**ESS Group: Intersection**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>Location</th>
<th>ESS Name</th>
<th>Crossing Coordinates</th>
<th>UTM Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S01</td>
<td>N3-RecUse-100</td>
<td>C1</td>
<td>Snowmobile Trail</td>
<td>E-491837</td>
<td>14N</td>
</tr>
</tbody>
</table>

**Potential Effects:**

Potential interference with snowmobiles; safety issue

**Specific Mitigation:**

- Identify and flag prior to start of work
- Avoid surface damage to and obstruction of access route
- Post warning markers and signs at snowmobile trail location
- Notify snowmobile club/users and local authorities regarding construction activities and schedule, and address concerns prior to construction

**ESS Group: Mammals and Habitat**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S01</td>
<td>N3-Wild-200</td>
<td>MCWS Caribou Sensitive Area</td>
<td>Site: 2 to 4</td>
<td>E-501860</td>
<td>E-491176</td>
<td>14N</td>
<td>11376 m</td>
</tr>
<tr>
<td>N3-S02</td>
<td>N3-Wild-200</td>
<td>MCWS Caribou Sensitive Area</td>
<td>Site: 17 to 18</td>
<td>E-491776</td>
<td>E-6056097</td>
<td>14N</td>
<td>12813 m</td>
</tr>
</tbody>
</table>

**Potential Effects:**

Wabowden Woodland Caribou Range Sensitive Area

**Specific Mitigation:**

- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

**ESS Group: Permafrost**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S01</td>
<td>N3-Solls-101</td>
<td>Permafrost</td>
<td>Site: 5 to 6</td>
<td>E-500443</td>
<td>E-492274</td>
<td>14N</td>
</tr>
<tr>
<td>N3-S01</td>
<td>N3-Solls-102</td>
<td>Permafrost</td>
<td>Site: 15 to 16</td>
<td>E-491335 N-6056155</td>
<td>E-491200 N-605605</td>
<td>14N</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
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Control vehicular traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

**MAP NUMBER:** 114
ESS Group: Water Crossing

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 shrub be a minimum of 1m and increase in size based on slope or if entering waterway, within these buffers shrub and herbaceous understorey 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.
• No indoor works or flooding from April 1 - July 15

ESS Group: Mammals and Habitat

Potential Effects:
Wabowden Woodland Caribou Range Sensitive Area

Specific Mitigation:
• For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Groundwater

Potential Effects:
Potential groundwater contamination from a contingency event (e.g., spill)

Specific Mitigation:
• Hardlining 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: Permafrost

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
• Maintain shrub and herbaceous vegetation to the extent possible
• Remove trees by low-disturbance methods
• Confinement vehicle traffic to established trails to the extent possible
• Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan
### ESS Group: Mammals and Habitat

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S02</td>
<td>N3-Wild-200</td>
<td>MCWS Caribou Sensitive Area</td>
<td>Site: 17 to 18</td>
<td>E-493176</td>
<td>E-479645</td>
<td>14N</td>
<td>12813 m</td>
</tr>
</tbody>
</table>

**Potential Effects:**
Webowden Woodland Caribou Range Sensitive Area

**Specific Mitigation:**
- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document.

### ESS Group: Permafrost

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S02</td>
<td>N3-Solls-104</td>
<td>Permafrost</td>
<td>Site: 25 to 26</td>
<td>E-486031</td>
<td>E-482493</td>
<td>14N</td>
<td>3931 m</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.
- Maintain shrub and herbaceous vegetation to the extent possible.
- Remove trees by low-disturbance methods.
- Confinement vehicle traffic to established trails to the extent possible.
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan.

