

Lake Winnipeg East System Improvement Transmission Project
Environmental Protection Plan

Part 2 -Mapbook

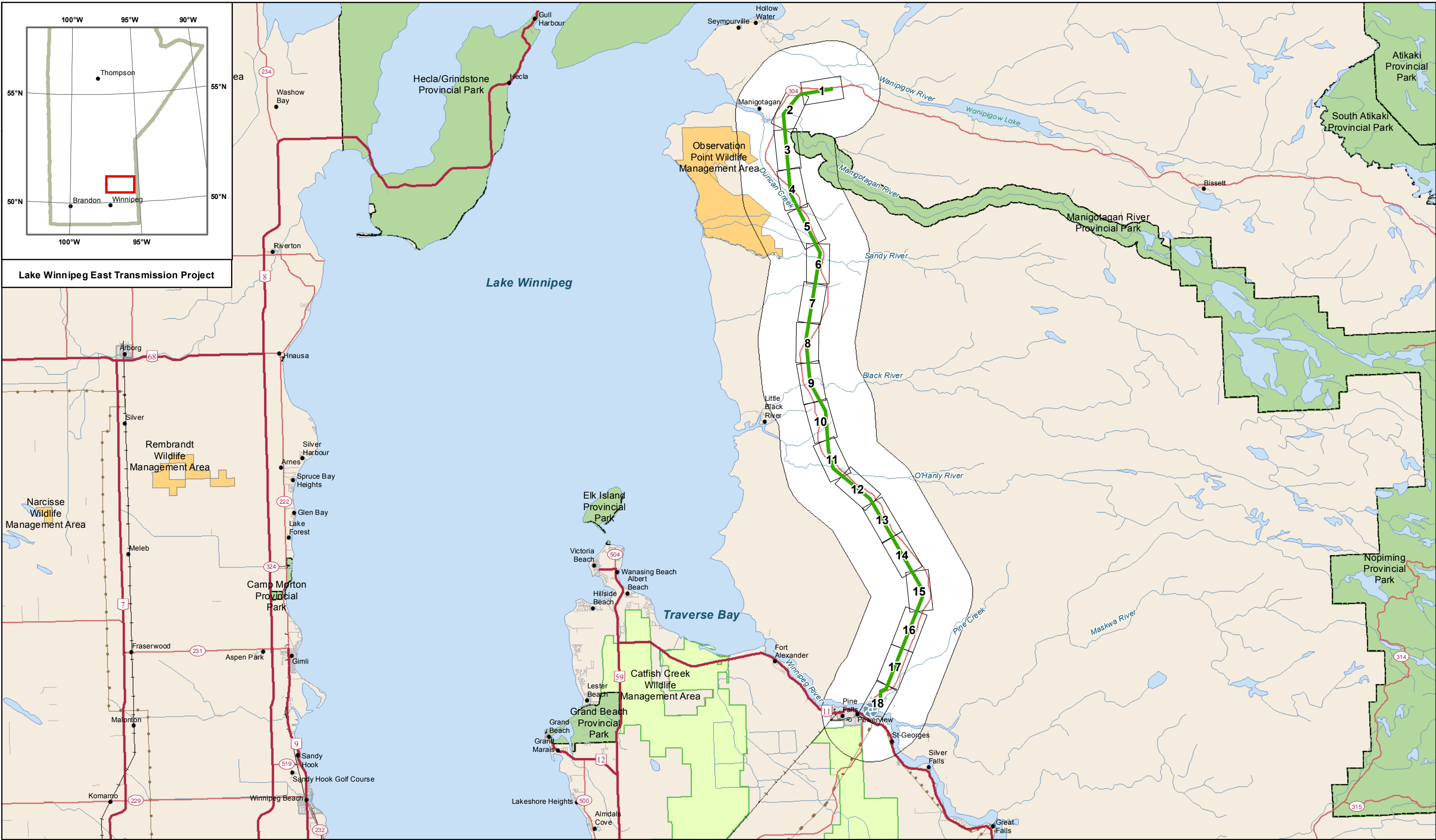


Prepared by:
Manitoba Hydro
Winnipeg, Manitoba
2014



Aboriginal Traditional Knowledge

Manitoba Hydro recognizes the unique relationship Aboriginal communities have with their areas of use and is appreciative to all the communities who took time to share information about their history and culture as well as their valued knowledge and perspectives with regards to the Lake Winnipeg East System Improvement Transmission Project study area. The ATK that has been shared assisted Manitoba Hydro in: developing a greater understanding of the study area; identifying potential Project effects; planning and designing the Project; developing potential mitigation measures, some of which can be found throughout this document.



Lake Winnipeg East Transmission Project



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, Stantec, ProvMB, NRCAN
 Date Created: July 03, 2014

