MAP SEGMENT ENTIRELY WITHIN FEATURE C1-AQUA-202

C1-Aqua-202

C1-Aqua-203

Robinson Creek

364

364

C1-Acss-106

C1-Aqua-

C1-Wild-114

65 66 L22 C7 67 68 62 L21

C1-Ruse-308

C1-Ruse-307

C1-Hert-118A

Mossy River crossing

C1-Aqua-119

C1-Hert-119

C1-S03

70 69

C1-Ruse-309

C1-Acss-106

MOSSY RIVER

N

DOCUMENT PATH: G:_GIS_PROJECT_FOLDER\00_HYDRO\111440054_BPIII_EPP\ARCMAPIESS_C1\BPIII_CENVPP_N1N2N3N4C1SECTIONBASEMAP_MAPBOOK_BTB_STANTEC_20131201.MXD

Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: December 03, 2013

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Metres

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

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
- Cultural or Historic

Water
- Water Crossing

Access
- Intersection

Wildlife
- Birds and Habitat

Resource Use
- Forestry

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section C1
Environmentally Sensitive Site Locations

Map 229

MAP NUMBER: 229

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-Aqua-202	Freshwater artesian areas	Site: 53 to 54	E-427716 N- 5721099	E- 439095 N- 5715660	14N	12613 m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); potential level drop in the aquifer

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions
- Emergency response plans for sealing/grouting and pumping will be implemented as required
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-Aqua-203	Aquifers vulnerable to contamination	Site: 61 to 62	E-432795 N-5718671	E-434242 N-5717980	14N	1604 m

Potential Effects:

Potential groundwater contamination from a contingency event (eg, spill)

Specific Mitigation:

- Marshaling yards will be located on upland sites where possible
- An Emergency Preparedness and Spill Response Plan will be developed and an emergency response spill kit will be kept on-site at all times in case of fluid leaks or spills from machinery

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-RUse-307	Shelterbelt	Site: 65 to 66	E-434120 N-5718038	E-434135 N-5718031	14N	17 m
C1-S03	C1-RUse-308	Shelterbelt	Site: 67 to 68	E-434190 N-5718005	E-434209 N-5717995	14N	21 m
C1-S03	C1-RUse-309	Shelterbelt	Site: 68 to 70	E-437187 N-5716572	E-437197 N-5716567	14N	11 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
- Notify landowner regarding construction activities and schedule, and address concerns prior to start of work
- Where applicable, ensure compensation agreement is in place prior to start of work
- Use existing access trails, roads or cut lines whenever possible as access routes
- Limit all equipment to project footprint only, where possible

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S01	C1-Aqua-118A	Mossy River	434153	5718021	14N	50m	50m	Important	Low
C1-S01	C1-Aqua-119	Robinson Creek	435438	5717408	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; Fish habitat disturbance & impeded fish movement

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 work or fording from April 1 to June 30

MAP NUMBER: 229 cont'd

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S03	C1-Hert-118A	Mossy River	434121	5718037	14N
C1-S03	C1-Hert-119	Robinson Creek	435444	5717407	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 : Intersection

Sec-Seg ID	ESS ID	ESS Name	Location	Easting	Northing	UTM Zone
C1-S03	C1-Acss-106	Canoe Route	Site: C7	434167	5718016	14N

Potential Effects:

Potential aesthetic concerns with the presence of canoe route traffic; disruption from operational activities

Specific Mitigation:

- Carry out construction activities during frozen ice conditions to avoid conflict with canoe route traffic

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-Wild-114	Mossy River crossing, nearby great blue heron colony	Site: L21 to L22	E-493367 N-6056898	E-493178 N-6056829	14N	66 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 1000 meters away

Specific Mitigation:

- Adhere to reduced risk timing windows for protection of birds (August 1- April 30)
- Maintain applicable setback during nesting and breeding 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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Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: December 03, 2013

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Metres

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Land Base
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- Highway
- Major Road
- Local Road
- Winter Road
- Railway (Operational)
- Railway (Discontinued)
- Mining
- Provincial Forest

Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way

Points of Access*
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- Abandoned Rail Crossing
- Rail Crossing
- Transmission Line Crossing
- Proposed Access Route

*Labels correspond to BPIII Access Management Database

ESS Features

Heritage
- Archaeological
- Cultural or Historic

Water
- Water Crossing
- Groundwater

Ecosystem
- Habitat

Resource Use
- Forestry

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section C1
Environmentally Sensitive Site Locations

