

## **APPENDIX B**

# **CASCADE HERITAGE POWER PROJECT SUMMARY OF FIRST NATIONS COMMENTS**



# APPENDIX B – CASCADE HERITAGE POWER PROJECT

## SUMMARY OF FIRST NATIONS COMMENTS

*[prepared by Proponent, submitted to EAO November 4, 2005]*

<b>1. Environmental</b>	
<i>Vegetation</i>	
Use of native species for all re-vegetation	PDI agrees.
Concern with effect of increased foot traffic on existing native vegetation with particular reference to herbal use plants	PDI pointed out that the canyon area will be outside of PDI's control but that we would erect signs urging people to remain on established trails.
Need to rehabilitate excavated material	PDI agrees.
Waste disposal during and after construction	PDI will comply with all applicable regulations.
Noxious weed control	A noxious weed management plan will be included in the Environmental Management Plan (EMP).
Bio-engineering applications recommended for stabilizing slopes	PDI agrees to the extent that such applications are feasible.
Vegetation habitat loss due to footprint	Habitat loss has been evaluated and found to be insignificant due to the small footprint of the project.
Effect of reduced flow in canyon on plant ecology	Moistening of the canyon walls from spray occurs mainly in the freshest season when the amount of water diverted for power generation is the smallest percentage of the total.
Vegetation removal in the riparian zone	The footprint of the project in the riparian zone is very small and PDI will be pleased to discuss plans with the ONA re: treatment of riparian areas disturbed.
<i>Aquatic Species</i>	
Fish stranding due to plant operation	PDI described design and operation features which would prevent stranding.
Speckled dace:	
<ul style="list-style-type: none"> <li>• Monitoring may only document a decline in population</li> <li>• suitability of habitat mitigation</li> <li>• entrainment</li> <li>• inconsistencies and data gaps</li> </ul>	<ul style="list-style-type: none"> <li>• PDI described the philosophy behind the monitoring program.</li> <li>• Suitable mitigation, to be approved by DFO, will be designed if monitoring shows that the species is negatively affected by the project.</li> <li>• Some speckled dace will probably be entrained but not more than are currently lost over the falls.</li> <li>• Data gaps exist and the monitoring program is designed to fill these gaps. The Minister responsible for Environment Canada removed speckled dace from SARA schedules and requested that COSEWIC re-assess its status.</li> </ul>
Listing status	PDI agrees that the conclusion that the original dam did not cause an extinction of speckled dace does not fully take into account recent population and habitat changes.

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<p>The conclusion that the previous dam didn't result in extinction so the new project won't, doesn't consider any other changes that may have occurred in the watershed or to the population over the last century that may make the population less resilient or that may compound the effects of the dam.</p>	<p>However, the original dam did create a head pond from the late 1800's until at least 1988 and that headpond was much greater in size than the proposed headpond. Furthermore, remnants of the original timber crib weir (12.3 m high) were in place until the late 1990's and river hydraulics upstream of the weir were significantly affected. Therefore, PDI believes that it is valid to conclude that the proposed 3.0 m high weir will not cause a significant impact on speckled dace.</p>
<p>Low and high flow sampling and determination of habitat suitability indices (HSI) Duration of minimum flows over the course of a year</p>	<p>PDI abandoned the HSI modeling approach at the request of fishery agencies. A table was prepared by PDI showing that for the calendar year 2004, with the project operating, there would have been prescribed minimum flows through the canyon for 219 days</p>
<p>Additional information on surveys at lowest and highest flows would be useful</p>	<p>The instream flow incremental methodology (IFIM) modeling approach was abandoned at the request of the fishery agencies.</p>
<p>Requests for information on wetted width and flow rates Information on passage of anadromous fish through the falls</p>	<p>PDI provided this information. PDI noted that historically (prior to construction of Grand Coulee Dam) anadromous fish were able to ascend the Kettle River to the Cascade Falls but were unable to pass up through the falls.</p>
<p>Effect of project on angling pressure</p>	<p>Since access to the canyon fishing locations will be unchanged, the project is not expected to increase angling pressure. However, it is possible that increased area visitation created by the museum could produce some additional angling pressure.</p>
<p>Effect of climate change Fish ladder design</p>	<p>PDI described generally anticipated changes and how they might affect fish Designed primarily for trout but other species will use it.</p>
<p>The proposed headpond effect should be compared to normal headpond not to a type of headpond that is not proposed and does not exist.</p>	<p>The intent of stating that the proposed headpond was different from a traditional headpond was to underscore the fact that water in the Cascade headpond will still be flowing and will not be hydraulically similar to a lake.</p>
<p>The response given by PDI regarding climate change impacts did not include the effects on fish in the canyon.</p>	<p>Minimum flows have been established to prevent a negative impact to fish and fish habitat during operation of the Cascade Heritage Power Project and will be required regardless of the effects of climate change.  In addition, the Cascade Heritage Power Project will have no effect on flows within the canyon when the discharge of the Kettle River is less than 9 cubic meters per second (m<sup>3</sup>/s). At flows less than 9 m<sup>3</sup>/s, PDI cannot operate and will therefore not be diverting water out of the canyon.</p>

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<p>Ensure minimum damage to the surrounding area, including monitoring erosion and, if necessary, commissioning necessary mitigation in conjunction with the appropriate government agencies.</p>	<p>Upstream of the project flood levels will be lower with the project in place than under natural conditions because 90 m<sup>3</sup>/s will be diverted through the tunnel rather than going through the canyon, which controls flood levels upstream. Downstream of the project river flows will be the same as in normal conditions.</p>
<p><b>Fishery Compensation</b></p> <p>Use natural methods to backwater the culvert entrance on McCarthy Creek.</p>	<p>PDI agrees.</p>
<p>Restore entire length of McCarthy creek below the culvert</p>	<p>PDI agrees.</p>
<p><b>Water Quality</b></p> <p>Suspended solids</p>	<p>PDI described how the rubber dam would facilitate movement of suspended solids similarly to movements under natural conditions.</p>
<p>Phosphorous levels</p> <p>Water quality monitoring</p>	<p>PDI referred to data in the Additional Information. PDI described the rationale and mechanisms of the monitoring program.</p>
<p><b>Wildlife</b></p> <p>Concern for wildlife trees</p>	<p>Wildlife trees have been tagged and will be retained to the extent possible.</p>
<p><b>Monitoring</b></p> <p>Require that ONA have opportunity to review all monitoring programs and results</p>	<p>PDI agrees.</p>
<p>ONA to provide qualified staff for monitoring</p> <p>Assurance that if monitoring indicates problems that compensation and/or mitigation will take place.</p>	<p>PDI agrees to provide opportunities for employment of qualified ONA personnel. If the proposed mitigation and compensation is not meeting established goals (i.e. no net loss), the monitoring program will document this and additional mitigation, and or compensation, will be implemented as required.</p>
<p>There appears to be a gap in monitoring plan for species at risk and other listed species in the watershed.</p>	<p>Fisheries monitoring, before and after the Project, is proposed. Data will be collected for all fish species sampled during this monitoring program. Monitoring results will be reviewed each year with the ONA and fisheries agencies to determine if immediate action is required.</p>

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<p>Ensure that monitoring of speckled dace takes place before construction starts.</p> <p>This project should not be compared to other larger projects, it should be compared to the present situation.</p>	<p>Monitoring of speckled dace will be conducted before, during, and after construction and during operation.</p> <p>The intent of the monitoring is to compare conditions found during operation of the project with pre-project conditions.</p>
<p><b>Cumulative Effects</b></p> <p>PDI not taking into account the cumulative effects on the surrounding areas.</p>	<p>PDI believes that it has adequately addressed the issue of cumulative effects as set out in the Additional Information, Volume 1, Section 8.0, in Volume 2, Response to Specification #41 and in Volume 3, Appendix 13. With the project's very small footprint, PDI is a small land owner in the area and not accountable for other pressures on the land resource.</p>
<p><b>2. Project Operation</b></p> <p>The ONA would like confirmation that the rubber weir will not be deployed during high water levels that are threatening the flood plains.</p>	<p>PDI confirms that the rubber weir will not be inflated during high flows which might threaten the flood plains. As water flows increase during a flood event the rubber dam will be progressively deflated to maintain the water level upstream of the dam at elevation 483.2 meters until it becomes completely deflated. It will then be maintained in the deflated position until the water level comes back down to elevation 483.2 meters and then gradually inflated as flows drop to continue to maintain the water level at this elevation.</p>
<p><b>3. Water Availability</b></p> <p>Connection between ground water and surface water</p> <p>Unused water licences</p> <p>Effect of climate change</p> <p>Comparison of Ferry County minimum flow standards with Canadian</p>	<p>The Aqua Factor report provides information on this subject.</p> <p>There is little information on actual usage vs. licenced usage.</p> <p>PDI described generally anticipated changes that would affect water availability.</p> <p>The current situation was discussed in meetings with the ONA.</p>
<p><b>4. Economic</b></p> <p>Funding required by ONA to review monitoring reports and final reports before start of construction.</p> <p>Suggested a bond be posted to pay for costs of deactivation and restoration</p>	<p>PDI commits to provision of such funding.</p> <p>PDI explained why this suggestion is not practical or feasible.</p>

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<p>There was a feeling that with the smaller amount of energy that the project will provide the costs outweighed the benefits.</p>	<p>There is a need for new power generation in British Columbia since BC Hydro cannot meet its current domestic load without importing power from neighbouring jurisdictions, most of which is generated by burning fossil fuels. To address this need, BC Hydro will be issuing an Open Call for Power next year and, if the necessary permits are in place, PDI intends to submit a proposal to supply power from the Cascade Project to BC Hydro. The Cascade Project would provide the electrical energy requirements of approximately 8,000 average homes on a completely renewable and emission free basis.</p>
<p>There was much discussion around the privatization of water to a subsidiary of a US based company.</p>	<p>Powerhouse Developments Inc. is a wholly owned subsidiary of Sea Breeze Power Corp., a publicly owned company traded on the Toronto Stock Exchange's TSX Venture Exchange. The company is neither foreign nor private.</p>
<p>Keen interest in identifying employment opportunities for ONA members. For example, qualified members should be employed in environmental monitoring, fishery compensation works, any further archaeological investigations, design and contents of the museum and in staffing the museum</p>	<p>PDI commits to provide opportunities for employment for qualified members of the Okanagan Nation.</p>
<p>Synergies and joint promotion of tourism between Osoyoos Band initiatives and the project with its museum and the surrounding tourist attractions</p>	<p>PDI commits to explore these opportunities further.</p>
<p>Interest was expressed in forms of compensation which would benefit the Okanagan people economically</p>	<p>PDI commits to further discuss such initiatives.</p>
<p>Opportunities for joint development of other renewable energy resources within the Okanagan Nation traditional territory</p>	<p>These options were also discussed with the ONA.</p>
<p><b>5. Archaeological</b> Recommended further archaeological investigations with ONA participation before start of construction</p>	<p>PDI commits to further studies with ONA participation.</p>
<p>All new archaeological information to be made available to Elders</p>	<p>PDI agrees.</p>

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<p><b>6. Cultural/Spiritual</b></p> <p>ONA expects to be fully involved in planning and design of First Nations component of the museum including materials to be displayed in the museum and any stewardship or educational material.</p> <p>Emphasized the difference between First Nations and the “public”</p> <p>Access to the canyon and spiritual sites for Okanagan Nation members and members of the Colville communities to conduct ceremonies</p> <p>Ceremonies and blessings to take place before the start of major construction activities</p> <p>Potential disturbance to spiritual site at downstream end of canyon</p>	<p>PDI commits to such involvement by the ONA.</p> <p>PDI acknowledges and respects this distinction.</p> <p>PDI commits to providing such access, given sufficient notice, to be decided in consultation with the ONA</p> <p>PDI commits to permitting such ceremonies and blessing to proceed. An appropriate period of notice will be decided in consultation with the ONA</p> <p>The new powerhouse will be situated inland from the old powerhouse site so there will be no disturbance to the area at the mouth of the canyon where the spiritual site is located.</p>
<p><b>7. General</b></p> <p>Some felt that the answers to Elder’s questions should be more comprehensive and that the answers provided were too basic.</p> <p>Concerns for larger overarching issues related to the title and rights to water and the land.</p> <p>The group wanted to see clear assurances and commitments that do not have a life span of only ten years or change with ownership of the facility.</p> <p>Need for a Table of Commitments.</p> <p>The ONA looks forward to hearing the comments and responses from the proponent and will share these with the involved community members, elders and leaders. The ONA is pleased to be involved in the process and to have its concerns and issues addressed in a respectful manner that meets the expectation of the EAO in their review process.</p>	<p>PDI apologizes if any of our responses appear to be too basic, and we will be pleased to respond to questions in detail to the extent of which such detail is available.</p> <p>PDI is not in a position to respond to this issue.</p> <p>PDI understands that if the project is approved, the certificate would contain a number of conditions and commitments that the proponent would need to abide by as long as the project operates. If the proponent were to sell the project the certificate would remain in force and would need to be transferred. The new owners would be required to agree to the conditions and commitments of the certificate.”</p> <p>A Table of Commitments follows. It is PDI’s understanding that the Table of Commitments will be written into any approval granted by the Government of British Columbia.</p> <p>Our meetings and exchanges of correspondence have been positive and, in many ways, a learning experience for PDI. We look forward to further discussions and a continuing collaborative relationship.</p>



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<p><b>Archaeological</b></p> <p>Recommended further archaeological investigations with ONA participation before start of construction</p>	<p>PDI has committed as follows:</p> <ul style="list-style-type: none"> <li>▪ to undertake further archaeological studies based on the outcome of consultation with the ONA and their participation, prior to starting construction.</li> <li>▪ to continue consultation with the ONA to define direct participation of First Nations members in field crews and in specific impact management activities (e.g. archaeological monitoring).</li> <li>• In the event disturbance is necessary, all archaeological remains, whether recorded or not, will be managed under HCA permit.</li> <li>• to prepare an Archaeological Monitoring Plan which will comply with all regulations and current codes of practice, and provide a framework for managing possible encounters of previously unidentified archaeological resources during construction, and both site specific and project-wide monitoring requirements. The plan will reflect agreements with the ONA</li> </ul>
<p><b>Cultural and Spiritual</b></p> <p>ONA expects to be fully involved in planning and design of First Nations component of the museum including materials to be displayed in the museum and any stewardship or educational material.</p> <p>Access to the canyon and spiritual sites for Okanagan Nation members and members of the Colville communities to conduct ceremonies</p> <p>Ceremonies and blessings to take place before the start of major construction activities</p>	<p>PDI commits to such involvement by the ONA.</p> <p>PDI commits to providing such access, given sufficient notice, to be decided in consultation with the ONA</p> <p>PDI commits to permitting such ceremonies and blessing to proceed. An appropriate period of notice will be decided in consultation with the ONA.</p>
<p><b>Consultation</b></p> <p>Need for continuing consultation</p>	<p>In order to maintain constructive and open discussion, PDI commits to develop a consultation agreement with the ONA. Topics will include, but are not limited to:</p> <ul style="list-style-type: none"> <li>▪ the frequency and scope of future meetings and commitments;</li> <li>▪ the Access Management Plan and Traffic Management Plan;</li> <li>▪ reports issued as per the Environmental Management Plan and/or environmental monitor;</li> <li>▪ appearance and operation of the visitor centre and museum facilities; and</li> <li>▪ employment and business opportunities.</li> </ul>

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