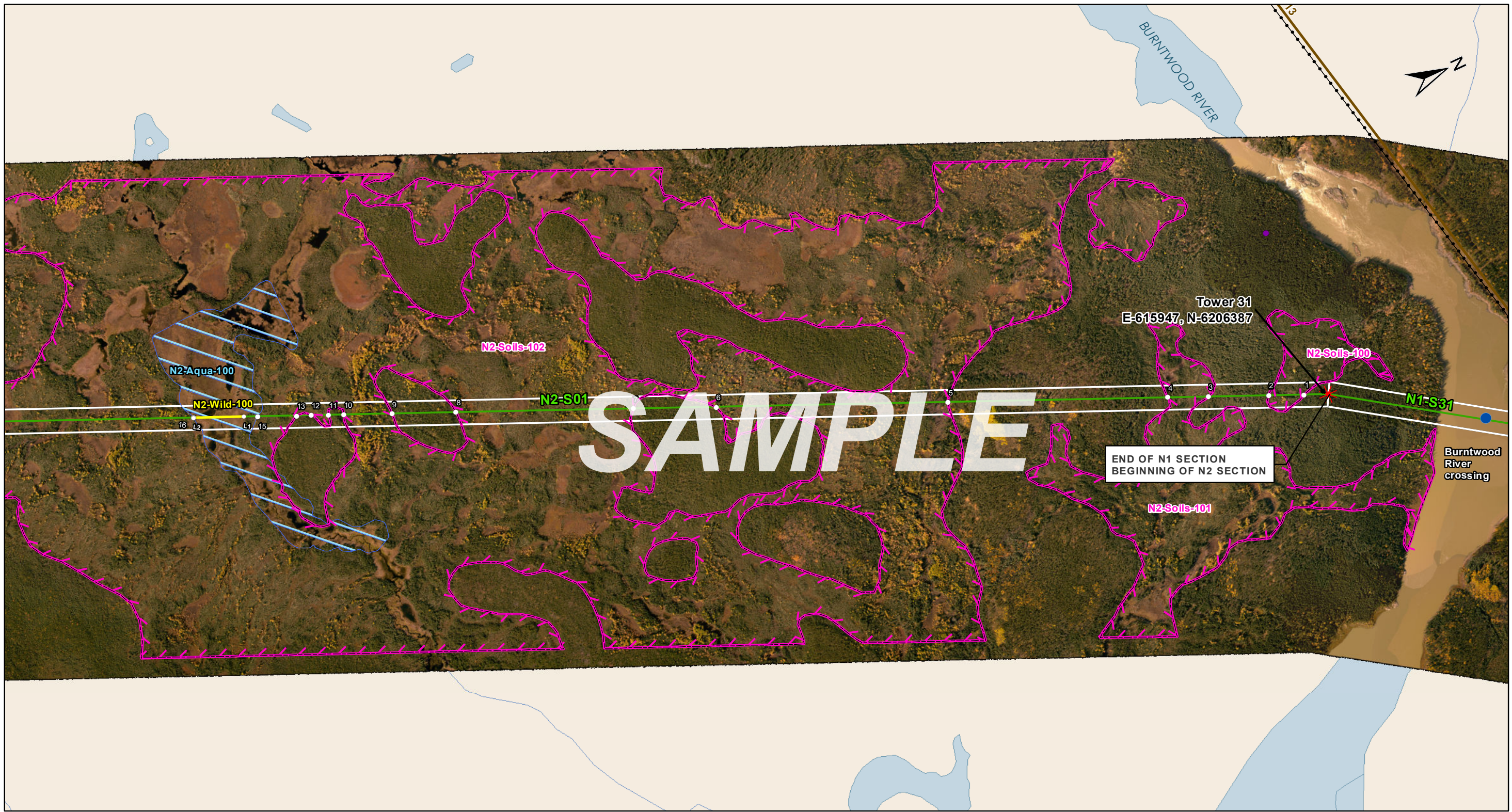
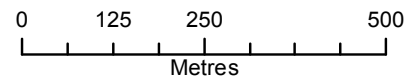


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Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: December 01, 2013