Map 230

MAP NUMBER: 230

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-Aqua-202	Freshwater artesian areas	Site: 53 to 54	E-427716 N-5721099	E-439095 N-5715660	14N	12613 m
C1-S04	C1-Aqua-202	Freshwater artesian areas	Site: 55 to 56	E-439095 N-5715660	E-440492 N-5714562	14N	1776 m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); potential level drop in the aquifer

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions
- Emergency response plans for sealing/grouting and pumping will be implemented as required
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S03	C1-Aqua-120	Unnamed Tributary of Cork Cliff Creek	438520	5715935	14N	N/A	2m	Marginal	Low
C1-S04	C1-Aqua-121	Cork Cliff Creek	439146	5715620	14N	N/A	4m	Important	Moderate

Potential Effects:

Habitat loss & contamination from structure foundations & installations; Increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbance & impeded fish movement

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 work or fording from April 1 to June 30

ESS Group : Archaeological

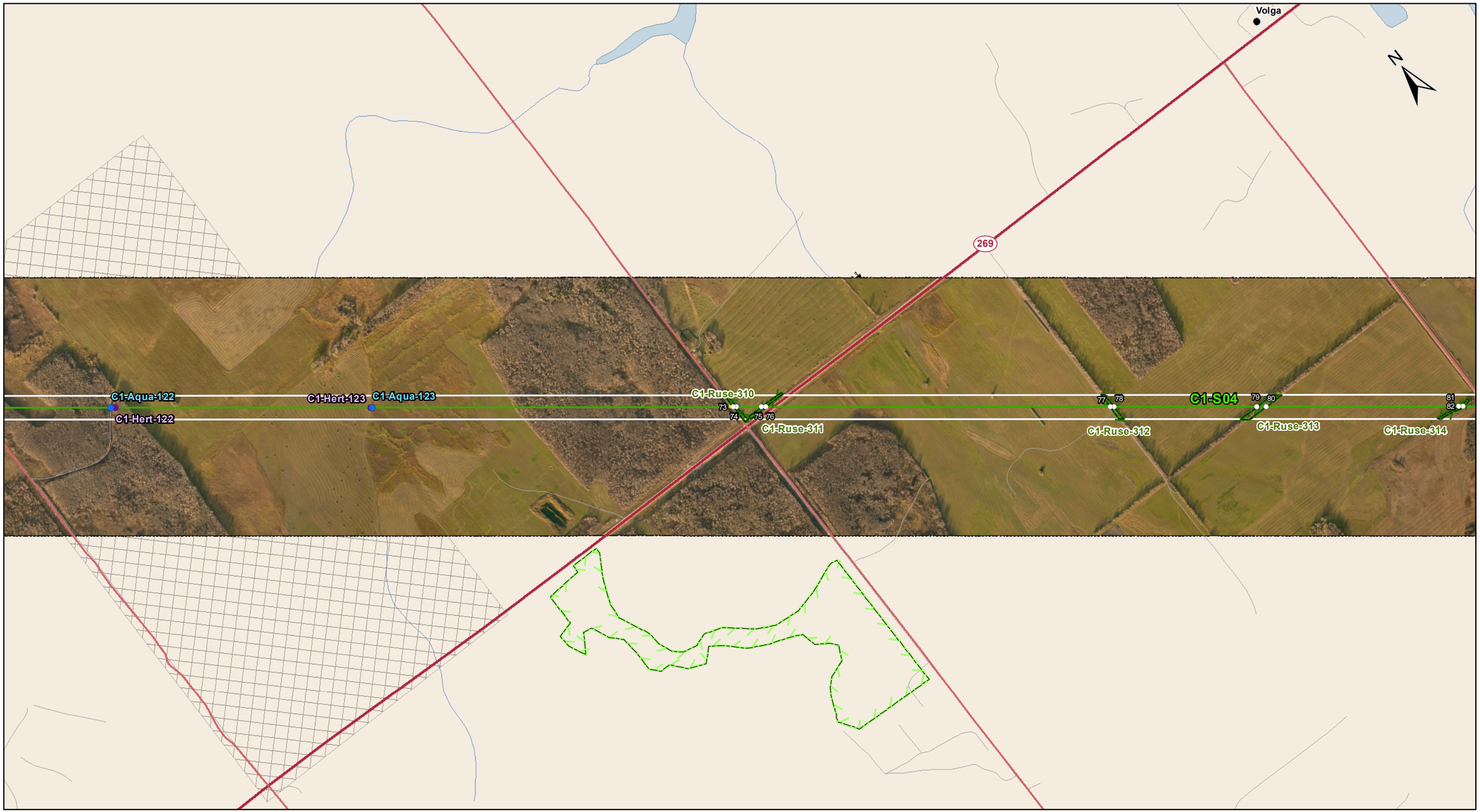
Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S03	C1-Hert-120	Unnamed Tributary of Cork Cliff Creek	438543	5715925	14N
C1-S03	C1-Hert-121	Abandoned Building	439112	5715640	14N

