

## ***Appendix 3-H***

*Additional Consultation Measures and Working Tables for  
First Nations (June/July 2013)*

HARPER CREEK PROJECT

**Application for an Environmental Assessment Certificate /  
Environmental Impact Statement**

## *Appendix 3-H(a)*

*YMI July 23, 2013 Letter to the Simpcw First Nation –  
Additional Consultation Measures and Working Tables*

HARPER CREEK PROJECT

**Application for an Environmental Assessment Certificate /  
Environmental Impact Statement**



**YELLOWHEAD**  
MINING INC.

July 23, 2013

Chief Rita Matthew and Council  
Simpchw First Nation  
Box 220  
Barriere, BC V0E 1E0

Dear Chief Matthew:

**Re: Additional Consultation Measures**

On May 30, 2013 we sent a letter requesting a meeting with Chief and Council to engage in further consultation, and offered to provide an additional \$25,000 in capacity funding. This letter includes references to a number of documents shared with the Simpcw First Nation including the March Application, the Traditional Land Use & Ecological Knowledge Study prepared by the Simpcw First Nation in August 2012, the Archaeological Impact Assessment of November 2012, and the Simpcw First Nation Socio-Economic Assessment Report of September 2012, that are the foundations for additional consultation.

To further assist with the identification of potential impacts and our proposed mitigation, we prepared a set of eight Working Tables (see attached). The Working Tables address the following issues which have been identified as potential concerns in relation to impacts the Project may have on Aboriginal rights and interests:

- Tab 1 - Water and water quality;
- Tab 2 - Fish and fish habitat;
- Tab 3 - Vegetation and plant communities;
- Tab 4 - Air quality and noise;
- Tab 5 - Environmental impacts on wildlife;
- Tab 6 - Cultural and archaeological sites;
- Tab 7 - Socio-economic effects; and
- Tab 8 - Access to traditional use sites.



**YELLOWHEAD**  
MINING INC.

Each working table sets out a particular concern raised by Project activities, addresses proposed mitigation measures, summarizes the effects assessment (residual effects and cumulative effects), provides a space for notes to provide HCMC with additional information and to identify any additional concerns in relation to each of the issues, and suggestions for mitigation and accommodation. Please note that the Working Tables are only summaries of the March Application. They are not necessarily complete summaries, and reference should always be made to the March 2013 Application for full details of assessments and impacts. It should also be noted that as the Application moves through the EA process, proposed mitigation measures may change to address concerns or issues raised.

In particular, we would like to discuss ways to understand the function of the two rock cairns found within the mine site footprint, potential mitigation strategies, and potential impacts of the Project on the 20 traditional use sites identified in the Simpcw Traditional Land Use & Ecological Knowledge Study.

HCMC hopes that these Working Tables will assist both the Company and the Simpcw First Nation in the additional consultation process with a view to identifying potential impacts, and considering reasonable measures for mitigation and accommodation.

We are willing to provide Simpcw First Nation \$25,000 and would like to meet with the Chief and Council to discuss the EA Application, these Working Tables and deliverables associated with the \$25,000. Please let me know what dates in August 2013 would work for you to meet with us.

Yours truly,

*Charlene Higgins*

Charlene Higgins, MSc, PhD  
Vice President, Environment, Community  
& First Nations Relations

CC: Gerry Hamblin, Project Manager, BCEAO  
Zoltan Fabian, Project Manager, CEAA

Attachment

**HARPER CREEK MINING CORP.  
HARPER CREEK PROJECT**



**ADDITIONAL CONSULTATION WITH THE  
SIMPCW FIRST NATION**

**JULY 23, 2013**

## Introduction

On March 28, 2013, Harper Creek Mining Corp. (“HCMC”) filed a draft Application (the “March Application”) for an Environmental Assessment Certificate and Environmental Impact Statement for the comprehensive study of the proposed Harper Creek Mine Project (the “Project”).

HCMC committed to further consultation with First Nations (Section 11.6.5 of the March Application) to further identify:

- Any additional Aboriginal interests which may be potentially adversely affected by the Project, based on traditional use studies and/or other sources of information provided by First Nations within a reasonable time period; and
- Measures to avoid or mitigate the potential adverse effects and/or to otherwise address First Nations concerns.

By letter dated May 16, 2013 (attached as Schedule 1), the Environmental Assessment Office (“EAO”) required HCMC to undertake the following additional consultation measures:

1. Prior to submitting the next version of the Application for screening, the Proponent must undertake the following activities:
  - a. Contact Chiefs and Councils of all First Nations with a request for a meeting to discuss: past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; what are the potential impacts of the proposed Project on those Aboriginal interests; and, what measures could be used in the proposed Project’s design or operation to avoid, mitigate or otherwise address those potential impacts;
  - b. Develop a revised First Nations consultation plan for Application Review with specific details about First Nations community meetings and opportunities for First Nations to participate during Application Review; and
  - c. Submit a report to the EAO about the meetings that have occurred, the issues that were raised, how those issues will be addressed and the proposed mitigation that will be in the Application and provide a copy of this report to each of the First Nations.

By letter dated May 30, 2013 to the Chief and Council of the Simpcw First Nation (attached as Schedule 2), HCMC requested a meeting to engage in further consultation. The letter of May 30, 2013 included a table providing references to a number of documents including the March Application, the Traditional Land Use & Ecological Knowledge Study prepared by the Simpcw First Nation in August 2012, the Archaeological Impact Assessment of November 2012, and the Socio-Economic Assessment Report of September 2012, as foundations for the additional consultation.

To further assist, HCMC has also prepared a set of eight working tables to assist in additional consultation.

The working tables address the following issues which have been identified as potential concern in relation to impacts the Project may have on Aboriginal rights and interests:

- Tab 1 – Water and water quality;
- Tab 2 – Fish and fish habitat;
- Tab 3 – Vegetation and plant communities;
- Tab 4 – Air quality and noise;
- Tab 5 – Environmental impacts on wildlife;
- Tab 6 – Cultural and archaeological sites;
- Tab 7 – Socio-economic effects; and
- Tab 8 – Access to traditional use sites.

Each working table sets out a particular concern raised by Project activities, addresses proposed mitigation measures, summarizes the effects assessment (residual effects and cumulative effects), and provides a space for notes to provide HCMC with additional information and to identify any additional concerns in relation to each of the issues, and suggestions for mitigation and accommodation. Please note that the working tables are only summaries of the March Application. They are not necessarily complete summaries, and reference should always be made to the March 2013 Application for full details of assessments and impacts. It should also be noted that as the Application moves through the EA process, proposed mitigation measures may change to address concerns or issues raised.

HCMC hopes that these working tables will assist both the Company and the Simpcw First Nation in the additional consultation process with a view to identifying potential impacts, and considering reasonable measures for mitigation and accommodation.

**Working Table to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

***Potential concerns raised by Project activities***

- Effects on water flows – Harper Creek, Baker Creek, Jones Creek
- Effects on water quality – Harper Creek, Baker Creek, Jones Creek
- Effects on groundwater – Baker Creek Watershed

***Proposed mitigation measures***

- All four First Nations will be invited to participate on an environmental monitoring committee.
- The Water Management Plan will mitigate environmental effects to downstream receiving waters.
- Discharges from the TMF to T-Creek, and from the Pit Lake to Baker Creek will be subject to the discharge limits in the *Metal Mining Effluent Regulations* under the *Fisheries Act*, and in the Effluent Permit issued by the B.C. Ministry of Environment under the *Environmental Management Act*, established to protect downstream water quality (see March Application at section 6.6, and see in particular section 6.6.1.3 respecting legislation and water quality guidelines).
- The *Metal Mining Effluent Regulations* also require rigorous Environmental Effects Monitoring (EEM). Proposed monitoring is incorporated into the Aquatic Effects Monitoring Plan (see March Application at section 10.6).
- Process water and site runoff from disturbed areas will be collected in the Tailings Management Facility (“TMF”) and recycled as process water during operations.
- All mine contact water will be stored in the TMF and/or the Open Pit until the end of mine operations (see March 28, 2013 Application at section 2.10.3.2 (page 2-60)).
- Process water will be discharged into the TMF and the Open Pit.
- It is a closed system. Water in the TMF and Open Pit will be reclaimed and pumped back to the mill for process water requirements.
- Until the end of operations, there will be no discharges of water from the TMF or from the Open Pit.
- See Figures 2.10-2, 10-3 and 10-4 in the March Application showing site water management and recycling of contact water during the operations phase.
- The water management ponds downstream of the non-PAG low grade ore and non-PAG waste rock stockpile will collect sediment-laden runoff from the waste stockpiles. The water from these ponds will be pumped to the TMF for storage and recycle (although if water quality is suitable then the water could be released to the downstream environment).
- The TMF seepage collection pond will collect seepage and sediment-laden runoff which will be pumped to the TMF for storage and recycle (although if water quality is suitable then the water could be released to the downstream



**Working Table to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

environment).

- The lake in the Open Pit will reach a level at which discharge will start in year 30 (see March Application at page 2-65).
- Geochemical work will be ongoing with respect to the quality of the water from the Open Pit. If treatment is required, proven treatment technology is demonstrated and commercially available, and it is expected that there will be further developments in water treatment technology over the next 24 years (see March Application at page 10-46).
- See also the Proposed Mitigation Measures for Water Quality, March Application, section 6.6.6 and Table 6.6-6.

***Effects Assessment – Residual Effects***

- See section 6.6 of the March Application and section 6.7.6 (Fish and Fish Habitat) (Water Quality).
- Small effects on stream temperature in Harper Creek (section 6.6.4)
- Water modeling indicates that water treatment will not be required for discharges from the TMF starting in year 30 to T-Creek, flowing into Harper Creek in order to protect downstream water quality. As noted above, discharges must meet the requirements of the *Metal Mining Effluent Regulations* under the *Fisheries Act* and the requirements of an Effluent Permit under the B.C. *Environmental Management Act* which will set discharge limits for the protection of downstream water quality.
- Water treatment for surface water discharge from the Open Pit and Open Pit in situ treatment will be implemented as appropriate for discharges to Baker Creek for the protection of downstream water quality. Again, discharges from the Pit Lake are required to meet the discharge limits of the *Metal Mining Effluent Regulations* under the *Fisheries Act* and the discharge limits specified in an Effluent Permit issued under the B.C. *Environmental Management Act*, for the protection of downstream water quality.
- No significant impacts to water quality in Jones Creek are expected (see March Application at section 6.6.5.4).
- No significant effects on groundwater quality in Baker Creek Watershed are expected (see March Application at section 6.6.5.5 and Table 6.6-6).

***Effects Assessment – Cumulative Effects***

- The cumulative effects assessment for water quality has been addressed under the assessments for fish and aquatic habitat, vegetation and wildlife, land, water and resource use, and human health.

**Working Table to Assist in Additional Consultation****1. Impacts on Water and Water Quality*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential downstream effects on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigation or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Water and Water Quality

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

***Potential concerns raised by Project activities***

- Degradation of water quality resulting from sediment during construction
- Changes to fish habitat resulting from flow reductions during operations
- Stream temperature changes
- Indirect mortality through explosives use
- Loss of aquatic habitat and aquatic life in mine footprint
- Changes in fish passage at the falls on Harper Creek
- Degradation of downstream water quality from mining activities

***Proposed mitigation measures***

See section 6.7.7 of the March Application and Table 6.7-8 within the Report. The Project Water Management Plan should mitigate all of the potential effects on fish and fish habitat. In addition, any disruption of fish habitat will require an authorization (HADD – Harmful Alteration Disruption or Destruction of Fish Habitat) from Fisheries and Oceans Canada.

All process water and mine contact water during operations will be stored in the TMF or the Open Pit until the end of mine operations (see discussion of water quality issues above in Table 1), and will not affect downstream water quality. Any discharges from the Pit Lake or the TMF upon closure will be subject to testing and assessment of water quality, and will be treated as necessary to meet *Metal Mining Effluent Regulations* discharge limits under the *Fisheries Act* and discharge limits until a provincial Effluent Permit issued under the *Environmental Management Act*, with a view to protecting downstream water quality.

Where harmful alteration, disruption or destruction of fish habitat is unavoidable (due to flow reductions in the upper reaches of T-Creek and P-Creek), compensation for loss of such habitat will be required, as provided for in the Fish Compensation Plan (see section 10.7 of the March Application). Five fish habitat compensation plans have been identified for the Project. These options include:

- Option 1 – Improving fish passage by replacing hanging culverts for Jones Creek, Baker Creek and Chuck Creek channel crossings
- Option 2 – Construction of off-channel bull trout rearing habitat on upper Harper Creek
- Option 3 – Construction of off-channel bull trout and coho salmon rearing habitat on middle Harper Creek
- Option 4 – Construction of a groundwater channel for coho salmon rearing and spawning habitat on the Harper Creek fan
- Option 5 – Construction of off-channel coho salmon rearing and spawning habitat on the Barriere River

**Working Table to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

HCMC will work with the Department of Fisheries and Oceans (DFO) Canada in consultation with First Nations to identify the preferred options.

The main objective of the proposed fish habitat compensation works is to maintain a no-net-loss of the productive capacity of the fish habitat within the Project area. Loss of habitat will be compensated by a ratio of 2:1, therefore requiring HCMC to provide approximately 11,800 m<sup>2</sup> of new fish habitat.

***Effects Assessment – Residual Effects***

See section 6.7.8 of the March Application. A total of seven potential effects have been identified as follows:

- Changes in bull trout passage at the falls on Harper Creek
- Changes to bull trout habitat in T-Creek
- Changes to bull trout habitat in P-Creek
- Changes to bull trout habitat in Harper Creek
- Stream temperature changes in Harper Creek
- Degradation of downstream water quality from mining activities
- Open Pit overflow in Baker Creek

Taking into account mitigation measures, these potential effects have been rated as “not significant” (see March Application at section 6.7.8).

It is anticipated that there will be a loss of fish habitat in two streams: P-Creek and T-Creek. It is estimated that the loss of habitat to these creeks will be approximately 5,900 m<sup>2</sup>, and as noted above, HCMC will be providing approximately 11,800 m<sup>2</sup> of new fish habitat in compensation for this loss.

The habitat compensation plan referred to above will be designed to offset these habitat impacts (see March Application at section 6.7.8).

***Effects Assessment – Cumulative Effects***

See section 6.7.9 of the March Application. It is anticipated that only one of the seven residual effects identified above - stream temperature changes in Harper Creek - has the potential to cumulatively interact with timber harvesting activities.

However, mitigation measures are anticipated to be highly effective (see March Application at Table 6.7-12), and, as a result, this cumulative effect is not anticipated to be significant (see March Application at section 6.7.9.3).

**Working Table to Assist in Additional Consultation****2. Impacts on Fish and Fish Habitat*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential impacts on past and current fishing rights or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Fish and Fish Habitat

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Potential concerns raised by Project activities***

- Impacts on rare plants
- Impacts on rare and sensitive ecological communities
- Impacts on traditional food plants
- Impacts on medicinal plants

***Proposed mitigation measures***

- Impact avoidance (see March Application at section 6.8.5.1)
  - reduction of certain footprints during design to reduce effects to sensitive locations
  - the footprint located to the west of the Pit was reduced
  - the current north soil stockpile was also reduced
  - where feasible, Project facilities will be placed so as to avoid direct impacts to VC occurrences and high-suitability habitat
  - known VC occurrences located adjacent to construction and operation areas will be clearly flagged to discourage incidental disturbance
  - construction personnel will be required to attend a field-based orientation session stressing avoidance of disturbance in the exclusion areas
  - a spatial database of known rare plant locations in the vicinity of Project facilities will be maintained and consulted to avoid impacts during operations and maintenance activities
- Impact reduction and technical mitigation (see March Application at section 6.8.5.2)
  - section 6.8.5.2 includes a lengthy list of general impact reduction mitigation for the Project to reduce impacts on vegetation as well as wildlife
- Reclamation (see March Application at section 6.8.5.3)
- Proposed monitoring (see March Application at section 6.8.5.4)

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will make best efforts to avoid impacting culturally important gathering areas not directly affected by the mine site footprint, and will support the development of cross cultural workshops to train mine personnel about culturally important plants so that personnel can avoid impacting, where possible, identified culturally important gathering areas.

