

Manitoba Hydro

Metres

1:10,000

-+ Railway (Discontinued)

Mining
Provincial Park

Transmission Line Crossing Proposed Access Route
*Labels correspond to BPIII
Access Management Database

Birds and Habitat Resource Use

Forestry Soils and Terrain Permafrost

Construction Section N2 Environmentally Sensitive Site Locations

ESS Group: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S06	N2-Ruse-300	Fuel wood collection area	Site: 109 to 110	E-594313 N-6176845	E-594014 N-6169623	14N	7228 m
N2-S07	N2-Ruse-300	Fuel wood collection area	Site: 123 to 124	E-594014 N-6169623	E- 593025 N-6163061	14N	6636 m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- · Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S06	N2-Soils-122	Permafrost	Site: 117 to 118	E-594117 N-6172095	E-594111 N-6171959	14N	135 m
N2-S06	N2-Soils-122	Permafrost	Site: 119 to 120	E-594065 N-6170856	E-594048 N-6170435	14N	421 m
N2-S06	N2-Soils-122	Permafrost	Sita: 101 to 100	E-594042 N-6170292	E-594033 N-6170084	14N	208 m
N2-S07	N2-Soils-123	Permafrost	Site: 125 to 126	E-593922 N-6169007	E-593916 N-593916	14N	41 m

Potential Effects:

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

Specific Mitigation:

- · Carry out construction activities on frozen ground to minimize surface damage and rutting
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid organic soils containing permafrost to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Water Crossing

Sec- Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N2-S06	N2-Aqua-119	Tributary of Partridge Crop Lake	594113	6172024	14N	3m	3m	Marginal	Low
N2-S06	N2-Aqua-120	Tributary of Partridge Crop Lake	594062	6170770	14N	14m	14m	No Fish Habitat	Low
N2-S06	N2-Aqua-121	Tributary of Partridge Crop Lake	594049	6170457	14N	2m	2m	Marginal	Moderate

Potential Effects:

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

- · 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

MAP NUMBER: 72 cont'd

ESS Group: Birds and Habitat

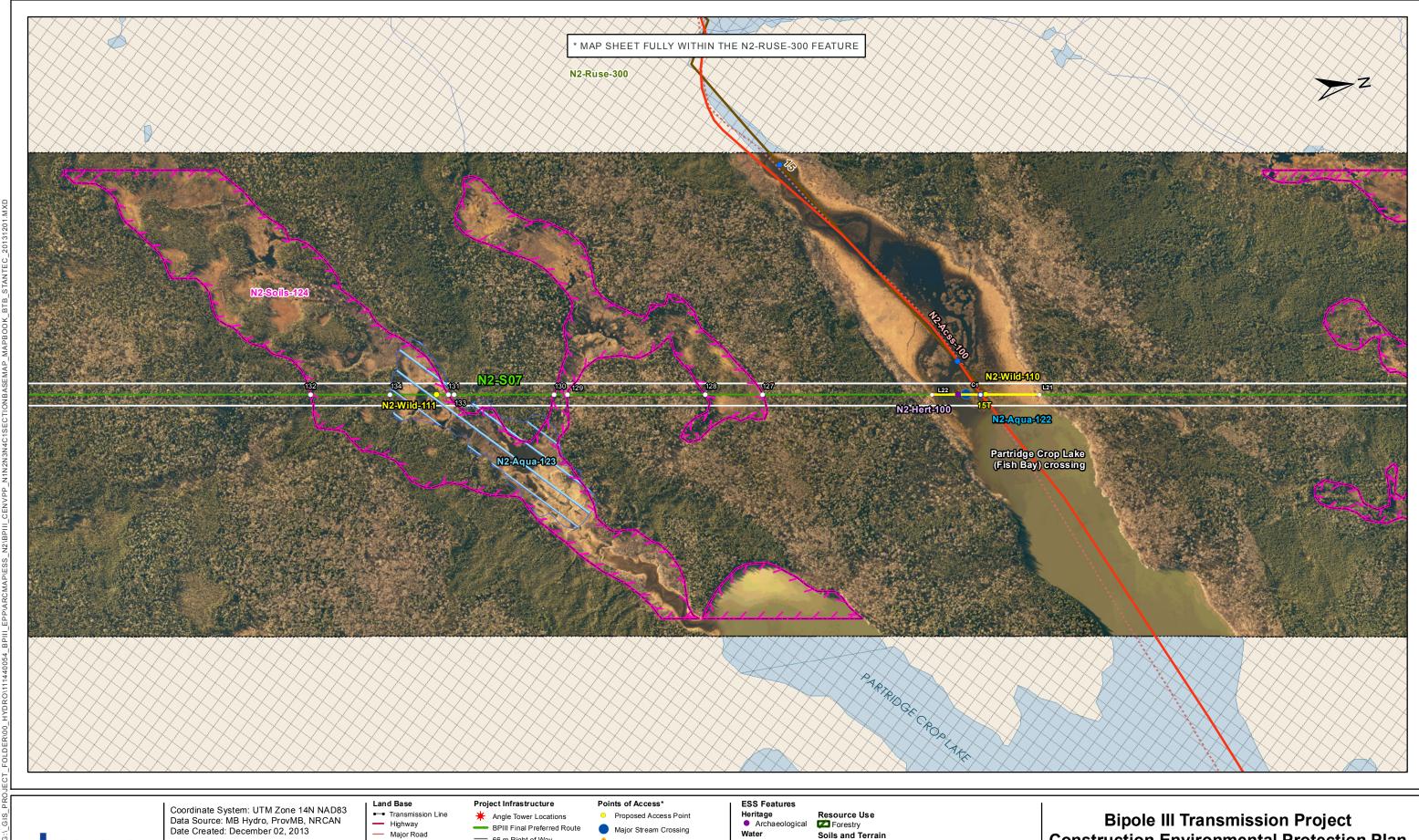
S	Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
	N2-S06	N2-Wild-109	Waterfowl sensitivity area		E- 594050 N-6170484		14N	50 m

