### ESS Group: Water Crossing

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<th>Stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>CLCP-Aqua-L10</td>
<td>Limestone River</td>
<td>Site: L46 to L47</td>
<td>E-798949 N-6273719</td>
<td>E-798649 N-6273731</td>
</tr>
</tbody>
</table>

#### Potential Effects:
Habitat loss & contamination from structure foundations & installations; increased erosion & sedimentation of streams; damage to stream banks; loss of riparian vegetation; rutting of floodplain.

#### Specific Mitigation:
- Carry out construction activities on frozen ground to minimize surface damage, rutting and erosion
- Use existing trails, roads or cut lines whenever possible as access routes
- Identify and flag buffer areas prior to start of work
- Riparian Buffers shall be a minimum of 30m and increase in size based on slope of land entering waterway. Within these buffers, shrub and herbaceous understory vegetation will be maintained along with trees that do not violate Manitoba Hydro Vegetation Clearance Requirements.
- 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 works or felling from April 15 - July 15

### ESS Group: Birds and Habitat

<table>
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<tr>
<th>Sec ID</th>
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</thead>
<tbody>
<tr>
<td>CL</td>
<td>CL-Wild-100</td>
<td>Limestone River - movement route for waterfowl and raptors</td>
<td>Site: L46 to L47</td>
<td>E-429753 N-6263725</td>
<td>E-429551 N-6263754</td>
</tr>
</tbody>
</table>

#### 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 shrub (August 2 - 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: Permafrost

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CLCP</td>
<td>CLCP-Sols-100</td>
<td>Permafrost</td>
</tr>
</tbody>
</table>

#### Potential Effects:
Melting or loss of permafrost due to disturbance of the active layer.

#### Specific Mitigation:
- Carry out construction activities on frozen or dry ground to minimize surface damage and rutting. Construction matting will be used to protect the area from rutting and exposure to mineral soil during wet conditions
- Constructed excavations will be stabilized using sodding (SOI), 20 cm (8"), 30 cm (1'), 50 cm (20") or 60 cm (24")
- Use existing trails, roads or cut lines whenever possible as access routes
- Avoid organic soils containing permafrost to the extent possible
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees >3m by low-disturbance methods
- Contain vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

### ESS Group: Access

<table>
<thead>
<tr>
<th>Sec ID</th>
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<th>Start</th>
<th>Stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLCP</td>
<td>CLCP-Ass-100</td>
<td>Herd Rail Spur</td>
<td>Site: 51 to 52</td>
<td>E-799108 N-6273399</td>
<td>E-799109 N-6273399</td>
</tr>
<tr>
<td>CLCP</td>
<td>CLCP-Ass-100</td>
<td>Herd Rail Spur</td>
<td>Site: 53 to 54</td>
<td>E-786612 N-6273300</td>
<td>E-786603 N-6273284</td>
</tr>
</tbody>
</table>

#### Potential Effects:
Potential disruption or damage to surrounding habitat.

#### Specific Mitigation:
- Existing trails, portages and other travel ways shall not be altered so as to interfere with other users
- The permittee will ensure that any work done near a waterbody is done in accordance with the Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat, May 1996
- No pushing debris into adjacent timber. Any debris shall be piled and burnt in windrows (max height: 1.5 meters) no closer than 1 meter to the bush line. Burn piles must be 15 meters from standing timber
- Locate fuel and equipment servicing areas a minimum distance of 10m from any waterbody
- The Natural Resource Officer in Gimli 204-652-2273, shall be notified no less than one week prior to completion of operations to allow for final inspection of the operation
- Follow all other conditions found in the work permit 2014-01-11-026
### Species of Concern

<table>
<thead>
<tr>
<th>Sec ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Easting Northing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
<td>CP-Eco-309</td>
<td>Species of Concern (plant)</td>
<td>798498 6273110</td>
</tr>
</tbody>
</table>

**Potential Effects:**

Potential loss of plants of conservation concern from clearing, construction, maintenance and decommissioning activities.

