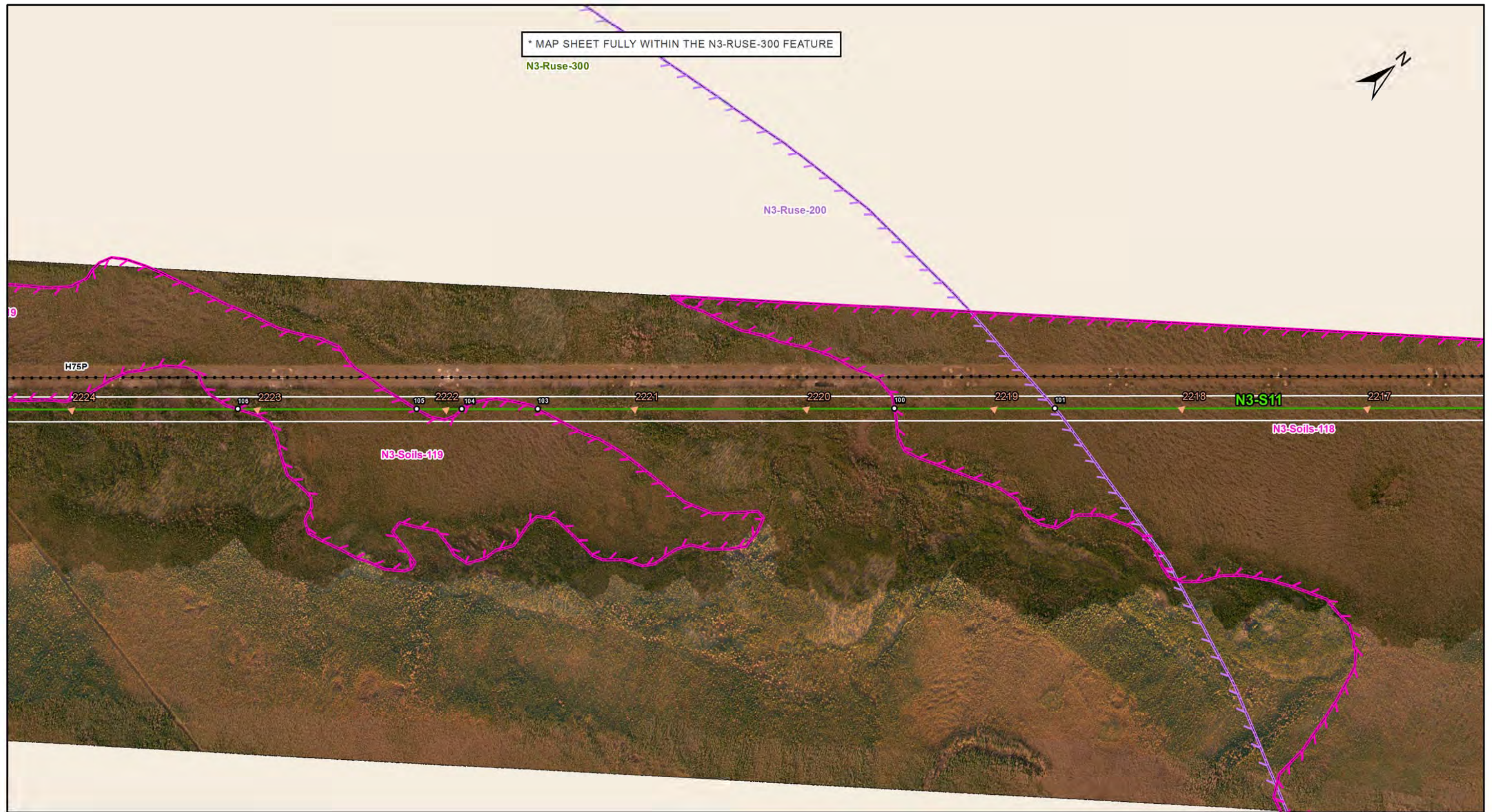


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* MAP SHEET FULLY WITHIN THE N3-RUSE-300 FEATURE

