

SITE C CLEAN ENERGY PROJECT

SITE PREPERATION-CLEARING SOUTH BANK AGREEMENT

THIS AGREEMENT dated for reference 19th December 2014 ("Effective Date") is between:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY, a British Columbia Crown Corporation having its head office at 333 Dunsmuir Street, Vancouver B.C. V6B 5R3

("BC Hydro")

AND

[REDACTED], a British Columbia Incorporated Company with offices in Chetwynd, BC.

("Contractor")

BACKGROUND

- A. BC Hydro intends to construct the Site C Clean Energy Project (the "**Project**") which is a proposed third dam and hydroelectric generating station on the Peace River in northeast B.C.; and
- B. BC Hydro and Contractor wish to enter into an agreement for the performance of Work related to the Project.

AGREEMENT

The Parties agree as follows:

GENERAL TERMS AND CONDITIONS

GC 1.0 INTERPRETATION AND DURATION

GC 1.1 Scope. This Agreement is comprised of:

- (a) these General Terms and Conditions;
- (b) Appendix A - Scope of Work, Schedule and Specifications;
- (c) Appendix B – Rates, Payment and Taxes
- (d) Appendix C – BC Hydro's Policy and Procedures
- (e) Appendix D – Safety
- (f) Appendix E – Environmental Obligations

- (g) Appendix F – Aboriginal Inclusion
- (h) Appendix G – Insurance Requirements
- (i) Appendix H – Personal Information
- (j) Appendix I – Labour Schedule
- (k) Appendix J – Drawings
- (l) Appendix K – Site C Contractor Drug and Alcohol Policy Requirements

GC 1.2 Amendments. Subject to GC 2.14(b), to be binding on the Parties any amendments to the Agreement must be in writing and must be signed by both Parties.

GC 1.3 Interpretation Rules. In this Agreement: the words "include" and "including" are deemed to be followed by "without limitation"; headings are for convenience only and will not affect the interpretation of the Agreement; words expressed in the singular are deemed to include the plural, and vice versa; the reference to a "GC" is a reference to a paragraph of the General Terms and Conditions and a reference to a section is a reference to a section of the applicable appendix; dollars figures are Canadian dollars. The Contractor confirms that it has obtained independent legal advice, or elected not to obtain such advice, and accordingly agree that any rule of construction to the effect that any ambiguity is to be resolved against the drafting party will not be applicable in the interpretation of the Agreement.

GC 1.4 Definitions.

A capitalized word or phrase that is defined in the background recitals, these General Terms and Conditions or in the appendices has that defined meaning wherever that capitalized word or phrase is used in the Agreement, unless stated otherwise. In this Agreement, the following words and phrases will have the following meanings:

- (a) **"Agreement"** means this Site Preparation – Clearing South Bank Agreement, including all General Terms and Conditions and appendices, as amended from time to time in accordance with this Agreement;
- (b) **"BC Hydro"** means the entity identified as "BC Hydro" on the first page of the Agreement;
- (c) **"Consequential Damages"** means:
 - (i) special, contingent, exemplary, punitive, indirect, incidental or consequential loss or damage;
 - (ii) loss of anticipated revenue, overhead or profit;
 - (iii) loss of production, business or contracts;
 - (iv) loss by reason of shutdowns, non-operation or increased costs of construction, manufacturing or operation; or
 - (v) loss of business reputation or opportunities,
 of any nature arising at any time or from any cause whatsoever relating to the Agreement, and whether or not such losses or damages were foreseeable;
- (d) **"Contractor"** means the entity identified as "Contractor" on the first page of the Agreement;
- (e) **"BCH Permits"** means the permits, licences, authorizations, certificates and approvals

obtained, or to be obtained, by BCH, as described in Appendix A.

- (f) **"Crown"** means the government of the Province of British Columbia;
- (g) **"Effective Date"** means the date on the top of the first page of the Agreement;
- (h) **"Forest Legislation"** means the Forest Act, Forest Practices Code of British Columbia Act, Forest and Range Practices Act and Wildfire Act all of British Columbia, and all regulations and standards under those Acts and any amendments to the Acts, regulations or standards;
- (i) **"Forest Service"** means the British Columbia Forest Service of the Ministry of Forests, Lands and Natural Resource Operations;
- (j) **"Hazardous Substances"** has the meaning given in section 1.1 of Appendix D – Safety;
- (k) **"laws"** includes the common law and any valid and applicable federal, provincial or local government statutes, regulations, rules, by-laws, codes, standards, practices or policies;
- (l) **"Party"** or **"Parties"** means either or both of BC Hydro and the Contractor and their respective successors and permitted assigns;
- (m) **"Person"** means any individual, sole proprietorship, corporation, company, partnership, unincorporated association, institution, entity, party, trust, joint venture, estate, cooperate or other judicial entity;
- (n) **"Project"** has the meaning given in background recital A.
- (o) **"Rates"** means the Rates payable by BC Hydro to the Contractor for Work performed under this Agreement as specified in Appendix B, as may be adjusted in accordance with this Agreement;
- (p) **"Site "** means the location where the Work is to be performed as described in Appendix A;
- (q) **"Term"** means the duration of this Agreement as described in GC 1.6;
- (r) **"Timber"** means trees on the Site, whether standing, fallen, living, dead, limbed, barked or peeled and includes any logs produced therefrom;
- (s) **"Work"** means the work to be performed by the Contractor as described in Appendix A, as may be changed in accordance with GC 2.14;
- (t) **"Work Instructions"** means written instructions provided by BC Hydro to the Contractor pursuant to BC Hydro's approved plans; and
- (u) **"year"** means calendar year unless the context indicates otherwise.

GC 1.5 Governing Law. This Agreement shall in all respects be governed by and be construed in accordance with the laws of the Province of British Columbia and the laws of Canada applicable in British Columbia. In this Agreement, any reference to an Act, Regulation or any other law shall be deemed to include any subsequent amendments to that Act, Regulation or other law. Subject to GC 13, the Parties attorn to the exclusive jurisdiction of the courts of British Columbia.

GC 1.6 Term. The Term of this Agreement will commence on the Effective Date and, regardless whether or not the Work is complete, will expire on December 31, 2015, subject to earlier termination in accordance with this Agreement. Provided the Agreement has not expired or been terminated, BC Hydro may extend the Term by up to six (6) months by delivering a notice of Term extension to the Contractor Representative.

GC 2.0 AGREEMENT FOR SERVICES

GC 2.1 Services of Contractor.

The Contractor will:

- (a) provide all equipment, materials, supplies, labour, supervision and accommodation necessary to perform, and will perform, the Work at the Rates;
- (b) perform the Work diligently, in a workmanlike manner and in accordance with the best modern logging and vegetation clearing practices used in the region in which the Work is done;
- (c) at its own expense, obtain all authorizations, operating permits and licences necessary to perform the Work, other than BCH Permits; and
- (d) at its own expense, provide for the transporting of crews, supplies, materials and equipment.

GC 2.1A. Notice to Proceed. Notwithstanding any other provision of the Agreement, the Contractor and its agents and subcontractors must not proceed with any Work unless and until BC Hydro first delivers to the Contractor:

- (a) a notice to proceed directing the Contractor to proceed with the Work; or
- (b) a limited notice to proceed, directing the Contractor to proceed with some of the Work, in which case the Contractor will only perform the limited Work described in the limited notice to proceed. BC Hydro may deliver one or more limited notices to proceed.

The delivery by BC Hydro of a notice to proceed or a limited notice to proceed does not in any way affect BC Hydro's suspension, step-in or termination rights under GC3.0 or any other provision of the Agreement.

GC 2.2 Compliances. The Contractor will perform the Work, and will ensure that its employees, agents and subcontractors perform the Work, in accordance and compliance with:

- (a) this Agreement, inclusive of all Appendices;
- (b) the Forest Legislation;
- (c) the *Fisheries Act*, *Navigable Waters Protection Act* and *Canadian Environmental Protection Act* of Canada;
- (d) the *Drinking Water Protection Act*, *Water Act*, and *Environmental Management Act* of British Columbia.
- (e) all lawful directions, guidelines and other requirements of the Forest Service and other governmental agencies

- (f) the terms of applicable permits, prescriptions, licences and other documents related to or required in respect of the Work;
- (g) the log specifications and quality control specifications as may be prescribed by the BC Hydro from time to time;
- (h) all lawful directions and instructions of BC Hydro consistent with this Agreement;
- (i) any specifications and requirements set out in Appendix A; and
- (j) all other relevant and applicable laws.

GC 2.3 BC Hydro Policies. The Contractor will perform the Work, and will ensure its employees, agents and subcontractors perform the Work, in accordance and compliance with the policies and procedures in Appendix C - BC Hydro's Policies and Procedures.

GC 2.4 Safety. The Contractor will perform the Work, and will ensure that its employees, agents and subcontractors perform the Work, in accordance and compliance with Appendix D – Safety.

GC 2.5 Environment. The Contractor will perform the Work, and will ensure that its employees, agents and subcontractors perform the Work, in accordance and compliance with Appendix E – Environmental Obligations.

GC 2.6 Hazardous Substances. The Contractor and its agents, and subcontractors must not use, store, transport, remove, dispose of or destroy any Hazardous Substances on the Site without BC Hydro's prior consent. All Hazardous Substances must be dealt with in accordance with applicable laws and this Agreement. If Contractor, during the performance of the Work on the Site, encounters any Hazardous Substances the Contractor must immediately stop Work in the area where the Hazardous Substances are located, provide notice to BC Hydro, and cooperate with BC Hydro to minimize risks to environment, health and safety.

GC 2.7 Prime Contractor in British Columbia. The Contractor unconditionally agrees to become the Prime Contractor for purposes of the *Workers Compensation Act* in accordance with Appendix D – Safety. If, at any time, the Contractor is not designated as Prime Contractor, then the Contractor will perform the Work in accordance with the safety requirements of the entity that is the Prime Contractor.

GC 2.8 Supervision. The Contractor shall at all times during the Term provide all necessary supervision on Site of the Work and activities being performed by its employees, agents and subcontractors.

GC 2.9 Other Contractors. BC Hydro reserves the right to engage other contractors and to use BC Hydro's own employees to perform work, including work similar to the Work, at the Site during the time of performance of the Work by the Contractor. The Contractor will coordinate performance of the Work with the performance of the work of BC Hydro employees and other contractors engaged by BC Hydro.

GC 2.10 Investigations and Contraventions. The Contractor will immediately advise BC Hydro of any audits or investigations by, or notices or directions from, any government authority with respect to the Work and of any offences or contraventions the Contractor or its subcontractors may have committed including contraventions or offences under any applicable laws whether committed while performing Work under this Agreement or otherwise. The Contractor will provide a safety incident report to BC Hydro through BC Hydro's web-based contractor incident reporting facility within 24 hours of a particular accident or incident occurring.

GC 2.11 Aboriginal Inclusion and Reporting Requirements. The Contractor will comply with the requirements in Appendix F - Aboriginal Inclusion and Reporting Requirements.

GC 2.12 Labour Requirements. The Contractor will comply with the requirements in Appendix I – Labour Requirements

GC 2.13 Instructions. BC Hydro may give Work Instructions to the Contractor from time to time and, provided the Work Instructions are consistent with the Agreement and applicable laws, the Contractor will comply with the Work Instructions. All directions and instructions that may be given by BC Hydro to the Contractor under this Agreement shall be given by such person or persons as shall be appointed by written or verbal notice from time to time given by BC Hydro to the Contractor ("**Hydro Representative**" or "**Hydro's Representative**"). Such directions and instructions shall be given to such person or persons as shall be appointed by written or verbal notice from time to time given by the Contractor to BC Hydro ("**Contractor Representative**" or "**Contractor's Representative**"). Provided always, that in the absence of such a person appointed by BC Hydro, the directions and instructions may be given by anyone on behalf of BC Hydro to a person appointed by the Contractor, and in the absence of such a person appointed by the Contractor, the directions and instructions may be given by a person appointed by BC Hydro to the person apparently in charge of the Work at that time on behalf of the Contractor.

GC 2.14 Changes.

- (a) The Parties may mutually agree to change the Work and schedule for the Work by way of a written change order, in the form attached as Exhibit 1 to Appendix A, signed by both the Hydro Representative and Contractor Representative, and the Contractor will comply with, and implement, the change order without delay.
- (b) BC Hydro may, acting reasonably and without invalidating the Agreement, change the scope and schedule of Work, including revising, adding to or deleting from the Work, by issuing a written change directive to the Contractor describing the changes to Work or schedule. The Contractor must comply with a change directive issued under this GC2.14 without delay. If the Contractor can demonstrate to BC Hydro that the change directive will cause an increase or decrease in the Contractor's costs, productivity or risk associated with the performance of the Work after the effective date of the change directive, the Parties will, acting reasonably, negotiate appropriate changes to any Rates in Appendix B and if the Parties cannot agree on the appropriate changes to Rates, the dispute will be resolved in accordance with GC13. The Contractor will continue to perform Work, as amended by the change directive, without delay, pending the outcome of negotiations, or the resolution of any dispute, regarding the appropriate adjustment to Rates, without prejudice to the Contractor's right to claim adjustments to the Rates resulting from impacts of the change directive on the Contractor's costs, productivity or risk in respect of Work performed after the effective date of the change directive.

GC 2.15 No Minimum Work. BC Hydro has not promised, guaranteed, represented or warranted any scope, volume or value of Work.

GC 2.16 Inspection and Deficiencies. BC Hydro may, at all times, access and inspect the Work, any equipment and materials at the Site, and the Work area and may conduct such tests and audits as BC Hydro considers necessary during such inspections. If BC Hydro identifies any deficiencies in the Work performed by the Contractor or its subcontractors, the Hydro Representative will advise the Contractor Representative of such deficiencies and the Contractor will promptly remedy the deficiencies at its cost. If BC Hydro remedies the identified deficiencies, BC Hydro may claim the costs of doing so from the Contractor and may set-off such costs against any amounts owed to the Contractor

GC 2.17 Property. The Contractor will exercise reasonable care not to cause damage to any property (facilities, buildings, equipment, vehicles, materials, supplies etc.) of BC Hydro or any third party that is on the Site during the performance of the Work.

GC 2.18 BC Hydro Obligations. Prior to the Contractor commencing any Work, BC Hydro will

provide the Contractor with (i) copies of any relevant portions of BCH Permits required for the Work; and (ii) any plans, maps or information reasonably required by the Contractor to perform the Work.

GC 3.0 SUSPENSION OR TERMINATION FOR CONVENIENCE AND STEP-IN RIGHTS

GC 3.1 Suspension. At any time, BC Hydro may, at its convenience and in its absolute and unfettered discretion, on written notice to the Contractor's Representative, direct the Contractor to suspend part of all of the Work immediately or on a certain date as set out in the notice. The Contractor will promptly suspend the stipulated Work in accordance with the direction by BC Hydro under this GC 3.1 or upon receipt of direction from any government authority. Where the Contractor's operations have been suspended under this GC 3.1, or otherwise, BC Hydro is not required to provide any substitute or make up Work. During the period of a suspension under this GC 3.1, the Contractor will not remove any equipment and materials from the Site without the prior consent of BC Hydro and will take all commercially reasonable steps to make secure and safe all Work and any equipment and materials on the Site. If there is a suspension under this GC 3.1, and provided the suspension does not result from any default, act or omission of the Contractor or its subcontractors, BC Hydro will, in full satisfaction of any claims the Contractor may have, reimburse the Contractor for the Contractor's reasonable and substantiated direct costs incurred during the suspension, including reasonable stand-by equipment rental rates, personnel demobilization and remobilization costs and extended overhead costs, provided any of the foregoing costs could not have been reasonably avoided or mitigated by the Contractor, plus 10 % on such costs on account of overhead and profit. BC Hydro may, during a suspension, have a different contractor perform the Work that is subject to the suspension. BC Hydro may, acting reasonably, give written direction to the Contractor to resume performance of the Work that has been suspended, within the time specified in the direction, and the Contractor will resume performance of the Work in accordance with the direction. If there is a dispute regarding the costs that BC Hydro should have paid to the Contractor during the period of the suspension, the Contractor will nevertheless resume performance of the Work, without prejudice to the Contractor's right to pursue its claim for such costs. If BC Hydro suspends part of the Work, the Contractor will continue to perform the remainder of the Work during the suspension.

GC 3.2 Step-In Rights. If the Contractor fails to complete any portion of the Work on or before the date for completion of such Work as specified in Appendix A (as may be amended by a change order under GC2.14(a) or a change directive under GC2.14(b)), then BC Hydro may, without prejudice to any other rights and remedies it may have, take such steps as it considers appropriate (either itself or by engaging other contractors) to mitigate or rectify such failure including: (i) taking possession of the equipment and materials located on the Site or elsewhere and intended for incorporation into or use in the performance of the Work, and utilizing such equipment and materials, subject to the rights of any third parties, to proceed with the Work under the Agreement, or (ii) to delete a portion of the Work from the Agreement as BC Hydro may decide and engage another contractor to undertake that Work at the Site. BC Hydro will carry out such steps as quickly as practicable and in such manner as will minimize interference with Contractor's performance of its obligations under the Agreement. The Contractor will cooperate with BC Hydro so as not to interfere with or impede the exercise of the step-in rights under this GC 3.2. The Contractor will ensure that the provisions contained in applicable agreements with its subcontractors will not prevent or inhibit BC Hydro from exercising its step-in rights under this GC 3.2. The Contractor will not be paid or otherwise compensated, and the Contractor will not make a claim against BC Hydro for payment or compensation, for any Work the Contractor did not perform as a result of BC Hydro's exercise of its rights under this GC 3.2.

GC 3.3 Termination for Convenience. At any time, BC Hydro may, at its convenience and in its absolute and unfettered discretion, terminate this Agreement by providing written notice of termination to the Contractor's Representative. If BC Hydro terminates this Agreement under this GC 3.3, BC Hydro will, in full satisfaction of all claims the Contractor may have, pay the Contractor:

- (a) all compensation owed in accordance with this Agreement for all Work performed in accordance with the Agreement up to the date of the termination;
- (b) all third party cancellation charges, if any, incurred by the Contractor to the date of termination, provided such charges could not have been reasonably avoided or mitigated by the Contractor; and
- (c) the Contractor's reasonable and substantiated direct demobilization costs, plus 10 per cent on such costs on account of overhead and profit.

GC 3.4 No Consequential Damages. For greater certainty, the Contractor will not be entitled to, nor will the Contractor make a claim against BC Hydro or anyone else for, Consequential Damages (including any lost revenues or profits) as a result of any suspension under GC 3.1, the exercise of any step-in rights under GC 3.2 or termination under GC 3.3.

GC 4.0 STATUS OF CONTRACTOR AND RELATED OBLIGATIONS

GC 4.1 Independent Contractor. The Contractor and any subcontractor engaged by the Contractor pursuant to this Agreement are independent contractors and not partners, employees or agents of BC Hydro. The Contractor and any subcontractor are employers for the purposes of the worker's compensation legislation and employment standards legislation in British Columbia, the *Income Tax Act*, the *Employment Insurance Act*, and the Canada Pension Plan and for the purposes of any other legislation affecting employment.

GC 4.2 Other Work. Subject to fulfilling the terms of this Agreement, the Contractor is free to provide services of the same or similar type as provided under this Agreement or any other services to any other company or individual.

GC 4.3 Contractor Expenses. The Contractor will promptly pay, and will ensure that its subcontractors promptly pay, all charges for labour, materials, equipment and services used or contracted for by the Contractor and its subcontractors in the performance of the Work.

GC 4.4 Liens. The Contractor will pay all of its liabilities arising from its operations that might constitute a lien upon the Site, the Timber or other assets of BC Hydro immediately upon such liabilities becoming due. If a lien is made or threatened to be made against the Site, the Timber or other assets of BC Hydro as a result of the activities of the Contractor or any of the Contractor's subcontractors, the Contractor will immediately take steps and make payments, including the granting of security or payment into court, as are necessary to remove the lien or prevent the lien being made.

GC 4.5 G.S.T. / H.S.T. The Contractor will register as required under the *Excise Tax Act* for the collection and administration of the Goods and Service Tax and/or Harmonized Sales Tax and will advise BC Hydro of its Goods and Services and/or Harmonized Sales registration number. The Contractor will immediately advise BC Hydro of any change in the Contractor's status under the *Excise Tax Act*.

GC 5.0 TIMBER

GC 5.1 Title. The Contractor has the right to any revenues it may earn from the delivery and sale of merchantable Timber cut by the Contractor in the area of the Site specified in the referenced Appendix J Drawings. Where the Contractor is required to cut Timber under this Agreement, title to all merchantable Timber will pass to, and will be at risk of, the Contractor when it is cut. The Contractor will remove such merchantable Timber from the Site, at its cost, as soon as practicable. Prior to removing Timber from the Site, the Contractor will mark that Timber with

stamp marks or other markers as may be required from time to time by the Ministry of Forests Lands and Natural Resources Operations. The Contractor will deliver all merchantable Timber to government approved scale sites and will deliver a copy of the scale reports to BC Hydro on a monthly basis

GC 5.2 Lost or Damaged Timber. If any Timber is lost, wasted or destroyed as a result of the negligence or wilful act of the Contractor, its employees, subcontractors or agents, the Contractor will indemnify BC Hydro for any penalty payable by BC Hydro and any costs incurred by BC Hydro in respect of that Timber.

GC 5.3 Stumpage. BC Hydro will pay all stumpage and royalties charged by government authorities with respect to Timber cut by Contractor under this Agreement.

GC 6.0 RATES AND PAYMENT

GC 6.1 Rate Determination. Subject to the terms of this Agreement, BC Hydro will pay the Contractor for all Work performed under this Agreement at the Rates and in accordance with Appendix B.

GC 6.2 Entire Compensation. The Rates will be the entire compensation owing to the Contractor for the complete performance of the Work. The Rates cover and include all profits and all costs of supervision, labour, material, equipment, transportation and delivery, overhead, financing and all other costs and expenses of any kind incurred by the Contractor in performing the Work.

GC 6.3 Set-off. BC Hydro may withhold and set-off against any monies due to the Contractor under this Agreement:

- (a) any amount due or accruing due to BC Hydro from the Contractor;
- (b) the amount of any claim made or that might be made against BC Hydro or any of its lands, Timber or other assets or by any person as a result of any act or omission of the Contractor or any of its subcontractors and, when such a claim is made, BC Hydro may pay the amount of that claim into court on behalf of the Contractor;
- (c) any amount that BC Hydro may become liable for in respect of payments, assessments or deductions required to be made by the Contractor by law, unless the Contractor provides receipted proof of payment satisfactory to BC Hydro; and
- (d) an amount equal to the reasonable cost to BC Hydro for services of a solicitor or accountant, where such services are required in respect of a failure by the Contractor to comply with any of the obligations of the Contractor herein.

GC 6.4 Payment into Court. Any amount set off by BC Hydro under GCs 6.3(b) or (c) may be withheld until the matter at issue is resolved or the Contractor provides receipted proof of payment, as the case may be. Where feasible, BC Hydro may pay the amount withheld into a court of competent jurisdiction.

GC 7.0 FOREST FIRES

GC 7.1 Obligations of Contractor. The Contractor shall at all times promptly comply with the requirements of the Forest Legislation, this Agreement and with Work Instructions, concerning the prevention, reporting, control, suppression and extinguishment of forest fires.

GC 7.2 Prevention. The Contractor will take all reasonable precautions and make all reasonable efforts to prevent any forest fire starting or spreading from its area of operations on the Site.

GC 7.3 Control. The Contractor will immediately do its utmost to control and extinguish any fire, including an escaped slash fire, discovered by the Contractor burning on or near the Site or any other lands of BC Hydro, utilizing to the fullest extent the personnel, equipment and resources available to the Contractor.

GC 7.4 Reporting. The Contractor will, without delay, report to BC Hydro and the Forest Service the existence of any forest fire on the Site or on any other lands.

GC 7.5 Adverse Fire Hazard. The Contractor shall alter its hours of work or temporarily close down its operations when directed to do so by the Forest Service or by BC Hydro because of unfavourable weather conditions or fire hazard conditions.

GC 7.6 Equipment. The Contractor shall at its expense maintain sufficient fire-fighting equipment in good working order in accordance with the requirements of the Forest Legislation and any other applicable laws.

GC 7.7 Reimbursement. BC Hydro will reimburse the Contractor for all reasonable out of pocket costs and expenses incurred by the Contractor (except the cost of loss of or damage to equipment) in suppression, controlling and extinguishing a fire starting or spreading from the Contractor's area of operations, subject to the following:

- (a) BC Hydro shall not be responsible for reimbursement of any such costs if (i) the fire was caused by any wilful or negligent act or omission of the Contractor, its employees, agents or subcontractors or (ii) the Contractor or its subcontractors failed to comply with any requirement of the Forest Legislation and any other applicable laws and such failure contributed to the cause or spread of the fire;
- (b) BC Hydro shall not be responsible for the first \$50,000 of such cost for any fire where the fire occurred as a result of the operations carried on by the Contractor but GC 7.7(a) is not applicable;
- (c) payments to the Contractor under this GC 7.7 shall be reduced by any amounts recoverable by the Contractor under the Forest Legislation or under insurance policies maintained by the Contractor or amounts recovered from other sources.

GC 7.8 Claims. BC Hydro and the Contractor will take all necessary steps to make any claims for reimbursement for fire-fighting expenses or losses under the Forest Legislation or insurance policies.

GC 7.9 Requirements. The provisions of this GC 7.0 shall be in addition to, not in substitution for, the obligations of the Contractor under Forest Legislation.

GC 7.10 Indemnity for Company Costs. Without limiting GC 9.3, where the Contractor, or any person working for or engaged by the Contractor, negligently or wilfully:

- (a) causes a fire; or
- (b) permits the escape of a fire, whether or not caused by the Contractor;

the Contractor will indemnify BC Hydro for any loss, cost or liability incurred by BC Hydro as a result of the fire.

GC 8.0 ROADS AND IMPROVEMENTS

GC 8.1 Use of Roads and Bridges. BC Hydro will obtain permits and licences required for the use of all roads and bridges necessary for the Work. The Contractor may use such roads and bridges for

the purpose of doing the Work on the following conditions:

- (a) the use is non-exclusive;
- (b) the use is at the sole risk of the Contractor;
- (c) the Contractor will comply with BC Hydro's directions regarding the use, including hours of use, locking of gates and closure;
- (d) the Contractor will keep roads and bridges it is using clear of debris and other obstructions resulting from the Contractor's operations;
- (e) the Contractor will place in each vehicle used by the Contractor on the Site a radio capable of monitoring and transmitting on the frequencies used by BC Hydro and will instruct its employees and subcontractors in the proper use of these radios; and
- (f) the Contractor acknowledges that BC Hydro has made no representation to the Contractor as to the condition of roads on the Site or as to their suitability for the Contractor's operations.

GC 8.2 Constructions, Improvements and Deactivation. If the Contractor constructs, maintains, improves or deactivates any roads as part of the Work, the Contractor will carry out such Work in accordance with any BC Hydro requirements and directions, any applicable laws, and all permits and authorizations. Any improvements made to the Site, roads, bridges, BCH Permits or to other assets of BC Hydro by the Contractor are the property of BC Hydro, unless otherwise agreed in writing by the Parties, and BC Hydro shall not be obligated to pay any additional compensation for any such improvements.

GC 9.0 RELEASE, INDEMNITY AND LIMITATION OF LIABILITIES

GC 9.1 Representations. The Contractor acknowledges that BC Hydro has made no representations to the Contractor as to:

- (a) the terms and conditions of any BCH Permits or any other permits, or that BC Hydro will have the regulatory approvals to permit the Work, including Timber harvesting;
- (b) the nature of the Site;
- (c) the quality or quantity of Timber on the Site;
- (d) the difficulty or simplicity of the Work;
- (e) the state or condition of any roads or bridges; or
- (f) the suitability of any roads or bridges for the Work;

all of which matters have been duly investigated by the Contractor prior to the date of agreeing to the Work, and the signing by the Contractor of this Agreement shall be an absolute release by the Contractor of BC Hydro from any and all Claims which the Contractor now has or may hereafter have in respect thereof.

GC 9.2 General Release. The Contractor releases BC Hydro, its directors, officers and servants (collectively for the purpose of this GC 9.2 only referred to as "BC Hydro") from any liability, whether in tort, agreement or otherwise, in respect of any loss suffered by the Contractor arising

out of the Work or the use of any of the Site or other BC Hydro assets by the Contractor and its employees and subcontractor or any other Person, except to the extent that such loss is attributable to the negligence or wilful default of BC Hydro.

GC 9.3 General Indemnity.

- (a) In this Agreement, "**Claims**" means any claim, charge, demand, action, cause of action, suit or proceeding, whether for damages, fines, penalties, contribution, indemnity or other relief; and "**Claim Costs**" means any and all losses, damages, assessments, costs, fines, penalties and expenses arising from or related to a Claim, including actual legal (on solicitor and client basis), accounting and expert costs and expenses incurred in the investigation, defence or settlement of a Claim.
- (b) In addition to any other indemnification obligations under this Agreement, the Contractor will indemnify, save harmless and assume the defence of, BC Hydro, its directors, officers, employees, consultants and agents, including Hydro's Representative (each, an "**Indemnified Party**" and, together, the "**Indemnified Parties**") from and against all third party Claims, including any Claim Costs, at any time suffered or incurred by, or brought or made against, the Indemnified Parties, or any one of them, relating to or arising out of:
 - (i) the errors, omissions or negligent acts, willful misconduct, or fraudulent or criminal acts, or breach of the Agreement, of or by the Contractor, the Contractor's affiliates or any subcontractor, or those for whom such Persons may in law be responsible, except for the portion of any Claim arising from the negligence or willful misconduct of an Indemnified Party;
 - (ii) any actual or alleged unauthorized disclosure, use or infringement by the Contractor or the Contractor's affiliates or any subcontractors of a third party's patent or intellectual, proprietary or industrial property rights;
 - (iii) waste and damage assessments arising from the Contractor's failure to comply with utilization standards and forest practices prescribed by the Forest Service under cutting authorities issued by the Forest Service, except to the extent permitted in Appendix A; or
 - (iv) any contraventions of, or offences under, any laws committed by the Contractor or any action taken by authorities pursuant to any laws in respect of the activities of the Contractor.
- (c) Without limiting GC 9.3(b), if an Indemnified Party becomes a party to a Claim for which indemnity may be sought under GC 9.3(b), then the Contractor will conduct the defence of such Claim, at the Contractor's sole cost and expense, and on such terms and conditions as BC Hydro may direct. Notwithstanding the preceding sentence, if the Contractor fails to commence or carry out such defence in a manner that is acceptable to BC Hydro, BC Hydro has the right, but not the obligation, upon prior written notice to the Contractor, to assume the defence of such Claim. BC Hydro may settle or resolve such Claim, without the prior consent or approval of the Contractor, and without relieving the Contractor of its obligations under GC 9.3(b). If BC Hydro exercises its rights under this GC 9.3(c), then the Contractor will reimburse BC Hydro all of BC Hydro's costs and expenses incurred as a result of such exercise.
- (d) Where the Contractor has conduct of the defence of a Claim under GC 9.3(c), each applicable Indemnified Party may retain its own counsel, at the Indemnified Party's sole cost and expense, for the purpose of monitoring the Contractor's conduct of the Claim.
- (e) Notwithstanding any other provision in this Agreement, where the Contractor has conduct of the defence of a Claim, the Contractor will not conclude or agree to the settlement or resolution of such Claim without the prior written approval of Hydro's Representative.

Where the Contractor concludes or agrees to the settlement or resolution of a Claim without the prior written approval of Hydro's Representative, the Contractor will be liable for the entire amount of such settlement or resolution, including any amount in excess of its indemnity obligations under the Agreement, and will have no right to claim reimbursement, set-off or payment from BC Hydro, or any other Indemnified Party, with respect to any such excess amount.

GC 9.4 Limitation. Despite GC 9.3:

- (a) the Contractor shall not be required to save harmless and indemnify BC Hydro in respect of any Claims that are the direct result of directions given to the Contractor by BC Hydro; and
- (b) where a fine levied against BC Hydro reflects previous contraventions for which BC Hydro has been liable and which were not attributable to the Contractor, the Contractor will save harmless and indemnify BC Hydro for only that part of the fine reasonably attributable to the actions of the Contractor.

GC 9.5 Fire Exclusion. Despite GC 9.3, the Contractor shall not be liable to indemnify BC Hydro for:

- (a) any Claims arising out of any fire starting or spreading from the Contractor's area of operations on the Site, except:
 - (i) where the fire was caused by any wilful or negligent act or omission of the Contractor, its employees, agents or subcontractors or if the Contractor failed to comply with any requirement of the Forest Legislation or any other applicable laws and such failure contributed to the cause or spread of the fire, or
 - (ii) where the fire was not caused by the negligence or wilful default of the Contractor, its employees, agents or subcontractors, but did arise from the operations of the Contractor to the extent of the first \$50,000 of the cost of a fire as contemplated by GC 7.7(b); and
- (b) any Claims arising out of any fire starting or spreading from the Contractor's area of operations as a result of the negligence of BC Hydro or its other contractors.

GC 9.6 No Consequential Damages. Neither Party is liable to the other Party for that other Party's own Consequential Damages.

GC 10.0 INSURANCE

GC 10.1 Coverage. The Contractor and BC Hydro will each obtain and maintain all policies of insurance in accordance with Appendix G (Insurance Requirements). Neither the providing of insurance by the Contractor in accordance with this Agreement nor the failure of any insurance company to pay any claim occurring will relieve the Contractor from any other provision of the Agreement with respect to liability of the Contractor or otherwise.

GC 11.0 DEFAULT AND INSOLVENCY

GC 11.1 Termination for Default. In addition to any other rights of termination under this Agreement, either Party may terminate this Agreement by written notice to the other Party where:

- (a) the other Party defaults in any of its obligations in this Agreement, and that default or the conditions that caused the default continue for 15 days after written notice from the non-defaulting Party specifying the default, except that where the default or the conditions causing the default are not curable in 15 days but the defaulting Party takes all reasonable

steps to cure the default or the conditions immediately upon receipt of the written notice from the non-defaulting Party, the non-defaulting Party will not terminate the Agreement under this GC 11.1; or

- (b) the other Party has repeatedly defaulted under this Agreement (whether cured within 15 days as provided in subparagraph (a) or otherwise) and the non-defaulting Party has advised the other Party in writing that any subsequent default of like nature will result in a notice of termination under this GC 11.1.

GC 11.2 Insolvency. BC Hydro may terminate this Agreement upon written notice to the Contractor if:

- (a) the Contractor becomes insolvent or makes a general assignment for the benefit of its creditors;
- (b) the Contractor otherwise acknowledges its insolvency;
- (c) the Contractor commits any act of bankruptcy, is declared bankrupt, makes a proposal under the Bankruptcy and Insolvency Act of Canada, is the subject of any proceedings under the *Companies Creditors Arrangement Act* (Canada) or commences liquidation proceedings, whether voluntarily or otherwise; or
- (d) a receiver is appointed for any of the assets of the Contractor.

This Agreement will not be considered an asset in the bankruptcy of the Contractor.

GC 11.3 Remedies. GC 11.1 and GC 11.2 are in addition to, and not in substitution for, any right or remedy the Parties may have under this Agreement or at law or equity. Provisions of this Agreement that expressly provide that the Contractor's failure to comply with certain obligations will be deemed to be a default to which GC 11.1 applies are included for greater certainty only and are not intended to limit the application of GC 11.1.

GC 12.0 EXPIRY AND TERMINATION

GC 12.1 Effect of Expiry or Termination. If the Term of this Agreement expires or this Agreement is terminated in accordance with any provision of this Agreement:

- (a) all the rights of the Contractor under this Agreement will immediately cease except the Contractor's right to be paid for Work done up to the time of termination or expiry or, in the case of a termination under GC 3.3, the amounts set out in GC 3.3;
- (b) the Contractor will immediately cease performing the Work;
- (c) the Contractor must remove from the Site, within 30 days of the expiry or termination of this Agreement or such later date as the Parties may agree, any Timber where title to such Timber has transferred to the Contractor in accordance with this Agreement. If any Timber remains on the Site after such time period, the Contractor will forfeit the Timber and BC Hydro will be entitled to take possession of, and dispose of, such Timber at its cost, and to keep any revenues from the disposition of Timber, and BC Hydro will not be obligated to pay any compensation to the Contractor for such Timber;
- (d) BC Hydro will be entitled to take possession of any roads or other improvements constructed by the Contractor on the Site;
- (e) the Contractor's indemnification obligations under this Agreement will survive termination or expiry of this Agreement as valid and enforceable obligations;

- (f) GC 3.3, GC3.4, GC9.0, GC12.0, and GC13.0 survive the termination or expiry of this Agreement;
- (g) the confidentiality and non-disclosure obligations in GC15.1 will survive termination or the expiry of this Agreement until ten (10) years after the Effective Date;
- (h) all provisions of the Agreement that expressly state that they survive, or by their nature survive, termination or expiry of this Agreement will survive termination or expiry of this Agreement;
- (i) all provisions of the Agreement necessary for the interpretation or enforcement of any provisions of, or obligations under, the Agreement that survive termination or expiry of the Agreement will survive expiry and termination of the Agreement; and
- (j) BC Hydro may hire such personnel, contractors and equipment as are necessary to perform the remaining Work.

GC 12.2 Termination -- BCH Permits. If any or all of the BCH Permits expire, are cancelled or are surrendered, this Agreement may be terminated by either Party without liability to the other Party.

GC 12.3 Completion. Without limiting GC12.1, if BC Hydro terminates this Agreement under GC 11.1, and BC Hydro incurs costs to complete the remaining Work, BC Hydro may recover from the Contractor any amount in excess of what it would have cost under the Agreement to perform those obligations had the Contractor not defaulted in its obligations under this Agreement, in addition to and without prejudice to any other rights and remedies BC Hydro may have for the default of the Contractor or for the recovery of money from the Contractor.

GC 12.4 Equipment Removal. Within 30 days after the termination or expiry of this Agreement, the Contractor will remove all of its equipment and supplies from the Site, making good any damage caused by such removal. Any equipment or supplies not removed by the Contractor within 30 days may be removed or consumed by BC Hydro at the Contractor's sole expense.

GC 13.0 DISPUTE RESOLUTION

GC 13.1 Dispute Resolution method. If there is a dispute between the Parties regarding any matters arising under this Agreement, the dispute will be resolved as follows:

- (a) A Party will first deliver to the other Party a written notice of dispute stating, in reasonable detail, the nature of the dispute and, if possible, the estimated dollar value of the dispute;
- (b) If the dispute is not resolved within twenty (20) days of delivery of the written notice under GC 13.1(a), the dispute will be referred to a senior management representative of each of the Parties who will make reasonable efforts to meet in person or by telephone to attempt to resolve the dispute. Each Party has the sole and absolute discretion as to who it designates as its senior management representative under this GC13.1(b); and
- (c) If the dispute is not resolved within thirty (30) days of delivery of the written notice under GC 13.1(a), either Party may refer the dispute to arbitration for final resolution in accordance with GC 13.2, regardless whether or not the senior management representatives have met as contemplated by GC 13.1(b).

GC 13.2 Arbitration. Any disputes referred to arbitration under GC 13.1(c) will be finally resolved by a single arbitrator and the decision of the arbitrator will be final and binding on the Parties. The place of the arbitration will be Vancouver, British Columbia or such other location in British Columbia as may be agreed by the Parties. The arbitration will be administered by the British

Columbia International Commercial Arbitration Centre (BCICAC) pursuant to its rules, as may be amended from time to time. If the Parties cannot agree on a single arbitrator within 20 days of referral of the dispute to arbitration under GC 13.1(c), the arbitrator will be selected in accordance with BCICAC rules. During the period of a dispute, the Parties agree that they will perform their respective obligations under this Agreement until the decision of the arbitrator and any subsequent appeals are complete.

GC 13.3 Confidentiality. The Parties agree that all negotiations and/or matters relating to any arbitration under this Agreement are deemed to be Confidential Information for the purpose of GC 15.1 of this Agreement.

GC 14.0 ASSIGNMENT AND SUBCONTRACTING

GC 14.1 Assignment. The Contractor shall not transfer, assign or subcontract this Agreement, in whole or in part, or any benefit of or money accruing to it hereunder, without the prior written consent of BC Hydro, which consent may be withheld in BC Hydro's absolute and unfettered discretion and BC Hydro shall not be required to give reasons for refusing its consent. Any such transfer, assignment or subcontract without such consent shall be void. A transfer of any shares in the Contractor that results in a change in control of the Contractor shall be deemed to be an assignment of this Agreement. For the purposes of this GC 14.1 "control of the Contractor" means beneficial ownership of more than 50% of its issued shares, having full voting rights in all circumstances, by one person or a group of persons not dealing with each other at arm's length. If the Contractor purports to transfer, assign or subcontract this Agreement without first obtaining BC Hydro's consent, BC Hydro may terminate this Agreement forthwith upon notice to the Contractor.

GC 14.2 Subcontracting. The Contractor must advise the Hydro Representative at least 15 days before undertaking Work of the specific subcontractors it intends to use for the Work. BC Hydro may, in its absolute and unfettered discretion and without the obligation to provide reasons, prohibit the subcontracting by the Contractor of a particular part of the Work or prohibit the subcontracting by the Contractor of any part of the Work to a particular subcontractor. If the Contractor purports to subcontract any portion of the Work without the prior written consent of BC Hydro, BC Hydro may terminate this Agreement immediately upon notice to the Contractor.

GC 14.3 Binding on Permitted Subcontractors. If BC Hydro consents to a subcontractor for any of the Work, then:

- (a) the Contractor shall require the subcontractor to observe the terms of this Agreement insofar as they are applicable to the Work under the subcontract, and the Contractor shall include in the terms of each such subcontract provisions addressing compliance with this Agreement, laws, supervision, training and other issues identified by BC Hydro and communicated to the Contractor from time to time, so that the obligations of the subcontractor are consistent with the obligations of the Contractor pursuant to this Agreement;
- (b) the Contractor shall assume full responsibility to BC Hydro for the acts and omissions of the subcontractor; and
- (c) notwithstanding the consent of BC Hydro to such subcontracting, nothing herein contained or in any subcontract shall create a contractual relationship of any kind between the subcontractor and BC Hydro.

GC 14.4 Copy of Subcontract. Upon request of BC Hydro, the Contractor shall provide the Hydro Representative with a written copy of any subcontract relating to the Work.

GC 15.0 OTHER MATTERS

GC 15.1 Confidentiality. Each Party will keep confidential all matters respecting technical, commercial, financial and legal issues relating to or arising out of the Agreement or the performance of the Work (the "**Confidential Information**") and will not disclose Confidential Information. Despite the foregoing, disclosure of Confidential Information may be made:

- (a) with the prior written consent of the Party who disclosed its Confidential Information to the other Party;
- (b) in strict confidence to the Party's professional advisors;
- (c) in the case of the Contractor, to its subcontractors, or, in the case of BC Hydro, to other contractors working on the Project, who, in each case, need to know the applicable Confidential Information for the purpose of performing the Work or performing other work on the Project; or
- (d) as otherwise required by law or permitted by this Agreement.

The foregoing obligations of confidentiality will not apply to: (i) information that is, or subsequently becomes, publicly available other than through a breach of this Agreement or through a breach of a confidentiality agreement which another person or entity has entered into concerning the Confidential Information; (ii) information which the party already possessed before commencing to participate in the Project; (iii) information which is rightfully received from a third party without breach of any obligation of confidence by such third party; or (iv) information which is independently developed with the use of the Confidential Information. Despite anything in this GC15.1, and for greater certainty, BC Hydro may publicly disclose the following information: (i) the existence of this Agreement, the Work to be performed under this Agreement (e.g., type, estimated aggregate dollar value, and volumes), employment in performance of Work under this Agreement, the names of the Parties and the Contractor's subcontractors, the duration of Agreement, and the relationship of the Contractor to First Nations (as well as the names of such First Nations); and (ii) the Aboriginal Inclusion Performance Report.

GC 15.2 FOIPPA. BC Hydro is subject to the *Freedom of Information and Protection of Privacy Act* (British Columbia) ("**FOIPPA**") and, accordingly, in order for BC Hydro to comply with the requirements of FOIPPA, the Contractor will, prior to or at the same time as providing BC Hydro or Hydro's Representative with copies of, or access to copies of, any records containing personal information (as defined in Appendix H) of the Contractor's or any subcontractor's employees, obtain the written consent of each affected individual to the indirect collection of his or her personal information by BC Hydro. Upon request, at any time, from Hydro's Representative, the Contractor will provide, within five days of such request, evidence satisfactory to Hydro's Representative, acting reasonably, that such consent has been obtained. The Contractor must comply with Appendix H - Personal Information.

GC 15.3 Force Majeure.

If at any time during the Term:

- (a) the Contractor fails or is unable to perform the Work; or
- (b) BC Hydro fails or is unable to provide the Work or is prohibited from proceeding with the Work;

as a consequence of fire, explosion, action or requirement of any governmental authority, an order of a court or regulatory tribunal, strike, lock-out, combination of workmen, labour disputes, flood, drought, embargo, riot, war or any act or consequence of war (whether or not there is a declaration of war), act of God or of the public enemy, delay or failure of carriers, or any other event or contingency which is beyond the reasonable control of BC Hydro or the Contractor, as

the case may be, the Contractor shall not be liable to BC Hydro for failure to perform Work nor shall BC Hydro be liable to the Contractor for failure to make Work available during the period of such failure or disability. BC Hydro or the Contractor, as the case may be, shall give prompt notification in writing to the other of the occurrence of any event or contingency provided for in this paragraph which will affect its performance under this Agreement, which notification shall include an estimate of the duration of the period of disability, and such Party will again give notification in writing when the event or contingency ceases.

GC 15.4 Notices. All notices, requests, demands or other communications hereunder shall, unless stated otherwise, be in writing and must be delivered by hand (including courier), sent by fax from the sending machine, or sent by electronic mail (e-mail) to the party concerned at the following addresses:

if to BC Hydro or the Hydro Representative: [REDACTED]

Four Bentall Centre
600 - 1055 Dunsmuir Street
PO BOX 49260
Vancouver BC V7X 1V5

Email: [REDACTED]

if to the Contractor or the Contractor Representative: [REDACTED]

[REDACTED]

Email [REDACTED]

or at such other address as may from time to time be notified in writing by any of the foregoing.