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

- 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







120 240 Metres 1:10,000 Major Road

Local Road -- Winter Road - Railway (Operational) + Railway (Discontinued)

Mining
Provincial Park

== 66 m Right of Way

Abandoned Rail Crossing A Rail Crossing

Transmission Line Crossing Proposed Access Route
*Labels correspond to BPIII
Access Management Database

 Water Crossing Permafrost Wildlife Water

○ Birds and Habitat Water Crossing Access

Wildlife Birds and Habitat **Construction Environmental Protection Plan Construction Section N2 Environmentally Sensitive Site Locations**

ESS Group: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S07	N2-Ruse-300	Fuel wood collection area	Site: 123 to 124	E-594014 N-6169623	E- 593025 N-6163061	14N	6636 m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- · Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S07	N2-Wild-110	Partridge Crop Lake crossing	Site 191 to 199	E- 593751 N-6167872	E-593704 N-6167564	14N	312 m
N2-S07	N2-Wild-111	Waterfowl sensitivity area	N/A	E-593489	N-6166143	14N	N/A

Potential Effects:

Higher risk of wire collision, Risk of wire collision is localized to the right-of-way

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	Location	Start	Stop	UTM Zone	Distance
N2-S07	N2-Aqua-123	Unnamed Tributary of Partridge Crop Lake	Site: 33 to 34	593497	6166192	14N	186 m

ESS Group: Water Crossing cont'd

Sec- Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width		Habitat Sensitivity
N2-S07	N2-Aqua- 122	Partridge Crop Lake	593725	6167702	14N	TBD	120m	Important	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

ESS Group: Intersection

Sec-Seg ID	ESS ID	ESS Name	Location	Easting	Northing	UTM Zone
N2-S07	N2-Acss-100	Winter Road/Access Trail	Site: C1	593725	6167703	14N

Potential Effects:

Potential interference with road traffic; safety issues

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Identify and flag prior to start of work
- Notify Manitoba Infrastructure and Transportation (MIT)/winter road operator and local authorities regarding construction activities and schedule, and address concerns prior to construction
- Avoid surface damage to and obstruction of access route
- Ensure that access road/trail are visible from RoW
- Provide warning signage for vehicle traffic and public safety

MAP NUMBER: 73 cont'd

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N2-S07	N2-Hert-100	Partridge Crop Lake	593715	6167638	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: Permafrost