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



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Manitoba Hydro

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Date Created: December 03, 2013

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Metres

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

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

Ecosystem
- Habitat

Resource Use
- Forestry

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section C1
Environmentally Sensitive Site Locations

Map 231

MAP NUMBER: 231

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S04	C1-RUse-310	Shelterbelt	Site: 73 to 74	E-442343 N-5713108	E-442349 N-5713103	14N	8 m
C1-S04	C1-RUse-311	Shelterbelt	Site: 75 to 76	E-442402 N-5713061	E-442412 N-5713054	14N	12 m
C1-S04	C1-RUse-312	Shelterbelt	Site: 77 to 78	E-443148 N-5712475	E-443156 N-5712469	14N	10 m
C1-S04	C1-RUse-313	Shelterbelt	Site: 79 to 80	E-443461 N-5712229	E-443480 N-5712214	14N	25 m
C1-S04	C1-RUse-314	Shelterbelt	Site: 81 to 82	E-443893 N-5711890	E-443901 N-5711883	14N	11 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
- Notify landowner regarding construction activities and schedule, and address concerns prior to start of work
- Where applicable, ensure compensation agreement is in place prior to start of work
- Use existing access trails, roads or cut lines whenever possible as access routes
- Limit all equipment to project footprint only, where possible

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S04	C1-Aqua-122	Unnamed Tributary of Lake Winnipegosis	441013	5714153	14N	N/A	N/A	Marginal	Low
C1-S04	C1-Aqua-123	Unnamed Tributary of Lake Winnipegosis	441570	5713715	14N	4m	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; Fish habitat disturbance & impeded fish movement

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 work or fording from April 1 to June 30

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S04	C1-Hert-122	Unnamed Tributary of Lake Winnipegosis	441015	5714151	14N
C1-S04	C1-Hert-123	Unnamed Tributary of Lake Winnipegosis	441458	5713804	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

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Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: December 03, 2013

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Metres

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Land Base
- Transmission Line
- Highway
- Major Road
- Local Road
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- Railway (Operational)
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- Mining
- Provincial Forest

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

Wildlife
- Birds and Habitat

Ecosystem
- Habitat

Resource Use
- Forestry

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section C1
Environmentally Sensitive Site Locations

Map 232

MAP NUMBER: 232

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S04	C1-Wild-115	German Creek, likely used by waterfowl	N/A	E-444008	N-5711800	14N	N/A
C1-S05	C1-Wild-116	Waterfowl sensitivity area	Site: L23 to L24	E-445708 N-5710055	E-445957 N-5709775	14N	374 m

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 : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S04	C1-Hert-124	German Creek	443999	5711807	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 : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S04	C1-RUse-314	Shelterbelt	Site: 81 to 82	E-443893 N-5711890	E-443901 N-5711883	14N	11 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
- Notify landowner regarding construction activities and schedule, and address concerns prior to start of work
- Where applicable, ensure compensation agreement is in place prior to start of work
- Use existing access trails, roads or cut lines whenever possible as access routes
- Limit all equipment to project footprint only, where possible

ESS Group : Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S05	C1-Eco-100	Dry Upland Prairie	Site: 83 to 84	E-446143 N-5709566	E-446176 N-5709528	14N	51 m

Potential Effects:

Potential loss of plants of conservation concern and grassland species/communities from clearing, construction, maintenance and decommissioning activities

Specific Mitigation:

- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Use existing access roads and trails to the extent possible
- Remove trees by low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible
- Stabilize sites immediately after construction and re-vegetate disturbed areas in accordance with site Rehabilitation Plan

MAP NUMBER: 232

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S04	C1-Aqua-124	German Creek	444003	5711804	14N	N/A	15m	Important	Low

Potential Effects:

Habitat loss & contamination from structure foundations & installations; Increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbance & impeded fish movement

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 work or fording from April 1 to June 30