HCMC will involve those First Nations whose interests are shown to be impacted by the Project in the environmental monitoring program and committee that will be established for the life of the mine, and in the development of reclamation and closure plans.



**Working Table to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Effects Assessment – Residual Effects***

See section 6.8.6.2 of the March Application.

The effect of the Project on Ecological Communities at Risk (“ECAR”) is not expected to be significant (see March Application at Table 6.8-33).

The effects on wetlands within the Local Study Area is considered to be significant locally. However on a regional scale this impact is not expected to be significant. The mine site layout was altered during pre-application to minimize impacts on rare plants and wetlands. Wetland reclamation during closure will aim to create wetlands, where possible, to compensate for losses in wetland habitat (see March Application at Table 6.8.34).

The effect of the Project on old growth forest is not expected to be significant (see March Application at Table 6.8-35).

The Project will result in the loss of Howell’s quillwort occurrences in the Local Study Area. This plant has not been identified as culturally important to First Nations.

In the Traditional Land Use & Ecological Knowledge Study, done by Simpcw First Nation, 57 plants were identified as culturally important to First Nations (Table 11.4-3 in the Application). All species are common throughout BC, and/or introduced, and not of conservation concern. The mine site footprint impacts less than 0.1% of Simpcw traditional territory. Although access to plants within the mine site footprint will be impacted, given the ubiquitous nature of these plants species throughout the territory and BC, the effect of the Project on these culturally important plants is not expected to be significant.

***Effects Assessment – Cumulative Effects***

See section 6.8.7 of the March Application.

Cumulative effects are not expected to be significant.

As noted above, the plant species identified as culturally important to First Nations are common throughout B.C., are not a conservation concern, and any impacts of the Project on these species is not likely to be significant (see March Application at Table 11.4-3, and page 11-109).

**Working Table to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Additional Consultation***

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will continue to work with First Nations throughout the Application review phase to identify traditional use sites, understand adverse effects of the Project, and develop mitigation measures, where possible.

The purpose of the additional consultation is to discuss:

- past and current impacts on gathering or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information on Potential Impacts on Gathering Areas and Culturally Important Plants

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

<b><u>Working Table to Assist in Additional Consultation</u></b>
<b>4. <u>Impacts on Air Quality and Noise</u></b>
<b><i>Potential concerns raised by Project activities</i></b>
<ul style="list-style-type: none"> <li>• Potential impacts on air quality and noise and vibration.</li> </ul>
<b><i>Proposed mitigation measures</i></b>
<p>See section 6.2.5 of the March Application for mitigation measures relating to air quality. HCMC will be implementing mitigation measures to minimize the release of air contaminants and dust deposition. These mitigation measures are listed at Table 6.2-16 in the March Application, and include the following: using construction and mining equipment that meets the latest applicable Canadian emissions standards, ensuring proper equipment maintenance, limiting the idling of vehicles and construction equipment, compacting access roads immediately after construction, minimizing land disturbance, grubbing and clearing activities, using crusher dust control systems and wind breaks, and using dust suppressants and watering along corridors.</p> <p>See section 6.3.4 of the March Application for mitigation measures relating to noise and vibration. HCMC will be implementing mitigation measures to minimize noise and vibration, including the following: ensuring buildings with noisy equipment include acoustic shielding, locating noisy equipment near ground level as opposed to at an elevation to reduce noise transmission, implementation of a no idling policy for mobile equipment and trucks where practical, imposing speed limits on access roads, implementation of controlled blasting procedures in accordance with a pre-established blasting plan, using buffer zones or setbacks for blasting near habitations and sensitive receptor locations.</p>
<b><i>Effects Assessment – Residual Effects</i></b>
<p>See section 6.2.6 of the March Application for residual effects relating to air quality. The Project is not likely to have significant negative residual effects on ambient air quality after the implementation of mitigation measures.</p> <p>See section 6.3.5 of the March Application for mitigation measures relating to noise and vibration. Noise will be highest during the construction phase of the Project, however, the negative residual effect is considered not significant during the construction phase.</p> <p>In addition, it is anticipated that during the operations phase, with mitigation measures the noise effect is considered not significant.</p>

**Working Table to Assist in Additional Consultation**

**4. Impacts on Air Quality and Noise**

***Effects Assessment – Cumulative Effects***

The cumulative effects on air quality of timber harvesting, the Vavenby Sawmill and the Foghorn Project were assessed, and these interactions were determined to be negligible. It is predicted that the ambient air quality concentrations in the area of these projects will meet required limits for all phases of the Project.

See section 6.3.6.4 of the March Application relating to cumulative effects of noise. Significant residual effects of noise are not expected for the Project.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- impacts on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Air Quality and Noise

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**4. Impacts on Air Quality and Noise**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

***Potential concerns raised by Project activities***

- Impacts on large mammals
- Impacts on amphibians
- Impacts on migratory birds
- Impacts on raptors
- Impacts on bats

***Proposed mitigation measures (see March Application at section 6.8.5)***

In order to reduce Project effects, three general categories of mitigation will be applied: 1) impact avoidance; 2) impact reduction and technical mitigation; and 3) reclamation.

*Impact avoidance (see March Application at section 6.8.5.1)*

- As part of the Project design to date, the Project footprint was altered to conserve biodiversity and reduce the effect on sensitive habitats
- Where feasible, Project facilities will be placed so as to avoid direct impacts to known habitats
- Known habitats adjacent to construction and operation areas will be clearly flagged to discourage incidental disturbance within the populations, and signage will be added where necessary to indicate the boundaries of the exclusion area
- Construction personnel will be required to attend a field-based orientation session where the exclusion areas will be explained, and the importance of avoiding disturbance within them will be stressed

*Impact reduction and technical mitigation (see March Application at section 6.8.5.2)*

The following is a sample of the mitigation measures. The full list is set out at section 6.8.5.2 of the March Application)

- HCMC will use modified construction and operation methods so as to lessen direct impacts on wildlife where only partial avoidance is feasible, for example:
  - during closure the pit will be designed with at least one gently-sloping area that allows wildlife to escape if they were to fall into the pit
  - rubber-tired instead of tracked equipment will be used where feasible
- Project personnel will minimize the number of vehicles using the road and the number of vehicle trips, wherever possible
- Project construction and maintenance personnel will strictly adhere to safe speed limits at all times to reduce wildlife mortality
- road kill, garbage and other wildlife attractants will be removed promptly from roads and other Project facilities
- dense, unpalatable roadside vegetation will be maintained where possible to provide security cover for wildlife using habitat adjacent to roads and other facilities

**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

- a logbook will be kept to record locations of deer, moose, caribou, bears and wolverine in and around Project facilities and activities, and the Project environmental coordinator will review this data regularly and identify areas of high wildlife incidence, particularly along access roads
- all personnel will be discouraged from hunting or carrying firearms within the Local Study Area
- all personnel will be prohibited from feeding wildlife within the Local Study Area

As well, a number of mitigation measures have been developed which target specific VCs. The following is a summary (the March Application should be referenced for the complete listing).

*Rare and Sensitive Ecological Communities*

- wetlands along the HCMC powerline will be clear-spanned (i.e. no towers built within the wetland)
- vehicles (tracked or wheeled) will not be operated within wetlands under the HCMC powerline

*Amphibians*

- If vegetation clearing will occur in western toad breeding habitat between April 1 and September 1 (breeding season), surveys will be performed by a Registered Professional Biologist to identify whether breeding has occurred within the habitat and a mitigation plan develop to mitigate against mortalities
- A logbook will be kept to record western toad juvenile migrations in and around Project facilities and activities (including access roads), and the Project environmental coordinator will be informed immediately of the location of any observed toad migration
- If juvenile western toad migrations are observed, mitigation measures will be employed as appropriate to reduce the potential effects on the toad due to traffic, including informing workers at the beginning of their shift of the locations of toad migrations, using signage to indicate toad migration locations, and using amphibian fencing to prevent migrations from crossing Project roads or moving into other active areas
- If an area is identified as a regular toad migration crossing (e.g. active with juvenile toad migrations 3 out of any 4 years) then one or more culverts (depending on the migration size) will be installed along the road and drift fencing installed to funnel toads away from the road surface and into the culvert, in order to maintain population connectivity while reducing mortality risk



**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

*Migratory Birds*

- The removal or alteration of buildings within the IDFmw2 will be minimized in order to maintain existing Barn Swallow nesting habitat
- Efforts will be made to do modifications or demolition of buildings outside of the breeding bird season (March 15 – August 15)
- If, during any Project phase, buildings within the IDFmw2 are modified or demolished during the breeding bird season (March 15 – August 15) then a survey of the building for active migratory bird nests will be conducted and appropriate protection buffers placed around the nests until they are no longer active
- Small numbers of Barn Swallows may nest outside of the above-stated breeding bird season; to avoid contravention of the *Migratory Birds Convention Act* and *BC Wildlife Act* workers modifying or demolishing buildings within the IDFmw2 will be aware of regulations concerning disturbance of migratory birds and be able to identify active Barn Swallow nests, and will report all active bird nests to environmental coordinator for the Project

*Raptors*

- To avoid destruction of Bald Eagle nests, which would contravene the *Wildlife Act*, surveys will be performed in suitable habitat prior to construction to identify any of these nests that may occur within 500 m of any Project footprint
- If Bald Eagle nests are located within or adjacent to the Project footprints, an appropriate protective buffer will be employed, as outlined in Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia
- If Project construction directly conflicts with any Bald Eagle nest and the Project cannot be altered to avoid these sites, the Ministry of Environment (MOE) will be consulted regarding steps for reducing impacts, or to determine other acceptable courses of action. This could include additional work windows to avoid disturbance, movement and relocation of the nest during the winter, or other methods deemed appropriate by MOE

*Bats*

- Construction, demolition, renovation and maintenance activities that affect existing buildings and bridges will, whenever possible, be conducted when bats are not anticipated to be using those structures
- A bat biologist will be consulted regarding the timing of bat presence in these structures if any modifications to them are planned

*Large Mammals*

- A Wildlife Management Plan will be developed and instituted during all Project phases, to provide clear procedures for avoiding bear encounters and for handling those that do occur

**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

- All observations of nuisance bears will be reported to the Project environmental coordinator, and to the local provincial Conservation Officer
- All personnel will participate in a Safety Program that includes a Bear Aware™ (or similar) training component
- Work sites will be kept clean and free of waste, including safe and secure storage of food, food waste, and human waste. All waste will be disposed of properly through removal from the site, burning or other methods as deemed appropriate while minimizing any animal attractants
- All motor oil, diesel, gas and anti-freeze will be stored in a location that is inaccessible to bears
- Clearing of forested areas will be minimized within critical moose winter range

***Effects Assessment – Residual Effects***

See section 6.8.6 of the March Application. The Project is at a high elevation, where wildlife use is generally less than at lower elevations. Many of the wildlife species are expected to be much more common at low elevations where there is a limited effect by the Project. Grizzly bear, mountain caribou and wolverine are not expected to be affected significantly by the Project. The Local Study Area has been heavily roaded, and impacted by human use, including logging and recreation. This has impacted and decreased potential habitat, and has greatly reduced use by these species of the Local Study Area.

*Residual Effects for Amphibians*

- The residual effect to western toad is characterized as a high magnitude, as a result of a decrease in western toad habitat and increase in mortality due to Project construction. However most of the impacts are within areas without high suitability (high elevations).
- As a result, the effect of the Project on the western toad is not expected to be significant

*Residual Effects for Migratory Birds*

- Given the low quantities of habitat affected, combined with mitigation measures, the effect of the Project on migratory birds is expected to be not significant

*Residual Effects for Raptors*

- Given the low habitat and the disturbance and mortality effects expected, the effect of the Project on the bald eagle is expected to be not significant
- Given the low quantity of suitable habitat affected by the Project, the effect of the Project on the Northern Goshawk is expected to be not significant

**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

*Residual Effects for Bats*

- Given the Project is located at high elevations with lower bat use and that no bat hibernating locations are expected to be affected by the Project, the effect of the Project on bats is expected to be not significant

*Residual Effects for Large Mammals*

- Given the high level of access and forest fragmentation that already exists, it is expected that use of the Local Study Area by fishers will be low, and therefore the effect of the Project on fishers is not expected to be significant
- Given the apparent low use of the Local Study Area by grizzly bears and the expected effectiveness of mitigation for reducing mortality risk, the effect of the Project on grizzly bears is not expected to be significant
- Given the low winter use of higher elevations by moose, the limited effect to critical winter habitat, and the expected effectiveness of mitigation for reducing mortality risk due to traffic and hunting, the effect of the Project on moose is not expected to be significant
- There is a high level of access and forest fragmentation, due to past and current harvesting and recreation. As a consequence potential caribou habitat has been impacted and there is limited use of habitat available within the Local Study Area. Additionally, the mine site area is not being managed for caribou by the province. Given current impacts and uses and the expected low potential of the area for use by caribou, the effect of the Project on mountain caribou is not expected to be significant
- Given the low use of higher elevations by mule deer, the limited effect to critical winter habitat, and the expected effectiveness of mitigation for reducing mortality risk due to traffic and hunting, the effect of the Project on mule deer is not expected to be significant
- Given the level of disturbance and high road densities that already exist, with mitigation as proposed, the effect of the Project on wolverines is not expected to be significant

***Effects Assessment – Cumulative Effects***

See section 6.8.7 of the March Application.

The cumulative effects on all species of wildlife are not expected to be significant.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on hunting, trapping or other Aboriginal interests; and

**Working Table to Assist in Additional Consultation****5. Environmental Impacts on Wildlife**

- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Wildlife

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

Review Assessment of Potential Effects on First Nations Hunting and Trapping Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation**

**6. Impacts on Cultural and Archaeological Sites**

***Potential concerns raised by Project activities***

- Potential impacts to cultural and archaeological sites, and in particular two rock cairns identified in the Archaeological Impact Assessment (“AIA”).
- The AIA identified two rock cairns. The historic function of the two rock cairns was not determined during the AIA, and the cairns have been left undisturbed at the request of First Nations.
- The 20 traditional use sites identified in the Simpcw Traditional Land Use Study.

***Proposed mitigation measures***

Any alteration of the two rock cairns must be made under the authority of a *Heritage Conservation Act*, section 12 Site Alteration Permit. Site avoidance does not appear to be feasible. Therefore, a mitigation strategy to manage the loss of the two cairns identified will be developed in consultation with the Archaeology Branch and First Nations. Prior to disturbance, further assessment of these sites is required to determine the function and association of the cairns as Aboriginal or non-Aboriginal in nature. HCMC will work with First Nations to determine the function of the rock cairns. Information available at the time the Report was prepared identified the two rock cairns as the only heritage sites located within the LSA.

The location of the 20 traditional use sites identified in the Simpcw Traditional Land Use Study should be reviewed to determine where they are located in relation to the LSA and whether there are any potential impacts on those sites.

HCMC will also develop and articulate to all staff a “chance find protocol” that prescribes the actions to take in the event that a previously unidentified archaeological site is revealed during the construction or operations phase.

***Effects Assessment – Residual Effects***

Land-altering activities during construction and operations that impact the rock cairn sites will likely result in permanent alteration or loss of both sites. Given the location of the rock cairns in relation to development plans, it is not likely that the destruction of the cairns can be avoided.

Other than the two rock cairns, no other heritage objects were identified by the AIA within the Local Study Area. Due to the intensive pedestrian survey of the area, it is unlikely that unidentified heritage objects will be found during the construction phase. However, if there is a find during construction, all operations in the locality will be immediately suspended until the relevant First Nations and BC Archaeology Branch

**Working Table to Assist in Additional Consultation**

**6. Impacts on Cultural and Archaeological Sites**

have been notified.

Further analysis of the location of the 20 traditional use sites identified in the Simpcw Traditional Land Use Study will need to be conducted to determine whether they will be impacted by Project activities.

***Effects Assessment – Cumulative Effects***

Based on the localized nature of the residual effects and the mitigation measures to be applied, no cumulative adverse effects are likely to result from the proposed project on heritage or cultural resources.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- processes and strategies for assessment and mitigation strategies for the two rock cairns
- the location of the 20 traditional use sites identified in the Traditional Land Use Study prepared by the Simpcw, and whether there are any potential impacts
- potential impacts of the proposed Project on other archeological sites and historic features
- measures that could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address any potential impacts

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Cultural and Archaeological Sites

**Working Table to Assist in Additional Consultation****6. Impacts on Cultural and Archaeological Sites**

Review of Proposed Mitigation Measures

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation



**Working Table to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

***Summary of potential Project interactions with other Aboriginal Interests***

HCMC has carefully considered socio-economic impacts on the Simpcw First Nation, the Adams Lake Indian Band, the Neskonlith Indian Band and the Little Shuswap Indian Band (the “First Nations”).

It is expected that the Project will have both positive and potentially adverse effects on reserve populations if members return home to take on job opportunities at the mine. However, given the distance of the communities of Adams Lake, Neskonlith and Little Shuswap, adverse socio-economic effects are unlikely. The following constitutes a list of the potentially adverse effects (see March Application at section 11.5.2):

*Economy and Employment*

- Potential for contracting/business opportunities, employment and training opportunities during all phases of the Project.

*Education and Training*

- Potential for increase in education and training opportunities in relation to employment opportunities at the proposed Project.

*Population and Demographics*

- Potential for increase in on-reserve population as members return to take on employment opportunities. This effect may be negative or positive depending on the ability of the community to absorb the change. Population on reserve may also decrease as a result of out-migration as members move to communities as mine closure approaches and during decommissioning.

*Housing and Accommodation*

- Potential to increase the demand for housing should on-reserve population grow as members return to take on employment opportunities associated with the Project. Project related revenue could also provide members with revenues to support building new homes. Increased demand for housing can have positive and negative effects as discussed below.

*Community Infrastructure*

- Potential increase in demand for community infrastructure should an increase in population on reserve occur as a result of opportunities associated with the Project.

*Language and culture*

- Potential for Project-related employment opportunities and activities to diminish traditional language and culture

**Working Table to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

*Health and Social Services*

- Potential for increased demands on health and social services on reserve in response to population growth and increased potential for use of drugs and alcohol due to increase in disposable income due to Project-related employment opportunities.

***Proposed mitigation measures***

*Economy and Employment*

- The construction and operation of the Harper Creek Project presents contracting, employment and training opportunities for the First Nations. There is an opportunity for First Nations businesses to acquire contracts to provide goods and services to the Project.
- HCMC will inform and ensure the First Nations have an opportunity to be involved in business, employment and training opportunities during construction and operation.
- HCMC will work with members of the First Nations on employment and training opportunities in trades and other technical skills to meet the Project's employment requirements and needs.
- HCMC will make best efforts to preferentially hire First Nations that have the qualifications and skills to fill available positions.
- HCMC will hire a First Nations Coordinator to facilitate and coordinate involvement of the First Nations communities in contracting, employment and training opportunities.
- HCMC will make best efforts to hire First Nations skilled trades workers, and First Nations apprentices, when available.
- HCMC will work with First Nations communities to encourage First Nations students to complete high school or the equivalent.
- HCMC will continue to provide scholarships for local Grades 11 and 12 high school students interest in pursuing advanced education or technical training in fields related to mining.
- HCMC will provide a scholarship of \$1000 annually to one of the First Nations community members for achievements in school.
- HCMC will work with the First Nations on mechanisms to select the candidates for the awards.

*Housing and Accommodation*

- HCMC will work with First Nations to monitor and develop appropriate mitigation strategies, if needed, to minimize potential effects on housing, infrastructure and community services.
- HCMC will continue to consult with First Nations during the construction and operations to identify any potential issues related to housing as a result of the Project, and where possible, identify potential options to address these issues.

**Working Table to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

*Health Services*

- The Project has the potential to increase the demand for health services on reserve. HCMC will provide counselling to its employees as required. Additional health and counselling staff may be required to address First Nations concerns specifically.
- Overall the potential for beneficial and adverse residual effects on community health services are likely as a result of the Project. However, potential residual adverse effects are likely to be avoidable and/or reversible with support from the community and HCMC. As a result, there are not likely to be significant adverse effects from the Project. HCMC has incorporated into its Project design first aid facilities, health and safety policies, and provision for an employee health and wellness benefits program.
- HCMC's alcohol and drug policy will state that the possession or use of alcohol or illegal drugs by HCMC employees and contractors while on HCMC property or engaged in HCMC work will be grounds for immediate dismissal.
- HCMC will establish an Occupational Health and Safety Committee and a fully equipped Mine Rescue Team.
- HCMC will communicate with the Interior Health Authority's responsible authority at Dr. Helmcken Hospital to establish and maintain effective communications for all phases of mine life.

***Effects Assessment – Residual Effects***

See section 11.5.2 of the March Application for a summary of residual socio-economic effects.

The Project will have significant positive effects on regional employment and income, including opportunities for training, employment and business opportunities.

Taking into account HCMC's commitment to maximize First Nations involved in business, and employment opportunities, residual effects are likely positive. The magnitude of the positive effects could be enhanced based on the success of the local hiring objectives. There is unlikely to be significant adverse effects. Of the adverse effects listed above, the only significant adverse socio-economic effect is expected to be the potential increase in population through in-migration.

<b><u>Working Table to Assist in Additional Consultation</u></b>
<b>7. <u>Socio-Economic Effects on First Nations</u></b>
<b><i>Additional Consultation</i></b>
<p>The purpose of the additional consultation is to discuss any additional information or issues related to socio-economic impacts and benefits and review of the First Nations Socio-Economic Overview (March Application, Section 11.3.1), and the socio-economic assessment report prepared for the Simpcw First Nation (March Application, Section 11.3.2) .</p>
<b><i>Notes on Additional Consultation</i></b>

<b><u>Working Table to Assist in Additional Consultation</u></b>	
<b>8.</b>	<b><u>Access to Traditional Use Sites</u></b>
<b><i>Potential concerns raised by Project activities</i></b>	
<ul style="list-style-type: none"> <li>• Reduction in access to culturally important plants for gathering</li> <li>• Potential for reduced access to transportation corridors and associated potential effects on hunting and gathering</li> <li>• Potential for reduced access to traditional use sites</li> </ul>	
<b><i>Proposed mitigation measures</i></b>	
<ul style="list-style-type: none"> <li>• Based on the Traditional Land Use and Ecological Knowledge Study done by Simpcw First Nation, HCMC will continue to consult with First Nations to avoid, minimize or mitigate traditional land use sites for hunting and gathering purposes.</li> <li>• HCMC will make best efforts to avoid impacting culturally important gathering areas not directly impacted by the mine site facilities, and will support the development of cross-cultural workshops so that mine personnel can avoid impacting, where possible, identified culturally important gathering areas.</li> <li>• HCMC will continue to work with First Nations to minimize impacts of the Project on identified trails used for hunting and trapping.</li> <li>• HCMC will set up and support an environmental monitoring committee with one representative from each of the four First Nations</li> </ul>	
<b><i>Effects Assessment – Residual Effects</i></b>	
<ul style="list-style-type: none"> <li>• Based on additional consultation, HCMC will further consider the residual effects of the Project on traditional land use, taking into account mitigation and accommodation measures.</li> </ul>	
<b><i>Effects Assessment – Cumulative Effects</i></b>	
<ul style="list-style-type: none"> <li>• Based on additional consultation, HCMC will further consider the cumulative effects of the Project on traditional land use, taking into account mitigation and accommodation measures.</li> </ul>	
<b><i>Additional Consultation</i></b>	
<p>The purpose of the additional consultation is to discuss:</p> <ul style="list-style-type: none"> <li>• past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated;</li> <li>• the potential impacts of the proposed Project on those Aboriginal interests; and</li> <li>• what measures could be used in the proposed Project’s design or operation to avoid, mitigate or otherwise address those potential impacts.</li> </ul>	

**Working Table to Assist in Additional Consultation****8. Access to Traditional Use Sites*****Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Access to Traditional Use Sites, and identification of any additional information

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**8. Access to Traditional Use Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

## ***Appendix 3-H(b)***

*YMI July 20, 2013 Letter to the Adams Lake Indian Band –  
Additional Consultation Measures and Working Tables*

HARPER CREEK PROJECT

**Application for an Environmental Assessment Certificate /  
Environmental Impact Statement**





**YELLOWHEAD  
MINING INC.**

July 10, 2013

Chief Nelson Leon  
Adams Lake Indian Band  
P.O. Box 588, Chase, BC V0E 1M0  
Phone No.: 250-679-8841 ext. 202  
Fax No.: 250-679-8813  
Email: [nleon@alib.ca](mailto:nleon@alib.ca)

Dear Chief Leon,

I am writing in response to the letter dated June 4, 2013 we received July 4, 2013 regarding information to identify potential impacts of the project on interests of the Adams Lake Indian Band.

In October 2011 we offered to provide Adams Lake \$50,000 to collect information on past and current uses in the mine site area, and potential effects of the project on your Aboriginal rights and interests. Since then we have met several times, and continue to ask for the information to help us understand impacts of the project on your Aboriginal Interests.

In April 2013, we signed a Memorandum of Understanding with Adams Lake and provided \$50,000 in capacity funding for Adams Lake to work in collaboration with Simpcw First Nation, participate in the EA process, and provide us with information on potential impacts of the project on your Aboriginal Interests. Although we have tried since 2011 to support the collection and identification of this information, we still have not received any information on potential effects of the project on your Aboriginal interests.

In our letter of May 30, 2013, we requested a meeting with Chief and Council to engage in further consultation, and offered to provide an additional \$25,000 in capacity funding. This letter includes references to a number of documents shared with Adams Lake, including the March Application, the Traditional Land Use & Ecological Knowledge Study prepared by the Simpcw First Nation in August 2012, the Archaeological Impact Assessment of November 2012, and the Socio-Economic Assessment Report of September 2012, that are the foundations for additional consultation.

To further assist with the identification of potential impacts and our proposed mitigation, we prepared a set of eight Working Tables (see attached). The Working Tables address the following issues which have been identified as potential concerns in relation to impacts the Project may have on Aboriginal rights and interests:

Tab 1 – Water and water quality;



**YELLOWHEAD  
MINING INC.**

Tab 2 – Fish and fish habitat;

Tab 3 – Vegetation and plant communities;

Tab 4 – Air quality and noise;

Tab 5 – Environmental impacts on wildlife;

Tab 6 – Cultural and archaeological sites;

Tab 7 – Socio-economic effects; and

Tab 8 – Access to traditional use sites.

Each working table sets out a particular concern raised by Project activities, addresses proposed mitigation measures, summarizes the effects assessment (residual effects and cumulative effects), and provides a space for notes to provide HCMC with additional information and to identify any additional concerns in relation to each of the issues, and suggestions for mitigation and accommodation. Please note that the Working Tables are only summaries of the March Application. They are not necessarily complete summaries, and reference should always be made to the March 2013 Application for full details of assessments and impacts. It should also be noted that as the Application moves through the EA process, proposed mitigation measures may change to address concerns or issues raised.

HCMC hopes that these Working Tables will assist both the Company and the Adams Lake Indian Band in the additional consultation process with a view to identifying potential impacts, and considering reasonable measures for mitigation and accommodation.

We would like to meet with the Chief and Council to understand how the Adams Lake Band is working with Simpcw First Nation, discuss these tables and potential impacts of the project on your Aboriginal Interests. Please let me know what dates in July 2013 would work for you to meet with us.

Best regards,

Charlene Higgins, MSc, PhD

Vice-President Environment, Community & First Nations Relations  
Yellowhead Mining Inc.

CC: Zoltan Fabian, Project Manager CEAA  
Gerry Hamblin, Project Assessment Manager, EAO

Attachment

**HARPER CREEK MINING CORP.  
HARPER CREEK PROJECT**



**ADDITIONAL CONSULTATION WITH THE  
ADAMS LAKE INDIAN BAND**

**JUNE 2013**

## Introduction

On March 28, 2013, Harper Creek Mining Corp. ("HCMC") filed a draft Application (the "March Application") for an Environmental Assessment Certificate and Environmental Impact Statement for the comprehensive study of the proposed Harper Creek Mine Project (the "Project").

HCMC committed to further consultation with First Nations (Section 11.6.5 of the March Application) to further identify:

- Any additional Aboriginal interests which may be potentially adversely affected by the Project, based on traditional use studies and/or other sources of information provided by First Nations within a reasonable time period; and
- Measures to avoid or mitigate the potential adverse effects and/or to otherwise address First Nations concerns.

By letter dated May 16, 2013 (attached as Schedule 1), the Environmental Assessment Office ("EAO") required HCMC to undertake the following additional consultation measures:

1. Prior to submitting the next version of the Application for screening, the Proponent must undertake the following activities:
  - a. Contact Chiefs and Councils of all First Nations with a request for a meeting to discuss: past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; what are the potential impacts of the proposed Project on those Aboriginal interests; and, what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts;
  - b. Develop a revised First Nations consultation plan for Application Review with specific details about First Nations community meetings and opportunities for First Nations to participate during Application Review; and
  - c. Submit a report to the EAO about the meetings that have occurred, the issues that were raised, how those issues will be addressed and the proposed mitigation that will be in the Application and provide a copy of this report to each of the First Nations.

By letter dated May 30, 2013 to the Chief and Council of the Adams Lake Indian Band (attached as Schedule 2), HCMC requested a meeting to engage in further consultation. The letter of May 30, 2013 included a table providing references to a number of documents including the March Application, the Traditional Land Use & Ecological Knowledge Study prepared by the Simpcw First Nation in August 2012, the Archaeological Impact Assessment of November 2012, and the Socio-Economic Assessment Report of September 2012, as foundations for the additional consultation.

To further assist, HCMC has also prepared a set of eight Working Tables to assist in additional consultation.

The Working Tables address the following issues which have been identified as potential concern in relation to impacts the Project may have on Aboriginal rights and interests:

- Tab 1 – Water and water quality;
- Tab 2 – Fish and fish habitat;
- Tab 3 – Vegetation and plant communities;
- Tab 4 – Air quality and noise;
- Tab 5 – Environmental impacts on wildlife;
- Tab 6 – Cultural and archaeological sites;
- Tab 7 – Socio-economic effects; and
- Tab 8 – Access to traditional use sites.

Each working table sets out a particular concern raised by Project activities, addresses proposed mitigation measures, summarizes the effects assessment (residual effects and cumulative effects), and provides a space for notes to provide HCMC with additional information and to identify any additional concerns in relation to each of the issues, and suggestions for mitigation and accommodation. Please note that the Working Tables are only summaries of the March Application. They are not necessarily complete summaries, and reference should always be made to the March 2013 Application for full details of assessments and impacts. It should also be noted that as the Application moves through the EA process, proposed mitigation measures may change to address concerns or issues raised.

HCMC hopes that these Working Tables will assist both the Company and the First Nation in the additional consultation process with a view to identifying potential impacts, and considering reasonable measures for mitigation and accommodation.

<b><u>Working Tables to Assist in Additional Consultation</u></b>
<b>1. <u>Impacts on Water and Water Quality</u></b>
<b><i>Potential concerns raised by Project activities</i></b>
<ul style="list-style-type: none"> <li>• Effects on water flows – Harper Creek, Baker Creek, Jones Creek</li> <li>• Effects on water quality – Harper Creek, Baker Creek, Jones Creek</li> <li>• Effects on groundwater – Baker Creek Watershed</li> </ul>
<b><i>Proposed mitigation measures</i></b>
<ul style="list-style-type: none"> <li>• All four First Nations will be invited to participate on an environmental monitoring committee.</li> <li>• The Water Management Plan will mitigate environmental effects to downstream receiving waters.</li> <li>• Discharges from the TMF to T-Creek, and from the Pit Lake to Baker Creek will be subject to the discharge limits in the <i>Metal Mining Effluent Regulations</i> under the <i>Fisheries Act</i>, and in the Effluent Permit issued by the B.C. Ministry of Environment under the <i>Environmental Management Act</i>, established to protect downstream water quality (see March Application at section 6.6, and see in particular section 6.6.1.3 respecting legislation and water quality guidelines).</li> <li>• The <i>Metal Mining Effluent Regulations</i> also require rigorous Environmental Effects Monitoring (EEM). Proposed monitoring is incorporated into the Aquatic Effects Monitoring Plan (see March Application at section 10.6).</li> <li>• Process water and site runoff from disturbed areas will be collected in the Tailings Management Facility (“TMF”) and recycled as process water during operations.</li> <li>• All mine contact water will be stored in the TMF and/or the Open Pit until the end of mine operations (see March 28, 2013 Application at section 2.10.3.2 (page 2-60)).</li> <li>• Process water will be discharged into the TMF and the Open Pit.</li> <li>• It is a closed system. Water in the TMF and Open Pit will be reclaimed and pumped back to the mill for process water requirements.</li> <li>• Until the end of operations, there will be no discharges of water from the TMF or from the Open Pit.</li> <li>• See Figures 2.10-2, 10-3 and 10-4 in the March Application showing site water management and recycling of contact water during the operations phase.</li> <li>• The water management ponds downstream of the non-PAG low grade ore and non-PAG waste rock stockpile will collect sediment-laden runoff from the waste stockpiles. The water from these ponds will be pumped to the TMF for storage and recycle (although if water quality is suitable then the water could be released to the downstream environment).</li> <li>• The TMF seepage collection pond will collect seepage and sediment-laden runoff which will be pumped to the TMF for storage and recycle (although if water quality is suitable then the water could be released to the downstream</li> </ul>

## Working Tables to Assist in Additional Consultation

### 1. Impacts on Water and Water Quality

environment).

- The lake in the Open Pit will reach a level at which discharge will start in year 30 (see March Application at page 2-65).
- Geochemical work will be ongoing with respect to the quality of the water from the Open Pit. If treatment is required, proven treatment technology is demonstrated and commercially available, and it is expected that there will be further developments in water treatment technology over the next 24 years (see March Application at page 10-46).
- See also the Proposed Mitigation Measures for Water Quality, March Application, section 6.6.6 and Table 6.6-6.

### ***Effects Assessment – Residual Effects***

- See section 6.6 of the March Application and section 6.7.6 (Fish and Fish Habitat) (Water Quality).
- Small effects on stream temperature in Harper Creek (section 6.6.4)
- Water modeling indicates that water treatment will not be required for discharges from the TMF starting in year 30 to T-Creek, flowing into Harper Creek in order to protect downstream water quality. As noted above, discharges must meet the requirements of the *Metal Mining Effluent Regulations* under the *Fisheries Act* and the requirements of an Effluent Permit under the B.C. *Environmental Management Act* which will set discharge limits for the protection of downstream water quality.
- Water treatment for surface water discharge from the Open Pit and Open Pit in situ treatment will be implemented as appropriate for discharges to Baker Creek for the protection of downstream water quality. Again, discharges from the Pit Lake are required to meet the discharge limits of the *Metal Mining Effluent Regulations* under the *Fisheries Act* and the discharge limits specified in an Effluent Permit issued under the B.C. *Environmental Management Act*, for the protection of downstream water quality.
- No significant impacts to water quality in Jones Creek are expected (see March Application at section 6.6.5.4).
- No significant effects on groundwater quality in Baker Creek Watershed are expected (see March Application at section 6.6.5.5 and Table 6.6-6).

### ***Effects Assessment – Cumulative Effects***

- The cumulative effects assessment for water quality has been addressed under the assessments for fish and aquatic habitat, vegetation and wildlife, land, water and resource use, and human health.

**Working Tables to Assist in Additional Consultation****1. Impacts on Water and Water Quality*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential downstream effects on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigation or otherwise address those potential impacts.

***Notes on Additional Consultation*****Review of Information Respecting Potential Impacts on Water and Water Quality****Review of Proposed Mitigation Measures**



**Working Tables to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Tables to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

***Potential concerns raised by Project activities***

- Degradation of water quality resulting from sediment during construction
- Changes to fish habitat resulting from flow reductions during operations
- Stream temperature changes
- Indirect mortality through explosives use
- Loss of aquatic habitat and aquatic life in mine footprint
- Changes in fish passage at the falls on Harper Creek
- Degradation of downstream water quality from mining activities

***Proposed mitigation measures***

See section 6.7.7 of the March Application and Table 6.7-8 within the Report. The Project Water Management Plan should mitigate all of the potential effects on fish and fish habitat. In addition, any disruption of fish habitat will require an authorization (HADD – Harmful Alteration Disruption or Destruction of Fish Habitat) from Fisheries and Oceans Canada.

All process water and mine contact water during operations will be stored in the TMF or the Open Pit until the end of mine operations (see discussion of water quality issues above in Table 1), and will not affect downstream water quality. Any discharges from the Pit Lake or the TMF upon closure will be subject to testing and assessment of water quality, and will be treated as necessary to meet *Metal Mining Effluent Regulations* discharge limits under the *Fisheries Act* and discharge limits until a provincial Effluent Permit issued under the *Environmental Management Act*, with a view to protecting downstream water quality.

Where harmful alteration, disruption or destruction of fish habitat is unavoidable (due to flow reductions in the upper reaches of T-Creek and P-Creek), compensation for loss of such habitat will be required, as provided for in the Fish Compensation Plan (see section 10.7 of the March Application). Five fish habitat compensation plans have been identified for the Project. These options include:

- Option 1 – Improving fish passage by replacing hanging culverts for Jones Creek, Baker Creek and Chuck Creek channel crossings
- Option 2 – Construction of off-channel bull trout rearing habitat on upper Harper Creek
- Option 3 – Construction of off-channel bull trout and coho salmon rearing habitat on middle Harper Creek
- Option 4 – Construction of a groundwater channel for coho salmon rearing and spawning habitat on the Harper Creek fan
- Option 5 – Construction of off-channel coho salmon rearing and spawning habitat on the Barriere River

**Working Tables to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

HCMC will work with the Department of Fisheries and Oceans (DFO) Canada in consultation with First Nations to identify the preferred options.

The main objective of the proposed fish habitat compensation works is to maintain a no-net-loss of the productive capacity of the fish habitat within the Project area. Loss of habitat will be compensated by a ratio of 2:1, therefore requiring HCMC to provide approximately 11,800 m<sup>2</sup> of new fish habitat.

***Effects Assessment – Residual Effects***

See section 6.7.8 of the March Application. A total of seven potential effects have been identified as follows:

- Changes in bull trout passage at the falls on Harper Creek
- Changes to bull trout habitat in T-Creek
- Changes to bull trout habitat in P-Creek
- Changes to bull trout habitat in Harper Creek
- Stream temperature changes in Harper Creek
- Degradation of downstream water quality from mining activities
- Open Pit overflow in Baker Creek

Taking into account mitigation measures, these potential effects have been rated as “not significant” (see March Application at section 6.7.8).

It is anticipated that there will be a loss of fish habitat in two streams: P-Creek and T-Creek. It is estimated that the loss of habitat to these creeks will be approximately 5,900 m<sup>2</sup>, and as noted above, HCMC will be providing approximately 11,800 m<sup>2</sup> of new fish habitat in compensation for this loss.

The habitat compensation plan referred to above will be designed to offset these habitat impacts (see March Application at section 6.7.8).

***Effects Assessment – Cumulative Effects***

See section 6.7.9 of the March Application. It is anticipated that only one of the seven residual effects identified above - stream temperature changes in Harper Creek - has the potential to cumulatively interact with timber harvesting activities.

However, mitigation measures are anticipated to be highly effective (see March Application at Table 6.7-12), and, as a result, this cumulative effect is not anticipated to be significant (see March Application at section 6.7.9.3).

**Working Tables to Assist in Additional Consultation****2. Impacts on Fish and Fish Habitat*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential impacts on past and current fishing rights or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Fish and Fish Habitat

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Potential concerns raised by Project activities***

- Impacts on rare plants
- Impacts on rare and sensitive ecological communities
- Impacts on traditional food plants
- Impacts on medicinal plants

***Proposed mitigation measures***

- Impact avoidance (see March Application at section 6.8.5.1)
  - reduction of certain footprints during design to reduce effects to sensitive locations
  - the footprint located to the west of the Pit was reduced
  - the current north soil stockpile was also reduced
  - where feasible, Project facilities will be placed so as to avoid direct impacts to VC occurrences and high-suitability habitat
  - known VC occurrences located adjacent to construction and operation areas will be clearly flagged to discourage incidental disturbance
  - construction personnel will be required to attend a field-based orientation session stressing avoidance of disturbance in the exclusion areas
  - a spatial database of known rare plant locations in the vicinity of Project facilities will be maintained and consulted to avoid impacts during operations and maintenance activities
- Impact reduction and technical mitigation (see March Application at section 6.8.5.2)
  - section 6.8.5.2 includes a lengthy list of general impact reduction mitigation for the Project to reduce impacts on vegetation as well as wildlife
- Reclamation (see March Application at section 6.8.5.3)
- Proposed monitoring (see March Application at section 6.8.5.4)

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will make best efforts to avoid impacting culturally important gathering areas not directly affected by the mine site footprint, and will support the development of cross cultural workshops to train mine personnel about culturally important plants so that personnel can avoid impacting, where possible, identified culturally important gathering areas.

HCMC will involve those First Nations whose interests are shown to be impacted by the Project in the environmental monitoring program and committee that will be established for the life of the mine, and in the development of reclamation and closure plans.

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Effects Assessment – Residual Effects***

See section 6.8.6.2 of the March Application.

The effect of the Project on Ecological Communities at Risk (“ECAR”) is not expected to be significant (see March Application at Table 6.8-33).

The effects on wetlands within the Local Study Area is considered to be significant locally. However on a regional scale this impact is not expected to be significant. The mine site layout was altered during pre-application to minimize impacts on rare plants and wetlands. Wetland reclamation during closure will aim to create wetlands, where possible, to compensate for losses in wetland habitat (see March Application at Table 6.8.34).

The effect of the Project on old growth forest is not expected to be significant (see March Application at Table 6.8-35).

The Project will result in the loss of Howell’s quillwort occurrences in the Local Study Area. This plant has not been identified as culturally important to First Nations.

In the Traditional Land Use & Ecological Knowledge Study, done by Simpcw First Nation, 57 plants were identified as culturally important to First Nations (Table 11.4-3 in the Application). All species are common throughout BC, and/or introduced, and not of conservation concern. The mine site footprint impacts less than 0.1% of Simpcw traditional territory. Although access to plants within the mine site footprint will be impacted, given the ubiquitous nature of these plants species throughout the territory and BC, the effect of the Project on these culturally important plants is not expected to be significant.

***Effects Assessment – Cumulative Effects***

See section 6.8.7 of the March Application.

Cumulative effects are not expected to be significant.

As noted above, the plant species identified as culturally important to First Nations are common throughout B.C., are not a conservation concern, and any impacts of the Project on these species is not likely to be significant (see March Application at Table 11.4-3, and page 11-109).

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Additional Consultation***

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will continue to work with First Nations throughout the Application review phase to identify traditional use sites, understand adverse effects of the Project, and develop mitigation measures, where possible.

The purpose of the additional consultation is to discuss:

- past and current impacts on gathering or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information on Potential Impacts on Gathering Areas and Culturally Important Plants

Review of Proposed Mitigation Measures



**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

<b><u>Working Tables to Assist in Additional Consultation</u></b>
<b>4. <u>Impacts on Air Quality and Noise</u></b>
<b><i>Potential concerns raised by Project activities</i></b>
<ul style="list-style-type: none"> <li>• Potential impacts on air quality and noise and vibration.</li> </ul>
<b><i>Proposed mitigation measures</i></b>
<p>See section 6.2.5 of the March Application for mitigation measures relating to air quality. HCMC will be implementing mitigation measures to minimize the release of air contaminants and dust deposition. These mitigation measures are listed at Table 6.2-16 in the March Application, and include the following: using construction and mining equipment that meets the latest applicable Canadian emissions standards, ensuring proper equipment maintenance, limiting the idling of vehicles and construction equipment, compacting access roads immediately after construction, minimizing land disturbance, grubbing and clearing activities, using crusher dust control systems and wind breaks, and using dust suppressants and watering along corridors.</p> <p>See section 6.3.4 of the March Application for mitigation measures relating to noise and vibration. HCMC will be implementing mitigation measures to minimize noise and vibration, including the following: ensuring buildings with noisy equipment include acoustic shielding, locating noisy equipment near ground level as opposed to at an elevation to reduce noise transmission, implementation of a no idling policy for mobile equipment and trucks where practical, imposing speed limits on access roads, implementation of controlled blasting procedures in accordance with a pre-established blasting plan, using buffer zones or setbacks for blasting near habitations and sensitive receptor locations.</p>
<b><i>Effects Assessment – Residual Effects</i></b>
<p>See section 6.2.6 of the March Application for residual effects relating to air quality. The Project is not likely to have significant negative residual effects on ambient air quality after the implementation of mitigation measures.</p> <p>See section 6.3.5 of the March Application for mitigation measures relating to noise and vibration. Noise will be highest during the construction phase of the Project, however, the negative residual effect is considered not significant during the construction phase.</p> <p>In addition, it is anticipated that during the operations phase, with mitigation measures the noise effect is considered not significant.</p>

**Working Tables to Assist in Additional Consultation**

**4. Impacts on Air Quality and Noise**

***Effects Assessment – Cumulative Effects***

The cumulative effects on air quality of timber harvesting, the Vavenby Sawmill and the Foghorn Project were assessed, and these interactions were determined to be negligible. It is predicted that the ambient air quality concentrations in the area of these projects will meet required limits for all phases of the Project.

See section 6.3.6.4 of the March Application relating to cumulative effects of noise. Significant residual effects of noise are not expected for the Project.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- impacts on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Air Quality and Noise

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation****4. Impacts on Air Quality and Noise**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

***Potential concerns raised by Project activities***

- Impacts on large mammals
- Impacts on amphibians
- Impacts on migratory birds
- Impacts on raptors
- Impacts on bats

***Proposed mitigation measures (see March Application at section 6.8.5)***

In order to reduce Project effects, three general categories of mitigation will be applied: 1) impact avoidance; 2) impact reduction and technical mitigation; and 3) reclamation.

*Impact avoidance (see March Application at section 6.8.5.1)*

- As part of the Project design to date, the Project footprint was altered to conserve biodiversity and reduce the effect on sensitive habitats
- Where feasible, Project facilities will be placed so as to avoid direct impacts to known habitats
- Known habitats adjacent to construction and operation areas will be clearly flagged to discourage incidental disturbance within the populations, and signage will be added where necessary to indicate the boundaries of the exclusion area
- Construction personnel will be required to attend a field-based orientation session where the exclusion areas will be explained, and the importance of avoiding disturbance within them will be stressed

*Impact reduction and technical mitigation (see March Application at section 6.8.5.2)*

The following is a sample of the mitigation measures. The full list is set out at section 6.8.5.2 of the March Application)

- HCMC will use modified construction and operation methods so as to lessen direct impacts on wildlife where only partial avoidance is feasible, for example:
  - during closure the pit will be designed with at least one gently-sloping area that allows wildlife to escape if they were to fall into the pit
  - rubber-tired instead of tracked equipment will be used where feasible
- Project personnel will minimize the number of vehicles using the road and the number of vehicle trips, wherever possible
- Project construction and maintenance personnel will strictly adhere to safe speed limits at all times to reduce wildlife mortality
- road kill, garbage and other wildlife attractants will be removed promptly from roads and other Project facilities
- dense, unpalatable roadside vegetation will be maintained where possible to provide security cover for wildlife using habitat adjacent to roads and other facilities

## Working Tables to Assist in Additional Consultation

### **5. Environmental Impacts on Wildlife**

- a logbook will be kept to record locations of deer, moose, caribou, bears and wolverine in and around Project facilities and activities, and the Project environmental coordinator will review this data regularly and identify areas of high wildlife incidence, particularly along access roads
- all personnel will be discouraged from hunting or carrying firearms within the Local Study Area
- all personnel will be prohibited from feeding wildlife within the Local Study Area

As well, a number of mitigation measures have been developed which target specific VCs. The following is a summary (the March Application should be referenced for the complete listing).

#### *Rare and Sensitive Ecological Communities*

- wetlands along the HCMC powerline will be clear-spanned (i.e. no towers built within the wetland)
- vehicles (tracked or wheeled) will not be operated within wetlands under the HCMC powerline

#### *Amphibians*

- If vegetation clearing will occur in western toad breeding habitat between April 1 and September 1 (breeding season), surveys will be performed by a Registered Professional Biologist to identify whether breeding has occurred within the habitat and a mitigation plan develop to mitigate against mortalities
- A logbook will be kept to record western toad juvenile migrations in and around Project facilities and activities (including access roads), and the Project environmental coordinator will be informed immediately of the location of any observed toad migration
- If juvenile western toad migrations are observed, mitigation measures will be employed as appropriate to reduce the potential effects on the toad due to traffic, including informing workers at the beginning of their shift of the locations of toad migrations, using signage to indicate toad migration locations, and using amphibian fencing to prevent migrations from crossing Project roads or moving into other active areas
- If an area is identified as a regular toad migration crossing (e.g. active with juvenile toad migrations 3 out of any 4 years) then one or more culverts (depending on the migration size) will be installed along the road and drift fencing installed to funnel toads away from the road surface and into the culvert, in order to maintain population connectivity while reducing mortality risk

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

*Migratory Birds*

- The removal or alteration of buildings within the IDFmw2 will be minimized in order to maintain existing Barn Swallow nesting habitat
- Efforts will be made to do modifications or demolition of buildings outside of the breeding bird season (March 15 – August 15)
- If, during any Project phase, buildings within the IDFmw2 are modified or demolished during the breeding bird season (March 15 – August 15) then a survey of the building for active migratory bird nests will be conducted and appropriate protection buffers placed around the nests until they are no longer active
- Small numbers of Barn Swallows may nest outside of the above-stated breeding bird season; to avoid contravention of the *Migratory Birds Convention Act* and *BC Wildlife Act* workers modifying or demolishing buildings within the IDFmw2 will be aware of regulations concerning disturbance of migratory birds and be able to identify active Barn Swallow nests, and will report all active bird nests to environmental coordinator for the Project

*Raptors*

- To avoid destruction of Bald Eagle nests, which would contravene the *Wildlife Act*, surveys will be performed in suitable habitat prior to construction to identify any of these nests that may occur within 500 m of any Project footprint
- If Bald Eagle nests are located within or adjacent to the Project footprints, an appropriate protective buffer will be employed, as outlined in Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia
- If Project construction directly conflicts with any Bald Eagle nest and the Project cannot be altered to avoid these sites, the Ministry of Environment (MOE) will be consulted regarding steps for reducing impacts, or to determine other acceptable courses of action. This could include additional work windows to avoid disturbance, movement and relocation of the nest during the winter, or other methods deemed appropriate by MOE

*Bats*

- Construction, demolition, renovation and maintenance activities that affect existing buildings and bridges will, whenever possible, be conducted when bats are not anticipated to be using those structures
- A bat biologist will be consulted regarding the timing of bat presence in these structures if any modifications to them are planned

*Large Mammals*

- A Wildlife Management Plan will be developed and instituted during all Project phases, to provide clear procedures for avoiding bear encounters and for handling those that do occur

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

- All observations of nuisance bears will be reported to the Project environmental coordinator, and to the local provincial Conservation Officer
- All personnel will participate in a Safety Program that includes a Bear Aware™ (or similar) training component
- Work sites will be kept clean and free of waste, including safe and secure storage of food, food waste, and human waste. All waste will be disposed of properly through removal from the site, burning or other methods as deemed appropriate while minimizing any animal attractants
- All motor oil, diesel, gas and anti-freeze will be stored in a location that is inaccessible to bears
- Clearing of forested areas will be minimized within critical moose winter range

***Effects Assessment – Residual Effects***

See section 6.8.6 of the March Application. The Project is at a high elevation, where wildlife use is generally less than at lower elevations. Many of the wildlife species are expected to be much more common at low elevations where there is a limited effect by the Project. Grizzly bear, mountain caribou and wolverine are not expected to be affected significantly by the Project. The Local Study Area has been heavily roaded, and impacted by human use, including logging and recreation. This has impacted and decreased potential habitat, and has greatly reduced use by these species of the Local Study Area.

*Residual Effects for Amphibians*

- The residual effect to western toad is characterized as a high magnitude, as a result of a decrease in western toad habitat and increase in mortality due to Project construction. However most of the impacts are within areas without high suitability (high elevations).
- As a result, the effect of the Project on the western toad is not expected to be significant

*Residual Effects for Migratory Birds*

- Given the low quantities of habitat affected, combined with mitigation measures, the effect of the Project on migratory birds is expected to be not significant

*Residual Effects for Raptors*

- Given the low habitat and the disturbance and mortality effects expected, the effect of the Project on the bald eagle is expected to be not significant
- Given the low quantity of suitable habitat affected by the Project, the effect of the Project on the Northern Goshawk is expected to be not significant



**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

*Residual Effects for Bats*

- Given the Project is located at high elevations with lower bat use and that no bat hibernating locations are expected to be affected by the Project, the effect of the Project on bats is expected to be not significant

*Residual Effects for Large Mammals*

- Given the high level of access and forest fragmentation that already exists, it is expected that use of the Local Study Area by fishers will be low, and therefore the effect of the Project on fishers is not expected to be significant
- Given the apparent low use of the Local Study Area by grizzly bears and the expected effectiveness of mitigation for reducing mortality risk, the effect of the Project on grizzly bears is not expected to be significant
- Given the low winter use of higher elevations by moose, the limited effect to critical winter habitat, and the expected effectiveness of mitigation for reducing mortality risk due to traffic and hunting, the effect of the Project on moose is not expected to be significant
- There is a high level of access and forest fragmentation, due to past and current harvesting and recreation. As a consequence potential caribou habitat has been impacted and there is limited use of habitat available within the Local Study Area. Additionally, the mine site area is not being managed for caribou by the province. Given current impacts and uses and the expected low potential of the area for use by caribou, the effect of the Project on mountain caribou is not expected to be significant
- Given the low use of higher elevations by mule deer, the limited effect to critical winter habitat, and the expected effectiveness of mitigation for reducing mortality risk due to traffic and hunting, the effect of the Project on mule deer is not expected to be significant
- Given the level of disturbance and high road densities that already exist, with mitigation as proposed, the effect of the Project on wolverines is not expected to be significant

***Effects Assessment – Cumulative Effects***

See section 6.8.7 of the March Application.

The cumulative effects on all species of wildlife are not expected to be significant.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on hunting, trapping or other Aboriginal interests; and

**Working Tables to Assist in Additional Consultation****5. Environmental Impacts on Wildlife**

- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Wildlife

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

Review Assessment of Potential Effects on First Nations Hunting and Trapping Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

<b><u>Working Tables to Assist in Additional Consultation</u></b>	
<b>6.</b>	<b><u>Impacts on Cultural and Archaeological Sites</u></b>
<b><i>Potential concerns raised by Project activities</i></b>	
<p>Potential impacts to cultural and archaeological sites, and in particular two rock cairns identified in the Archaeological Impact Assessment (“AIA”).</p> <p>The AIA identified two rock cairns. The function of the two rock cairns was not determined during the AIA, and the cairns have been left undisturbed at the request of First Nations.</p>	
<b><i>Proposed mitigation measures</i></b>	
<p>HCMC will develop and articulate to all staff a “chance find protocol” that prescribes the actions to take in the event that a previously unidentified archaeological site is revealed during the construction or operations phase. Any alteration of the two rock cairns must be made under the authority of a <i>Heritage Conservation Act</i>, section 12 Site Alteration Permit. Site avoidance does not appear to be feasible. Therefore, a mitigation strategy to manage or offset the loss of the two cairns identified will be developed in consultation with the Archaeology Branch and First Nations. Prior to disturbance, further assessment of these sites is required to determine the function and association of the cairns as Aboriginal or non-Aboriginal in nature. HCMC will work with First Nations to determine the function of the rock cairns.</p>	
<b><i>Effects Assessment – Residual Effects</i></b>	
<p>Land-altering activities during construction and operations that impact the rock cairn sites will likely result in permanent alteration or loss of both sites. Given the location of the rock cairns in relation to development plans, it is not likely that the destruction of the cairns can be avoided.</p> <p>Other than the two rock cairns, no other heritage objects were identified within the Local Study Area. Due to the intensive pedestrian survey of the area, it is unlikely that unidentified heritage objects will be found during the construction phase. However, if there is a find during construction, all operations in the locality will be immediately suspended until the relevant First Nations and BC Archaeology Branch have been notified.</p>	
<b><i>Effects Assessment – Cumulative Effects</i></b>	
<p>Based on the localized nature of the residual effects and the mitigation measures to be applied, no cumulative adverse effects are likely to result from the proposed project on heritage or cultural resources.</p>	

**Working Tables to Assist in Additional Consultation****6. Impacts on Cultural and Archaeological Sites*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on those Aboriginal interests; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Cultural and Archaeological Sites

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**6. Impacts on Cultural and Archaeological Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Tables to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

***Summary of potential Project interactions with other Aboriginal Interests***

HCMC has carefully considered socio-economic impacts on the Simpcw First Nation, the Adams Lake Indian Band, the Neskonlith Indian Band and the Little Shuswap Indian Band (the "First Nations").

It is expected that the Project will have both positive and potentially adverse effects on reserve populations if members return home to take on job opportunities at the mine. However, given the distance of the communities of Adams Lake, Neskonlith and Little Shuswap, adverse socio-economic effects are unlikely. The following constitutes a list of the potentially adverse effects (see March Application at section 11.5.2):

*Economy and Employment*

- Potential for contracting/business opportunities, employment and training opportunities during all phases of the Project.

*Education and Training*

- Potential for increase in education and training opportunities in relation to employment opportunities at the proposed Project.

*Population and Demographics*

- Potential for increase in on-reserve population as members return to take on employment opportunities. This effect may be negative or positive depending on the ability of the community to absorb the change. Population on reserve may also decrease as a result of out-migration as members move to communities as mine closure approaches and during decommissioning.

*Housing and Accommodation*

- Potential to increase the demand for housing should on-reserve population grow as members return to take on employment opportunities associated with the Project. Project related revenue could also provide members with revenues to support building new homes. Increased demand for housing can have positive and negative effects as discussed below.

*Community Infrastructure*

- Potential increase in demand for community infrastructure should an increase in population on reserve occur as a result of opportunities associated with the Project.

*Language and culture*

- Potential for Project-related employment opportunities and activities to diminish traditional language and culture

## Working Tables to Assist in Additional Consultation

### **7. Socio-Economic Effects on First Nations**

#### *Health and Social Services*

- Potential for increased demands on health and social services on reserve in response to population growth and increased potential for use of drugs and alcohol due to increase in disposable income due to Project-related employment opportunities.

#### ***Proposed mitigation measures***

#### *Economy and Employment*

- The construction and operation of the Harper Creek Project presents contracting, employment and training opportunities for the First Nations. There is an opportunity for First Nations businesses to acquire contracts to provide goods and services to the Project.
- HCMC will inform and ensure the First Nations have an opportunity to be involved in business, employment and training opportunities during construction and operation.
- HCMC will work with members of the First Nations on employment and training opportunities in trades and other technical skills to meet the Project's employment requirements and needs.
- HCMC will make best efforts to preferentially hire First Nations that have the qualifications and skills to fill available positions.
- HCMC will hire a First Nations Coordinator to facilitate and coordinate involvement of the First Nations communities in contracting, employment and training opportunities.
- HCMC will make best efforts to hire First Nations skilled trades workers, and First Nations apprentices, when available.
- HCMC will work with First Nations communities to encourage First Nations students to complete high school or the equivalent.
- HCMC will continue to provide scholarships for local Grades 11 and 12 high school students interest in pursuing advanced education or technical training in fields related to mining.
- HCMC will provide a scholarship of \$1000 annually to one of the First Nations community members for achievements in school.
- HCMC will work with the First Nations on mechanisms to select the candidates for the awards.

#### *Housing and Accommodation*

- HCMC will work with First Nations to monitor and develop appropriate mitigation strategies, if needed, to minimize potential effects on housing, infrastructure and community services.
- HCMC will continue to consult with First Nations during the construction and operations to identify any potential issues related to housing as a result of the Project, and where possible, identify potential options to address these issues.



**Working Tables to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

*Health Services*

- The Project has the potential to increase the demand for health services on reserve. HCMC will provide counselling to its employees as required. Additional health and counselling staff may be required to address First Nations concerns specifically.
- Overall the potential for beneficial and adverse residual effects on community health services are likely as a result of the Project. However, potential residual adverse effects are likely to be avoidable and/or reversible with support from the community and HCMC. As a result, there are not likely to be significant adverse effects from the Project. HCMC has incorporated into its Project design first aid facilities, health and safety policies, and provision for an employee health and wellness benefits program.
- HCMC's alcohol and drug policy will state that the possession or use of alcohol or illegal drugs by HCMC employees and contractors while on HCMC property or engaged in HCMC work will be grounds for immediate dismissal.
- HCMC will establish an Occupational Health and Safety Committee and a fully equipped Mine Rescue Team.
- HCMC will communicate with the Interior Health Authority's responsible authority at Dr. Helmcken Hospital to establish and maintain effective communications for all phases of mine life.

***Effects Assessment – Residual Effects***

See section 11.5.2 of the March Application for a summary of residual socio-economic effects.

The Project will have significant positive effects on regional employment and income, including opportunities for training, employment and business opportunities.

Taking into account HCMC's commitment to maximize First Nations involved in business, and employment opportunities, residual effects are likely positive. The magnitude of the positive effects could be enhanced based on the success of the local hiring objectives. There is unlikely to be significant adverse effects. Of the adverse effects listed above, the only significant adverse socio-economic effect is expected to be the increase in population through in-migration.

**Working Tables to Assist in Additional Consultation****7. Socio-Economic Effects on First Nations*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- the information needed to address gaps and update the socio-economic assessment report prepared for the Adams Lake Indian Band.

***Notes on Additional Consultation***

<b><u>Working Tables to Assist in Additional Consultation</u></b>
<b>8. <u>Access to Traditional Use Sites</u></b>
<b><i>Potential concerns raised by Project activities</i></b>
<ul style="list-style-type: none"> <li>• Reduction in access to culturally important plants for gathering</li> <li>• Potential for reduced access to transportation corridors and associated potential effects on hunting and gathering</li> <li>• Potential for reduced access to traditional use sites</li> </ul>
<b><i>Proposed mitigation measures</i></b>
<ul style="list-style-type: none"> <li>• Based on the Traditional Land Use and Ecological Knowledge Study done by Simpcw First Nation, HCMC will continue to consult with First Nations to avoid, minimize or mitigate traditional land use sites for hunting and gathering purposes.</li> <li>• HCMC will make best efforts to avoid impacting culturally important gathering areas not directly impacted by the mine site facilities, and will support the development of cross-cultural workshops so that mine personnel can avoid impacting, where possible, identified culturally important gathering areas.</li> <li>• HCMC will continue to work with First Nations to minimize impacts of the Project on identified trails used for hunting and trapping.</li> <li>• HCMC will set up and support an environmental monitoring committee with one representative from each of the four First Nations</li> </ul>
<b><i>Effects Assessment – Residual Effects</i></b>
<ul style="list-style-type: none"> <li>• Based on additional consultation, HCMC will further consider the residual effects of the Project on traditional land use, taking into account mitigation and accommodation measures.</li> </ul>
<b><i>Effects Assessment – Cumulative Effects</i></b>
<ul style="list-style-type: none"> <li>• Based on additional consultation, HCMC will further consider the cumulative effects of the Project on traditional land use, taking into account mitigation and accommodation measures.</li> </ul>
<b><i>Additional Consultation</i></b>
<p>The purpose of the additional consultation is to discuss:</p> <ul style="list-style-type: none"> <li>• past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated;</li> <li>• the potential impacts of the proposed Project on those Aboriginal interests; and</li> <li>• what measures could be used in the proposed Project’s design or operation to avoid, mitigate or otherwise address those potential impacts.</li> </ul>

**Working Tables to Assist in Additional Consultation****8. Access to Traditional Use Sites*****Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Access to Traditional Use Sites, and identification of any additional information

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**8. Access to Traditional Use Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

\*END OF DOCUMENT\*

## ***Appendix 3-H(c)***

*YMI June 20, 2013 Additional Consultation and Working Table  
with the Neskonlith Indian Band*

HARPER CREEK PROJECT

**Application for an Environmental Assessment Certificate /  
Environmental Impact Statement**

**HARPER CREEK MINING CORP.  
HARPER CREEK PROJECT**



**ADDITIONAL CONSULTATION WITH THE  
NESKONLITH INDIAN BAND**

**JUNE 20, 2013**

**Working Table to Assist in Additional Consultation****1. Impacts on Water and Water Quality*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential downstream effects on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigation or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Water and Water Quality

Review of Proposed Mitigation Measures



**Working Table to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation****2. Impacts on Fish and Fish Habitat*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential impacts on past and current fishing rights or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Fish and Fish Habitat

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Additional Consultation***

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will continue to work with First Nations throughout the Application review phase to identify traditional use sites, understand adverse effects of the Project, and develop mitigation measures, where possible.

The purpose of the additional consultation is to discuss:

- past and current impacts on gathering or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information on Potential Impacts on Gathering Areas and Culturally Important Plants

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation****4. Impacts on Air Quality and Noise*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- impacts on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Air Quality and Noise

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**4. Impacts on Air Quality and Noise**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation****5. Environmental Impacts on Wildlife*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on hunting, trapping or other Aboriginal interests; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Wildlife

Review of Proposed Mitigation Measures



**Working Table to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

Review Assessment of Potential Effects on First Nations Hunting and Trapping Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation****6. Impacts on Cultural and Archaeological Sites*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on those Aboriginal interests; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Cultural and Archaeological Sites

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**6. Impacts on Cultural and Archaeological Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Table to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- the information needed to address gaps in the socio-economic assessment report prepared for the Neskonlith Indian Band as outlined in the Review Comments and Recommendations Report, October 25, 2012

***Notes on Additional Consultation***

The report will include, but not be limited to (as identified in the Recommendations Report dated October 25, 2012):

- a map of the Douglas Claim showing the overlap with mine site area
- updated population and demographics information, if available
- education and training goals of Neskonlith Indian Band. It would be helpful to include a list of training and skills members have that could then use upgrading or have the skills to fill available jobs
- economy, reference to the Neskonlith 5 year plan
- updated information on health services available to Neskonlith members
- information on protection and emergency services on reserve
- language and culture, customs, values and practices of Neskonlith as Secwepemc

**Working Table to Assist in Additional Consultation**

**8. Access to Traditional Use Sites**

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on those Aboriginal interests; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Access to Traditional Use Sites, and identification of any additional information

Review of Proposed Mitigation Measures

**Working Table to Assist in Additional Consultation**

**8. Access to Traditional Use Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

\*END OF DOCUMENT\*

## *Appendix 3-H(d)*

*YMI July 24, 2013 Letter to the Little Shuswap Indian Band –  
Additional Consultation Measures and Working Tables*

HARPER CREEK PROJECT

**Application for an Environmental Assessment Certificate /  
Environmental Impact Statement**



**YELLOWHEAD**  
MINING INC.

July 24, 2013

Chief Felix Arnouse and Council  
Little Shuswap Indian Band  
Box 1100  
Chase, BC V0E 1E0  
Fax No.: 250-679-3220

Dear Chief Arnouse:

**Re: Additional Consultation Measures**

On May 30, 2013 we sent a letter requesting a meeting with Chief and Council to engage in further consultation, and offered to provide an additional \$25,000 in capacity funding. This letter includes references to a number of documents shared with the Little Shuswap Indian Band including the March Application, the Traditional Land Use & Ecological Knowledge Study prepared by the Simpcw First Nation in August 2012, the Archaeological Impact Assessment of November 2012, and the Socio-Economic Assessment Report of September 2012, that are the foundations for additional consultation.

To further assist with the identification of potential impacts and our proposed mitigation, we prepared a set of eight Working Tables (see attached). The Working Tables address the following issues which have been identified as potential concerns in relation to impacts the Project may have on Aboriginal rights and interests:

- Tab 1 - Water and water quality;
- Tab 2 - Fish and fish habitat;
- Tab 3 - Vegetation and plant communities;
- Tab 4 - Air quality and noise;
- Tab 5 - Environmental impacts on wildlife;
- Tab 6 - Cultural and archaeological sites;
- Tab 7 - Socio-economic effects; and
- Tab 8 - Access to traditional use sites.





**YELLOWHEAD**  
MINING INC.

Each working table sets out a particular concern raised by Project activities, addresses proposed mitigation measures, summarizes the effects assessment (residual effects and cumulative effects), and provides a space for notes to provide HCMC with additional information and to identify any additional concerns in relation to each of the issues, and suggestions for mitigation and accommodation. Please note that the Working Tables are only summaries of the March Application. They are not necessarily complete summaries, and reference should always be made to the March 2013 Application for full details of assessments and impacts. It should also be noted that as the Application moves through the EA process, proposed mitigation measures may change to address concerns or issues raised.

HCMC hopes that these Working Tables will assist both the Company and the Little Shuswap Indian Band in the additional consultation process with a view to identifying potential impacts, and considering reasonable measures for mitigation and accommodation.

We are willing to provide the Little Shuswap Indian Band \$25,000 and would like to meet with the Chief and Council to discuss the EA Application, these Working Tables and deliverables associated with the \$25,000. Please let me know what dates in July or August 2013 would work for you to meet with us.

Yours truly,

*Charlene Higgins*

Charlene Higgins, MSc, PhD  
Vice President, Environment, Community  
& First Nations Relations

CC: Gerry Hamblin, Project Manager, BCEAO  
Zoltan Fabian, Project Manager, CEAA

Attachment

**HARPER CREEK MINING CORP.  
HARPER CREEK PROJECT**



**ADDITIONAL CONSULTATION WITH THE LITTLE  
SHUSWAP INDIAN BAND**

**JULY 24, 2013**

## Introduction

On March 28, 2013, Harper Creek Mining Corp. ("HCMC") filed a draft Application (the "March Application") for an Environmental Assessment Certificate and Environmental Impact Statement for the comprehensive study of the proposed Harper Creek Mine Project (the "Project").

HCMC committed to further consultation with First Nations (Section 11.6.5 of the March Application) to further identify:

- Any additional Aboriginal interests which may be potentially adversely affected by the Project, based on traditional use studies and/or other sources of information provided by First Nations within a reasonable time period; and
- Measures to avoid or mitigate the potential adverse effects and/or to otherwise address First Nations concerns.

By letter dated May 16, 2013 (attached as Schedule 1), the Environmental Assessment Office ("EAO") required HCMC to undertake the following additional consultation measures:

1. Prior to submitting the next version of the Application for screening, the Proponent must undertake the following activities:
  - a. Contact Chiefs and Councils of all First Nations with a request for a meeting to discuss: past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; what are the potential impacts of the proposed Project on those Aboriginal interests; and, what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts;
  - b. Develop a revised First Nations consultation plan for Application Review with specific details about First Nations community meetings and opportunities for First Nations to participate during Application Review; and
  - c. Submit a report to the EAO about the meetings that have occurred, the issues that were raised, how those issues will be addressed and the proposed mitigation that will be in the Application and provide a copy of this report to each of the First Nations.

By letter dated May 30, 2013 to the Chief and Council of the Little Shuswap Indian Band (attached as Schedule 2), HCMC requested a meeting to engage in further consultation. The letter of May 30, 2013 included a table providing references to a number of documents including the March Application, the Traditional Land Use & Ecological Knowledge Study prepared by the Simpcw First Nation in August 2012, the Archaeological Impact Assessment of November 2012, and the Socio-Economic Assessment Report of September 2012, as foundations for the additional consultation.

To further assist, HCMC has also prepared a set of eight Working Tables to assist in additional consultation.

The Working Tables address the following issues which have been identified as potential concern in relation to impacts the Project may have on Aboriginal rights and interests:

- Tab 1 – Water and water quality;
- Tab 2 – Fish and fish habitat;
- Tab 3 – Vegetation and plant communities;
- Tab 4 – Air quality and noise;
- Tab 5 – Environmental impacts on wildlife;
- Tab 6 – Cultural and archaeological sites;
- Tab 7 – Socio-economic effects; and
- Tab 8 – Access to traditional use sites.

Each working table sets out a particular concern raised by Project activities, addresses proposed mitigation measures, summarizes the effects assessment (residual effects and cumulative effects), and provides a space for notes to provide HCMC with additional information and to identify any additional concerns in relation to each of the issues, and suggestions for mitigation and accommodation. Please note that the Working Tables are only summaries of the March Application. They are not necessarily complete summaries, and reference should always be made to the March 2013 Application for full details of assessments and impacts. It should also be noted that as the Application moves through the EA process, proposed mitigation measures may change to address concerns or issues raised.

HCMC hopes that these Working Tables will assist both the Company and the First Nation in the additional consultation process with a view to identifying potential impacts, and considering reasonable measures for mitigation and accommodation.

**Working Tables to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

***Potential concerns raised by Project activities***

- Effects on water flows – Harper Creek, Baker Creek, Jones Creek
- Effects on water quality – Harper Creek, Baker Creek, Jones Creek
- Effects on groundwater – Baker Creek Watershed

***Proposed mitigation measures***

- All four First Nations will be invited to participate on an environmental monitoring committee.
- The Water Management Plan will mitigate environmental effects to downstream receiving waters.
- Discharges from the TMF to T-Creek, and from the Pit Lake to Baker Creek will be subject to the discharge limits in the *Metal Mining Effluent Regulations* under the *Fisheries Act*, and in the Effluent Permit issued by the B.C. Ministry of Environment under the *Environmental Management Act*, established to protect downstream water quality (see March Application at section 6.6, and see in particular section 6.6.1.3 respecting legislation and water quality guidelines).
- The *Metal Mining Effluent Regulations* also require rigorous Environmental Effects Monitoring (EEM). Proposed monitoring is incorporated into the Aquatic Effects Monitoring Plan (see March Application at section 10.6).
- Process water and site runoff from disturbed areas will be collected in the Tailings Management Facility (“TMF”) and recycled as process water during operations.
- All mine contact water will be stored in the TMF and/or the Open Pit until the end of mine operations (see March 28, 2013 Application at section 2.10.3.2 (page 2-60)).
- Process water will be discharged into the TMF and the Open Pit.
- It is a closed system. Water in the TMF and Open Pit will be reclaimed and pumped back to the mill for process water requirements.
- Until the end of operations, there will be no discharges of water from the TMF or from the Open Pit.
- See Figures 2.10-2, 10-3 and 10-4 in the March Application showing site water management and recycling of contact water during the operations phase.
- The water management ponds downstream of the non-PAG low grade ore and non-PAG waste rock stockpile will collect sediment-laden runoff from the waste stockpiles. The water from these ponds will be pumped to the TMF for storage and recycle (although if water quality is suitable then the water could be released to the downstream environment).
- The TMF seepage collection pond will collect seepage and sediment-laden runoff which will be pumped to the TMF for storage and recycle (although if water quality is suitable then the water could be released to the downstream

**Working Tables to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

environment).

- The lake in the Open Pit will reach a level at which discharge will start in year 30 (see March Application at page 2-65).
- Geochemical work will be ongoing with respect to the quality of the water from the Open Pit. If treatment is required, proven treatment technology is demonstrated and commercially available, and it is expected that there will be further developments in water treatment technology over the next 24 years (see March Application at page 10-46).
- See also the Proposed Mitigation Measures for Water Quality, March Application, section 6.6.6 and Table 6.6-6.

***Effects Assessment – Residual Effects***

- See section 6.6 of the March Application and section 6.7.6 (Fish and Fish Habitat) (Water Quality).
- Small effects on stream temperature in Harper Creek (section 6.6.4)
- Water modeling indicates that water treatment will not be required for discharges from the TMF starting in year 30 to T-Creek, flowing into Harper Creek in order to protect downstream water quality. As noted above, discharges must meet the requirements of the *Metal Mining Effluent Regulations* under the *Fisheries Act* and the requirements of an Effluent Permit under the B.C. *Environmental Management Act* which will set discharge limits for the protection of downstream water quality.
- Water treatment for surface water discharge from the Open Pit and Open Pit in situ treatment will be implemented as appropriate for discharges to Baker Creek for the protection of downstream water quality. Again, discharges from the Pit Lake are required to meet the discharge limits of the *Metal Mining Effluent Regulations* under the *Fisheries Act* and the discharge limits specified in an Effluent Permit issued under the B.C. *Environmental Management Act*, for the protection of downstream water quality.
- No significant impacts to water quality in Jones Creek are expected (see March Application at section 6.6.5.4).
- No significant effects on groundwater quality in Baker Creek Watershed are expected (see March Application at section 6.6.5.5 and Table 6.6-6).

***Effects Assessment – Cumulative Effects***

- The cumulative effects assessment for water quality has been addressed under the assessments for fish and aquatic habitat, vegetation and wildlife, land, water and resource use, and human health.

**Working Tables to Assist in Additional Consultation****1. Impacts on Water and Water Quality*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential downstream effects on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigation or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Water and Water Quality

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**1. Impacts on Water and Water Quality**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation



**Working Tables to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

***Potential concerns raised by Project activities***

- Degradation of water quality resulting from sediment during construction
- Changes to fish habitat resulting from flow reductions during operations
- Stream temperature changes
- Indirect mortality through explosives use
- Loss of aquatic habitat and aquatic life in mine footprint
- Changes in fish passage at the falls on Harper Creek
- Degradation of downstream water quality from mining activities

***Proposed mitigation measures***

See section 6.7.7 of the March Application and Table 6.7-8 within the Report. The Project Water Management Plan should mitigate all of the potential effects on fish and fish habitat. In addition, any disruption of fish habitat will require an authorization (HADD – Harmful Alteration Disruption or Destruction of Fish Habitat) from Fisheries and Oceans Canada.

All process water and mine contact water during operations will be stored in the TMF or the Open Pit until the end of mine operations (see discussion of water quality issues above in Table 1), and will not affect downstream water quality. Any discharges from the Pit Lake or the TMF upon closure will be subject to testing and assessment of water quality, and will be treated as necessary to meet *Metal Mining Effluent Regulations* discharge limits under the *Fisheries Act* and discharge limits until a provincial Effluent Permit issued under the *Environmental Management Act*, with a view to protecting downstream water quality.

Where harmful alteration, disruption or destruction of fish habitat is unavoidable (due to flow reductions in the upper reaches of T-Creek and P-Creek), compensation for loss of such habitat will be required, as provided for in the Fish Compensation Plan (see section 10.7 of the March Application). Five fish habitat compensation plans have been identified for the Project. These options include:

- Option 1 – Improving fish passage by replacing hanging culverts for Jones Creek, Baker Creek and Chuck Creek channel crossings
- Option 2 – Construction of off-channel bull trout rearing habitat on upper Harper Creek
- Option 3 – Construction of off-channel bull trout and coho salmon rearing habitat on middle Harper Creek
- Option 4 – Construction of a groundwater channel for coho salmon rearing and spawning habitat on the Harper Creek fan
- Option 5 – Construction of off-channel coho salmon rearing and spawning habitat on the Barriere River

**Working Tables to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

HCMC will work with the Department of Fisheries and Oceans (DFO) Canada in consultation with First Nations to identify the preferred options.

The main objective of the proposed fish habitat compensation works is to maintain a no-net-loss of the productive capacity of the fish habitat within the Project area. Loss of habitat will be compensated by a ratio of 2:1, therefore requiring HCMC to provide approximately 11,800 m<sup>2</sup> of new fish habitat.

***Effects Assessment – Residual Effects***

See section 6.7.8 of the March Application. A total of seven potential effects have been identified as follows:

- Changes in bull trout passage at the falls on Harper Creek
- Changes to bull trout habitat in T-Creek
- Changes to bull trout habitat in P-Creek
- Changes to bull trout habitat in Harper Creek
- Stream temperature changes in Harper Creek
- Degradation of downstream water quality from mining activities
- Open Pit overflow in Baker Creek

Taking into account mitigation measures, these potential effects have been rated as “not significant” (see March Application at section 6.7.8).

It is anticipated that there will be a loss of fish habitat in two streams: P-Creek and T-Creek. It is estimated that the loss of habitat to these creeks will be approximately 5,900 m<sup>2</sup>, and as noted above, HCMC will be providing approximately 11,800 m<sup>2</sup> of new fish habitat in compensation for this loss.

The habitat compensation plan referred to above will be designed to offset these habitat impacts (see March Application at section 6.7.8).

***Effects Assessment – Cumulative Effects***

See section 6.7.9 of the March Application. It is anticipated that only one of the seven residual effects identified above - stream temperature changes in Harper Creek - has the potential to cumulatively interact with timber harvesting activities.

However, mitigation measures are anticipated to be highly effective (see March Application at Table 6.7-12), and, as a result, this cumulative effect is not anticipated to be significant (see March Application at section 6.7.9.3).

**Working Tables to Assist in Additional Consultation****2. Impacts on Fish and Fish Habitat*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- potential impacts on past and current fishing rights or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation*****Review of Information Respecting Potential Impacts on Fish and Fish Habitat****Review of Proposed Mitigation Measures**

**Working Tables to Assist in Additional Consultation**

**2. Impacts on Fish and Fish Habitat**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Potential concerns raised by Project activities***

- Impacts on rare plants
- Impacts on rare and sensitive ecological communities
- Impacts on traditional food plants
- Impacts on medicinal plants

***Proposed mitigation measures***

- Impact avoidance (see March Application at section 6.8.5.1)
  - reduction of certain footprints during design to reduce effects to sensitive locations
  - the footprint located to the west of the Pit was reduced
  - the current north soil stockpile was also reduced
  - where feasible, Project facilities will be placed so as to avoid direct impacts to VC occurrences and high-suitability habitat
  - known VC occurrences located adjacent to construction and operation areas will be clearly flagged to discourage incidental disturbance
  - construction personnel will be required to attend a field-based orientation session stressing avoidance of disturbance in the exclusion areas
  - a spatial database of known rare plant locations in the vicinity of Project facilities will be maintained and consulted to avoid impacts during operations and maintenance activities
- Impact reduction and technical mitigation (see March Application at section 6.8.5.2)
  - section 6.8.5.2 includes a lengthy list of general impact reduction mitigation for the Project to reduce impacts on vegetation as well as wildlife
- Reclamation (see March Application at section 6.8.5.3)
- Proposed monitoring (see March Application at section 6.8.5.4)

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will make best efforts to avoid impacting culturally important gathering areas not directly affected by the mine site footprint, and will support the development of cross cultural workshops to train mine personnel about culturally important plants so that personnel can avoid impacting, where possible, identified culturally important gathering areas.

HCMC will involve those First Nations whose interests are shown to be impacted by the Project in the environmental monitoring program and committee that will be established for the life of the mine, and in the development of reclamation and closure plans.

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Effects Assessment – Residual Effects***

See section 6.8.6.2 of the March Application.

The effect of the Project on Ecological Communities at Risk (“ECAR”) is not expected to be significant (see March Application at Table 6.8-33).

The effects on wetlands within the Local Study Area is considered to be significant locally. However on a regional scale this impact is not expected to be significant. The mine site layout was altered during pre-application to minimize impacts on rare plants and wetlands. Wetland reclamation during closure will aim to create wetlands, where possible, to compensate for losses in wetland habitat (see March Application at Table 6.8.34).

The effect of the Project on old growth forest is not expected to be significant (see March Application at Table 6.8-35).

The Project will result in the loss of Howell’s quillwort occurrences in the Local Study Area. This plant has not been identified as culturally important to First Nations.

In the Traditional Land Use & Ecological Knowledge Study, done by Simpcw First Nation, 57 plants were identified as culturally important to First Nations (Table 11.4-3 in the Application). All species are common throughout BC, and/or introduced, and not of conservation concern. The mine site footprint impacts less than 0.1% of Simpcw traditional territory. Although access to plants within the mine site footprint will be impacted, given the ubiquitous nature of these plants species throughout the territory and BC, the effect of the Project on these culturally important plants is not expected to be significant.

***Effects Assessment – Cumulative Effects***

See section 6.8.7 of the March Application.

Cumulative effects are not expected to be significant.

As noted above, the plant species identified as culturally important to First Nations are common throughout B.C., are not a conservation concern, and any impacts of the Project on these species is not likely to be significant (see March Application at Table 11.4-3, and page 11-109).

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

***Additional Consultation***

HCMC recognizes the importance of culturally important plants, medicines and berries to First Nations. HCMC will continue to work with First Nations throughout the Application review phase to identify traditional use sites, understand adverse effects of the Project, and develop mitigation measures, where possible.

The purpose of the additional consultation is to discuss:

- past and current impacts on gathering or other Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information on Potential Impacts on Gathering Areas and Culturally Important Plants

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**3. Impacts on Vegetation and Plant Communities**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation



<b><u>Working Tables to Assist in Additional Consultation</u></b>
<b>4. <u>Impacts on Air Quality and Noise</u></b>
<b><i>Potential concerns raised by Project activities</i></b>
<ul style="list-style-type: none"> <li>• Potential impacts on air quality and noise and vibration.</li> </ul>
<b><i>Proposed mitigation measures</i></b>
<p>See section 6.2.5 of the March Application for mitigation measures relating to air quality. HCMC will be implementing mitigation measures to minimize the release of air contaminants and dust deposition. These mitigation measures are listed at Table 6.2-16 in the March Application, and include the following: using construction and mining equipment that meets the latest applicable Canadian emissions standards, ensuring proper equipment maintenance, limiting the idling of vehicles and construction equipment, compacting access roads immediately after construction, minimizing land disturbance, grubbing and clearing activities, using crusher dust control systems and wind breaks, and using dust suppressants and watering along corridors.</p> <p>See section 6.3.4 of the March Application for mitigation measures relating to noise and vibration. HCMC will be implementing mitigation measures to minimize noise and vibration, including the following: ensuring buildings with noisy equipment include acoustic shielding, locating noisy equipment near ground level as opposed to at an elevation to reduce noise transmission, implementation of a no idling policy for mobile equipment and trucks where practical, imposing speed limits on access roads, implementation of controlled blasting procedures in accordance with a pre-established blasting plan, using buffer zones or setbacks for blasting near habitations and sensitive receptor locations.</p>
<b><i>Effects Assessment – Residual Effects</i></b>
<p>See section 6.2.6 of the March Application for residual effects relating to air quality. The Project is not likely to have significant negative residual effects on ambient air quality after the implementation of mitigation measures.</p> <p>See section 6.3.5 of the March Application for mitigation measures relating to noise and vibration. Noise will be highest during the construction phase of the Project, however, the negative residual effect is considered not significant during the construction phase.</p> <p>In addition, it is anticipated that during the operations phase, with mitigation measures the noise effect is considered not significant.</p>

**Working Tables to Assist in Additional Consultation**

**4. Impacts on Air Quality and Noise**

***Effects Assessment – Cumulative Effects***

The cumulative effects on air quality of timber harvesting, the Vavenby Sawmill and the Foghorn Project were assessed, and these interactions were determined to be negligible. It is predicted that the ambient air quality concentrations in the area of these projects will meet required limits for all phases of the Project.

See section 6.3.6.4 of the March Application relating to cumulative effects of noise. Significant residual effects of noise are not expected for the Project.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- impacts on past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Air Quality and Noise

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**4. Impacts on Air Quality and Noise**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

***Potential concerns raised by Project activities***

- Impacts on large mammals
- Impacts on amphibians
- Impacts on migratory birds
- Impacts on raptors
- Impacts on bats

***Proposed mitigation measures (see March Application at section 6.8.5)***

In order to reduce Project effects, three general categories of mitigation will be applied: 1) impact avoidance; 2) impact reduction and technical mitigation; and 3) reclamation.

*Impact avoidance (see March Application at section 6.8.5.1)*

- As part of the Project design to date, the Project footprint was altered to conserve biodiversity and reduce the effect on sensitive habitats
- Where feasible, Project facilities will be placed so as to avoid direct impacts to known habitats
- Known habitats adjacent to construction and operation areas will be clearly flagged to discourage incidental disturbance within the populations, and signage will be added where necessary to indicate the boundaries of the exclusion area
- Construction personnel will be required to attend a field-based orientation session where the exclusion areas will be explained, and the importance of avoiding disturbance within them will be stressed

*Impact reduction and technical mitigation (see March Application at section 6.8.5.2)*

The following is a sample of the mitigation measures. The full list is set out at section 6.8.5.2 of the March Application)

- HCMC will use modified construction and operation methods so as to lessen direct impacts on wildlife where only partial avoidance is feasible, for example:
  - during closure the pit will be designed with at least one gently-sloping area that allows wildlife to escape if they were to fall into the pit
  - rubber-tired instead of tracked equipment will be used where feasible
- Project personnel will minimize the number of vehicles using the road and the number of vehicle trips, wherever possible
- Project construction and maintenance personnel will strictly adhere to safe speed limits at all times to reduce wildlife mortality
- road kill, garbage and other wildlife attractants will be removed promptly from roads and other Project facilities
- dense, unpalatable roadside vegetation will be maintained where possible to provide security cover for wildlife using habitat adjacent to roads and other facilities

## Working Tables to Assist in Additional Consultation

### **5. Environmental Impacts on Wildlife**

- a logbook will be kept to record locations of deer, moose, caribou, bears and wolverine in and around Project facilities and activities, and the Project environmental coordinator will review this data regularly and identify areas of high wildlife incidence, particularly along access roads
- all personnel will be discouraged from hunting or carrying firearms within the Local Study Area
- all personnel will be prohibited from feeding wildlife within the Local Study Area

As well, a number of mitigation measures have been developed which target specific VCs. The following is a summary (the March Application should be referenced for the complete listing).

