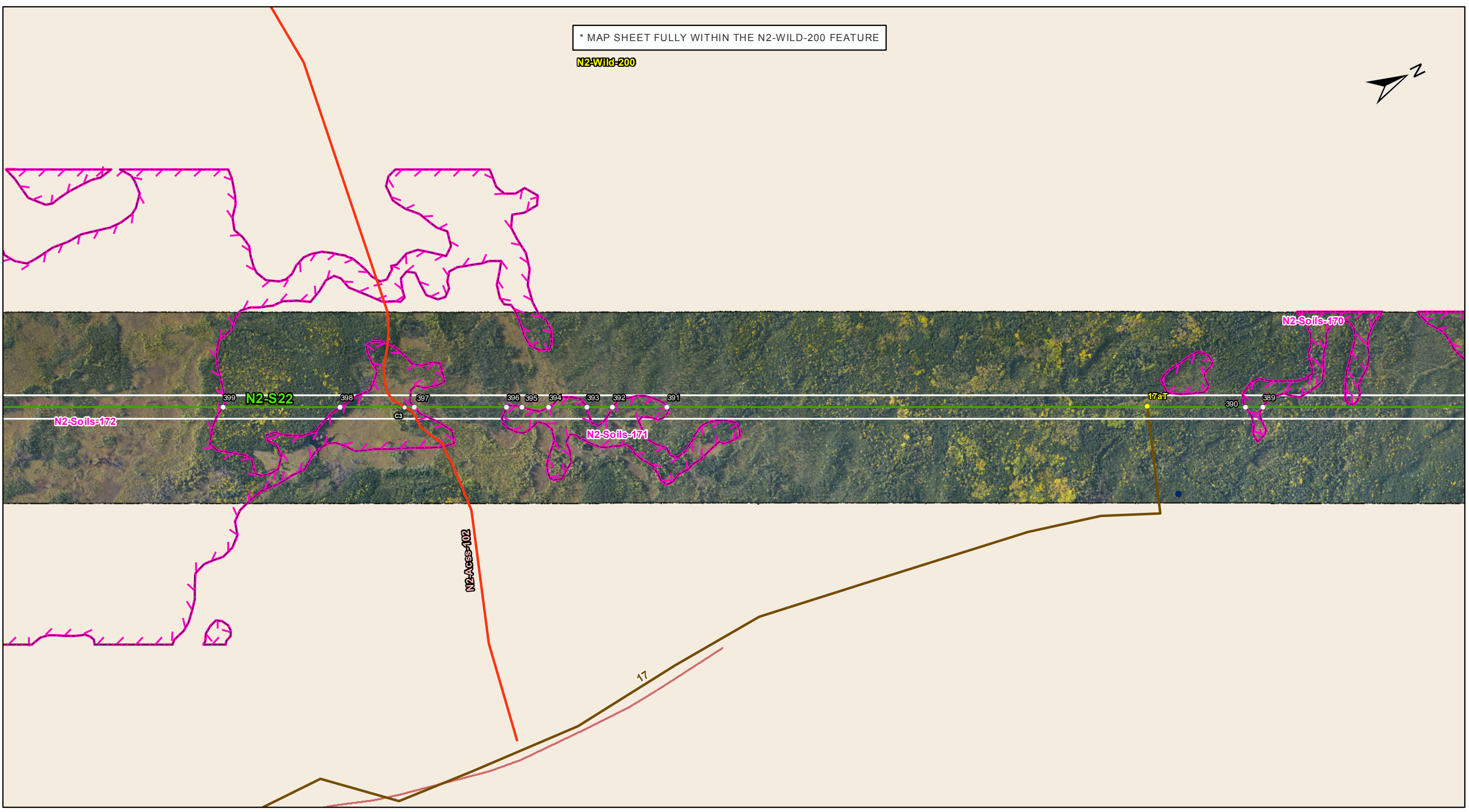


DOCUMENT PATH: G:_GIS_PROJECT_FOLDER00_HYDRO\11440054_BPIII_EPP\ARCMAPIESS_N2\BPIII_CENVPP_NIN2\3N4C1SECTIONBASEMAP_MAPBOOK_BTIB_STANTEC_20131201.MXD

