MAP SHEET FULLY WITHIN THE S2-AQUA-202 FEATURE
MAP SHEET FULLY WITHIN THE S2-AQUA-203 FEATURE

S2-Aqua-202 S2-Aqua-203

Tower 160
E-651845, N-5491507

S2-S24

80RT

S2-Aqua-129

S2-Eco-301

S2-RUse-305

S2-S23

S2-Eco-302

Clear Springs Road

Taurond Road

Autumnwood Road

Willow Ridge Road

TWP007
RGE04
E1M

TWP007
RGE05
E1M

OLD SOUTH LATERAL DRAIN

216

N

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: July 23, 2014
Version: Draft

0 125 250 500
Metres
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Land Base
- Transmission Line
- Highway
- Major Road
- Local Road
- Railway (Operational)
- Railway (Discontinued)
- First Nation
- Mining
- Provincial Forest
- Township/Range

Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way
- Ground Electrode Line
- Proposed Converter Station

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

Ecosystem
- Species of Concern

Resource Use
- Forestry

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section S2
Environmentally Sensitive Site Locations

Map 327

Draft: For Discussion Purposes Only

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
S2-S25	S2-Aqua-129	Old South Lateral Drain	652684	5491563	14N	24m	N/A	Low	Marginal

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbances and 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: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S23	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 71 to 78	E-651924 N-5488794	E-651845 N-5491506	14N	2713 m
S2-S24	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 81 to 83	E-651845 N-5491506	E-654222 N-5491545	14N	2377 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., 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.
- 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.

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S23	S2-Aqua-203	Freshwater artesian areas	Site: 74 to 77	E-651924 N-5488794	E-651845 N-5491506	14N	2713 m
S2-S24	S2-Aqua-203	Freshwater artesian areas	Site: 82 to 84	E-651845 N-5491506	E-654222 N-5491545	14N	2377 m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); also, 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: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S23	S2-RUse-305	Shelterbelt	Site: 79 to 80	E-651853 N-5491234	E-651848 N-5491410	14N	175m

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
- Notify landowner regarding construction activities and schedule, and address concerns 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
- No damage to Vegetation on the edge of the Right of Way
- No pushing debris into adjacent timber

ESS Group: Species of Concern

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S23	S2-Eco-301	Species of Concern (plant)	Site: 72 to 76	E-651924 N-5488794	E-651850 N-5491324	14N	2531 m

Potential Effects:

Potential loss of previously known plants of conservation concern 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

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MAP SHEET FULLY WITHIN THE S2-AQUA-202 FEATURE
MAP SHEET FULLY WITHIN THE S2-AQUA-203 FEATURE

S2-Aqua-202 S2-Aqua-203

N

SOUTH LATERAL DRAIN

TWP007
RGE05
E1M

Tower 162
E-654176, N-5491962

Tower 161
E-654222, N-5491545

Clear Springs Road

S2-Aqua-130

S2-Aqua-131

S2-S24

S2-S25

S2-S26

Coordinate System: UTM Zone 14N NAD83
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Version: Draft

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Land Base
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- Railway (Discontinued)
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Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way
- Ground Electrode Line
- Proposed Converter Station

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

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section S2
Environmentally Sensitive Site Locations

Map 328

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ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
S2-S27	S2-Aqua-130	South Lateral Drain	654268	5491961	14N	N/A	14m	Low	Marginal
S2-S27	S2-Aqua-131	Unnamed Drain	655951	5491985	14N	N/A	N/A	None	None

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbances and 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 Timing Windows, 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
S2-S24	S2-Aqua-203	Freshwater artesian areas	Site: 82 to 84	E-651845 N-5491506	E-654222 N-5491545	14N	2377m
S2-S25	S2-Aqua-203	Freshwater artesian areas	Site: 86 to 88	E-654222 N-5491545	E-654176 N-5491961	14N	418m
S2-S26	S2-Aqua-203	Freshwater artesian areas	Site: 90 to 91	E-654176 N-5491961	E-659586 N-5492041	14N	5410m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); also, 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

