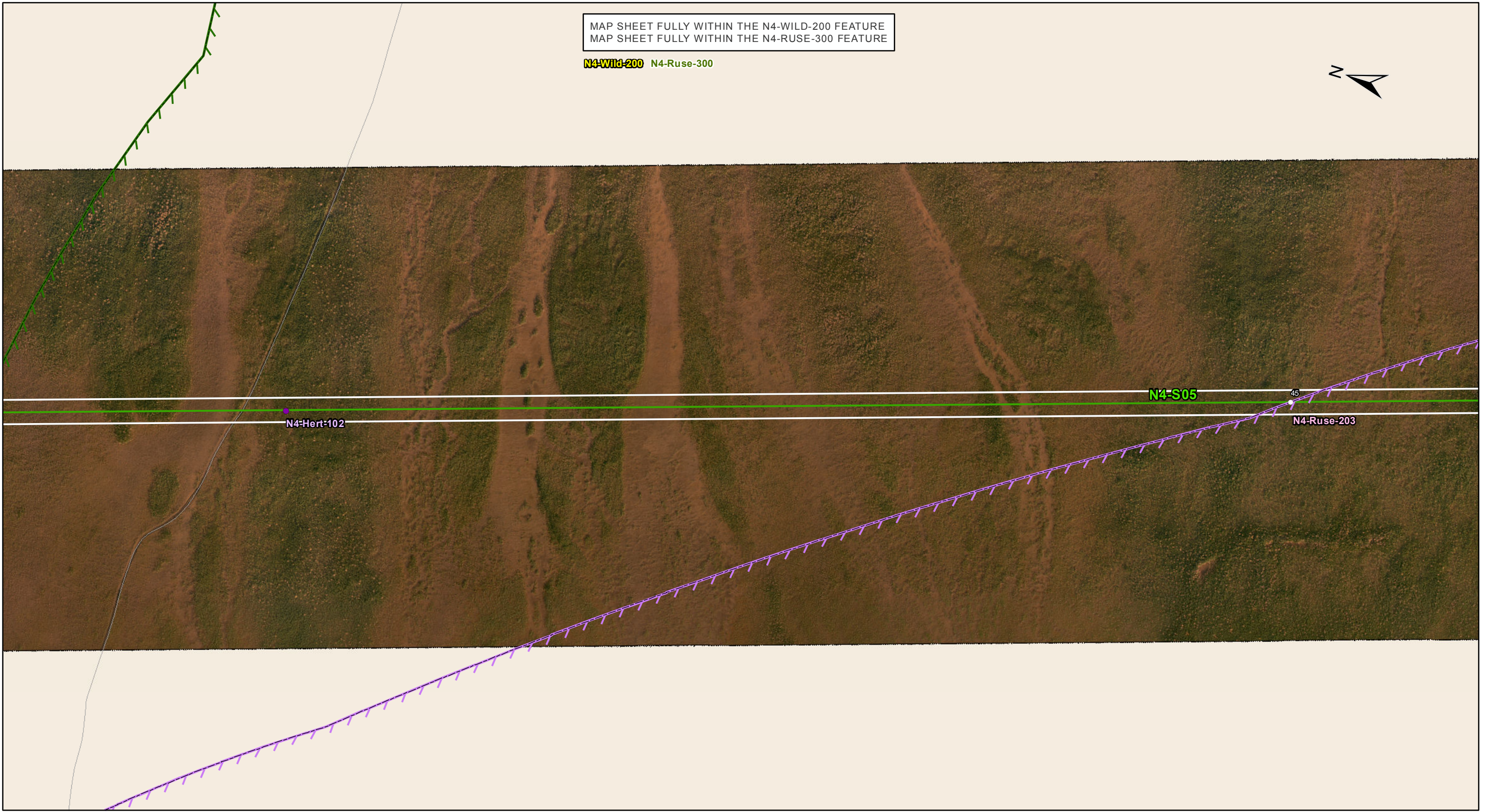
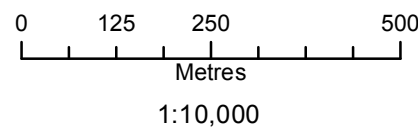


MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE
 MAP SHEET FULLY WITHIN THE N4-RUSE-300 FEATURE

N4-Wild-200 N4-Ruse-300



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**
- Heritage**
 - Archaeological
 - Wildlife**
 - Mammals and Habitat
 - Resource Use**
 - Food/Medicinal
 - Forestry

