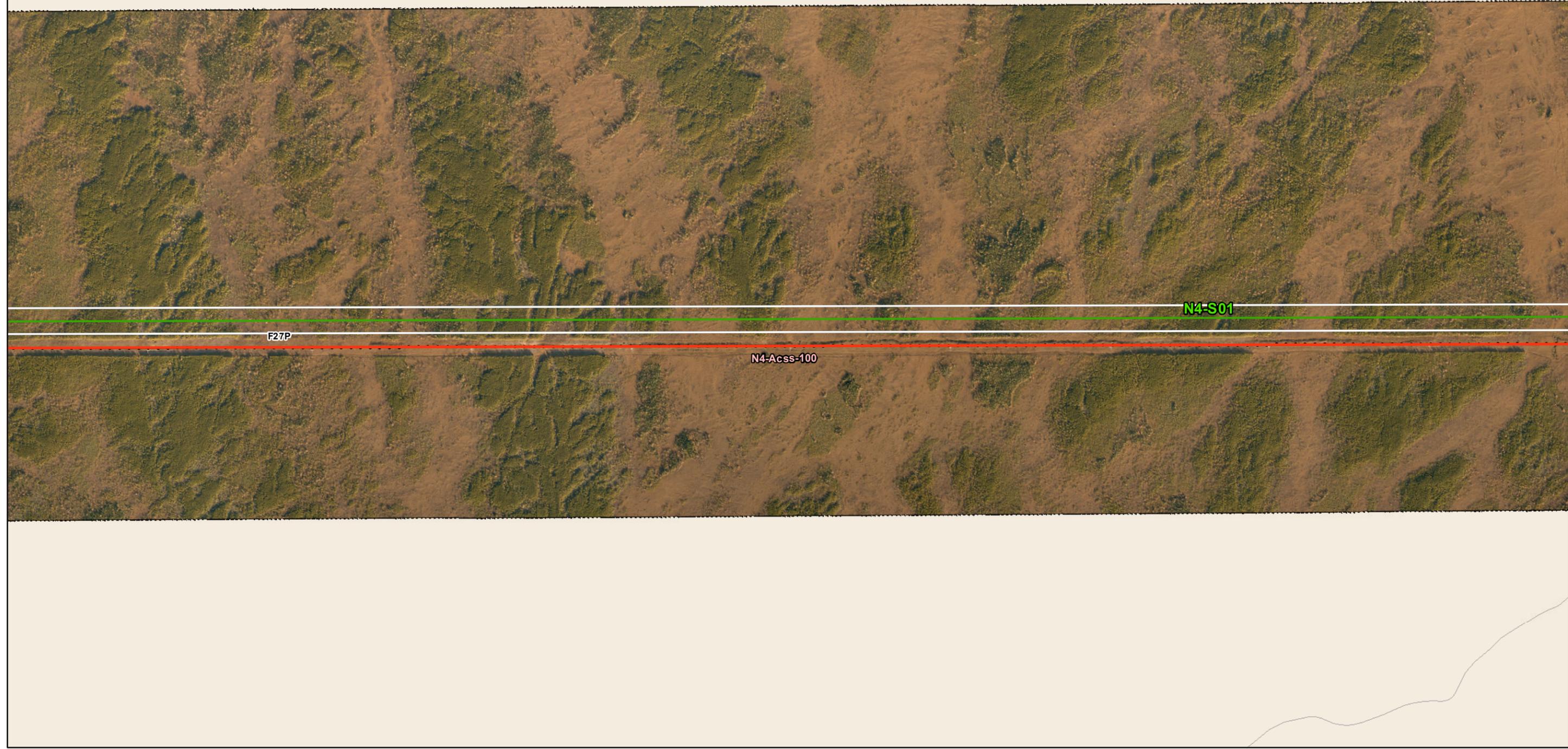
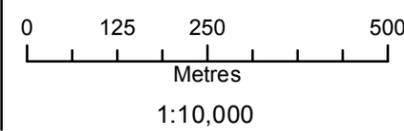


MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE

N4-Wild-200



Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: April 10, 2014
Version: Draft



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

- 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**
- Access**
- Intersection
- Wildlife**
- Mammals and Habitat

**Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section N4
Environmentally Sensitive Site Locations**

Draft: For Discussion Purposes Only

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S01	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 1 to 4	E-354917 N-5957921	E-361228 N-5915591	14N	42800m

Potential Effects:

The Bog Woodland Caribou Range Sensitive Area

Specific Mitigation:

- Manitoba Hydro will not support development of designated motorized recreational trail use within areas described above if requested.
- Extension of wildlife crossing and vegetation management measures to the 230 kV line running adjacent to the Bipole III transmission line in this range. Location of specific measures on the 230kV line to be determined in conjunction with Wildlife Branch.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used leaving low shrub and herb plant communities on the ROW.
- Maintenance trails to be maintained to reduce line of sight for hunters and predators.
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- At PTH 10 and 60 crossings a vegetated buffer zone x m wide will be left at the edge of the ROW to reduce visibility and access on to the ROW from the highways. A maintenance trail will still be needed on to the ROW from the highway.
- 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.

ESS Group: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N4-S04	N4-Acss-100	C1	Snowmobile Trail	E-360362 N-5897633	14N

Potential Effects:

Potential interference with snowmobilers; safety issues

Specific Mitigation:

- Identify and flag prior to start of work
- Avoid surface damage to and obstruction of access route
- Post warning markers and signs at snowmobile trail location
- Notify snowmobile club/users and local authorities regarding construction activities and schedule, and address concerns prior to construction

MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE

N4-Wild-200




 Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: April 10, 2014
 Version: Draft

0 125 250 500
 Metres
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- Land Base**
- Transmission Line
 - Highway
 - Major Road
 - Local Road
 - Winter Road
 - Railway (Operational)
 - Railway (Discontinued)
 - First Nation
 - Mining
 - Provincial Forest

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

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- 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**
- Access**
- Intersection
- Wildlife**
- Mammals and Habitat

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section N4
Environmentally Sensitive Site Locations

Draft: For Discussion Purposes Only

Map 168

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S01	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 1 to 4	E-354917 N-5957921	E-361228 N-5915591	14N	42800m

Potential Effects:

The Bog Woodland Caribou Range Sensitive Area

Specific Mitigation:

- Manitoba Hydro will not support development of designated motorized recreational trail use within areas described above if requested.
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- Maintenance trails to be maintained to reduce line of sight for hunters and predators.
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- At PTH 10 and 60 crossings a vegetated buffer zone x m wide will be left at the edge of the ROW to reduce visibility and access on to the ROW from the highways. A maintenance trail will still be needed on to the ROW from the highway.
- 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.

ESS Group: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N4-S04	N4-Acss-100	C1	Snowmobile Trail	E-360362 N-5897633	14N

Potential Effects:

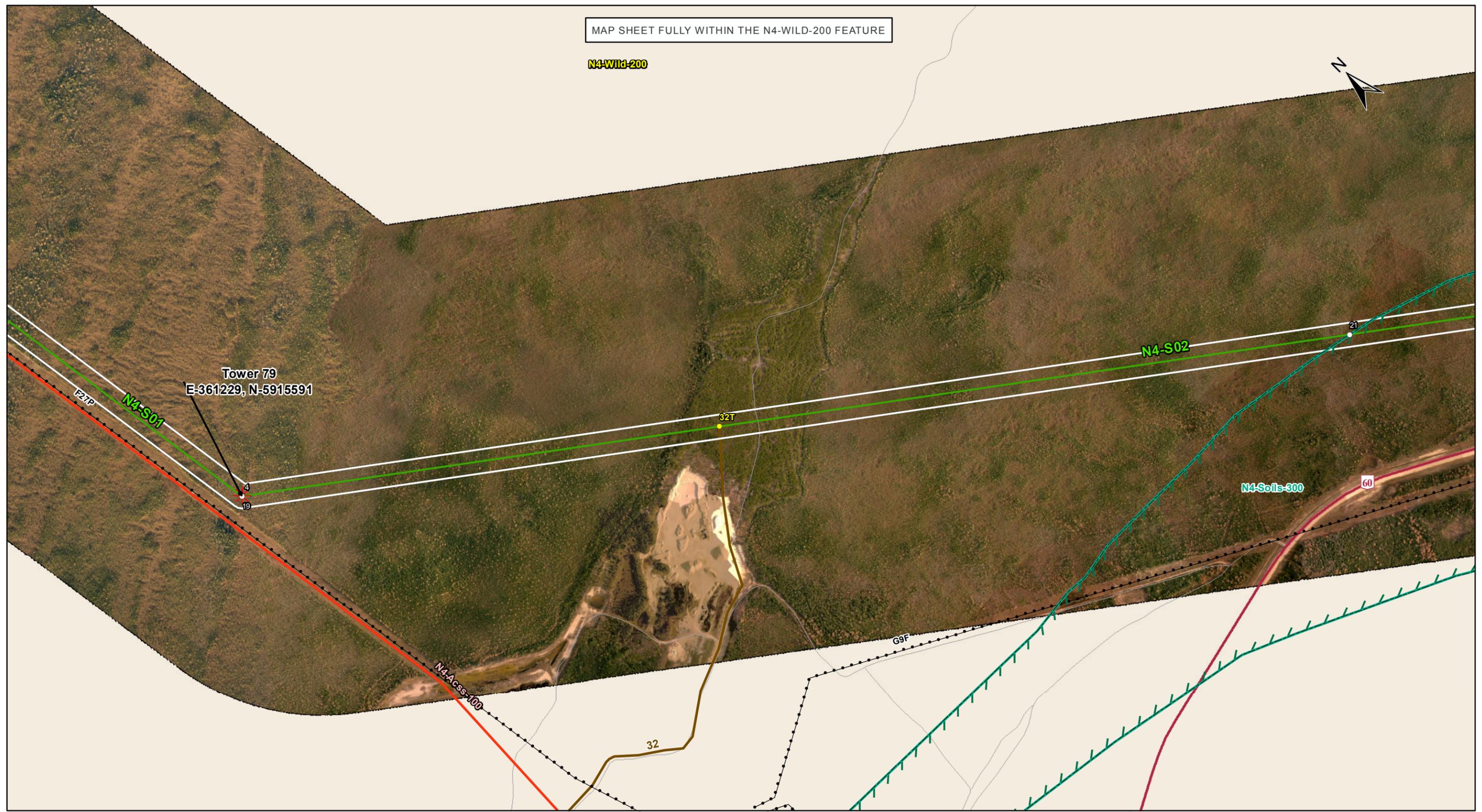
Potential interference with snowmobilers; safety issues

Specific Mitigation:

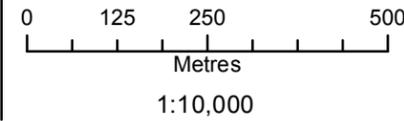
- Identify and flag prior to start of work
- Avoid surface damage to and obstruction of access route
- Post warning markers and signs at snowmobile trail location
- Notify snowmobile club/users and local authorities regarding construction activities and schedule, and address concerns prior to construction

MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE

N4-Wild-200



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: April 10, 2014
 Version: Draft



- Land Base**
- Transmission Line
 - Highway
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 - Winter Road
 - Railway (Operational)
 - Railway (Discontinued)
 - First Nation
 - Mining
 - Provincial Forest

- 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**
- Access
 - Intersection
 - Wildlife
 - Mammals and Habitat
 - Soils and Terrain
 - Erosion

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N4
 Environmentally Sensitive Site Locations**

Draft: For Discussion Purposes Only

ESS Group: Erosion

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S02	N4-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 21 to 22	E-363673 N-5913767	E-365059 N-5912733	14N	1729m

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
- Identify and flag prior to start of work
- 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: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N4-S04	N4-Acss-100	C1	Snowmobile Trail	E-360362 N-5897633	14N

Potential Effects:

Potential interference with snowmobilers; safety issues

Specific Mitigation:

- Identify and flag prior to start of work
- Avoid surface damage to and obstruction of access route
- Post warning markers and signs at snowmobile trail location
- Notify snowmobile club/users and local authorities regarding construction activities and schedule, and address concerns prior to construction

