HPAR Upgrade Project

TOR Scoping Sessions

Tulita - Oct 20, 2015
Norman Wells - Oct 21, 2015
Nahanni Butte - Oct 22, 2015
Yunan Chihong Zinc & Germanium Ltd.

Chihong Canada Mining Ltd.
Vancouver BC based subsidiary of Yunan Chihong Zinc & Germanium Ltd.

Selwyn Chihong Mining Ltd (SCML).
Operating company owned by Chihong Canada Mining Ltd., with offices in Vancouver, Whitehorse and Watson Lake.
Howard’s Pass Access Road (HPAR)

- An existing 79 km long single-lane gravel road in southwestern NWT.
- The HPAR branches off the Nahanni Range Road, near Tungsten, and ends at Howard’s Pass at the NWT–Yukon border.
- The HPAR was originally built in 1978-79 to access the extensive zinc-lead deposit that straddles the Yukon–NWT border at Howard’s Pass.
- SCML has applied to upgrade the HPAR to a two-lane all-season mine access road and to use the road to support the Selwyn Project.
- The HPAR is part of the ~1000 km haul route to the Port of Stewart.
## HPAR Development History

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970s</td>
<td>HPAR built to access major zinc-lead deposit at Howard's Pass</td>
</tr>
<tr>
<td>1980s</td>
<td>Mineral exploration declined</td>
</tr>
<tr>
<td></td>
<td>Road fell into disuse and deteriorated</td>
</tr>
<tr>
<td>2005</td>
<td>Interest in exploration and development of deposit renewed</td>
</tr>
<tr>
<td>2009</td>
<td>Nahanni National Park Reserve expanded</td>
</tr>
<tr>
<td>2011</td>
<td>HPAR used as winter road to bring equipment to Selwyn Project</td>
</tr>
<tr>
<td>2014</td>
<td>HPAR reconstructed to single-lane all-season road for original purpose</td>
</tr>
<tr>
<td>2014</td>
<td>Ná̱ats'íhch'oh National Park Reserve created</td>
</tr>
<tr>
<td>2015</td>
<td>Upgrade to two-lane road for mine development and operation proposed</td>
</tr>
</tbody>
</table>
Political Boundaries
- The southern portion of the HPAR (km 0 to 36) is within traditional territory asserted by DehCho First Nations.
- The northern portion (km 36 to 79) is within the Sahtu Settlement Area.
- The HPAR is also within traditional territory asserted by Kaska First Nations.
- Nahanni and Naats'ihch'oh National Park Reserves overlap the HPAR between km 14 and km 60.

How far away is the HPAR from NWT and Yukon communities (as the crow flies)?

- Tulita 340 kms
- Norman Wells 350 kms
- Nahanni Butte 310 kms
- Watson Lake 240 kms
- Yellowknife 750 kms
- Ross River 190 kms
Community Cooperation Agreements

- SCML has entered into Cooperation Agreements with:
  - Sahtu Dene and Metis First Nations of the Tulita District (2010).
- SCML has signed an Interim Measures Agreement with the Kaska First Nations. SCML and Kaska have completed negotiations on a comprehensive Socio-Economic Participation Agreement. A community ratification vote is scheduled for November 30, 2015.
- SCML has also signed a Memorandum of Understanding (MoU) with Parks Canada on the operation of HPAR within Nahanni and Nááts’ihch’oh National Park Reserves.
Community Involvement

- Sahtu and DehCho communities have been involved in all significant activities undertaken by SCML on the HPAR, including:
  - 2011 winter road construction/operations
  - 2014 reconstruction
  - 2015 maintenance
Community Involvement

- SCML has been engaging with NWT and Yukon communities since 2006.
- SCML consulted with potentially affected communities on the HPAR Upgrade Project during 2014-15. This was done following MVLWB guidelines and the process set out in the Cooperation Agreements.
- SCML has received letters of support from:
  - Norman Wells Land Corp
  - Tulita Land Corp
  - Fort Norman Metis Land Corp
  - Nahęę Dehé Dene Band
Why Upgrade the HPAR?

