

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

- Wildlife**
 - Birds and Habitat
- Heritage**
 - ▭ Heritage, Historic
- Land Use**
 - ▭ Crown Land Encumbrance
- Resource Use**
 - ▭ Agriculture
 - ▭ Forestry

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

Map 220

MAP NUMBER: 220

ESS Group : Historic

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S02	C1-Hert-300	Historic Coal Mine identified by community	Site: 45 to 46	E-409510 N-5742567	E-410446 N-5740980	14N	1843 m

Potential Effects:

Potential loss of 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
- 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

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Location	Easting	Northing	UTM Zone
C1-S02	C1-Hert-112	Garland River	Central 1	410295	5741227	14N
C1-S02	C1-Hert-113	Garland River	Central 1	410335	5741170	14N
C1-S02	C1-Hert-114	Garland River	Central 1	410388	5741077	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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S02	C1-Aqua-111	Garland River	410306	5741217	14N	10m	10m	Important	Moderate
C1-S02	C1-Aqua-112	Garland River	410334	5741170	14N	10m	10m	Important	Moderate
C1-S02	C1-Aqua-113	Garland River	410389	5741076	14N	96m	76m	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 : Agriculture

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S02	C1-RUSe-100	Gardening Site	Site: 49 to 50	E-410941 N-5740141	E-411121 N-5739836	14N	354 m

Potential Effects:

Potential impact on agricultural practice, health & wellness and economic activity

Specific Mitigation:

- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Allow gardening activities to continue within the ROW,
- use appropriate signage to address any safety concerns arising from this usage
- Educate gardeners on EMF issues to mitigate concerns proactively

MAP NUMBER: 220 cont'd

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S02	C1-RUse-304	Shelterbelt	Site: 47 to 48	E-410880 N-5740245	E-410885 N-5740236	14N	10 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-S02	C1-Wild-108	Garland River crossing	Site: L11 to L12	E-410293 N-5741239	E-410334 N-5741170	14N	80 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

ESS Group : Intersection

Sec-Seg ID	ESS ID	ESS Name	Location	Easting	Northing	UTM Zone
C1-S02	C1-Acss-105	Wagon Road	Site: C6	410311	5741209	14N

