

APPENDIX D – Proponent’s Commitments Table

#	Commitment	Description of Activities	Responsibility	Timing
CONSTRUCTION				
1.	Access Road Corridor	Design criteria, construction plans, and mitigation for the access roads will meet all standards and codes established by all relevant authorities, including the tenuring agency (Integrated Land Management Bureau) and Ministry of Forests and Range, where applicable. Cloudworks has proposed to work with other road permit holders/approving agencies to limit road access to the project areas when possible (e.g. install gates), where approved by agencies.	CLOUDWORKS	Final Design
2.	Archaeological Resources	Prior to approval of construction by MOE-WSD, a detailed Archaeological Impact Assessment (AIA) will be undertaken according to the recommendations of Antiquus Archaeological Consultants and in consultation with the Douglas First Nation. If any sites of archaeological, heritage, or cultural significance are located, Cloudworks primary course of action will be to move project components to avoid these areas.	CLOUDWORKS	Final Design
3.	Archaeological Resources	Cloudworks will commit to providing the information to Parks Canada (via INAC) and will take appropriate measures to address any concerns that might arise.	CLOUDWORKS	Final Design
4.	Blasting	Only the required amount of explosives will be used and protective mats will be required during blasting to reduce noise. When possible, loud construction-related noises such as blasting will be avoided during the breeding bird season (April 1 to July 31). All measures will comply with the <i>Wildlife Act</i> .	CLOUDWORKS	Construction
5.	Bird Nesting	Vegetation clearing will be undertaken in such a manner so as to prevent the contravention of Section 34 of the <i>Wildlife Act</i> . If land clearing is expected to occur between Feb 1 and April 1, a professional biologist will walk the area prior to clearing to determine whether any active raptor nests are in the area of influence of the proposed clearing activities. Wherever possible, land clearing will take place outside of the bird breeding season (April 1 to July 31) to prevent disturbance of birds and their nests. If, for whatever reason, consideration must be given to carrying out land clearing within the bird breeding season, Cloudworks will retain the services of appropriately qualified professionals to undertake nest surveys in accordance with current standards and guidelines.	CLOUDWORKS	Construction

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		Survey results and recommendations should be provided to Cloudworks in the form of a professionally signed and sealed report. It is the responsibility of the proponent to take whatever measures are necessary to avoid contravention of the <i>Wildlife Act</i> .		
6.	Harlequin Duck Nesting Spotted Owl Surveys	<p>When possible, construction activities within 50 m of the stream margin in suitable harlequin duck nesting habitat (i.e. Tipella, and Upper Stave and Northwest Stave diversion areas) will be avoided during the harlequin duck breeding season (April 1 to July 31) to avoid impacts on nesting harlequin ducks. Alternatively, at the discretion of the Environmental Monitor, a harlequin duck nest survey may be undertaken by appropriately qualified professionals in accordance with current standards and guidelines prior to construction activities to determine whether the species is nesting within or immediately adjacent to the construction areas. Survey results and recommendations should be provided to Cloudworks in the form of a professionally signed and sealed report. It is the responsibility of the proponent to take whatever measures are necessary to avoid the contravention of the <i>Wildlife Act</i>.</p> <p>Cloudworks will retain the services of appropriately qualified professionals to conduct spotted owl (goshawk surveys are done) surveys in areas of suitable habitat (Tipella and Upper Fire) once the final route alignment is confirmed. The surveys are to be conducted in accordance with current standards and guidelines and survey results and recommendations should be provided to Cloudworks in the form of a professionally signed and sealed report. It is the responsibility of the proponent to take whatever measures are necessary to avoid contravention of the <i>Wildlife Act</i> and the <i>Species at Risk Act</i>.</p>	CLOUDWORKS	Construction
7.	Commissioning Environmental Work Plan and Emergency Response Plan	To be provided to MOE – WSD for review prior to commissioning.	CLOUDWORKS	Permitting/ Construction
8.	Environmental Management Plan	The draft EMP for construction and reclamation will be finalized and submitted to MOE-WSD, DFO, and ILMB for review prior to approvals under the <i>Fisheries Act</i> .	CLOUDWORKS	Permitting/ Construction
9.	Terrain Stability Analysis	A terrain stability analysis in accordance with current standards and guidelines will be undertaken by appropriately qualified professionals prior to construction	CLOUDWORKS	Permitting/ Construction

