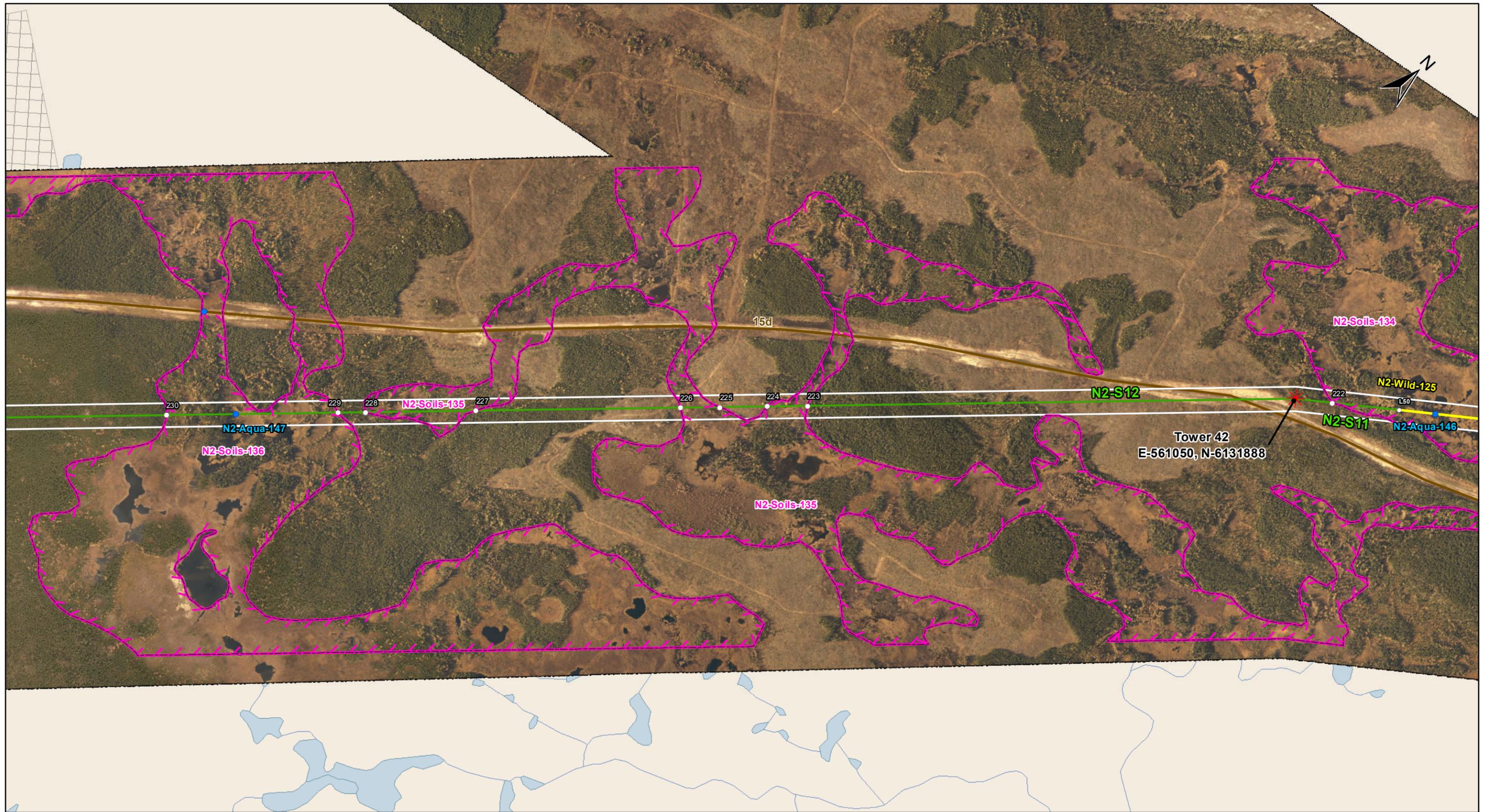


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Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: December 02, 2013

0 120 240 480
 Metres
 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
 - 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 : 86