Any notice, request, demand or other communication shall be deemed given and received:

- (a) if delivered by hand, upon receipt by the other Party or by the Hydro Representative or the Contractor Representative;
- (b) if sent by fax, without telephone confirmation, 24 hours after transmittal as evidenced by the fax transmittal; and
- (c) if e-mailed, upon confirmation by the receiving Party by telephone or return e-mail.

GC 15.5 Enurement. This Agreement will enure to the benefit of and be binding upon the Parties and their respective heirs, executors, administrators, successors and permitted assigns.

GC 15.6 Waiver. The failure of either Party at any time to require strict performance by the other Party of any provisions of this Agreement will in no way affect the first Party's rights under this Agreement to enforce that provision, nor will any such waiver of any breach of any provision of

this Agreement be held to be a waiver of any succeeding breach of such provision or waiver of any other provision.

GC 15.7 Time of Essence. Time shall be of the essence of this Agreement with respect to all payments to be made and all provisions to be observed and performed by the Contractor and if BC Hydro shall at any time grant any extension of time under this Agreement such extension shall not be deemed to be or operate in law as a waiver on the part of BC Hydro of this provision.

GC 15.8 Entire Agreement. This Agreement and any amendments made in accordance with this Agreement constitute the entire Agreement between the Parties with respect to the matters dealt within it and replace any and all previous agreements, representations and warranties relating to the Work.

GC 15.9 Invalidity. If any one or more of the provisions in this Agreement are invalid or unenforceable, the validity and enforceability of the remaining provisions contained in this Agreement will not in any way be affected or impaired.

GC 15.10 Rights and Remedies Cumulative. All rights and remedies under the Agreement (other than those which are expressly specified in the Agreement as exclusive rights and remedies) are cumulative and are in addition to and not in substitution for any other rights or remedies available under the Agreement or at law or equity.

GC 15.10 Counterparts. This Agreement may be executed and delivered in several counterparts, including by facsimile or electronic (PDF) transmission, each of which when so executed and delivered will be deemed to be an original and such counterparts together will be one and the same instrument.

IN WITNESS WHEREOF the Parties have executed this Agreement as of the day and year first above written.

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Per:

Authorized Signatory

Per:

APPENDIX A – SCOPE OF WORK AND SPECIFICATIONS

SCOPE OF WORK AND SCHEDULE

The anticipated start date for Work will be confirmed by BC Hydro with reasonable notice, with Work completed by December 31, 2015.

The Work to be carried out under this Agreement is the clearing of vegetation and access development as prescribed within the south bank dam construction site for the Project. The area of clearing and access development is shown on the attached Appendix J Drawings – 1016-C14-D7601-1 and 1016-C14-D7601-2 (Site) and includes a combination of:

1. Tree and merchantable timber removal (falling, skidding/yarding, processing, sorting, loading, hauling to marketplace or assigned destinations);
2. Waste wood collection and deposition as directed;
3. Existing access road and landing upgrades and maintenance; and,
4. New access road and or trail construction and associated landing construction.

Among other things, the Contractor is responsible for acquiring:

- A. Scale site designations;
- B. Log sale agreements on timber under Contractor ownership; and
- C. Waste wood disposal agreements where agency permits or approvals are not required.

Clearing priorities as also noted on the drawings are as follows:

- i. Staging area for Peace river bridge felled and decked by early September 2015
- ii. Aggregate area for road construction – cleared and grubbed September 2015
- iii. Septimus road right of way – cleared September 2015
- iv. All remaining areas as outlined on the drawings– felled and cleared by end of December 2015

If the performance of the Work meets schedule and contractual requirements, further opportunities for wood waste treatment (grinding / mulching) may be identified. The Contractor has entered into the Agreement without any assurances of such additional work.

BCH PERMITS

No Work will commence until the following permits, licenses, authorizations, certificates and approvals have been obtained by BC Hydro (the "BCH Permits"):

- (a) B.C. Environmental Assessment Certificate;
- (b) The decision statement by the Minister of Environment of Canada under Section 54 of the *Canadian Environmental Assessment Act* (Canada);
- (c) Licence of Occupation approvals for Crown Land and right or permission to conduct work on private land;
- (d) Occupant License to Cut & associated Timber Marks;
- (e) Road Use Permits/Agreements;
- (f) Industrial Access Permits to public roadways where necessary and applicable ;
- (g) Forest Service Road connection permits; and
- (h) All Ministry of Environment and Department of Fisheries and Oceans permits and authorizations related to Waste Wood disposal, culvert installations and riparian habitat alteration, where necessary.

The Contractor is responsible for obtaining all permits, licenses, authorizations, certificates and approvals necessary to perform the Work, other than the BCH Permits.

SPECIFICATIONS

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Note: Measurements in these specifications are metric, unless stated otherwise. The following abbreviations have the following meanings: "km" means kilometre; "m" means metre; "cm" means centimetre; "mm" means millimetre; "kg" means kilogram."

SPECIFICATIONS

SECTION SP1 - GENERAL REQUIREMENTS

1.1 PROTECTION OF THE ENVIRONMENT

(a) **General**

The Contractor is responsible for supplying all materials, labour, supervision, equipment and tools to comply with the requirements of Appendix E - Environmental Obligations.

Should there be conflicting requirements between these specifications and the CEMP, Hydro's Representative should be consulted and the more stringent environmental requirement will apply.

(b) **Wildlife Protection**

The Contractor shall not feed any wildlife. All meals and food waste shall be securely stored to prevent attraction of wildlife.

The contractor shall follow the approved EPP.

(c) **Bird Nest Surveys**

The contractor shall follow the approved EPP

(d) **Identified Archaeological (Arch) Sites**

The contractor shall follow the approved EPP.

In addition to the foregoing, if the Contractor receives any information from any source suggesting that remains or things of geological or archaeological interest or value are at the Site, or if the Contractor confirms the existence of such remains or things during the performance of the Work, the Contractor will take all reasonable precautions to prevent removal or damage to such remains or things, advise Hydro's Representative, and comply with any directions of Hydro's Representative.

(e) **Preservation of Historical Remains**

In the event that sites or artefacts of heritage or archaeological importance (e.g. bones, stone tools, shell deposits, etc.) are encountered during the course of work, the Contractor shall immediately suspend Work, preserve the site, and contact BC Hydro's Representative. An archaeological assessment will be completed of the clearing area prior to clearing and any applicable information relayed to the clearing contractor undertaking this work.

(f) **Noise and Dust Abatement**

During the performance of the Work, the Contractor shall furnish all labour, equipment and materials required to reduce noise including maintaining mufflers and related equipment in good order.

(g) **Other Environmental Risks**

If the Contractor encounters any situation that may pose an environmental risk that is not identified or addressed here, the Contractor shall contact Hydro's Representative or Hydro's Environmental Representative for assistance prior to commencing or continuing Work.

1.4 CONSTRUCTION FACILITIES

The Contractor shall provide and maintain the following construction facilities and pay all costs associated therewith:

1. Sanitary facilities for all construction personnel. These facilities shall be kept in a clean and sanitary condition at all times.
2. First aid facilities conforming to the Worksafe BC regulations and requirements, including first aid attendants and emergency transport vehicles (if required) suitable for the total work force on Site, which will include up to six members of BC Hydro's work force.

All construction services shall be available at no charge for use by personnel of BC Hydro.

The Contractor shall review with the Hydro's Representative the proposed location of Site facilities. Location of all temporary structures, buildings and vehicle parking areas will be subject to acceptance by Hydro's Representative.

Temporary structures constructed by the Contractor, but not described in the attached Appendix J Drawings, shall remain his property and shall be removed from the Site at the Contractor's own expense immediately upon completion of the Work, with the area left in a clean and tidy condition.

The Contractor shall maintain the Site and structures free from advertisements and signs of any kind, except those required by the Ministry of Forests and Range, the Ministry of Transportation and Infrastructure, local municipalities and those accepted in writing by Hydro's Representative.

1.5 MOBILIZATION

Mobilization shall be considered to be complete when all of the following has occurred and been accepted by Hydro's Representative or other agencies as noted:

1. The Contractor's detailed schedule;
2. The Contractor's Safety Management Plan;
3. The Contractor's Environmental Protection Plans, which are required for commencement of Work in accordance with the CEMP;
4. The presence on Site of sufficient workers and equipment necessary to perform Work in accordance with the accepted detailed schedule; and,
5. Compliance with all other terms and conditions of the Agreement applicable at the date of submission of such progress payment estimate.

1.6 SNOW REMOVAL

The Contractor shall be responsible for snow removal and/or sanding within their sole purpose clearing roads in the Agreement. "Sole purpose clearing roads" are roads that are for the sole use of the clearing contractor in order to gain access to the Work area and to proceed with the Work. Road maintenance from this point to the public road will be the responsibility of the Lower Peace Valley Road Use Committee or designated road maintenance contractor.

Should additional road maintenance be required on the section of road within the clearing area to the public road, the contractor will with the pre-approval of a BC Hydro Representative provide additional snow removal and or sanding services.

1.7 COOPERATION

The Contractor shall be required to share the Site with others.

The Contractor shall cooperate with BC Hydro, property owners, the public and other contractors employed on, or adjacent to, the Site.

The Contractor shall submit a proposal to Hydro's Representative for acceptance before using or occupying any land outside the assigned Work area.

1.8 AVAILABILITY AND USE OF THE SITE

The Contractor shall:

1. Not permit the establishment or use of camps along the right-of-way, clearing area or approved access roads by those engaged in the Work;
2. Use only those sections of public and private lands (roads, right-of-way and clearing areas) approved for use;
3. Not use the right-of-way, clearing area or approved access roads as a staging area or as a storage dump for materials and equipment;
4. Immediately repair and restore to the original condition or equivalent any works or structures, including roads or ways either on or off the right-of-way, fences, gates, signs, bridges, culverts, ditches or berms, damaged or altered directly or indirectly by the Contractor's activity;
5. Prior to initial entry on private property, obtain written confirmation from Hydro's Representative that permission is in place to make use of any land or access road or use or construct any road, trail, bridge, culvert or other works outside the clearing area as identified in the attached Appendix J Drawings;
6. Plan and perform the Work so that vehicles and equipment are confined to the right-of-way preparation or clearing area and access specified; and
7. Not relocate access or use or develop new access without the written acceptance of Hydro's Representative.

1.9 PUBLIC CONVENIENCE AND SERVICE SYSTEMS

The Contractor shall:

1. Give to Hydro's Representative and to the owner or other person having control of the service system sufficient notice (not being less than one week in the case of a highway or railroad or minimum 72 hours in other cases) to permit measures to be taken to prevent or

minimize such interference before commencing any part of the Work that may interfere with the security of or free passage on any highway, railroad, communications system, power line, pipeline or other service system;

2. Ensure the security of all overhead lines, underground lines, wellheads and pipelines and the safety of all personnel and plant near and adjacent to these structures; and
3. Assume that all overhead and underground lines are energized and all wellheads and pipelines are in use.

1.10 FIELD SURVEY, LINE AND GRADE

The Contractor shall:

1. Take every reasonable precaution to protect and preserve all lot and subdivision posts and witness marks, all stakes and pins marking property lines and limits of rights-of-way, all Point of Intersection (PI) hubs and structure stakes, anchors, clearing boundaries, monitoring or reference points; and
2. Be responsible for the cost of resetting any such marker which is unnecessarily destroyed, lost or misplaced due to the Contractor's actions.

Clearing boundaries, areas and Danger Tree locations are approximate on the attached Appendix J Drawings to hand-held GPS level accuracy wherever they have been traversed and in no way constitute a guarantee of accurate location or area. Some features are not traversed. The Contractor should verify all Works thoroughly in the field prior to commencement of activities. When planned activities are not traversed onto the attached Appendix J Drawings their location is described in the following Specifications.

The Contractor acknowledges that any information about the nature of the Work area or the specific location of features, lengths or area calculations, is approximate and is not binding upon BC Hydro, and that the Contractor informed itself about such matters prior to entering into an Agreement to undertake the Works. Signing of the Agreement is an absolute release by the Contractor of BC Hydro from any claim that the Contractor may have in respect to the nature of the Work area or the specific location of features, lengths or area calculations.

1.11 NOT USED

1.12 NOT USED

1.13 GENERAL REQUIREMENTS

1. Boundary Location, Marking and Sections

- Clearing boundaries are marked in the field with orange ribbon. Vegetation with clearing boundary marking on the stem or branches on the clearing side of the stem is to remain undisturbed after clearing is complete. Vegetation with flagging on branches beyond the center of the trunk shall be removed.
- Hazard trees, as defined in section 4.1 are to be identified, cut and removed by the contractor concurrent with Work. Where required, Danger Trees, as defined in section 4.1, will be marked with blue paint by a BC Hydro Representative and cut and removed by the Contractor.
- Ribboning convention in the field:
 - Clearing boundary – orange;

- Road centerline – pink;
 - Riparian Management Zone (Machine Free Zone) - orange and black with "Riparian Management Zone" text printed;
 - Special Management Zone (Low Ground Pressure summer) - orange with black with "Special Management Zone" text printed;
 - Stream centerline – red with black strips with "Stream" text printed;
 - Boundary between grubbing and no grubbing (ie forested edge) will be located in the field following clearing with orange paint on stumps and/or stakes;
 - Existing access road upgrade treatments are flagged in the field along the timber edge with yellow ribbons;
 - Archeological sites – wide yellow ribbon with Archeological site printed on the ribbon; and
 - As defined on the attached Drawings in Appendix J, split-lines between slope classes are not flagged in the field. The Contractor shall locate and complete a BCFSC Steep Slope Assessment on areas with slopes greater than 35%, prior to clearing.
- All distances referenced in the specifications are to be horizontal distance unless specified otherwise.

2. **Working from the Highway**

The Contractor shall not position any heavy equipment on highways or main public roads for the purpose of completing the right-of-way preparation or access upgrade Work. Forest Service Roads are not considered main public roads.

3. **Not used**

4. **Not used.**

5. **Traffic Management**

1. The Contractor shall provide all traffic management and access control requirements if the Contractor's work creates a hazard to a user of a road or trail, the general public or livestock in the area of the works. This includes temporary fencing, if the traffic management plan indicates that temporary fencing is required.

2. The Contractor shall consult with Hydro's Representative prior to commencing Work to determine what areas require traffic management.

6. **Livestock Management**

In the areas of pasture boundaries and existing fence lines the Contractor must ensure that:

- Existing fences are maintained or repaired immediately after damage so that livestock cannot pass through the fenced barrier;
- Existing gates are maintained in a closed position at all times or that new gates are installed promptly to prevent livestock movement through the barrier; and

- Existing cattleguards are maintained in good working condition and new proposed cattleguards are installed promptly to prevent livestock movement past the barrier.

7. **Flag Person Costs**

The Contractor shall be responsible for all flag person costs required for traffic management and safety purposes on roadways.

8. **Transportation**

The Contractor shall supply his own transportation throughout the Work.

9. **Power System Safety Protection (PSSP)**

As a minimum, workers involved in clearing and access work within or adjacent to existing powerline rights-of-ways and substations shall successfully complete Category 2 of BC Hydro's PSSP as well as Local Component training for the specific area(s) being worked at. BC Hydro will provide this training free of charge to the number of workers specified in the Contractor's proposal. The Contractor shall pay travel and board for each person to be trained by allowing 8 hours per person for Category 2 training and 1 hour per person for Local Component training. Note that the training sessions for Category 2 PSSP and Local Component may occur at different locations. The Contractor shall provide Hydro's Representative with 10 days' notice prior to requiring the PSSP Training to ensure adequate time for arranging the training personnel and location.

**SPECIFICATIONS
SECTION SP2 - LAND REQUIREMENTS**

2.1 GENERAL

BC Hydro will be obtaining statutory rights-of-way for access on private and Crown owned properties. The Contractor will not contact property owner directly. All contact with property owner must be through BC Hydro.

The Contractor shall close gates immediately after use unless otherwise required by the property owner. Gates that are normally locked shall be locked by the Contractor when leaving the Site. If livestock are being grazed on adjacent properties then all gates and fences are to be closed when unattended by the Contractor.

2.2 APPROVALS/RELEASE

The Contractor shall:

1. Prior to initial entry on private property, obtain confirmation from Hydro's Representative that permission is in place to make use of any land, clear the land or use or construct any road, trail, bridge, culvert or other works;
2. Prior to initial entry on private property, coordinate with Hydro's Representative so that BC Hydro is able to give the property owner a minimum 72 hour notice for any works described in this Agreement subject to guidance from Hydro's Representative;
3. Obtain the written approval of appropriate government agencies or landowners prior to beginning any access development on, or use of, Crown or private land outside BC Hydro's permitted areas covered in documents such as the Cutting Permits, Licences to Cut, Federal Timber Permits, statutory rights-of-way or road use agreements;
4. Obtain written directions from Hydro's Representative prior to relocating privately owned materials on private properties;
5. Not remove crews and equipment from the Site, before Hydro's Representative obtains a written release from each landowner and each holder of a lesser interest in the land affected by the Work to the effect that all works or structures used or affected during construction have been restored to their original condition or equivalent if required; and
6. Provide a copy of all releases/approvals to Hydro's Representative immediately after they are obtained.

SPECIFICATIONS

SECTION SP3 - ACCESS REQUIREMENTS

3.1 GENERAL

The Contractor shall:

1. Plan and perform the Work so that vehicles and equipment are confined to the clearing and/or right-of-way preparation area and access shown on the attached Drawings in Appendix J;
2. Construct all new access on the planned alignment and centerline flagged in the field for non-designed sections and according to the designed centerline in the engineered design segments;
3. Not relocate access or use or develop new access without the written acceptance of Hydro's Representative. All plans for additional access to the right of way or clearing shall be submitted to Hydro's Representative for approval prior to the commencement of works;
4. Notify Hydro's Representative if any deterioration occurs on any existing, upgraded or newly constructed access road;
5. Only use access identified in the attached Drawings located in Appendix J;
6. Construct new skid trails, roads, grades, benches and related work in such a way that slides, washouts, sedimentation off the construction area or into watercourses and similar hazards are prevented;
7. Fully deactivate (by ripping and re-contouring to the natural ground slope) new temporary access used for clearing as required by Hydro Representative, and install appropriate waterbars to minimize detrimental runoff and prevent erosion;
8. Supply all road signage and traffic control measures specified in permits related to access on to public roadways;
9. Supply all road signage and traffic control measures specified in existing access road upgrade prescriptions;
10. Construct new main access roads in the snow-free months of the year without frost in the ground. For clearing scheduled in the winter months the Contractor may construct temporary winter access that follows the proposed main road centerline but all final permanent main road construction shall occur after break-up in the snow-free and frost-free months; and
11. Complete all gravelling and subgrade work within existing road upgrade prescriptions in the snow-free months of the year without frost in the ground. For clearing scheduled in the winter months the Contractor may complete the brushing treatments of the existing road upgrade prescriptions in the winter months, if necessary, for the safety of existing road travel.

3.2 WATERCOURSE CROSSINGS AND GENERAL ACCESS

1. Approvals

- BC Hydro will obtain Ministry of Environment and Fisheries and Oceans Canada approvals for upgrading and constructing watercourse crossings; and
- The Contractor shall not cross any waterbodies, watercourses or drainages other than those identified with crossings on the Drawings (Appendix J) without the prior written consent of Hydro's Representative.

2. Construction

The Contractor shall:

- Not begin Work on watercourse crossings without the prior acceptance of Hydro's Representative;
- Install or construct watercourse crossings at the same time as access is advanced unless other timing is specified;
- Direct vehicles and equipment to cross watercourses only at access crossings shown in the attached Drawings (Appendix J) or accepted by Hydro's Representative; and
- Dispose of old culverts in a manner acceptable to Hydro's Representative.

3.2.1 Access Maintenance and Upgrade

- a) Access Maintenance - The Contractor shall maintain and repair existing and newly constructed access used for the Work equal to or better than its condition at the start of Work. This includes and is not limited to ditching, ditch maintenance, culvert maintenance, surface preparation, surface grading, construction of drainage channels for surface water, etc.

The Contractor shall be responsible for all road maintenance to the Work area for the duration of their activities and until such time as their Work is complete in any area or relieved of said obligations in writing by the Hydro Representative. This means that in the spring there may be other contractors arriving on site to begin construction within their work areas. The Contractor will remain responsible for all access maintenance to the Work area until such time that all of the Work is completed for an area. This includes clearing, Waste Wood disposal, new access construction and existing access road upgrades.

- b) Existing Access Upgrades - The Contractor shall complete all existing access upgrade Work as defined in the specifications and the attached Drawings (Appendix J). Any additional existing road upgrades required to facilitate access to the Work area are the responsibility of the Contractor.

3.2.2 Access Construction

(a) General

In the process of constructing access the Contractor shall:

1. Utilize a combination of local excavated materials, imported materials and overland construction;
2. Construct all access to a 2WD all-weather standard unless specified otherwise;

3. Compact all newly constructed access and all subgrade and surface gravelling sections of existing road upgrades according to these specifications;
4. Be responsible for all rock drilling, blasting and hammering required to construct access according to these specifications. This includes the supply, delivery and safe storage of explosives;
5. Construct roads according to the design where engineered road designs have been completed;
6. Construct drainage channels, accepted by Hydro's Representative, on ground which is relatively level and where natural drainage is restricted, to the extent necessary to prevent ponding and provide drainage of surface water away from the access;
7. Direct surface drainage away from any existing or proposed structure foundations and guy anchors;
8. Crown or in-slope all roads to allow water to drain freely off of the surface;
9. Prepare access grades, skid trails, benches and related Work in such a way that slides, washouts, detrimental rutting and similar hazards are prevented;
10. Minimize surface soil erosion after road construction on all exposed soils that are subject to weathering by seeding with grass and legume vegetation; and
11. Use extreme caution when constructing crossings over buried gas, oil, water and sewer lines. Monitor overland subgrade deflection after installation to ensure adequate road surface support to prevent damage to buried utility lines. The Contractor is responsible for contacting BC1Call (1-800-474-6886) prior to any excavation work. The Contractor is responsible for meeting the construction requirements outlined in the permits issued by the utility. Copies of permits shall be provided to Hydro's Representative prior to the start of Work.

3.3 SPECIFIC ACCESS REQUIREMENTS

(a) Pipeline Crossings

The Contractor shall not cross any portion of a pipeline right-of-way with pick-up trucks, mobile equipment, or any other crew vehicle except at an approved crossing location as defined in the specifications and on the attached Appendix J Drawings, and in accordance with all pipeline crossing agreements.

The Contractor shall not start construction within 30 m of a pipeline crossing until approved by Hydro's Representative.

The Contractor shall not cross any existing or newly constructed pipeline crossing (permanent or temporary) until the crossing has been inspected by Hydro's Representative.

The Contractor shall not excavate within 10 m from the edge of a pipeline right-of-way except at an approved pipeline crossing as defined in the specifications and on the attached Appendix J Drawings. This includes all clearing activities associated with clearing standard areas defined in the specifications and shown on the attached Appendix J Drawings.