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

Draft: For Discussion Purposes Only

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N4-S05	N4-Hert-102	Heritage Site	359357	5873238	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: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 38 to 40	E-354352 N-5889174	E-362119 N-5864457	14N	25908 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.
- 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: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-300	Fuel Wood	Site: 43 to 44	E-359111 N-5874028	E-362556 N-5863065	14N	11491m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-203	Berry Harvest	Site: 45 to 46	E-360176 N-5870639	E-361117 N-5867643	14N	3140 m

Potential Effects:

Loss of vegetation as a result of clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

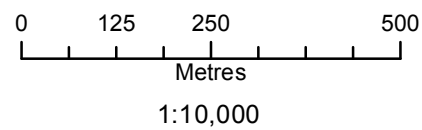
- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- Remove trees by low-disturbance methods
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

MAP SHEET FULLY WITHIN THE N4-WILD-200 FEATURE
 MAP SHEET FULLY WITHIN THE N4-RUSE-300 FEATURE

N4-Wild-200 N4-Ruse-300



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**
- Wildlife**
- Mammals and Habitat
- Resource Use**
- Food/Medicinal
 - Forestry
- Water**
- Groundwater

**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-S05	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 38 to 40	E-354352 N-5889174	E-362119 N-5864457	14N	25908 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.
- 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: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Aqua-202	Saline artesian areas	Site: 47 to 48	E-360436 N-5869810	E-363288 N-5860736	14N	9511 m

Potential Effects:

Increase in salinity of soils and surface water in case of potential groundwater discharge to the surface. Also, wetting the surficial environment (ground saturation); effect on local vegetation

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: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-300	Fuel Wood	Site: 43 to 44	E-359111 N-5874028	E-362556 N-5863065	14N	11491m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-203	Berry Harvest	Site: 45 to 46	E-360176 N-5870639	E-361117 N-5867643	14N	3140 m

Potential Effects:

Loss of vegetation as a result of clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- Remove trees by low-disturbance methods
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

MAP SHEET FULLY WITHIN THE N4-AQUA-202 FEATURE

N4-Aqua-202

N4-Ruse-300

N4-Wild-200

N4-S05

N4-Ruse-203

N4-Eco-104

40

44

49

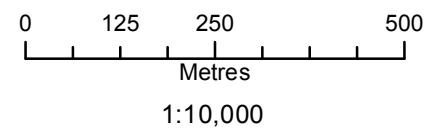
39T

51

39



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**
- Wildlife**
- Mammals and Habitat
 - Reptiles/Amphibians
- Ecosystem**
- Habitat
- Resource Use**
- Food/Medicinal
 - Forestry
- Water**
- Groundwater

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

Draft: For Discussion Purposes Only

Map 183

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Wild-200	MCWS Caribou Sensitive Area	Site: 38 to 40	E-354352 N-5889174	E-362119 N-5864457	14N	25908 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.
- 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: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Aqua-202	Saline artesian areas	Site: 47 to 48	E-360436 N-5869810	E-363288 N-5860736	14N	9511 m

Potential Effects:

Increase in salinity of soils and surface water in case of potential groundwater discharge to the surface. Also, wetting the surficial environment (ground saturation); effect on local vegetation

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: Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Eco-104	Salt Marsh Salt Flat	Site: 51 to 52	E-362674 N-5862689	E-362926 N-5861889	14N	838 m

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: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-300	Fuel Wood	Site: 43 to 44	E-359111 N-5874028	E-362556 N-5863065	14N	11491m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-203	Berry Harvest	Site: 49 to 50	E-362637 N-5862807	E-363288 N-5860736	14N	2171 m

Potential Effects:

Loss of vegetation as a result of clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- Remove trees by low-disturbance methods
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

This page is intentionally left blank.