0 5 10 Kilometres
 0 5 10 Miles

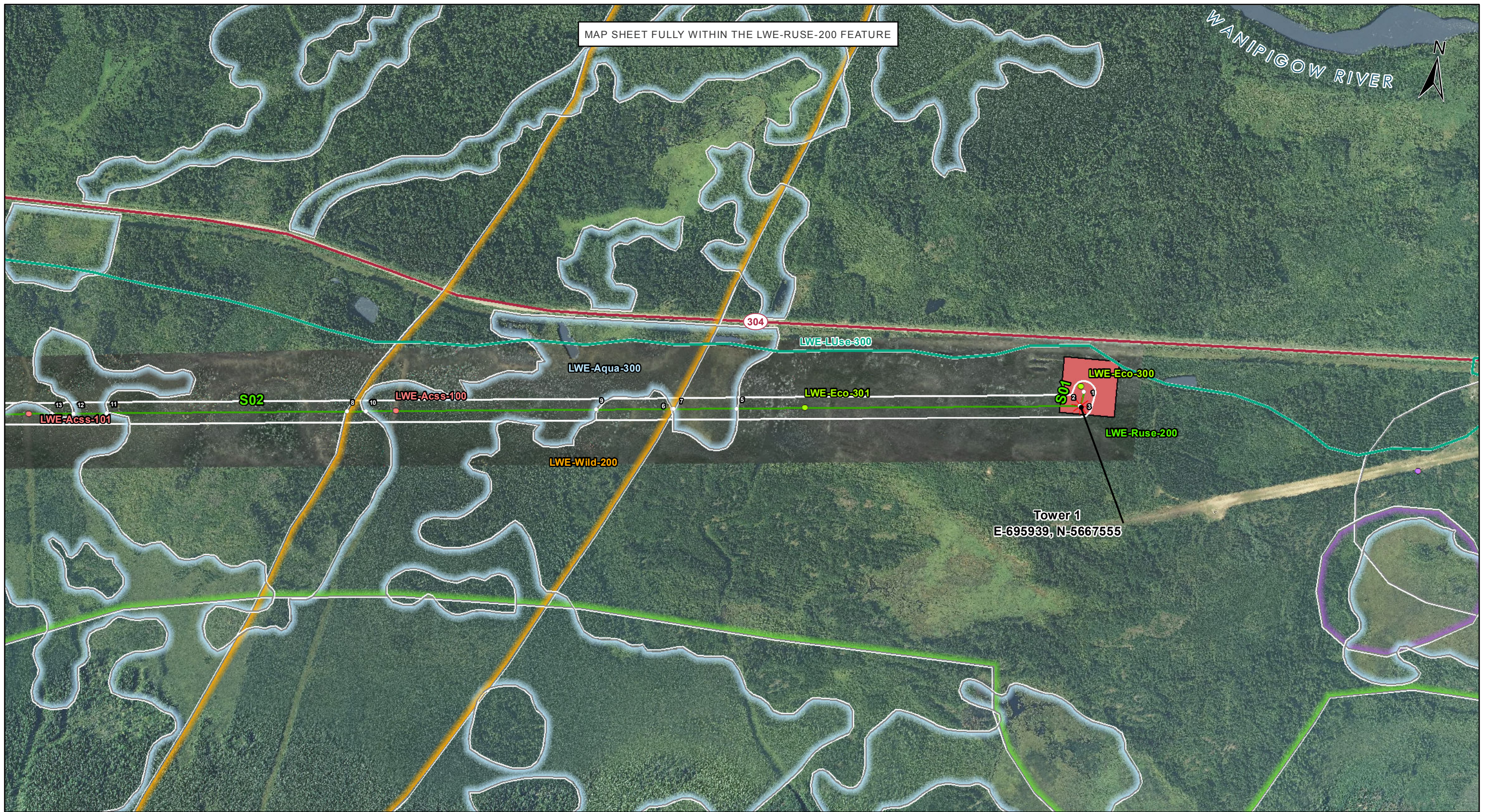
1:350,000

Legend

- Generating Station
- Final Preferred Route
- Transmission Line
- Map Index Grid (1:10,000)
- National/Provincial Park
- Provincial Forest
- Wildlife Management Area
- Islands (500k)

**Lake Winnipeg East Side Initiative
 Transmission Project
 Construction Environmental Protection Plan
 Map Index**

Draft: For Discussion Purposes Only



MAP SHEET FULLY WITHIN THE LWE-RUSE-200 FEATURE

WANIPIGOW RIVER



Coordinate System: UTM Zone 14N NAD83
 Data Source: MB Hydro, ProvMB, NRCAN
 Date Created: July 29, 2014
 Version: Draft

0 125 250 500
 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
 - LWESI Final Preferred Route
 - 60 m Right of Way
 - Manigotagan Corner Station Preferred Site

- ESS Features**
- Access**
 - Intersection
 - Ecosystem**
 - Species of Concern
 - Heritage**
 - Cultural
 - Land Use**
 - Recreation
 - Heritage**
 - Cultural

- Resource Use**
- Food/Medicinal
 - Mining
 - Water**
 - Wetland
 - Wildlife**
 - Mammals and Habitat

**Lake Winnipeg East Side Initiative
 Transmission Project
 Construction Environmental Protection Plan
 Environmentally Sensitive Site Locations**

DRAFT: FOR DISCUSSION PURPOSES ONLY

ESS Group: Intersection

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Source
LWE-S02	LWE-Acss-100	Trail crossing	694105	5667250	14N	Manitoba Hydro