* MAP SHEET FULLY WITHIN THE N2-WILD-200 FEATURE

N2-Wild-200



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

- Ecosystem**
- Research
- Access**
- Intersection
- Wildlife**
- Mammals and Habitat
- Soils and Terrain**
- Permafrost

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

MAP NUMBER : 100

ESS Group : Mammals

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 375 to 376	E-536966 N-6087758	E-531097 N-6075843	14N	13283 m

Potential Effects:

Potential disturbance to and loss of sensitive caribou habitat

Specific Mitigation:

- Harvest within caribou range boundary will not include shear blading except for access, conductor stringing trails, and tower footprints.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used to remove danger trees, vegetation within tower footprint, access route, and helicopter access points, to maintain low tree, shrub and herb plant communities on the ROW. Use existing access roads and trails to the extent possible
- Maintenance trails to be maintained to reduce line of sight for hunters and predators. Remove trees by low-disturbance methods
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- Any Manitoba Hydro constructed or improved access routes used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash <1 m in height will also be evenly distributed over the access route to reduce the possibility of use by ATV traffic.

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Soils-170	Permafrost	Site: 389 to 390	E-535378 N-6084534	E-535358 N-6084493	14N	46 m
N2-S22	N2-Soils-171	Permafrost	Site: 391 to 392	E-534658 N-6083072	E-534592 N-6082939	14N	149 m
N2-S22	N2-Soils-171	Permafrost	Site: 393 to 394	E-534561 N-6082876	E-534515 N-6082782	14N	104 m
N2-S22	N2-Soils-171	Permafrost	Site: 395 to 396	E-534483 N-6082717	E-534464 N-6082679	14N	42 m
N2-S22	N2-Soils-172	Permafrost	Site: 397 to 398	E-534352 N-6082452	E-534263 N-6082270	14N	203 m
N2-S22	N2-Soils-172	Permafrost	Site: 399 to 400	E-534121 N-6081983	E-533631 N-6080988	14N	1109 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 : Intersection

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
N2-S22	N2-Acss-102	Winter Road/Access trail	534341	6082429	14N