N3-Ruse-300

N3-Ruse-200

N3-S11

N3-Soils-118

N3-Soils-119

9

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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

Resource Use

- Forestry
- Food/Medicinal
- Soils and Terrain
- Permafrost

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

Map 137

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S11	N3-Soils-118	Permafrost	Site: 99 to 100	E-414255 N-6014525	E-412981 N-6012989	14N	1995 m
N3-S11	N3-Soils-119	Permafrost	Site: 103 to 104	E-412365 N-6012245	E-412233 N-6012087	14N	205 m
N3-S11	N3-Soils-119	Permafrost	Site: 105 to 106	E-412155 N-6011992	E-411845 N-6011619	14N	484 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: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S11	N3-RUse-300	ATK-65 Cormorant	Site: 97 to 98	E-414445 N-6014754	E-409094 N-6008302	14N	8382m

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
N3-S11	N3-RUse-200	Medicine gathering	Site: 101 to 102	E-413259 N-6013324	E-409315 N-6008568	14N	6178 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

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* MAP SHEET FULLY WITHIN THE N3-RUSE-300 FEATURE



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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

Land Use

- Conservation

Resource Use

- Forestry

Soils and Terrain

- Food/Medicinal
- Permafrost

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

Map 138

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-Soils-120	Permafrost	Site: 109 to 110	E-408906 N-6008207	E-408341 N-6007920	14N	633 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: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S11	N3-RUse-300	ATK-65 Cormorant	Site: 97 to 98	E-414445 N-6014754	E-409094 N-6008302	14N	8382m
N3-S12	N3-RUse-300	ATK-65 Cormorant	Site: 107 to 108	E-409094 N-6008302	E-407529 N-6007510	14N	1753m

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
N3-S11	N3-RUse-200	Medicine gathering	Site: 101 to 102	E-413259 N-6013324	E-409315 N-6008568	14N	6178 m

Potential Effects:

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

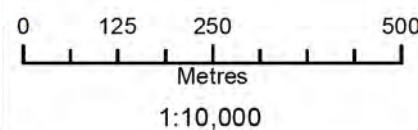
Specific Mitigation:

- 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

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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

- Land Use**
- Conservation
- Resource Use**
- Forestry
- Soils and Terrain**
- Permafrost

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

ESS Group: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-RUse-300	ATK-65 Cormorant	Site: 107 to 108	E-409094 N-6008302	E-407529 N-6007510	14N	1753m

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: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-Soils-120	Permafrost	Site: 109 to 110	E-408906 N-6008207	E-408341 N-6007920	14N	633 m
N3-S12	N3-Soils-121	Permafrost	Site: 111 to 112	E-407621 N-6007556	E-407394 N-6007441	14N	254 m

Potential Effects:

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

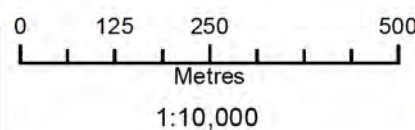
Specific Mitigation:

- 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

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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
- Land Use**
- Conservation
- Soils and Terrain**
- Permafrost

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-S12	N3-Aqua-113	Unnamed Tributary of Frog Creek	404756	6006114	14N	N/A	5m	Moderate	Marginal
N3-S12	N3-Aqua-114	Unnamed Tributary into Frog Creek	404124	6005794	14N	N/A	5m	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.
- No instream works or fording from April 1 - July 15

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-Soils-122	Permafrost	Site: 113 to 114	E-404808 N-6006133	E-404063 N-6005756	14N	834m
N3-S12	N3-Soils-122	Permafrost	Site: 115 to 116	E-403781 N-6005613	E-402453 N-6004941	14N	1488m

Potential Effects:

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

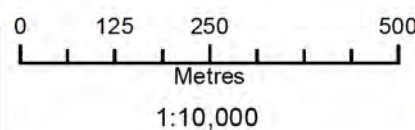
Specific Mitigation:

- 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

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Coordinate System: UTM Zone 14N NAD83
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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
- Land Use**
- Conservation
- Wildlife**
- Birds 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-S12	N3-Aqua-115	Frog Creek	399757	6003583	14N	20m	20m	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: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-LUse-100	Tom Lamb WMA	Site: 117 to 118	E-399755 N-6003576	E-386710 N-5996976	14N	14619m

Potential Effects:

Potential disruption to resource use activities

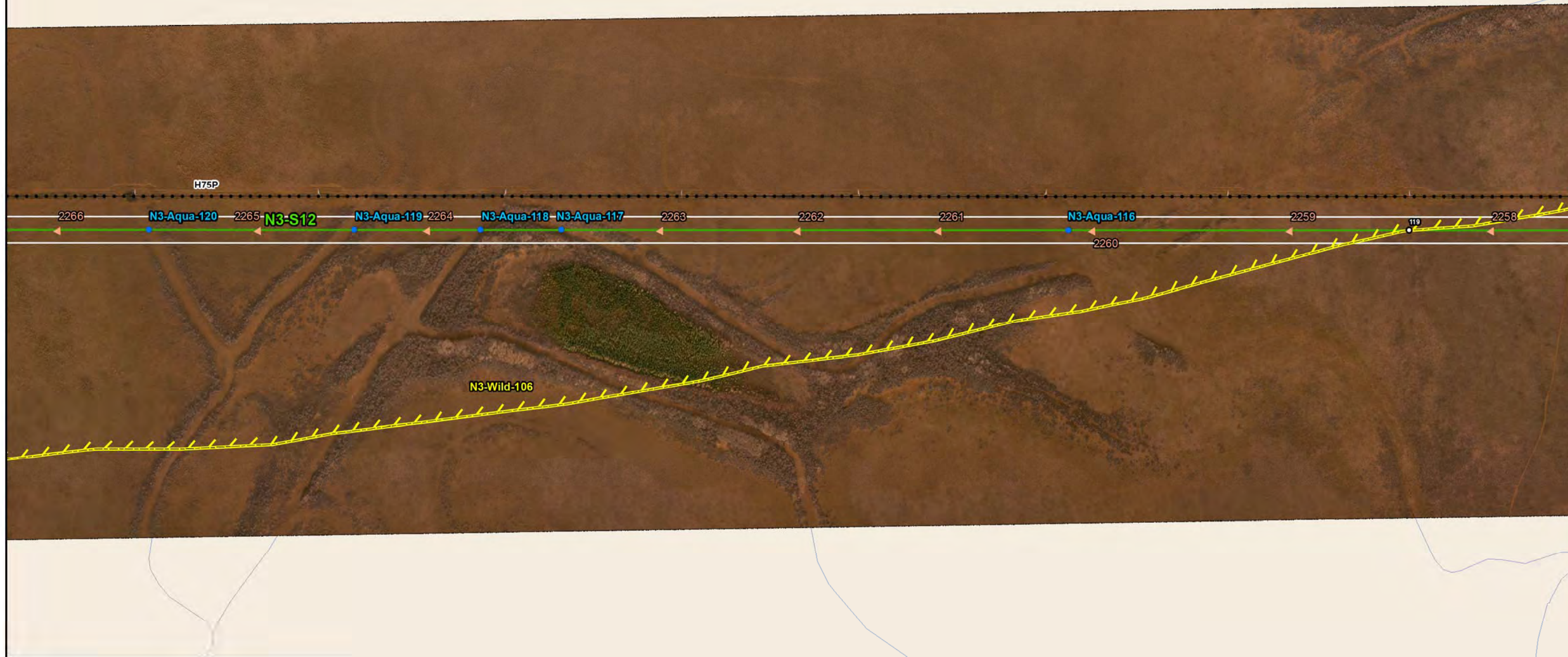
Specific Mitigation:

- 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.