LWE-S02	LWE-Acss-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 with the exception of the central trail

ESS Group: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S01	LWE-Ruse-200	Gathering Area	Site: 1 to 2	E-695942 N-5667593	E-695938 N-5667554	14N	38 m	ATK
LWE-S02	LWE-Ruse-200	Gathering Area	Site: 3 to 4	E-695938 N-5667554	E-692769 N-5667028	14N	3212 m	ATK

Potential Effects:

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

Specific Mitigation:

- Transmission line construction activities will take place 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 /Fens

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S02	LWE-Aqua-300	Wetland sensitivity area	Site: 5 to 6	E-695019 N-5667401	E-694846 N-5667373	14N	174m	Manitoba Hydro Consultant
LWE-S02	LWE-Aqua-300	Wetland sensitivity area	Site: 9 to 10	E-694643 N-5667339	E-694027 N-5667237	14N	624m	Manitoba Hydro Consultant
LWE-S02	LWE-Aqua-300	Wetland sensitivity area	Site: 11 to 12	E-693334 N-5667122	E-693245 N-5667107	14N	90m	Manitoba Hydro Consultant
LWE-S02	LWE-Aqua-300	Wetland sensitivity area	Site: 13 to 14	E-693186 N-5667097	E-692946 N-5667057	14N	243m	Manitoba Hydro Consultant

Potential Effects:

Potential Disruption to sensitive wetland habitat

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
- 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-S02	LWE-Wild-200	Moose crossing area	Site: 7 to 8	E-694850 N-5667373	E-693977 N-5667228	14N	884 m	ATK