(b) Excavated Material Access Construction

The majority of new access development will be excavated construction utilizing local native material free from snow and ice. The Contractor shall complete all excavated

material access construction in accordance with Drawing SKGJT-02 located in Appendix J and these specifications. The Contractor shall strip all organic materials prior to placing fill for excavated subgrade construction.

Soft and fine textured soils must be over-excavated to reach suitable subgrade soils as determined by Hydro's Representative on site. Geosynthetics and suitable imported subgrade material may be required in order to prevent over-excavation requirements in fine textured soils that do not have underlying suitable materials.

(c) **Overland Access Construction**

Overland construction consists of levelling the native ground surface, placing geosynthetic material directly on top of the levelled surface and then gravelling over top of the geosynthetics. The Contractor shall minimize or avoid stripping of organic topsoils in overland road construction. For temporary access segments it may be acceptable, if approved by Hydro's Representative, to utilize logs as corduroy ballast alone or in combination with geosynthetics and imported gravel unless specified otherwise. Log corduroy is not allowed in permanent access segments.

(d) **Localized Borrow Pits**

Local borrow pits may be required to generate additional suitable native subgrade material for excavated or overland road construction. Local borrow pits may be utilized as long as the Contractor ensures that:

- i. Borrow pit locations are approved by Hydro's Representative prior to use;
- ii. Borrow pits are located greater than 25m from structure locations and any anchors;
- iii. Borrow pits are located within the right of way specified in Works Permit or anywhere within Occupant Licence to Cut, but generally within 37.5m each side of centerline of the road in the Occupant Licence to Cut;
- iv. Borrow pits are located outside of riparian vegetation management areas of watercourses or wetlands; and
- v. Borrow pits are reclaimed after use by ensuring that drainage of water around the pits is maintained, back-sloping of cut-slopes is undertaken, deep holes are filled with overburden or back-sloping material to make them safe and exposed soils are seeded.

(e) **Geosynthetics**

For overland construction areas and other general excavated construction segments requiring additional support the Contractor shall supply, deliver and place geosynthetic fabric directly on existing, undisturbed grade or excavated subgrade for a minimum width of 4.0 m, with 1.0 m joint overlaps, and in accordance with the manufacturer's instructions, before placing subgrade material and surfacing gravel.

The geosynthetic fabric material shall be Armtac 855, Amoco 2006 or accepted equivalent woven geosynthetic fabric meeting or exceeding the following physical properties:

<u>Property</u>	<u>Test Method</u>	<u>Value</u>
Grab Tensile Strength (kN)	ASTM D-4632	1.4
Grab Tensile Elongation (%)	ASTM D-4632	15
Mullen Burst Strength (kPa)	ASTM D-3786	4130
Trapezoidal Tear (kN)	ASTM D-4533	0.53

Puncture Strength (kN)	ASTM D-4833	0.53
Flow Rate (l/min/m ²)	ASTM D-4491	160

(f) **Subgrade Gravel - Supply, Deliver and Place (3" minus)**

The Contractor shall, during dry conditions, place well-draining, erosion resistant, structurally competent and compactable road subgrade material where specified in the attached Drawings (Appendix J) for a width equal to the "Road Width" in Drawing SKGJT-02 and a minimum depth of 300 mm after compacting (actual depth is that which is required equal to or greater than 300 mm to support 2WD all-weather construction access). If required by the BC Hydro Representative, the Contractor may be required to use material which has:

1. A minimum of 50% by mass of particles between 5 mm (No. 4 Standard U.S. sieve) and 75 mm diameter;
2. A maximum of 15% by mass of particles less than .08 mm (No. 200 Standard U.S. sieve) diameter; and,
3. A maximum particle size of 75 mm diameter.

If required by the Hydro Representative, a sieve analysis for the proposed material shall be submitted 72 hours prior to its use in the field.

(g) **Surface Gravel - Supply, Deliver and Place (3/4" minus)**

The Contractor shall, during dry conditions, surface the compacted granular, subgrade with well-graded granular fill material where specified in the attached Drawings (Appendix J) for a width equal to the "Road Width" in Drawing SKGJT-02 and a depth of 200 mm after compacting. Material must be uniform in quality, free from an excess of flat or elongated pieces and be of an inert, tough, durable particle that will not deteriorate when worked and will bind when combined with suitable fines. If required by the Hydro Representative, the Contractor may be required to use material which has:

1. A minimum of 50% by mass of particles between 5 mm (No. 4 Standard U.S. sieve) and 20 mm diameter;
2. A maximum of 10% by mass of particles less than .08 mm (No. 200 Standard U.S. sieve) diameter; and,
3. A maximum particle size of 20 mm diameter.

If required by the Hydro Representative, a sieve analysis for the proposed material shall be submitted 72 hours prior to its use in the field.

(h) **Culvert - Supply, Deliver and Install**

The Contractor shall supply, deliver and, during dry conditions, install corrugated metal pipe with 2.0 mm minimum thickness, a length to extend a maximum of 80 cm from the road subgrade, to the specified size as shown on the attached Drawings in Appendix J. 400mm culverts may be a minimum of 1.6 mm minimum thickness. High density polyethelene (HDPE) double-walled pipes can be utilized to a maximum diameter of 800mm where approved by the Hydro Representative. All culvert materials must be fabricated according to the standards established by the Canadian Standards Association for culvert manufacturing or standards of similar strength and durability.

All culvert installations and removals shall conform to section 44 of the Water Regulation of BC unless approval has been granted to do otherwise.

For each culvert installation the Contractor shall:

- Install culvert in accordance with the attached Drawings (Appendix J) and place the culvert invert at the ditch bottom elevation;
- Install culverts in accordance with Drawing 2L102-T08-00004;
- Prepare a firm culvert bed free of lumps, rocks or Waste Wood;
- Minimize stripping and excavation when installing culverts in the vicinity of buried utility lines such as gas, oil and water pipelines;
- Dispose of any excess excavation material away from the watercourse channel in a location acceptable to Hydro's Representative;
- Provide a minimum pipe grade of 0.5% or a proper grade in relation to any existing pipe;
- Backfill over the culvert with well-graded granular road subgrade material used to cover geotextile fabric or suitable native material approved by Hydro's Representative;
- For culverts up to and including 800mm diameter, machine-install and carefully machine back-fill and tamp;
- For culverts >800mm diameter, tamp the backfill as it is placed starting under the culvert haunches in lifts of 15 cm alternately on each side until two-thirds of the culvert height is attained and use a 15 cm x 15 cm face mechanical or hand tamper weighing a minimum 10 kg on horizontal layers;
- Provide a 0.5 metre minimum depth of cover;
- Provide a minimum 1m x 2m x 0.75m deep excavated sump at the culvert inlet; and,
- Unless otherwise specified in the attached Appendix J Drawings or parcel specific access requirements, armour the inlet, the inlet ditch block and the outlet areas surrounding the pipe openings with securely placed, clean, sub-angular rock with a particle size >30cm. The armour shall be placed in a large enough surface area to protect the culvert installation and road fill material from high water events. The armour shall be placed to the level of the road grade above the pipe to prevent ravelling of the road material into the watercourse or the culverts.

(i) **Road Drainage**

To maintain surface drainage patterns, keep water in its own drainage area unless moving it to another area is necessary to avoid unstable or sensitive soils. Approval to alter drainage patterns requires approval of the BC Hydro Representative.

To avoid, mitigate and minimize potential for sediment delivery into streams, do not discharge ditchline water or water from cross-drains directly into streams. Discharge should only occur onto stable soils and vegetated areas. Alternatively, deposition can be managed using settling ponds, or basins and geosynthetics until such time as vegetation can be established.

Ensure that drainage does not cause excessive ditchline or roadway scour and erosion. Ensure that ditches are of sufficient depth and capacity to provide drainage of uphill slopes, subsurface water, roadway surface, and minor debris. Slope the ditch to a stable angle.

(j) **Grading**

The Contractor shall complete grading of new and existing access by:

1. Levelling the ground surface to provide a smooth running surface to the complete road, pullout and landing width suitable for 2WD access that is out-sloped, in-sloped or crowned to prevent water ponding;
2. Avoiding leaving windrows and pushing material into ditch lines or off of the running surface; and,

3. Working only when there is sufficient moisture to ensure that fines or binder material are not lost or blown away and to provide sufficient compaction of the reshaped running surface.

The Contractor shall grade:

1. Existing access required for the works prior to clearing and access work commencing in order to remove potholes and provide a safe, smooth running surface;
2. Existing and newly constructed access when the quality of access deteriorates during heavy use, wet conditions or when requested by Hydro's Representative;
3. Newly constructed access prior to compacting; and,
4. Existing and newly constructed access upon completion of all clearing and access work.

(k) **Compaction**

All constructed access roads, pullouts and landings shall be compacted prior to use. All gravelling segments of existing access road upgrades shall be compacted prior to use. The Contractor shall:

1. Utilize a self-propelled vibratory compactor of at least 6.35 tonnes (7 tons);
2. Make at least three (3) compaction passes of all surfaces. This requirement may be reduced at the discretion of Hydro's Representative;
3. Avoid compacting during periods of heavy rainfall or saturated soil conditions; and
4. Proof roll any suspected soft areas with the compactor in the static setting (vibrator off) to ensure the subgrade materials are adequate for 2WD all-weather construction and areas are ready for final vibratory compacting.

(l) **Pullouts/Turnouts**

The Contractor shall construct pullouts at a minimum interval of every 500m if not indicated in the attached Appendix J Drawings. Any modification to the location of pullouts shown in the attached Appendix J Drawings shall be approved by Hydro's Representative. Pullouts shall be constructed to a minimum 10 metre surface width and a minimum length of 30 metres with a 7.5m taper at each end to allow the safe meeting of large loads. Pullouts shall not be located within the Riparian Vegetation Management Area (RVMA) of creeks or wetlands. Pullouts must be located greater than 10m from a proposed structure or anchor.

(m) **Landings**

The Contractor shall construct landings in accordance with the attached Appendix J Drawings. The Contractor shall not modify the location of landings without approval by Hydro's Representative prior to clearing and construction. The Contractor shall construct Landings to the maximum surface width of the cleared area for the landing to allow the safe processing, piling and loading of logs. The Contractor shall strip organics from Landings and construct with clean native subgrade material. Landings can consist of snow and/or be frozen-in if utilized in winter. The Contractor shall compact Landing surfaces and out-slope or crown the surface to prevent water ponding or water and sediment flow onto adjacent Forest Service Roads or riparian areas.

(n) **Alignment Around Points of Intersection (PI) Structures**

PI's are structures that occur at points where the angle of the transmission line route changes from one side of the structure to the next. PI's are marked on the attached Drawings located in Appendix J. These structures typically have guylines and anchors off to the sides of the structure. PI's with larger angles may have three separate poles which cover a wider footprint. Roads are not permitted under guylines. Road prism (cutslope, road surface and fillslope) interference with any of the anchors or poles is not permitted.

The Contractor shall not construct new access within 150m of PI's until:

- 1) The poles and anchor points are staked in the field by BC Hydro. The Contractor shall ensure clearing and Waste Wood disposal is complete around the structure prior to staking. The Contractor shall provide 14 day notice to Hydro's Representative prior to the date staking should be complete;
- 2) The Contractor verifies in the field that the planned alignment will facilitate new access construction without road prism interference with the poles and anchors; or
- 3) The Contractor adjusts the planned alignment to the approval of Hydro's Representative for any sections where the originally planned alignment would interfere with the poles and anchors.

(o) **Parcel Specific Access Requirements- Not Used**

(p) **Existing Road Upgrades - Not Used**

(q) **Gates - Not used**

(r) **Engineered Road Designs – Not Used**

SPECIFICATIONS

SECTION SP4 - CLEARING

4.1 DEFINITION OF TERMS

The following definitions of terms apply in this Agreement:

Brush includes trees, recently regenerated seedlings or saplings, snags, stumps, shrubs, bushes and vines less than 10 cm in diameter measured at 30 cm above the highest ground contacting the base of the Tree.

Bucked/Bucking is the cutting of limbed branches and logs into 2 metre (+/- 20cm) lengths to be left flat on the ground.

Certified Utility Arborist (CUA) has completed the necessary training and received certification from the B.C. Ministry of Skills, Labour and Training. All CUAs shall have successfully completed BC Hydro's Power System Safety Protection (PSSP) computer based training and currently be authorized to Category 4 in lines.

Clearing Corridor is all areas of clearing work within the statutory right-of-way, the clearing area boundaries and clearing work for danger trees beyond the statutory right-of-way or clearing boundary.

Danger Tree (DT) is any tree that could fall within the limits of approach now or in the future (approximately 10 years) or which may grow into the limits of approach to any power line as identified by a Hydro's Representative.

dbh - is the diameter of the tree measured at 1.3 m above the highest ground contacting the base of the tree.

Hand Held Equipment includes tools carried by hand and used in clearing operations such as chain saws, brush saws, axes or similar equipment.

Hazard Tree (HT) is any tree outside the clearing boundaries exhibiting a flaw or growth characteristic determined by the Contractor to be a hazard to workers or the security of the power line.

Heavy Equipment is that type of machinery used in logging, clearing and road building operations, such as skidders, crawler tractors, excavators, feller-bunchers and loaders and does not include vehicles approved for travel on access roads.

Limbing is cutting all the branches off a tree flush with the trunk of the tree.

Qualified in respect to a worker or person, means one who, by reason of training or experience, is familiar with the Work and the hazards involved.

Stump is that portion of a tree which remains after felling and includes the attached roots.

Tall Growing Regeneration includes all trees and brush in previously logged or burned over areas made up of species that have the ability to grow into overhead energized conductors. The species include (but are not limited to) all conifers such as Douglas fir, pines, spruce, cedars, hemlocks, true firs, larch and deciduous species such as alder, maple, cottonwoods, birch, aspen, willows and tall-growing exotics.

Trees include living trees, dead snags, stumps, shrubs, bushes and vines 10 cm in diameter or greater measured at 30 cm above the highest ground contacting the base of the tree.

Waste Wood includes all felled, dead and down timber, uprooted stumps or vegetation not being removed and utilized as merchantable wood.

4.2 GENERAL

(a) Treatment Units

The treatment units applicable to any area of the clearing are shown on the attached Drawings in Appendix J with an alphanumeric designation (e.g. TU-1). Each treatment unit is described in section 4.3. Other requirements such as those in section 4.4 may take precedence over part of a treatment unit.

Wherever a treatment unit is defined, the Contractor shall clear the entire area as marked in the field with orange ribbon and paint or as otherwise specified in the attached Drawings in Appendix J or Parcel Specific Clearing Requirements in section 4.4(d).

(b) Treatment Unit Boundaries

As per section 1.0 the external boundary of the clearing area is marked in the field with orange ribbon, unless stated otherwise on the attached Drawings in Appendix J. Boundary trees outside the clearing area, including those marked with orange ribbon, are to be left standing after clearing. If a boundary tree or other tree(s) outside of the clearing area is inadvertently felled during clearing, such as being struck by a falling Danger Tree or Hazard Tree, then the stump of the tree shall be scribed with an "X".

Treatment Unit split-lines, riparian management zones, and special management zones are flagged in the field as indicated in section 1.13.

(c) Stumps

For treatment units which do not require the complete removal of Stumps, unless specified otherwise in section 4.3, the Contractor shall:

1. Cut all standing Brush to a maximum Stump height of 5 cm or below the lowest limb, whichever is lower;
2. Cut all standing Trees to a maximum Stump height of 15 cm above the highest ground contacting the base of the stem or below the lowest limb, whichever is lower;
3. Cut all existing Stumps and snags within the right-of-way to the lesser of 15 cm or the dbh of the Stump or snag; and,
4. Cut the top of all Stumps horizontal.

(d) Direction of Felling and Yarding

The Contractor shall:

1. Fell Trees and Brush into the treatment unit areas;
2. Promptly remove, in a manner that causes minimal disturbance, all Trees, Brush or Waste Wood which falls out of a treatment unit area;
3. Fell Trees and Brush away from any waterbody, watercourse, wetland, railway, road surface or buildings unless directed otherwise in section 4.4(d); and,

4. Promptly remove, in a manner that causes minimal disturbance, all Trees, Brush or Waste Wood which falls into a waterbody, watercourse, wetland, railway or road surface unless directed otherwise by Hydro's Representative.

(e) **Waste Wood**

Unless specified otherwise in section 4.3, the Contractor shall:

1. For rights-of-way, maintain 0.5m on either side of centerline clear of all Waste Wood, timber and logs at all times for emergency and safety access;
2. Not open burn any Waste Wood unless authorized by the Hydro Representative;
3. Not use tires for burning;
4. Not bury any Waste Wood;
5. Follow all Waste Wood management guidelines in the treatment unit specifications and attached Drawings in Appendix J;
6. Remove all introduced Waste Wood from creeks, watercourses and wetlands. Naturally occurring woody material in creeks, watercourses and wetlands shall be left in place and shall not be disturbed;
7. Locate Waste Wood piles in designated areas as shown on the attached Drawing (Appendix J) such that standing timber, logs, existing facilities and proposed facilities and/or construction activities will not be impacted;
8. Ensure that roots and stumps are piled separately from other Waste Wood for designated areas noted in part 7 above of this section.
9. In areas designated by the Hydro Representative, establish a minimum 4 metre wide fireguard to mineral soil around all Waste Wood piles to be burned in mechanical clearing areas prescribing Waste Wood burning;
10. In riparian management areas or special management zones, establish a minimum 2 metre wide fireguard free of all flammable material such as Waste Wood, trees and brush around all piles prescribed to be burned if required by the BC Hydro Representative;
11. Locate the edge of Waste Wood piles prescribed for burning at least 25m from any proposed or existing structure; and,
12. Locate the edge of Waste Wood piles prescribed for burning at least 10m, measured horizontally, from the nearest conductor of any existing power line or proposed new transmission line.

(f) **Trees in Proximity to Overhead Lines**

When working near existing power lines and without limiting the generality of any other obligation of the Contractor under this Agreement, the Contractor shall:

1. Assume all power lines are energized;
2. Identify and determine the voltage of the power lines in advance of any Work by contacting Hydro's Representative;
3. Advise workers of the location of the line(s) and its/their voltage;

4. Plan and perform the Work such that workers, other than CUAs, or equipment do not come closer than the limits of approach to any energized line or to vegetation when any part of that vegetation is within such limits to an energized line as defined below:

Limits of Approach

<u>Voltage</u>	<u>Limits of Approach</u>
0-69 kV lines	3.0 m
above 69 kV to 230 kV lines	4.5 m
above 230 kV to 500 kV lines	6.0 m

5. Notify Hydro's Representative of any vegetation that is, or could fall, within the above Limits of Approach to an energized conductor;
6. Ensure workers are familiar with the regulations and guidelines governing vegetation control near energized conductors (WSBC Occupational Health and Safety Regulation Part 19);
7. Utilize Certified Utility Arborists (CUA's) for the removal of vegetation that is, or could fall, within the above Limits of Approach to an energized conductor; and,
8. Ensure workers have received instruction in and are familiar with line identification, limits of approach, step and touch potential, and emergency procedures.

(g) **Use of Heavy Equipment**

The Contractor shall:

1. Confine the use of Heavy Equipment to terrain on which it can manoeuvre safely without winching or being winched and on terrain that complies with WSBC Occupational Health and Safety Regulations (<http://www.worksafebc.ca/>) and BCFSC Steep Slope Assessment Procedures;
2. Restrict the use of Heavy Equipment to mechanical clearing areas as outlined in the attached Drawings in Appendix J and Specifications in Appendix A, ensuring compliance to both riparian management zone and special management zone designations; and
3. Restrict the use of Heavy Equipment to 5 metres or greater from the edge of unmapped wet areas or saturated soils that may be encountered within the clearing area except as outlined otherwise in section 4.4(d).

(h) **Coordination of Clearing**

The Contractor shall:

1. Coordinate the safe falling and clearing of trees with other contractors and the public in the vicinity of the Work area;
2. Supply, install and maintain the necessary warning signage, traffic control and temporary fencing to ensure the safety of the public, landowners and other contractors when they are utilizing public roadways, private roadways, hiking trails and mountain bike trails in the vicinity of the clearing and access footprint; and,
3. Coordinate clearing of areas with Hydro's Representative to allow sufficient time for pre-clearing environmental resource surveys as specified by the CEMP. Following completion of the pre-clearing resource surveys, coordinate with Hydro's

Representative to adhere to prescribed non-disturbance buffers from potentially environmentally sensitive features identified during the pre-clearing surveys prior to commencing clearing activities.

(i) **Timber Ownership**

- 1) All merchantable timber from Crown Land specified for clearing will become the property of the Contractor when it is cut by the Contractor. The Contractor will forfeit ownership of the timber if the specifications for timber utilization and removal in these specifications are not followed. The removal of merchantable timber should be concurrent with logging activities when possible and must be completed no later than thirty (30) days after decking unless approved by the Hydro Representative. If not removed in the time specified, the Contractor will forfeit ownership of the timber;
- 2) All merchantable timber specified for clearing from BC Hydro owned land will become the property of the Contractor when it is cut by the Contractor. The Contractor will forfeit ownership of the timber if the specifications for timber utilization and removal in these specifications are not followed. The removal of merchantable timber should be concurrent with logging activities when possible and must be completed no later than thirty (30) days after decking unless approved by the Hydro Representative. If not removed in the time specified, the Contractor will forfeit ownership of the timber; and,
- 3) Merchantable log decks will not be located near existing facilities, proposed facilities, or areas that may impeded future site activity, and only in areas approved by the Hydro Representative.

(j) **Timber Volumes**

The Contractor acknowledges that any information about the nature of the Work area or the quality or quantity of timber, is approximate and is not binding upon BC Hydro, and that the Contractor informed and satisfied itself about such matters prior to entering into an Agreement to undertake the works. Signing of the Agreement is an absolute release by the Contractor of BC Hydro from any claim that the Contractor may have in respect to the nature of the Work area or the quality or quantity of timber.

(k) **Payments to the Crown**

BC Hydro will be responsible for all stumpage and royalty charges for merchantable timber harvested under the approved cutting authorities and in accordance with these Specifications (Appendix A) and the attached Drawings (Appendix J).

The Contractor shall pay any penalty charges levied for unnecessary waste or destruction of merchantable timber or unauthorized harvesting or equipment operation resulting from his actions and which are in contradiction of these Specifications.

BC Hydro will pay waste assessments for merchantable timber left behind in areas that are cleared by the Contractor in accordance with these Specifications (Appendix A) and to the satisfaction of Hydro's Representative.

(l) **Merchantable Timber Utilization**

The Contractor shall fell, remove, process (limb, top and buck), sort, load and haul merchantable timber from the clearing corridor in accordance with the Specifications prior to the complete disposal of Waste Wood. The Contractor shall maximize the utilization of merchantable timber.

(m) **Non - Merchantable Timber Utilization**

The Contractor shall manage all non-merchantable timber as Waste Wood.

(n) **Compliance With Permits and Legislation**

The Contractor shall complete all clearing and access development in compliance with the terms of the cutting authorities, the Lands Act Authorizations and the Forest and Range Practices Act and accompanying regulations, including the Wildfire Act.

(o) **Compliance With Private Land Agreements**

The Contractor shall complete all clearing and access work on private lands in compliance with the terms of any agreements established with private land holders. The Contractor shall be responsible for all damages to private property (including damage to plantations, standing timber and road infrastructure) incurred from operating outside of approved work areas depicted in the attached Drawings (Appendix J) and the private land agreements.

