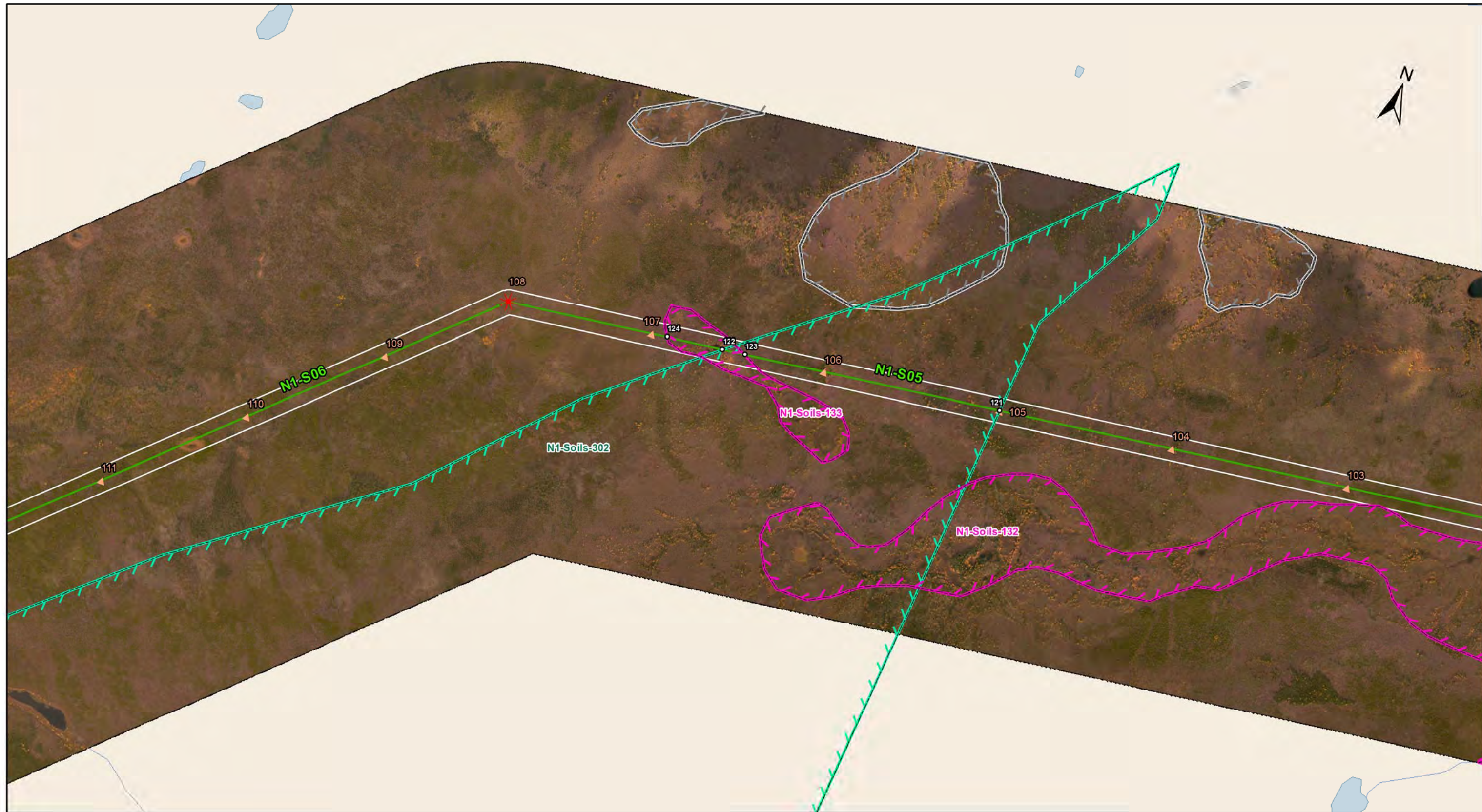


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Version: Final 4.0

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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)\*
  - 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**
- Soils and Terrain**
- Terrain
  - Permafrost

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



ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-302	Enduring Features (Unique Terrain/Soil Features)	Site: 121 to 122	E-767167 N-6289733	E-766404 N-6289630	14N	769m