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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

- Heritage**
- Wildlife**
- Birds and Habitat
- Soils and Terrain**
- Permafrost
- Water**
- Water Crossing

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N2
 Environmentally Sensitive Site Locations**

SAMPLE MITIGATION TABLE (see adjacent KEY for additional information)

MAP NUMBER : 61 ¹

ESS Group : Permafrost ²

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Soils-100	Permafrost	Site: 1 to 2	E- 615921 N- 6206328	E- 615882 N- 6206242	14N	95 m
N2-S01	N2-Soils-102	Permafrost	Site: 13 to 14	E- 614820 N- 6203884	E- 614309 N- 6202749	14N	1244 m

Potential Effects: ⁴

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

Specific Mitigation: ⁵

- 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

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Aqua-100	Unnamed tributary of Burntwood River	Site: 15 to 16	E- 614778 N- 6203790	E- 614707 N- 6203634	14N	171 m

Potential Effects: ⁴

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

Specific Mitigation: ⁵

- 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. Use existing trails, roads or cut lines whenever possible as access routes

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Wild-100	Waterfowl Sensitivity Area	Site: L1 to L2	E- 614763 N-6203757	E-614708 N-6203636	14N	132 m

Potential Effects: ⁴

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 400 meters away

Specific Mitigation: ⁵

- 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

***Mitigation shown includes only a sample of actual mitigation for the ESS features listed; refer to the Construction Environmental Protection plan for all specific mitigation measures recommended**

KEY to SAMPLe MITIGATION TABLE

1 Map on which ESS listed in the ESS Location Summary tables are illustrated

2 ESS Group classification of ESS shown on the map

3 ESS location summary; includes the following fields:

- Sec-Seg - ID of the construction section (i.e. N2) and segment (i.e. S03) for ESS location
- ESS ID - Site specific ID assigned to each ESS according to **naming convention** listed below
- ESS Name - Brief name/description of ESS
- Easting/Northing - UTM coordinates of ESS location (for points only)
- Location - site identification numbers for the start and stop site points of ESS intersection with the ROW (lines and polygons only)
- Start/Stop - UTM coordinates of the start/stop identification numbers listed in the "Location" field (lines and polygons only)
- Characteristics of stream crossings identified in the ESS Location Summary tables (where applicable and as information is available)