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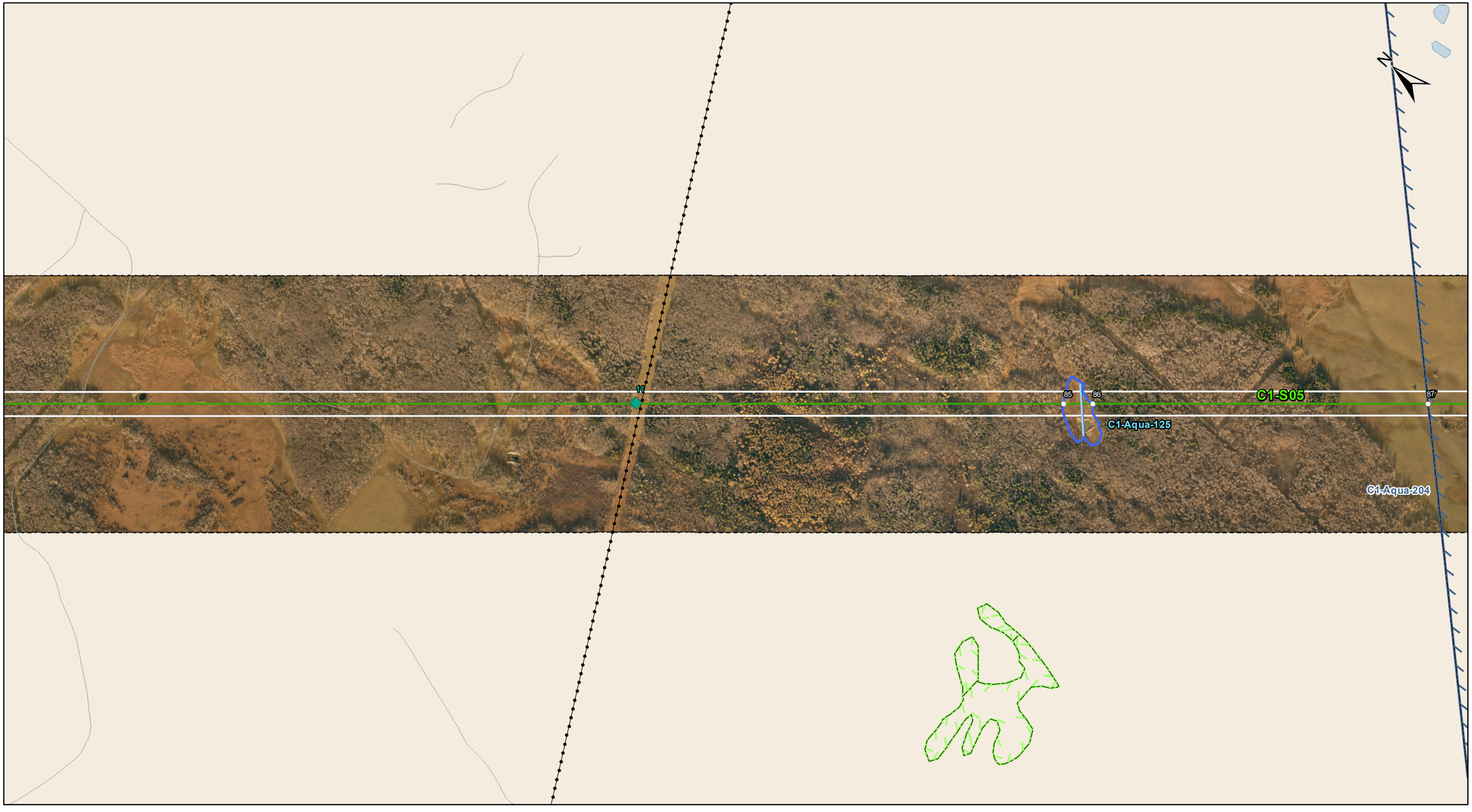

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Manitoba Hydro

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Points of Access*
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ESS Features
Ecosystem
- Habitat

Water
- Groundwater
- Water Crossing

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section C1
Environmentally Sensitive Site Locations

Map 233

MAP NUMBER: 233

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S05	C1-Aqua-125	Unnamed Wetland	Site: 85 to 86	E-448543 N-5706862	E-448596 N-5706802	14N	80 m

Potential Effects:

Increased erosion and sedimentation, Rutting of floodplains, Loss of riparian vegetation

Specific Mitigation:

- 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

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S05	C1-Aqua-204	Artesian areas with uncertain water quality	Site: 87 to 88	E-449205 N-5706118	E-450424 N-5704746	14N	43 m

Potential Effects:

Potential increase in salinity of soils and surface water in case where aquifer is saline and groundwater discharges to the surface; also, wetting the surficial environment (ground saturation)

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions
- Emergency response plans for sealing/grouting and pumping will be implemented as required
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture

MAP SEGMENT ENTIRELY WITHIN C1-AQUA-204

C1-Aqua-204

N

Tower 107
E-450424, N-5704746

L25
C1-Wild-118
C1-S05
L26
L27
88
89
L28
91
92
C1-S06
C1-Ruse-315
481

Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
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Date Created: December 03, 2013

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ESS Features
Wildlife
- Birds and Habitat

Resource Use
- Forestry

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section C1
Environmentally Sensitive Site Locations

Map 234

DOCUMENT PATH: G:_GIS_PROJECT_FOLDER\00_HYDRO\111440054_BPIII_EPP\ARCMAP\ESS_C1\BPIII_CENVPP_N1N2N3N4C1SECTIONBASEMAP_MAPBOOK_BTB_STANTEC_20131201.MXD

MAP NUMBER: 234

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S05	C1-Aqua-204	Artesian areas with uncertain water quality	Site: 87 to 88	E-449205 N-5706118	E-450424 N-5704746	14N	43 m
C1-S06	C1-Aqua-204	Artesian areas with uncertain water quality	Site: 89 to 90	E-450424 N-5704746	E-449205 N-5706118	14N	51 m

Potential Effects:

Potential increase in salinity of soils and surface water in case where aquifer is saline and groundwater discharges to the surface; also, wetting the surficial environment (ground saturation)

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions
- Emergency response plans for sealing/grouting and pumping will be implemented as required
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S06	C1-RUse-315	Shelterbelt	Site: 91 to 92	E-451358 N-5704088	E-451385 N-5704069	14N	45 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
- Notify landowner regarding construction activities and schedule, and address concerns prior to start of work
- Where applicable, ensure compensation agreement is in place prior to start of work
- Use existing access trails, roads or cut lines whenever possible as access routes
- Limit all equipment to project footprint only, where possible

ESS Group : Birds and Habitat

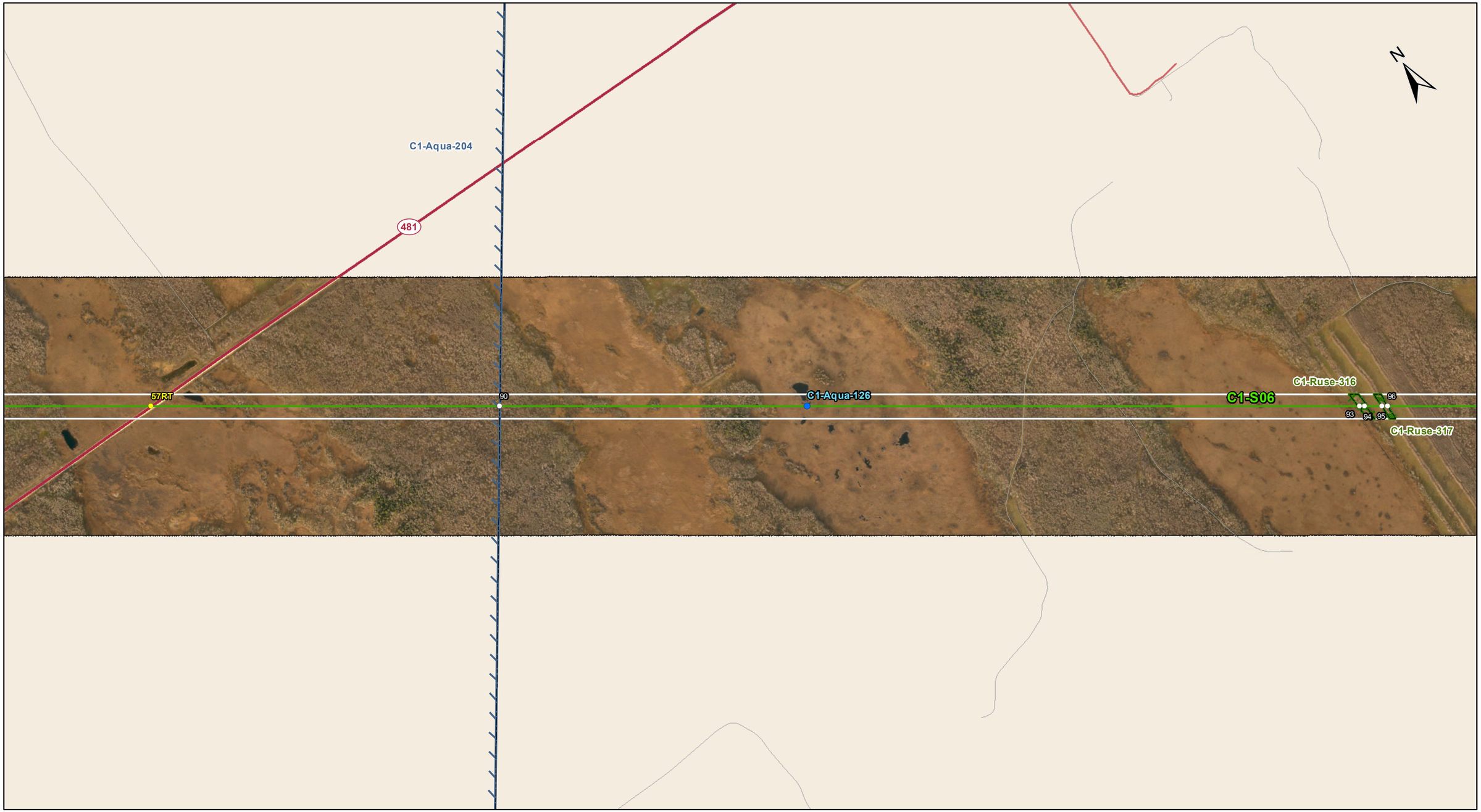
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S05	C1-Wild-118	Waterfowl sensitivity area	Site: L25 to L26	E-449550 N-5705730	E-450424 N-5704746	14N	1315 m
C1-S06	C1-Wild-118	Waterfowl sensitivity area	Site: L27 to L28	E-450424 N-5704746	E-450564 N-5704648	14N	172 m