(p) **Timber Marking**

The Contractor shall conspicuously mark, with the appropriate timber mark, all felled timber to be removed by the Contractor from the site. The Contractor shall mark timber in accordance with regulation.

(q) **Removal of Material**

The Contractor shall remove and/or dispose of all merchantable timber, non-merchantable timber and Waste Wood in accordance with these Specifications and to the satisfaction of Hydro's Representative by the milestone and completion dates specified in the Agreement.

(r) **Waste Surveys & Information**

Waste surveys will be required on cleared areas. The Contractor will report the completion date of "primary harvesting" to Hydro's Representative. Primary harvesting completion is defined as when the last log reaches the landing or roadside – excluding the load-out phase. The Contractor shall report the date of completion of primary harvesting to Hydro's Representative within 48 hours of completion of primary harvesting. At that time, the BC Hydro Representative will arrange for the completion of the waste survey.

4.3 TREATMENT UNITS

4.3.1 Treatment Unit 1 (TU-1) – Clear Merchantable Timber

(a) **Final Ground Conditions**

The Contractor's TU-1 clearing activity shall not significantly disturb the following:

1. the natural ground surface;
2. stumps; and
3. standing vegetation or timber, as specified herein, which will not interfere with subsequent construction or operations.

(b) **Procedures**

The Contractor shall complete TU-1 clearing in accordance with the following:

(i) **Felling Method**

Heavy equipment may be used to cut down timber. In riparian management zones, hereinafter referred to as machine free zones, heavy equipment can reach in to cut down timber. Timber that cannot be reached with heavy equipment must be cut by using hand-held equipment.

(ii) **Felled Timber Management**

Heavy equipment may be used to remove felled timber. In machine free zones, heavy equipment can reach in to remove down timber. Timber that cannot be reached with heavy equipment must be cut by using hand-held equipment. Where it is not possible to fall timber within reach of mechanical equipment it is permissible to leave timber on site as long as Waste Wood is managed according to 4.3.1(b)(iii)(B).

Efforts should be made to avoid or minimize damage to vegetation to be retained.

(iii) **Waste Wood Management**

Heavy equipment may be used to collect and pile Waste Wood as per section 4.2(e). In machine free zones, heavy equipment can reach in to remove Waste Wood. Waste Wood that cannot be reached with heavy equipment must be hand piled.

Open burning will not occur, unless directed by the Hydro Representative.

A. **Waste Wood Classification**

Waste Wood includes the following:

1. All felled, dead and down timber;
2. All branches and tops;
3. All uprooted stumps and roots; and
4. All felled brush.

B. **Waste Wood Tolerances**

When clearing and piling of Waste Wood is complete (removal of merchantable timber and pile of Waste Wood), all Waste Wood remaining on the clearing area and in special management zones, if applicable, must be left in a safe manner (lie flat and scattered) and must not exceed the following quantities unless specified otherwise for machine free zones or in section 4.4(d) Parcel Specific Clearing Requirements:

- less than 1.0 m long with a diameter of 15cm or less is not restricted by quantity;
- less than 1.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100m² plot;
- 1.0m to 2.0m long with a diameter of 15cm or less shall not exceed 25 pieces in any given 100m² area;
- 1.0m to 2.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100 m² area; and,
- greater than 2.0m shall not exceed 5.

Within machine free zones, Waste Wood tolerances are as follows:

- less than 1.0 m long is not restricted by quantity;
- 1.0m to 2.0m long with a diameter of 15cm or less shall not exceed 75 pieces in any given 100m² area;

- 1.0m to 2.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100 m² area; and,
- greater than 2.0m shall not exceed 5.

(iv) **Conservation**

The Contractor shall strive to protect the maximum amount of the following vegetation where operationally feasible, understanding that damage is sometimes unavoidable when falling and yarding large timber on slopes. The following shall be retained where operationally feasible:

1. Non-merchantable trees; and,
2. Brush.

4.3.2 Treatment Unit 2 (TU-2) – Clear All Vegetation

(a) **Final Ground Conditions**

The Contractor's TU-2 clearing activity shall not significantly disturb the following:

1. the natural ground surface; and
2. stumps.

(b) **Procedures**

The Contractor shall complete TU-2 clearing in accordance with the following:

(i) **Felling Method**

Heavy equipment may be used to cut down timber. In machine free zones, heavy equipment can reach in to cut down timber. Timber that cannot be reached with heavy equipment must be cut by using hand-held equipment.

(ii) **Felled Timber Management**

Heavy equipment may be used to remove felled timber. In machine free zones, heavy equipment can reach in to remove down timber. Timber that cannot be reached with heavy equipment must be cut by using hand-held equipment. Where it is not possible to fall timber within reach of mechanical equipment it is permissible to leave timber on site as long as Waste Wood is managed according to 4.3.2(b)(iii)(B).

(iii) **Waste Wood Management**

Heavy equipment may be used to collect and pile Waste Wood as per section 4.2(e). In machine free zones, heavy equipment can reach in to remove Waste Wood. Waste Wood that cannot be reached with heavy equipment must be hand piled.

Open burning will not occur, unless directed by the Hydro Representative.

A. **Waste Wood Classification**

Waste Wood includes the following:

1. All felled, dead and down timber;
2. All branches and tops;
3. All uprooted stumps and roots; and
4. All felled brush.

B. Waste Wood Tolerances

When clearing and piling of Waste Wood is complete (removal of merchantable timber and pile of Waste Wood), all Waste Wood remaining on the clearing area and in special management zones, if applicable, must be left in a safe manner (lie flat and scattered) and must not exceed the following quantities unless specified otherwise for machine free zones or in section 4.4(d) Parcel Specific Clearing Requirements:

- less than 1.0 m long with a diameter of 15cm or less is not restricted by quantity;
- less than 1.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100m² plot;
- 1.0m to 2.0m long with a diameter of 15cm or less shall not exceed 25 pieces in any given 100m² area;
- 1.0m to 2.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100 m² area; and
- greater than 2.0m shall not exceed 5.

Within machine free zones, Waste Wood tolerances are as follows:

- less than 1.0 m long is not restricted by quantity;
- 1.0m to 2.0m long with a diameter of 15cm or less shall not exceed 75 pieces in any given 100m² area;
- 1.0m to 2.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100 m² area; and
- greater than 2.0m shall not exceed 5 pieces in any given 100 m² area.

(iv) Conservation

Not applicable.

4.3.3 Treatment Unit 3 (TU-3) – Clear and Grub

TU-3 is inclusive of TU-3a and TU-3b that may be referenced in other documentation associated with the Work or the pricing of the Work.

(a) Final Ground Conditions

The Contractor's TU-3 clearing activity shall leave the surface of the cleared area grubbed and rough graded.

(b) Procedures

The Contractor shall complete TU-3 clearing in accordance with the following:

(i) Felling Method

Heavy equipment may be used to cut down timber. In machine free zones, unless informed otherwise by the Hydro Representative, heavy equipment can reach in to cut down timber. Timber that cannot be reached with heavy equipment must be cut by using hand-held equipment.

(ii) Felled Timber Management

Heavy equipment may be used to remove felled timber. In machine free zones, unless informed otherwise by the Hydro Representative, heavy equipment can reach in to remove down timber. Timber that cannot be reached with heavy equipment

must be cut by using hand-held equipment. Where it is not possible to fall timber within reach of mechanical equipment it is permissible to leave timber on site as long as Waste Wood is managed according to 4.3.3(b)(iii)(B) or until grubbing and rough grading is approved by the Hydro Representative.

(iii) **Waste Wood Management**

Heavy equipment may be used to collect and pile Waste Wood as per section 4.2(e). In machine free zones, heavy equipment can reach in to remove Waste Wood. Waste wood that cannot be reached with heavy equipment must be hand piled until such time as approval to grub and rough grade is attained from the Hydro Representative.

Open burning will not occur, unless directed by the Hydro Representative.

A. **Waste Wood Classification**

Waste Wood includes the following:

1. All felled, dead and down timber;
2. All branches and tops;
3. All uprooted stumps and roots; and
4. All felled brush.

B. **Waste Wood Tolerances**

When clearing and piling of Waste Wood is complete (removal of merchantable timber and pile of Waste Wood), all Waste Wood remaining on the clearing area and in special management zones, if applicable, must be left in a safe manner (lie flat and scattered) and must not exceed the following quantities unless specified otherwise for machine free zones or in section 4.4(d) Parcel Specific Clearing Requirements:

- less than 1.0 m long with a diameter of 15cm or less is not restricted by quantity;
- less than 1.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100m² plot;
- 1.0m to 2.0m long with a diameter of 15cm or less shall not exceed 5 pieces in any given 100m² area;
- 1.0m to 2.0m long with a diameter greater than 15cm is not permitted; and
- greater than 2.0m is not permitted.

Unless permission to grub and rough grade is given by the Hydro Representative, Waste Wood tolerances within machine free zones are as follows:

- less than 1.0 m long is not restricted by quantity;
- 1.0m to 2.0m long with a diameter of 15cm or less shall not exceed 75 pieces in any given 100m² area;
- 1.0m to 2.0m long with a diameter greater than 15cm shall not exceed 5 pieces in any given 100 m² area; and
- greater than 2.0m shall not exceed 5.

(iv) **Conservation**

Not applicable.

4.3.4 Treatment Unit 4 (TU-4) - Fall and Leave

(a) Final Ground Conditions

The Contractor's TU-4 clearing activity shall not significantly disturb the following:

1. the natural ground surface; and,
2. stumps.

(b) Procedures

The Contractor shall complete TU-4 clearing in accordance with the following:

(i) Felling Method

Hand Held Equipment only shall be used for felling timber. Wherever safe to do so, timber should be felled away from watercourses and into reach from adjacent clearing areas.

(ii) Felled Timber Management

Felled timber will be left where felled unless it can be reached from adjacent clearing areas.

(iii) Waste Wood Management

Waste wood may be retained on site as long as it complies with section 4.3.2(b)(ii).

A. Waste Wood Classification

Waste Wood includes the following:

1. All felled, dead and down timber;
2. All branches and tops;
3. All uprooted stumps and roots; and
4. All felled brush.

B. Waste Wood Tolerances

- N/A

(iv) Conservation

Not applicable.

4.4 SPECIFIC CLEARING REQUIREMENTS

(a) Clearing and Fence Lines

In any clearing standard area, the Contractor shall cut trees with fencing attached to the stem at 10 cm above the top fence wire unless otherwise directed by the Hydro Representative.

(b) Danger Trees and Hazard Trees

Along proposed power line rights of way, Danger Trees will be marked in the field with a painted blue dot by a Hydro representative. The Contractor shall fall and manage all Danger Trees marked in the field under this Agreement. The Contractor is responsible for

identifying and removing all trees Hazard Trees that are deemed dangerous from a WSBC and worker safety perspective.

The Contractor shall:

1. Fell Danger Trees marked in the field and identify and fell Hazard Trees as part of the Work;
2. For Danger Trees and Hazard Trees landing within a clearing standard area, dispose of logs, branches and tops in accordance with the clearing standard;
3. Unless otherwise specified in the Parcel Specific Clearing Requirements, for Danger Trees landing outside a treatment unit area that are accessible to heavy equipment reaching in from adjacent clearing areas, dispose of all limbs, tops and logs from the site by a method acceptable to Hydro's Representative; and
4. Unless otherwise specified in the Parcel Specific Clearing Requirements, for Danger Trees landing outside a clearing standard area and that are not accessible to equipment, manage all limbs, tops and logs on the site by a method acceptable to Hydro's Representative.

Individual Danger Tree Table - Not Applicable						
T/L	Location	Species	Side + Meters from C/L	DBH (cm)	Ht (m)	Comments

(c) **Wildlife Tree Creation**

Trees in or near riparian areas of fish-bearing watercourses may be identified for topping into wildlife trees. Refer to sections 4.4(b) and (d) for the location of the trees identified for wildlife tree creation.

(d) **Parcel Specific Clearing Requirements**

Not applicable.

(e) **AIA Restricted Polygon Requirements**

AIA restricted polygons have been identified on the attached Drawings in Appendix J . Absolutely no soil disturbance may occur within the AIA polygons specified below until such time as the AIA fieldwork is completed by Others and the fieldwork confirms that it is acceptable to proceed with RW clearing activities that may cause soil disturbance.

(f) **Clearing and Access Unit Summary – Not Used**

**EXHIBIT 1 TO APPENDIX A
CHANGE ORDER FORM**

<PROJECT NAME>

Change Order No.: _____

Date: _____

Contract Number: _____

Contractor: _____

Subject:			
<input type="checkbox"/> Alteration	<input type="checkbox"/> Addition	<input type="checkbox"/> Deletion	<input type="checkbox"/> Other

This **Change Order** has been agreed to by BC Hydro and the Contractor pursuant to GC.2.14–*Changes*.

Hydro's Representative

Contractor's Representative

Date: _____

Date: _____

Attachments: _____

APPENDIX B – RATES, PAYMENT AND TAXES

1. TABLE OF RATES

Payment Item	Description	Unit	Amount
1.	Mobilization/Demobilization (Lump Sum)	LS	
2.	It is estimated that approximately 30km of in-block winter roads and trails will be required. At a unit cost of \$ /km, the total estimated cost for in-block winter roads is \$. Construction of in-block winter road will be paid on at the unit rate of \$/km based on as-built measurements.	/km	
3.	Clearing Rate	/ha	
4.	Cost for in-block road and trail maintenance. This is a minimum charge for having the maintenance equipment available for the duration of the Work. Maintenance Work will be tracked and if the value of the Work exceeds \$, then the Work exceeding the value of \$ will be paid based on hourly rates ().	LS	
5.	Work associated with the widening and realignment of the switchback is estimated. Work will be tracked and paid based on hourly rates ().	LS	

The abbreviations in the Table of Rates are defined as follows:

LS	lump sum
/km	per kilometer
/ha	per hectare
/m ³	per cubic metre
/hr	per hour

If there is any other provisional work not listed in the foregoing Table of Rates that BC Hydro requests the Contractor to perform under this Agreement, the rates for such provisional work will be mutually agreed upon unit rates or hourly rates, which will be "Blue Book" plus 10 %. The provisional work and agreed upon rate will be reflected in a change order issued under GC2.14(a). The Contractor is to provide a provisional rate sheet listing unit rates where applicable and hourly rates for known equipment. As equipment is changed or added, these will be added or removed from the provisional rate sheet.

2. PAYMENT

2.1 Direct Deposit. The Contractor will submit to Hydro's Representative, concurrent with the delivery of this Agreement, a completed Direct Deposit Application Form provided by Hydro's Representative. Any direct deposit payments under this Agreement will only be made to an account located in Canada with a Canadian financial institution. If, at any time, the Contractor wishes to change any information contained in the Direct Deposit Application Form, the Contractor's Representative must submit a revised form. BC Hydro will be entitled to rely on the information in the completed Direct Deposit Application Form, and any revised forms, without further enquiry or investigation. BC Hydro may, in its sole discretion, request additional evidence to demonstrate the accuracy of information in a Direct Deposit Application Form, or revisions, and the Contractor must comply with the request.

2.2 Contractor Invoices. Contractor invoices for payment for Work performed under this Agreement must include a breakdown, in reasonable detail, of the specific Work performed during the invoice period, applicable Rates and applicable taxes and must include any supporting documentation as may be reasonably required by BC Hydro.

2.3 Payment Process. Payment will be made by BC Hydro to the Contractor as follows:

2.3.1.1 The Contractor must submit to BC Hydro an invoice no more than once every 15 days, in accordance with the Agreement. Unless otherwise directed by BC Hydro, the Contractor must submit its invoices by email to BC Hydro Accounts Payable, 6911 Southpoint Drive, Burnaby B.C. V3N 4X8, with a copy also sent by email to the BC Hydro Representative (email addresses to be provided).

To expedite the invoicing and payment process, the Contractor will only submit an invoice for Work performed if the Hydro Representative has first confirmed, by way of email or in writing, that the Work described in the invoice was performed in accordance with the Agreement, such confirmation not to be unreasonably withheld or delayed. Confirmation by the Hydro Representative that Work was performed in accordance with the Agreement for the purpose of this section 2.3(a) will not constitute approval or acceptance of the Work or the quality of the Work and will not be considered a waiver by BC Hydro of any rights or remedies under this Agreement in respect of such Work nor any deficiencies that BC Hydro may subsequently identify in such Work;

2.3.1.2 BC Hydro will pay the Contractor the amount of each invoice prepared and submitted in accordance with the Agreement, fifteen (15) days after receipt of the invoice. BC Hydro may withhold payment of part or all of an invoice if BC Hydro has identified any deficiencies under GC2.16 until the Contractor remedies the deficiencies (no interest is payable on such withheld amounts). If BC Hydro disputes any part of the invoice, BC Hydro will pay the undisputed portion of the invoice and will explain in writing why it is disputing the unpaid portion of the invoice. The dispute will be resolved in accordance with paragraph GC 13 of the Agreement; and

2.3.1.3 All amounts due and owing, net of any disputed amounts, as determined in accordance with the Agreement will be paid by direct deposit to the account designated by the Contractor in accordance section 2.1 of this Appendix B, (until the Contractor remedies the deficiencies no interest is payable on such withheld amounts).

Note: Aboriginal Inclusion Performance Report must be provided with invoices as outlined in Appendix F.

2.4 Payment Not Waiver. No payment made by BC Hydro to Contractor will constitute approval or acceptance of any Work nor be considered a waiver by BC Hydro of any of the terms of the

Agreement nor relieve Contractor of any of its obligations under the Agreement.

2.5 Woodworker's Lien. Despite anything in this Agreement, BC Hydro will be under no obligation to make any payment to the Contractor unless and until the Contractor has produced to BC Hydro a receipted payroll or sheet showing payment of all amounts, wages or pay due to each of the employees or subcontractors employed on the Work and showing that all assessments and deductions required to be paid or made by the Contractor under applicable statutes or regulations have been so paid or made. The Contractor will, upon the request of BC Hydro, provide written authorization to any governmental authority to release such information to BC Hydro as it may reasonably require to ensure that all payments, assessments and deductions referred to in this paragraph have been paid or made.

3 TAXES

3.1 GST

GST will be identified as a separate line item on all invoices, and will be payable by BC Hydro to the Contractor as a separate item in addition to the Rates.

3.2 Input Tax Credits

Each party will provide to the other party at all times when any GST is required to be paid, such documents and particulars relating to the supply as may be required by either BC Hydro or the Contractor, as the case may be, to substantiate a claim for any input tax credits as may be permitted pursuant to the *Excise Tax Act* (Canada) in respect of GST.

3.3 Payment of Taxes

Except as expressly set out otherwise in the Agreement, the Contractor is solely responsible for and will pay all taxes, duties, levies and charges (excluding only GST) payable by or assessed on any of the Contractor, subcontractors, or their employees or other Persons engaged by or through them by any governmental authorities in connection with the Work ("**Contractor Taxes**"). The Contractor will be solely responsible for and pay all customs duties with respect to all imported equipment and materials regardless of whether such equipment and materials are held in the name of the Contractor, a subcontractor or BC Hydro at the time of import ("**Contractor Duties**").

3.4 Tax Indemnity

The Contractor will indemnify and hold harmless the Indemnified Parties, or any one of them, from and against any liability and costs incurred by them in respect of any Contractor Taxes or Contractor Duties, or any other related charges, including any related interest, fines, or penalties and any related reporting obligations and costs incurred as a consequence of such. The Contractor will be registered with all governmental authorities in accordance with law and will comply with all of its obligations to collect and remit any such Contractor Taxes and Contractor Duties. Notwithstanding any other provision in the Agreement, BC Hydro may, in its sole discretion, withhold from any monies owed to the Contractor, whether such monies are owed under and pursuant to the Agreement or otherwise, such amounts as are payable by the Contractor in respect of Contractor Taxes or Contractor Duties for which BC Hydro becomes or may become liable.

3.5 Non-Resident

The Contractor represents and warrants that it is not a non-resident of Canada for purposes of the *Income Tax Act* (Canada). In the event that the Contractor becomes a non-resident of Canada for purposes of the *Income Tax Act* (Canada), the Contractor will provide Hydro's

Representative with written notice of such circumstance.

If the Contractor:

- (i) is a "non-resident person" (as defined in the *Income Tax Act* (Canada));
- (ii) provides or performs any part of the Work in Canada; and
- (iii) has not received and provided Hydro's Representative with a copy of a written exemption from Revenue Canada,

then BC Hydro will deduct and withhold 15% of the value of the Work performed in Canada, or such other amount as may be specified by Revenue Canada from time to time, and remit such amount according to Laws. If Revenue Canada assesses BC Hydro for a failure to withhold pursuant to Laws, then the Contractor will indemnify the Indemnified Parties and each one of them against all taxes, penalties, fines, interest and costs resulting from such failure.

3.6 Tax Exemptions and Refunds

The Contractor will, where applicable, use all commercially reasonable efforts to obtain for the benefit of BC Hydro all available exemptions, deductions, rebates, remissions and refunds for all Contractor Taxes and Contractor Duties, including any other related charges, including any related interest, fines or penalties, and upon receipt of any amount in respect of any such exemption, deduction, rebate, remission or refund, the Contractor will promptly pay such amount to BC Hydro.

APPENDIX C – BC HYDRO’S POLICIES AND PROCEDURES

The following are BC Hydro’s Policies and Procedures which may be amended at any time and from time to time.

The Contractor is responsible to obtain and to comply with the most current form of such policies and procedures.