### ESS Group: Groundwater

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S02</td>
<td>N3-Aquif-0</td>
<td>Aquifer Vulnerable to contamination</td>
<td>Site: 31 to 34</td>
<td>E-487644</td>
<td>E-479645</td>
<td>14N</td>
<td>96.7 m</td>
</tr>
</tbody>
</table>

**Potential Effects:**
Potential groundwater contamination from a contingency event (e.g., spill)

**Specific Mitigation:**
- Holding 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 drillers 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.
Bipole III Transmission Project
Construction Environmental Protection Plan
Construction Section N3
Environmentally Sensitive Site Locations

Map 117
**ESS Group: Archaeological**

<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>
</tr>
</thead>
<tbody>
<tr>
<td>N3-503</td>
<td>N3-Hert-100</td>
<td>Mitsihoto River</td>
<td>479227</td>
<td>6050357</td>
<td>14N</td>
</tr>
<tr>
<td>N3-503</td>
<td>N3-Hert-102</td>
<td>Mitsihoto River</td>
<td>479087</td>
<td>6050309</td>
<td>14N</td>
</tr>
</tbody>
</table>

**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 buffer areas prior to start of work
- Minimize surface disturbance around the site to the extent possible

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**ESS Group: Water Crossing**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Easting</th>
<th>Northing</th>
<th>Channel Width</th>
<th>Wet Width</th>
<th>Fish Habitat Class</th>
<th>Habitat Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S05</td>
<td>N3-Aqua 101</td>
<td>Unnamed Tributary into</td>
<td>481627</td>
<td>6051073</td>
<td>14N</td>
<td>9.1m</td>
<td>9.1m</td>
<td>Moderate</td>
</tr>
<tr>
<td>N3-S05</td>
<td>N3-Aqua 103</td>
<td>Mitsihoto River</td>
<td>479219</td>
<td>6053354</td>
<td>14N</td>
<td>15m</td>
<td>17m</td>
<td>High</td>
</tr>
<tr>
<td>N3-S05</td>
<td>N3-Aqua 103</td>
<td>Mitsihoto River</td>
<td>479131</td>
<td>6053224</td>
<td>14N</td>
<td>20m</td>
<td>22m</td>
<td>Moderate</td>
</tr>
<tr>
<td>N3-S05</td>
<td>N3-Aqua 104</td>
<td>Unnamed Tributary into</td>
<td>478723</td>
<td>6053105</td>
<td>14N</td>
<td>22.5m</td>
<td>N/A</td>
<td>Moderate</td>
</tr>
</tbody>
</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 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.
- No instream works or fording from April 1 - July 15

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**ESS Group: Mammals and Habitat**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-502</td>
<td>N3-Wild-200</td>
<td>MCWS Canbou Sensitive Area</td>
<td>Site: 17 to 18</td>
<td>E-491176</td>
<td>E-479645</td>
<td>14N</td>
<td>12813 m</td>
</tr>
<tr>
<td>N3-503</td>
<td>N3-Wild-200</td>
<td>MCWS Canbou Sensitive Area</td>
<td>Site: 32 to 34</td>
<td>E-479645</td>
<td>E-458248</td>
<td>14N</td>
<td>22469 m</td>
</tr>
</tbody>
</table>

**Potential Effects:**
Wabowden Woodland Canbou Range Sensitive Area

**Specific Mitigation:**
- For mitigation in this area refer to the "Moose and Woodland Canbou Sensitive Range Delineation and Mitigation Plans" document

---

**ESS Group: Groundwater**

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S02</td>
<td>N3-Aqua-200</td>
<td>Aquifers vulnerable to contamination</td>
<td>Site: 21 to 22</td>
<td>E-4-9154</td>
<td>E-4-7965</td>
<td>14N</td>
<td>8679 m</td>
</tr>
<tr>
<td>N3-S03</td>
<td>N3-Aqua-200</td>
<td>Aquifers Vulnerable to contamination</td>
<td>Site: 31 to 33</td>
<td>E-479645</td>
<td>E-600122</td>
<td>14N</td>
<td>20504 m</td>
</tr>
</tbody>
</table>

**Potential Effects:**
Potential groundwater contamination from a contingency event (e.g., spill)

**Specific Mitigation:**
- Marshalling 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 arctic soil conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.
### ESS Group: Permafrost