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 applicable setback during nesting and breeding 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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Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: December 03, 2013

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Metres

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

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

Resource Use
- Forestry

Water
- Groundwater

Bipole III Transmission Project
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Construction Section C1
Environmentally Sensitive Site Locations

Map 235

MAP NUMBER: 235

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S06	C1-Aqua-126	Unnamed pond	455365	5701087	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

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 : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S06	C1-Aqua-204	Artesian areas with uncertain water quality	Site: 89 to 90	E- 450424 N-5704746	E-453336 N-5702694	14N	3562 m

Potential Effects:

Potential increase in salinity of soils and surface water in case where aquifer is saline and groundwater discharges to the surface; also, wetting the surficial environment (ground saturation)

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions
- Emergency response plans for sealing/grouting and pumping will be implemented as required
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture

ESS Group : Forestry

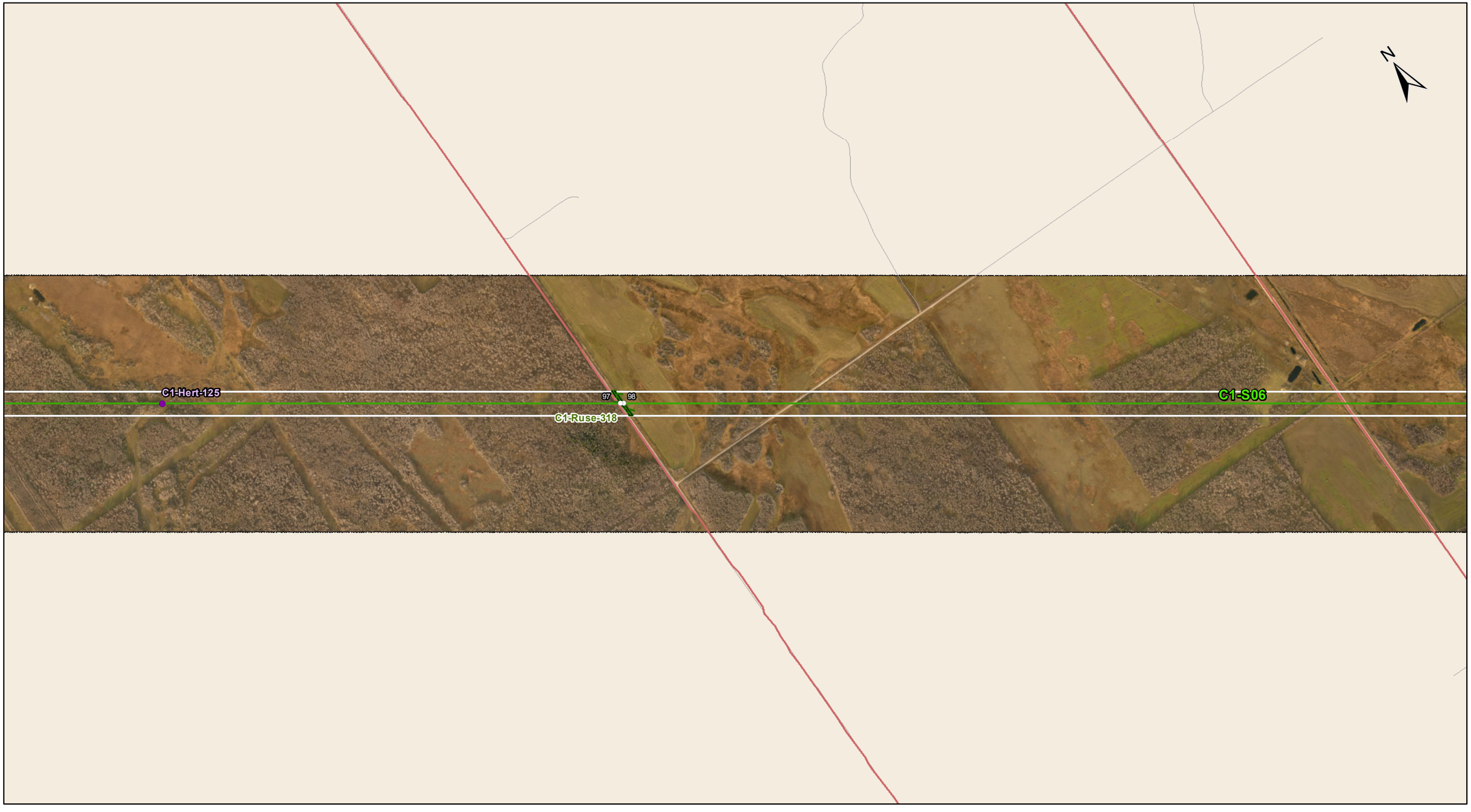
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S06	C1-RUse-316	Shelterbelt	Site: 93 to 94	E- 455245 N-5701350	E- 455255 N-5701342	14N	13 m
C1-S06	C1-RUse-317	Shelterbelt	Site: 95 to 96	E- 455294 N-5701315	E- 455307 N-5701306	14N	15 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
- Notify landowner regarding construction activities and schedule, and address concerns prior to start of work
- Where applicable, ensure compensation agreement is in place prior to start of work
- Use existing access trails, roads or cut lines whenever possible as access routes
- Limit all equipment to project footprint only, where possible



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Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: December 03, 2013

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Metres

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

Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way

Points of Access*
- Proposed Access Point
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- Rail Crossing
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- Proposed Access Route

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ESS Features
Heritage
- Archaeological

Resource Use
- Forestry

Bipole III Transmission Project
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Environmentally Sensitive Site Locations