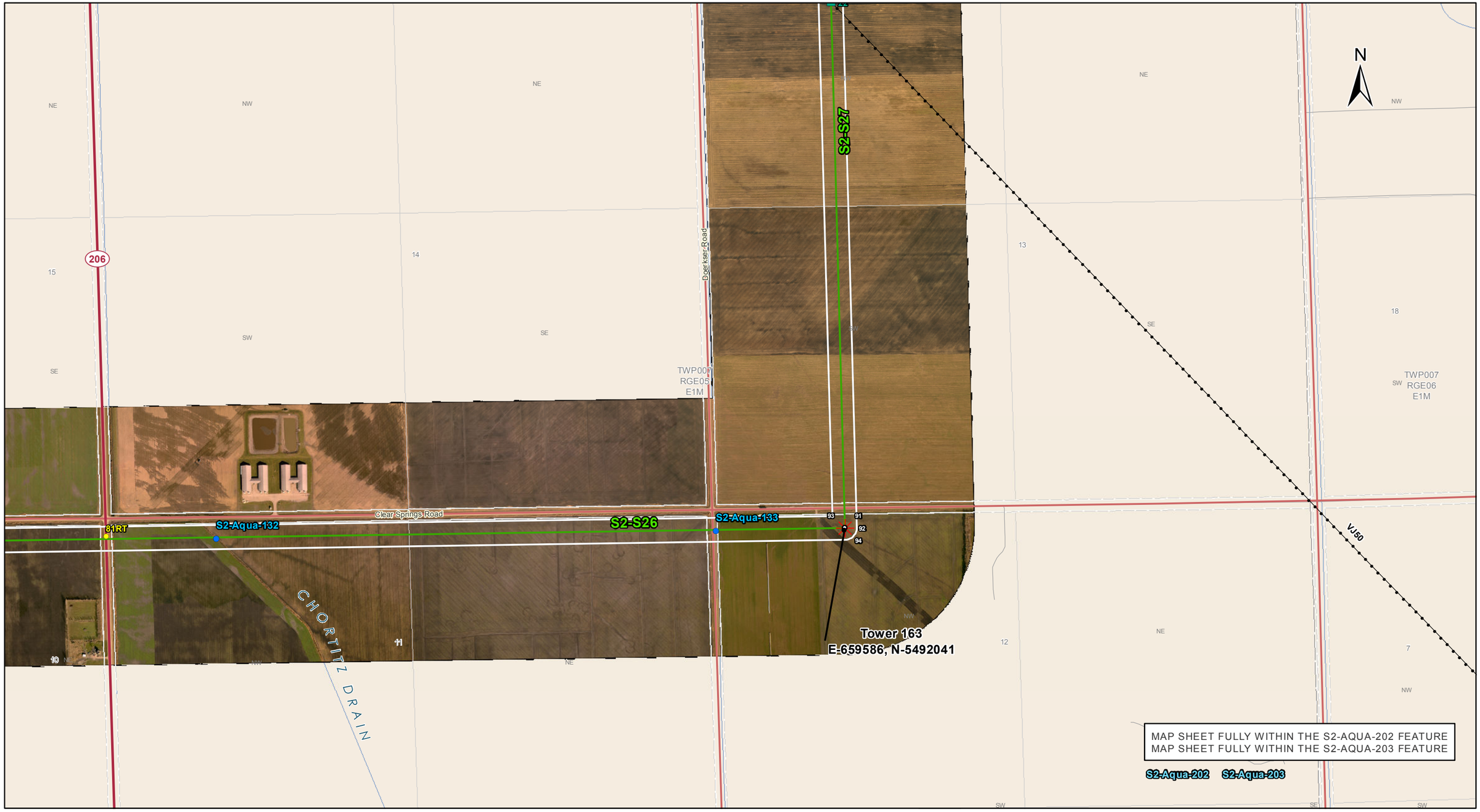
Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S24	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 81 to 83	E-651845 N-5491506	E-654222 N-5491545	14N	2377 m
S2-S25	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 85 to 87	E-654222 N-5491545	E-654176 N-5491961	14N	418 m
S2-S26	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 89 to 92	E-654176 N-5491961	E-659586 N-5492041	14N	5410 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., 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.
- 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.



Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
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Date Created: July 23, 2014
Version: Draft

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Land Base
- Transmission Line
- Highway
- Major Road
- Local Road
- Railway (Operational)
- Railway (Discontinued)
- First Nation
- Mining
- Provincial Forest
- Township/Range

Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way
- Ground Electrode Line
- Proposed Converter Station

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

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section S2
Environmentally Sensitive Site Locations

Map 329

Draft: For Discussion Purposes Only

ESS Group: Water Crossing

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone	Channel Width	Wet Width	Fish Habitat Class	Habitat Sensitivity
S2-S27	S2-Aqua-132	Chorlitz Drain	657878	5492013	14N	N/A	8m	Low	Marginal
S2-S27	S2-Aqua-133	Unnamed Drain	659237	5492033	14N	N/A	N/A	None	None

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbances and 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 Timing Windows, 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
S2-S26	S2-Aqua-203	Freshwater artesian areas	Site: 90 to 91	E-654176 N-5491961	E-659586 N-5492041	14N	5410m
S2-S27	S2-Aqua-203	Freshwater artesian areas	Site: 94 to 95	E-659586 N-5492041	E-659411 N-5498728	14N	6689m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); also, 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
S2-S26	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 89 to 92	E-654176 N-5491961	E-659586 N-5492041	14N	5410 m
S2-S27	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 93 to 96	E-659586 N-5492041	E-659411 N-5498728	14N	6689 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., 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.
- 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.

MAP SHEET FULLY WITHIN THE S2-AQUA-202 FEATURE
MAP SHEET FULLY WITHIN THE S2-AQUA-203 FEATURE

S2-Aqua-202 S2-Aqua-203

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Doerkser Road

VJ50

TWP 007
RGE05
E1M

S2-Aqua-134 S2-Hert-106 S2-Aqua-135 S2-S27 S2-Aqua-136 82RT S2-RUse-306

MANNING CANAL

311

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: July 23, 2014
Version: Draft

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Land Base
- Transmission Line
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Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way
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- Proposed Converter Station

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

Resource Use
- Forestry

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section S2
Environmentally Sensitive Site Locations

Draft: For Discussion Purposes Only

Map 330

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
S2-S28	S2-Hert-106	Potential Archaeological Site	659523	5494462	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
S2-S28	S2-Aqua-134	Manning Canal	659524	5494458	14N	6.8m	6.2m	Moderate	Important
S2-S28	S2-Aqua-135	Unnamed Drain	659500	5495375	14N	N/A	N/A	None	None
S2-S28	S2-Aqua-136	Unnamed Drain	659457	5497010	14N	N/A	N/A	None	None

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbances and 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 Timing Windows, 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
S2-S27	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 93 to 96	E-659586 N-5492041	E-659411 N-5498728	14N	6689 m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., 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.
- 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.

ESS Group: Forestry

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S27	S2-RUse-306	Shelterbelt	Site: 97 to 98	E-659453 N-5497116	E-659453 N-5497124	14N	8m

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
- Notify landowner regarding construction activities and schedule, and address concerns 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
- No damage to Vegetation on the edge of the Right of Way
- No pushing debris into adjacent timber

ESS Group: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S27	S2-Aqua-203	Freshwater artesian areas	Site: 94 to 95	E-659586 N-5492041	E-659411 N-5498728	14N	6689 m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); also, 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.

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MAP SHEET FULLY WITHIN THE S2-AQUA-202 FEATURE

S2-Aqua-202

Tower 164
E-659412, N-5498729

Tower 165
E-659515, N-5499236

S2-Hert-107 S2-S27 S2-Aqua-137 S2-S28 S2-Aqua-203 S2-S29 S2-Aqua-138 S2-Aqua-139 S2-Hert-108

95 96 99 100 101 102 103 104 105

Youville Drain crossing

Doerkser Road
29 Road
42 Road
Prefontaine Road
Ste-Anne's Road

TWP007 RGE05 E1M
TWP008 RGE05 E1M
TWP008 RGE06 E1M

YOUVILLE DRAIN

N

Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: July 23, 2014
Version: Draft

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Metres

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- Proposed Access Route

*Labels correspond to BPIII Access Management Database

ESS Features
Heritage
- Archaeological

Water
- Water Crossing

Water
- Groundwater

Bipole III Transmission Project
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Environmentally Sensitive Site Locations

Map 331

Draft: For Discussion Purposes Only

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
S2-S30	S2-Hert-107	Small creek rivlets in field	659426	5498202	14N
S2-S30	S2-Hert-108	Potential Archaeological Site	659462	5500713	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
S2-S30	S2-Aqua-137	Unnamed Drain	659414	5498659	14N	N/A	N/A	None	None
S2-S30	S2-Aqua-138	Unnamed Drain	659476	5500314	14N	N/A	N/A	None	None
S2-S30	S2-Aqua-139	Youville Drain	659462	5500717	14N	11m	6m	Low	Important

Potential Effects:

Habitat loss and contamination from structure foundations & installations; increased erosion & sedimentation of streams; Damage to stream banks; Loss of riparian vegetation; Fish habitat disturbances and 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: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S27	S2-Aqua-203	Freshwater artesian areas	Site: 94 to 95	E-659586 N-5492041	E-659411 N-5498728	14N	6689m
S2-S28	S2-Aqua-203	Freshwater artesian areas	Site: 99 to 101	E-659411 N-5498728	E-659514 N-5499235	14N	517m
S2-S29	S2-Aqua-203	Freshwater artesian areas	Site: 104 to 105	E-659514 N-5499235	E-659480 N-5500168	14N	933m

Potential Effects:

Wetting the surficial environment near potential discharge from tower foundation drill hole (ground saturation); also, 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
S2-S27	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 93 to 96	E-659586 N-5492041	E-659411 N-5498728	14N	6689 m
S2-S28	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 100 to 102	E-659411 N-5498728	E-659514 N-5499235	14N	517 m
S2-S29	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 103 to 106	E-659514 N-5499235	E-659236 N-5506970	14N	7740 m

