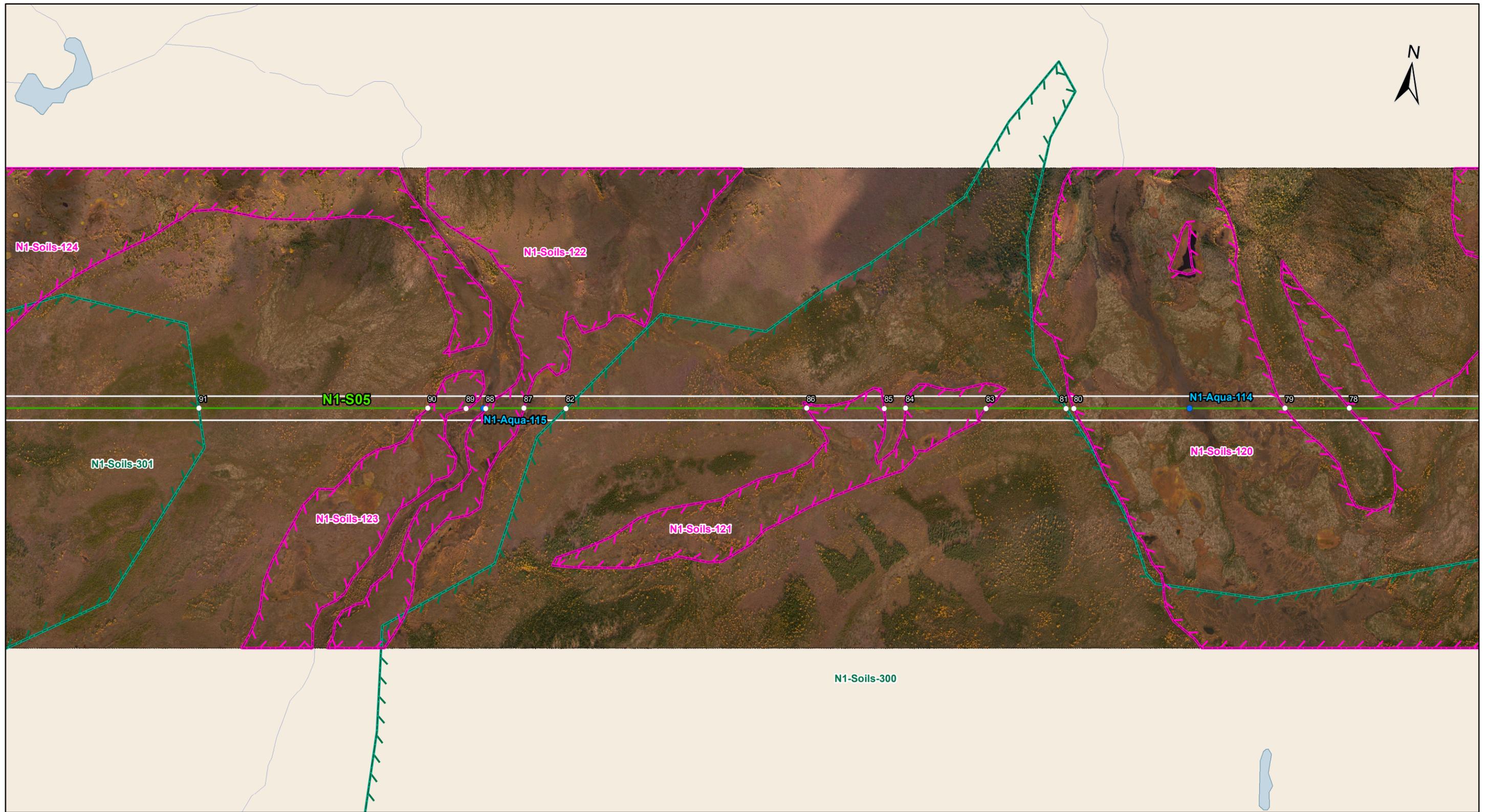
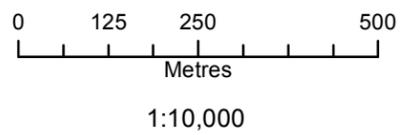


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Coordinate System: UTM Zone 14N NAD83  
 Data Source: MB Hydro, ProvMB, NRCAN  
 Date Created: December 09, 2013