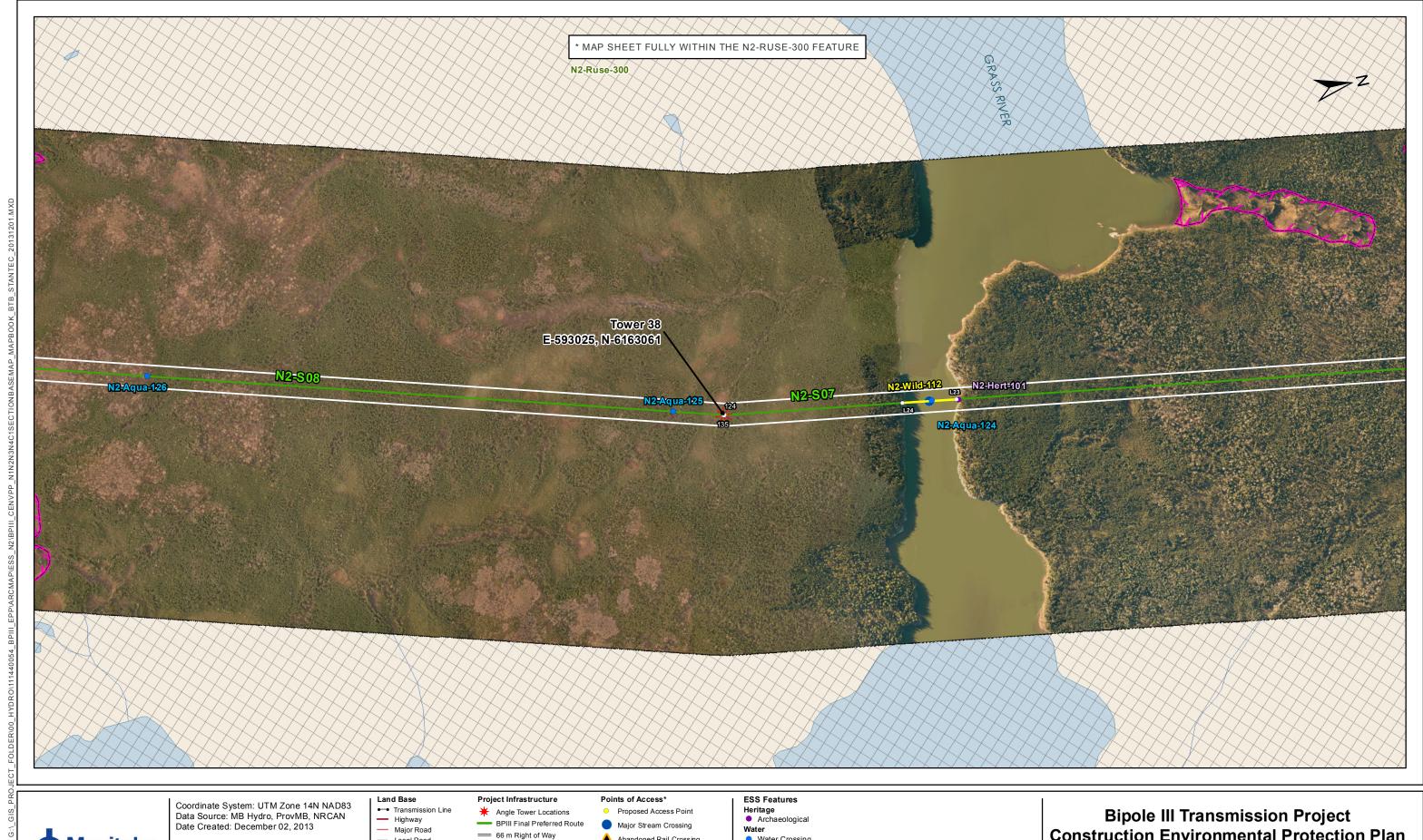
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S07	N2-Soils-124	Permafrost	Site: 127 to 128	E-593631 N-6167076	E-593606 N-6166912	14N	166 m
N2-S07	N2-Soils-124	Permafrost	Site: 129 to 130	E- 593546 N-6166517	E- 593540 N-6166479	14N	39 m
N2-S07	N2-Soils-124	Permafrost	Site: 131 to 132	E- 593495 N-6166175	E- 593435 N-6165781	14N	399 m

Potential Effects:

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

- 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





Manitoba Hydro

120 240 480 Metres 1:10,000

Local Road -- Winter Road

- Railway (Operational) -+ Railway (Discontinued) Mining
Provincial Park

Abandoned Rail Crossing A Rail Crossing

Transmission Line Crossing Proposed Access Route *Labels correspond to BPIII Access Management Database