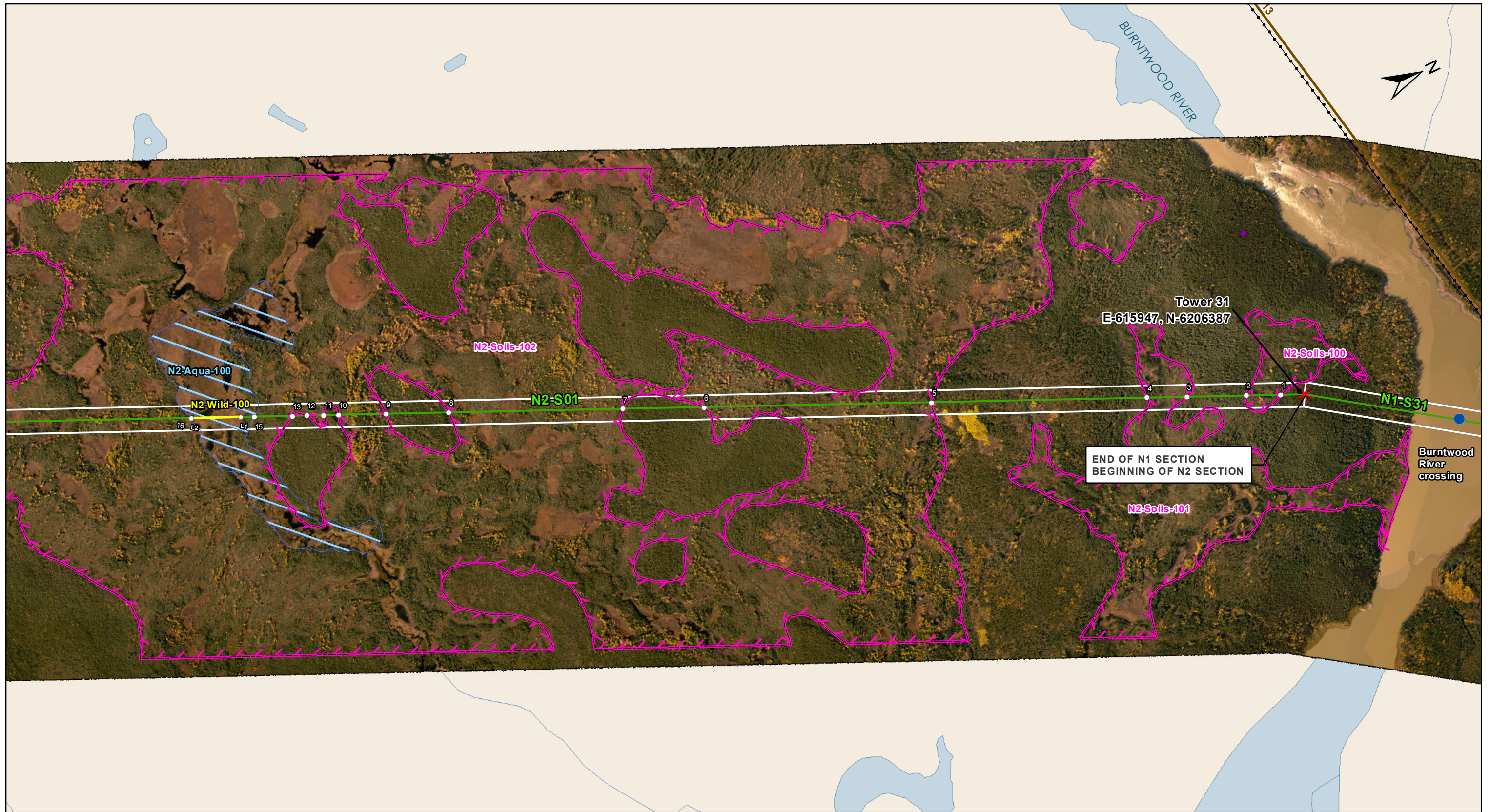
4 Potential effects identified for ESS listed in the ESS Location Summary table

5 Mitigation measures identified for ESS listed in the ESS Location Summary table

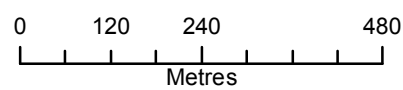
ESS NAMING CONVENTION

CATEGORY	GROUP (Number Series Representing Group)	ESS ID (Section ID-Category-Group Number)
Access	Intersection (100)	N2-Acss-100
Ecosystem	Habitat (100)	N2-Eco-100
	Research (200)	N2-Eco-200
	Species of Concern (300)	N2-Eco-300
Heritage	Archaeological (100)	N2-Hert-100
	Cultural (200)	N2-Hert-200
	Historic (300)	N2-Hert-300
Land Use	Conservation (100)	N2-LUse-100
	Crown Land Encumbrance (200)	N2-LUse-200
	Recreation (300)	N2-LUse-300
	Residential (400)	N2-LUse-400
Resource Use	Agriculture (100)	N2-RUse-100
	Food/Medicinal (200)	N2-RUse-200
	Forestry (300)	N2-RUse-300
	Hunting/Fishing (400)	N2-RUse-400
	Trapping (500)	N2-RUse-500
Soils and Terrain	Permafrost (100-200)	N2-Soils-100
	Erosion (300)	N2-Soils-300
	Terrain (400)	N2-Soils-400
Water	Water Crossing (100)	N2-Aqua-100
	Groundwater (200)	N2-Aqua-200
	Wetlands (300)	N2-Aqua-300
Wildlife	Birds and Habitat (100)	N2-Wild-100
	Mammal and Habitat (200)	N2-Wild-200
	Reptiles/Amphibians and Habitat (300)	N2-Wild-300

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Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: December 02, 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

- Heritage**
- Wildlife**
- Birds and Habitat
- Soils and Terrain**
- Permafrost
- Water**
- Water Crossing