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

- 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
  - Erosion

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

MAP NUMBER : 9

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-S05	N1-Aqua-114	Unnamed Tributary of McMillan Creek	783393	6291918	14N	N/A	N/A	Low	No Fish Habitat
N1-S05	N1-Aqua-115	Unnamed Tributary of McMillan Creek	781493	6291662	14N	N/A	N/A	Low	No Fish Habitat

**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

ESS Group : Erosion

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-300	Eolian (i.e. wind-modified) Deposits	Site: 81 to 82	E-783060 N-6291873	E-781714 N-6291692	14N	1357 m
N1-S05	N1-Soils-301	Eolian (i.e. wind-modified) Deposits	Site: 91 to 92	E-780727 N-6291559	E-779699 N-6291420	14N	1037 m

**Potential Effects:**

*Loss of topsoil due to wind erosion (e.g. creep, saltation, suspension) on disturbed surfaces.*

**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 prior to start of work
- Avoid dry soil conditions with high and severe wind erosion risk 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 : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-120	Permafrost	Site: 77 to 78	E-784405 N-6292054	E-783822 N-6291976	14N	588 m
N1-S05	N1-Soils-120	Permafrost	Site: 79 to 80	E-783649 N-6291952	E-783081 N-6291876	14N	573 m
N1-S05	N1-Soils-121	Permafrost	Site: 83 to 84	E-782845 N-6291844	E-782628 N-6291815	14N	218 m
N1-S05	N1-Soils-121	Permafrost	Site: 85 to 86	E-782571 N-6291807	E-782362 N-6291779	14N	210 m
N1-S05	N1-Soils-122	Permafrost	Site: 87 to 88	E-781601 N-6291676	E-781499 N-6291663	14N	103 m
N1-S05	N1-Soils-123	Permafrost	Site: 89 to 90	E-781445 N-6291656	E-781343 N-6291642	14N	103 m

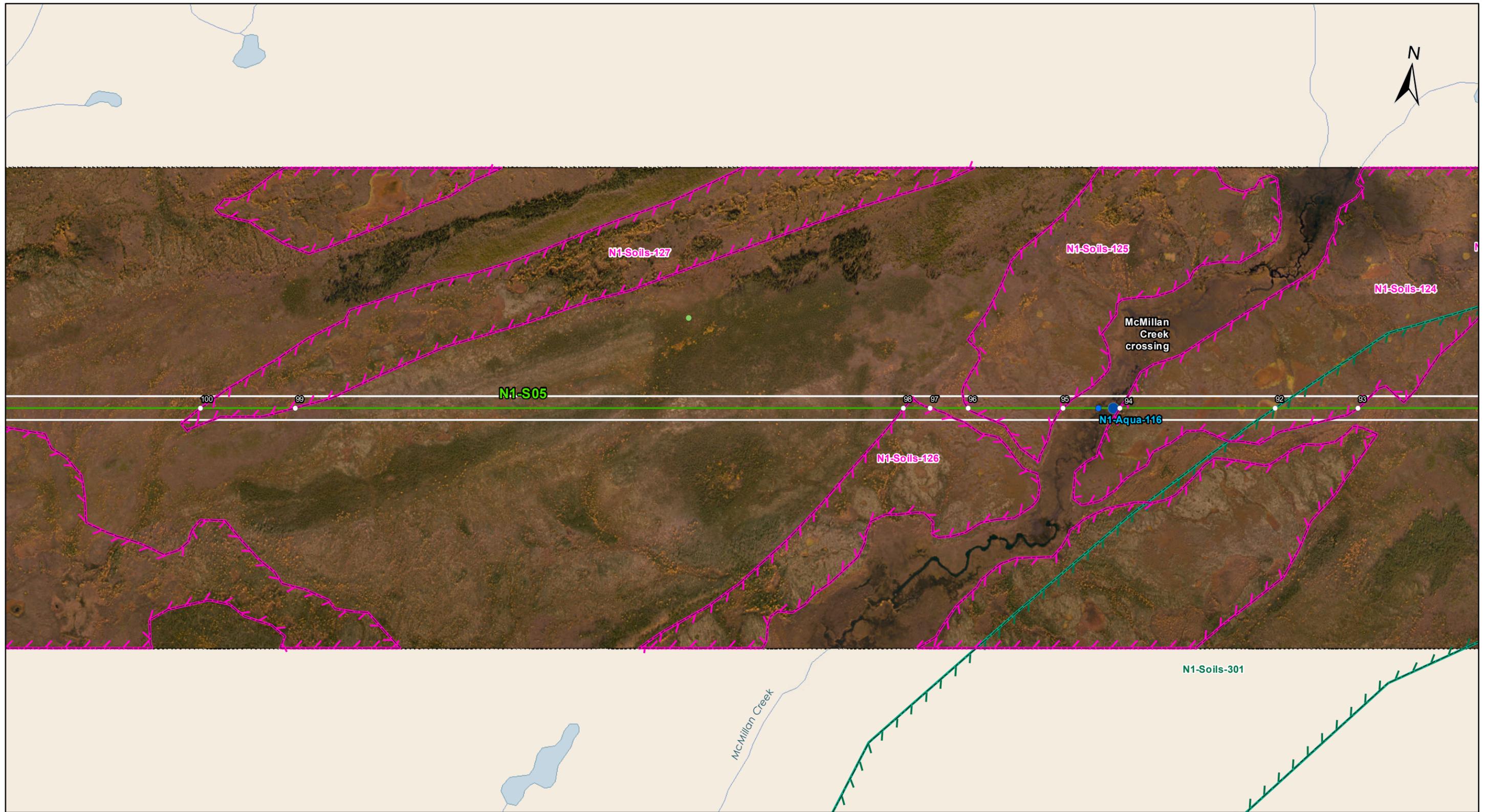
**Potential Effects:**

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

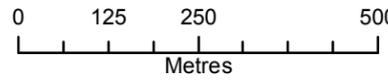
**Specific Mitigation:**

- 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

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Coordinate System: UTM Zone 14N NAD83  
 Data Source: MB Hydro, ProvMB, NRCAN  
 Date Created: December 09, 2013



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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
  - 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**
- Ecosystem**
  - Species of Concern
  - Water**
  - Water Crossing
  - Soils and Terrain**
  - Permafrost
  - Erosion

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

Map 10

MAP NUMBER : 10

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-S05	N1-Aqua-116	Unnamed Tributary of McMillan Creek	779225	6291357	14N	22.6m	22.6m	Moderate	Marginal

**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
- 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 : Erosion

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-301	Eolian (i.e. wind-modified) Deposits	Site: 91 to 92	E-780727 N-6291559	E-779699 N-6291420	14N	1037 m

**Potential Effects:**

*Loss of topsoil due to wind erosion (e.g. creep, saltation, suspension) on disturbed surfaces.*

**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 prior to start of work
- Avoid dry soil conditions with high and severe wind erosion risk 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 : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-124	Permafrost	Site: 93 to 94	E-779923 N-6291450	E-779282 N-6291364	14N	646 m
N1-S05	N1-Soils-125	Permafrost	Site: 95 to 96	E-779128 N-6291344	E-778873 N-6291309	14N	258 m
N1-S05	N1-Soils-126	Permafrost	Site: 97 to 98	E-778771 N-6291295	E-778700 N-6291286	14N	71 m
N1-S05	N1-Soils-127	Permafrost	Site: 99 to 100	E-777062 N-6291065	E-776807 N-6291031	14N	257 m

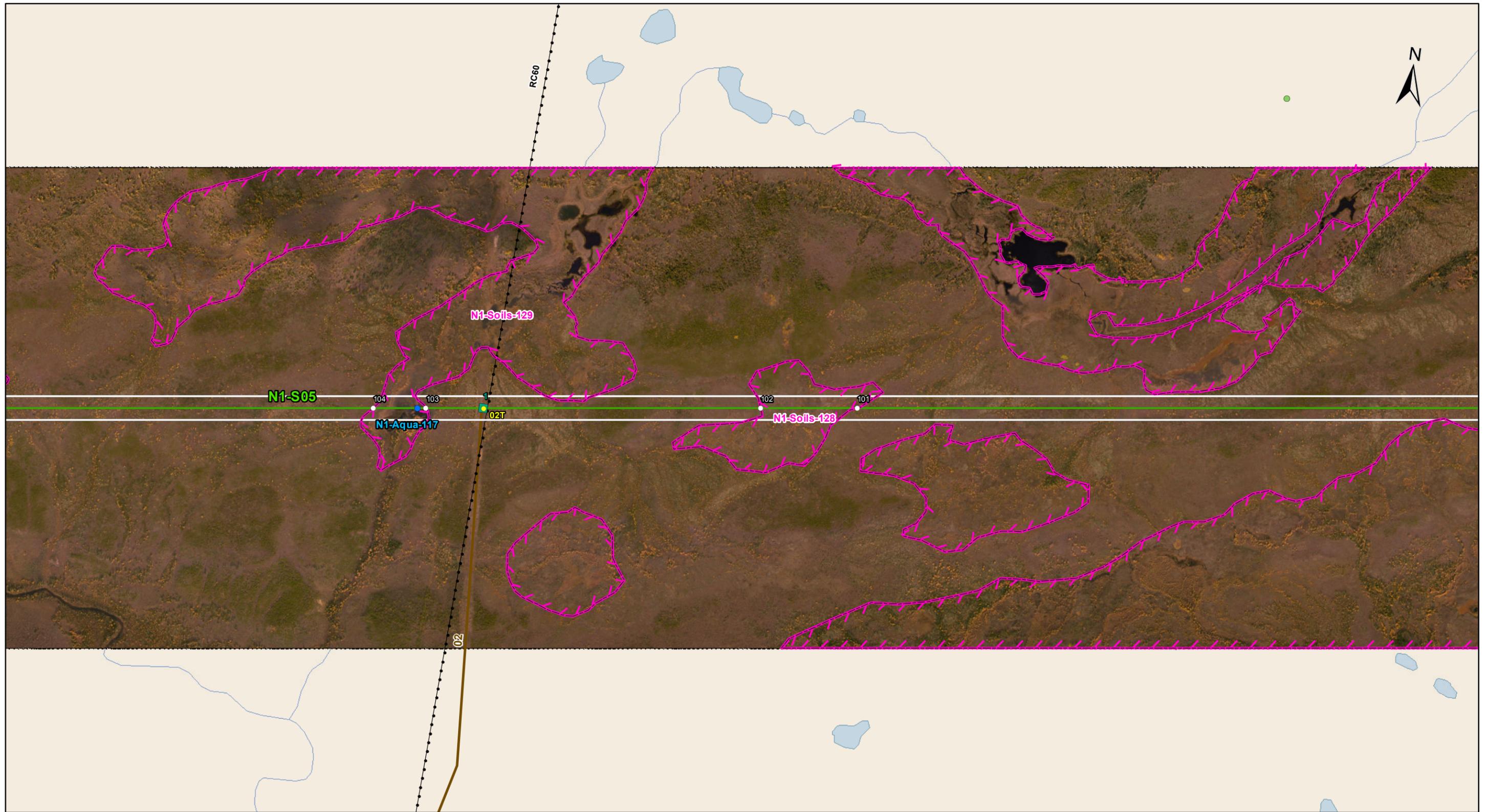
**Potential Effects:**

*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

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Coordinate System: UTM Zone 14N NAD83  
 Data Source: MB Hydro, ProvMB, NRCAN  
 Date Created: December 09, 2013

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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
- 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**

- Ecosystem**
- Species of Concern
- Water**
- Water Crossing
- Soils and Terrain**
- Permafrost

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

MAP NUMBER : 11

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-S05	N1-Aqua-117	Unnamed Tributary of McMillan Creek	773467	6290582	14N	3.2m	3.2m	Moderate	Marginal

**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

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-128	Permafrost	Site: 101 to 102	E-774650 N-6290740	E-774389 N-6290705	14N	262 m
N1-S05	N1-Soils-129	Permafrost	Site: 103 to 104	E-773489 N-6290584	E-773347 N-6290565	14N	143 m