ESS Group : Permafrost

| Sec-Seg ID | ESS ID | ESS Name | Location | Start | Stop | UTM Zone | Distance |
|------------|--------------|------------|------------------|-----------------------|-----------------------|----------|----------|
| N2-S11 | N2-Soils-134 | Permafrost | Site: 221 to 222 | E-561683 N-6132469 | E-561125 N-6131956 | 14N | 759 m |
| N2-S12 | N2-Soils-135 | Permafrost | Site: 223 to 224 | E-560192 N-6130878 | E-560121 N-6130795 | 14N | 110 m |
| N2-S12 | N2-Soils-135 | Permafrost | Site: 225 to 226 | E-560038 N-6130697 | E-559968 N-6130615 | 14N | 107 m |
| N2-S12 | N2-Soils-135 | Permafrost | Site: 227 to 228 | E-559609 N-6130193 | E-559414 N-6129964 | 14N | 300 m |
| N2-S12 | N2-Soils-136 | Permafrost | Site: 229 to 230 | E-559366 N-6129908 | E-559064 N-6129553 | 14N | 466 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-S12 | 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-146 | Unnamed Tributary of Wintering Lake | 561332 | 6132147 | 14N | 226 m | N/A | Marginal | Moderate |
| N2-S12 | N3-Aqua-147 | Unnamed Tributary of Wintering Lake | 559187 | 6129698 | 14N | 110 m | N/A | Marginal | Moderate |

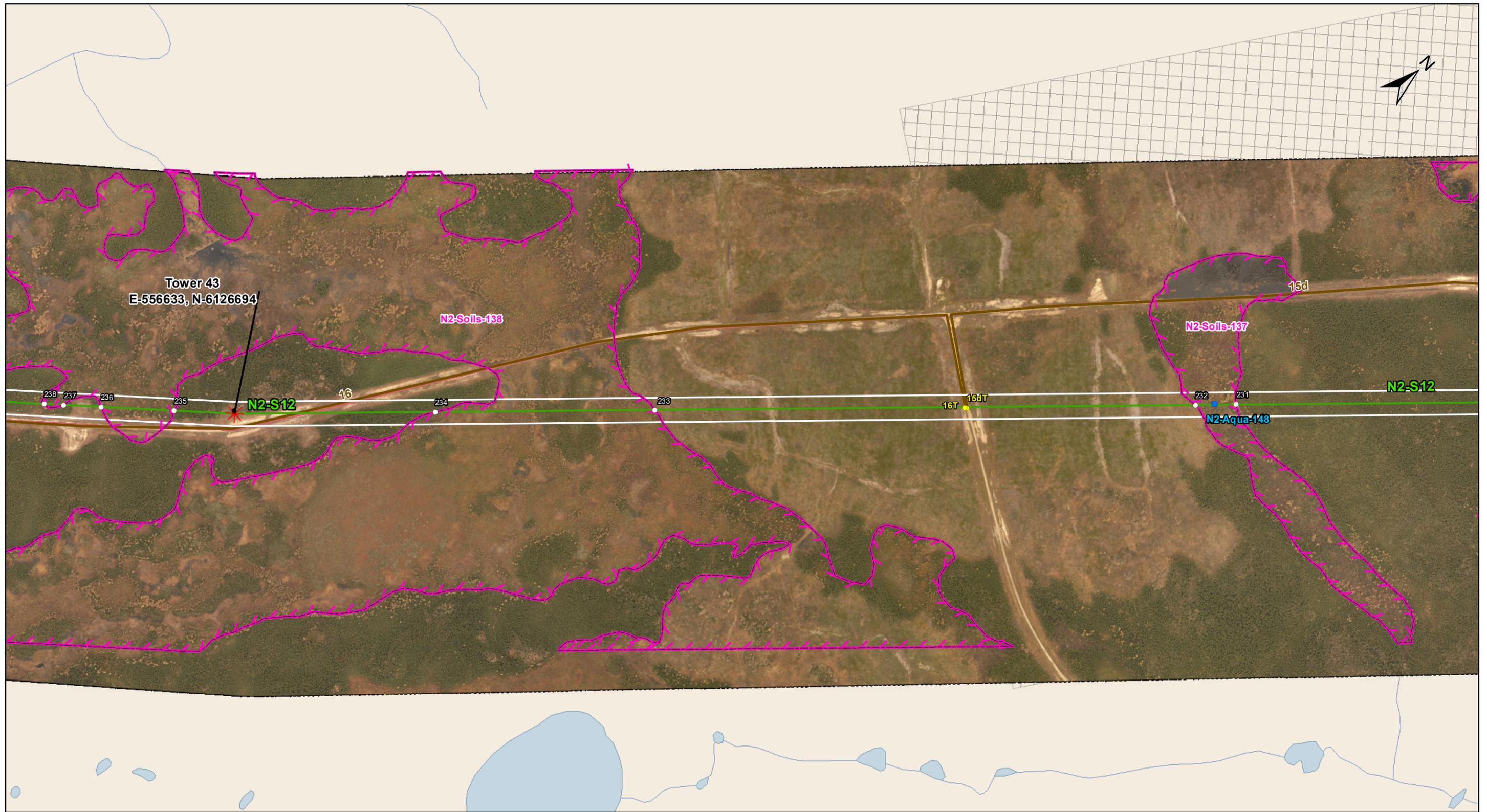
Potential Effects:

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

0 120 240 480
 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 : 87

ESS Group : Permafrost

| Sec-Seg ID | ESS ID | ESS Name | Location | Start | Stop | UTM Zone | Distance |
|------------|--------------|------------|------------------|-----------------------|-----------------------|----------|----------|
| N2-S12 | N2-Soils-137 | Permafrost | Site: 231 to 232 | E-558396 N-6128767 | E-558324 N-6128682 | 14N | 111 m |
| N2-S12 | N2-Soils-138 | Permafrost | Site: 233 to 234 | E-557373 N-6127564 | E-556987 N-6127110 | 14N | 596 m |
| N2-S13 | N2-Soils-138 | Permafrost | Site: 235 to 236 | E-556520 N-6126576 | E-556382 N-6126433 | 14N | 200 m |
| N2-S13 | N2-Soils-138 | Permafrost | Site: 237 to 238 | E-556312 N-6126360 | E-556275 N-6126321 | 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
- 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

- 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-S12 | N2-Aqua-148 | Unnamed Tributary of Wintering Lake | 558358 | 6128723 | 14N | N/A | N/A | Marginal | 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

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| | | | | | | |
|--|---|---|--|--|---|--|
| | <p>Coordinate System: UTM Zone 14N NAD83 Data Source: MB Hydro, ProvMB, NRCAN Date Created: December 02, 2013</p> | <p>Land Base</p> <ul style="list-style-type: none"> Transmission Line Highway Major Road Local Road Winter Road Railway (Operational) Railway (Discontinued) Mining Provincial Park | <p>Project Infrastructure</p> <ul style="list-style-type: none"> Angle Tower Locations BPIII Final Preferred Route 66 m Right of Way | <p>Points of Access*</p> <ul style="list-style-type: none"> Proposed Access Point Major Stream Crossing Abandoned Rail Crossing Rail Crossing Transmission Line Crossing Proposed Access Route <p><small>*Labels correspond to BPIII Access Management Database</small></p> | <p>ESS Features</p> <p>Water</p> <ul style="list-style-type: none"> Water Crossing <p>Wildlife</p> <ul style="list-style-type: none"> Birds and Habitat <p>Soils and Terrain</p> <ul style="list-style-type: none"> Permafrost | <p>Bipole III Transmission Project Construction Environmental Protection Plan Construction Section N2 Environmentally Sensitive Site Locations</p> <p>Map 88</p> |
| | <p>0 120 240 480</p> <p style="text-align: center;">Metres</p> <p style="text-align: center;">1:10,000</p> | | | | | |

MAP NUMBER : 88

ESS Group : Permafrost

| Sec-Seg ID | ESS ID | ESS Name | Location | Start | Stop | UTM Zone | Distance |
|------------|--------------|------------|------------------|-----------------------|-----------------------|----------|----------|
| N2-S13 | N2-Soils-138 | Permafrost | Site: 239 to 240 | E-556014 N-6126051 | E-555964 N-6125998 | 14N | 73 m |
| N2-S13 | N2-Soils-138 | Permafrost | Site: 241 to 242 | E-555346 N-6125357 | E-555270 N-6125277 | 14N | 111 m |
| N2-S14 | N2-Soils-139 | Permafrost | Site: 243 to 244 | E-554101 N-6124271 | E-553794 N-6124149 | 14N | 331 m |
| N2-S14 | N2-Soils-140 | Permafrost | Site: 245 to 246 | E-553498 N-6124032 | E-553135 N-6123889 | 14N | 390 m |
| N2-S15 | N2-Soils-140 | Permafrost | Site: 247 to 248 | E-553135 N-6123889 | E-552988 N-6123714 | 14N | 229 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-S13 | N2-Wild-126 | Patrick Creek crossing | Site: L51 to L52 | E- 554647 N-6124630 | E-554558 N-6124538 | 14N | 128 m |
| N2-S14 | N2-Wild-127 | Halfway River crossing | Site: L53 to L54 | E-553562 N-6124058 | E-553534 N-6124047 | 14N | 30 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-S13 | N2-Aqua-149 | Patrick Creek | 554579 | 6124560 | 14N | 7 m | 9 m | Marginal | Moderate |
| N2-S14 | N2-Aqua-150 | Halfway River | 553549 | 6124053 | 14N | 18 m | 18 m | Marginal | 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
- No instream works or fording from April 15 - July 15