- An upgraded HPAR is needed to support the evolving needs of the Selwyn Project:
  - **MINE CONSTRUCTION** – the HPAR will be used to haul equipment and supplies in to the Yukon to support mine site construction activities.
  - **MINE OPERATIONS** – the HPAR will be used to haul zinc and lead mineral concentrates out to port and to haul supplies in to the mine site.

<table>
<thead>
<tr>
<th>Hauling</th>
<th>Approximate Trucks/Day</th>
</tr>
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<tbody>
<tr>
<td>Lead concentrate</td>
<td>11</td>
</tr>
<tr>
<td>Zinc concentrate</td>
<td>56</td>
</tr>
<tr>
<td>LNG</td>
<td>12</td>
</tr>
<tr>
<td>Diesel fuel</td>
<td>5</td>
</tr>
<tr>
<td>Mill Supplies</td>
<td>7</td>
</tr>
<tr>
<td>Other supplies</td>
<td>3</td>
</tr>
</tbody>
</table>
Why Upgrade the HPAR?

- The HPAR needs to be improved so that it is safe and efficient to use.
- The existing alignment will be followed, with some minor sections of realignment.
- Upgrades will include:
  - Widening to two full lanes;
  - Reducing curves to improve visibility and travel speeds;
  - Extending culverts for wider road.
- Bridges were replaced in 2014. No changes needed.
Developer’s Assessment Report (DAR)

• SCML’s proposed terms of reference is based on the template provided by the MVEIRB.

• DPToR builds on information and plans presented in the application package including the Project Description Report.

• SCML will continue to consult with communities and government throughout preparation of the DAR.
Developer’s Assessment Report will:

- Incorporate Traditional Knowledge.
- Use Valued Components used for assessment of impacts, with:
  - Key Lines of Inquiry - highest priority.
  - Subjects of Note - lower priority.
- Include management, monitoring and mitigation plans.
- Include assessment of Project Alternative and Cumulative Effects.
- Cover construction, operation and decommissioning phases.
- Provide rationale for proposed geographic and temporal scopes.
Proposed Key Lines of Inquiry based on input from Communities and Parks Canada:

1. **Nahanni caribou herd:**
   - direct and indirect effects on individual caribou and on the caribou herd from road traffic and road access.

**Key Facts:**
- Northern mountain woodland caribou (‘stable’ in NWT; ‘special concern’ under SARA)
- Nahanni caribou are in the HPAR corridor mainly spring to fall
- Baseline data collection and community consultation programs since 2007
- Caribou are a focus for road planning to date, with ongoing monitoring, and mitigation planning well underway
Proposed Key Lines of Inquiry based on input from Communities and Parks Canada:

2. **Risk of spills**
   - risk of spills from hauling concentrates, fuels and mine reagents during mine operation;
   - potential impacts on aquatic and terrestrial ecosystems.

3. **National park reserves**
   - visitor access to park areas and visitor experience;
   - park heritage and cultural resources;
   - ecological integrity.
Proposed Key Lines of Inquiry based on input from Communities and Parks Canada:

4. **Benefits and effects on communities**
   - direct and indirect effects on employment and contracting opportunities;
   - wage and salary income;
   - training and skill development;
   - business opportunities;
   - overall community wellness.
Proposed Subjects of Note:

- Bedrock geology and surficial geology
- Air quality
- Water and sediment quality (excluding the impacts of accidents and malfunctions)
- Vegetation
- Fish and aquatic habitat (excluding the impacts of accidents and malfunctions)
- Wildlife and wildlife habitat (excluding caribou)
- Species at risk
- Traditional land use and harvesting
- Cultural resources
- Heritage resources
- Road, lake and river access and use
Impact Assessment methodology will consider:

- Identification of potential effects.
- Mitigation measures and residual effects.
- Assessment of cumulative effects.
- Each predicted impact the following will be described:
  - type of impact.
  - geographic extent.
  - timing.
  - magnitude.
  - reversibility.
  - likelihood.
Closure:

- SCML looks forward to working closely with government, communities and the Board throughout the assessment of the HPAR Upgrade Project.
- Please feel free to contact:
  - Doug Reeve: 604-620-6188 ext. 805 or dreeve@chihongmining.com.

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