Map 236

MAP NUMBER: 236

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S06	C1-Hert-125	Creek	455821	5700942	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 : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S06	C1-RUse-318	Shelterbelt	Site: 97 to 98	E-456851 N-5700218	E-456858 N-5700213	14N	9 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
- Notify landowner regarding construction activities and schedule, and address concerns prior to start of work
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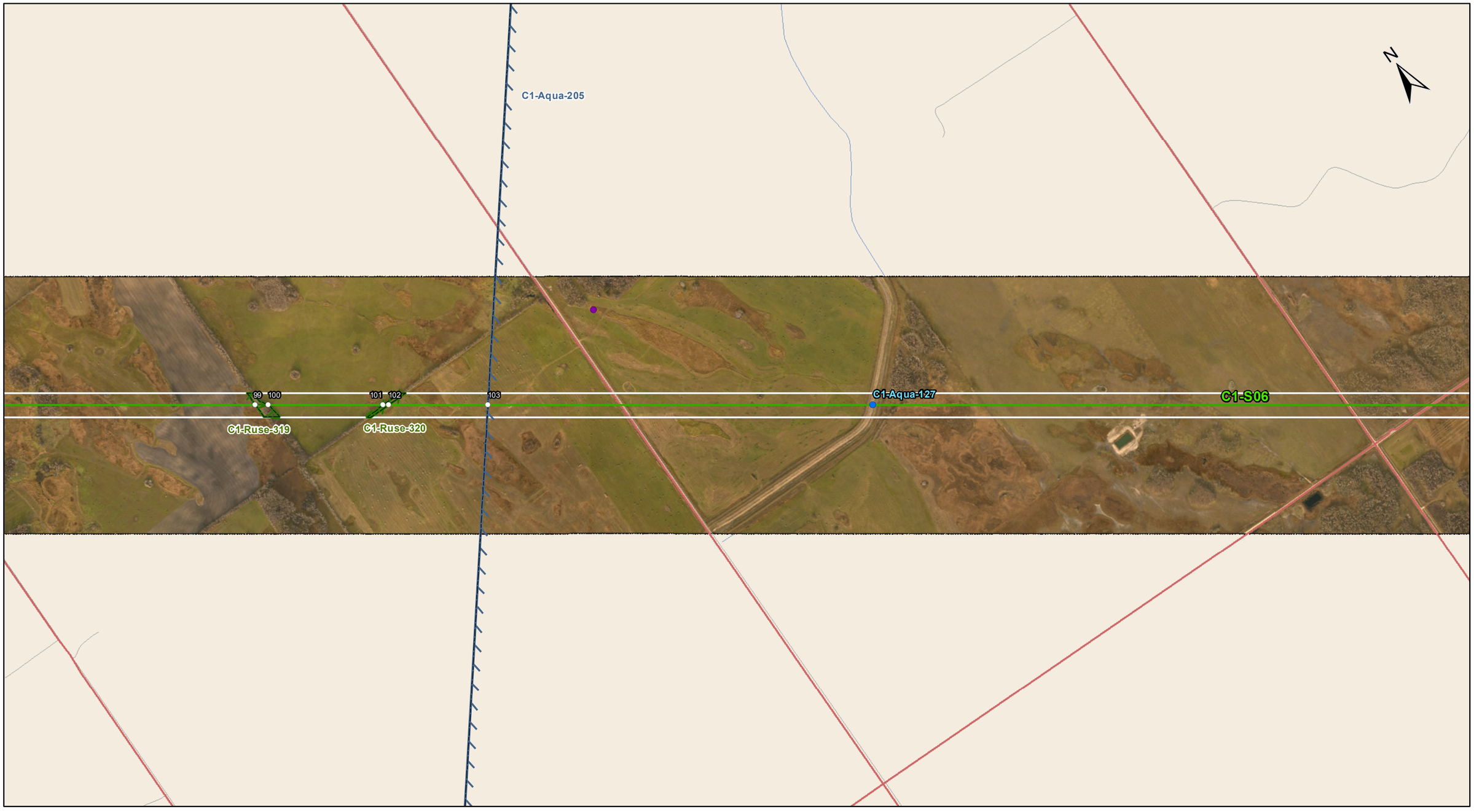

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Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: December 03, 2013

0 125 250 500
Metres

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Land Base
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ESS Features
Heritage
- Archaeological

Water
- Water Crossing

Resource Use
- Forestry

Water
- Groundwater

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

Map 237

MAP NUMBER: 237

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S06	C1-RUse-319	Shelterbelt	Site: 99 to 100	E-459270 N-5698513	E-459298 N-5698493	14N	34 m
C1-S06	C1-RUse-320	Shelterbelt	Site: 101 to 102	E-459555 N-5698313	E-459567 N-5698304	14N	15 m

Potential Effects:

Removal in area of ROW intersect

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
- Burn clearing debris during winter months only and ensure that all fires are extinguished prior to spring break-up; pile debris away from ROW edge
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- Where applicable, ensure compensation agreement is in place prior to start of work
- Use existing access trails, roads or cut lines whenever possible as access routes
- Limit all equipment to project footprint only, where possible

ESS Group : Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S06	C1-Aqua-205	Saline artesian areas	Site: 103 to 104	E-459789 N-5698148	E-468605 N-5691935	14N	10786 m

Potential Effects:

Increase in salinity of soils and surface water in case of potential groundwater discharge to the surface; wetting the surficial environment (ground saturation); effect on local vegetation

Specific Mitigation:

- Qualified driller with appropriate experience will be contracted to work in areas affected by artesian conditions
- Emergency response plans for sealing/grouting and pumping will be implemented as required
- Follow up inspections of installed foundations will be undertaken to monitor for excess moisture

ESS Group : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S06	C1-Aqua-127	Unnamed agricultural drain	460646	5697542	14N	N/A	8m	Important	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