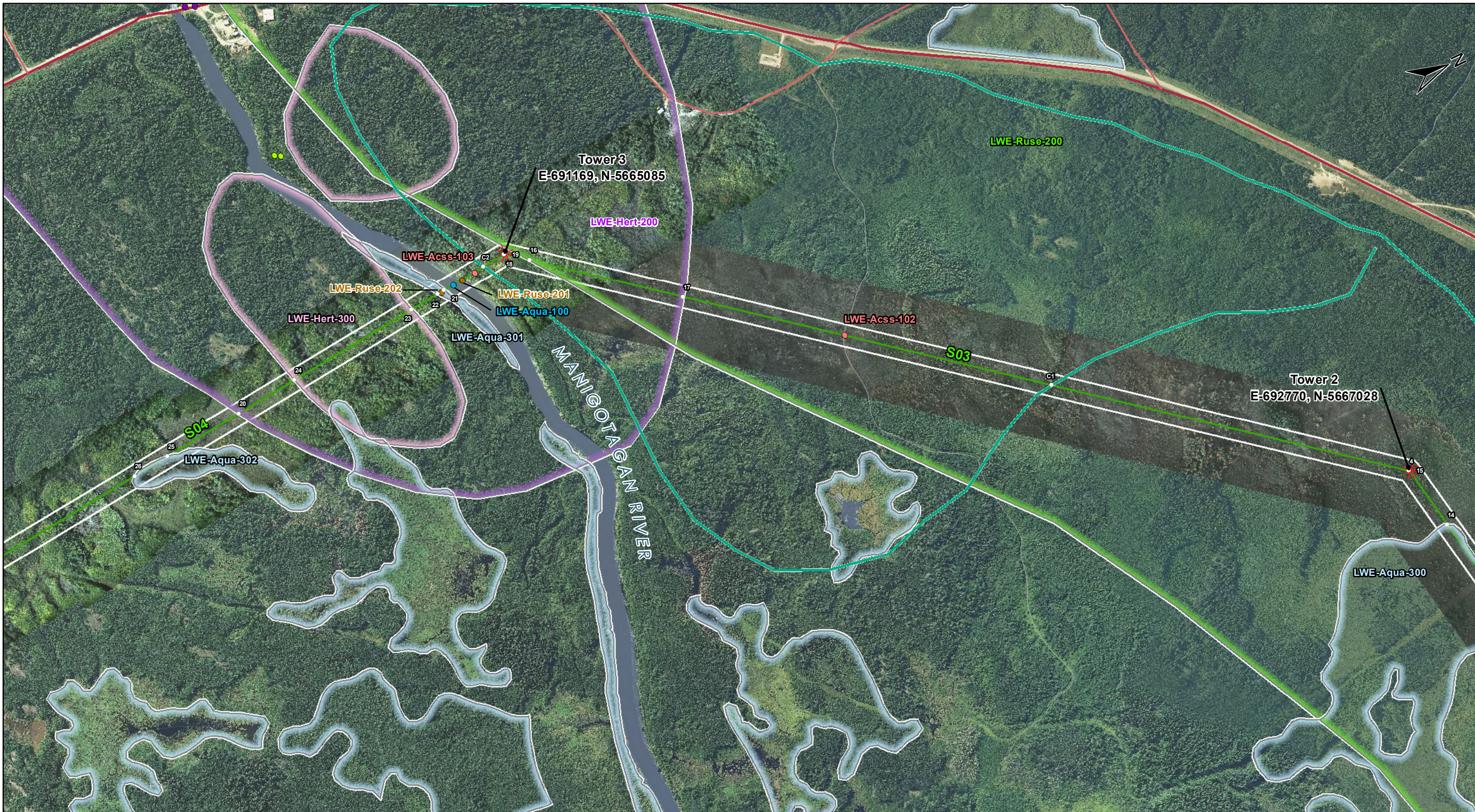
Potential Effects:

Increased line of sight and access to area.

Specific Mitigation:

- Low disturbance clearing methods that retain existing shrubs and understory
- 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.

