

**Appendix 4-1 – Owner’s Commitments, Revised, September 28, 2007 (Waneta Hydroelectric Expansion Project, Environmental Assessment Certificate Application, Volume 1, Section 11, Appendix 11A).**

*[The following document was prepared by the Proponent]*

**OWNER'S COMMITMENTS  
Revised, September 28, 2007**

OWNER’S COMMITMENTS -- GENERAL	
1.	During the Application Review Stage of the WEP Environmental Assessment Certificate Application, WEPC will initiate further communications and consultation to explain the environmental impact assessment that has been completed, the mitigation and compensation that will be provided, and to respond to and record final public, stakeholder, First Nation and government agency questions. Commitments of the proponent arising and documented during the EACA Review stage will be honored by WEPC.
2.	WEPC will contractually require its Design-Build Contractor to design and construct, and its O&M Operator to operate, the Project Concept in accordance with the requirements of the Project Environmental Assessment Certificate and any subsequent amendments.
3.	If the design of the Project Concept to be constructed could have materially adverse effects different from the Base Concept analyzed in this EACA, WEPC will submit such information and any additional mitigative measures for review by applicable agencies and possible EAC amendment.
4.	All permits licences and approvals (PLAs) required for WEP construction and/or operation will be acquired and WEPC will require its Design-Build Contractor and its O&M Operator to adhere to those PLAs.
5.	With regard to regulatory and other environmental management responsibilities assigned to the Design-Build Contractor:  (a) The Design-Build Contractor will be required to design and construct the Project Concept in accordance with a detailed statement of WEPC’s Environmental Requirements for Construction (OERC) and which OERC will require compliance with the requirements of the EAC;  (b) The Design-Build Contractor, as required by the OERC, will retain an Environmental Manager, and as necessary supporting staff, and prepare environmental work plans (EWPs) for the review and acceptance by WEPC;  (c) The Design-Build Contractor’s Environmental Manager, as required by the OERC, will be required to provide environmental monitoring of the Design-Build Contractor’s Work for conformance with the OERC;  (d) An independent Project Environmental Monitor retained by WEPC (directly or through its Owner’s Consultant) will monitor generally the performance of the Environmental Manager, will audit the performance of both the Environmental Manager and the Design-Build Contractor, and will provide scheduled reporting to regulatory agencies.
6.	With regard to any regulatory and other environmental management responsibilities assigned to O&M Operators, WEPC will monitor and conduct routine audits of the O&M Operator’s compliance.

7.	If monitoring indicates the project is resulting in any unanticipated and unauthorized harmful alteration, disruption or destruction of fish habitat (HADD), WEPC will work with DFO and others as appropriate to address those impacts.
8.	WEPC will enter into negotiations with private property owners for permanent Statutory Right-of-Ways over private lands for the construction and maintenance of the WEP transmission line, and for temporary access across private lands during construction.
<b>First Nations Relations</b>	
9.	The WEP final Project Concept to be constructed will not preclude the ongoing potential for future fish passage or fish resource use of concern to First Nations.
10.	WEPC will encourage the Design-Build Contractor to explore opportunities for purchasing goods and services from ONA and KNC businesses. The strength of the Design-Build Contractor’s commitments to explore such opportunities will be one of the many factors taken into account in the evaluation and selection of the Design-Build Contractor.
11.	WEPC will work with the KNC and the ONA to identify and assist ONA and KNC candidates willing to receive special training to qualify them for on-site positions and willing to relocate to the project area if new entrant positions can be available under the collective labour agreement.
12.	WEPC will identify KNC and the ONA internal expertise in environmental management and will inform the ONA and KNC of any opportunities to provide environmental monitoring services, which WEPC may contract directly.
13.	WEPC will negotiate and provide project-related community benefits with the ONA and KNC.
14.	<p>WEPC will continue pre- and post-project information sharing and project consultation, including:</p> <ul style="list-style-type: none"> <li>• The regular reports prepared by the Project Environmental Monitor for regulatory agencies upon request will be provided to the KNC and ONA;</li> <li>• Copies of WEP Environmental Work Plans will be made available to appropriate agencies and to the ONA and KNC for their information, if requested;</li> <li>• WEPC will review, consider and respond to any concerns raised by the KNC or the ONA with respect to the adequacy or provisions of any Environmental Work Plans, or arising from regular environmental monitoring reports;</li> <li>• The ONA and KNC will be consulted in the development of the fish compensation program and monitoring program;</li> <li>• The KNC and ONA will be included on the list of recipients for the results of monitoring involving listed species;</li> <li>• The KNC and ONA will be included on the list of recipients for information regarding details of the methodology employed to ensure there are no possible adverse impacts to fish and aquatic habitat from disturbance of the forebay sediments;</li> </ul> <p>WEPC will involve the ONA and KNC in any post-EACA environmental approvals it may seek, which as a condition of approval, require public and/or First Nations consultation.</p>

