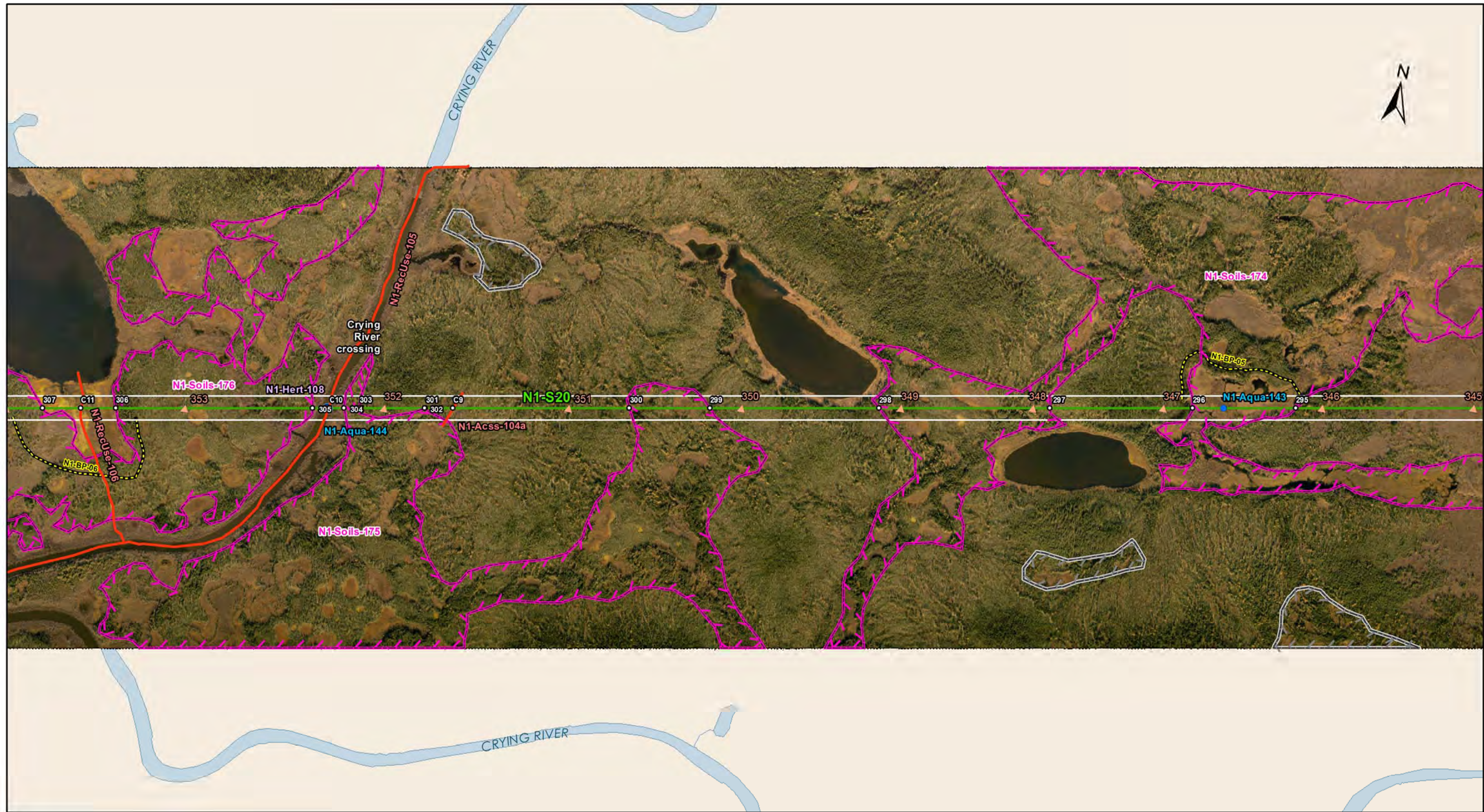


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Data Source: MB Hydro, ProvMB, NRCAN
Date Created: November 12, 2015
Version: Final 4.0

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

- Project Infrastructure**
- Angle Tower Locations*
 - Towers (Preliminary)*
 - BP/III 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
- RecUse**
- Intersection
- Soils and Terrain**
- Permafrost

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section N1
Environmentally Sensitive Site Locations
Map 40

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N1-S20	N1-Hert-108	Crying River	676592	6249671	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
N1-S20	N1-Aqua-143	Unnamed Tributary of Assean River	678980	6250132	14N	N/A	N/A	Moderate	Marginal
N1-S20	N1-Aqua-144	Crying River	676590	6249670	14N	10m	27m	Low	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: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N1-S20	N1-RecUse-104A	C9	Snowmobile Trail	E-676931 N-6249736	14N

Potential Effects:

Potential interference with snowmobilers; safety issues

Specific Mitigation:

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

ESS Group: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N1-S20	N1-RecUse-105	C10	River Trail	E-676601 N-6249672	14N
N1-S20	N1-RecUse-106	C11	Trail	E-675942 N-6249545	14N

Potential Effects:

Potential disturbance of access

Specific Mitigation:

- 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: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S20	N1-Soils-174	Permafrost	Site: 295 to 296	E-679174 N-6250169	E-678899 N-6250116	14N	280 m
N1-S20	N1-Soils-174	Permafrost	Site: 297 to 298	E-678519 N-6250042	E-678064 N-6249954	14N	463 m
N1-S20	N1-Soils-175	Permafrost	Site: 299 to 300	E-677614 N-6249867	E-677400 N-6249826	14N	217 m
N1-S20	N1-Soils-175	Permafrost	Site: 301 to 302	E-676858 N-6249722	E-676855 N-6249721	14N	2 m
N1-S20	N1-Soils-175	Permafrost	Site: 303 to 304	E-676683 N-6249688	E-676641 N-6249680	14N	42 m
N1-S20	N1-Soils-176	Permafrost	Site: 305 to 306	E-676556 N-6249663	E-676034 N-6249563	14N	531 m
N1-S20	N1-Soils-176	Permafrost	Site: 307 to 308	E-675840 N-6249525	E-675272 N-6249415	14N	578 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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- 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**
- RecUse**
- Intersection
- Soils and Terrain**
- Permafrost

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section N1
Environmentally Sensitive Site Locations
Map 41

ESS Group: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N1-S20	N1-RecUse-107	C12	Winter Trail	E-675107 N-6249384	14N

Potential Effects:

Potential disturbance of access

Specific Mitigation:

- 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: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S20	N1-Soils-176	Permafrost	Site: 307 to 308	E-675840 N-6249525	E-675272 N-6249415	14N	578 m
N1-S20	N1-Soils-177	Permafrost	Site: 309 to 310	E-674689 N-6249303	E-674599 N-6249286	14N	91 m
N1-S21	N1-Soils-177	Permafrost	Site: 311 to 312	E-674599 N-6249286	E-674480 N-6249239	14N	127 m
N1-S21	N1-Soils-178	Permafrost	Site: 313 to 314	E-673737 N-6248945	E-673686 N-6248925	14N	54 m