1. Doing Business with BC Hydro (Supplier Interaction Guidelines and Code of Conduct and Vendor complaint review process)
<http://www.bchydro.com/about/suppliers/doing-business-with-bchydro.html>
2. Safety Information for Contractors
<http://www.bchydro.com/about/suppliers/doing-business-with-bchydro/contractor-safety.html>

APPENDIX D – SAFETY

1 Interpretation

1.1 Definitions

The following words and phrases have the following meanings in the Agreement;

"Construction Safety Officer" has the meaning set out in section 2.5 of this Appendix D;

"Contractor's Work Area" means the area where the Contractor will perform the Work as defined by the Agreement;

"CSMP" means the Site C Clean Energy Project Construction Safety Management Plan dated October 17, 2014, as it may be amended from time to time, a copy of which is available from BC Hydro on request;

"Emergency Response Plan" has the meaning set out in section 4.1 of this Appendix D;

"Hazardous Substance" means any substance, mixture of substances, product, waste, organism, pollutant, material, chemical, contaminant, dangerous goods (as defined in the *Transportation of Dangerous Goods Act* (Canada)), constituent or other material which is or becomes listed, regulated or addressed under any laws respecting the use, manufacture, importation, handling, transportation, storage, disposal and treatment of the substance, mixture of substances product, waste, organism, pollutant, material, chemical, contaminant, dangerous good (as defined in the *Transportation of Dangerous Goods Act* (Canada)) , constituent or other material;

"Multiple Employer Workplace" has the meaning set out in Section 118 of the *Workers Compensation Act* (British Columbia) and in WorkSafeBC Regulation Part 20.3 (2) "a work location has overlapping or adjoining work activities of 2 or more employers that create a hazard to workers";

"Notice of Failure to Comply" has the meaning set out in section 4.6(a) of this Appendix D;

"Occupational Health & Safety Management Program (OHSMP)" has meaning set out in Part 3.3 of the Occupational Health and Safety Regulation (BC);

"OHSR" means the *Occupational Health and Safety Regulation* (British Columbia);

"Other Prime Contractor" has the meaning set out in Section 2.7 of this Appendix D;

"Power System" means all plant and equipment essential to the generation, transmission or distribution of electricity, including any plant or equipment that is out of service, being constructed or being installed;

"Prime Contractor" has the meaning set out in Section 118 of the *Workers Compensation Act* (British Columbia);

"PSSP" has the meaning set out in section 3.6 of this Appendix D;

"Public Hazards" has the meaning set out in section 8.1 of this Appendix D;

"Public Safety Management Plan" has the meaning set out in section 8.1 of this Appendix D;

"Qualified" has the meaning ascribed to it in Part 1 of the OHSR;

"Qualified Site Safety Coordinator" has the meaning set out in section 2.4 of this Appendix D;

"Safe Work Procedures" has the meaning set out in section 3.2 of this Appendix D;

"**Safety Area**" has the meaning set out in section 2.1 of this Appendix D;

"**Safety Audits and Inspections**" has the meaning set out in section 6.1 of this Appendix D;

"**Safety Laws**" has the meaning set out in section 3.1 of this Appendix D;

"**Safety Order**" has the meaning set out in section 7.2 of this Appendix D;

"**Site Safety Management Plan (SSMP)**" has meaning set out in section 3.1 of this Appendix D;

"**Specified Area**" has the meaning set out in section 2.7 of this Appendix D;

"**Work Area**" means any area at the Site in which Work will be performed for the construction of the Project;

"**WorkSafeBC**" means the Workers Compensation Board of British Columbia; and

"**WPP**" has the meaning set out in section 3.6 of this Appendix D.

2 GENERAL OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

2.1 Safety Areas

For the purposes of safety BC Hydro may divide the Site into a number of areas (each a "**Safety Area**") and designate a specific contractor as the Prime Contractor for each Safety Area. A Safety Area may be comprised of the Contractor's Work Area, and an area of ancillary use such as a storage area or laydown area and roads and access lands. Any Safety Area may be a Multiple Employer Workplace such that more than one contractor may be required to use, perform work in or pass through the Safety Area.

2.2 Duties of all Contractors

The Contractor will:

- (a) ensure the health and safety of all workers working for the Contractor, and any other workers present at a workplace at which that the Contractor's Work is being carried out;
- (b) comply with the *Workers Compensation Act* (British Columbia), the OHSR and any applicable orders;
- (c) remedy any workplace conditions that are hazardous to the health or safety of the Contractor's workers;
- (d) ensure that the Contractor's workers are made aware of all known or reasonably foreseeable health or safety hazards to which they are likely to be exposed by their work, comply with the *Workers Compensation Act* (British Columbia), the OHSR and any applicable orders, and are made aware of their rights and duties under the *Workers Compensation Act* (British Columbia) and the OHSR;
- (e) provide to the Contractor's workers the information, instruction, training and supervision necessary to ensure the health and safety of those workers in carrying out their work and to ensure the health and safety of other workers at the workplace;
- (f) maintain the workplace in a manner that ensures the health and safety of persons at or near the workplace. At all times have full regard for the safety of all persons on the Safety Area (whether such persons are present on the Safety Area lawfully or not) and will keep the Safety Area in a

manner and in an orderly state that ensures the safety of such persons and that is appropriate to the avoidance of danger to such persons;

- (g) implement and maintain a 'Drug and Alcohol Policy' that contains:
 - (i) reference to the requirements of WorkSafeBC Regulation 4.19/4.20;
 - (ii) reference to impairment by medication;
 - (iii) reference to the use, possession, distribution and sale of drugs and alcohol;
 - (iv) an alcohol and drug testing program including:
 - (A) pre-employment testing;
 - (B) testing for safety sensitive positions;
 - (C) testing for cause;
 - (D) post incident testing;
 - (E) return to work testing after a policy violation; and
 - (F) duty to accommodate including treatment; and
 - (v) an enforcement policy that includes removal from the Site; and
- (h) prior to leaving a Specified Area at the conclusion of its work, take all practical measures to ensure the Specified Area is free of all hazards created by the Work and all safeguards are in place to protect the health and safety of persons entering the Specified Area. In the event that it is not possible to implement all of the safeguards required to eliminate the hazards created by the Work, the contractor will forthwith communicate this information to the Prime Contractor.

2.3 Contractor as the Prime Contractor

The area(s) shown on Exhibit D-1 is the Contractor's Safety Area, (and if there is more than one Safety Area indicated in this reference then for the purposes of this Appendix D, "Safety Area" will be deemed to apply to all such indicated Safety Areas). BC Hydro hereby designates the Contractor as the Prime Contractor for that Safety Area(s) and the Contractor hereby agrees to be the Prime Contractor for that Safety Area(s). All references in this Appendix D to the Contractor will be deemed to mean the Prime Contractor except as otherwise stated. Accordingly the Contractor will:

- (a) take all steps or measures necessary, through such arrangements as are appropriate, to fulfill its obligations, functions and duties as the Prime Contractor;
- (b) file a Notice of Project for Construction in accordance with section 20.2 of the OHSR;
- (c) coordinate the activities of all of the employers and workers in the Safety Area so that the activities of the workers of one employer do not pose any risk to the workers of another employer;
- (d) establish and maintain a system or process that will ensure compliance with the Safety Laws in respect of the Safety Area;
- (e) identify and document any work activities at the workplace where there is a known or reasonably foreseeable risk to workers;
- (f) maintain the workplace in a manner that ensures the health and safety of persons at or near the workplace; and

- (g) at all times have full regard for the safety of all persons on the Safety Area (whether such persons are present on the Safety Area lawfully or not) and will keep the Safety Area in a manner and in an orderly state that ensures the safety of such persons and that is appropriate to the avoidance of danger to such persons.

2.4 Qualified Site Safety Coordinator

Prior to the commencement of any construction within the Safety Area, the Contractor will appoint a Qualified person (the "Qualified Site Safety Coordinator") to coordinate health and safety activities for the Safety Area with respect to such construction and deliver to Hydro's Representative written notice of the designation of the Qualified Site Safety Coordinator. The duties of the Qualified Site Safety Coordinator will be:

- (a) establishing and maintaining working relationships with WorkSafeBC and BC Hydro;
- (b) prior to the commencement any Work prepares and delivers to Hydro's schedule of safety activities demonstrating implementation of the Contractor's Site Safety Management Plan;
- (c) preparing or causing to be prepared a site drawing showing the project layout, first aid locations, emergency transportation provisions and the evacuation marshalling station;
- (d) identifying and documenting all pre-existing hazards, and new hazards that arise during the performance of the Work for the Contractor's and subcontractor's workers and for all other employers and their workers who for any reason come into the Safety Area;
- (e) identifying and documenting any activities at the workplace that could create a known or reasonably foreseeable risk to workers and informing all other contractors and their workers who for any reason come into the Safety Area of the activities and the hazards;
- (f) preparing or causing to be prepared a set of written construction procedures designed to protect the health and safety of workers at the Safety Area;
- (g) reviewing the scopes' of work, work procedures and physical work areas of the other contractors doing work within the Safety Area and when conditions or activities at any location or locations in the Safety Area affect the workers of more than one employer or where there are overlapping or adjoining work activities by two or more employers, coordinating the occupational health and safety activities throughout the Safety Area and alerting all workers to all reasonably foreseeable hazards to which they are likely to be exposed;
- (h) conducting documented site safety inspections at a frequency that prevents the development of unsafe conditions or procedures in the Safety Area;
- (i) notwithstanding any limitation in the OHSR regarding the number of workers in any work force, implementing and at all times maintaining a formal Joint Health and Safety Committee for the Safety Area as if required by the *Workers Compensation Act* (British Columbia), and maintaining compliance with those duties and functions as required by the *Workers Compensation Act* (British Columbia);
- (j) advising BC Hydro of any accidents or incidents that occur in the Safety Area including those that must be reported to WorkSafeBC; and
- (k) informing all persons who enter the Safety Area of the health and safety requirements in the Safety Area.

2.5 Construction Safety Officers

The Contractor will appoint a sufficient number of Qualified construction safety officers (each a "Construction Safety Officer"), having responsibility for the identification and control of potential safety Hazards on the Site, in accordance with applicable Safety Laws. The Contractor will ensure that during

the performance of all construction activities on the Safety Area, at least one Construction Safety Officer is at the Safety Area and available for every 200 construction workers. A Construction Safety Officer will demonstrate the requisite degree of training and competency to act in that capacity, as required by WorkSafeBC.

2.6 Refusal to Recognize the Prime Contractor

If WorkSafeBC refuses to recognize or accept the Contractor at any time as the Prime Contractor, the Contractor will not be relieved of any obligations, duties and liabilities as the Prime Contractor but will be responsible to BC Hydro as if the Contractor had been accepted by WorkSafeBC as the Prime Contractor for fulfilling all obligations to the same extent as if the Contractor undertook the obligations of a Prime Contractor for the Safety Area.

2.7 Contractor Not the Prime Contractor

BC Hydro may, from time to time, at its sole discretion and on prior written notice from Hydro's Representative to the Contractor, appoint a person other than the Contractor as the Prime Contractor (in this section 2.7, the "**Other Prime Contractor**") in connection with specified works and activities that may be undertaken and performed in a portion of the Safety Area (the "**Specified Area**"), for a specified period of time.

Upon receipt of written notice from Hydro's Representative the Contractor agrees that it will cease to be the Prime Contractor in the Specified Area for the specified period of time, and the Contractor will comply with, and ensure compliance by its workers and subcontractors with all applicable safety requirements of the Other Prime Contractor, acting reasonably, in the Specified Area. The Contractor will provide the Qualified Site Safety Coordinator of the Other Prime Contractor with the name of a Qualified person designated by the Contractor to be responsible for the Contractor's health and safety activities in the Work Area.

While acting as the Prime Contractor on the balance of the Safety Area, the Contractor will coordinate the health and safety activities of any other contractors doing work within the Safety Area to ensure at all times that the workers on the Safety Area do not create a hazard for the workers on the Specified Area.

Upon receipt from Hydro's Representative of written notice of the conclusion of the works and activities referred to in the original notice, the Contractor will reassume and thereafter fulfil the responsibilities of the Prime Contractor as otherwise set out in this Appendix D at the Safety Area.

If the Contractor ceases to be the Prime Contractor in the Specified Area for a specified period of time, the Contractor will, prior to that specified period of time, take all practical measures to ensure the Specified Area is free of all hazards created by the work and all safeguards are in place to protect the health and safety of persons entering the Specified Area.

In the event that it is not possible to implement all of the safeguards required to eliminate the hazards, the Contractor will communicate this information to BC Hydro.

2.8 Major Incident Response

BC Hydro may, at its discretion, designate a person, which may be other than the Contractor, to be the Prime Contractor across some or all of the Site for such period of time as BC Hydro may select.

3 SITE SAFETY MANAGEMENT PLAN

3.1 Preparation and Submission

Within 60 days after the Effective Date, and in any event, at least 20 days before commencing any Work at the Site, the Contractor will prepare and submit the Contractor's Site Safety Management Plan ("**Site Safety Management Plan**" or "**SSMP**") to BC Hydro. The SSMP will be prepared by a Qualified person who will certify that the SSMP:

- (a) has been prepared in accordance with the requirements of *Workers Compensation Act* (British Columbia) and OSHR and all applicable Laws and the Safety Regulations (the "Safety Laws");
- (b) has been prepared in accordance with the requirements of the CSMP;
- (c) meets the minimum standards of health and safety for each specified component of the Work;
- (d) is in compliance with good industry practice;
- (e) addresses overall management of occupational safety, health and wellness and addresses mitigation of any risks due to occupational health and safety hazards associated with the Project, the Contractor's Work Area and the performance of the Work. The SSMP will define the safety purpose, responsibilities, strategies and plans that direct the Contractor, its employees, its subcontractors and its subcontractors' employees with a key focus made to those components of the Work, including cooperation with other contractors, BC Hydro and other persons at the Site;
- (f) the Prime Contractor component of the SSMP will include strategy for coordination of occupational health and safety activities within the Contractor's Work Area, hazard identification and control, provision of first aid, strategy for ensuring training and competency, rules of conduct, and design, implementation, and maintenance of the system to ensure compliance with the *Workers Compensation Act* (British Columbia) and the OHSR, as well as the worksite rules of the Prime Contractor;
- (g) addresses the development of emergency response plan in communication with BC Hydro;
- (h) includes a comprehensive physical and operational security program; and
- (i) outlines Safe Work Procedures for specified aspects of the Work.

3.2 Safe Work Procedures

Prior to commencing any activities at the Site, the Contractor will develop and submit a set of written instructions identifying the health and safety hazards associated with the performance of each type of activity associated with the performance of the Work ("Safe Work Procedures") to BC Hydro for review as to completeness. The Contractor will engage a Qualified Person knowledgeable in the applicable WorkSafeBC Regulation and work procedures to prepare each set of Safe Work Procedures. Each set of Safe Work Procedures will:

- (a) address all site specific safety hazards and work procedures necessary to address those hazards for the safe performance of the specific type of Work activity;
- (b) include Safe Work Procedures and exposure control plans applicable to the site and the performance of the specific type of Work activity;
- (c) include reference to hot work precautions;

- (d) be prepared in accordance with WorkSafeBC requirements; and
- (e) specifically identify the applicable procedures in the event of an accident or safety violation.

3.3 Amendment of SSMP

The Contractor will review and amend the SSMP when hazards change to ensure that the SSMP at all times complies with the requirements set out in section 3.1. Prior to implementation of any SSMP amendments, the Contractor will submit the proposed amendments to Hydro's Representative to allow BC Hydro to assess whether or not the proposed amendment is acceptable.

3.4 Compliance to SSMP

In performing the Work, the Contractor will implement and comply with the SSMP, and require all subcontractors to comply with the SSMP, prepared and as may be amended from time to time in accordance with the requirements of this Appendix D.

3.5 Life Saving Rules

The Contractor will ensure compliance as applicable with the following lifesaving rules by all persons on the Safety Area as part of the Site Safety Management Plan:

- (a) maintain limits of approach from energized electrical lines;
- (b) ensure there is a Safety Protection Guarantee or lockout in place when working on equipment and check it is appropriate for your work;
- (c) test for hazardous energy before starting work;
- (d) if working within the limits of approach ensure that worker protection grounding/bonding is applied;
- (e) use fall protection when working at heights;
- (f) maintain a safe atmosphere in a confined space and ensure each worker can be rescued;
- (g) prevent harmful exposure to known carcinogens, toxins and bio-hazards;
- (h) no work will be undertaken under the influence of alcohol or drugs; and
- (i) adjust driving performance to the weather and road conditions.

3.6 Safety Practice Regulations

Before commencement of any work on the Power System, the Contractor shall ensure all workers are trained to the level of knowledge set out in and comply with BC Hydro's Safety Practice Regulations (SPR), including the Power System Safety Protection ("PSSP"), Work Protection Practices ("WPP"), and lockout procedures. The Contractor will train or cause to be trained all persons engaged in the performance of the Work to a minimum of Category B under WPP and Category 3 under PSSP before the equipment is connected to the grid and from connection time forward all persons working on the equipment must maintain PSSP/WPP certification to the level required by the work being done.

3.7 Isolation

If a Contractor requires a change to the equipment isolation and lockout procedures to accommodate the performance of the Work, the Contractor will submit a lockout procedure change request to Hydro's Representative a minimum of three days in advance of the required change. BC Hydro will perform the requested switching and isolation at no charge to the Contractor. Notwithstanding the foregoing, BC

Hydro will not be responsible for any costs associated with any delays or interruptions of the Work arising from changes to isolation of equipment requested by the Contractor.

3.8 WorkSafeBC Requirements

Within 60 days after the Effective Date but, in any event, before commencing any Work at the Site, and at any time on written request from Hydro's Representative, the Contractor will deliver to BC Hydro a statement from WorkSafeBC that:

- (a) each subcontractor is registered and its premiums are fully paid;
- (b) a notice of project has been filed in accordance with section 20.2 of the OHSR; and
- (c) all persons performing Work at the Site who are not covered by the *Workers Compensation Act* (British Columbia) are covered under personal optional protection coverage available through WorkSafeBC.

3.9 Indemnity for WCB Non-Compliance

If the Contractor or anyone employed by or through the Contractor in the performance of any Work does not comply with the requirements of the *Workers Compensation Act* (British Columbia), including payment and deduction and remittance of any and all contributions, premiums, fees, assessments and charges required to be made thereunder, the Contractor will indemnify BC Hydro from any cost, loss, liability or obligation which BC Hydro may incur as a result.

3.10 Failure to Comply with WorkSafeBC Requirements

If at any time the Work or portion of the Work is stopped because the Contractor, or any subcontractor fails or refuses to comply with an order issued pursuant to the *Workers Compensation Act* (British Columbia), then such failure or refusal will be deemed to be a default to which the provisions of GC 11.1 will apply.

4 SAFETY REQUIREMENTS

4.1 Emergency Response Plan

The Contractor will prepare an emergency response plan (the "**Emergency Response Plan**") which:

- (a) outlines the warning systems for evacuation that will be in place;
- (b) provides the Contractor's (including all subcontractors) emergency response protocol and procedures for safely managing potential emergency situations within the Safety Area;
- (c) defines the detailed safe, effective and timely evacuation procedures in the event of an emergency at the Site; and
- (d) includes the provision of a rescue boat for use in the event of requirement for worker rescue from the river, which boat will be:
 - (i) not less than 5 m in length;
 - (ii) rigid or inflatable;
 - (iii) equipped with a portable boarding ladder or other device capable of bringing a person on board;

- (iv) equipped with a motor compatible with the use;
- (v) not used for other purposes; and
- (vi) manned by a trained crew

The Contractor will submit the Emergency Response Plan to Hydro's Representative.

4.2 Compliance to the Emergency Response Plan

The Contractor will implement and comply with the Emergency Response Plan, and require its subcontractors to comply with the Emergency Response Plan, prepared and as may be amended from time to time in accordance with the requirements of this Appendix D.

4.3 Amendment of the Emergency Response Plan

The Contractor will update the Emergency Response Plan as required during the performance of the Work so that it at all times covers the Work being performed. The Contractor will submit the amendments to the Emergency Response Plan to Hydro's Representative.

4.4 First Aid Responsibility for the Prime Contractor

When BC Hydro designates the Contractor as the Prime Contractor, the Contractor will be responsible for meeting the requirements of the *Workers Compensation Act* (British Columbia), to provide, operate and maintain first aid resources, supplies, equipment and facilities on the Site in accordance with WorkSafeBC First Aid Regulations.

The Contractor will at all times during the performance of the Work provide Qualified first aid attendants on Site as required by WorkSafeBC First Aid Regulations for all of the Contractor's employees and agents, subcontractors, their employees and agents and guests. The Contractor will monitor and manage the adequacy and effectiveness of its first aid program, processes and personnel during the performance of the Work.

The responsibilities include without limitation:

- (a) completing a first aid hazard assessment for the Safety Area;
- (b) complying with the first aid requirements for total head count for the Work Area of responsibility;
- (c) providing additional equipment, safety resources and certification levels required to comply with the WorkSafeBC requirements for first aid coverage for the safety area taking into account:
 - (i) the presence of multiple contractors and personnel in the Work Area of responsibility;
 - (ii) overlapping Work Areas;
 - (iii) work hazard ratings and risks arising from the performance of multiple work activities within the Work Area of responsibility;
 - (iv) work hazard ratings and risks arising from the performance of multiple work activities within the Work Area of Responsibility; and
 - (v) the number of workers in the Work Area of responsibility.

Notwithstanding the requirements in WorkSafeBC OSH Regulation Part 3, Schedule 3-A, the Contractor will provide an emergency transportation vehicle, capable of safely transporting an injured worker in a stretcher. In addition, if evacuation from the worksite is expected to take more than an hour, the Contractor will develop a plan to evacuate workers by the fastest reasonable method with a goal of

reducing evacuation time to an hour or less.

4.5 Safety Training

The Contractor will, with respect to the performance of the Work, and will ensure that other contractors with respect to their work, develop, implement, monitor and update any and all training programs required to train their employees in the hazards of the site and Work and the safe and proper performance of the Work. A safety training program will:

- (a) comply with all requirements of WorkSafeBC;
- (b) be delivered by Qualified persons;
- (c) include orientation of all workers;
- (d) identify and address both general and task specific hazards;
- (e) address the rights, obligations and duties of all persons engaged in the performance of the Work with respect to occupational health and safety;
- (f) address the potential consequences of non-compliance with the Safety Management Plan and the Site Safety Management Plan;
- (g) be tailored to the tasks, duties and responsibilities of each person engaged in the performance of the Work;
- (h) include mechanisms for participants to evaluate and provide feedback with respect to the safety training sessions;
- (i) be modified as and when required to respond to participant evaluations and feedback; and
- (j) be provided free of charge to all persons engaged in the performance of the Work during normal working hours.

4.6 Failure to Comply

If the Contractor determines in its reasonable discretion that any employer or an employer's worker performing work within the Safety Area is creating an unsafe or harmful condition or is doing or failing to do something that constitutes an unsafe or harmful act, or has failed to comply with the *Workers Compensation Act* (British Columbia), the OHSR or the Health and Safety Program, and that on written notice from the Contractor to the employer responsible for such of such condition, act or failure that the employer has failed or refused to take action to correct the condition, act or failure, including any condition, act or failure of a worker, then:

- (a) the Contractor may issue a written notice ("Notice of Failure to Comply") to the applicable employer stipulating in reasonable detail the basis for the issuance of the Notice of Failure to Comply, with a copy to Hydro's Representative;
- (b) on receipt of a Notice of Failure to Comply BC Hydro may, in reliance on the Notice of Failure to Comply, take whatever action it deems necessary to reduce or eliminate risk to workers;
- (c) on rectification of the condition, act or failure set out in a Notice of Failure to Comply issued by the Contractor, the Contractor will withdraw the Notice of Failure to Comply by endorsing on a copy thereof confirmation of the rectification, and the Contractor will deliver a copy of the endorsed Notice of Failure to Comply to the applicable employer and to Hydro's Representative, and in reliance on such receipt BC Hydro may take steps to permit the resumption of work; and

- (d) BC Hydro will be deemed to have relied on the terms of and the reasons set out in the Notice of Failure to Comply, and a subsequently endorsed Notice that the condition has been rectified, notwithstanding any subsequent investigation or inquiry of the matter by BC Hydro, which BC Hydro may but will not be obligated to undertake, and the Contractor will indemnify and hold harmless BC Hydro in connection with any and all Claims arising in connection with the issuance of any Notice of Failure to Comply by the Contractor, or the subsequently endorsed Notice, and any acts or omissions of BC Hydro in reliance on such Notices.

5 SAFETY MEETINGS

5.1 Compliance, Participation, Attendance and Documentation

The Contractor will provide all documents, attend all meetings and conduct activities as required by the OSHR. The Contractor will cause its representative and its subcontractors' senior site representative to attend all safety meetings.