<b>OWNER’S COMMITMENTS -- SPECIFIC TO CONSTRUCTION</b>	
15.	Specific project commitments pertaining to construction assignments, including but not limited to the acquisition of pertinent construction PLAs, the preparation of Environment Work Plans (EWPs), and the delivery of pertinent construction environmental management and mitigation, will be delegated by WEPC to individual Contractors(s) and provided in an OERC.
16.	WEPC will conduct regularly scheduled compliance audits on the Contractor. Scope of audits will include: a) compliance with environmental legislation; b) compliance with conditions of PLAs (including the EAC); c) compliance with environmental provisions of the contract including the OERC ; and d) compliance with approved EWPs.
17.	WEPC will use all reasonable efforts to have the project constructed under labour conditions which achieve the objectives of the collective labour agreement that presently exists between the Columbia Hydro Constructors (CHC) and the Allied Hydro Council (AHC) and, to the extent permitted by applicable law, to maximize the employment benefits associated with the Waneta Expansion Project to communities in the local area and the Columbia Basin.
18.	The labour conditions for the Project will, to the extent permitted by applicable law, provide for preferential employment of local area people and will establish targets for local area equity hiring and training.
<b>Aquatic Environment</b>	
19.	WEPC will require the Design-Build Contractor to construct the Project without modification of river flows except for safety and/or environmental reasons associated with specific construction activities.
20.	Contaminated forebay sediments will be removed prior to excavation of the WEP intake approach. WEPC will prepare, or require its contractors to prepare, a detailed Contaminated Materials Management EWP for the removal and management of contaminated material from the headpond, in accordance with regulatory requirements to protect fish and aquatic habitat. This work will be monitored throughout.  During powerplant commissioning and initial powerplant operation, WEPC will undertake monitoring to verify that remaining sediments are not being mobilized. If unexpectedly mobilization of contaminated sediment occurs, WEPC will take whatever measures may be required to prevent or mitigate adverse effects.
<b>Terrestrial Environment</b>	
21.	To minimize the potential for wildlife disturbance and roadkill mortality, prior to and during construction, roadkill (with emphasis on herptiles) will be monitored. If monitoring reveals excessive roadkill from project related traffic, WEPC will consult with regulatory agencies, MoT and involved third parties – including First Nations - on appropriate mitigative actions. WEPC will cost share agreed upon mitigation measures with appropriate provincial agencies.