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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
 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**
- 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 : 89

ESS Group : Permafrost

| Sec-Seg ID | ESS ID | ESS Name | Location | Start | Stop | UTM Zone | Distance |
|------------|--------------|------------|------------------|-----------------------|-----------------------|----------|----------|
| N2-S15 | N2-Soils-140 | Permafrost | Site: 247 to 248 | E-553135 N-6123889 | E-552988 N-6123714 | 14N | 229 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 249 to 250 | E-552865 N-6123569 | E-552405 N-6123026 | 14N | 712 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 251 to 252 | E-552214 N-6122799 | E-552163 N-6122739 | 14N | 80 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 253 to 254 | E-552148 N-6122720 | E-551744 N-6122243 | 14N | 625 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 255 to 256 | E-551521 N-6121979 | E-551442 N-6121886 | 14N | 121 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 257 to 258 | E-551314 N-6121734 | E-551258 N-6121668 | 14N | 87 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 259 to 260 | E-551076 N-6121453 | E-550923 N-6121272 | 14N | 237 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 261 to 262 | E-550846 N-6121181 | E-550766 N-6121086 | 14N | 124m |

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-S15 | N2-Wild-128 | Halfway River crossing | Site: L55 to L56 | E-552991 N-6123718 | E-552962 N-6123684 | 14N | 44 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 : Archaeological

| Sec-Seg ID | ESS ID | ESS Name | Easting | Northing | UTM Zone |
|------------|-------------|-----------------------------------|---------|----------|----------|
| N2-S15 | N3-Hert-103 | Halfway River Identified Aug 2010 | 552969 | 6123684 | 14N |

Potential Effects:

Potential disturbance to Heritage Resource

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 |
|------------|-------------|---------------|---------|----------|----------|---------------|-----------|--------------------|---------------------|
| N2-S15 | N2-Aqua-151 | Halfway River | 552974 | 6123698 | 14N | 12 m | 12 m | Marginal | 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
- No instream works or fording from April 15 - July 15

DOCUMENT PATH: G:\GIS_PROJECT_FOLDER\HYDRO\11440054_BPIII_EPP\ARCMAPIESS_N2\BPIII_CENVPP_NIN2\N3\N4\C1\SECTION\BASEMAP_MAPBOOK_BTIB_STANTEC_20131201.MXD



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

0 120 240 480
 Metres
 1:10,000

- Land Base**
- Transmission Line
 - Highway
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 - Local Road
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 - 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**
- Soils and Terrain**
- Permafrost

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

MAP NUMBER : 90

ESS Group : Permafrost

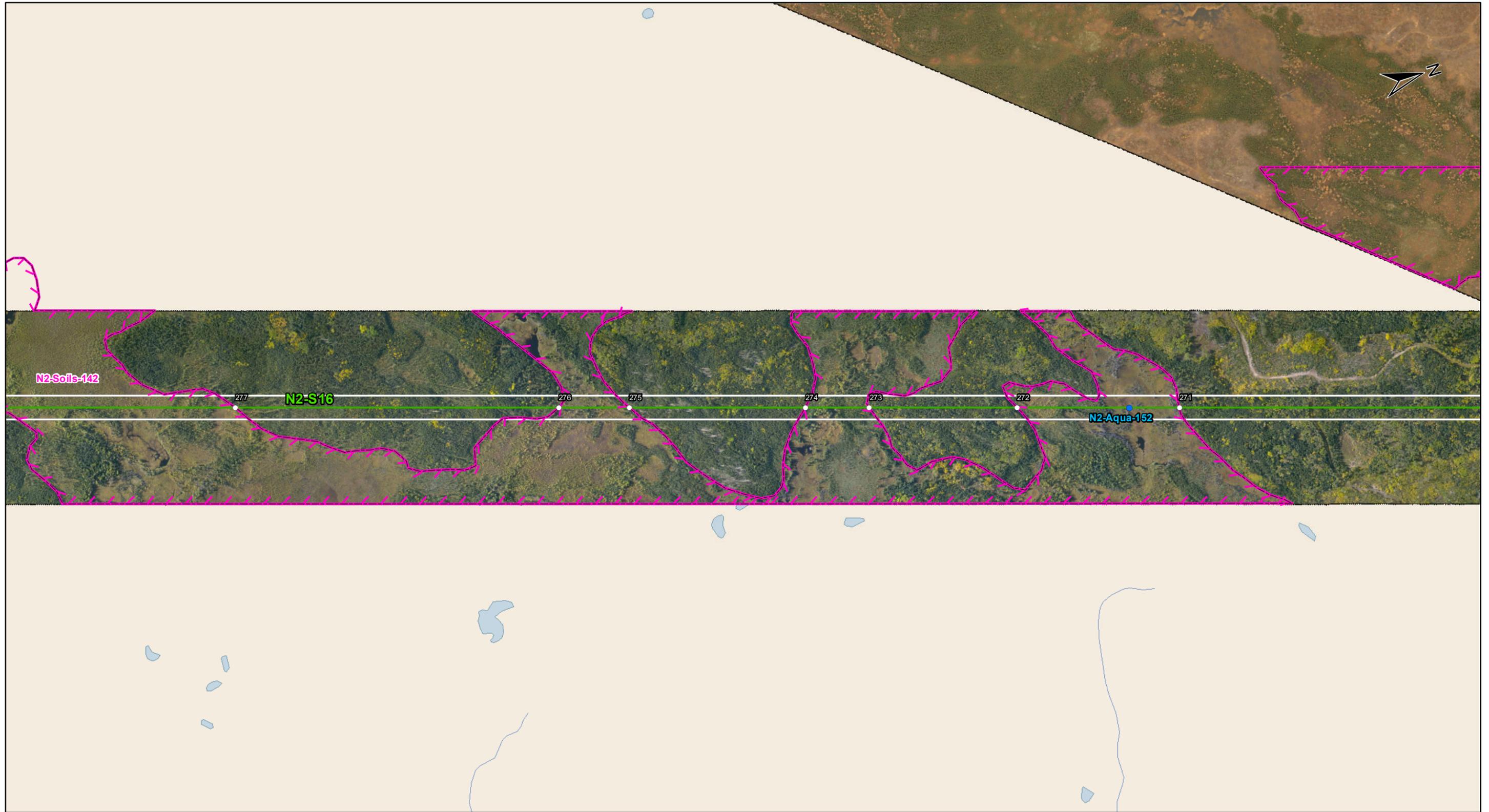
| Sec-Seg ID | ESS ID | ESS Name | Location | Start | Stop | UTM Zone | Distance |
|------------|--------------|------------|------------------|-----------------------|-----------------------|----------|----------|
| N2-S15 | N2-Soils-139 | Permafrost | Site: 263 to 264 | E-550485 N-6120754 | E-550115 N-6120316 | 14N | 574 m |
| N2-S15 | N2-Soils-139 | Permafrost | Site: 265 to 266 | E-550002 N-6120182 | E-549782 N-6119922 | 14N | 342 m |
| N2-S16 | N2-Soils-139 | Permafrost | Site: 267 to 268 | E-549782 N-6119922 | E-549449 N-6118881 | 14N | 1093 m |
| N2-S16 | N2-Soils-141 | Permafrost | Site: 269 to 270 | E-549218 N-6118155 | E-549119 N-6117846 | 14N | 324 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



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

0 120 240 480
 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 : 91

ESS Group : Permafrost

| Sec-Seg ID | ESS ID | ESS Name | Location | Start | Stop | UTM Zone | Distance |
|------------|--------------|------------|------------------|-----------------------|-----------------------|----------|----------|
| N2-S16 | N2-Soils-142 | Permafrost | Site: 271 to 272 | E-548683 N-6116479 | E-548549 N-6116060 | 14N | 440 m |
| N2-S16 | N2-Soils-142 | Permafrost | Site: 273 to 274 | E-548427 N-6115679 | E-548375 N-6115514 | 14N | 173 m |
| N2-S16 | N2-Soils-142 | Permafrost | Site: 275 to 276 | E-548229 N-6115058 | E-548171 N-6114876 | 14N | 191 m |
| N2-S16 | N2-Soils-142 | Permafrost | Site: 277 to 278 | E-547904 N-6114041 | E-547682 N-6113343 | 14N | 732 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

- 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-S16 | N2-Aqua-152 | Unnamed tributary of Patrick Lake | 548641 | 6116351 | 14N | N/A | 2 m | Marginal | 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