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N2
 Environmentally Sensitive Site Locations**

MAP NUMBER : 61

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Soils-100	Permafrost	Site: 1 to 2	E- 615921 N- 6206328	E- 615882 N- 6206242	14N	95 m
N2-S01	N2-Soils-101	Permafrost	Site: 3 to 4	E- 615816 N- 6206095	E- 615772 N- 6205997	14N	108 m
N2-S01	N2-Soils-102	Permafrost	Site: 5 to 6	E- 615532 N- 6205465	E- 615279 N- 6204902	14N	617 m
N2-S01	N2-Soils-102	Permafrost	Site: 7 to 8	E- 615188 N- 6204701	E-419392 N-6019121	14N	472 m
N2-S01	N2-Soils-102	Permafrost	Site: 9 to 10	E- 614924 N- 6204116	E- 614872 N- 6203998	14N	129 m
N2-S01	N2-Soils-102	Permafrost	Site: 11 to 12	E- 614855 N- 6203962	E- 614872 N- 6203998	14N	46 m
N2-S01	N2-Soils-102	Permafrost	Site: 13 to 14	E- 614820 N- 6203884	E- 614309 N- 6202749	14N	1244 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
- Avoid organic soils containing permafrost 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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Aqua-100	Unnamed tributary of Burntwood River	Site: 15 to 16	E- 614778 N- 6203790	E- 614707 N- 6203634	14N	171 m

Potential Effects:

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

Specific Mitigation:

- Riparian Buffers shall be a minimum of 30m and increase in size based on slope of land entering waterway. Within these buffers shrub and herbaceous understory veg will be maintained along with trees that do not violate MH Veg Clearance Requirements. Use existing trails, roads or cut lines whenever possible as access routes
- 7m no machine zone will restrict equipment in close proximity to the waterbody except at the trail crossing

ESS Group : Birds and Habitat

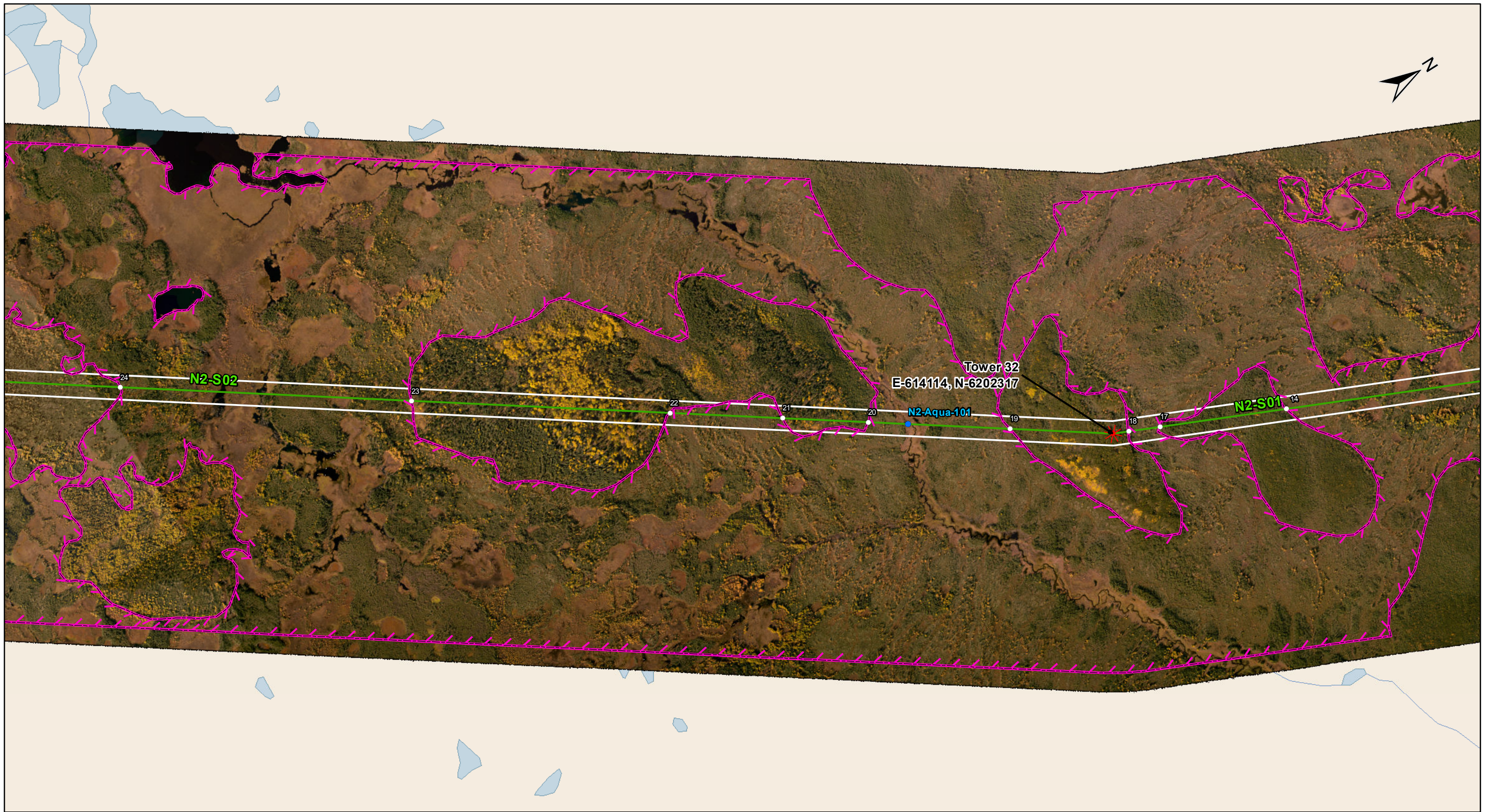
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Wild-100	Waterfowl Sensitivity Area	Site: L1 to L2	E- 614763 N-6203757	E-614708 N-6203636	14N	132 m