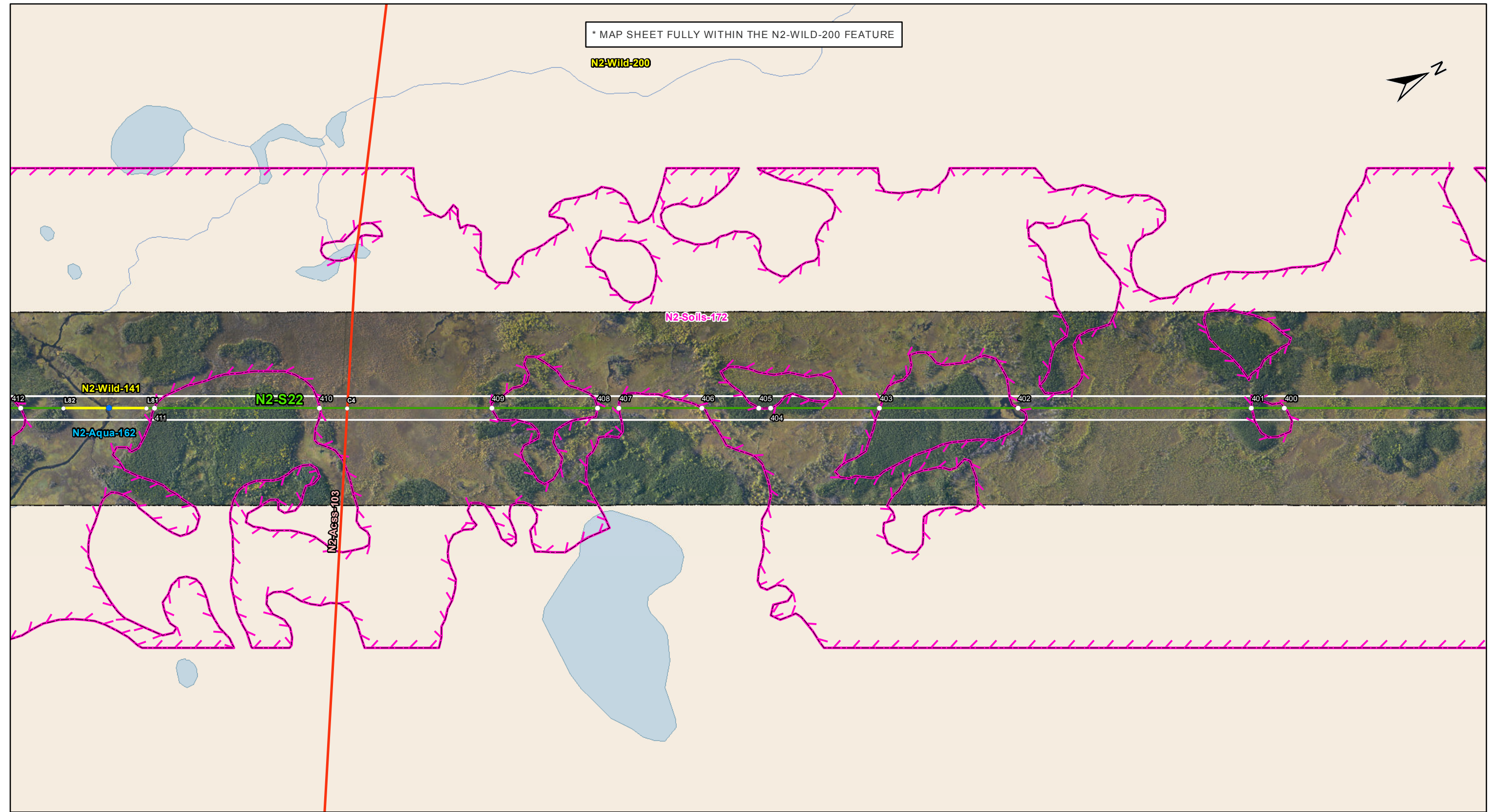
Potential Effects:

Potential interference with road traffic; safety issues

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
- 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

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* MAP SHEET FULLY WITHIN THE N2-WILD-200 FEATURE

N2-Wild-200

N2-Soils-172

N2-Wild-141

N2-S22

N2-Aqua-162

N2-Access-103

412 L82 L81 411 410 C4 409 408 407 406 405 404 403 402 401 400

	<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>Access</p> <ul style="list-style-type: none"> Intersection <p>Wildlife</p> <ul style="list-style-type: none"> Birds and Habitat Mammals 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 101</p>
	<p>1:10,000</p>					

MAP NUMBER : 101

ESS Group : Mammals

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 375 to 376	E- 536966 N-6087758	E-531097 N-6075843	14N	13283 m

Potential Effects:

Potential disturbance to and loss of sensitive caribou habitat

Specific Mitigation:

- Harvest within caribou range boundary will not include shear blading except for access, conductor stringing trails, and tower footprints.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used to remove danger trees, vegetation within tower footprint, access route, and helicopter access points, to maintain low tree, shrub and herb plant communities on the ROW. Use existing access roads and trails to the extent possible
- Maintenance trails to be maintained to reduce line of sight for hunters and predators. Remove trees by low-disturbance methods
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- Any Manitoba Hydro constructed or improved access routes used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash <1 m in height will also be evenly distributed over the access route to reduce the possibility of use by ATV traffic.

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Soils-172	Permafrost	Site: 399 to 400	E-534121 N-6081983	E-533631 N-6080988	14N	1109 m
N2-S22	N2-Soils-172	Permafrost	Site: 401 to 402	E-533591 N-6080907	E-533312 N-6080339	14N	633 m
N2-S22	N2-Soils-172	Permafrost	Site: 403 to 404	E-533146 N-6080003	E-533016 N-6079738	14N	295 m
N2-S22	N2-Soils-172	Permafrost	Site: 405 to 406	E-533002 N-6079710	E-532933 N-6079571	14N	155 m
N2-S22	N2-Soils-172	Permafrost	Site: 407 to 408	E-532834 N-6079370	E-532808 N-6079317	14N	59 m
N2-S22	N2-Soils-172	Permafrost	Site: 409 to 410	E-532682 N-6079060	E-532476 N-6078642	14N	466 m
N2-S22	N2-Soils-172	Permafrost	Site: 411 to 412	E-532278 N-6078240	E-532117 N-6077915	14N	363 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 : Intersection

Sec-Seg ID	ESS ID	ESS Name	Location	Easting	Northing	UTM Zone
N2-S22	N2-Accs-103	Winter Road/Access trail	C4	532509	6078709	14N

Potential Effects:

Potential interference with road traffic; safety issues

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
- 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 : 101 con't

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Wild-141	Unnamed creek crossing	Site: L81 to L82	E- 532268 N-6078221	E-532169 N-6078020	14N	224 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-S22	N2-Aqua-162	Unnamed tributary of Rocky Lake	532223	6078129	14N	10 m	10 m	Marginal	Moderate

Potential Effects:

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

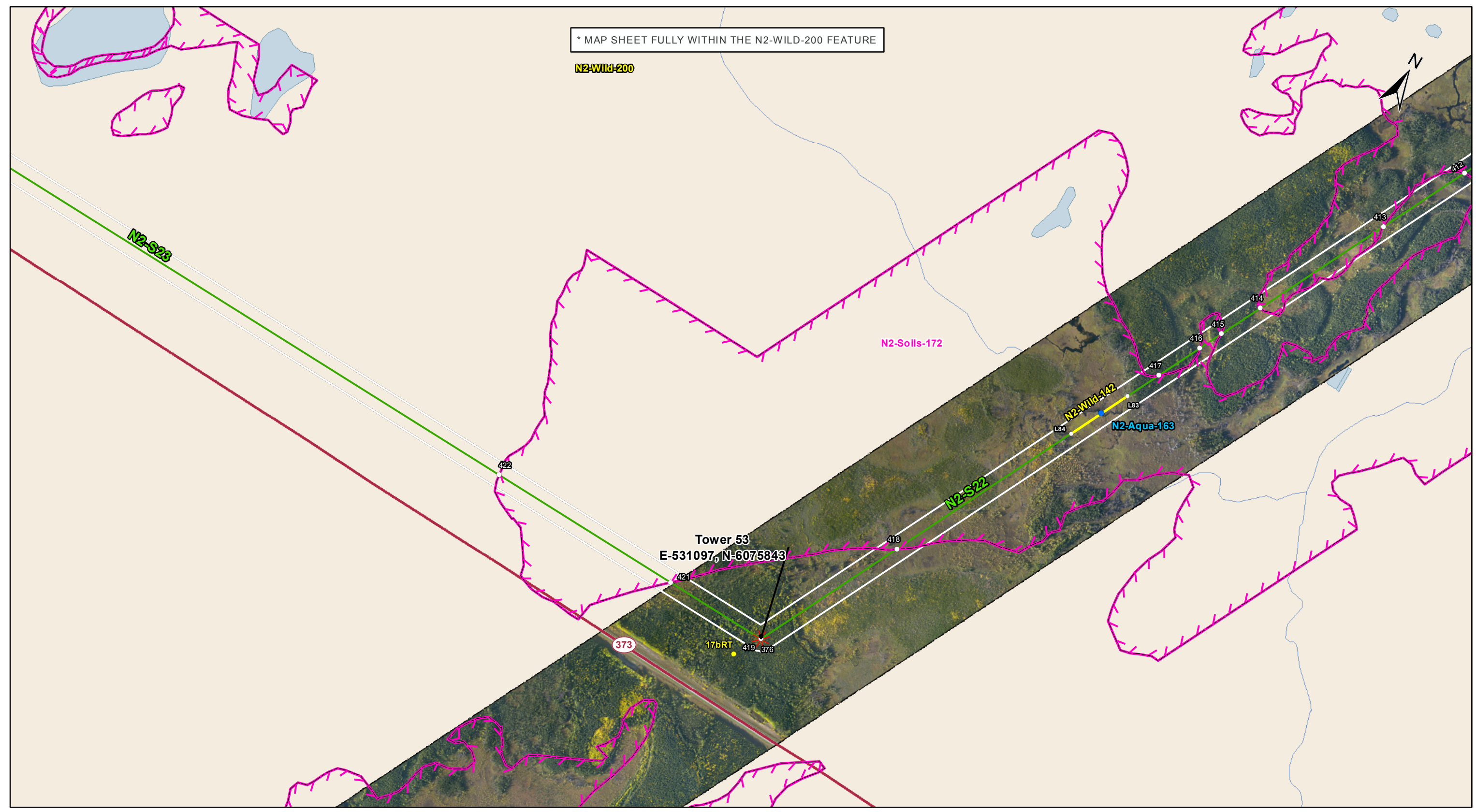
Specific Mitigation:

- 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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* MAP SHEET FULLY WITHIN THE N2-WILD-200 FEATURE



	Coordinate System: UTM Zone 14N NAD83 Data Source: MB Hydro, ProvMB, NRCAN Date Created: December 02, 2013	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 - Mammals and Habitat Soils and Terrain - Permafrost	<h3 style="text-align: center;">Bipole III Transmission Project</h3> <h2 style="text-align: center;">Construction Environmental Protection Plan</h2> <h3 style="text-align: center;">Construction Section N2</h3> <h3 style="text-align: center;">Environmentally Sensitive Site Locations</h3> <p style="text-align: right;">Map 102</p>
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MAP NUMBER : 102

ESS Group : Mammals

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 375 to 376	E- 536966 N-6087758	E-531097 N-6075843	14N	13283 m
N2-S23	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 419 to 420	E- 531097 N-6075843	E-525995 N-6076009	14N	5105 m

Potential Effects:

Potential disturbance to and loss of sensitive caribou habitat

Specific Mitigation:

- Harvest within caribou range boundary will not include shear blading except for access, conductor stringing trails, and tower footprints.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used to remove danger trees, vegetation within tower footprint, access route, and helicopter access points, to maintain low tree, shrub and herb plant communities on the ROW. Use existing access roads and trails to the extent possible
- Maintenance trails to be maintained to reduce line of sight for hunters and predators. Remove trees by low-disturbance methods
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- Any Manitoba Hydro constructed or improved access routes used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash <1 m in height will also be evenly distributed over the access route to reduce the possibility of use by ATV traffic.

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Soils-172	Permafrost	Site: 413 to 414	E-532000 N-6077676	E-531822 N-6077314	14N	404 m
N2-S22	N2-Soils-172	Permafrost	Site: 415 to 416	E-531764 N-6077198	E-531733 N-6077135	14N	70 m
N2-S22	N2-Soils-172	Permafrost	Site: 417 to 418	E-531674 N-6077014	E-531294 N-6076243	14N	860 m
N2-S23	N2-Soils-172	Permafrost	Site: 421 to 422	E-530805 N-6075852	E-530252 N-6075870	14N	554 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-S22	N2-Aqua-163	Unnamed tributary of Monty Lake	531591	6076847	14N	N/A	17 m	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

MAP NUMBER : 102 con't

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S22	N2-Wild-142	Waterfowl sensitivity area	Site: L83 to L84	E- 531629 N-6076923	E-531547 N-6076757	14N	185 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:

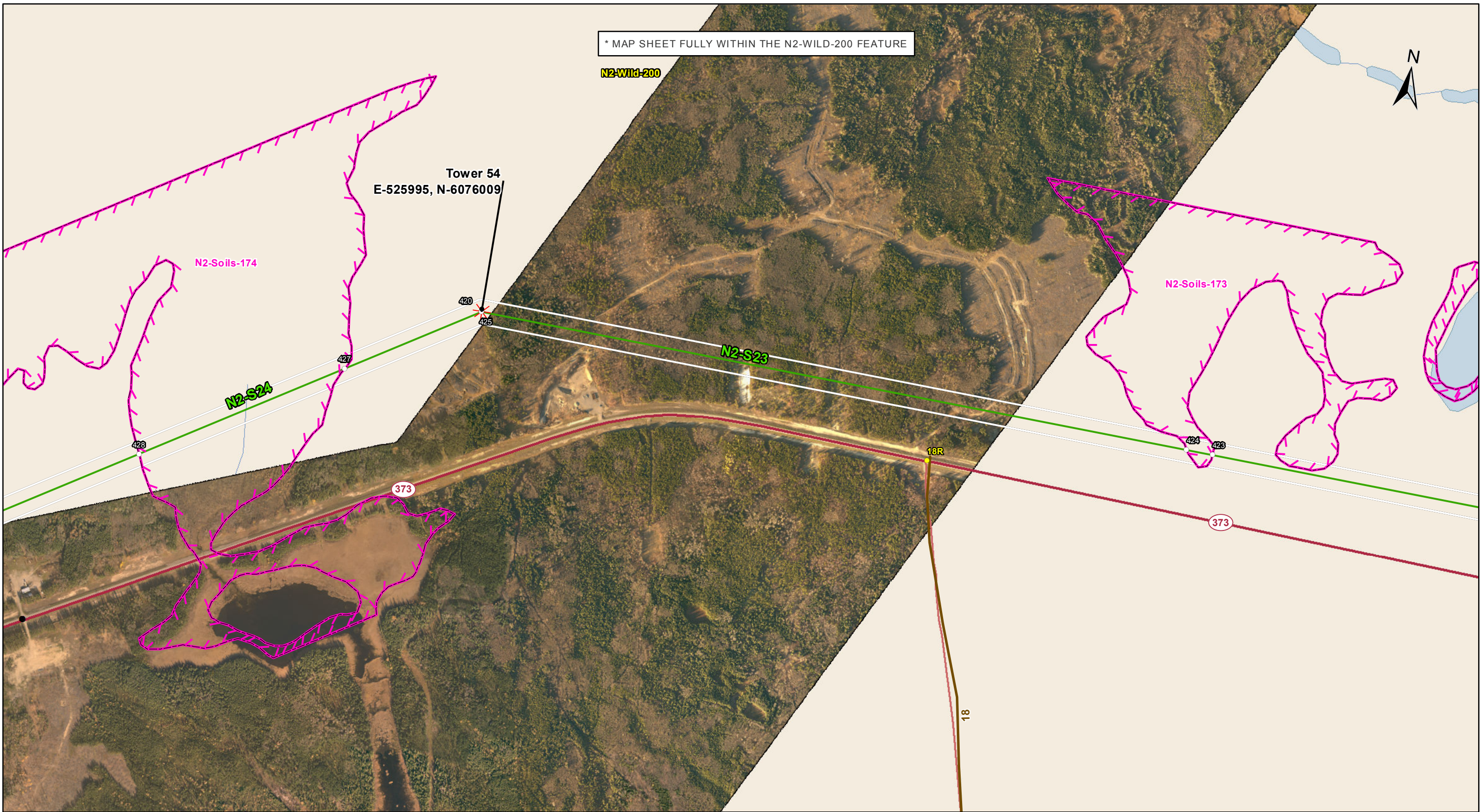
- Adhere to reduced risk timing windows for protection of birds (August 1- April 30)
- Maintain setback during timing window
- Conduct priority assessment for bird diverters and other measures prior to transmission line stringing
- Install bird diverters or other measures at high priority sites