Potential Effects:

Impairment or loss of approximately 36 ha (2.2 %) of rare occurrence PAI enduring feature from right-of-way establishment.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid development of new borrow areas, access routes and other activities within enduring features
- Maintain 100m setback around feature outside of ROW
- Minimize movement of vehicles, machinery and equipment during construction
- Prevent off-ROW activities and equipment use within terrain feature, during construction

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-132	Permafrost	Site: 119 to 120	E-768929 N-6289970	E-768758 N-6289947	14N	172 m
N1-S05	N1-Soils-133	Permafrost	Site: 123 to 124	E-766466 N-6289638	E-766251 N-6289609	14N	217 m

Potential Effects:

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

Specific Mitigation:

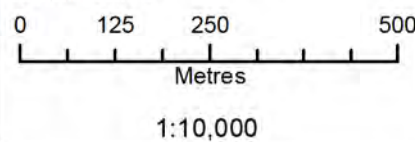
- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic 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)\*
- 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

- Soils and Terrain
- Terrain

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

Map 14



ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S6	N1-Soils-302	Enduring Features (Unique Terrain/Soil Features)	Site: 125 to 126	E-763228 N-6287070	E-759857 N-6283837	14N	4671m

Potential Effects:

Impairment or loss of approximately 36 ha (2.2 %) of rare occurrence PAI enduring feature from right-of-way establishment.

Specific Mitigation:

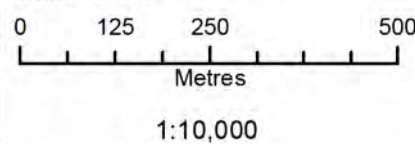
- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid development of new borrow areas, access routes and other activities within enduring features
- Maintain 100m setback around feature outside of ROW
- Minimize movement of vehicles, machinery and equipment during construction
- Prevent off-ROW activities and equipment use within terrain feature, during construction



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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

- Water**
- Water Crossing
- Soils and Terrain**
- 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-S06	N1-Aqua-121	Unnamed Tributary	759718	6283703	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

ESS Group: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S06	N1-Soils-302	Enduring Features (Unique Terrain/Soil Features)	Site: 125 to 126	E-763228 N-6287070	E-759857 N-6283837	14N	4671m

Potential Effects:

Impairment or loss of approximately 36 ha (2.2 %) of rare occurrence PAI enduring feature from right-of-way establishment.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid development of new borrow areas, access routes and other activities within enduring features
- Maintain 100m setback around feature outside of ROW
- Minimize movement of vehicles, machinery and equipment during construction
- Prevent off-ROW activities and equipment use within terrain feature, during construction

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S06	N1-Soils-134	Permafrost	Site: 127 to 128	E-760489 N-6284443	E-760380 N-6284338	14N	151 m
N1-S06	N1-Soils-135	Permafrost	Site: 129 to 130	E-759721 N-6283706	E-759611 N-6283601	14N	152 m
N1-S07	N1-Soils-136	Permafrost	Site: 131 to 132	E-759437 N-6283460	E-759313 N-6283388	14N	143 m

Potential Effects:

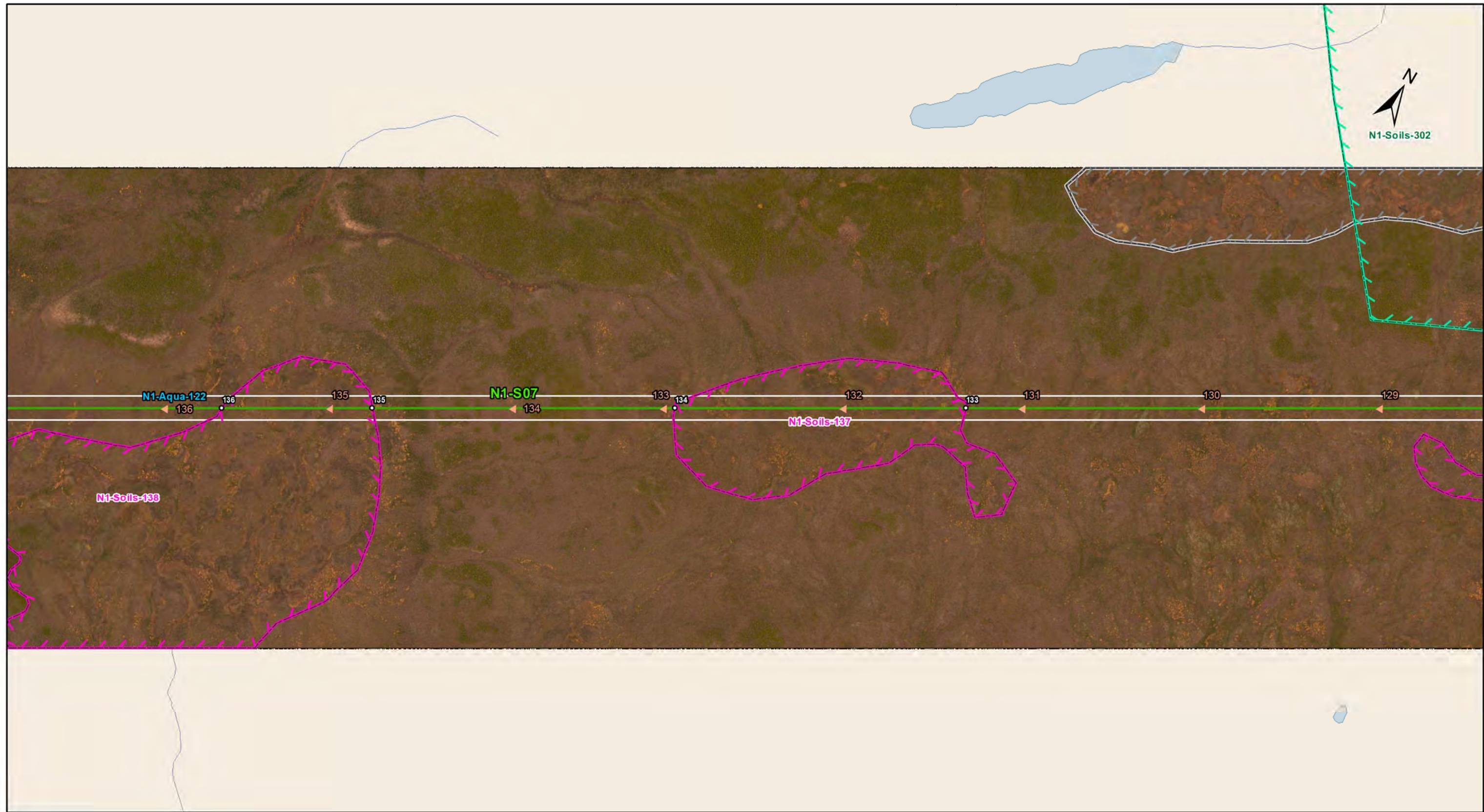
Melting or loss of permafrost due to disturbance of the active layer

Specific Mitigation:

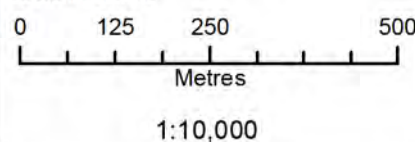
- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic 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/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

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

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

Map 16



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-S07	N1-Aqua-122	Unnamed Tributary of Limestone River	755973	6281452	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

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S07	N1-Soils-137	Permafrost	Site: 133 to 134	E-757792 N-6282506	E-757109 N-6282110	14N	789 m
N1-S07	N1-Soils-138	Permafrost	Site: 135 to 136	E-756401 N-6281700	E-756048 N-6281495	14N	407 m

Potential Effects:

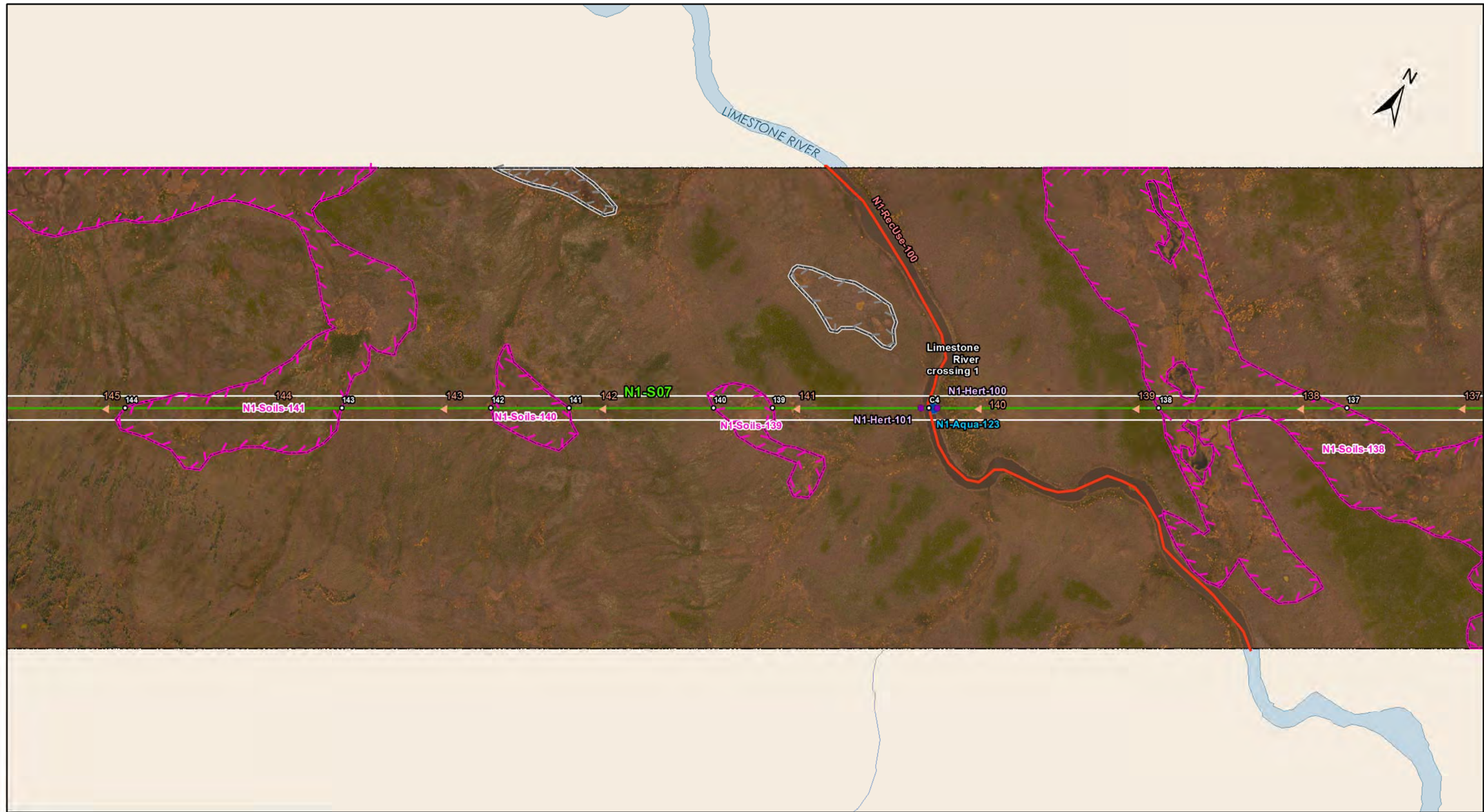
Melting or loss of permafrost due to disturbance of the active layer

Specific Mitigation:

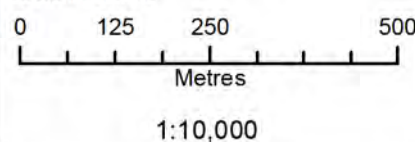
- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic 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
  - 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 17



ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N1-S07	N1-Hert-100	Limestone River	754293	6280478	14N
N1-S07	N1-Hert-101	Limestone River	754267	6280463	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-S07	N1-Aqua-123	Limestone River	754280	6280471	14N	12m	12m	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-S07	N1-RecUse-100	C4	Trail	E-754279 N-6280470	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-S07	N1-Soils-138	Permafrost	Site: 137 to 138	E-755259 N-6281038	E-754819 N-6280783	14N	509 m
N1-S07	N1-Soils-139	Permafrost	Site: 139 to 140	E-753913 N-6280258	E-753774 N-6280177	14N	160 m
N1-S07	N1-Soils-140	Permafrost	Site: 141 to 142	E-753435 N-6279981	E-753253 N-6279875	14N	210 m
N1-S07	N1-Soils-141	Permafrost	Site: 143 to 144	E-752903 N-6279672	E-752396 N-6279378	14N	586 m

Potential Effects:

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

Specific Mitigation:

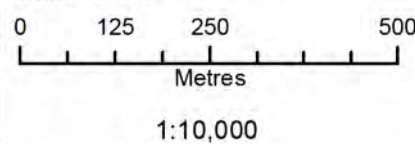
- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic 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)\*
- 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

- Soils and Terrain
- Permafrost

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

Map 18



ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S07	N1-Soils-142	Permafrost	Site: 145 to 146	E-751719 N-6278985	E-751591 N-6278912	14N	147 m
N1-S08	N1-Soils-143	Permafrost	Site: 147 to 148	E-748976 N-6278798	E-748152 N-6278839	14N	824 m

Potential Effects:

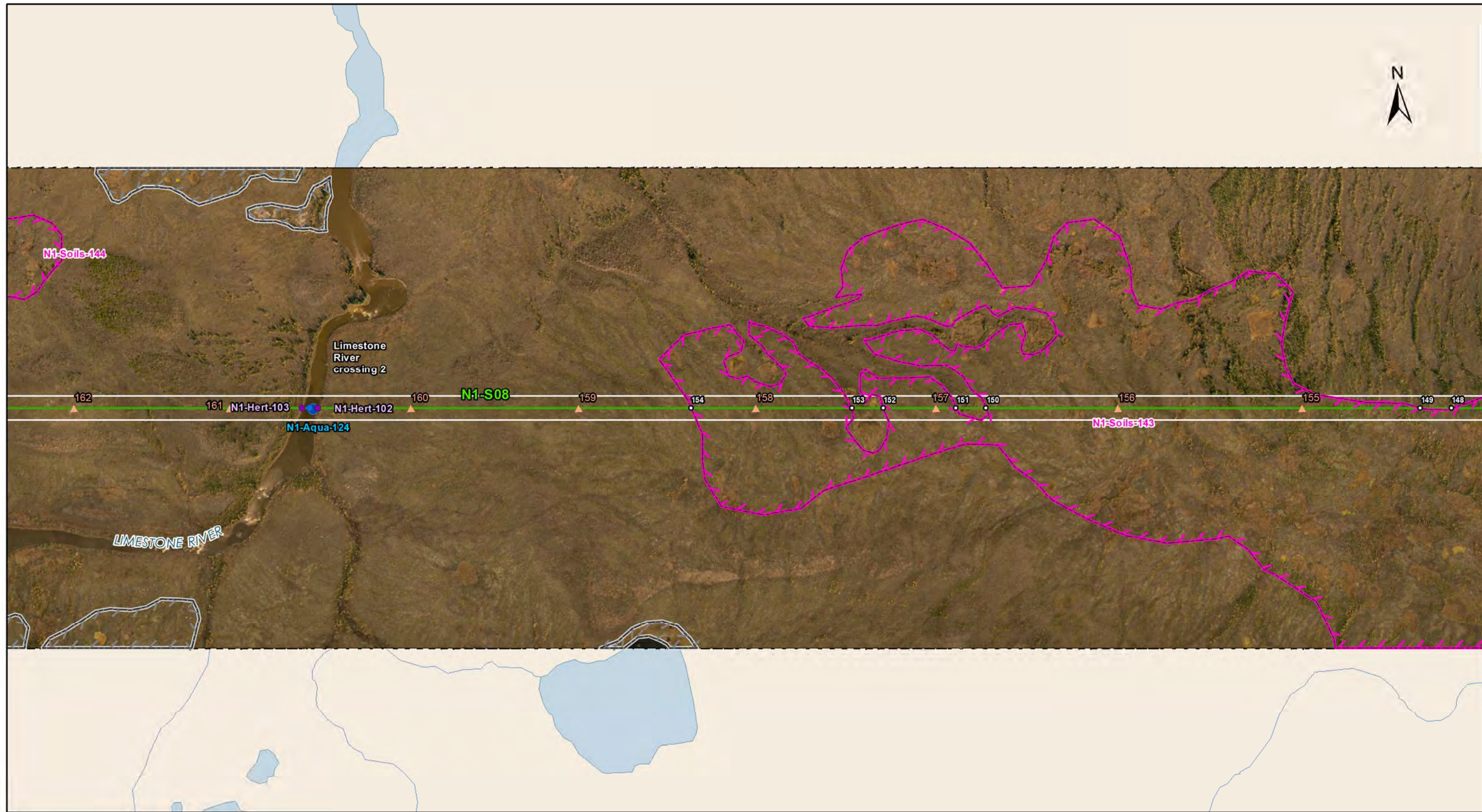
Melting or loss of permafrost due to disturbance of the active layer