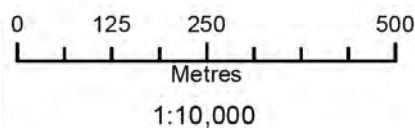
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N3-LUse-100



Coordinate System: UTM Zone 14N NAD83
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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
- Land Use**
- Conservation
- Wildlife**
- Birds 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-S12	N3-Aqua-116	Unnamed Headwater or Side Tributaries into Frog Creek	397138	6002256	14N	N/A	N/A	Low	No Fish Habitat
N3-S12	N3-Aqua-117	Unnamed Headwater or Side Tributaries into Little Frog Creek	395976	6001668	14N	18m	N/A	Low	No Fish Habitat
N3-S12	N3-Aqua-118	Unnamed Headwater or Side Tributaries into Little Frog Creek	395807	6001582	14N	29m	N/A	Low	No Fish Habitat
N3-S12	N3-Aqua-119	Unnamed Headwater or Side Tributaries into Little Frog Creek	395519	6001437	14N	35m	N/A	Low	No Fish Habitat
N3-S12	N3-Aqua-120	Unnamed Headwater or Side Tributaries into Little Frog Creek	395052	6001200	14N	40m	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: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-Wild-106	Owls	Site: 119 to 120	E-397914 N-6002645	E-390718 N-5999004	14N	8064m

Potential Effects:

Loss of Night Owl Habitat

Specific Mitigation:

- 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-S12	N3-LUse-100	Tom Lamb WMA	Site: 117 to 118	E-399755 N-6003576	E-386710 N-5996976	14N	14619 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.

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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

Land Use

- Conservation

Water

- Groundwater

Wildlife

- Birds 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-S12	N3-Aqua-121	Unnamed Headwater or Side Tributaries into Little Frog Creek	394105	6000721	14N	40m	N/A	Low	No Fish Habitat
N3-S12	N3-Aqua-122	Unnamed Tributary into Little Frog Creek	391397	5999349	14N	32m	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: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-LUse-100	Tom Lamb WMA	Site: 117 to 118	E-399755 N-6003576	E-386710 N-5996976	14N	14619 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: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-Wild-106	Owls	Site: 119 to 120	E-397914 N-6002645	E-390718 N-5999004	14N	8064m

Potential Effects:

Loss of Night Owl Habitat

Specific Mitigation:

- 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
N3-S12	N3-Aqua-201	Aquifers Vulnerable to contamination	Site: 121 to 122	E-393304 N-6000312	E-386710 N-5996976	14N	7389 m

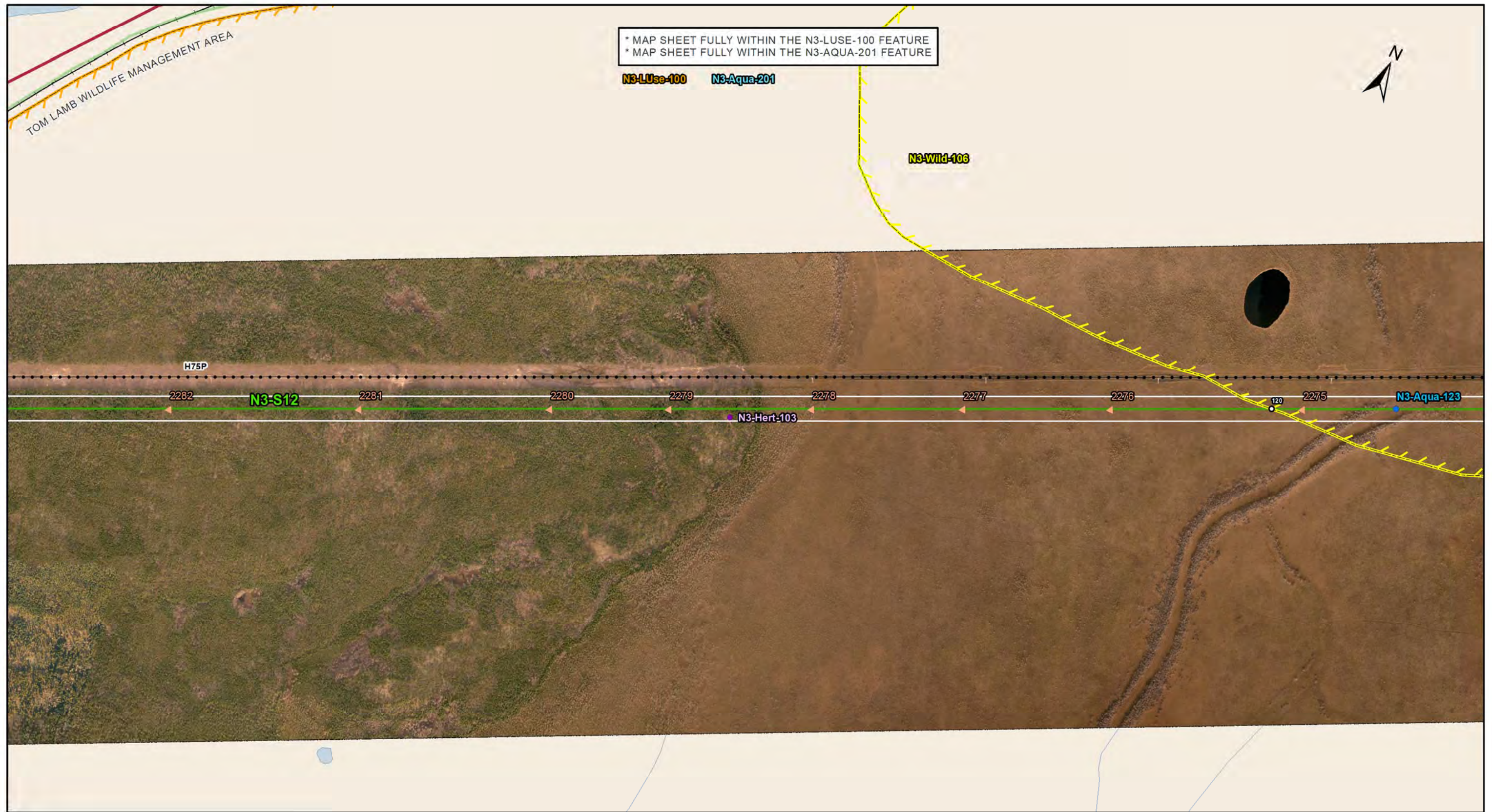
Potential Effects:

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

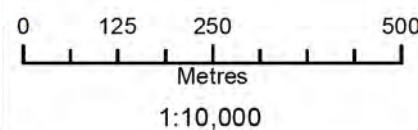
Specific Mitigation:

- 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.

DOCUMENT PATH: G:\GIS\PROJECT_FOLDER000_HYDRO\111440054_BPIII_EPP\ARCMAP\ESS_N3\BPIII_CENVPP_N3SECTION_MAPBOOK_20161031.MXD



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

- Heritage**
- Archaeological
- Water**
- Water Crossing
- Land Use**
- Conservation
- Water**
- Groundwater
- Wildlife**
- Birds and Habitat

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-S12	N3-Hert-103	Cormorant Lake Petroform Site	389420	5998320	14N

Potential Effects:

Potential disturbance to Heritage Resources

Specific Mitigation:

- 10 metre buffer fencing placed around site with a second perimeter of fencing placed at 20 metres from the site within which only selective clearing will take place
- 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-S12	N3-Aqua-123	Unnamed Tributary into Little Frog Creek	391020	5999158	14N	35m	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: Conservation

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-LUse-100	Tom Lamb WMA	Site: 117 to 118	E-399755 N-6003576	E-386710 N-5996976	14N	14619 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: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N3-S12	N3-Wild-106	Owls	Site: 119 to 120	E-397914 N-6002645	E-390718 N-5999004	14N	8064m

Potential Effects:

Loss of Night Owl Habitat

Specific Mitigation:

- 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
N3-S12	N3-Aqua-201	Aquifers Vulnerable to contamination	Site: 121 to 122	E-393304 N-6000312	E-386710 N-5996976	14N	7389 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.