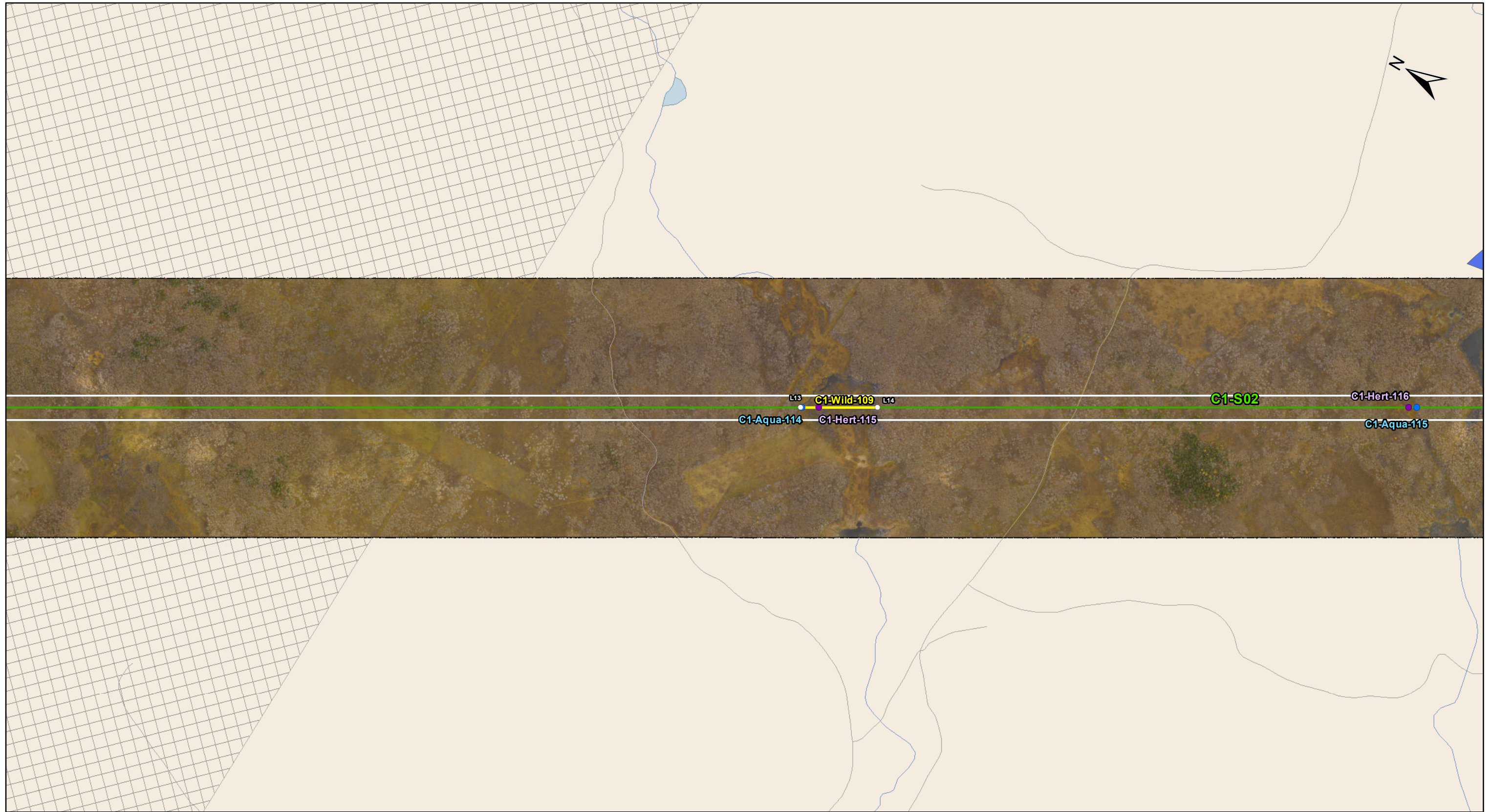
Potential Effects:

Loss of historic road due to construction of access road to ROW and activities associated with the ROW Loss of cultural value associated with historic events

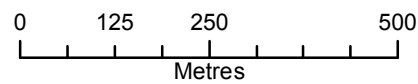
Specific Mitigation:

- 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
- Inspect excavated materials or surface disturbance for heritage resources and report any finds to Environmental Inspector
- If any heritage resources are discovered , Archaeologist to conduct site investigation and recommend any additional mitigation measures

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Land Base

- Transmission Line
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- 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
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ESS Features

- Heritage**
- Archaeological
- Water**
- Water Crossing
- Wildlife**
- Birds and Habitat
- Soils and Terrain**
- Soils

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

MAP NUMBER: 221

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-S02	C1-Aqua-114	Unnamed Tributary of Wellburns Creek	412814	5736966	14N	11m	N/A	Marginal	Moderate
C1-S02	C1-Aqua-115	Unnamed Tributary of Wellburns Creek	413660	5735532	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; 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
- No instream work or fording from April 1 to June 30

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S02	C1-Wild-109	Waterfowl Sensitivity Area	Site: L13 to L14	E-412813 N-5736969	E-412918 N-5736790	14N	207 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

