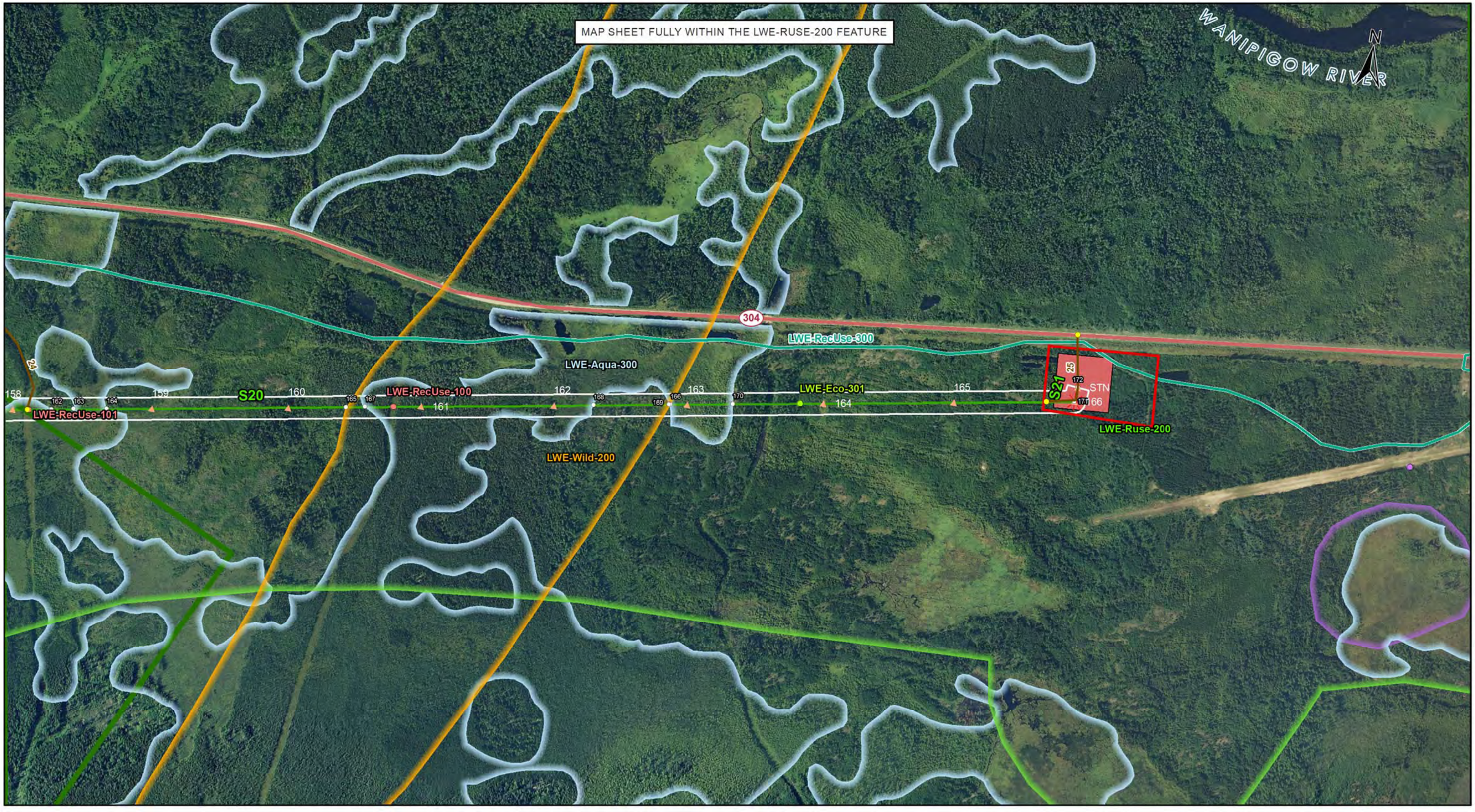
MAP SHEET FULLY WITHIN THE LWE-RUSE-200 FEATURE



Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: January 13, 2017
Version: Final 2.03

0 120 240 480
Metres

1:10,000

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

Project Infrastructure
- Angle Tower Locations
- Towers (Preliminary)*
- LWESI Final Preferred Route
- 60 m Right of Way
- Manigotagan Corner Station Preferred Footprint
- Manigotagan Corner Station Preferred Site
- Proposed Access Points
- Proposed Access Routes

*Towers are subject to change and are only used as a rough guide

ESS Features

Access
- Intersection

Ecosystem
- Species of Concern

Heritage
- Cultural
- Rec Use, Recreaton

Heritage
- Cultural

Resource Use
- Food/Medicinal
- Mining

Water
- Wetland

Wildlife
- Mammals and Habitat

Lake Winnipeg East System Improvement Transmission Project
Construction Environmental Protection Plan
Environmentally Sensitive Site Locations

MAP 18

ESS Group: Intersection

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Source
LWE-S20	LWE-RecUse-100	Trail crossing	694105	5667250	14N	Manitoba Hydro
LWE-S20	LWE-RecUse-101	Trail crossing	693123	5667087	14N	Manitoba Hydro

Potential Effects:

May provide increased sightlines from the road and additional access for hunters

Specific Mitigation:

- Maintain existing shrubs and understory for 100m on both sides of the crossing
- Minimize centerline trail clearing width

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Source
LWE-S20	LWE-Eco-301	Plant – Species of Concern	695200	5667432	14N	Manitoba Hydro

Potential Effects:

Loss of plants of conservation concern from clearing and construction activities.

Specific Mitigation:

- Identify and flag prior to start of work
- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Provide 10m vegetated (shrub and herbaceous) buffer around site
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible

ESS Group: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S20	LWE-Ruse-200	Gathering Area	Site: 159 to 160	E-692769 N-5667028	E-695938 N-5667554	14N	3212 m	ATK
LWE-S21	LWE-Ruse-200	Gathering Area	Site: 171 to 172	E-695938 N-5667554	E-695942 N-5667593	14N	38 m	ATK

Potential Effects:

Loss of plants as a result of clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Minimize surface disturbance around the site to the extent possible
- No Herbicide to be applied during construction
- Confine vehicle traffic to established trails to the extent possible

ESS Group: Wetland

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S20	LWE-Aqua-300	Sensitive Wetland	Site: 161 to 162	E-692946 N-5667057	E-693186 N-5667097	14N	243m	Manitoba Hydro Consultant
LWE-S20	LWE-Aqua-300	Sensitive Wetland	Site: 163 to 164	E-693245 N-5667107	E-693334 N-5667122	14N	90m	Manitoba Hydro Consultant
LWE-S20	LWE-Aqua-300	Sensitive Wetland	Site: 167 to 168	E-694027 N-5667237	E-694643 N-5667339	14N	624m	Manitoba Hydro Consultant
LWE-S20	LWE-Aqua-300	Sensitive Wetland	Site: 169 to 170	E-694846 N-5667373	E-695019 N-5667401	14N	174m	Manitoba Hydro Consultant

Potential Effects:

Potential disturbance to Wetlands /Fens

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Provide 30 m vegetated (shrub and herbaceous) buffer around site, Remaining stumps will not exceed a maximum stump height of 203mm (8 ")
- Remove trees by low-disturbance methods within buffer
- The application of herbicides is prohibited within buffer

ESS Group: Mammals and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S20	LWE-Wild-200	Moose crossing area	Site: 165 to 166	E-693977 N-5667228	E-694850 N-5667373	14N	884 m	ATK

Potential Effects:

Increased hunting access to area

Specific Mitigation:

- Manitoba Hydro will not support development of designated motorized recreational trail use within areas described above if requested.
- No shear blading will be used to clear the ROW except within the 24m wide centerline trail and tower foundation work areas. Within the remaining ROW area selective cutting methods will be used, leaving low shrub and herb plant communities on the ROW. Remaining stumps will not exceed a maximum stump height of 203mm (8 ")
- Slash piles will be stockpiled on the edge of the ROW every 200m-400m during clearing, and will be placed on centerline trail post construction.
- 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 access trails 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 trail to reduce the possibility of use be ATV traffic.

ESS Group: Recreation

Sec-Seg ID	ESS ID	ESS Name	Location	Easting	Northing	UTM Zone	Source
LWE-S18	LWE-Ruse-300	Dog Sled Trail	C1	E- 691287	N- 5665082	14N	ATK
LWE-S19	LWE-Ruse-300	Dog Sled Trail	C2	E- 692137	N- 5666260	14N	ATK

Potential Effects:

Potential disruption of recreational activities

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Avoid surface damage to and obstruction of access route
- Post warning markers and signs at trail location
- Identify and flag prior to start of work
- Relocate trail where it intersects station footprint