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-S02</td>
<td>N3-Soils-105</td>
<td>Permafrost</td>
<td>Site: 27 to 28</td>
<td>E-481728 N-495645</td>
<td>E-481664 N-495645</td>
<td>14N</td>
<td>137 m</td>
</tr>
<tr>
<td>N3-S02</td>
<td>N3-Soils-106</td>
<td>Permafrost</td>
<td>Site: 29 to 30</td>
<td>E-481146 N-6051239</td>
<td>E-479747 N-6050557</td>
<td>14N</td>
<td>1556 m</td>
</tr>
<tr>
<td>N3-S03</td>
<td>N3-Soils-107</td>
<td>Permafrost</td>
<td>Site: 35 to 36</td>
<td>E-478525 N-6050547</td>
<td>E-477211 N-6050557</td>
<td>14N</td>
<td>1388 m</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.
- Maintain shrub and herbaceous vegetation to the extent possible.
- Remove trees 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:** 117
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ESS Group: Water Crossing

<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>
<th>Channel Width</th>
<th>Wet Width</th>
<th>Fish Habitat Class</th>
<th>Habitat Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-503</td>
<td>N3-S03</td>
<td>Unnamed Tributary into Mitshito River</td>
<td>476179</td>
<td>6049316</td>
<td>14N</td>
<td>6m</td>
<td>6m</td>
<td>Low</td>
<td>Marginal</td>
</tr>
</tbody>
</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 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.
- No machine zone will restrict equipment in close proximity to the waterbody except at the trail crossing.
- No instream works or fording from April 1 - July 15

ESS Group: Mammals and Habitat

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
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<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-503</td>
<td>N3-Wild-200</td>
<td>MCWS Caribou Sensitive Area</td>
<td>Site: 32 to 34</td>
<td>E-479645 N-6050506</td>
<td>E-459249 N-6043645</td>
<td>14N</td>
<td>22469 m</td>
</tr>
</tbody>
</table>

Potential Effects:
Webowden Woodland Caribou Range Sensitive Area

Specific Mitigation:
- For mitigation in this area refer to the "Moose and Woodland Caribou Sensitive Range Delineation and Mitigation Plans" document

ESS Group: Permafrost

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-503</td>
<td>N3-S03</td>
<td>Permafrost</td>
<td>Site: 35 to 36</td>
<td>E-478525 N-6049117</td>
<td>E-477211 N-6043368</td>
<td>14N</td>
<td>1388m</td>
</tr>
<tr>
<td>N3-503</td>
<td>N3-S03</td>
<td>Permafrost</td>
<td>Site: 37 to 38</td>
<td>E-477122 N-6049638</td>
<td>E-477043 N-6049611</td>
<td>14N</td>
<td>84m</td>
</tr>
<tr>
<td>N3-503</td>
<td>N3-S03</td>
<td>Permafrost</td>
<td>Site: 39 to 40</td>
<td>E-475111 N-6049302</td>
<td>E-475509 N-6041024</td>
<td>14N</td>
<td>220m</td>
</tr>
<tr>
<td>N3-503</td>
<td>N3-S03</td>
<td>Permafrost</td>
<td>Site: 41 to 42</td>
<td>E-475601 N-6049128</td>
<td>E-475530 N-6049106</td>
<td>14N</td>
<td>74m</td>
</tr>
<tr>
<td>N3-503</td>
<td>N3-S03</td>
<td>Permafrost</td>
<td>Site: 43 to 44</td>
<td>E-475319 N-6049035</td>
<td>E-474214 N-6040601</td>
<td>14N</td>
<td>1159m</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
- Maintain shrub and herbaceous vegetation to the extent possible
- Remove trees by low-disturbance methods
- Confin vehicle traffic to established trails to the extent possible
- Implement erosion protection before commencing construction in accordance with Erosion/Sediment Control Plan

ESS Group: Groundwater

<table>
<thead>
<tr>
<th>Sec-Seg ID</th>
<th>ESS ID</th>
<th>ESS Name</th>
<th>Location</th>
<th>Start</th>
<th>Stop</th>
<th>UTM Zone</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3-503</td>
<td>N3-Aqua-200</td>
<td>Aquifers Vulnerable to contamination</td>
<td>Site: 31 to 33</td>
<td>E-479645 N-6050506</td>
<td>E-460122 N-6044246</td>
<td>14N</td>
<td>20504 m</td>
</tr>
</tbody>
</table>

Potential Effects:
Potential groundwater contamination from a contingency event (e.g., spill)

Specific Mitigation:
- Marshalling 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 dollars with appropriate experience will be contracted to work in areas affected by artisan conditions.
- Emergency response plans for sealing/grouting and pumping will be implemented as required.