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		of the penstock route. Appropriate measures will be taken to address any significant concerns arising from the analysis.		
10.	Environmental Engineer and Environmental Monitor	Cloudworks will obtain the services of an Independent Environmental Monitor and Independent Engineer reporting to the Engineer under the Water Act, acceptable to MOE, Water Stewardship Division prior to Leave to Commence Construction.	CLOUDWORKS	Permitting/ Construction
11.	First Nations	Cloudworks will review the project plans and facility locations with the Douglas First Nation, and develop a plan for access and mitigation if any current traditional uses of land and resources are expected to be interrupted by the project.	CLOUDWORKS	Permitting/ Construction
12.	First Nations	Cloudworks will work with the Douglas First Nation according to the terms of the participation agreement signed April 1, 2006 and any amendments thereafter.	CLOUDWORKS	Final Design and Construction
13.	Operational monitoring of in stream flow measurements	Prior to Water Licensing, Cloudworks will design an operational in stream flow monitoring program to be approved by MOE-WSD in consultation with MOE-ESD. This program will be implemented prior to commencement of operations.	CLOUDWORKS	Permitting/ Construction
14.	Fish & Fish Habitat	Cloudworks will comply with in stream construction fisheries windows for all in stream works unless a variance is approved by DFO and MOE-WSD.	CLOUDWORKS	Permitting/ Construction
15.	Fish & Fish Habitat Monitoring Plan	Cloudworks will design and implement a Fish and Fish Habitat Monitoring plan, approved by DFO and MOE-WSD, in consultation with MOE-ESD, prior to initiating construction. Information and reports related to this plan will be provided to DFO, MOE and the Douglas First Nation annually, unless otherwise agreed.	CLOUDWORKS	Final Design and Construction
16.	Fisheries - Confirmatory Work	Ongoing fisheries work will be reported to DFO and MOE; i.e. detailed final compensation plans, fish presence/absence on Northwest Stave River; finalization of riparian balance for all areas; and finalization of ramping studies.	CLOUDWORKS	Permitting/ Construction
17.	Hunting Pressure	Cloudworks will indicate that it is project policy that crew members avoid hunting in project construction areas, for safety and bear management considerations.	CLOUDWORKS	Construction
18.	Navigation	For the Upper and Northwest Stave facilities and the Tipella Facility reach some further definition of a process to determine kayak-navigable flows will be developed with the WKABC, involving discussion with Transport Canada to arrive at a suitable approval under the <i>Navigable Waters Protection Act</i> prior to construction commencement. Where required under the approval(s), ramping	CLOUDWORKS	Permitting/ Construction

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		regimes will be provided prior to the commencement of operations, and will be included in the Operating Parameters and Procedures requirements.		
19.	Reclamation of Disturbed Areas	Specific reclamation and revegetation plans will be developed for spoil sites and aggregate removal sites. All disturbed areas will be re-planted with a diverse mix of native tree, shrub and herbaceous species appropriate to the site conditions. All re-planting works are to be developed, supervised and monitored by appropriately qualified professionals. Specific reclamation and revegetation plans will be developed for gravel pits, spoil sites, work camps and construction laydown areas. The plans for the specific sites will be incorporated in an overall reclamation plan.	CLOUDWORKS	Construction
20.	Riparian Vegetation	Riparian vegetation clearing will be minimized and will be subject to agreement by DFO.	CLOUDWORKS	Construction
21.	Vegetation Clearing	Vegetation clearing will be minimized, and clearing in old growth areas will be avoided wherever possible and kept to a 15 m maximum right-of-way width as much as possible.	CLOUDWORKS	Construction
22.	Waste Rock Chemistry	Cloudworks commits to visual inspection and screening level ARD/ML which will be carried out by qualified professionals working with the design-build contractor or their consultants. If any ARD materials are to be disposed of on Crown Land, long term tenures and management plans will be obtained from ILMB and all waste permitting requirements will be followed	CLOUDWORKS	Final Design and Construction
23.	Wildlife Impacts - Mountain Goats	Best efforts will be made to avoid disturbance of mountain goats by helicopters in documented Goat Winter Range areas. Helicopter operators will be instructed to avoid flying within 500 m of Goat Winter Range boundaries from October 31 - May 1.	CLOUDWORKS	Construction