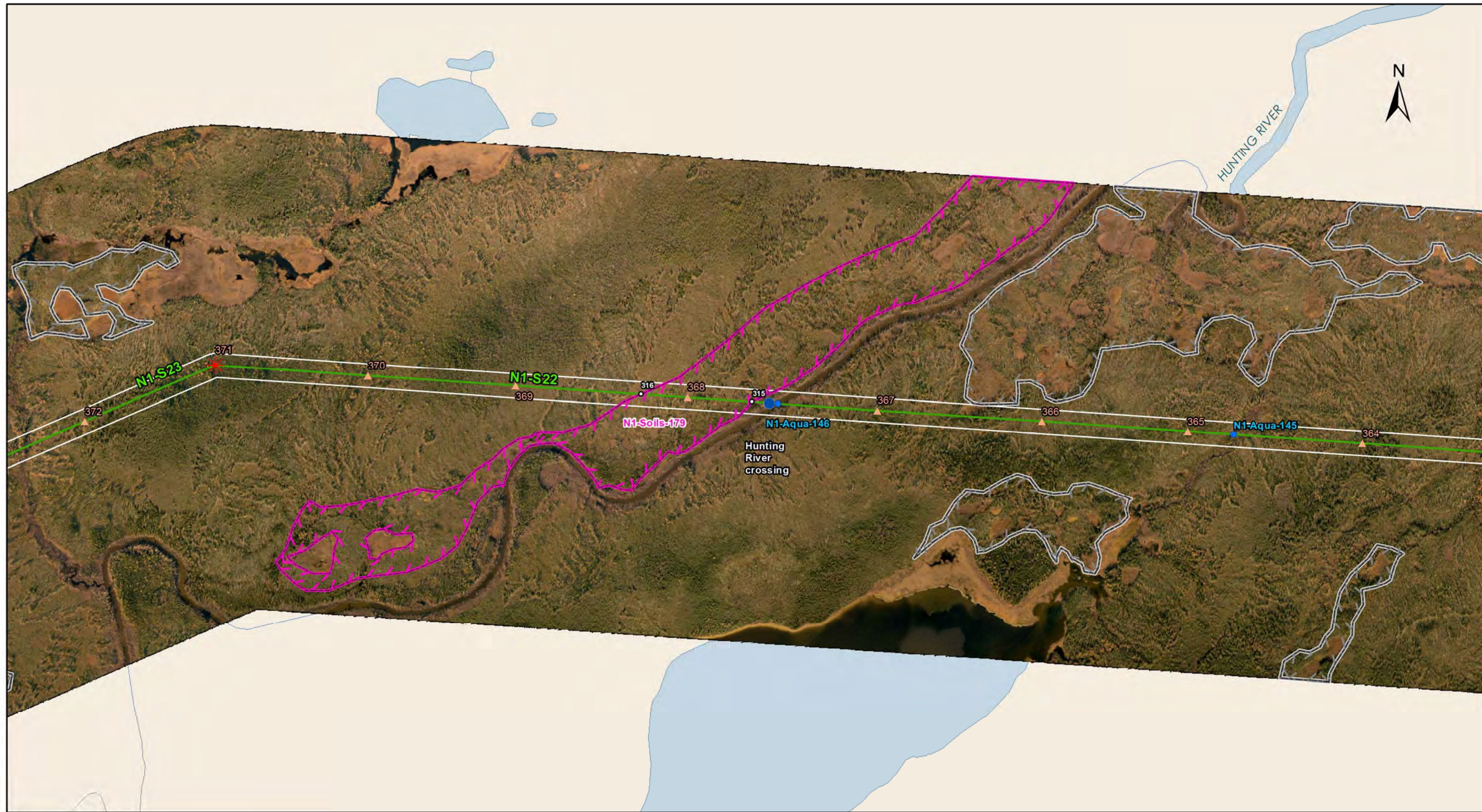
Potential Effects:

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

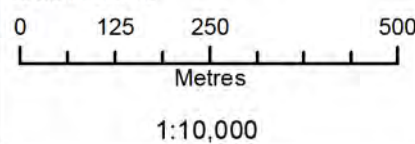
Specific Mitigation:

- 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

Project Infrastructure

- Angle Tower Locations*
- Towers (Preliminary)*
- BP/II 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
- Soils and Terrain
- Permafrost

Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N1 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
N1-S22	N1-Aqua-145	Unnamed Tributary of Hunting River	671335	6248510	14N	N/A	N/A	Low	Marginal
N1-S22	N1-Aqua-146	Hunting River	670099	6248578	14N	14.5m	14.5m	Low	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: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S22	N1-Soils-179	Permafrost	Site: 316 to 315	E-669728 N-6248598	E-670030 N-6248582	14N	302m