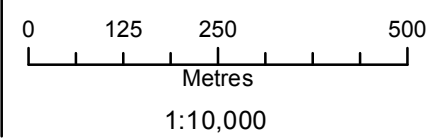


MAP SHEET FULLY WITHIN THE N4-AQUA-202 FEATURE

LAKE WINNIPEGOSIS



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**
- Heritage**
 - Archaeological
 - Cultural or Historic
 - Water**
 - Water Crossing
 - Resource Use**
 - Resource Use, Hunting
 - Wildlife**
 - Reptiles/Amphibians

- Ecosystem**
- Habitat
 - Heritage**
 - Archaeological
 - Food/Medicinal
 - Forestry
 - Water**
 - Groundwater

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

Draft: For Discussion Purposes Only

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N4-S05	N4-Hert-104	Red Deer River	363029	5861588	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
N4-S06	N4-Aqua-113	Red Deer River	363015	5861634	14N	86m	86m	Low	Important
N4-S06	N4-Aqua-114	Unnamed tributary of Lake Winnipegosis	363136	5858788	14N	N/A	N/A	Low	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.
- 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 work or fording from April 1 to June 30

ESS Group: Hunting

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-RUse-400	Bird and game Hunting	Site: L11 to L12	E-362859 N-5862100	E-363245 N-5860872	14N	1287m

Potential Effects:

Fragmentation of habitat. Birds and game used as a food source and cultural products. - Potential for increased access by non-community members into hunting areas.

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: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Aqua-202	Saline artesian areas	Site: 47 to 48	E-360436 N-5869810	E-363288 N-5860736	14N	9511 m
N4-S06	N4-Aqua-202	Saline artesian areas	Site: 58 to 60	E-363288 N-5860736	E-362924 N-5856089	14N	4661 m

Potential Effects:

Increase in salinity of soils and surface water in case of potential groundwater discharge to the surface. Also, wetting the surficial environment (ground saturation); effect on local vegetation

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: Reptiles/Amphibians

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Wild-301	Garter Snakes	Site: 53 to 54	E-362796 N-5862301	E-363170 N-5861110	14N	1248 m

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: Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Eco-104	Salt Marsh Salt Flat	Site: 51 to 52	E-362674 N-5862689	E-362926 N-5861889	14N	838 m

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: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Hert-103	Archaeological Site	Site: 55 to 56	E-362951 N-5861808	E-363229 N-5860924	14N	926m

Potential Effects:

Loss of Heritage resources. Burials found washed out along Red Deer River in past.

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 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: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S05	N4-Ruse-203	Berry Harvest	Site: 49 to 50	E-362637 N-5862807	E-363288 N-5860736	14N	2171 m
N4-S06	N4-Ruse-203	Berry Harvest	Site: 57 to 59	E-363288 N-5860736	E-363203 N-5859648	14N	1090 m

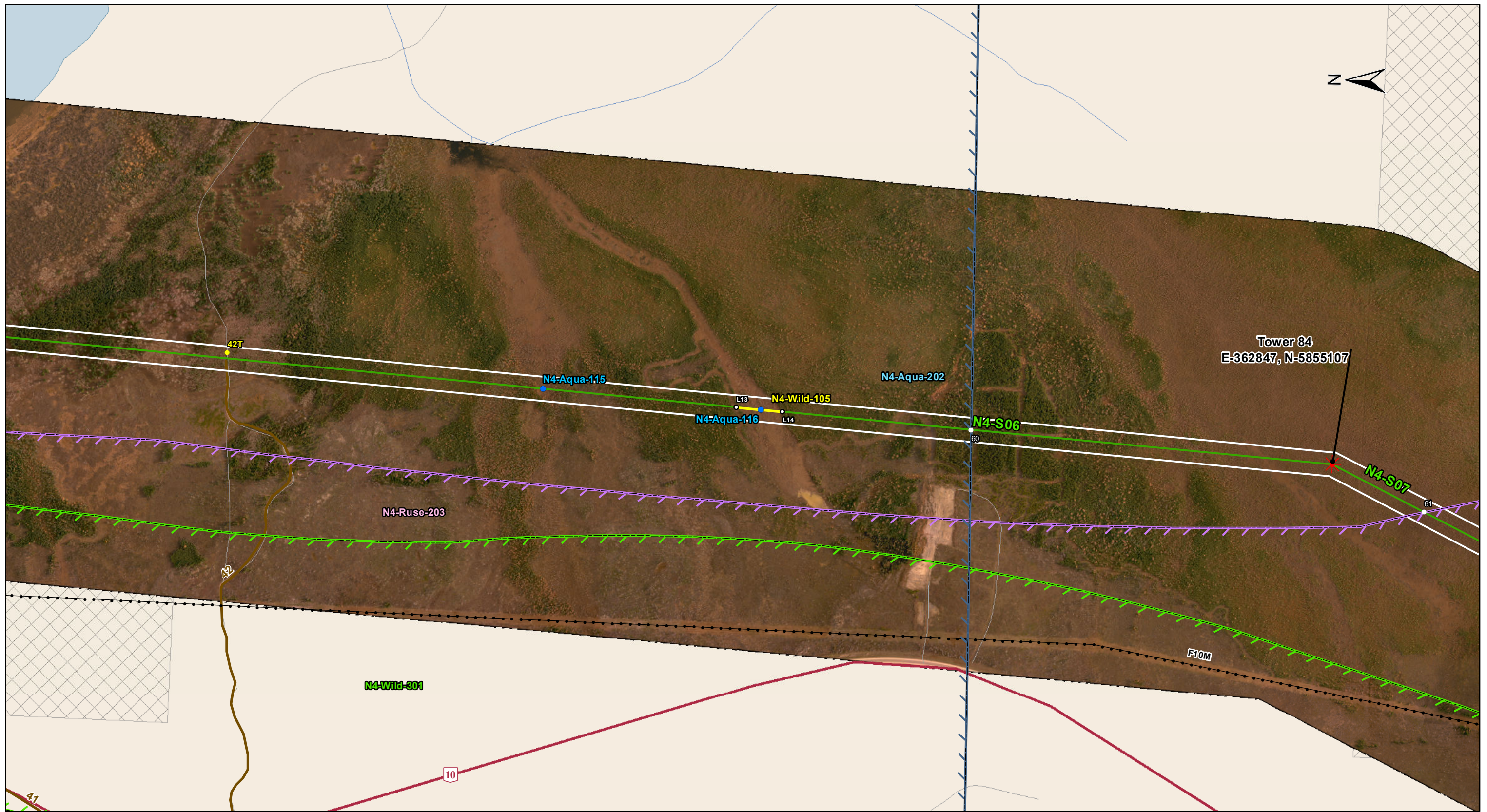
Potential Effects:

Loss of vegetation as a result of clearing, construction, maintenance and decommissioning activities.

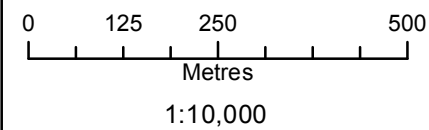
Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- Remove trees by low-disturbance methods
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

This page is intentionally left blank.



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**
- Water**
 - Water Crossing
 - Wildlife**
 - Birds and Habitat
 - Wildlife**
 - Reptiles/Amphibians
 - Resource Use**
 - Food/Medicinal
 - Water**
 - Groundwater

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

Draft: For Discussion Purposes Only

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N4-S06	N4-Aqua-115	Unnamed tributary of Lake Winnipegosis	363016	5857254	14N	N/A	N/A	Low	No Fish Habitat
N4-S06	N4-Aqua-116	Unnamed tributary of Lake Winnipegosis	362969	5856661	14N	3m	N/A	Low	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.
- 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 work or fording from April 1 to June 30

ESS Group: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S06	N4-Wild-105	Waterfowl sensitivity area	Site: L13 to L14	E-362974 N-5856727	E-362964 N-5856602	14N	125m

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: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S07	N4-Ruse-203	Berry Harvest	Site: 61 to 62	E-362722 N-5854855	E-360588 N-5850576	14N	4781m

Potential Effects:

Loss of vegetation as a result of clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- Remove trees by low-disturbance methods
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