Water Crossing

Wildlife Birds and Habitat Resource Use

Forestry Soils and Terrain Permafrost

Construction Environmental Protection Plan Construction Section N2 Environmentally Sensitive Site Locations

ESS Group: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S07	N2-Ruse-300	Fuel wood collection area	Site: 123 to 124	E-594014 N-6169623	E- 593025 N-6163061	14N	6636 m
N2-S08	N2-RUse-300	Fuel wood collection area	Site: 135 to 136	E- 593025 N-6163061	E- 591254 N-6156994	14N	6320 m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- · Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N2-S07	N2-Hert-101	Grass River	593104	6163588	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: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Ston	UTM Zone	Distance
N2-S07	N2-Wild-112	Waterfowl sensitivity area	Site: L23 to L24	E- 593127 N-6163734	E- 593103 N-6165781	14N	158 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

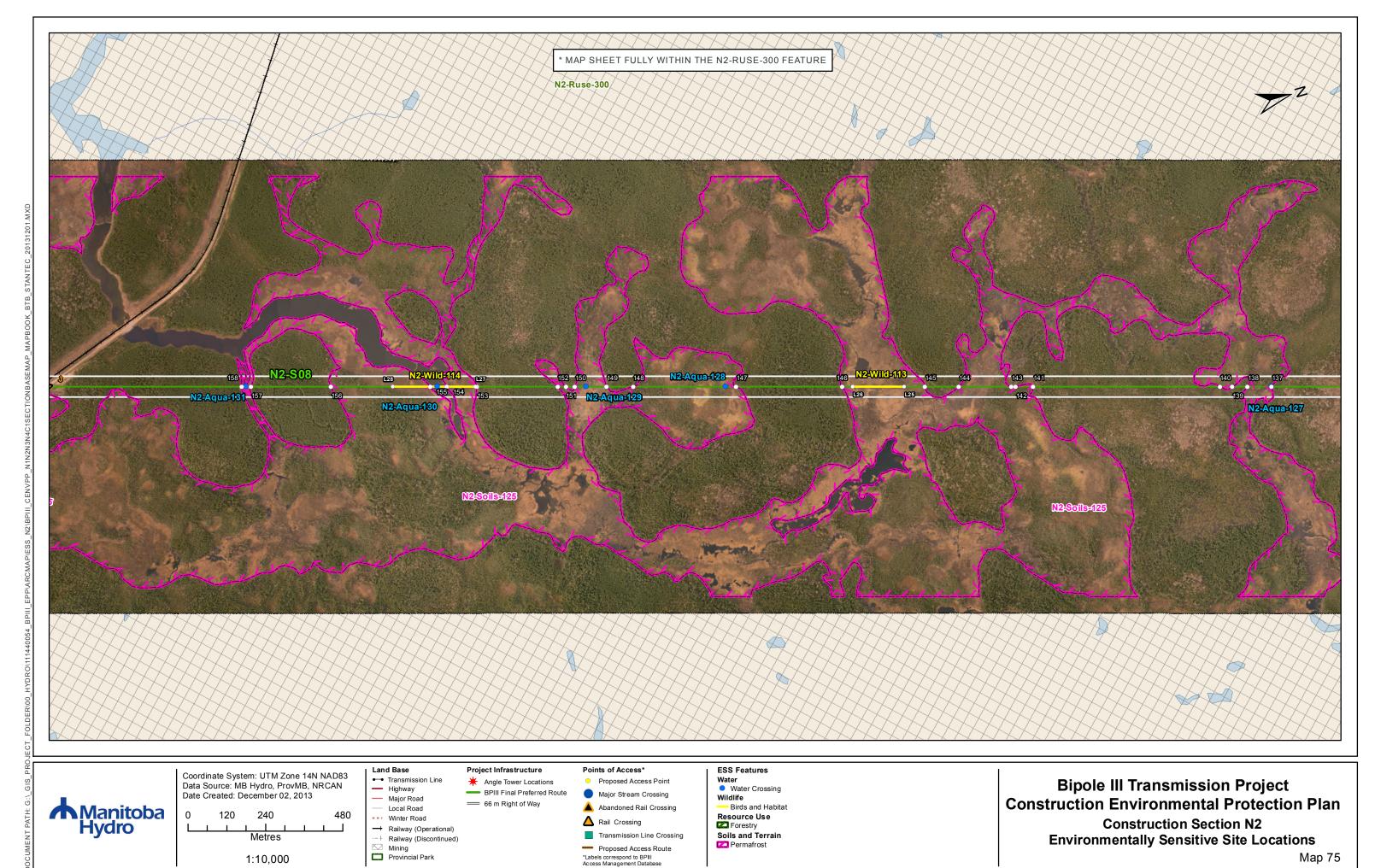
ESS Group: Water Crossing

Sec- Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N2- S07	N2-Aqua- 124	Grass River	593115	6163661	14N	130m	130m	Important	Low
N2- S08	N2-Aqua- 125	Unnamed Tributary into Partridge Crop Lake	592983	6162918	14N	N/A	N/A	Marginal	Low
N2- S08	N2-Aqua- 126	Unnamed Tributary into Partridge Crop Lake	592553	6161443	14N	N/A	N/A	No Fish Habitat	Low

Potential Effects:

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

- 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



1:10,000

ESS Group: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S08	N2-RUse-300	Fuel wood collection area	Site: 135 to 136	E- 593025 N-6163061	E- 591254 N-6156994	14N	6320 m

Potential Effects:

Potential to disrupt access to fuel wood area

Specific Mitigation:

- · Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Make fuel wood from ROW clearing available to local community where demand exists

ESS Group: Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S08	N2-Soils-125	Permafrost	Site: 137 to 138	E-592417 N-6160978	E-592397 N-6160907	14N	74 m
N2-S08	N2-Soils-125	Permafrost	Site: 139 to 140	E-592383 N-6160861	E-592372 N-6160824	14N	39 m
N2-S08	N2-Soils-125	Permafrost	Site: 141 to 142	E-592210 N-6160269	E-592195 N-6160217	14N	54 m
