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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 : 81

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S10	N2-Soils-129	Permafrost	Site: 191 to 192	E-575852 N-6144656	E-575766 N-6144600	14N	103 m
N2-S10	N2-Soils-130	Permafrost	Site: 193 to 194	E-575119 N-6144173	E-574650 N-6143865	14N	561 m
N2-S10	N2-Soils-130	Permafrost	Site: 195 to 196	E-573940 N-6143397	E-573645 N-6143203	14N	353 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

- 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-S10	N2-Aqua-140	Unnamed Tributary into Partridge Crop Lake	574800	6143963	14N	2m	2m	Marginal	Moderate

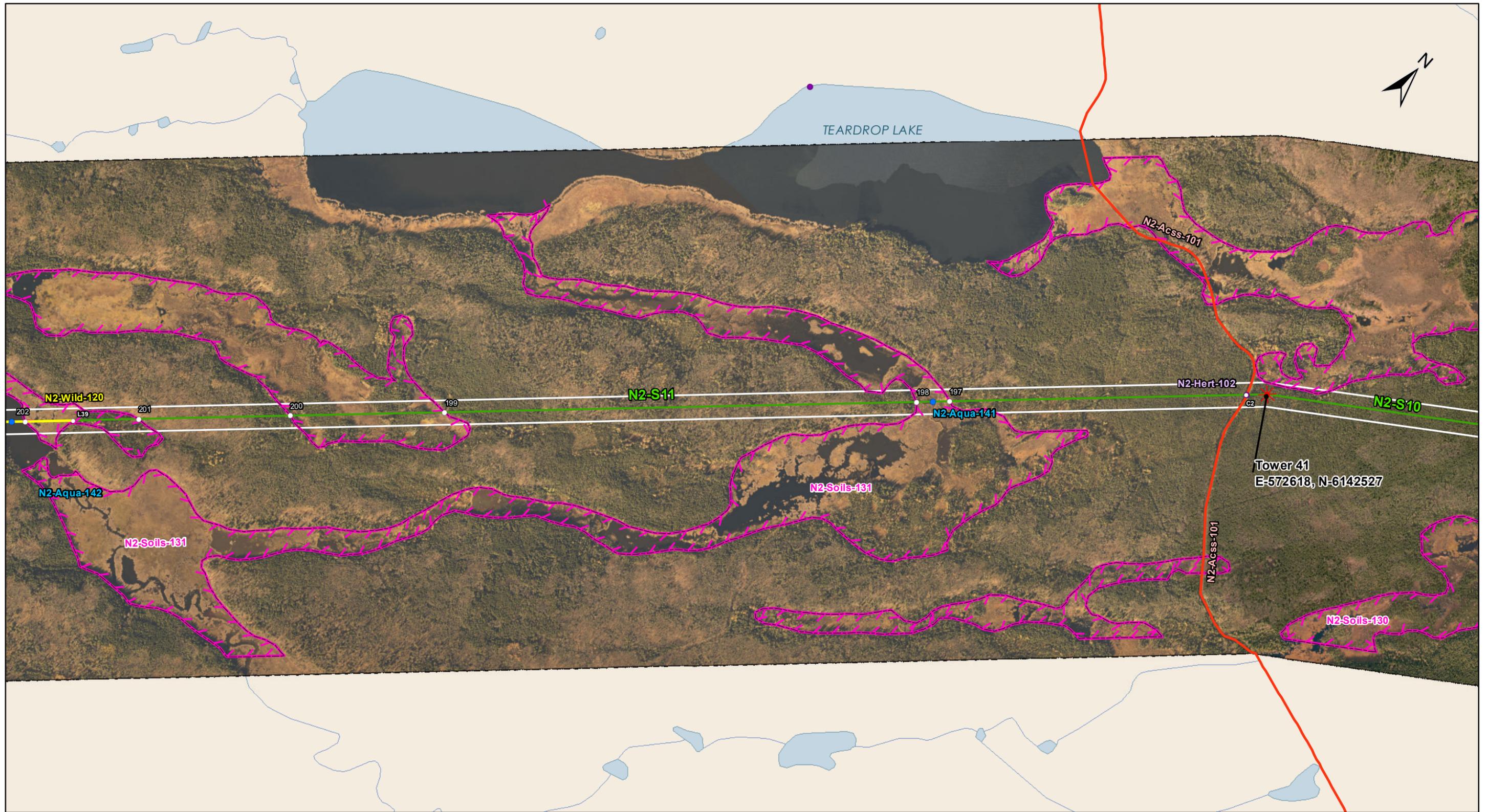
Potential Effects:

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

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Project Infrastructure

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Points of Access*

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*Labels correspond to BPIII Access Management Database

ESS Features

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

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

MAP NUMBER : 82

ESS Group : Intersection

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N2-S11	N2-Acss-101	Winter Route	572578	6142490	14N

Potential Effects:

Potential interference with road traffic; safety issues

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
- Notify Manitoba Infrastructure and Transportation (MIT)/winter road operator and local authorities regarding construction activities and schedule, and address concerns prior to construction
- Avoid surface damage to and obstruction of access route
- Ensure that access road/trail are visible from RoW
- Provide warning signage for vehicle traffic and public safety

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N2-S11	N2-Hert-102	Historical route	572440	6142283	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 : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Soils-131	Permafrost	Site: 197 to 198	E-571984 N-6141943	E-571918 N-6141883	14N	89 m
N2-S11	N2-Soils-132	Permafrost	Site: 199 to 200	E-570975 N-6141015	E-570666 N-6140731	14N	420 m
N2-S11	N2-Soils-132	Permafrost	Site: 201 to 202	E-570363 N-6140453	E-570137 N-6140245	14N	308 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 : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Wild-120	Waterfowl sensitivity area	Site: L39 to L40	E- 570232 N-6140332	E-570054 N-6140169	14N	242 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 setback during 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

MAP NUMBER : 82 cont'd

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-S11	N2-Aqua-141	Unnamed Tributary into Teardrop Lake	571950	6141913	14N	5m	5m	Marginal	Moderate
N2-S11	N2-Aqua-142	Unnamed Tributary connecting Gordon Brown Lake and Wintering Lake	570109	6140220	14N	120m	120m	Marginal	Moderate

Potential Effects:

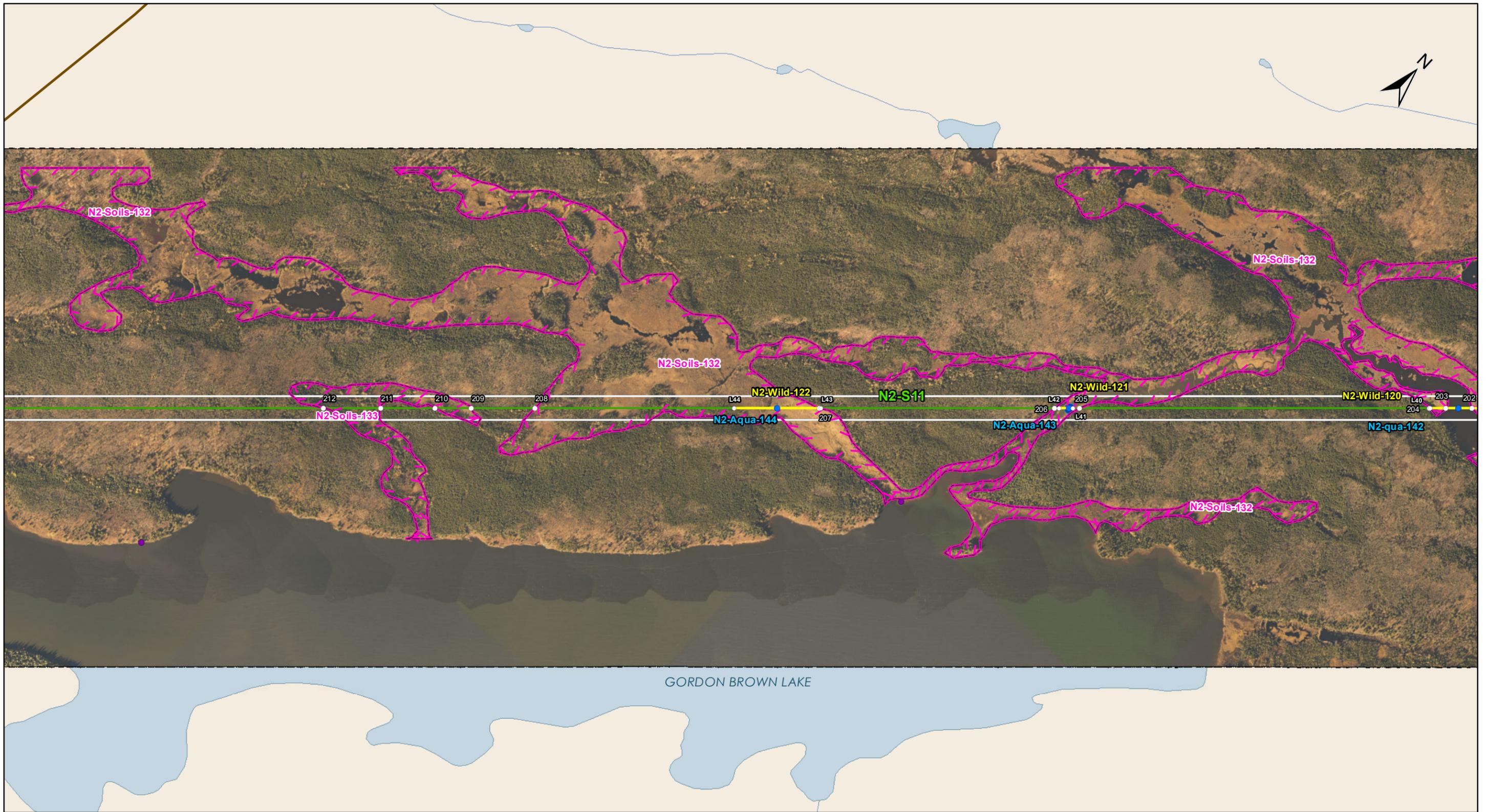
Habitat loss & contamination from structure foundations & installations; increased erosion & sedimentation of streams; damage to stream banks; loss of riparian vegetation

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
- No instream works or fording from April 15 - July 15

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

- Points of Access***
- Proposed Access Point
 - Major Stream Crossing
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- ESS Features**
- Heritage**
 - Archaeological
 - Water**
 - Water Crossing
 - Wildlife**
 - Birds and Habitat
 - Soils and Terrain**
 - Permafrost

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

MAP NUMBER : 83

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Wild-120	Waterfowl sensitivity area	Site: L39 to L40	E- 570232 N-6140332	E-570054 N-6140169	14N	242 m
N2-S11	N2-Wild-121	Unnamed Creek crossing	Site: L41 to L42	E- 569341 N-6139513	E-569312 N-6139486	14N	39 m
N2-S11	N2-Wild-122	Waterfowl sensitivity area	Site: L43 to L44	E- 568836 N-6139049	E-568663 N-6138889	14N	235 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 setback during timing window
- Conduct priority assessment for bird diverters and other measures prior to transmission line stringing
- Install bird diverters or other measures at high priority sites

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Soils-132	Permafrost	Site: 201 to 202	E-570363 N-6140453	E-570137 N-6140245	14N	308 m
N2-S11	N2-Soils-132	Permafrost	Site: 203 to 204	E-570085 N-6140197	E-570052 N-6140167	14N	45 m
N2-S11	N2-Soils-132	Permafrost	Site: 205 to 206	E-569353 N-6139524	E-569303 N-6139478	14N	68 m
N2-S11	N2-Soils-132	Permafrost	Site: 207 to 208	E-568832 N-6139045	E-568265 N-6138523	14N	68 m
N2-S11	N2-Soils-132	Permafrost	Site: 209 to 210	E-568138 N-6138406	E-568065 N-6138340	14N	98 m
N2-S11	N2-Soils-132	Permafrost	Site: 211 to 212	E-567956 N-6138239	E-567842 N-6138134	14N	155 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-S11	N2-Aqua-142	Unnamed Tributary connecting Gordon Brown Lake and Wintering Lake	570109	6140220	14N	120m	120m	Marginal	Moderate
N2-S11	N2-Aqua-143	Unnamed Tributary of Wintering Lake	569331	6139504	14N	12m	12m	Important	Low
N2-S11	N2-Aqua-144	Unnamed Tributary into Gordon Brown Lake	568748	6138968	14N	63m	N/A	Marginal	Moderate

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
- No instream works or fording from April 15 - July 15



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- ESS Features**
- Soils and Terrain**
- ▭ Permafrost

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

MAP NUMBER : 84

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Soils-134	Permafrost	Site: 213 to 214	E- 564905 N- 6135433	E- 564392 N- 6134961	14N	697 m

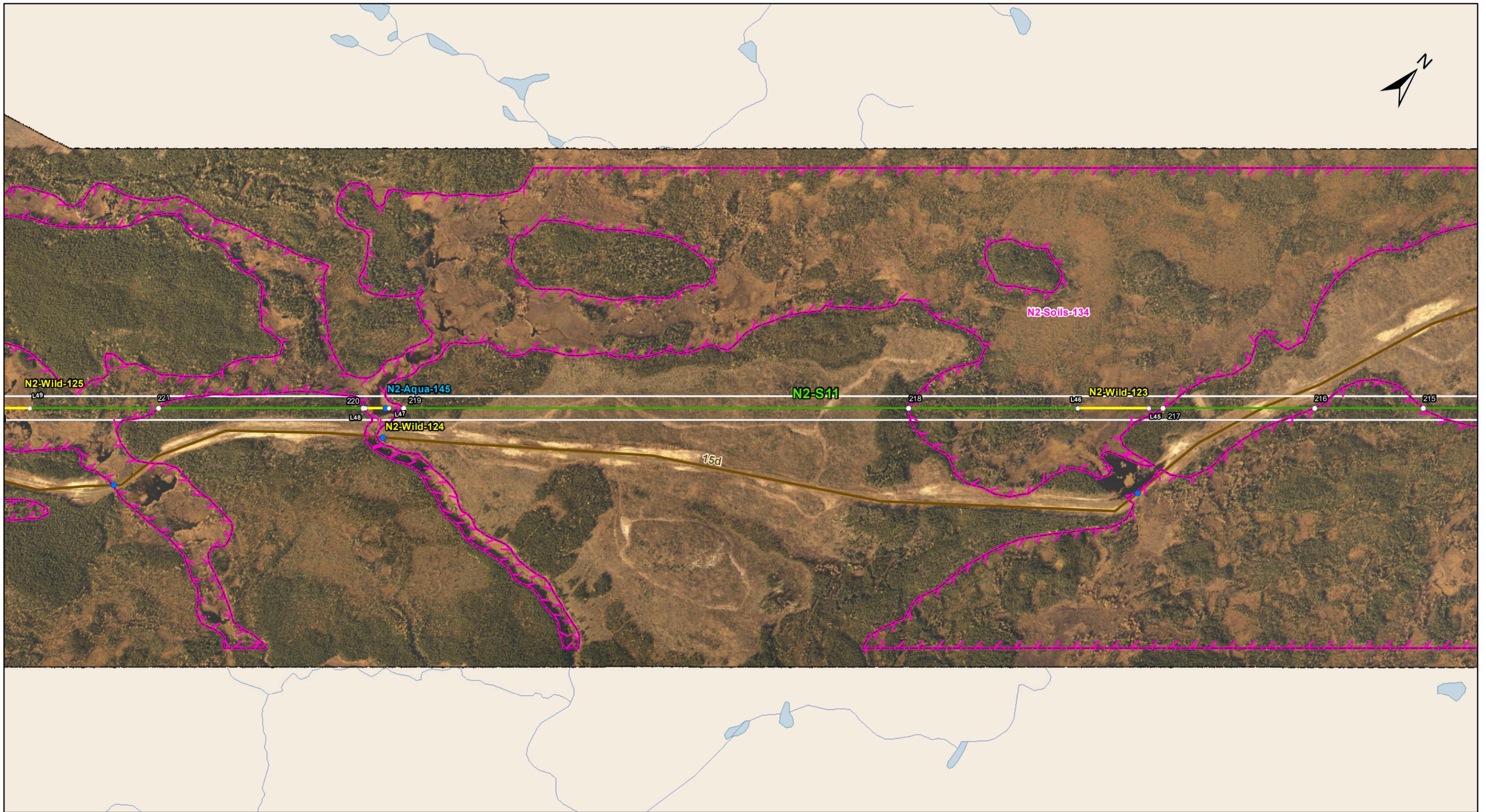
Potential Effects:

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

Specific Mitigation:

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- 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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- Soils and Terrain**
- Permafrost

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

MAP NUMBER : 85

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Soils-134	Permafrost	Site: 215 to 216	E-564210 N-6134794	E-563993 N-6134594	14N	295 m
N2-S11	N2-Soils-134	Permafrost	Site: 217 to 218	E-563690 N-6134316	E-563182 N-6133848	14N	691 m
N2-S11	N2-Soils-134	Permafrost	Site: 219 to 220	E-562173 N-6132920	E-562093 N-6132846	14N	109 m
N2-S11	N2-Soils-134	Permafrost	Site: 221 to 222	E-561683 N-6132470	E-561125 N-6131956	14N	759 m

Potential Effects:

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

Specific Mitigation:

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ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S11	N2-Wild-123	Nearby Bonaparte's gull colony	Site: L45to L46	E- 563663 N-6134291	E-563521 N-6134160	14N	193 m
N2-S11	N2-Wild-124	Unnamed Creek crossing	Site: L47 to L48	E- 562144 N-6132894	E-562097 N-6132850	14N	64 m
N2-S11	N2-Wild-125	Waterfowl sensitivity area	Site: L49 to L50	E- 561427 N-6132234	E-561259 N-6132080	14N	228 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 setback during 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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N2-S11	N2-Aqua-145	Unnamed Tributary of Wintering Lake	562137	6132888	14N	34m	34m	Marginal	Moderate

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
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