ESS Group: Mammals and Habitat

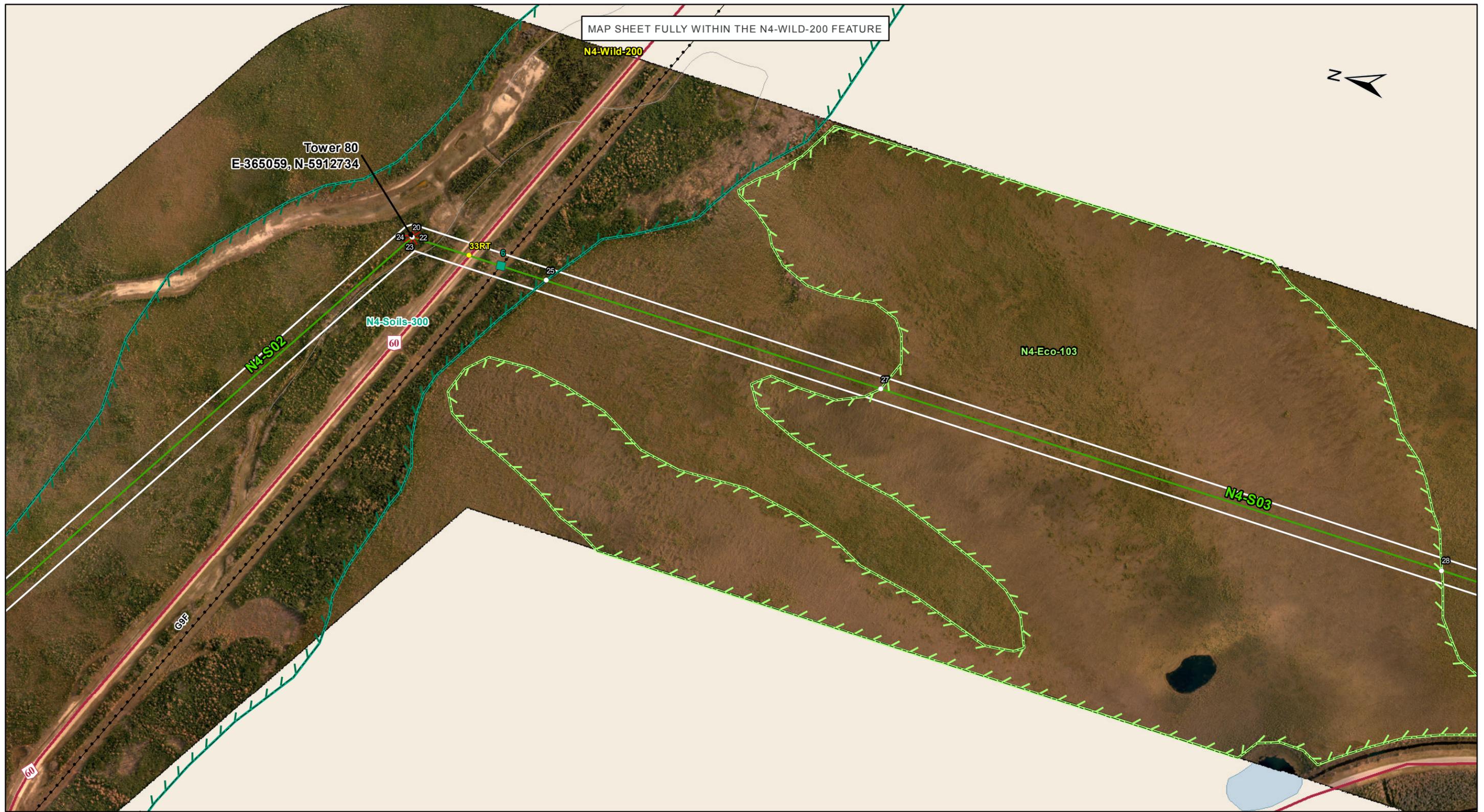
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S01	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 1 to 4	E-354917 N-5957921	E-361228 N-5915591	14N	42800 m
N4-S02	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 19 to 20	E-361228 N-5915591	E-365059 N-5912733	14N	4778 m

Potential Effects:

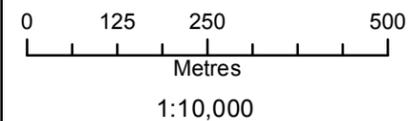
The Bog Woodland Caribou Range Sensitive Area

Specific Mitigation:

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- Extension of wildlife crossing and vegetation management measures to the 230 kV line running adjacent to the Bipole III transmission line in this range. Location of specific measures on the 230kV line to be determined in conjunction with Wildlife Branch.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used leaving low shrub and herb plant communities on the ROW.
- Maintenance trails to be maintained to reduce line of sight for hunters and predators.
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- At PTH 10 and 60 crossings a vegetated buffer zone x m wide will be left at the edge of the ROW to reduce visibility and access on to the ROW from the highways. A maintenance trail will still be needed on to the ROW from the highway.
- 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.