N2-S08	N2-Soils-125	Permafrost	Site: 143 to 144	E-592191 N-6160204	E-592146 N-6160048	14N	163 m
N2-S08	N2-Soils-125	Permafrost	Site: 145 to 146	E-592116 N-6159948	E-592045 N-6159701	14N	257 m
N2-S08	N2-Soils-125	Permafrost	Site: 147 to 148	E-591953 N-6159387	E-591863 N-6159080	14N	320 m
N2-S08	N2-Soils-125	Permafrost	Site: 149 to 150	E-591840 N-6159002	E-591863 N-6159080	14N	320 m
N2-S08	N2-Soils-125	Permafrost	Site: 151 to 152	E-591805 N-6158880	E-591798 N-6158856	14N	25 m
N2-S08	N2-Soils-125	Permafrost	Site: 153 to 154	E-591728 N-6158616	E-591702 N-6158527	14N	93 m
N2-S08	N2-Soils-125	Permafrost	Site: 155 to 156	E-591687 N-6158477	E-591601 N-6158182	14N	308 m
N2-S08	N2-Soils-125	Permafrost	Site: 157 to 158	E-591532 N-6157945	E-591523 N-6157916	14N	30 m

Potential Effects:

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

Specific Mitigation:

- · Carry out construction activities on frozen ground to minimize surface damage and rutting
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid organic soils containing permafrost to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Water Crossing

Sec- Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
N2-S08	N2-Aqua- 127	Unnamed Tributary into Partridge Crop Lake	592417	6160978	14N	N/A	N/A	Marginal	Low
N2-S08	N2-Aqua- 128	Unnamed Pond	591943	6159356	14N	N/A	N/A	No Fish Habitat	Low
N2-S08	N2-Aqua- 129	Unnamed Tributary into Partridge Crop Lake	591822	6158941	14N	N/A	N/A	Marginal	Low
N2-S08	N2-Aqua- 130	Unnamed Tributary into Partridge Crop Lake	591693	6158499	14N	142m	32m	Marginal	Moderate
N2-S08	N2-Aqua- 131	Unnamed Tributary into Partridge Crop Lake	591527	6157930	14N	5m	5m	Marginal	Low

Potential Effects:

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

- 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

MAP NUMBER: 75 cont'd

ESS Group: Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Ston	UTM Zone	Distance
N2-S08	N2-Wild-113	Unnamed Creek crossing	Site: L25 to L26	E- 592099 N-6159888	E-592054 N-6159734	14N	160 m
N2-S08	N2-Wild-114	Unnamed Creek crossing	Site: L27 to L28	E- 591727 N-6158613	E-591655 N-6158367	14N	28 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

- 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