ESS Group : Archaeological

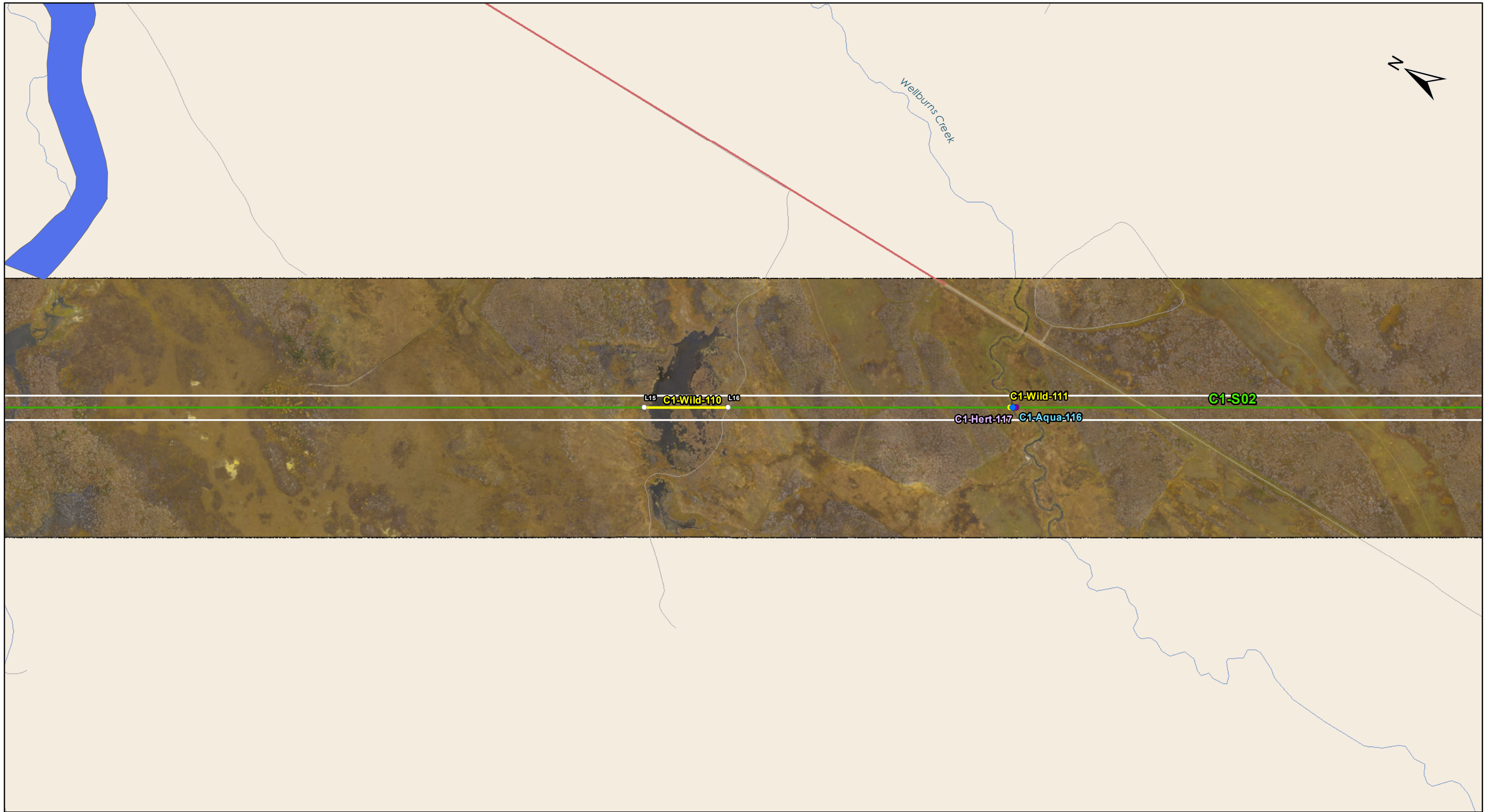
Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S02	C1-Hert-115	Unnamed Tributary of Wellburns Creek	412835	5736918	14N
C1-S02	C1-Hert-116	Unnamed Tributary of Wellburns Creek	413648	5735548	14N

Potential Effects:

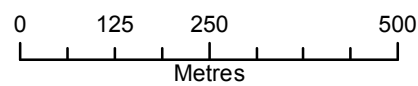
Potential disturbance to heritage resources

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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Project Infrastructure

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

MAP NUMBER: 222

ESS Group : Birds and Habitat

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S02	C1-Wild-110	Waterfowl Sensitivity Area	Site: L15 to L16	E-414612 N-5733920	E-414727 N-5733724	14N	227 m
C1-S02	C1-Wild-110	Wellburns Creek Crossing	N/A	415118	5733060	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 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

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S02	C1-Hert-117	Wellburns Creek	415127	5733051	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 : Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
C1-S02	C1-Aqua-116	Wellburns Creek	415118	5733061	14N	68m	54m	Important	Moderate

Potential Effects:

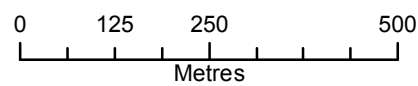
Habitat loss & contamination from structure foundations & installations; Increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbance & impeded fish movement

Specific Mitigation:

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- 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



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ESS Features

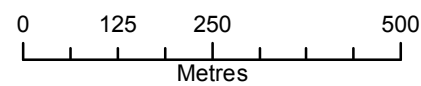
**Bipole III Transmission Project
 Construction Environmental Protection Plan
 Construction Section C1
 Environmentally Sensitive Site Locations**

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ESS Features

**Bipole III Transmission Project
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Construction Section C1
Environmentally Sensitive Site Locations**

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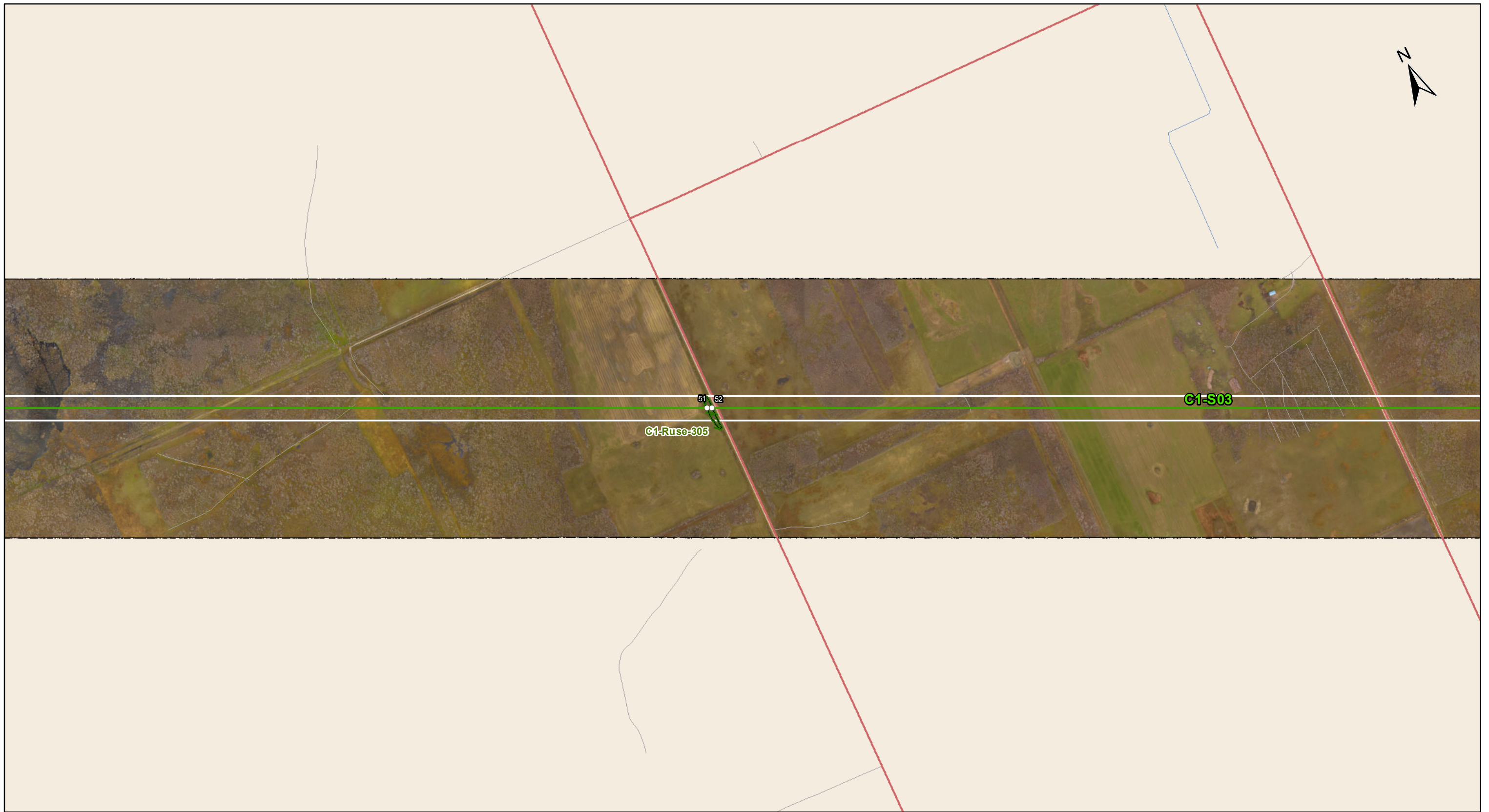
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ESS Features