22.	Prior to start of construction, occurrences of listed plant communities in work areas will be surveyed, marked and fenced during the flowering season. To compensate for any material loss of listed plant communities in project Worksites where disturbance is unavoidable, WEPC will establish a program to experimentally transplant listed plants, directly or indirectly, from areas of unavoidable disturbance to a suitable nearby location.
23.	WEPC will monitor use by Lewis’ woodpecker at Worksite A3 and, if warranted, will identify another potentially suitable nearby breeding site that will be enhanced to provide comparable habitat.
24.	In cooperation with other stakeholders, WEPC will develop and/or co-fund cooperative weed control initiatives in areas potentially impacted by project facilities.
25.	Subject to the likelihood and timing of expected Project impacts, specific mitigation activities to reduce WEP construction effects on sensitive species (including ground squirrels, Lewis’s woodpecker and ospreys) will be developed in consultation with regulatory agencies.
26.	<p>WEPC will provide \$50,000 per year over 7 years (to a total of \$350,000) for a Terrestrial Compensation Program to compensate for non-mitigatable terrestrial effects. Suggested optional activities are:</p> <ul style="list-style-type: none"> <li>(a) Participation in listed plant community and species inventory.</li> <li>(b) Participation in local recovery planning and initiatives for listed animal species impacted by WEP.</li> <li>(c) Participation in a wildlife tree creation project to create additional valuable wildlife trees over and above those provided as mitigation for transmission line construction.</li> <li>(d) Enhancement of terrestrial habitats at or near the WEP site.</li> <li>(e) Habitat protection through land acquisition or other means of valuable habitat conservation.</li> </ul> <p>WEPC will seek to have Trail Wildlife Association and First Nations involved in the Terrestrial Compensation Program Steering Committee and to participate in the planning and delivery of WEP program compensation activities.</p>
27.	To minimize potential cumulative impacts on listed species known to be in the area, WEPC will seek the cooperation of other area line operators to schedule their planned transmission line maintenance concurrently with WEP transmission line construction.
28.	Vegetation to be used in site restoration plantings will include plants occurring in the project site area of cultural significance to First Nations and will be chosen in consultation with the First Nations.
29.	WEPC will make information available during all phases of project development to enable local individuals and businesses – including those of the KNC and ONA - to avail themselves of Project-related opportunities.

30.	<p>WEPC will establish a Community Impact Management Committee (CIMC) to review socio-economic impacts, monitor information to help WEPC to meet its objectives, oversee implementation of management measures to address any unforeseen adverse socio-economic project impacts, and provide reports to inform the residents of the region. With respect to CIMC membership:</p> <ul style="list-style-type: none"> <li>• The CIMC will include a representative from the RDKB, as well as other members of the community;</li> <li>• ONA and KNC will be invited to participate on the CIMC;</li> <li>• The Trail Wildlife Association will be invited to participate on the CIMC.</li> </ul>
31.	<p>To monitor project effects on the various elements of the socio-economic environment, WEPC will retain a Socio-economic Monitor who will report to the Community Impact Management Committee.</p>
32.	<p>WEPC will require the Design-Build Contractor to keep track and report on local and First Nations procurement of materials and services during project construction.</p>
33.	<p>WEPC will require the Design-Build Contractor to communicate with local recreational clubs and equipment outlets and post notices in local newspapers to draw attention to increased traffic on Highway 22A during construction.</p>
<b>OWNER’S COMMITMENTS -- SPECIFIC TO OPERATIONS</b>	
34.	<p>WEPC will prepare and implement for WEP an Operations, Maintenance and Surveillance Plan and an Emergency Preparedness Plan (EPP) per requirements of and in accordance with B.C. Dam Safety Regulations.</p>
35.	<p>WEPC will prepare for and respond to Accidents and Malfunctions in accordance with all applicable law, requirements of regulatory agencies, and good industry practice.</p>
36.	<p>WEPC will make the results of monitoring studies involving listed species available to the respective recovery teams and has indicated its willingness to participate in local recovery initiatives for listed species impacted by the project.</p>
37.	<p>If Teck Cominco agrees to make the site available for such use, and if the RDKB agrees to contribute to on-going maintenance, WEPC will establish an information/interpretive centre immediately south of the Waneta bridge.</p>
<b>Aquatic Environment</b>	
38.	<p>WEPC will work cooperatively and coordinate the operation of WEP with the operation of the existing Waneta plant to put in place an enhancement of the existing White Sturgeon Flow Augmentation Program, as identified as WSFAP-PPE in the EACA Supplemental Analysis, or otherwise agreed.</p> <p>WEPC will also participate in any future sturgeon flow discussions initiated with other Pend d’Oreille water licensees, and cooperate in the implementation of any mutually agreed upon changes, or such changes that may be ordered by the Comptroller of Water Rights.</p>

39.	<p>A shallow water fish compensation program will be developed to satisfy the requirements of the project Fisheries Authorization. Program details will be developed and provided in the application for the Fisheries Authorization for approval by DFO. The compensation plan to be submitted will include a habitat balance sheet that demonstrates how the no net loss objective will be achieved.</p> <p>The shallow water habitat monitoring proposal will incorporate the concepts identified below, for inclusion in the Fisheries Authorization application:</p> <ul style="list-style-type: none"> <li>• Water level monitoring of habitats located downstream of the project, as well as the Waneta bar;</li> <li>• Verification of predicted changes to shallow water habitat productivity through application of the Brilliant Expansion Productive Habitat model which will be based on primary (periphyton) and secondary (benthic invertebrates) recovery data from the Columbia River; and,</li> <li>• Monitoring of fish stranding in connection with flow changes, with special consideration for listed species such as Umatilla dace (<i>Rhinichthys umatillus</i>), Columbia mottled sculpin (<i>Cottus hubbsi</i>), and shorthead sculpin (<i>Cottus confusus</i>).</li> </ul>
40.	<p>WEPC will undertake monitoring that may be required to increase the certainty that no Project-related effects will occur to white sturgeon related to flow characteristics associated with passing Boundary flow-through, by implementing a spawning season program to confirm model near-bottom velocity predictions related to actual flows, and by implementing a six year study of the incidence of pre-and post-project egg predation during white sturgeon spawning and incubation. The Terms of Reference for the monitoring will be sent to DFO for approval in consultation with the UCWSRI Technical Working Group and may include a pilot year if it is agreed that there is a need to validate the methodology. If warranted based on statistically significant monitoring results or further scientific research relating to Pend d’Oreille flows and white sturgeon recruitment, WEPC will negotiate and implement specific changes to flow augmentation as required.</p>
41.	<p>A TGP monitoring program will be conducted once WEP becomes operational to verify that WEP does not increase TGP and to obtain data to recalibrate the existing TGP production model, and will keep U.S. stakeholders updated on plans and results through its participation in the Transboundary Gas Group.</p>
<b>Terrestrial Environment</b>	
42.	<p>Vegetation Management Requirements will be developed that incorporate site- and species-specific guidelines into an overall treatment prescription to provide direction to the O&amp;M Operator for the maintenance of the new transmission line.</p>
43.	<p>Vegetation management in chat-occupied and chat-suitable breeding areas will be subject to a special prescription (including exclusion of cattle from chat habitat on WEPC owned lands) until such time that it may be determined and agreed by agencies that chats are no longer using the area, or that special prescriptions are offering no positive benefits for chats.</p>
44.	<p>Annual surveys for chat breeding activity and reproductive success will be continued over the first few years of operation to further identify chat breeding activity. The results will be evaluated to identify effectiveness of chat protection measures.</p>

45.	WEPC will maintain an inventory of listed plant species and communities on the transmission line ROW and will make the data available to the O&M Operator to allow it to implement the provisions of the Vegetation Management Requirements.
46.	WEPC will share monitoring information on listed plant and animal species with other line owners/operators and will seek to coordinate the scheduling of maintenance activities with those owners/operators to minimize cumulative impacts on listed species and their habitats.
47.	Systematic monitoring using visual inspection and photo-monitoring techniques will be conducted to determine the success of the re-vegetation program and the transplanted listed plants.
48.	WEPC will conduct annual inspections during the first three years after the snow melts and take remedial action as required to repair any material erosion or prevent a potential wash out of transmission line access roads. After the first three years, access road condition will be monitored as part of the regular transmission line inspection program.
49.	Wood pole disposal practices of the O&M Operator will be reviewed to verify that they conform to standard industry practices and Environment Canada guidelines for disposal of industrial treated wood.
<b>Follow-up Program</b>	
50.	WEPC will assess the accuracy of the impact assessment predictions for construction of the Project, and evaluate the effectiveness of the mitigative measures to the end of the construction period. WEPC will submit to Fisheries and Oceans Canada and Transport Canada an outline of a follow-up report that incorporates these elements prior to initiating the report, and will complete this report within two years of completion of construction. The outcome of longer-term monitoring for the remaining elements of the construction and operation of the Project including those involving SARA listed species will be reported out separately.
<b>Additional Commitments</b>	
51.	WEPC will include a requirement for measures that exclude sturgeon from the draft tube when a unit is shut down as a power plant design criteria. WEPC will review the proposed measures with DFO as part of the project design review process.