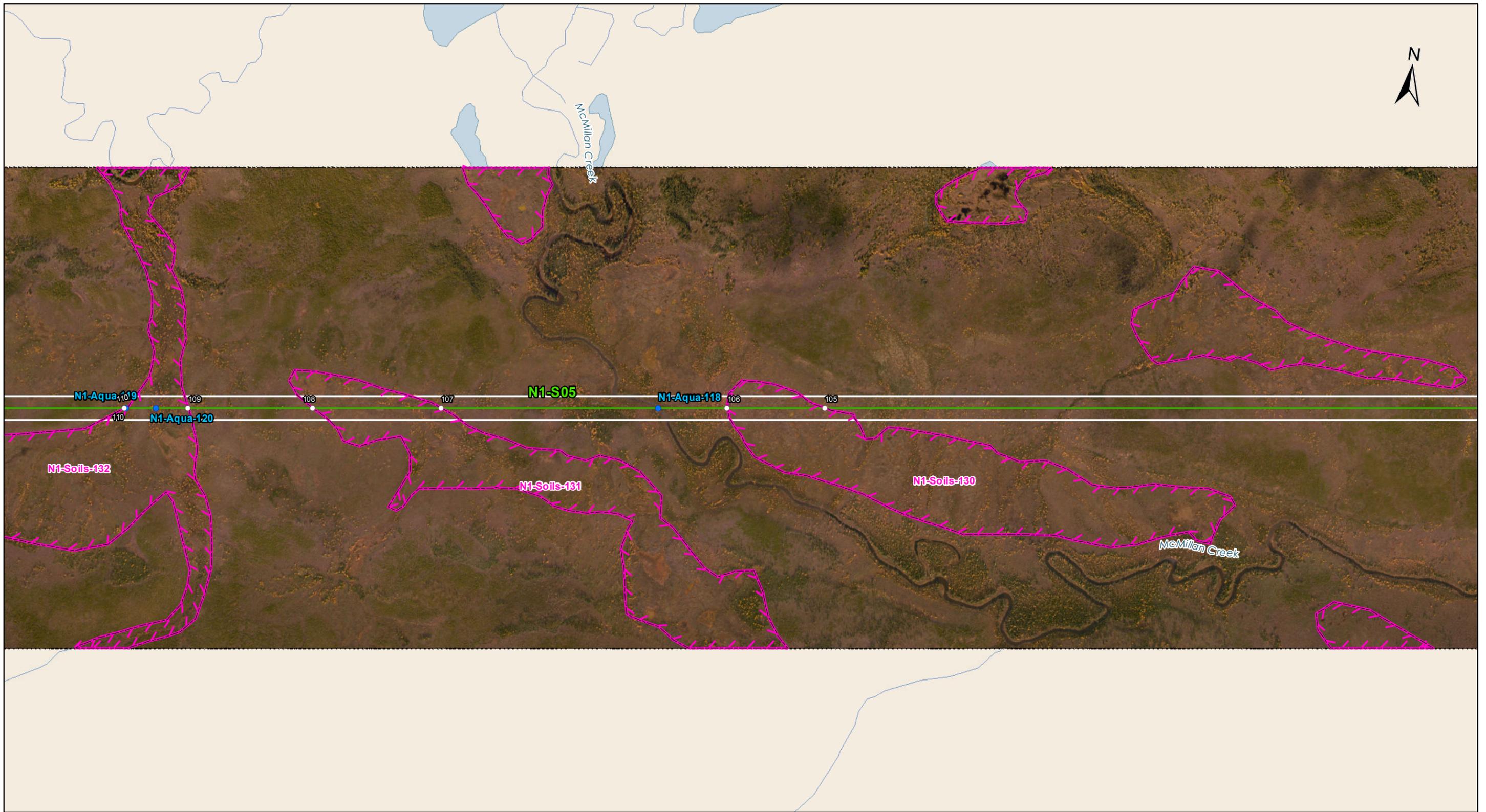
**Potential Effects:**

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

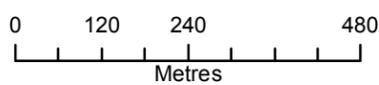
**Specific Mitigation:**

- 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
- 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

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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

**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 N1  
 Environmentally Sensitive Site Locations**

MAP NUMBER : 12

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-S05	N1-Aqua-118	McMillan Creek	770193	6290141	14N	5m	5m	Low	Important

**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*

**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 September 1 – July 15

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N1-S05	N1-Soils-130	Permafrost	Site: 105 to 106	E-770642 N-6290201	E-770379 N-6290165	14N	265 m
N1-S05	N1-Soils-131	Permafrost	Site: 107 to 108	E-769609 N-6290062	E-769263 N-6290015	14N	349 m
N1-S05	N1-Soils-132	Permafrost	Site: 109 to 110	E-768929 N-6289970	E-768758 N-6289947	14N	172 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
N1-S05	N1-Aqua-119	Unnamed Tributary of McMillan Creek	768843	6289959	14N	N/A	N/A	Low	No Fish Habitat
N1-S05	N1-Aqua-120	Unnamed Tributary of McMillan Creek	768762	6289948	14N	N/A	N/A	Low	No Fish Habitat

**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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- Adhere to Department of Fisheries and Oceans (DFO) Operational Statements for Temporary Stream Crossings, Ice Bridges and Snow Fills, and Overhead Line Construction