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 Construction Section C1
 Environmentally Sensitive Site Locations**

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- ESS Features Resource Use**
- ▭ Forestry

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

MAP NUMBER: 226

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-RUse-305	Shelterbelt	Site: 51 to 52	E-424911 N-5722440	E-424923 N-5722434	14N	14 m

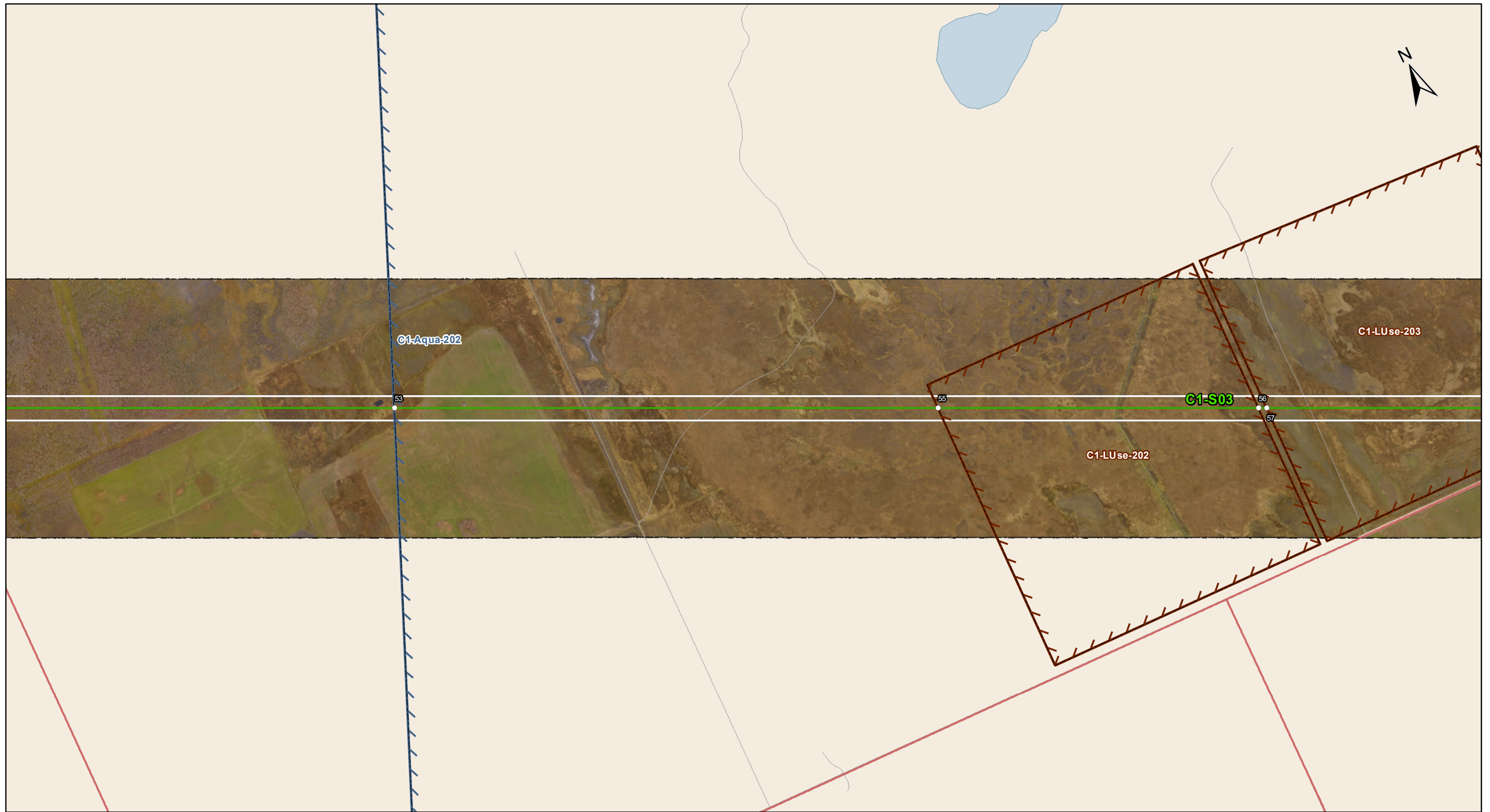
Potential Effects:

Removal in area of ROW intersect

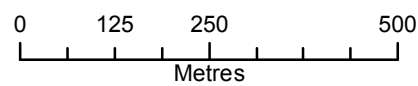
Specific Mitigation:

- 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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ESS Features

- Land Use**
- Residential
- Water**
- Groundwater

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

MAP NUMBER: 227

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 72	E-427716 N-5721099	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 : Crown Land Encumbrance

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-LUse-202	Remote Cottage – Crown land encumbrance	Site: 55 to 56	E-429046 N-5720463	E-429829 N-5720089	14N	868 m
C1-S03	C1-LUse-203	Fish Camp – Crown land encumbrance	Site: 57 to 58	E-429849 N-5720079	E-430655 N-5719694	14N	894 m

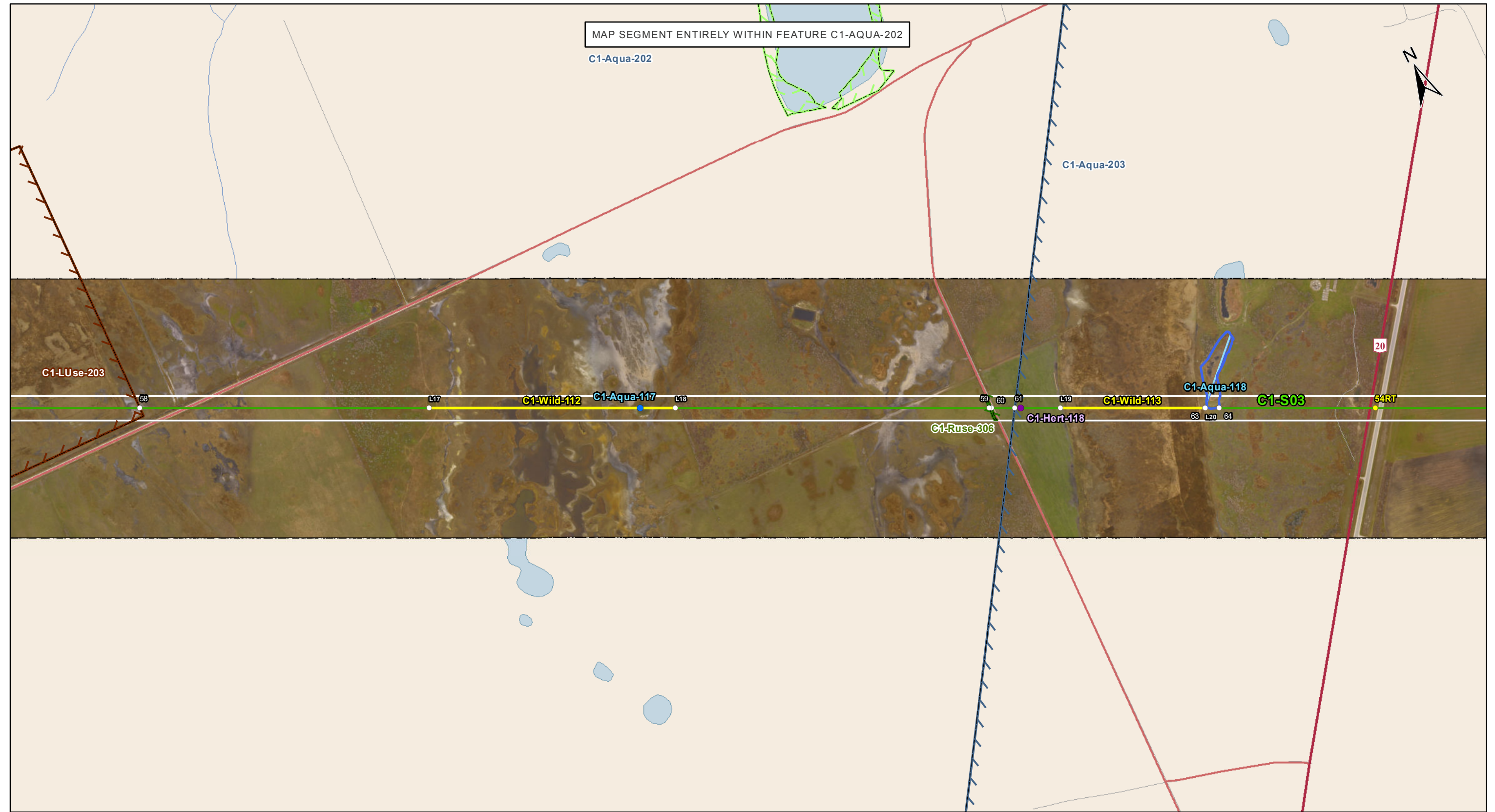
Potential Effects:

Potential disruption to resource/recreational use activities

Specific Mitigation:

- Notify Manitoba Conservation, local authorities and operator regarding construction activities and schedule, and address concerns prior to construction
- Observe municipal and local by-laws and protocols including noise and work scheduling
- Minimize noise, dust and other emissions from work activities and maintain clean and aesthetic appearance of work site
- Provide warning signage for vehicle traffic and public safety

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MAP SEGMENT ENTIRELY WITHIN FEATURE C1-AQUA-202

C1-Aqua-202

C1-Aqua-203

C1-LUse-203

58

L17

C1-Wild-112

C1-Aqua-117

L18

59

60

61

L19

C1-Wild-113

C1-Aqua-118

C1-S03

63

L20

64

20

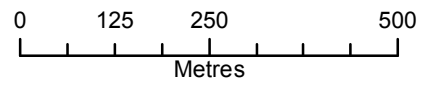
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C1-Ruse-306

C1-Hert-118



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ESS Features

- Heritage**
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- Ecosystem**
- Habitat
- Land Use**
- Residential

- Resource Use**
- Forestry
- Water**
- Groundwater
- Water Crossing

**Bipole III Transmission Project
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Environmentally Sensitive Site Locations**

MAP NUMBER: 228

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 : Crown Land Encumbrance

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-LUse-203	Fish Camp – Crown land encumbrance	Site: 57 to 58	E-429849 N-5720079	E-430655 N-5719694	14N	894 m

Potential Effects:

Potential disruption to resource/recreational use activities

Specific Mitigation:

- Notify Manitoba Conservation, local authorities and operator regarding construction activities and schedule, and address concerns prior to construction
- Observe municipal and local by-laws and protocols including noise and work scheduling
- Minimize noise, dust and other emissions from work activities and maintain clean and aesthetic appearance of work site
- Provide warning signage for vehicle traffic and public safety

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-117	Unnamed small lake	431879	5719109	14N	N/A	N/A	No Fish Habitat	Low
C1-S03	C1-Aqua-118	Unnamed wetland	431879	5719109	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
- No instream work or fording from April 1 to June 30

ESS Group : Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
C1-S03	C1-RUse-306	Shelterbelt	Site: 59 to 60	E-432731 N-5718702	E-432738 N-5718698	14N	8 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

MAP NUMBER: 228 cont'd

ESS Group : Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
C1-S03	C1-Hert-118	Landscape features	432809	5718664	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	Stop	UTM Zone	Distance
C1-S03	C1-Wild-112	Waterfowl Sensitivity Area	Site: L17 to L18	E-431362 N-5719356	E-431964 N-5719068	14N	667 m
C1-S03	C1-Wild-113	Waterfowl Sensitivity Area	Site: L19 to L20	E-432906 N-5718618	E-433260 N-5718449	14N	393 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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