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
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- Land Base**
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 - Highway
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 - Local Road
 - Winter Road
 - Railway (Operational)
 - Railway (Discontinued)
 - First Nation
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 - Provincial Forest

- 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**
- Wildlife**
 - Mammals and Habitat
 - Ecosystem**
 - Habitat
 - Soils and Terrain**
 - Erosion

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N4
 Environmentally Sensitive Site Locations**

Draft: For Discussion Purposes Only

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S02	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 19 to 20	E-361228 N-5915591	E-365059 N-5912733	14N	4778 m
N4-S03	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 24 to 26	E-365059 N-5912733	E-364031 N-5902798	14N	9987 m

Potential Effects:

The Bog Woodland Caribou Range Sensitive Area

Specific Mitigation:

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

ESS Group: Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S03	N4-Eco-103	Patterned Fen	Site: 27 to 28	E-364921 N-5911401	E-364756 N-5909807	14N	1602m

Potential Effects:

Potential loss of plants of conservation concern and habitat disturbance 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
- Provide 30 m vegetated (shrub and herbaceous) buffer around site
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Install erosion protection and sediment control measures in accordance with Erosion/Sediment Control Plan

ESS Group: Erosion

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S02	N4-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 21 to 22	E-363673 N-5913767	E-365059 N-5912733	14N	1729 m
N4-S03	N4-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 23 to 25	E-365059 N-5912733	E-365019 N-5912352	14N	383 m

Potential Effects:

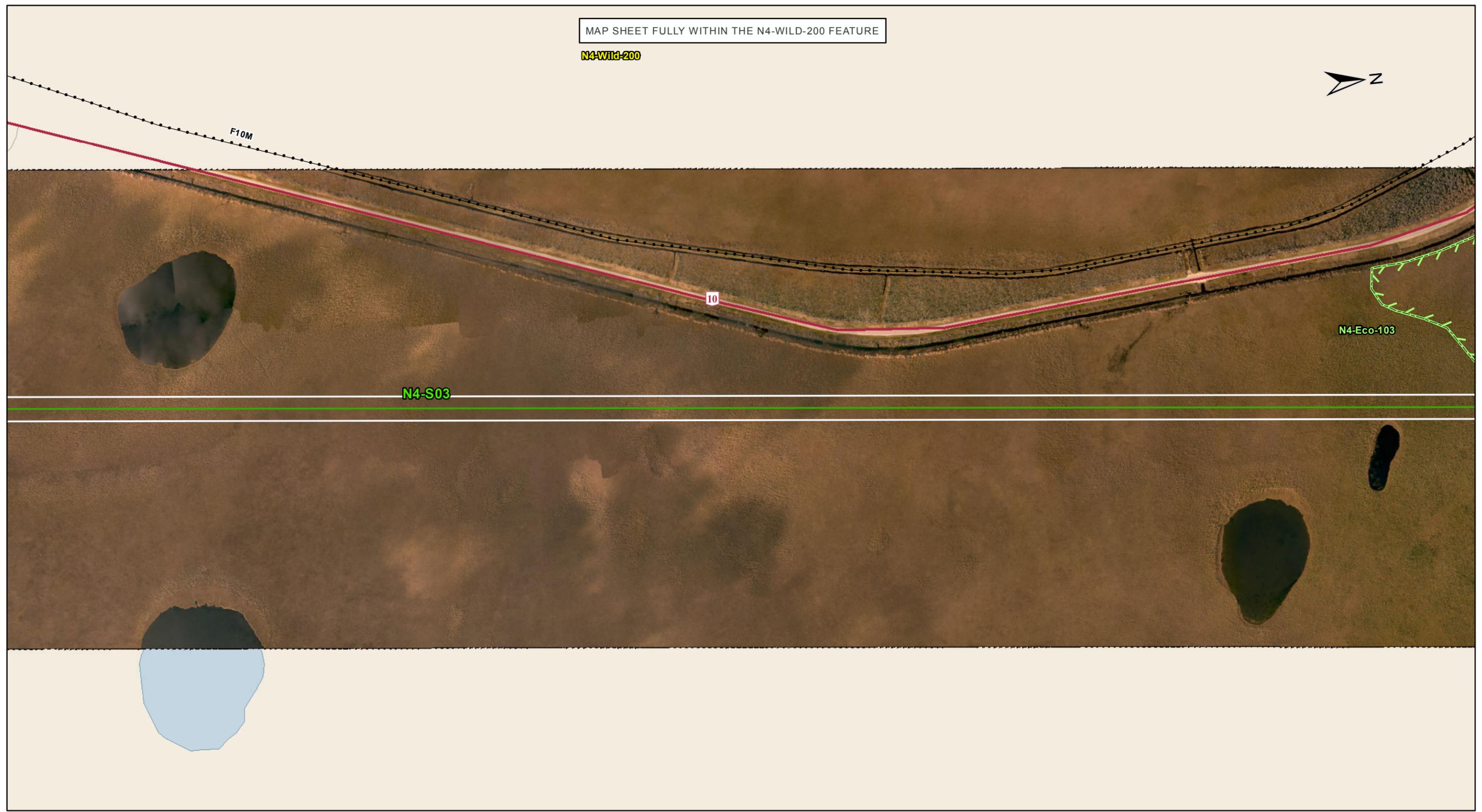
Loss of topsoil due to wind erosion (e.g. creep, saltation, suspension) on disturbed surfaces.

Specific Mitigation:

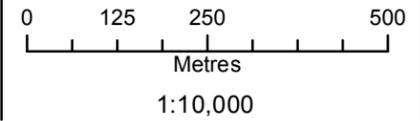
- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Identify and flag prior to start of work
- Avoid dry soil conditions with high and severe wind erosion risk to the extent 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

MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE

N4-Wild-200



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: April 10, 2014
 Version: Draft



- Land Base**
- Transmission Line
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 - Railway (Operational)
 - Railway (Discontinued)
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 - Mining
 - Provincial Forest

- 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**
- Wildlife**
- Mammals and Habitat
- Ecosystem**
- Habitat

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N4
 Environmentally Sensitive Site Locations**

Draft: For Discussion Purposes Only

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S03	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 24 to 26	E-365059 N-5912733	E-364031 N-5902798	14N	9987m

Potential Effects:

The Bog Woodland Caribou Range Sensitive Area

Specific Mitigation:

- Manitoba Hydro will not support development of designated motorized recreational trail use within areas described above if requested.
- Extension of wildlife crossing and vegetation management measures to the 230 kV line running adjacent to the Bipole III transmission line in this range. Location of specific measures on the 230kV line to be determined in conjunction with Wildlife Branch.
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- 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.



MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE

N4-Wild-200

N4-Wild-300

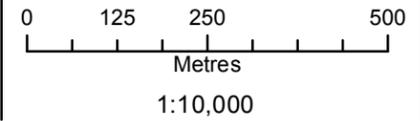
N4-S03

N4-Wild-101

Tower 81
E-364031, N-5902799



Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
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Version: Draft



- Land Base**
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 - 66 m Right of Way

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

- ESS Features**
- Wildlife**
- Birds and Habitat
- Wildlife**
- Mammals and Habitat
 - Reptiles/Amphibians

**Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section N4
Environmentally Sensitive Site Locations**

Draft: For Discussion Purposes Only

ESS Group: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S04	N4-Wild-101	Waterfowl sensitivity area, nearby Bonapartes gull colony	Site: L3 to L4	E-364259 N-5904999	E-364073 N-5903200	14N	1807m

Potential Effects:

Higher risk of wire collision, Risk of wire collision is localized to the right-of-way

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: Reptiles/Amphibians

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S03	N4-Wild-300	Garter Snake Hibernacula Habitat	Site: 29 to 30	E-364050 N-5902982	E-364031 N-5902798	14N	184m
N4-S04	N4-Wild-300	Garter Snake Hibernacula Habitat	Site: 31 to 33	E-364031 N-5902798	E-363505 N-5902058	14N	908m

Potential Effects:

Creation of movement corridor (RoW); disturbance/destruction of overwintering habitat, microhabitat alterations; sensory disturbance effects & direct mortality from machinery-related activity

Specific Mitigation:

- Use existing access roads and trails to the extent possible
- Carry out tower installation during summer months (June 1-August 31) or conduct summer field investigations prior to construction where polygons overlap tower footprints
- Remove trees by low-disturbance methods
- No blasting within 200 m of hibernacula habitat
- Identify and flag buffer areas prior to start of work
- Confine vehicle traffic to established trails to the extent possible
- Provide a 200 m vegetated (shrub and herbaceous) buffer around site

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S03	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 24 to 26	E-365059 N-5912733	E-364031 N-5902798	14N	9987 m
N4-S04	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 32 to 34	E-364031 N-5902798	E-354352 N-5889174	14N	16712 m

Potential Effects:

The Bog Woodland Caribou Range Sensitive Area

Specific Mitigation:

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