Specific Mitigation:

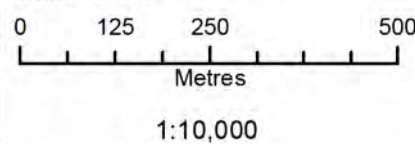
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- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan



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#### Land Base

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

#### Project Infrastructure

- Angle Tower Locations\*
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- 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
- Soils and Terrain**
- Permafrost

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



ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N1-S08	N1-Hert-102	Limestone River	745083	6278993	14N
N1-S08	N1-Hert-103	Limestone River	745041	6278995	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-S08	N1-Aqua-124	Limestone River	745061	6278994	14N	15m	15m	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-S08	N1-Soils-143	Permafrost	Site: 147 to 148	E-748976 N-6278798	E-748152 N-6278839	14N	824m
N1-S08	N1-Soils-143	Permafrost	Site: 149 to 150	E-748068 N-6278843	E-746893 N-6278902	14N	1176m
N1-S08	N1-Soils-143	Permafrost	Site: 151 to 152	E-746812 N-6278906	E-746614 N-6278916	14N	197m
N1-S08	N1-Soils-143	Permafrost	Site: 153 to 154	E-746530 N-6278920	E-746094 N-6278942	14N	436m

Potential Effects:

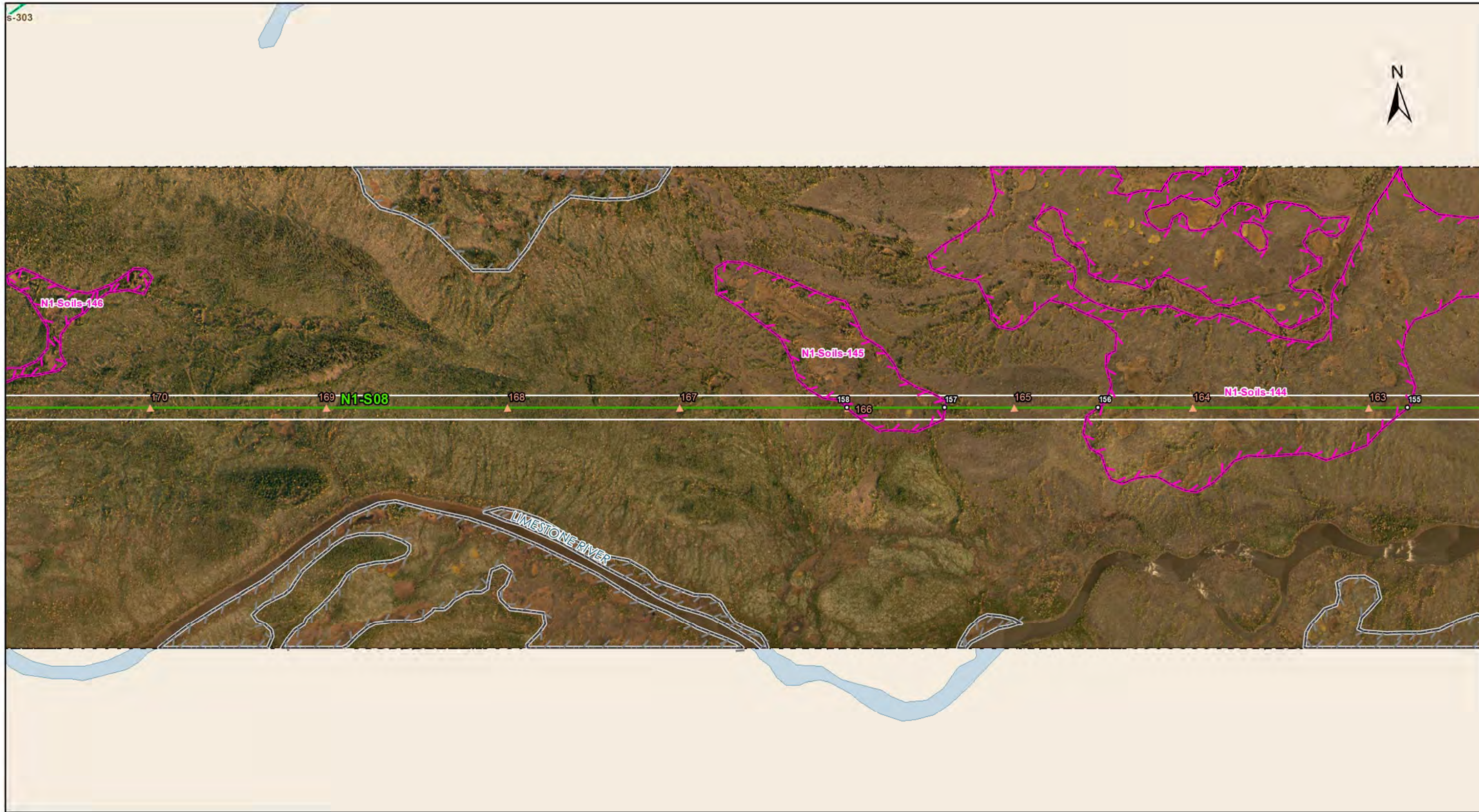
Melting or loss of permafrost due to disturbance of the active layer

Specific Mitigation:

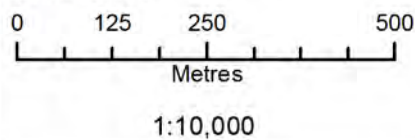
- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- Use existing trails, roads or cut lines whenever possible as access routes
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic 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
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- 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