Potential Effects:

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

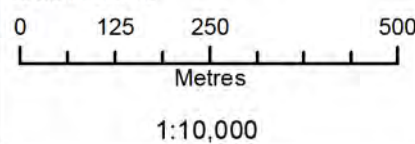
Specific Mitigation:

- 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

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

Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N1 Environmentally Sensitive Site Locations

Map 43

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N1-S23	N1-Aqua-148	Awaweyaykamak Creek	665031	6247072	14N	2.5m	2.5m	Moderate	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

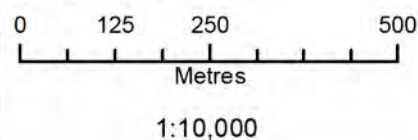
Specific Mitigation:

- 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

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Land Base

- Transmission Line
- Highway
- Major Road
- Local Road
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- Railway (Operational)
- Railway (Discontinued)
- Mining

Project Infrastructure

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Points of Access

- Proposed Access Point
- Major Stream Crossing
- Abandoned Rail Crossing
- Rail Crossing
- Transmission Line Crossing
- Bypass Trails
- Approved Access Route

ESS Features

- Soils and Terrain
- Permafrost

Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N1 Environmentally Sensitive Site Locations

Map 44

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S23	N1-Soils-180	Permafrost	Site: 317 to 318	E-663878 N-6246554	E-662539 N-6245953	14N	1467m
N1-S23	N1-Soils-180	Permafrost	Site: 319 to 320	E-662361 N-6245873	E-662339 N-6245863	14N	23m

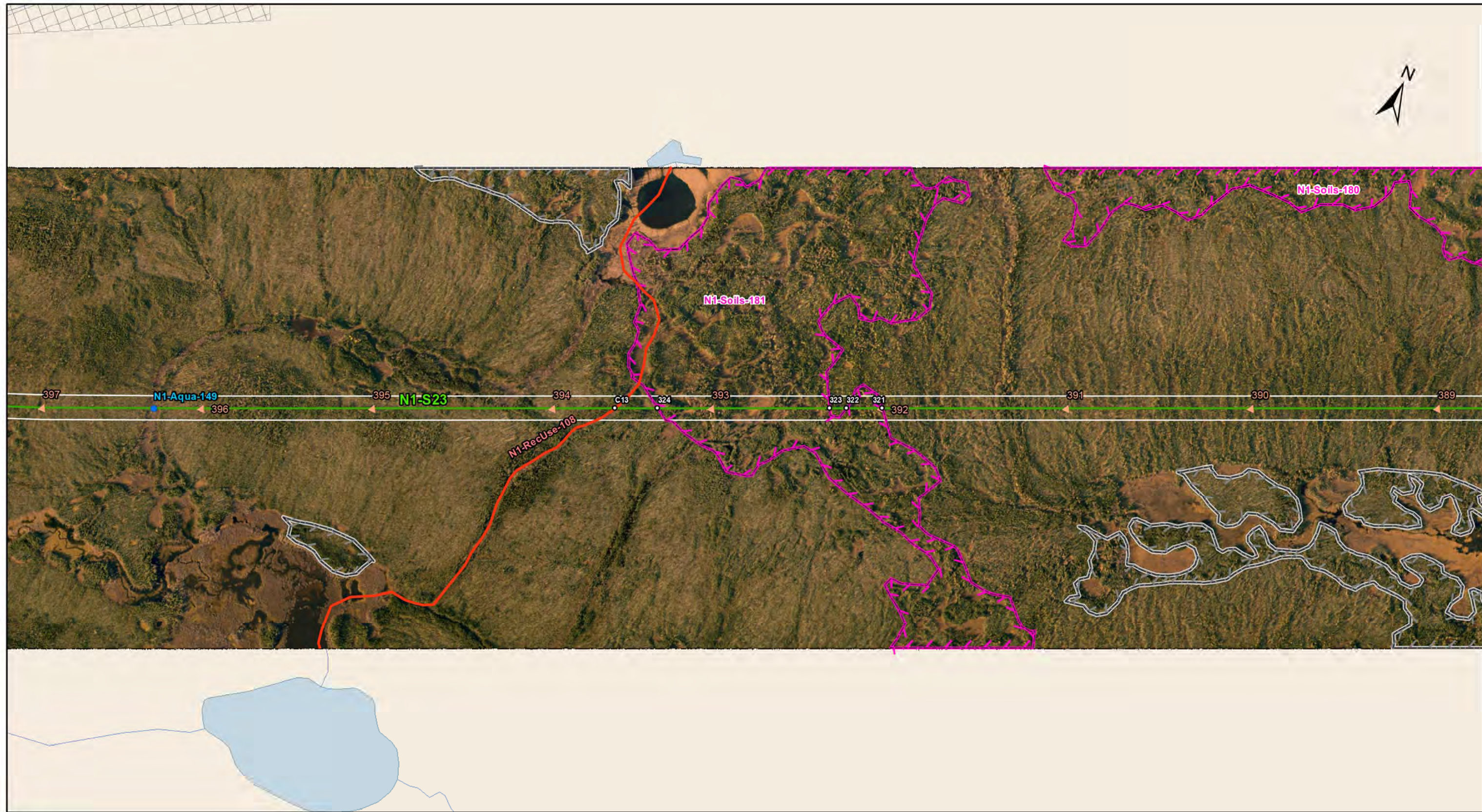
Potential Effects:

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

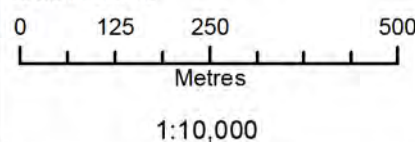
Specific Mitigation:

- 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

Project Infrastructure

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- Towers (Preliminary)*
- BPIII Final Preferred Route
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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
- RecUse**
- Intersection
- Soils and Terrain**
- Permafrost

Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N1 Environmentally Sensitive Site Locations

Map 45

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N1-S23	N1-Aqua-149	Unnamed Tributary of Hunting River	657544	6243710	14N	25.4m	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
- No instream works or fording from April 1 - July 15

ESS Group: Intersection

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone
N1-S23	N1-RecUse-108	C13	Winter Trail	E-658684 N-6244221	14N

Potential Effects:

Potential disturbance of access

Specific Mitigation:

- 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: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S23	N1-Soils-181	Permafrost	Site: 321 to 322	E-659346 N-6244519	E-659257 N-6244479	14N	97m
N1-S23	N1-Soils-181	Permafrost	Site: 323 to 324	E-659216 N-6244460	E-658790 N-6244269	14N	466m

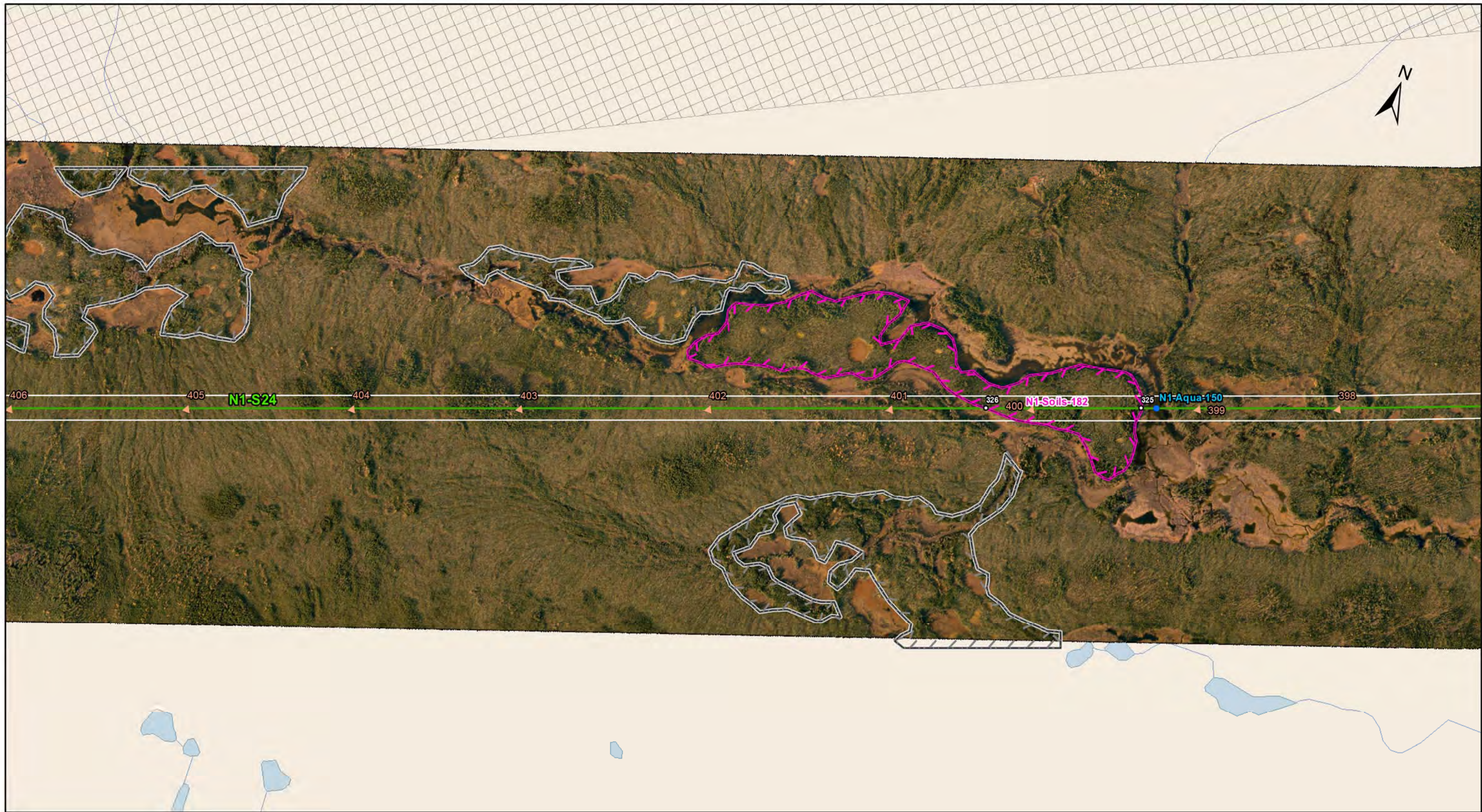
Potential Effects:

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

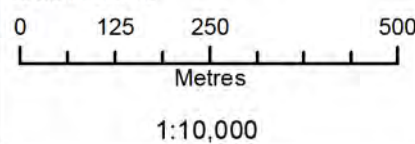
Specific Mitigation:

- 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
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- Railway (Discontinued)
- Mining

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- Major Stream Crossing
- Abandoned Rail Crossing
- Rail Crossing
- Transmission Line Crossing
- Bypass Trails
- Approved Access Route

ESS Features

- Water**
- Water Crossing
- Soils and Terrain**
- Permafrost

Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N1 Environmentally Sensitive Site Locations

Map 46

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N1-S24	N1-Aqua-150	Unnamed Tributary of Hunting River	656412	6243250	14N	60.9m	14.3m	Moderate	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
N1-S24	N1-Soils-182	Permafrost	Site: 325 to 326	E-656373 N-6243235	E-655980 N-6243083	14N	421m

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