The Contractor will cause all other contractors doing work within the Safety Area to, hold, and maintain minutes of, daily safety tailboard meetings. The Contractor will provide to BC Hydro weekly and monthly safety statistics in a form acceptable to BC Hydro. The Contractor will cause representatives of its management staff and its hourly employees to attend the combined BC Hydro weekly safety meetings.

5.2 General Meetings

The Contractor's Representative and the Contractor's Site Safety Coordinator will regularly attend any Project meetings, including:

- (a) Joint Health and Safety Committee meetings required under the *BC Workers Compensation Act*; and
- (b) Project safety coordination meetings.

In addition, the Contractor will provide advance notice, for information only, of all such meetings to Hydro's Representative. Representatives of BC Hydro will be permitted, but will not be obligated to, attend all such meetings.

5.3 Special Safety Related Meetings

At the commencement of the Work and at a minimum of once per quarter during the term of the Agreement, senior representatives of the Contractor will meet with senior representatives of BC Hydro to:

- (a) review the safety with respect to the Work and the Safety Area both lagging and leading indicators;
- (b) discuss learnings and identify opportunities for improvement for Safety with respect to the on-going performance of the Work; and
- (c) define corrective action plans to proactively enhance the safety environment and safety performance for the Project and all employees

6 AUDITS AND INSPECTIONS

6.1 Access to Work Area, Personnel and Records

The Contractor will allow BC Hydro and its agents' unrestricted access to carry out safety inspections and audits of Site Work, worksite conditions and all pertinent health and safety performance records to determine adherence to safety and health objectives ("**Safety Audits and Inspections**"). BC Hydro and its agents' personnel may carry out Safety Audits and Inspections without prior warning or notice to the Contractor. The Contractor will, during Safety Audits and Inspections, provide evidence of, or establish demonstrated compliance with, Safety Laws, the Site Safety Management Plans and good industry practice.

6.2 Workplace Safety Audits

The Contractor will conduct workplace safety audits in accordance with good industry practice at least once each month during the period between the Effective Date and completion of the Work. Workplace safety audits will be conducted by the Prime Contractor's Site Safety Coordinator and a Qualified Site Safety Coordinator from any other contractors who are not the Prime Contractor working in the Contractor's Safety Area. The Contractor will provide advance written notice, for information only, of each workplace safety audit to BC Hydro and a BC Hydro representative may, but will not be obligated to, attend such audits. Workplace safety audits will measure the effectiveness of the Contractor's occupational health and safety systems and determine the Contractor's compliance with the OHSMP, the applicable SSMP's, Safe Work Procedures and Safety Regulations. The Contractor will review all workplace safety audit findings with the Contractor's Representative responsible for the Work being audited and will determine and implement corrective action for all identified nonconformities. On or before the last day of each month, the Contractor will prepare and submit to Hydro's Representative, for information only, a completed audit report. The Contractor will promptly remedy all unsafe conditions and procedures and provide a report back to BC Hydro confirming that the applicable issue has been remedied.

6.3 Response to Safety Deficiencies

If, in the opinion of BC Hydro, the Contractor's Work or operations pose an undue hazard, BC Hydro may shut down the Work until such time as the conditions are corrected. BC Hydro may verbally order the Contractor's Representative to shut down the work effective immediately, and deliver notice in writing of the order to the Contractor's Representative within 48 hours after giving the verbal order. The Contractor will not be entitled to any compensation or payment from BC Hydro for any costs the Contractor incurs by reason of such shutdown or the implementation of corrective safety measures. On or before the last day of each month the Contractor will prepare and submit a statistical report of all Safety deficiencies to BC Hydro. The Contractor will document the implementation of all corrective actions and will, on a monthly basis, provide proof of the implementation of all corrective actions to BC Hydro.

6.4 Annual Audit

The Contractor will cause an independent third party, at BC Hydro's request, acceptable to BC Hydro, to conduct an audit of the Contractor's OHSMP to the BC Construction Safety Association's standard, not less than once each calendar year during the duration of the Agreement, in order to assess the Contractor's compliance with, and implementation of, the OHSMP, as required by the Safety Laws and this Appendix D. The Contractor will submit the independent auditor's report to BC Hydro within one week of the anniversary of the completion of the previous annual audit pursuant and in any event within 14 days after receipt.

6.5 Self-Reporting

The Contractor will implement and maintain an appropriate system of occupational health and safety management documentation, sufficient to demonstrate compliance with all applicable Safety Laws and

the requirements of this Appendix D. The Contractor will ensure that all health and safety reporting is prepared and maintained in a format acceptable to BC Hydro.

7 ACCIDENTS AND INCIDENTS

7.1 Accident and Incident Reporting

The Contractor will immediately notify WorkSafeBC, the Contractor and BC Hydro of the any incident if the incident involves serious injury or death, public safety, a public near-miss incident, a major structural failure or collapse, a major release of Hazardous Substance, or any other circumstance which is required to be reported pursuant to Safety Laws; and

- (a) prepare and submit such report to WorkSafeBC, and concurrently deliver a copy of such report to the Contractor and BC Hydro (where an incident investigation report is required pursuant to the *Workers Compensation Act* (British Columbia)); and
- (b) The Contractor will prepare and deliver to BC Hydro an investigation to determine if there were causative coordination or compliance issues with the incident.

On or before the last day of each month, the Contractor will prepare and submit a statistical report of all incidents to BC Hydro and such report will be maintained. The Contractor will document the implementation of all corrective actions and will, on a monthly basis, provide proof of implementation of all corrective actions to BC Hydro.

7.2 Orders

The Contractor will ensure that if any employer receives an order issued by WorkSafeBC or any other authority having jurisdiction over safety issues on the Site (a "**Safety Order**"), the Contractor will, as soon as practicable, and in any event within 24 hours of receiving the Safety Order, notify Hydro's Representative in writing of the Safety Order.

8 PUBLIC SAFETY

8.1 Public Safety Management Plan (PSMP)

The Contractor will develop a plan (the "**Public Safety Management Plan**") in accordance with section 5.3 of the CSMP.

9 FIRE HAZARD AND ABATEMENT PLAN

The Contractor will develop a Fire Hazard and Abatement Plan in accordance with section 5.2 of the CSMP.

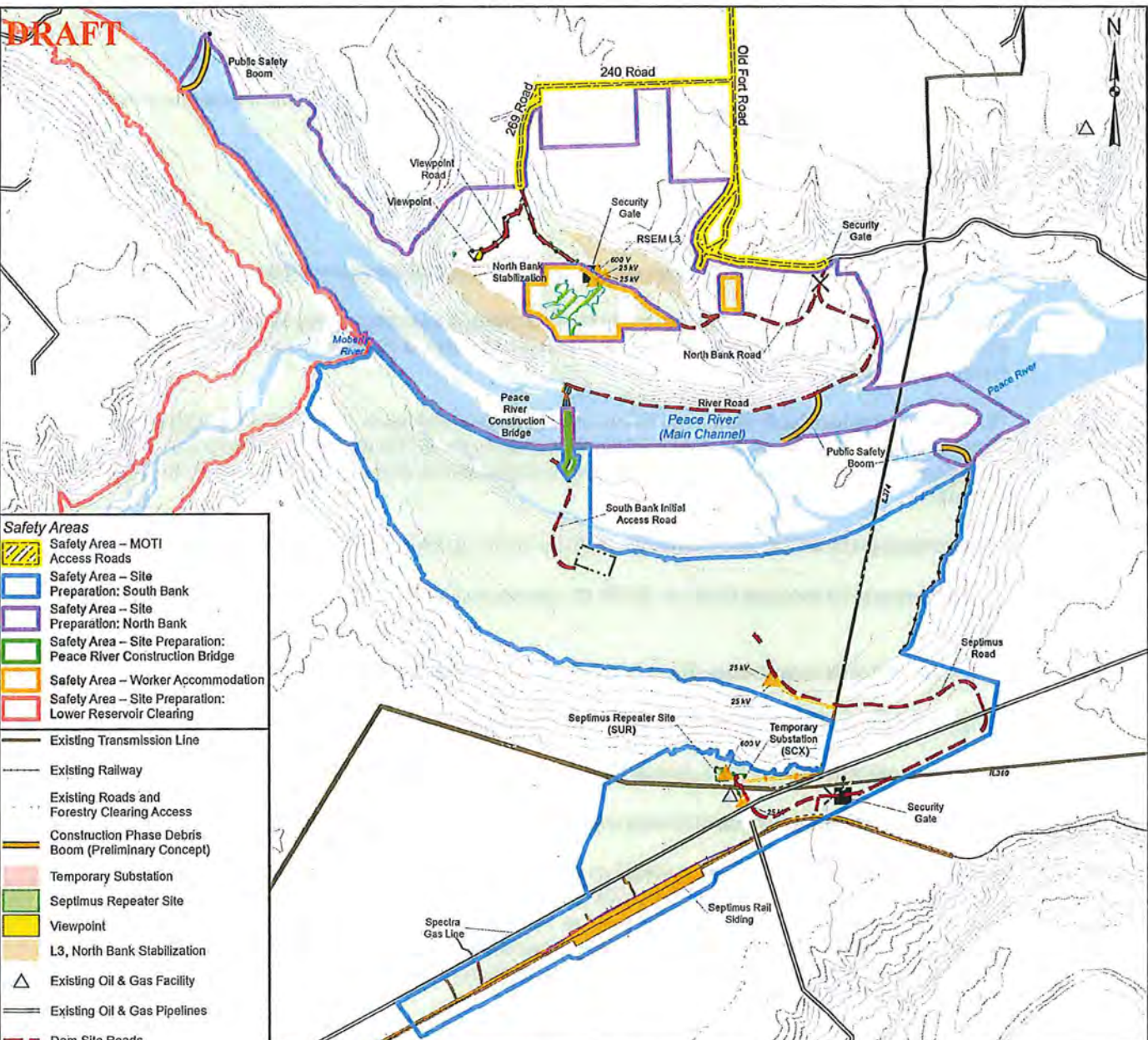
10 TRAFFIC MANAGEMENT PLAN

The Contractor will develop a Traffic Management Plan in accordance with section 5.4 of the CSMP.

11 WORKER HEALTH AND SAFETY MANAGEMENT PLAN

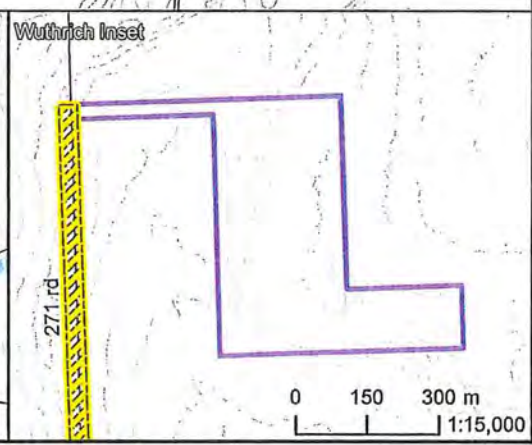
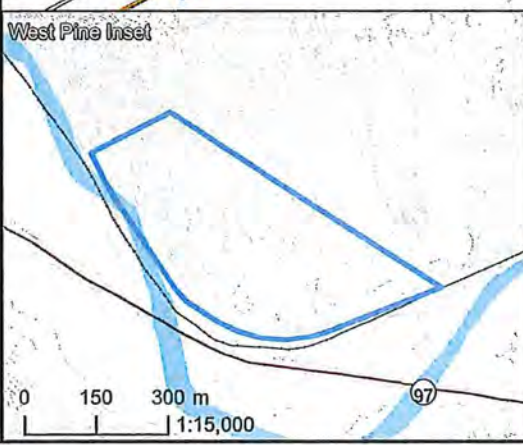
The Contractor will develop a Worker Health and Safety Management Plan in accordance with section 5.5 of the CSMP.

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- Safety Areas**
- Safety Area – MOTI Access Roads
 - Safety Area – Site Preparation: South Bank
 - Safety Area – Site Preparation: North Bank
 - Safety Area – Site Preparation: Peace River Construction Bridge
 - Safety Area – Worker Accommodation
 - Safety Area – Site Preparation: Lower Reservoir Clearing

- Existing Transmission Line
- Existing Railway
- Existing Roads and Forestry Clearing Access
- Construction Phase Debris Boom (Preliminary Concept)
- Temporary Substation
- Septimus Repeater Site
- Viewpoint
- L3, North Bank Stabilization
- △ Existing Oil & Gas Facility
- Existing Oil & Gas Pipelines
- Dam Site Roads
- Temporary Construction Bridge
- New Rail Siding
- X Security Gates
- Security Guard Shack
- Security Fencing
- ▲ Power Drop
- 3-ph Distribution Line with Fibre
- 3-ph Distribution Line without Fibre
- Knapweed Infestation
- Forestry Clearing Area
- Biochar Plant & Field
- CN Rail Property



Map Notes:

1. Datum: NAD83
2. Projection: UTM Zone 10N
3. Base Data: Province of B.C.
4. BC Hydro does not own or have rights to all the lands within the depicted areas, as of the date of this map.

1:50,000

0 2.5 km

BC hydro

Safety Areas
Year 1 - 2015
Site Preparation Contracts

<p>SITE C CLEAN ENERGY PROJECT</p>	
<p>DATE: December 3, 2014</p>	<p>1016-C14-A7691</p>
	<p>R 5</p>

Path: X:\AcadGIS\Projects\Final_Work_Coordination\Draw_Site_Plane_Contractors_Areas_1016_C14_A7691.mxd

APPENDIX E – ENVIRONMENTAL OBLIGATIONS

1.0 INTERPRETATION

1.1 Definitions

In this Appendix E, the following words and phrases have the following meanings:

"CEMP" means the Site C Clean Energy Project Construction Environmental Management Plan dated August 1, 2014, as it may be amended from time to time, a copy of which is available from BC Hydro on request;

"Environmental Incident" means an event, act or omission that is, or has the potential to cause, a violation of any of the Environmental Requirements (such as, for illustration, a spill of oil, fuel, hazardous chemicals; an unauthorized alteration, disruption, or destruction of aquatic or terrestrial habitat);

"Environmental Monitor" has the meaning set out in section 4.2 of this Appendix E;

"Environmental Protection Plan" or **"EPP"** has the meaning set out in section 3.3 of this Appendix E;

"Environmental Requirements" has the meaning ascribed to it in the CEMP;

"Environmentally Sensitive Area" has the meaning ascribed to it in the CEMP;

"Environmental Specifications" has the meaning ascribed to it in the CEMP;

"Pre-Work Orientation" has the meaning set out in section 6.2 of this Appendix E;

"Qualified Environmental Professional" means an applied scientist or technologist who: (a) is registered and in good standing in British Columbia with an appropriate professional association constituted under an Act; (b) acts under such professional association's code of ethics; and (c) is subject to disciplinary action by such professional association. A Qualified Environmental Professional may be a professional archaeologist, biologist, agrologist, forester, geoscientist, engineer or technologist; and

"Tailboard Meeting" has the meaning set out in section 6.3 of this Appendix E.

2.0 GENERAL REQUIREMENTS

2.1 Compliance with Environmental Requirements

In addition to other obligations in the Agreement, the Contractor:

- (a) will be, and will cause the subcontractors to be, fully knowledgeable of and comply with the Environmental Requirements and all EPPs as applicable to the performance of the Work at the Site; and
- (b) will cause its employees and agents, and the employees and agents of the subcontractors, to be fully knowledgeable of and comply with all EPPs as applicable to the performance of the Work at the Site.

3.0 ENVIRONMENTAL PROTECTION PLAN

3.1 Qualified Environmental Professional

BC Hydro will appoint a Qualified Environmental Professional(s) to perform the obligations of the Qualified Environmental Professional as described in this Appendix E, including the preparation of EPPs.

3.2 Review of CEMP

BC Hydro will require that each Qualified Environmental Professional appointed will review and be knowledgeable of the CEMP as may be applicable to the scope of Work to be performed at the Site.

3.3 EPPs

In advance of any element of Work performed at the Site the Contractor will cooperate with the Qualified Environmental Professional retained by BC Hydro under this Appendix E in the preparation of a written, detailed environmental protection plan (an "**Environmental Protection Plan**" or "**EPP**") in respect of such Work that includes:

- (a) a description of the particular Work activities and location to which the EPP applies, including mapping at a suitable scale;
- (b) identification of the specific applicable Environmental Requirements, including applicable Environmental Specifications;
- (c) identification of any Environmentally Sensitive Areas;
- (d) a determination of required relevant mitigation measures; and
- (e) a detailed description of required environmental monitoring and environmental reporting as more particularly described in sections 4.0 and 5.0 of this Appendix E.

The Qualified Environmental Professional will sign the EPP(s) confirming that the Qualified Environmental Professional reviewed the CEMP in preparation for writing the EPP and that the EPP complies with the requirements of this section 3.3 and with the CEMP, as it may be modified as of the date of the EPP. The Contractor will perform the Work in strict compliance with the requirements of any applicable EPP, as part of the Work, without any increase in the Rates except if, and to the extent that the EPP imposes increased unavoidable costs which a qualified contractor, experienced in work similar in nature and scope to the Work, would not have anticipated. Prior to proceeding with Work covered by an EPP, the Contractor will, give notice to BC Hydro if the Contractor intends to claim that performing the Work in compliance with the EPP necessitates a change in its Rates and, if so, the matter will be addressed as if BC Hydro had issued a change directive under GC 2.14(b) and will be addressed accordingly.

The Contractor will not perform any element of Work at the Site for which an EPP has not been prepared and signed by the Qualified Environmental Professional.

3.4 Amendments to Environmental Protection Plans

BC Hydro will cause the Qualified Environmental Professional to review and amend as necessary each EPP from time to time so that each EPP at all times complies with the CEMP and the Environmental Requirements. If at any time the Qualified Environmental Professional identifies the need for an amendment to an EPP, including an amendment to measures as described in the EPP or the addition of new measures, then the Contractor will stop or suspend the performance of the Work that is covered by the amendment as may be required to give effect to the pending amendment. Prior to implementing any amendments to an EPP, the Contractor will submit proposed amendments to Hydro's Representative for review and acceptance.

4.0 ENVIRONMENTAL MONITORING

4.1 General

An EPP will include a description of monitoring required during the performance of the Work at the Site covered by the EPP that is sufficient to reliably confirm that the performance of such Work complies with the EPP, having regard to the nature of the Work. The monitoring will comply with any requirements in the CEMP. The description will include details regarding the type and frequency of observations and data collection, the methodologies or monitoring, and the protocols that will be followed.

4.2 Environmental Monitors

The Contractor will engage one or more qualified monitors (each, an "**Environmental Monitor**") to conduct the environmental monitoring as described and required in each EPP. An Environmental Monitor will be required to:

- (a) perform the monitoring, if any, as specifically required in an EPP, and otherwise generally monitor the performance of the Work at the Site to confirm it is being performed in accordance with the requirements of the applicable EPP; and
- (b) report without delay to the Contractor's Representative who has the authority to stop work all circumstances in which any Work or component of the Work at the Site is not being conducted in accordance with the applicable EPP.

Prior to an Environmental Monitor commencing any environmental monitoring of Work at the Site the Contractor will review with the Environmental Monitor the reporting procedures which the Environmental Monitor will follow in the event of an Environmental Incident as described in section 5.3 of this Appendix E.

5.0 ENVIRONMENTAL REPORTING

5.1 General

An EPP will set out:

- (a) a reporting process or mechanism to confirm whether the performance of the Work or component of the Work at the Site to which such EPP relates complies with such EPP having regard to the nature of the Work or component of the Work, and to the Environmental Requirements and CEMP;
- (b) any required testing or sampling to confirm that Work is proceeding in compliance with the Environmental Requirements;
- (c) the type, content and frequency of the environmental reports to be prepared by an Environmental Monitor (using a template and format acceptable to BC Hydro) that the Contractor will submit to BC Hydro, which will include:

- (i) a description of Work performed at the Site covered by the report;
 - (ii) a description of environmental monitoring activities covered by the report;
 - (iii) results of testing of environmental attributes, if any, as they become available;
 - (iv) a description of environmental issues and corresponding mitigation measures implemented, if any; and
 - (v) a description of photographs (accompanied by identifying information such as date and location) documenting the Work activities, environmental issues, and corresponding mitigation measures implemented; and
- (d) the content of an annual report (in the format as may be specified by BC Hydro) for each calendar year in which the Work or component of the Work at the Site to which the EPP relates is performed, submitted by the following January 15, including:
- (i) the quantity of each type of fuel consumed at the Site during the preceding year; and
 - (ii) the production throughput for the preceding year of on-Site processes that contribute to greenhouse gas emissions.

5.2 Environmental Completion Report

The Contractor will, at the completion of the performance of the Work or component of the Work at the Site to which an EPP relates, submit to BC Hydro a report prepared by an Environmental Monitor using the template and format specified by BC Hydro, which will, at a minimum, include the following:

- (a) a summary of the Work activities on Site;
- (b) a summary of the environmental management activities completed during the performance of the Work;
- (c) a description of any environmental issues encountered during the Work on Site, and the management and mitigation measures used to resolve those issues; and
- (d) representative Site photographs.

5.3 Environmental Incidents

The Contractor will establish reporting procedures to be followed by the Contractor and its subcontractors, and their respective employees, in the event of an Environmental Incident, including reporting to the Qualified Environmental Professional and to the Contractor's Representative. The Contractor will submit the reporting procedure to Hydro's Representative

The Contractor will immediately report any Environmental Incidents to BC Hydro and will, within five working days or such longer time as the circumstances may reasonably require, deliver to BC Hydro a written Environmental Incident report which includes, to the extent applicable to the Environmental Incident:

- (a) photo documentation of the Environmental Incident; and
- (b) descriptions of:
 - (i) the cause and nature of the Environmental Incident;
 - (ii) the approximate magnitude and duration of the Environmental Incident;
 - (iii) the area or habitat affected by the Environmental Incident;

- (iv) the environmental resources affected by the Environmental Incident;
- (v) the results of any sample analyses taken in conjunction with the Environmental Incident;
- (vi) mitigation measures taken to control or limit the activity causing the Environmental Incident;
- (vii) additional proposed remedial or corrective actions recommended to address the Environmental Incident;
- (viii) communications held with Project personnel with respect to the Environmental Incident;
- (ix) communications with any third parties with respect to the Environmental Incident; and
- (x) the collection of samples which were required to characterize the extent and nature of the Environmental Incident.

6.0 **ORIENTATION, TRAINING AND TAILBOARD MEETINGS**

6.1 **Environmental Overview Training**

Prior to commencing the performance of the Work at the Site, the Contractor will cause its field crew supervisors and Environmental Monitors to attend an environmental overview and training workshop, which will include the following, as applicable to the scope of the Work at the Site:

- (a) the requirements of the EPPs applicable to the scope of the Work;
- (b) the roles and responsibilities of BC Hydro, the Contractor, the Qualified Environmental Professional(s), the Environmental Monitors;
- (c) environmental mapping of sensitive areas; and
- (d) procedures for reporting of Environmental Incidents and emergencies.

6.2 **Pre-work Orientation**

The Contractor will hold, and will cause all of its employees and agents, and the subcontractors and their employees and agents to attend, a pre-Work orientation meeting (a "**Pre-Work Orientation**") prior to commencing the performance of the Work or component of the Work at the Site to inform its employees and agents, and the subcontractors and their employees and agents of the Site-specific environmental requirements set out in the applicable EPP(s). The Contractor will document all Pre-Work Orientations and provide such documentation to BC Hydro upon request.