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* MAP SHEET FULLY WITHIN THE N2-WILD-200 FEATURE

N2-Wild-200



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

0 120 240 480
 Metres
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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

Wildlife

- Mammals and Habitat

Soils and Terrain

- Permafrost

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

MAP NUMBER : 103

ESS Group : Mammals

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S23	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 419 to 420	E- 531097 N-6075843	E-525995 N-6076009	14N	5105 m
N2-S24	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 425 to 426	E- 525995 N-6076009	E-522779 N-6074015	14N	3784 m

Potential Effects:

Potential disturbance to and loss of sensitive caribou habitat

Specific Mitigation:

- Harvest within caribou range boundary will not include shear blading except for access, conductor stringing trails, and tower footprints.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used to remove danger trees, vegetation within tower footprint, access route, and helicopter access points, to maintain low tree, shrub and herb plant communities on the ROW. Use existing access roads and trails to the extent possible
- Maintenance trails to be maintained to reduce line of sight for hunters and predators. Remove trees by low-disturbance methods
- Annual ground inspection of towers to occur late in winter season to avoid creating packed snow trails that facilitate predator use of the ROW.
- Any Manitoba Hydro constructed or improved access routes used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash <1 m in height will also be evenly distributed over the access route to reduce the possibility of use by ATV traffic.

- 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
N2-S23	N2-Soils-173	Permafrost	Site: 423 to 424	E-528012 N-6075943	E-527941 N-6075945	14N	71 m
N2-S24	N2-Soils-174	Permafrost	Site: 427 to 428	E-525654 N-6075797	E-525140 N-6075479	14N	605 m

Potential Effects:

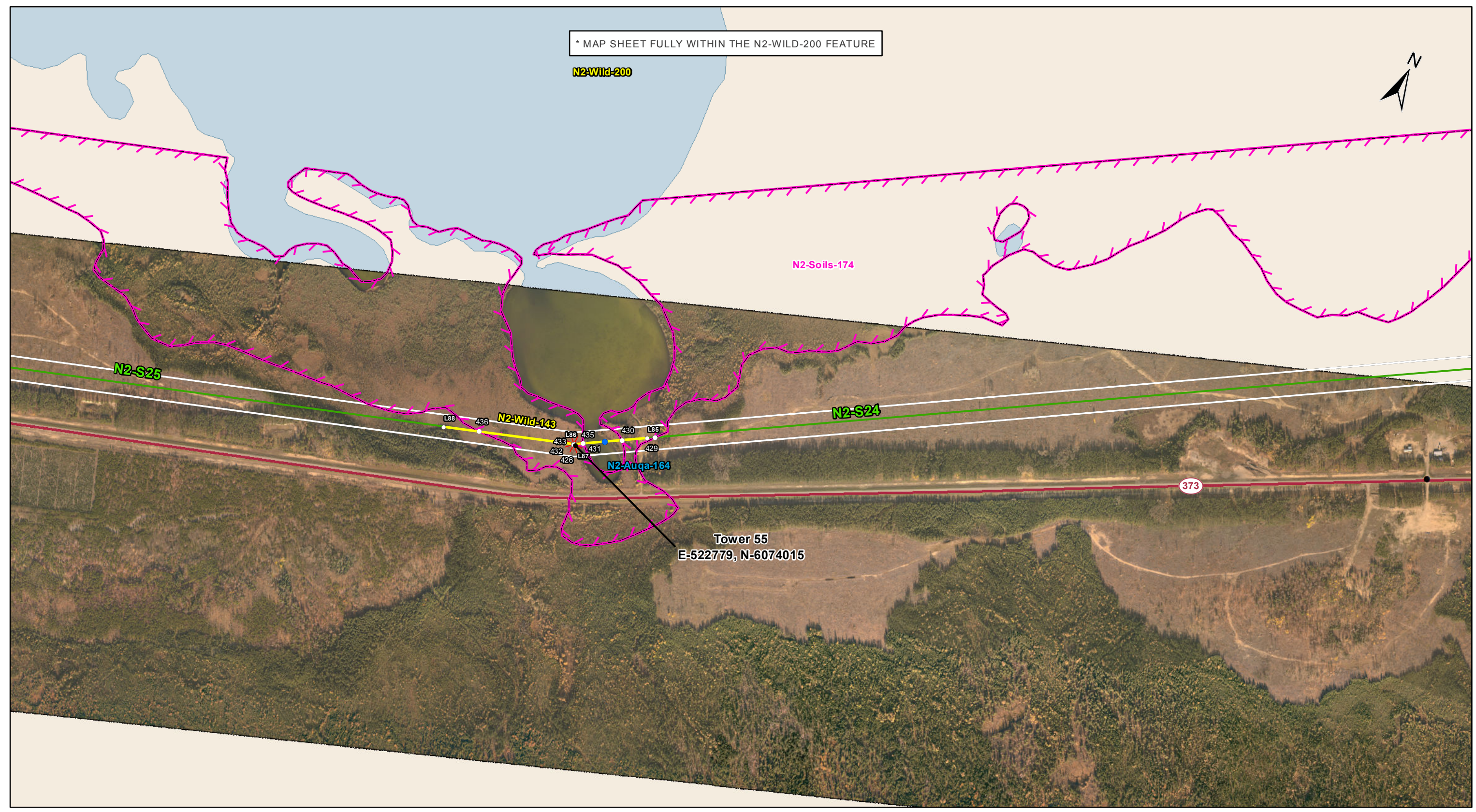
Melting or loss of permafrost due to disturbance of the active layer

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

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* MAP SHEET FULLY WITHIN THE N2-WILD-200 FEATURE



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

0 120 240 480
 Metres
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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
- Mammals and Habitat
- Soils and Terrain**
- Permafrost

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

MAP NUMBER : 104

ESS Group : Mammals

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S24	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 425 to 426	E- 525995 N-6076009	E-522779 N-6074015	14N	3784 m
N2-S25	N2-Wild-200	MCWS Caribou Sensitive Area	Site: 433 to 434	E- 522779 N-6074015	E-519255 N-6072788	14N	3731 m

Potential Effects:

Potential disturbance to and loss of sensitive caribou habitat

Specific Mitigation:

- Harvest within caribou range boundary will not include shear blading except for access, conductor stringing trails, and tower footprints.
- No shear blading to clear the right of way (ROW) in the sensitive range. Selective cutting methods will only be used to remove danger trees, vegetation within tower footprint, access route, and helicopter access points, to maintain low tree, shrub and herb plant communities on the ROW. Use existing access roads and trails to the extent possible
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- Any Manitoba Hydro constructed or improved access routes used to access the ROW for construction that will not be needed for future maintenance will be decommissioned on completion of construction. Any culverts or road improvements will be removed and the first 100 m from of the trail dug up to the extent possible. Available slash <1 m in height will also be evenly distributed over the access route to reduce the possibility of use by ATV traffic.

ESS Group : Permafrost

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
N2-S24	N2-Soils-174	Permafrost	Site: 429 to 430	E-522968 N-6074132	E-522891 N-6074084	14N	91 m
N2-S24	N2-Soils-174	Permafrost	Site: 431 to 432	E-522800 N-6074028	E-522779 N-6074015	14N	25 m
N2-S25	N2-Soils-174	Permafrost	Site: 435 to 436	E-522779 N-6074015	E-522531 N-522531	14N	263 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-S24	N2-Wild-143	Waterfowl sensitivity area	Site: L85 to L86	E- 522950 N-6074121	E-522779 N-6074015	14N	201 m
N2-S25	N2-Wild-143	Waterfowl sensitivity area	Site: L87 to L88	E- 522779 N-6074015	E-522439 N-6073896	14N	360 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

MAP NUMBER : 104 con't

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-S22	N2-Aqua-164	Unnamed tributary of Gormley Lake	522851	6074057	14N	N/A	N/A	N/A	N/A

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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