**Specific Mitigation:**

- Identify and flag prior to start of work
- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Provide 5m vegetated (shrub and herbaceous) buffer around site
- Remove trees by hand or other low disturbance method
- Confining vehicle traffic to established trails to the extent possible
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ESS Group: Wetland

Potential Effects:
Habitat loss and 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
- Provide 10 m vegetated (shrub and herbaceous) buffer around site
- Remove trees by low-disturbance methods within buffer

ESS Group: Water Crossing

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 vegetation will be maintained along with trees that do not violate Manitoba Hydro Vegetation Clearing 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 works or fording from April 15 - July 15

ESS Group: Species of Concern

Potential Effects:
Potential loss of plants of conservation concern from clearing, construction, maintenance and decommissioning activities.

Specific Mitigation:
- Identify and flag prior to start of work
- Carry out construction activities on frozen or dry ground to minimize surface damage, rutting and erosion
- Provide 5m vegetated (shrub and herbaceous) buffer around site
- Remove trees by hand or other low-disturbance methods
- Confinement of vehicle traffic to established trails to the extent possible

ESS Group: Birds and Habitat

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: Permafrost**

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<td>CLCP-Soils-100</td>
<td>Permafrost</td>
</tr>
</tbody>
</table>

**Potential Effects:**
Melting or loss of permafrost due to disturbance of the active layer

**Specific Mitigation:**
- Carry out construction activities on frozen ground to minimize surface damage and rutting
- Use existing trails, roads or cut lines wherever possible as access routes
- Avoid organic soils containing permafrost to the extent possible
- Maintain surru and herbaceous vegetation to the extent possible
- Remove trees >3m by low-disturbance methods
- Confini vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

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**ESS Group: Research**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Easting</th>
<th>Northing</th>
<th>UTM Zone</th>
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</thead>
<tbody>
<tr>
<td>CL</td>
<td>CL-Eco-200</td>
<td>Permafrost Monitoring Site</td>
<td>798669</td>
<td>6268091</td>
<td>14N</td>
</tr>
</tbody>
</table>

**Potential Effects:**
Permafrost monitoring site, buried thermistor is exposed 5-10cm at the surface and is susceptible to damage

**Specific Mitigation:**
- Identify and flag sensor's location to protect it damage
- Notify construction crews of sensor location
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### ESS Group: Water Crossing

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<th>Stop</th>
<th>Channel Width (m)</th>
<th>Wet Width (m)</th>
<th>Fish Habitat Class</th>
<th>Habitat Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>CL-101</td>
<td>Nelson River</td>
<td>Site: L50 to L51</td>
<td>E-798810 N-6267961</td>
<td>E-799373 N-6267466</td>
<td>7.39</td>
<td>7.21</td>
<td>Important</td>
<td>Moderate</td>
</tr>
</tbody>
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**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
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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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<tbody>
<tr>
<td>CL</td>
<td>CL-Aqua-102</td>
<td>Unnamed Tributary of Nelson River</td>
<td>Site: L52</td>
<td>798917</td>
<td>6264477</td>
<td>N/A</td>
<td>5</td>
<td>Marginal</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

**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
- Provide 30 m vegetated (shrub and herbaceous) buffer around site
- Remove trees by low-disturbance methods within buffer
- The application of herbicides is prohibited within buffer

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<td>7.39</td>
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<td>Moderate</td>
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**Potential Effects:**

Higher risk of wire collision, risk of wire collision is localized to the right-of-way.

**Specific Mitigation:**

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ESS Group: Permafrost

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- Use existing trails, roads or cut lines whenever possible as access routes
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- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees >3m by low-disturbance methods
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<tbody>
<tr>
<td>CL</td>
<td>CL-</td>
<td>Unnamed tributary of Nelson River</td>
<td>L53</td>
<td>797042</td>
<td>6261002</td>
<td>8</td>
<td>8</td>
<td>Important</td>
<td>Moderate</td>
</tr>
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**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
- Use 30m riparian buffers. Within these buffers: shrub and herbaceous understory vegetation will be maintained along with trees that do not violate Manitoba Hydro Vegetation Clearance Requirements.
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees >3m by low disturbance methods
- Contribute vehicle traffic to established trails to the extent possible
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<tbody>
<tr>
<td>CL</td>
<td>CL-Aqua-104</td>
<td>Brooks Creek</td>
<td>L54</td>
<td>797159</td>
<td>6261008</td>
<td>N/A</td>
<td>6</td>
<td>Important</td>
<td>Moderate</td>
</tr>
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**Potential Effects:**
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