24.	Wildlife Impacts - Mountain Goats	Best efforts will be made to avoid disturbance of mountain goats by construction activities in the Goat Winter Range (GWR) near the Lamont Creek powerhouse, Cloudworks will restrict blasting within 500 meters of the GWR boundary during the period of Oct 31 – May 1. The Independent Environmental Monitor will direct spotting for mountain goats in the adjacent winter range at the start of each period of outdoor construction activity during severe weather conditions. The spotting person or persons must be trained by a professional biologist. The Environmental Monitor will have authority to prevent work from proceeding, if deemed necessary to prevent harmful disturbance of mountain goats on the GWR.	CLOUDWORKS	Construction
25.	Wildlife Impacts - Nuisance Bears	Crews will participate in a Bear Aware training program, and will be instructed to refrain from feeding bears. Construction sites and work camps will be managed to ensure that all bear attractants are appropriately managed and handled.	CLOUDWORKS	Construction
26.	Wildlife and Vegetation - Confirmatory Studies	During development of detailed design, Cloudworks will confirm the location of identified Carex Fen wetlands in relation to the Upper Stave camp/laydown area and transmission line route. Adverse effects on these areas will be avoided as much as possible by moving project components or mitigating potential effects. The results of this investigation will be reported to MOE-WSD.	CLOUDWORKS	Permitting/ Construction
OPERATION				
27.	Annual Monitoring Program	An annual report on environmental monitoring in the format required by the approving agencies will be submitted to DFO and MOE (WSD and ESD) reporting on the results of the past years' and cumulative year's monitoring program. Harlequin duck monitoring is to commence in the first full year of operations. Adaptive management will be implemented based on the results of the monitoring program	CLOUDWORKS	Operations
28.	Annual Operating Report	To be provided to MOE-WSD in the form requested, to be confirmed prior to submission of the Operating Parameters and Procedures Report.	CLOUDWORKS	Operations

29.	Capital Replacement Notification and Approval	To be submitted to relevant agencies if major equipment or project components are replaced.		Project Life
30.	Controlled road access during operation	Cloudworks will work to achieve agreement with other road permit holders/approving agencies and the Douglas First Nation to restrict public road access to the project areas as much as possible (e.g. install gates), where approved by agencies.	CLOUDWORKS	Operations
31.	EcoLogo Certification	To be applied for after COD, to qualify the project's electricity production as 'green'.	CLOUDWORKS	Operations
32.	Environmental Management Plan	<p>The following individual components, are part of the existing draft construction EMP and will be revised as necessary to form the final construction EMP:</p> <ul style="list-style-type: none"> • Surface Water Quality and Sediment Control • Construction Waste Management • Acid Rock Drainage Management • Air Quality and Dust Control • Water Quality and Quantity Monitoring • Hazardous Waste Management and Spill Response • Accidents and Malfunctions • Emergency Response • Revegetation and Restoration • Wildlife Management and Monitoring • Human - Bear Conflict Management • Archaeological Sites Management 	CLOUDWORKS	Construction

33.	First Nations	Cloudworks will continue to work with the Douglas First Nation to ensure that project operations and maintenance are conducted in accordance with any agreements.	CLOUDWORKS	Operations
34.	Navigation	Cloudworks will post warnings and indicate safe passage areas at intake sites on navigable streams, and provide in-stream flows and appropriate ramping for recreational paddling as may be required by the <i>Navigable Waters Protection Act</i> approval.	CLOUDWORKS	Operations
35.	Operating Parameters and Procedures Report (OPPR)	To be provided to MOE- WSD, prior to commissioning. The OPPR will describe the control systems in the plant, the supervisory control, and communication procedures. Manual and electronic surveillance routines, and emergency response (including the potential effects of ramping) for all project components will be described for the following conditions: <ul style="list-style-type: none"> - penstock failure/uncontrolled water flow - fire - plant shutdown as a result of electrical faults; hydraulic power unit low oil level, high temperature, low pressure; intake gate failure; generator/turbine bearing low oil level, and high temperature - alarm systems related to the above. 	CLOUDWORKS	Permitting/Construction
36.	Plant Decommissioning Plan	A decommissioning and abandonment plan will be developed in consultation with relevant regulatory agencies in advance of decommissioning activities, once they are scheduled.	CLOUDWORKS	Prior to Decommissioning
37.	Recreational Use	Cloudworks will work with the Douglas First Nation (the operators of the Sloquet Hotsprings campground) to ensure that transmission line maintenance adjacent the road to Sloquet Hotsprings does not interfere with access to the campground.	CLOUDWORKS	Life of Project
38.	Road Maintenance	Gated roads (e.g. for intake/powerhouse access) will be maintained to support Cloudworks vehicles on a year-round basis. Cloudworks will contribute to maintenance of forest permit roads and FSR's, if required, according to	CLOUDWORKS	Operations

		agreements with the permit holders and approving agencies.		
39.	Transmission Line Effects – Avian Collision	Cloudworks will retain appropriately qualified professionals to undertake an assessment of the potential for lowering risks of avian collisions by the placement of visual markers along some sections of the transmission line and markers will be placed in appropriate line segments where the assessment indicates they are warranted.	CLOUDWORKS	Operations
40.	Transmission Line Prior Rights	Cloudworks will develop appropriate Right of Way Agreements with BC Hydro (as well as INAC if the Agreement is for an on-reserve location) for any works that will cross or be built in BC Hydro Right of Ways.	CLOUDWORKS	Life of Project
41.	Access to Stave Lake	Cloudworks will work with either the current barge access rights-holders or ILMB to obtain appropriate approvals for barge access at the north end of Stave Lake.	CLOUDWORKS	Operations