- Soils and Terrain
- Terrain
- Permafrost

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

Map 20



ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S08	N1-Soils-144	Permafrost	Site: 155 to 156	E-744080 N-6279043	E-743242 N-6279085	14N	838 m
N1-S08	N1-Soils-145	Permafrost	Site: 157 to 158	E-742827 N-6279106	E-742563 N-6279119	14N	264 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: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N1-S08	N1-Aqua-125	Unnamed Tributary of Limestone River	739913	6279252	14N	3.3m	3.3m	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: Terrain

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S08	N1-Soils-303	Enduring Features (Unique Terrain/Soil Features)	Site: 161 to 162	E-738796 N-6279308	E-736223 N-6279437	14N	2576m

Potential Effects:

Existing access routes will be utilized and machinery shall not operate outside of the project areas within enduring features.

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid development of new borrow areas, access routes and other activities within enduring features
- Maintain 100m setback around feature outside of ROW
- Minimize movement of vehicles, machinery and equipment during construction
- Prevent off-ROW activities and equipment use within terrain feature, during construction

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S08	N1-Soils-146	Permafrost	Site: 159 to 160	E-740143 N-6279240	E-739782 N-6279258	14N	361 m
N1-S08	N1-Soils-146	Permafrost	Site: 163 to 164	E-738470 N-6279324	E-738390 N-6279328	14N	80 m
N1-S08	N1-Soils-146	Permafrost	Site: 165 to 166	E-738209 N-6279337	E-738068 N-6279344	14N	140 m
N1-S08	N1-Soils-146	Permafrost	Site: 167 to 168	E-737389 N-6279378	E-737086 N-6279393	14N	303 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