**ESS Group: Water Crossing**

<table>
<thead>
<tr>
<th>Sec ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Easting</th>
<th>Northing</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-1105</td>
<td>Unnamed Tributary of Nelson River</td>
<td>L39</td>
<td>733799</td>
<td>6260452</td>
<td>N/A</td>
<td>0</td>
<td>Marginal</td>
<td>Low</td>
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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
- 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 Maximum Allowable Vegetation 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 works or fording from April 15 - July 15

**ESS Group: Permafrost**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLCP</td>
<td>CLCP</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 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
- Confine vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

**MAP NUMBER: 15**
**ESS Group: Water Crossing**

<table>
<thead>
<tr>
<th>Sec ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Easting</th>
<th>Northing</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-106</td>
<td>Unnamed Tributary of Nelson River</td>
<td>L26</td>
<td>709069</td>
<td>6256210</td>
<td>N/A</td>
<td>N/A</td>
<td>Marginal</td>
<td>Moderate</td>
</tr>
<tr>
<td>CL</td>
<td>CL-107</td>
<td>Unnamed Tributary of Nelson River</td>
<td>L57</td>
<td>787804</td>
<td>6258481</td>
<td>N/A</td>
<td>N/A</td>
<td>Marginal</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

**Potential Effects:**
- Habitat loss and contamination from altered foundations & installations, increased erosion & sedimentation of access, damage to stream banks; loss of riparian vegetation; fish habitat disturbances and impeded fish movement; rutting of floodplains.

**Specific Mitigation:**
- Carry out construction activities on frozen ground to minimize surface damage and rutting
- 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 35m 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.
- 2m 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 toning from April 15 - July 15

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**ESS Group: Permafrost**

<table>
<thead>
<tr>
<th>Sec-SEG ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLCP</td>
<td>CLCP-Perma-100</td>
<td>Permafrost</td>
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</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 whenever possible as access routes
- Avoid organic soils containing permafrost to the extent possible
- Maintain existing and herbaceous vegetation to the extent possible
- Remove trees >3m by low-disturbance methods
- Confinement of 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: Species of Concern**

<table>
<thead>
<tr>
<th>Sec ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Easting</th>
<th>Northing</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL</td>
<td>CL-Eco-305</td>
<td>Species of Concern (plant)</td>
<td>788866</td>
<td>6258822</td>
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</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 3m vegetated (shrub and herbaceous) buffer around site
- Remove trees by hand or other low-disturbance methods
- Confine vehicle traffic to established trails to the extent possible

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**MAP NUMBER: 14**
**ESS Group: Water Crossing**

<table>
<thead>
<tr>
<th>Sec ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Easting</th>
<th>Northing</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-Aqua-108</td>
<td>Wilson Creek</td>
<td>L58</td>
<td>786613</td>
<td>6258885</td>
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<td>CL</td>
<td>CL-Aqua-108</td>
<td>Wilson Creek</td>
<td>L59</td>
<td>786604</td>
<td>6258899</td>
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<td>Important</td>
<td>Moderate</td>
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<tr>
<td>CL</td>
<td>CL-Aqua-108</td>
<td>Wilson Creek</td>
<td>L60</td>
<td>786557</td>
<td>6258956</td>
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<td>5</td>
<td>Important</td>
<td>Moderate</td>
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</table>

**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 movements; rutting of floodplain.

**Specific Mitigation:**

- Carry out construction activities on frozen ground to minimize surface damage and rutting.
- 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.
- 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 Piles, and Overhead Line Construction.
- No instream works or fending from September 1 - July 15.

**ESS Group: Permafrost**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLCP</td>
<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 or dry ground to minimize surface damage and rutting. Construction melting will be used to protect the area from rutting and exposure to mineral soil during wet conditions.
- Construction exceptions exist for the tower spans involving L61K (Str 112-121), K61H-K64H (Str 60 and 61), K61H & K62H (Str 62), K63H & K64H (Str 64), K63H & K65H (Str 63.)
- 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.
- Conserve vehicle traffic to established trails to the extent possible.
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan.