In the matter of the
ENVIRONMENTAL ASSESSMENT ACT
S.B.C. 2002, c. 43
(Act)

and

in the matter of
Applications
for
Environmental Assessment Certificates
(Applications)

by

The British Columbia Hydro and Power Authority
(Proponent)

for the

Mica Generating Station Unit 5 Project and
Mica Generating Station Unit 6 Project
(proposed Projects)

March 1, 2010

Recommendations of the Executive Director

In accordance with the provisions of section 17(2)(b) of the Environmental Assessment Act, the Executive Director of the Environmental Assessment Office makes the recommendations contained in this submission, for the reasons indicated, in connection with the applications by British Columbia Hydro and Power Authority for Environmental Assessment Certificates for the proposed Mica Generating Station Unit 5 and Mica Generating Station Unit 6 Projects.
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B. BACKGROUND
  1. Proponent and Project Descriptions
  2. British Columbia Environmental Assessment Process
  3. Federal Environmental Assessment Process

C. DISCUSSION
  1. Potential Adverse Effects, Mitigation Measures and Proponent Commitments
  2. First Nations’ Interests
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A. ISSUE

Decision by Ministers on the Applications for Environmental Assessment Certificates by the British Columbia Hydro and Power Authority for the proposed Mica Generating Station Unit 5 (Mica Unit 5) Project and Mica Generating Station Unit 6 (Mica Unit 6) Project.

B. BACKGROUND

1. Proponent and Project Descriptions

The Proponent for the proposed Projects is the British Columbia Hydro and Power Authority (Proponent), a BC Crown corporation that began operations in 1962. BC Hydro’s primary business activities are the generation and distribution of electricity. As one of the largest electric utilities in Canada, BC Hydro serves over 94% of British Columbia’s population. BC Hydro has its head office in Vancouver, BC. The proposed Projects would be wholly owned by the Proponent.

The Proponent is proposing to install two approximately 500 megawatt (MW) turbines into existing turbine bays at the Mica Generating Station, located on the Columbia River about 135 km north of Revelstoke. The proposed Projects would each add approximately 500 MW of installed capacity to the existing generating capacity at the Mica Generation Station, where four turbines currently operate with a generating capacity of 1805 MW. The total generating capacity of Mica Generating Station with the operation of both proposed Projects would be 2805 MW.

A capacitor station would be developed as part of the proposed Mica Unit 5 Project to increase the power transfer capacity of the existing transmission lines that connect the Mica Generating Station to the Nicola Substation. It would be located near the midpoint of the lines (near the community of Seymour Arm) and would be planned, constructed, operated and maintained by the British Columbia Transmission Corporation (BCTC) but wholly owned by the Proponent.
The scope of each proposed Project consists of the following on-site and off-site components and activities:

- A vertical shaft Francis turbine with a runner throat diameter of approximately 5.5 metres and a maximum discharge capacity of approximately 330 cubic metres per second;
- An umbrella type generator, air cooled, with a rated capacity of approximately 500 MV;
- A bank of three single phase 16 kV / 500 kV generator transformers;
- Additional ancillary mechanical and electrical equipment for the turbine, generator and switchgear; and
- Source, transportation and storage of aggregates.

Only the proposed Mica Unit 5 Project would also consist of the following:

- Contractor’s offices, parking and laydown areas, contractor’s concrete batch plant and upgrade of existing warehouse facilities required for the proposed Project;
- Expansion of the existing Mica townsite facilities; and,
- A 500kV capacitor station situated at site 76 along the existing 5L71/72 transmission line corridor which connects the Mica Generating Station to the Nicola Substation.

Only the proposed Mica Unit 6 Project would also consist of the following:

- Use of existing infrastructure including expanded Mica Village facilities, contractor’s office, parking and laydown areas, concrete batch plant and warehouse facilities.

As turbines generally have a 50-year operating life span, the Proponent is not developing plans for decommissioning of the proposed Projects at this time but has committed to meeting applicable legislative requirements at the time of decommissioning.

Estimated economic benefits from the construction and operation periods of the proposed Projects are summarized in the tables below:

<table>
<thead>
<tr>
<th>Economic benefits during the construction period</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Proposed Mica Unit 5 Project</td>
</tr>
<tr>
<td>Generating Unit</td>
</tr>
<tr>
<td>Capacitor Station</td>
</tr>
<tr>
<td>Proposed Mica Unit 6 Project</td>
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<tr>
<td>Generating Unit</td>
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</tbody>
</table>
### Economic benefits during the operations period

<table>
<thead>
<tr>
<th></th>
<th>Annual increase in provincial water rental payment</th>
<th>Annual increase in grants-in-lieu¹</th>
<th>Direct Employment</th>
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</thead>
<tbody>
<tr>
<td><strong>Proposed Mica Unit 5 Project</strong></td>
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<td></td>
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<tr>
<td>Generating Unit</td>
<td>$2.6 million</td>
<td>$280,000</td>
<td>2 permanent positions</td>
</tr>
<tr>
<td><strong>Proposed Mica Unit 6 Project</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generating Unit</td>
<td>$2.2 million</td>
<td>$280,000</td>
<td>2 permanent positions</td>
</tr>
</tbody>
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¹ Paid in lieu of property taxes to the Columbia-Shuswap Regional District, the Regional District of Fraser-Fort George and the Village of Valemount.

The environmental assessments (EA) for the proposed Projects were carried out concurrently. Although the installation of the fifth and sixth units was previously licensed, the Proponent requested to opt in to the EA process to ensure that EAO procedures and timelines would apply to these proposed Projects. The Proponent applied in writing to the Executive Director of Environmental Assessment Office (EAO) on March 4, 2008, requesting that the proposed Projects be designated as reviewable Projects under section 7 of the *Environmental Assessment Act* (Act). These Applications were granted under section 7(3)(a) on March 31, 2008. On April 18, 2008, EAO issued Orders under section 10(1)(c) of the Act stating that the proposed Projects could not proceed without EA Certificates.

In addition to EA Certificates, the Proponent also must apply to the BC Utilities Commission (BCUC) for determinations pursuant to subsection 44.2(3)(a) of the *Utilities Commission Act*. BCUC would determine if it was in the public interest to accept expenditures to move the proposed Projects from the definition phase to the implementation phase. A draft addendum with proposed changes to the Columbia River Water Use Plan would be prepared for submission to the BC Comptroller of Water Rights. With the addition of the proposed Mica Unit 6 Project, the Mica Generating Station would be able to be operated within the limits of its water license diversion of 65,000 cubic feet per second (cfs). However, given that new turbine design allows for a higher diversion, the Proponent has included in the assessment for the proposed Mica Unit 6 Project the effects of a total plant diversion of 68,000 cfs. The Proponent may apply for an additional Water License for the additional 3,000 cfs after the completion of the EA.

If the proposed Projects are issued EA Certificates, a *Utilities Commission Act* determination, and a Columbia River Water Use Plan Addendum, the Proponent stated that it will work towards an operational date of 2014 for the proposed Mica Unit 5 Project and 2015 for the proposed Mica Unit 6 Project.

### 2. British Columbia Environmental Assessment Process

The Proponent submitted Applications for Environmental Assessment Certificates on July 27, 2009 which were evaluated by the Working Group, led by the EAO, and
comprised of the following representatives from provincial agencies, local governments
and First Nations:

**Provincial Agencies**
- Integrated Land Management Bureau
- Ministry of Energy, Mines and Petroleum Resources
- Ministry of Environment

**Local Governments**
- City of Revelstoke
- Columbia-Shuswap Regional District
- Regional District of Fraser-Fort George
- Village of Valemount

**First Nations**
- Adams Lake Indian Band
- ?akisq’?uk First Nation
- Bonaparte Indian Band
- Canim Lake Indian Band
- Canoe Creek Indian Band
- Esketemc First Nation
- High Bar First Nation
- Kamloops Indian Band
- Ktunaxa Nation Council
- Lheidli T’enneh Band
- Little Shuswap Indian Band
- Lower Kootenay Band
- Lower Similkameen Indian Band
- Neskonlith Indian Band
- Northern Shuswap Tribal Council
- Okanagan Indian Band
- Okanagan Nation Alliance
- Osoyoos Indian Band
- Penticton Indian Band
- Shuswap Indian Band
- Shuswap Nation Tribal Council
- Simpcw First Nation
- Skeetchestn Indian Band
- Splats’in First Nation (Spallumcheen Indian Band)
- St. Mary’s Indian Band
- Tobacco Plains Indian Band
- Ts’kw’aylaxw First Nation
- Upper Nicola Band
- Upper Similkameen Indian Band
- Westbank First Nation
- Whispering Pines/Clinton Band
- Williams Lake Indian Band
- Xats’ull First Nation

The Applications were accepted for review on August 26, 2009.

The assessments of the Applications commenced on September 2, 2009.

The assessments of the Applications were completed on March 1, 2010, which is within the 180-day time limit mandated under section 3 of the Prescribed Time Limits Regulation.

Ministers have until April 15, 2010 to make a decision on the Applications, unless extensions are ordered in accordance with section 24(4) of the Act.

3. **Federal Environmental Assessment Process**

The proposal to undertake the Projects did not require assessments under the Canadian Environmental Assessment Act (CEAA). The Proponent initiated discussions with the Canadian Environmental Assessment (CEA) Agency in October, 2007, to determine whether the proposed Projects would trigger federal assessments under
CEAA. The Proponent received communication via the CEA Agency from the following federal agencies indicating that no federal review triggers were identified:

- Environment Canada;
- Fisheries and Oceans Canada;
- Indian and Northern Affairs Canada;
- Industry Canada; and,
- Transport Canada.

Additional discussions occurred with the Major Projects Management Office and Parks Canada. In a letter dated December 1, 2008, the CEA Agency confirmed that no triggers for the completion of environmental assessments pursuant to CEAA were identified for the proposed Projects as described.

C. DISCUSSION

1. Potentially Significant Adverse Effects, Mitigation Measures and Proponent Commitments

The nature and scale of the proposed Projects means that there are important implications for the region and the province in terms of environmental, economic, social, heritage and health considerations. As a result, the assessment processes examined issues across a broad range of areas. The EA focused on assessing specific potential effects on the following:

- Hydrology
- Water quality
- Geophysical environment
- Atmospheric environment
- Fish and aquatic habitat
- Vegetation resources
- Wildlife and terrestrial habitat
- Economy and regional economic benefits, including First Nations employment, income and business opportunities
- Population, demographics and accommodation
- Community/public services, emergency services and facilities
- Traffic
- Land use and Recreation
- Archaeological resources
- Noise
- Public health and safety

Issues and concerns raised during the assessments by the public, First Nations, local governments, and provincial and federal agencies were all considered by EAO. As a result of consultation, Working Group meetings and correspondence, a number of potential adverse effects from the proposed Projects were identified. The key potential effects are identified below, along with a description of the corresponding mitigation measures and proposed commitments which would be undertaken by the Proponent.
<table>
<thead>
<tr>
<th>Key Potential Effects</th>
<th>Mitigation Measure / Other Commitment (Note that all commitments are available in Schedule B of the Certificates)</th>
<th>EAO Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water quality</strong></td>
<td></td>
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<tr>
<td>Potential impacts on water temperature in Kinbasket and</td>
<td>• Assess potential effects on the thermal strata and ecological productivity of Kinbasket and Revelstoke reservoirs through the Columbia WUP Ecological Productivity Study. (Mica 5 and 6 Commitment 9)</td>
<td>Potential impacts are anticipated to be negligible and would be mitigated if required through knowledge gained from monitoring. No significant adverse impact.</td>
</tr>
<tr>
<td>Revelstoke Reservoirs</td>
<td></td>
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<tr>
<td>Potential impacts on total gas pressure in the Mica Dam</td>
<td>• Undertake a Columbia River WUP Total Gas Pressure study of the Mica plant operating record. If significantly greater than historic, confirm that the current Best Management Practices are still applicable. (Mica 5 and 6 Commitment 10)</td>
<td>Potential impacts are anticipated to be negligible and would be mitigated if required through knowledge gained from monitoring. No significant adverse impact.</td>
</tr>
<tr>
<td>Tailrace</td>
<td></td>
<td></td>
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<tr>
<td>Potential impacts on water temperature in the Mica Dam</td>
<td>• Undertake a Mica Dam Tailrace Fish Indexing, Temperature and Habitat Monitoring Program. (Mica 5 and 6 Commitment 11)</td>
<td>Potential impacts are anticipated to be negligible and would be mitigated if required through knowledge gained from monitoring. No significant adverse impact.</td>
</tr>
<tr>
<td>Tailrace</td>
<td></td>
<td></td>
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<tr>
<td><strong>Fish and aquatic habitat</strong></td>
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<tr>
<td>Potential impacts on mountain whitefish</td>
<td>• Undertake a study to verify the finding of a previous survey that the impact of flow fluctuations on mountain whitefish in the Mica Dam Tailrace is negligible. (Mica 5 Commitment 12, Mica 6 Commitment 35)</td>
<td>Potential impacts are anticipated to be negligible and would be mitigated if required through knowledge gained from monitoring. No significant adverse impact.</td>
</tr>
<tr>
<td>Potential impacts on fish habitat in the Mica Dam Tailrace</td>
<td>• Undertake a Mica Dam Tailrace Fish Indexing, Temperature and Habitat Monitoring Program. (Mica 5 and 6 Commitment 11)</td>
<td>Potential impacts are anticipated to be negligible and would be mitigated if required through knowledge gained from monitoring. No significant adverse impact.</td>
</tr>
<tr>
<td>Potential impacts on fish entrainment at Mica Dam</td>
<td>• The Proponent commits to implementing the objectives of the Detailed Assessment Phase (DAP) of the Fish Entrainment Strategy for Mica and Revelstoke. (Mica 5 Commitment 37, Mica 6 Commitment 38)</td>
<td>Potential impacts are anticipated to be negligible and would be mitigated and/or compensated through the Mica-Revelstoke Fish Entrainment Strategy. No significant adverse impact.</td>
</tr>
<tr>
<td><strong>Vegetation resources</strong></td>
<td></td>
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<tr>
<td>Potential impacts of vegetation clearing at the capacitor station</td>
<td>• Maximize use of existing cleared/disturbed areas. (Capacitor station commitment 7) • Minimize the area required to be</td>
<td>Loss of vegetation would be negligible in the greater regional context. No significant adverse impact.</td>
</tr>
<tr>
<td>Potential impacts on rare plants and sensitive habitats</td>
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<tr>
<td>• Fence the riparian buffer (30 m or calculated as per the <em>Riparian Areas Regulation</em>) adjacent to construction areas. (Mica 5 and 6 commitment 5)</td>
<td>Potential effects are anticipated to be negligible and would be mitigated.</td>
<td></td>
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<tr>
<td>• Place signs at sites of high value wildlife and vegetation features. (Mica 5 Commitment 13)</td>
<td>No significant adverse impact.</td>
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<tr>
<td>• Restore the riparian zone in areas on the east side of the Revelstoke Reservoir adjacent to the existing warehouse and concrete batch plant area as required. (Mica 5 Commitment 42, Mica 6 Commitment 31)</td>
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<tr>
<td>• Require that construction areas be re-vegetated with native grasses, shrub and tree species with the long-term objective of achieving a local natural ecosystem. (Mica 5 Commitment 43, Mica 6 Commitment 13)</td>
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<thead>
<tr>
<th>Wildlife and terrestrial habitat</th>
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<tbody>
<tr>
<td>Potential impacts of increased traffic on wildlife</td>
<td>Potential effects are anticipated to be negligible and would be mitigated.</td>
</tr>
<tr>
<td>• Improve signage on Highway 23 to warn drivers of the presence of caribou and other wildlife. Monitor the area used by amphibians for migrating across Highway 23. (Mica 5 Commitments 21, 23, Mica 6 Commitments 16, 37) (Measures to mitigate traffic volume are described below)</td>
<td>No significant adverse impact.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Potential impacts of construction activity and noise on wildlife</th>
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<tbody>
<tr>
<td>• Where possible, schedule vegetation clearing to occur outside the bird breeding season (April 1 to July 31). When this is not possible, conduct a search for bird nests during the breeding/nesting season to confirm the presence/absence of active nests before any clearing activities are undertaken. (Mica 5 Commitment 19, Capacitor station commitment 10, Mica 6 Commitment 27)</td>
<td>Potential effects are anticipated to be negligible and would be mitigated.</td>
</tr>
<tr>
<td>• Construct two raptor nesting platforms away from the construction areas.</td>
<td>No significant adverse impact.</td>
</tr>
<tr>
<td><strong>Economy and regional economic benefits, including First Nations employment, income and business opportunities</strong></td>
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<tr>
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<tr>
<td><strong>Potential for employment and business opportunities for local residents and First Nations people.</strong></td>
<td></td>
</tr>
</tbody>
</table>
| • Employ a number of measures to enhance employment, income and business opportunities associated with proposed Project.  
(Mica 5 Commitments 26-29, 44,  
Mica 6 Commitments 17-19, 30, 38) |
| Positive provincial, regional, local and First Nations economic benefits. |

<table>
<thead>
<tr>
<th><strong>Traffic</strong></th>
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<tbody>
<tr>
<td><strong>Potential impacts of increased traffic on Highway 23</strong></td>
</tr>
</tbody>
</table>
| • Develop an Information Package for construction workers, outlining construction commitments relating to the environment, wildlife, traffic, recreation opportunities and safety.  
(Mica 5 and 6 Commitment 3)  
• Encourage contractors to reduce the number of vehicle trips and bus workers between Revelstoke and Mica townsites.  
(Mica 5 and 6 Commitment 6)  
• Deliver a driver awareness education or information program, to employees to address concerns for both driver and wildlife safety during activities at the Project site.  
(Mica 5 Commitment 35,  
Mica 6 Commitment 25)  
• Provide for an extra RCMP overtime shift each week and advise when there would be higher levels of Project-related traffic.  
(Mica 5 Commitments 33, 34,  
Mica 6 Commitments 23, 24) |
| Potential effects are anticipated to be negligible and would be mitigated.  
No significant adverse impact. |

<table>
<thead>
<tr>
<th><strong>Archaeological resources</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Potential impacts to archaeological resources</strong></td>
</tr>
</tbody>
</table>
| • Carry out an Archaeological Impact Assessment by a qualified professional at the site of any excavations required on previously undisturbed land of medium to high archaeological potential.  
(Mica 5 Commitment 25,  
Capacitor station commitment 11,  
Mica 6 Commitment 29)  
• Consider applicable First Nations’ Heritage Management Policies for future Archaeological work during Mica Unit 5 Project construction.  
(Mica 5 Commitment 38) |
| Potential effects are anticipated to be negligible and would be mitigated.  
No significant adverse impact. |
Based on the analysis in the Assessment Reports and having regard to the mitigation measures, compensation and other commitments made by the Proponent (as listed in the Proponent’s Tables of Commitments which are consolidated in Schedule B of the draft Certificates found under Tab 6 in this binder), the EAO concludes that there would be no significant adverse effects of an environmental, economic, social, heritage or health nature.

2. **First Nations’ Interests (including rights and title)**

The Proponent was directed to consult with the following First Nations and any corresponding tribal councils or associations potentially affected by the proposed Projects, as stated in the procedural Orders issued for the proposed Projects in October 2008 and amended in December 2008 under section 11 and 13 of the Act:

**Ktunaxa Nation Council (KNC)**
- ?akisg’nik First Nation
- Lower Kootenay Band
- St. Mary’s Indian Band
- Tobacco Plains Indian Band

**Okanagan Nation Alliance (ONA)**
- Lower Similkameen Indian Band
- Okanagan Indian Band
- Osoyoos Indian Band
- Penticton Indian Band
- Upper Nicola Band
- Upper Similkameen Indian Band
- Westbank First Nation

**Secwepemc Nation**
- Shuswap Nation Tribal Council (SNTC)
- Adams Lake Indian Band (SNTC)
- Bonaparte Indian Band (SNTC)
- Kamloops Indian Band (SNTC)
- Little Shuswap Indian Band (SNTC)
- Neskonlith Indian Band (SNTC)
- Shuswap Indian Band (SNTC)
- Simpcw First Nation (SNTC)
- Skeetchestn Indian Band (SNTC)
- Splits’in First Nation (SNTC)
- Whispering Pines/Clinton Band (SNTC)

**Independent Band**
- Lheidli-T’enneh Band

In addition to those First Nations and corresponding tribal councils or associations that the Proponent was directed to consult with, EAO also engaged with 7 Secwepemc First Nations and 1 tribal council:

**Secwepemc Nation**
- Northern Shuswap Tribal Council
- Canim Lake Band
- Canoe Creek Indian Band
- Williams Lake Indian Band
- Xats’ull First Nation
- Esketemc First Nation
- High Bar First Nation
- Ts’kw’aylaxw First Nation
Consultation and capacity funding

All 33 First Nations and tribal councils or associations were kept informed and given opportunities to participate and provide feedback throughout the EA process. First Nations who did not engage directly in the EA process were sent all correspondence, meeting invitations, and materials for review and comment.

Throughout the EA process, EAO was willing to meet with First Nations, at their convenience, on a government-to-government basis to discuss the proposed Projects and its potential impacts on asserted aboriginal rights and title, if they believed their concerns should be addressed outside of the Working Group.

The EAO was also open to discussing the provision of capacity funding to assist the First Nations to participate in the EA process. Grant funding was provided to the Okanagan Nation Alliance in fiscal year 2008/09. EAO capacity funding was not available in the last quarter of fiscal year 2008/09 and in fiscal 2009/10, however, any requests for funding were made known to the Proponent which has provided capacity funding.

Two groups of Secwepemc member bands confirmed that they would like to engage separately with EAO, on a government-to-government basis to discuss potential impacts on their aboriginal rights and title outside of the EAO Working Group process. As a result, EAO established two government-to-government consultation tables at the request of the two groups of interested Secwepemc member bands. The two groups are the “Lakes Division”, made up of the Adams Lake, Neskonlith and Little Shuswap Indian Bands, and a group, represented by their legal counsel made up of the Whispering Pines/Clinton Indian Band, Simpcw First Nation, Shuswap Indian Band and Little Shuswap Indian Band. The EAO also clearly indicated it is willing and available to meet with interested communities of the two First Nations groups to provide clarification on the provincial EA process.

Issues and concerns raised by First Nations during the EA process were all considered by EAO and the Proponent. The key issues and concerns raised by First Nations are summarized below. The EAO also shared information, views and positions on matters relating to asserted or established aboriginal rights and the potential for impacts on those rights by the proposed Projects and sought feedback from First Nations.

The KNC, Lakes Division, ONA, and Simpcw First Nation participated directly in the Application reviews by providing comments to EAO and attending working group meetings. The EAO also attempted to maintain contact with all 29 First Nations and four associations throughout the review stage, through letters, phone calls, e-mails, and mail outs/courier.

The Proponent began engaging First Nations in the fall of 2007 with a formal site visit to the Mica Dam and Generating Station for First Nations and interested stakeholders. A Core Committee (with associated Environment and Community Sub-Committees) and Transmission Committee process was initiated by the Proponent in January, 2008, to
consider issues related to the proposed installation and operation of additional generation units at Mica Generating Station as well as the construction of the capacitor station. First Nations that participated in the Core Committee included: Kunaxa Nation Council, Little Shuswap First Nation, Okanagan Nation Alliance, and Splats'in First Nation. The Core Committee process supplemented the Proponent’s consultation efforts with First Nations and Tribal Councils and also provided a forum to integrate interests and input related to water flow management and EA decisions related to potential incremental impacts arising from the proposed Projects, including revisions to the Columbia River Water Use Plan.

The Proponent offered First Nations funding to facilitate the participation of First Nations in meaningful consultation and proposed Project activities. Specifically, each First Nation and tribal council was offered capacity funding to facilitate their participation of technical staff or representative at meetings or to review and provide comments on information material or reports. The Proponent also undertook to meet with all 29 First Nations and four associations to solicit information on those First Nations and their interests in and concerns about the proposed Projects throughout the EA process.

**Key First Nations Concerns**

The following is a summary of the key concerns raised by First Nations throughout the EA process.

**Existing Infrastructure:** One issue raised by a number of First Nations is related to what has been described by First Nations as “past infringements”. First Nations assert that the original construction of the Mica Dam and subsequent flooding of the Kinbasket reservoir constitutes a significant infringement of aboriginal rights and title. The EAO informed these First Nations that claims for damages and other redress in relation to the original construction of the Mica Dam and Kinbasket Reservoir are not part of the potential adverse impacts of the proposed Projects and therefore outside the scope of the EA.

**Adequacy of EA timelines and consultation processes:** Another issue for some First Nations was the assertion that EAO did not provide sufficient time during the Pre-application phase to support a fulsome review and provision of comments on key documents such as the draft section 11 Order and draft Terms of Reference. The EAO provided several opportunities to First Nations to comment on the draft section 11 Order and Terms of Reference. In addition, a detailed timeline schedule was provided to First Nations for the Application Review stage of the EA process so that First Nations had sufficient time to plan to provide comments.

**Federal participation in EA process:** An issue identified by several First Nations was the absence of Fisheries and Oceans Canada in a decision-making role in the EA. It is the position of these First Nations that Fisheries and Oceans Canada must be involved as a decision-making authority in the EA process. Fisheries and Oceans Canada concluded that the proposed Projects would not result in any harmful alteration, disruption or
destruction (HADD) of fish habitat and would not require an authorization under the *Fisheries Act* that would trigger a federal EA through CEAA.

**Fish Entrainment:** First Nations identified concerns related to fish entrainment (fish passing through turbines of the generating units in Mica Dam) and contend that entrainment constitutes a significant infringement on aboriginal rights. The Proponent's Mica-Revelstoke Fish Entrainment Strategy Action Plan (MRFESAP) is intended to address First Nations concerns related to entrainment. The Proponent has written a letter to EAO that outlines the intention to execute all four phases of the MRFESAP as warranted by the results of the process.

**Cumulative impacts:** Some First Nations also called for an expansion of the scope of the EA to require a study of the cumulative impacts of changes to the overall Columbia watershed due to the Proponent’s operations. This request was based on the view that the EA of the incremental impacts of the proposed Projects in isolation from other operations in the Columbia watershed is not adequate to evaluate potential heritage impacts or infringements to aboriginal rights and title. The EAO is of the view that the requirements related to cumulative effects as stated in the Terms of Reference (TOR) were adequately addressed in the Applications.

**Employment opportunities:** Several First Nations expressed concerns relating to limited First Nations involvement in potential economic opportunities and social benefits that would result from the construction and operation of the proposed Projects. The Proponent commits to advertising and informing interested First Nations Bands in the Columbia Region about proposed Project job opportunities and the hiring process in advance of construction, and through contract language, include provisions to support employment, contracting and subcontracting to competitive, qualified First Nations businesses, if available.

Other First Nation issues, corresponding Proponent mitigation measures and commitments, and EAO conclusions, are summarized above in section C, subsection 1.

In addition to the above noted mitigation measures, the Proponent has developed a number of commitments in Schedule B of the Certificates which directly, or indirectly, accommodate issues and concerns raised by First Nations. Key commitments include:

- The Proponent will consider applicable First Nations’ Heritage Management Policies for future archaeological work during the proposed Project’s construction (Mica 5 Commitment 38);
- A registered biologist and the appropriate Shuswap member First Nation will undertake a survey to assess and relocate key rare plants of First Nations food, spiritual, cultural and medicinal use, prior to clearing and preparation as per the construction schedule. BCTC will assess relocated vegetation at one year and report their status (Capacitor station commitment 8);
• The Proponent will provide interested First Nations with an opportunity to review final assessment reports prepared under WUP items included in the Table of Commitments (Mica 5 Commitment 39, Mica 6 Commitment 33);

• The Proponent will send copies of the draft environmental management plan to interested First Nations and offer appropriate funding (Mica 5 and 6 Commitment 2, Capacitor station commitment 1);

• The Proponent will attempt to negotiate and conclude Impact Management and Benefits Agreements with First Nations where supported by specific strength of claim and impact assessments (Mica 5 Commitment 41);

• The Proponent will discuss with applicable First Nations a spiritual ceremony related to construction and/or commissioning of the Project (Mica 5 Commitment 40, Mica 6 Commitment 32);

• During construction of the proposed Project the Proponent will provide the Ministry of Environment and interested First Nations with the bi-weekly environmental reports prepared by the Environmental Monitor (Mica 5 and 6 commitment 7b);

• First Nations will be invited to provide input into reclamation related activities (Mica 5 Commitment 43, Mica 6 Commitment 13);

• The Proponent commits to undertaking future actions appropriate to the severity of the impact should future monitoring programs uncover incremental impacts directly applicable to the proposed Project (Mica 5 and 6 Commitment 8);

• The Proponent will retain Environmental Monitor(s) during construction to inspect, evaluate, and report on compliance with these commitments, requirements set out in the environmental management plan, terms and conditions of environmental regulatory approvals, and provincial best management practices (BMPs). The monitors will have authority to suspend work if terms and conditions of the commitments, BMPs, regulatory approvals and/or applicable legislation are not being met. The BMPs will be discussed with the Ministry of Environment to ensure they are the most current BMPs (Mica 5 and 6 Commitment 7a);

• The Proponent will advertise and inform local employment centers and interested First Nations Bands in the Columbia region about proposed Project job opportunities and the hiring process in advance of proposed Project construction (Mica 5 Commitment 27, Mica 6 Commitment 18);

• The Proponent will undertake a rare plant (red and/or blue listed) field reconnaissance prior to finalizing the relevant Environmental Management Plans (Mica 5 Commitment 20, Mica 6 Commitment 28);
• The Proponent will support employment opportunities provided through the Columbia Hydro Constructors Allied Hydro Council Agreement and First Nations participation in major contracts. (Mica 5 Commitment 44, Mica 6 Commitment 38)

**Separate submission by First Nations**

All First Nations were informed that, if they were not satisfied with the final version of the First Nations Consultation Reports, they may provide separate submissions regarding the proposed Projects. The Ktunaxa Nation and the Secwepemc Nation Lakes Division provided EAO with separate submissions, and this material has been included in the referral material to Ministers. The EAO is of the view that these submissions do not raise any First Nations issues or concerns that have not been already addressed in the Assessment Reports.

**Conclusion**

Having regard to the above, EAO concludes that:

• The process of consultation has been carried out in good faith and that it was appropriate and reasonable in the circumstances;

• EAO, on behalf of the Crown, has made reasonable efforts to inform itself of the impacts the proposed Projects may have on the identified First Nations, and has communicated its findings to the First Nations; and

• The potential for effects on asserted aboriginal rights has been mitigated or otherwise accommodated such that there they will not significantly impact the First Nations rights.

Several First Nations that participated in the EA process disagree with this conclusion. In support of their position they cited concerns regarding constrained timelines, the complexity of information to review, and their belief that their rights and/or title will be significantly impacted by the proposed Projects.

3. **Position of Local Governments**

The City of Revelstoke and the Columbia Shuswap Regional District participated throughout the EA as members of the Working Group. There were no outstanding concerns related to potential adverse effects identified by local officials.

4. **Public Consultation**

The Proponent carried out a program of public consultation during both the Pre-application and Application review stages in local communities that met the requirements of EAO.
The EAO held a 30-day public comment period in the Pre-application stage from October 29, 2008 to November 28, 2008. The open houses were attended by approximately 18 people. No public comments were submitted during the formal public comment period.

The EAO held a 45-day public comment period in the Application Review stage from September 9, 2009 to October 24, 2009. Open houses were held in Seymour Arm on September 14, 2009, Revelstoke on September 15, 2009, Golden on September 16, 2009 and Valemount on September 17, 2009. The open houses were attended by approximately 60 people, and both EAO and the Proponent gave presentations. Three public comments were submitted in the Application review stage for the proposed Projects.

D. CONCLUSIONS

The Environmental Assessment Office is satisfied that:

- the Assessment processes have adequately identified and addressed the potential adverse environmental, economic, social, heritage and health effects of the proposed Projects, having regard to the conditions, the mitigation measures, and the compensation provisions set out in the Schedule to the draft Environmental Assessment Certificates;

- public consultation, and the distribution of information about the proposed Projects, has been adequately carried out by the Proponent;

- the Crown has fulfilled its obligations for consultation and accommodation to First Nations relating to the issuance of Environmental Assessment Certificates for the proposed Projects.
RECOMMENDATION:

The Executive Director recommends that two Environmental Assessment Certificates be issued to the British Columbia Hydro and Power Authority in connection with its applications for the Mica Generating Station Unit 5 Project and Mica Generating Station Unit 6 Project on terms and conditions that require the British Columbia Hydro and Power Authority to comply with all design and mitigation commitments set out in the attachments to the proposed Certificates.

Submitted by:

Robin Jungers
Associate Deputy Minister and
Executive Director
Environmental Assessment Office