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 400 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



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: December 02, 2013

0 120 240 480
 Metres

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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
 - Soils and Terrain
 - Permafrost

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N2
 Environmentally Sensitive Site Locations**

MAP NUMBER : 62

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S01	N2-Soils-102	Permafrost	Site: 13 to 14	E- 614820 N- 6203884	E- 614309 N- 6202749	14N	1244 m
N2-S01	N2-Soils-102	Permafrost	Site: 17 to 18	E- 614167 N- 6202435	E- 614132 N- 6202356	14N	86 m
N2-S01	N2-Soils-102	Permafrost	Site: 19 to 20	E- 613954 N- 6202088	E- 613733 N- 6201773	14N	384 m
N2-S01	N2-Soils-102	Permafrost	Site: 21 to 22	E- 613600 N- 6201583	E- 613424 N- 6201333	14N	306 m
N2-S01	N2-Soils-102	Permafrost	Site: 23 to 24	E- 613022 N- 6200759	E- 612568 N- 6200112	14N	790 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
- Avoid organic soils containing permafrost 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

- 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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N2-S02	N2-Aqua-101	Unnamed tributary of Burntwood River	613795	6201863	14N	3m	3m	Marginal	Moderate

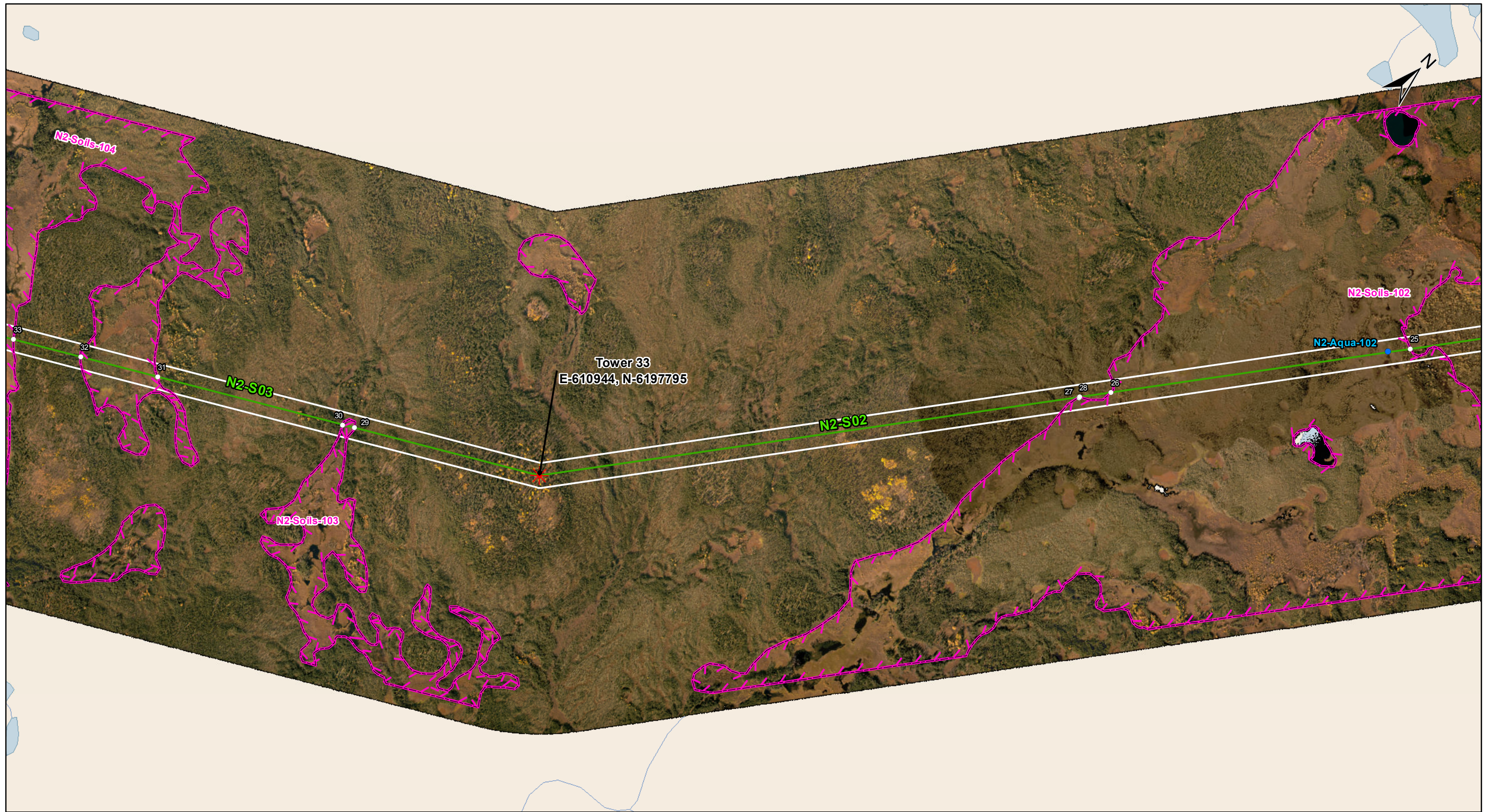
Potential Effects:

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

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Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: December 02, 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
- Soils and Terrain
- Permafrost

**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section N2
 Environmentally Sensitive Site Locations**

MAP NUMBER : 63

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S02	N2-Soils-102	Permafrost	Site: 25 to 26	E- 612313 N- 6199748	E- 611842 N- 6199075	14N	821 m
N2-S02	N2-Soils-102	Permafrost	Site: 27 to 28	E- 611793 N- 6199006	E- 611792 N- 6199004	14N	1 m
N2-S02	N2-Soils-103	Permafrost	Site: 29 to 30	E- 610505 N- 6197519	E- 610477 N- 6197501	14N	33 m
N2-S02	N2-Soils-104	Permafrost	Site: 31 to 32	E- 610038 N- 6197226	E- 609855 N- 6197111	14N	216 m
N2-S03	N2-Soils-104	Permafrost	Site: 33 to 34	E- 613022 N- 6200759	E- 609855 N- 6197111	14N	790 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
- Avoid organic soils containing permafrost 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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N2-S02	N2-Aqua-102	Tributary of Burntwood River	612278	6199698	14N	N/A	N/A	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