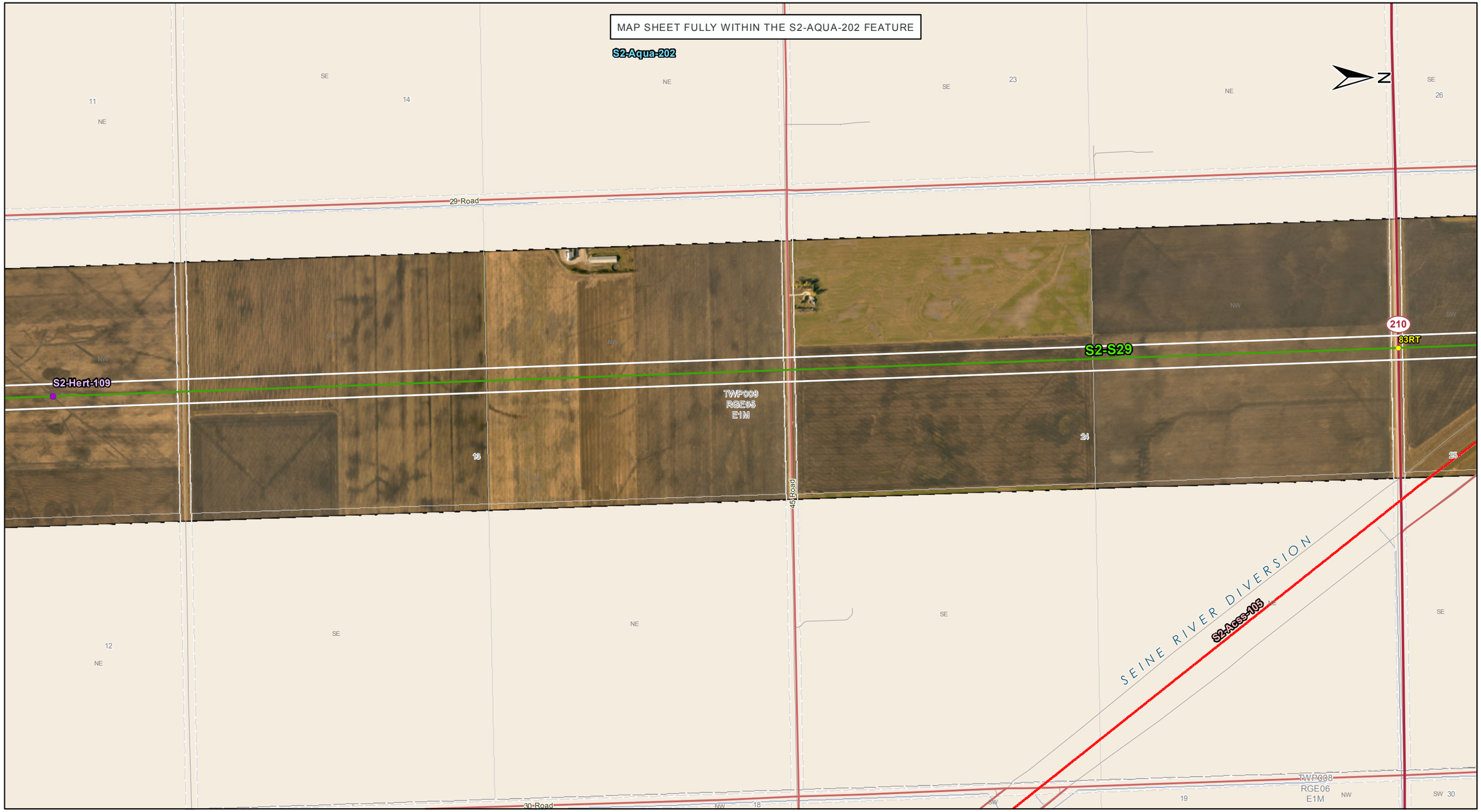
Potential Effects:

Potential groundwater contamination from a contingency event (e.g., 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.
- 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.

MAP SHEET FULLY WITHIN THE S2-AQUA-202 FEATURE



Manitoba Hydro

Coordinate System: UTM Zone 14N NAD83
Data Source: MB Hydro, ProvMB, NRCAN
Date Created: July 23, 2014
Version: Draft

0 125 250 500
Metres

1:10,000

Land Base
- Transmission Line
- Highway
- Major Road
- Local Road
- Railway (Operational)
- Railway (Discontinued)
- First Nation
- Mining
- Provincial Forest
- Township/Range

Project Infrastructure
- Angle Tower Locations
- BPIII Final Preferred Route
- 66 m Right of Way
- Ground Electrode Line
- Proposed Converter Station

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

Access
- Intersection

Water
- Groundwater

Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section S2
Environmentally Sensitive Site Locations

Draft: For Discussion Purposes Only

Map 332

ESS Group: Archaeological

Sec-Seg ID	ESS ID	ESS Name	Easting	Northing	UTM Zone
S2-S30	S2-Hert-109	Small creek rivlets in field	659430	5501605	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: Groundwater

Sec-Seg ID	ESS ID	ESS Name	Location	Start	Stop	UTM Zone	Distance
S2-S29	S2-Aqua-202	Aquifers vulnerable to contamination	Site: 103 to 106	E-659514 N-5499235	E-659236 N-5506970	14N	7740m

Potential Effects:

Potential groundwater contamination from a contingency event (e.g., 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.
- 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.