ESS Group: Groundwater

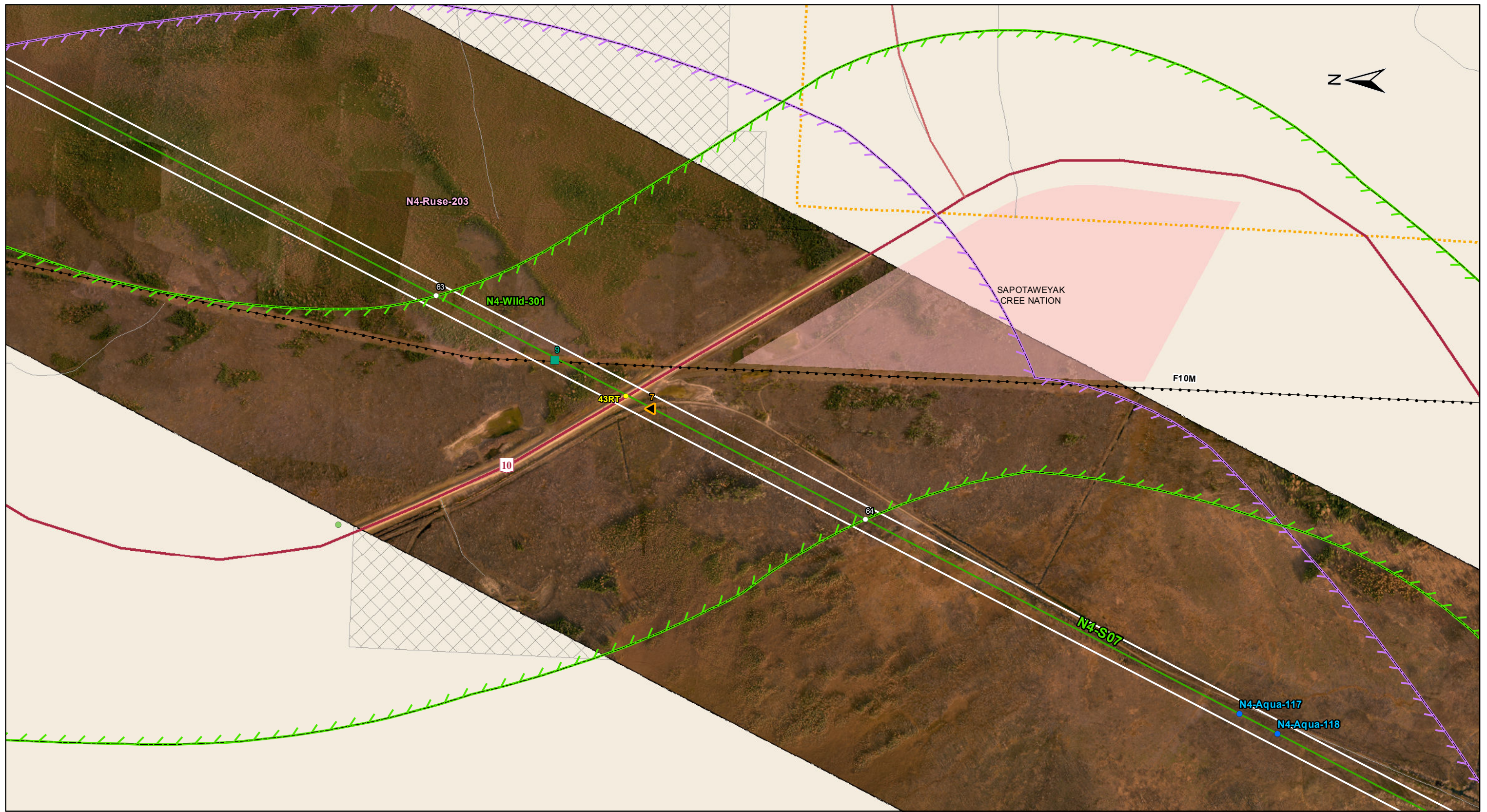
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S06	N4-Aqua-202	Saline artesian areas	Site: 58 to 60	E-363288 N-5860736	E-362924 N-5856089	14N	4661 m

Potential Effects:

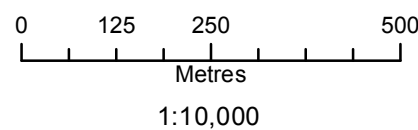
Increase in salinity of soils and surface water in case of potential groundwater discharge to the surface. Also, wetting the surficial environment (ground saturation); effect on local vegetation

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.



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**
- Ecosystem**
 - Species of Concern
 - Water**
 - Water Crossing
 - Wildlife**
 - Reptiles/Amphibians
 - Resource Use**
 - Food/Medicinal



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

Draft: For Discussion Purposes Only

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N4-S07	N4-Aqua-117	Unnamed tributary of Sucker Creek	360988	5851379	14N	N/A	N/A	Low	No Fish Habitat
N4-S07	N4-Aqua-118	Unnamed tributary of Sucker Creek	360936	5851275	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.
- 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: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S07	N4-Ruse-203	Berry Harvest	Site: 61 to 62	E-362722 N-5854855	E-360588 N-5850576	14N	4781m

Potential Effects:

Loss of vegetation as a result of clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- Remove trees by low-disturbance methods
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

ESS Group: Reptiles/Amphibians

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N4-S07	N4-Wild-301	Garter Snakes	Site: 63 to 64	E-362085 N-5853578	E-361498 N-5852401	14N	1314 m

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