#### *Rare and Sensitive Ecological Communities*

- wetlands along the HCMC powerline will be clear-spanned (i.e. no towers built within the wetland)
- vehicles (tracked or wheeled) will not be operated within wetlands under the HCMC powerline

#### *Amphibians*

- If vegetation clearing will occur in western toad breeding habitat between April 1 and September 1 (breeding season), surveys will be performed by a Registered Professional Biologist to identify whether breeding has occurred within the habitat and a mitigation plan develop to mitigate against mortalities
- A logbook will be kept to record western toad juvenile migrations in and around Project facilities and activities (including access roads), and the Project environmental coordinator will be informed immediately of the location of any observed toad migration
- If juvenile western toad migrations are observed, mitigation measures will be employed as appropriate to reduce the potential effects on the toad due to traffic, including informing workers at the beginning of their shift of the locations of toad migrations, using signage to indicate toad migration locations, and using amphibian fencing to prevent migrations from crossing Project roads or moving into other active areas
- If an area is identified as a regular toad migration crossing (e.g. active with juvenile toad migrations 3 out of any 4 years) then one or more culverts (depending on the migration size) will be installed along the road and drift fencing installed to funnel toads away from the road surface and into the culvert, in order to maintain population connectivity while reducing mortality risk

## Working Tables to Assist in Additional Consultation

### 5. Environmental Impacts on Wildlife

#### *Migratory Birds*

- The removal or alteration of buildings within the IDFmw2 will be minimized in order to maintain existing Barn Swallow nesting habitat
- Efforts will be made to do modifications or demolition of buildings outside of the breeding bird season (March 15 – August 15)
- If, during any Project phase, buildings within the IDFmw2 are modified or demolished during the breeding bird season (March 15 – August 15) then a survey of the building for active migratory bird nests will be conducted and appropriate protection buffers placed around the nests until they are no longer active
- Small numbers of Barn Swallows may nest outside of the above-stated breeding bird season; to avoid contravention of the *Migratory Birds Convention Act* and *BC Wildlife Act* workers modifying or demolishing buildings within the IDFmw2 will be aware of regulations concerning disturbance of migratory birds and be able to identify active Barn Swallow nests, and will report all active bird nests to environmental coordinator for the Project

#### *Raptors*

- To avoid destruction of Bald Eagle nests, which would contravene the *Wildlife Act*, surveys will be performed in suitable habitat prior to construction to identify any of these nests that may occur within 500 m of any Project footprint
- If Bald Eagle nests are located within or adjacent to the Project footprints, an appropriate protective buffer will be employed, as outlined in Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia
- If Project construction directly conflicts with any Bald Eagle nest and the Project cannot be altered to avoid these sites, the Ministry of Environment (MOE) will be consulted regarding steps for reducing impacts, or to determine other acceptable courses of action. This could include additional work windows to avoid disturbance, movement and relocation of the nest during the winter, or other methods deemed appropriate by MOE

#### *Bats*

- Construction, demolition, renovation and maintenance activities that affect existing buildings and bridges will, whenever possible, be conducted when bats are not anticipated to be using those structures
- A bat biologist will be consulted regarding the timing of bat presence in these structures if any modifications to them are planned

#### *Large Mammals*

- A Wildlife Management Plan will be developed and instituted during all Project phases, to provide clear procedures for avoiding bear encounters and for handling those that do occur

## Working Tables to Assist in Additional Consultation

### 5. Environmental Impacts on Wildlife

- All observations of nuisance bears will be reported to the Project environmental coordinator, and to the local provincial Conservation Officer
- All personnel will participate in a Safety Program that includes a Bear Aware™ (or similar) training component
- Work sites will be kept clean and free of waste, including safe and secure storage of food, food waste, and human waste. All waste will be disposed of properly through removal from the site, burning or other methods as deemed appropriate while minimizing any animal attractants
- All motor oil, diesel, gas and anti-freeze will be stored in a location that is inaccessible to bears
- Clearing of forested areas will be minimized within critical moose winter range

### ***Effects Assessment – Residual Effects***

See section 6.8.6 of the March Application. The Project is at a high elevation, where wildlife use is generally less than at lower elevations. Many of the wildlife species are expected to be much more common at low elevations where there is a limited effect by the Project. Grizzly bear, mountain caribou and wolverine are not expected to be affected significantly by the Project. The Local Study Area has been heavily roaded, and impacted by human use, including logging and recreation. This has impacted and decreased potential habitat, and has greatly reduced use by these species of the Local Study Area.

#### *Residual Effects for Amphibians*

- The residual effect to western toad is characterized as a high magnitude, as a result of a decrease in western toad habitat and increase in mortality due to Project construction. However most of the impacts are within areas without high suitability (high elevations).
- As a result, the effect of the Project on the western toad is not expected to be significant

#### *Residual Effects for Migratory Birds*

- Given the low quantities of habitat affected, combined with mitigation measures, the effect of the Project on migratory birds is expected to be not significant

#### *Residual Effects for Raptors*

- Given the low habitat and the disturbance and mortality effects expected, the effect of the Project on the bald eagle is expected to be not significant
- Given the low quantity of suitable habitat affected by the Project, the effect of the Project on the Northern Goshawk is expected to be not significant

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

*Residual Effects for Bats*

- Given the Project is located at high elevations with lower bat use and that no bat hibernating locations are expected to be affected by the Project, the effect of the Project on bats is expected to be not significant

*Residual Effects for Large Mammals*

- Given the high level of access and forest fragmentation that already exists, it is expected that use of the Local Study Area by fishers will be low, and therefore the effect of the Project on fishers is not expected to be significant
- Given the apparent low use of the Local Study Area by grizzly bears and the expected effectiveness of mitigation for reducing mortality risk, the effect of the Project on grizzly bears is not expected to be significant
- Given the low winter use of higher elevations by moose, the limited effect to critical winter habitat, and the expected effectiveness of mitigation for reducing mortality risk due to traffic and hunting, the effect of the Project on moose is not expected to be significant
- There is a high level of access and forest fragmentation, due to past and current harvesting and recreation. As a consequence potential caribou habitat has been impacted and there is limited use of habitat available within the Local Study Area. Additionally, the mine site area is not being managed for caribou by the province. Given current impacts and uses and the expected low potential of the area for use by caribou, the effect of the Project on mountain caribou is not expected to be significant
- Given the low use of higher elevations by mule deer, the limited effect to critical winter habitat, and the expected effectiveness of mitigation for reducing mortality risk due to traffic and hunting, the effect of the Project on mule deer is not expected to be significant
- Given the level of disturbance and high road densities that already exist, with mitigation as proposed, the effect of the Project on wolverines is not expected to be significant

***Effects Assessment – Cumulative Effects***

See section 6.8.7 of the March Application.

The cumulative effects on all species of wildlife are not expected to be significant.

***Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on hunting, trapping or other Aboriginal interests; and



**Working Tables to Assist in Additional Consultation****5. Environmental Impacts on Wildlife**

- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Wildlife

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**5. Environmental Impacts on Wildlife**

Review Assessment of Potential Effects on First Nations Hunting and Trapping Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

<b><u>Working Tables to Assist in Additional Consultation</u></b>	
<b>6.</b>	<b><u>Impacts on Cultural and Archaeological Sites</u></b>
<b><i>Potential concerns raised by Project activities</i></b>	
<p>Potential impacts to cultural and archaeological sites, and in particular two rock cairns identified in the Archaeological Impact Assessment (“AIA”).</p> <p>The AIA identified two rock cairns. The function of the two rock cairns was not determined during the AIA, and the cairns have been left undisturbed at the request of First Nations.</p>	
<b><i>Proposed mitigation measures</i></b>	
<p>HCMC will develop and articulate to all staff a “chance find protocol” that prescribes the actions to take in the event that a previously unidentified archaeological site is revealed during the construction or operations phase. Any alteration of the two rock cairns must be made under the authority of a <i>Heritage Conservation Act</i>, section 12 Site Alteration Permit. Site avoidance does not appear to be feasible. Therefore, a mitigation strategy to manage or offset the loss of the two cairns identified will be developed in consultation with the Archaeology Branch and First Nations. Prior to disturbance, further assessment of these sites is required to determine the function and association of the cairns as Aboriginal or non-Aboriginal in nature. HCMC will work with First Nations to determine the function of the rock cairns.</p>	
<b><i>Effects Assessment – Residual Effects</i></b>	
<p>Land-altering activities during construction and operations that impact the rock cairn sites will likely result in permanent alteration or loss of both sites. Given the location of the rock cairns in relation to development plans, it is not likely that the destruction of the cairns can be avoided.</p> <p>Other than the two rock cairns, no other heritage objects were identified within the Local Study Area. Due to the intensive pedestrian survey of the area, it is unlikely that unidentified heritage objects will be found during the construction phase. However, if there is a find during construction, all operations in the locality will be immediately suspended until the relevant First Nations and BC Archaeology Branch have been notified.</p>	
<b><i>Effects Assessment – Cumulative Effects</i></b>	
<p>Based on the localized nature of the residual effects and the mitigation measures to be applied, no cumulative adverse effects are likely to result from the proposed project on heritage or cultural resources.</p>	

**Working Tables to Assist in Additional Consultation****6. Impacts on Cultural and Archaeological Sites*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- past and current Aboriginal interests in the vicinity of the area in which the proposed Project would be situated;
- the potential impacts of the proposed Project on those Aboriginal interests; and
- what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.

***Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Cultural and Archaeological Sites

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**6. Impacts on Cultural and Archaeological Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation

## Working Tables to Assist in Additional Consultation

### 7. Socio-Economic Effects on First Nations

#### ***Summary of potential Project interactions with other Aboriginal Interests***

HCMC has carefully considered socio-economic impacts on the Simpcw First Nation, the Adams Lake Indian Band, the Neskonlith Indian Band and the Little Shuswap Indian Band (the "First Nations").

It is expected that the Project will have both positive and potentially adverse effects on reserve populations if members return home to take on job opportunities at the mine. However, given the distance of the communities of Adams Lake, Neskonlith and Little Shuswap, adverse socio-economic effects are unlikely. The following constitutes a list of the potentially adverse effects (see March Application at section 11.5.2):

#### *Economy and Employment*

- Potential for contracting/business opportunities, employment and training opportunities during all phases of the Project.

#### *Education and Training*

- Potential for increase in education and training opportunities in relation to employment opportunities at the proposed Project.

#### *Population and Demographics*

- Potential for increase in on-reserve population as members return to take on employment opportunities. This effect may be negative or positive depending on the ability of the community to absorb the change. Population on reserve may also decrease as a result of out-migration as members move to communities as mine closure approaches and during decommissioning.

#### *Housing and Accommodation*

- Potential to increase the demand for housing should on-reserve population grow as members return to take on employment opportunities associated with the Project. Project related revenue could also provide members with revenues to support building new homes. Increased demand for housing can have positive and negative effects as discussed below.

#### *Community Infrastructure*

- Potential increase in demand for community infrastructure should an increase in population on reserve occur as a result of opportunities associated with the Project.

#### *Language and culture*

- Potential for Project-related employment opportunities and activities to diminish traditional language and culture

**Working Tables to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

*Health and Social Services*

- Potential for increased demands on health and social services on reserve in response to population growth and increased potential for use of drugs and alcohol due to increase in disposable income due to Project-related employment opportunities.

***Proposed mitigation measures***

*Economy and Employment*

- The construction and operation of the Harper Creek Project presents contracting, employment and training opportunities for the First Nations. There is an opportunity for First Nations businesses to acquire contracts to provide goods and services to the Project.
- HCMC will inform and ensure the First Nations have an opportunity to be involved in business, employment and training opportunities during construction and operation.
- HCMC will work with members of the First Nations on employment and training opportunities in trades and other technical skills to meet the Project's employment requirements and needs.
- HCMC will make best efforts to preferentially hire First Nations that have the qualifications and skills to fill available positions.
- HCMC will hire a First Nations Coordinator to facilitate and coordinate involvement of the First Nations communities in contracting, employment and training opportunities.
- HCMC will make best efforts to hire First Nations skilled trades workers, and First Nations apprentices, when available.
- HCMC will work with First Nations communities to encourage First Nations students to complete high school or the equivalent.
- HCMC will continue to provide scholarships for local Grades 11 and 12 high school students interest in pursuing advanced education or technical training in fields related to mining.
- HCMC will provide a scholarship of \$1000 annually to one of the First Nations community members for achievements in school.
- HCMC will work with the First Nations on mechanisms to select the candidates for the awards.

*Housing and Accommodation*

- HCMC will work with First Nations to monitor and develop appropriate mitigation strategies, if needed, to minimize potential effects on housing, infrastructure and community services.
- HCMC will continue to consult with First Nations during the construction and operations to identify any potential issues related to housing as a result of the Project, and where possible, identify potential options to address these issues.

**Working Tables to Assist in Additional Consultation**

**7. Socio-Economic Effects on First Nations**

*Health Services*

- The Project has the potential to increase the demand for health services on reserve. HCMC will provide counselling to its employees as required. Additional health and counselling staff may be required to address First Nations concerns specifically.
- Overall the potential for beneficial and adverse residual effects on community health services are likely as a result of the Project. However, potential residual adverse effects are likely to be avoidable and/or reversible with support from the community and HCMC. As a result, there are not likely to be significant adverse effects from the Project. HCMC has incorporated into its Project design first aid facilities, health and safety policies, and provision for an employee health and wellness benefits program.
- HCMC's alcohol and drug policy will state that the possession or use of alcohol or illegal drugs by HCMC employees and contractors while on HCMC property or engaged in HCMC work will be grounds for immediate dismissal.
- HCMC will establish an Occupational Health and Safety Committee and a fully equipped Mine Rescue Team.
- HCMC will communicate with the Interior Health Authority's responsible authority at Dr. Helmcken Hospital to establish and maintain effective communications for all phases of mine life.

***Effects Assessment – Residual Effects***

See section 11.5.2 of the March Application for a summary of residual socio-economic effects.

The Project will have significant positive effects on regional employment and income, including opportunities for training, employment and business opportunities.

Taking into account HCMC's commitment to maximize First Nations involved in business, and employment opportunities, residual effects are likely positive. The magnitude of the positive effects could be enhanced based on the success of the local hiring objectives. There is unlikely to be significant adverse effects. Of the adverse effects listed above, the only significant adverse socio-economic effect is expected to be the increase in population through in-migration.



**Working Tables to Assist in Additional Consultation****7. Socio-Economic Effects on First Nations*****Additional Consultation***

The purpose of the additional consultation is to discuss:

- the information needed to address gaps in the socio-economic assessment report prepared for the Little Shuswap Indian Band

***Notes on Additional Consultation***

<b><u>Working Tables to Assist in Additional Consultation</u></b>	
<b>8.</b>	<b><u>Access to Traditional Use Sites</u></b>
<b><i>Potential concerns raised by Project activities</i></b>	
<ul style="list-style-type: none"> <li>• Reduction in access to culturally important plants for gathering</li> <li>• Potential for reduced access to transportation corridors and associated potential effects on hunting and gathering</li> <li>• Potential for reduced access to traditional use sites</li> </ul>	
<b><i>Proposed mitigation measures</i></b>	
<ul style="list-style-type: none"> <li>• Based on the Traditional Land Use and Ecological Knowledge Study done by Simpcw First Nation, HCMC will continue to consult with First Nations to avoid, minimize or mitigate traditional land use sites for hunting and gathering purposes.</li> <li>• HCMC will make best efforts to avoid impacting culturally important gathering areas not directly impacted by the mine site facilities, and will support the development of cross-cultural workshops so that mine personnel can avoid impacting, where possible, identified culturally important gathering areas.</li> <li>• HCMC will continue to work with First Nations to minimize impacts of the Project on identified trails used for hunting and trapping.</li> <li>• HCMC will set up and support an environmental monitoring committee with one representative from each of the four First Nations</li> </ul>	
<b><i>Effects Assessment – Residual Effects</i></b>	
<ul style="list-style-type: none"> <li>• Based on additional consultation, HCMC will further consider the residual effects of the Project on traditional land use, taking into account mitigation and accommodation measures.</li> </ul>	
<b><i>Effects Assessment – Cumulative Effects</i></b>	
<ul style="list-style-type: none"> <li>• Based on additional consultation, HCMC will further consider the cumulative effects of the Project on traditional land use, taking into account mitigation and accommodation measures.</li> </ul>	
<b><i>Additional Consultation</i></b>	
<p>The purpose of the additional consultation is to discuss:</p> <ul style="list-style-type: none"> <li>• past and current Aboriginal interests in the vicinity of or in relation to the area in which the proposed Project would be situated;</li> <li>• the potential impacts of the proposed Project on those Aboriginal interests; and</li> <li>• what measures could be used in the proposed Project's design or operation to avoid, mitigate or otherwise address those potential impacts.</li> </ul>	

**Working Tables to Assist in Additional Consultation****8. Access to Traditional Use Sites*****Notes on Additional Consultation***

Review of Information Respecting Potential Impacts on Access to Traditional Use Sites, and identification of any additional information

Review of Proposed Mitigation Measures

**Working Tables to Assist in Additional Consultation**

**8. Access to Traditional Use Sites**

Review Assessment of Potential Effects on First Nations Rights and Interests

Consideration of any Additional Mitigation Measures or Accommodation