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 Date Created: July 29, 2014
 Version: Draft

0 125 250 500
 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
 - LWESI Final Preferred Route
 - 60 m Right of Way
 - Manigotagan Corner Station Preferred Site

- ESS Features**
- Access**
 - Intersection
 - Ecosystem**
 - Species of Concern
 - Heritage**
 - Archaeological
 - Resource Use**
 - Food/Medicinal
 - Water**
 - Water Crossing

- Land Use**
- Recreation
 - Cultural
 - Historic
 - Resource Use
 - Food/Medicinal
 - Water
 - Wetland

**Lake Winnipeg East Side Initiative
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 Environmentally Sensitive Site Locations**

DRAFT: FOR DISCUSSION PURPOSES ONLY

MAP 2

ESS Group: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Source
LWE-S04	LWE-Ruse-201	Gathering Area	691181	5664948	14N	ATK
LWE-S04	LWE-Ruse-202	Gathering Area	691187	5664884	14N	ATK

Potential Effects:

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

Specific Mitigation:

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

ESS Group: Intersection

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Source
LWE-S03	LWE-Acss-102	Trail crossing	691770	5665814	14N	Manitoba Hydro Consultants
LWE-S04	LWE-Acss-103	Trail crossing	691178	5664989	14N	Manitoba Hydro Consultants

Potential Effects:

May provide additional access for hunters

Specific Mitigation:

- Maintain existing shrubs and understory for 100m on both sides of the crossing

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Source
LWE-S04	LWE-Aqua-100	Manigotagan River	691183	5664922	14N	Manitoba Hydro Consultants

Potential Effects:

Habitat loss & contamination from structure foundations & installations; Increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; 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

ESS Group: Recreation

Sec-Seg ID	ESS ID	Location	ESS Name	Crossing Coordinates	UTM Zone	Source
LWE-S03	LWE-LUse-300	C1	Dogsled Trail	E-692137 N-5666260	14N	ATK
LWE-S04	LWE-LUse-300	C2	Dogsled Trail	E-691174 N-5665020	14N	ATK

Potential Effects:

Disturbance and blockage of dogsled trail.

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 trail route
- Post warning markers and signs at trail location
- Identify and flag prior to start of work
- Create alternative route around station with input from the community and Integrated Resource Management Team

ESS Group: Cultural

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S03	LWE-Hert-200	Culture and Heritage Resources	Site: 17 to 18	E-691485 N-5665468	E-691169 N-5665084	14N	497 m	ATK
LWE-S04	LWE-Hert-200	Culture and Heritage Resources	Site: 19 to 20	E-691169 N-5665084	E-691242 N-5664250	14N	837 m	ATK
LWE-S04	LWE-Hert-300	Culture and Heritage Resources	Site: 23 to 24	E-691194 N-5664793	E-691226 N-5664425	14N	369 m	ATK

Potential Effects:

Potential disturbance to cultural resource.

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: Food/Medicinal

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S02	LWE-Ruse-200	Gathering Area	Site: 3 to 4	E-695938 N-5667554	E-692769 N-5667028	14N	3212 m	ATK
LWE-S03	LWE-Ruse-200	Gathering Area	Site: 15 to 16	E-692769 N-5667028	E-691214 N-5665139	14N	2446 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 /Fens

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance	Source
LWE-S02	LWE-Aqua-300	Wetland sensitivity area	Site: 13 to 14	E-693186 N-5667097	E-692946 N-5667057	14N	243 m	MBCWS
LWE-S04	LWE-Aqua -301	Wetland sensitivity area	Site: 21 to 22	E-691185 N-5664896	E-691187 N-5664876	14N	20 m	MBCWS
LWE-S04	LWE-Aqua -302	Wetland sensitivity area	Site: 25 to 26	E-691262 N-5664025	E-691271 N-5663922	14N	102 m	MBCWS

Potential Effects:

Potential Disruption to sensitive wetland habitat

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
- Remove trees by low-disturbance methods within buffer
- The application of herbicides is prohibited within buffer

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