6.3 **Tailboard Meetings**

The Contractor will, prior to commencing the performance of the Work at the Site, and at regular intervals thereafter as required by the nature of the Work, hold field crew tailboard meetings (a "**Tailboard Meeting**") to discuss information including the following, as applicable:

- (a) sensitive areas, potential effects and applicable mitigation measures; and
- (b) construction activities planned.

The Contractor will document all Tailboard Meetings and provide such documentation to BC Hydro upon request.

APPENDIX F – ABORIGINAL INCLUSION AND REPORTING REQUIREMENTS

1.0 DEFINITIONS

The following words and phrases have the following meaning in this Agreement:

"Aboriginal" means Indian (as defined in the *Indian Act* (Canada)), Metis or Inuit;

"Aboriginal Business" means:

- (b) a sole proprietorship, wholly owned by an Aboriginal person;
- (c) a corporation with at least 51% of the equity, including common or voting shares, directly owned by one or more Aboriginal Businesses or Aboriginal persons;
- (d) a partnership or joint venture (between two or more Aboriginal Businesses or between one or more Aboriginal Business(es) and one or more non-Aboriginal Business(es)) with at least 51% of the ownership rights, including any voting rights, directly owned by one or more Aboriginal Businesses or Aboriginal persons; or
- (e) any other business with a substantial amount of ownership rights held by one or more Aboriginal Businesses or Aboriginal persons, as determined by BC Hydro, acting reasonably;

"Aboriginal Inclusion Performance Report" has the meaning set out in section 2.3 of this Appendix F; and

"Aboriginal Inclusion Plan" has the meaning set out in section 2.2 of this Appendix F.

2.0 COMMITMENTS

2.1 Commitments

The Contractor acknowledges that BC Hydro has commitments with respect to Aboriginal groups regarding business, employment and other opportunities relating to the Project, and that BC Hydro is looking to the Contractor to satisfy some of these commitments. Accordingly, the Contractor will use reasonable commercial efforts to achieve the following in the performance of the Work:

- (a) provision of business opportunities for Aboriginal Businesses;
- (b) provision of employment opportunities for Aboriginal persons; and
- (c) provision of training opportunities for Aboriginal persons.

2.2 Aboriginal Inclusion Plan

The Contractor will prepare and sign a written plan (the **"Aboriginal Inclusion Plan"**) that sets out the approach by which the commitments as described in section 2.1 of this Appendix F for contracting of Aboriginal Businesses and the employment and training of Aboriginal persons can be achieved in the performance of the Work. The Aboriginal Inclusion Plan will, at a minimum:

- (a) identify specific scopes of the Work which the Contractor and BC Hydro agree have reasonable potential to provide contracting of Aboriginal Businesses and the employment and training of Aboriginal persons in the performance of the Work; and
- (b) identify targets (such as number of employees or dollar value of Work) for contracting with Aboriginal Businesses and employing and training targets for Aboriginal persons in the performance of the Work.

Prior to commencing any Work at the Site the Contractor will submit the draft Aboriginal Inclusion Plan to BC

Hydro and the Parties will, acting reasonably, review the submitted plan and collaborate to develop a final form of Aboriginal Inclusion Plan, in a timely manner, that is acceptable to both Parties. The Contractor will update and sign the Aboriginal Inclusion Plan monthly, after submission to BC Hydro.

2.3 Reporting

The Contractor will prior to the 15th day of a calendar month prepare monthly a report (the "**Aboriginal Inclusion Performance Report**") of the actual following amounts as of the end of the previous calendar month:

- (a) the number and value of contracts with Aboriginal Businesses relating to the performance of the Work that were awarded in the previous calendar month, and cumulative with respect to all Work performed to the end of the previous calendar month and, for each such contract:
 - (i) the type of contract (e.g. "Project site perimeter security");
 - (ii) the company to which the contract was awarded;
 - (iii) the total value of the contract; and
 - (iv) the amount paid on the contract, as supported by invoices, as of the end of the previous calendar month and cumulative with respect to all Work performed under the contract to the end of the previous calendar month;
- (b) the number of Aboriginal persons, and number of hours, employed in the performance of the Work in the previous calendar month, and cumulative with respect to all Work performed to the end of the previous calendar month; and
- (c) the number of Aboriginal persons, and number of hours, who have received training, and the type of training received in the previous calendar month, and cumulative with respect to all Work performed to the end of the previous calendar month,

together with variances from the targets as set out in the Aboriginal Inclusion Plan, as may be updated under section 2.2 of this Appendix F. All information in the Aboriginal Inclusion Performance Report will be separated to identify the specific Aboriginal groups that have been involved in the reporting period. The Contractor will submit the Aboriginal Inclusion Performance Report with its invoices for payment issued under Appendix B.

APPENDIX G – INSURANCE REQUIREMENTS

1.0 INSURANCE COVERAGE

Without limiting any of the Contractor's obligations or liabilities under the Agreement and prior to commencing any Work, the Contractor will, at its sole cost and expense, obtain and maintain during the performance of the Work policies in respect of the following insurances:

- (a) Workers' Compensation coverage for all employees engaged in the Work in accordance with the *Workers Compensation Act* (British Columbia);
- (b) Personal Optional Protection coverage available through the Workers' Compensation Board of British Columbia for all employees engaged in the Work who are not covered by the *Workers Compensation Act* (British Columbia);
- (c) Automobile Liability Insurance for owned, non owned, leased, operated or licensed automobiles, trucks, trailers, tractors and all-terrain vehicles with limits of \$5,000,000 for accidental injury to or death of one or more Persons or damage to or destruction of property as a result of one accident or occurrence;
- (d) Equipment Insurance (including loss of use) covering loss or damage to all equipment, materials and property that is owned, leased, or rented by and used by the Contractor in performing the Work but which does not form part of the permanent construction;
- (e) if aircraft or watercraft are used in connection with the Work, the Contractor will carry Aircraft Liability or Watercraft Liability Insurance covering all aircraft or watercraft owned or non-owned and licenced by the Contractor with limits of liability of \$10,000,000 for aircraft liability and \$5,000,000 for watercraft liability, for bodily injury or death of one or more persons or damage to or destruction of property as a result of one accident or occurrence; and
- (f) such additional coverage as may be required by law, by BC Hydro or which the Contractor considers necessary.

2.0 BC HYDRO INSURANCE COVERAGE

Without limiting any of the Contractor's obligations or liabilities under the Agreement, BC Hydro will, at its sole cost and expense, obtain and maintain during the performance of the Work policies in respect of the following insurances:

- (a) A project-specific wrap-up liability policy, in an amount of not less than \$10,000,000 that will:
 - (i) contain a standard non-owned automobile liability extension and an endorsement for sudden and accidental pollution;
 - (ii) name BC Hydro as the insured and the Contractor and the Contractor's subcontractors, project and construction managers, architects, engineers, and consultants, if any, while engaged in the Work as additional insureds and will contain a waiver of subrogation in favour of all insureds; and
 - (iii) maintain in force and effect a "Completed Operations Liability" endorsement coverage for a period ending not earlier than 24 months after Substantial Completion;
- (b) A Broad Form Builders Risk insurance policy, in an amount equal to \$8,000,000, with sub-limits for debris removal and off-Site storage. The Policy will:
 - (i) include a sub-limit for BC Hydro property which is in the care, custody and control of the Contractor, or the Contractor's subcontractors;
 - (ii) provide coverage on an all risks basis, including perils of flood and earthquake;

- (iii) name BC Hydro as the insured and the Contractor and the subcontractors, if any, including any person employed directly or indirectly by the Contractor and the Contractor's subcontractors to perform a part or parts of the Work, as additional insureds;
- (iv) contain a waiver of subrogation in favour of BC Hydro, Contractor and the Contractor's subcontractors, if any, with the exception of architects, engineers and manufacturers for their liability in the event of loss caused by or resulting from any error in design or any other professional error or omission pertaining to the subject of this insurance.; and
- (v) remain in full force and effect until completed.

3.0 REQUIREMENTS FOR CONTRACTOR INSURANCE

The insurance provided by the Contractor will be provided in accordance with the following terms and conditions:

- (a) the Contractor will provide Hydro's Representative with evidence of compliance with the *Workers Compensation Act* (British Columbia) and coverage under such Act prior to commencement of the Work, and the Contractor will
 - (i) upon request, at any time, from Hydro's Representative, provide such evidence to Hydro's Representative within five days of such request; and
 - (ii) immediately notify Hydro's Representative in writing of any change with respect to such compliance or coverage;
- (b) certificates of insurance for the policies described in section 1.0 of this Appendix G will be submitted to Hydro's Representative prior to commencement of the Work. All such policies will be placed with insurers acceptable to Hydro's Representative and be in a policy form acceptable to Hydro's Representative. The approval or non-approval of any such policy by Hydro's Representative will in no way relieve the Contractor of its obligations to provide the insurance required by the Agreement. Hydro's Representative may request, at any time, certified copies of the Contractor's insurance policies and the Contractor will provide such certified copies to Hydro's Representative within five days of such request;
- (c) all insurance provided by the Contractor will be considered primary, non-contributory and not excess to any insurance carried by BC Hydro; and
- (d) all insurance, except for automobile liability insurance and workers compensation insurance, provided by the Contractor will:
 - (iii) include BC Hydro and its directors, officers, employees and agents as additional insureds (but this requirement will not apply to equipment insurance described in section 1.0(d) of this Appendix G);
 - (iv) contain a waiver of subrogation against BC Hydro and its directors, officers, employees and agents;
 - (v) contain a cross liability or severability of interest clause; and
 - (vi) contain a provision that the insurance cannot be cancelled without at least 30 days written notice to BC Hydro.

4.0 MINIMUM AMOUNT NO LIMIT ON RECOVERY

All policy limits and types of insurance specified by the Agreement to be obtained and maintained by the Contractor are the minimum policy limits and types of insurance that are to be provided. The Contractor will be solely responsible for determining whether the policy limits and types of insurance are adequate and for placing any excess insurance and any additional insurance which it considers necessary to protect and

indemnify itself. The Contractor will be liable to BC Hydro for all Claims and Claim Costs excluded by, or in excess of the policy limits of, applicable insurance policies.

4.1 BC Hydro's Right to Maintain

If, at any time, any insurance required to be obtained and maintained by the Contractor under the Agreement has its policy limits reduced by the applicable insurance provider or the Contractor, from the policy limits required by the Agreement, or is no longer in force, then, without limiting BC Hydro's rights in respect of any default that arises as a result of such occurrence, BC Hydro may, at its option, obtain and maintain the applicable insurance or portion of such insurance. In such event, BC Hydro may withhold and set-off the cost of insurance premiums expended for such insurance from any payments due to the Contractor.

4.2 Subcontractor Insurance

Without duplication of insurance coverage with respect to (i) the Broad Form Builders Risk Insurance policy in place for the Work, and (ii) where the Contractor's Commercial General Liability Insurance policy in place for the Work is on a wrap-up basis, the Contractor will require all first tier subcontractors to enter into an agreement with the Contractor containing provisions in the same form as those found in sections 1.0 of this Appendix G, as applicable to the Work being undertaken by such subcontractors. The Contractor will provide to Hydro's Representative, upon request, certificates of insurance for the insurance policies the Contractor has obtained from such subcontractors and a copy of the agreement entered into with such subcontractors setting out the insurance requirements of such subcontractors, without reference to commercial terms.

4.3 Deductibles

Deductibles for insurance policies required under Section 1.0 of this Appendix G will be no more than \$100,000. The Contractor will be responsible for the payment of all deductibles for the insurance policies described in this Appendix G, except with respect to damage arising out of the negligent acts or omissions of BC Hydro or any Person for whom BC Hydro is in law responsible (other than the Contractor and those engaged by or through the Contractor, including subcontractors), BC Hydro will pay the proportion of the deductible that represents the proportionate fault of BC Hydro for the loss which gave rise to the damage.

4.4 Liability of Contractor

Neither the providing of insurance by the Contractor in accordance with the requirements of this Appendix G, nor the insolvency, bankruptcy or the failure of any insurance company to pay any claim occurring will be held to relieve the Contractor from any other provisions of the Agreement with respect to liability of the Contractor or otherwise.

4.5 Notice of Occurrence

Hydro's Representative and the Contractor's Representative will immediately notify, in writing, each other and the relevant insurer of any occurrence or incident likely to give rise to a claim under the policies or insurance coverage referred to in section 1.0 of this Appendix G – Insurance whether or not such occurrence or incident arises under the Agreement, and of any other matter or thing in respect of which notice should be given by BC Hydro or the Contractor to the relevant insurers. In addition, both BC Hydro and the Contractor will give all such information and assistance as may be reasonably practicable in all the circumstances.

4.6 Claims Cooperation

With respect to any Claim against BC Hydro, whether insured or otherwise, the Contractor will cooperate with BC Hydro, BC Hydro's insurers, claims adjusters and other representatives to mitigate any impact of any investigations relating to the Claim on BC Hydro's operations, including the performance of the Work.

APPENDIX H – PERSONAL INFORMATION

Definitions

1. In this Appendix,
 - (a) "Act" means the *Freedom of Information and Protection of Privacy Act* (British Columbia), as amended from time to time;
 - (b) "contact information" means information to enable an individual at a place of business to be contacted and includes the name, position name or title, business telephone number, business address, business email or business fax number of the individual;
 - (c) "personal information" means recorded information about an identifiable individual, other than contact information, collected, created or otherwise acquired by Contractor as a result of the Agreement or any previous agreement between BC Hydro and Contractor dealing with the same subject matter as the Agreement.

Purpose

2. The purpose of this Appendix is to:
 - (a) enable BC Hydro to comply with its statutory obligations under the Act with respect to personal information; and
 - (b) ensure that, as a service provider, Contractor is aware of and complies with its statutory obligations under the Act with respect to personal information.

Collection of personal information

3. Unless the Agreement otherwise specifies or BC Hydro otherwise directs in writing, Contractor may only collect or create personal information that is necessary for the performance of Contractor's obligations, or the exercise of Contractor's rights, under the Agreement.
4. Unless the Agreement otherwise specifies or BC Hydro, the individual whose personal information is at issue, or that individual's lawful representative otherwise directs in writing, Contractor must collect personal information directly from the individual the information is about.
5. Unless the Agreement otherwise specifies or BC Hydro otherwise directs in writing, Contractor must tell an individual from whom Contractor collects personal information:
 - (a) the purpose for collecting it;
 - (b) the legal authority for collecting it; and
 - (c) the title, business address and business telephone number of the person designated by BC Hydro to answer questions about Contractor's collection of personal information.

Accuracy of personal information

6. Contractor must make every reasonable effort to ensure the accuracy and completeness of any personal information to be used by Contractor or BC Hydro to make a decision that directly affects the individual the information is about.

Requests for access to personal information

7. If Contractor receives a request for access to personal information from a person other than BC Hydro, the individual whose personal information has been requested, or that individual's lawful representative, Contractor must promptly advise the person to make the request to BC Hydro unless the Agreement expressly requires Contractor to provide such access and, if BC Hydro has advised Contractor of the name or title and contact information of an official of BC Hydro to whom such requests are to be made, Contractor must also promptly provide that official's name or title and contact information to the person making the request.

Correction of personal information

8. Within 5 business days of receiving a written direction from BC Hydro to correct or annotate any personal information, Contractor must annotate or correct the information in accordance with the direction.
9. When issuing a written direction under section 8, BC Hydro must advise Contractor of the date the correction request to which the direction relates was received by BC Hydro in order that Contractor may comply with section 10.
10. Within 5 business days of correcting or annotating any personal information under section 8, Contractor must provide the corrected or annotated information to any party to whom, within one year prior to the date the correction request was made to BC Hydro Contractor disclosed the information being corrected or annotated.
11. If Contractor receives a request for correction of personal information from a person other than BC Hydro, the individual whose personal information has been requested, or that individual's lawful representative, Contractor must promptly advise the person to make the request to BC Hydro and, if BC Hydro has advised Contractor of the name or title and contact information of an official of BC Hydro to whom such requests are to be made, Contractor must also promptly provide that official's name or title and contact information to the person making the request.

Protection of personal information

12. Contractor must protect personal information by making reasonable security arrangements against such risks as unauthorized access, collection, use, disclosure or disposal, including any expressly set out in the Agreement.

Storage and access to personal information

13. Unless BC Hydro otherwise directs in writing, Contractor must not store personal information outside Canada or permit access to personal information from outside Canada.

Retention of personal information

14. Unless the Agreement otherwise specifies, Contractor must retain personal information until directed by BC Hydro in writing to dispose of it or deliver it as specified in the direction.

Use of personal information

15. Unless BC Hydro otherwise directs in writing, Contractor may only use personal information if that use is:
 - (a) for the performance of Contractor's obligations, or the exercise of Contractor's rights, under the Agreement; and
 - (b) in accordance with section 13.

Disclosure of personal information

16. Unless the Agreement otherwise specifies or BC Hydro, the individual whose personal information is at issue, or that individual's lawful representative otherwise directs in writing, Contractor must not disclose personal information inside or outside Canada to any person other than BC Hydro, the individual whose personal information is at issue, or that individual's lawful representative, or an entity that can legitimately compel disclosure under the laws of British Columbia. BC Hydro will not unreasonably withhold such direction.

Not Used

Inspection of personal information

18. In addition to any other rights of inspection BC Hydro may have under the Agreement or under statute, BC Hydro may, at any reasonable time and on reasonable notice to Contractor, enter on Contractor's premises to inspect any personal information in the possession of Contractor or any of Contractor's information management policies or practices relevant to its management of personal information or its compliance with this Appendix and Contractor must permit, and provide reasonable assistance to, any such inspection.

Compliance with the Act and directions

19. Contractor must in relation to personal information comply with:
 - (a) the requirements of the Act applicable to Contractor as a service provider, including any applicable order of the commissioner under the Act; and
 - (b) any direction given by BC Hydro under this Appendix.
20. Contractor acknowledges that it is familiar with the requirements of the Act governing personal information that are applicable to it as a service provider.

Notice of non-compliance

21. If for any reason Contractor does not comply, or anticipates that it will be unable to comply, with a provision in this Appendix in any respect, Contractor must immediately notify BC Hydro of the particulars of the non-compliance or anticipated non-compliance and what steps it proposes to take to address, or prevent recurrence of, the non-compliance or anticipated non-compliance.

Termination of Agreement

22. In addition to any other rights of termination which BC Hydro may have under the Agreement or otherwise at law, BC Hydro may, subject to any provisions in the Agreement establishing mandatory cure periods for defaults by Contractor, terminate the Agreement by giving written notice of such termination to Contractor, upon any failure of Contractor to comply with this Appendix in a material respect.

Interpretation

23. In this Appendix, references to sections by number are to sections of this Appendix unless otherwise specified in this Appendix.
24. Any reference to the "Contractor" in this Appendix includes any subcontractor or agent retained by Contractor to perform obligations under the Agreement and Contractor must ensure that any such subcontractors and agents comply with this Appendix.
25. The obligations of Contractor in this Appendix will survive the termination of the Agreement.
26. If a provision of the Agreement (including any direction given by BC Hydro under this Appendix) conflicts with a requirement of the Act or an applicable order of the commissioner under the Act, the conflicting provision of the Agreement (or direction) will be inoperative to the extent of the conflict.
27. Contractor must comply with the provisions of this Appendix despite any conflicting provision of the Agreement or the law of any jurisdiction outside Canada.

APPENDIX I – LABOUR SCHEDULE

In this Agreement, “**Project Site**” means the general area where the Project will be located, constructed and installed and includes the Site.

1.1 Inclusive Labour Approach

BC Hydro anticipates implementing an approach for the Project that allows for participation from all labour groups and contractors regardless of union affiliation or union status.

1.2 Skilled Workers

The Contractor will employ or engage, and cause all subcontractors to employ or engage, a sufficient number of skilled and qualified workers to perform the Work in accordance and compliance with the Agreement and all applicable laws.

1.3 Cost of Recruiting Labour

The Contractor and its subcontractors will be responsible for all costs of recruiting and retaining skilled and qualified labour.

1.4 Appropriate Agreements and Waivers

If the Contractor is or becomes a party to a collective agreement with a union then the Contractor will have agreements with such union(s), and will provide BC Hydro with a copy of such agreement(s), with respect to the performance of the Work as required to give effect to the following terms:

(a) there will be no strikes, lockouts, slowdowns or any other interference or interruption to the performance of labour productivity at the Project Site throughout the term of this Agreement, including but not limited to work-to-rule action (each a “Labour Disruption”);

(b) there will be no picketing at the Project Site and no Labour Disruption as a result of either lawful or unlawful picketing;

(c) if a Labour Disruption occurs in the construction sector in British Columbia during the term of this Agreement, Work performed on the Project Site will not be affected by such Labour Disruption.

(d) any non-affiliation clause in a collective agreement between the Contractor and a union is waived by that union, and accordingly union members will not be precluded from working at the Project Site, or in proximity to the Project Site, alongside non-union workers or workers of other unions and the union will not interfere in any way with non-union workers or workers of other unions, and no union or worker will refuse to handle or install any material, equipment or components or to honour hot cargo edicts, or otherwise during the life of this Agreement;

(e) the union, and any person acting on behalf of the union, will not, initiate, pursue or endorse any activity for the purpose of recruitment or representation of non-unionized workers, contractors or consultants, or workers, contractors or consultants represented by other trade unions, as the case may be, including certification actions, changes in representation, raids or formation of a trade union, with respect to any worker, contractor or consultant working on the Project;

(f) a representative of a union with whom the Contractor has a collective agreement will be able to attend at the Project Site as reasonably required for union business without interfering with the progress of the Work; and

(g) if and to the extent the Contractor has commitments to engage Aboriginal persons there will be no objection to preferential hiring of such Aboriginal persons.

1.5 Enjoining Labour Disruption

The Contractor will at its cost take such steps before an authority with jurisdiction so as to prevent or terminate any Labour Disruption at the Project Site, and the Contractor will not be entitled to any payment or time extension on account of a Labour Disruption.

Failure to use reasonable commercial efforts to prevent any delay or terminate any Labour Disruption at the Project Site will be deemed to be default under GC. 11.1.

1.6 Respectful Behaviour

The Contractor will not permit workers at the Project Site to engage in any form of violence, harassment, intimidation, bullying, or any other disparaging or demeaning conduct directed by a worker to another worker for any reason including based on any union affiliation or lack of union affiliation, including any verbal communications, written materials, or gestures. The Contractor will have a policy that prevents discrimination on the project on the basis of prohibited grounds as outlined in applicable human rights legislation and Workers Compensation Act (British Columbia).

1.7 Removal of Persons

Hydro's Representative may, by written notice to the Contractor's Representative, object to any person engaged by the Contractor or any subcontractor for the performance of the Work who, as determined by Hydro's Representative in its sole discretion, has engaged in misconduct, is incompetent, or does not have adequate working knowledge of the safety rules and procedures applicable to the Project Site. Upon receipt of any such notice, the Contractor will immediately cause such person to be removed from the Project Site and the Project and promptly replaced by a person(s) with suitable qualifications and experience, at no extra cost or expense to BC Hydro. Notwithstanding any other provision in this section 1.7 of Appendix I, the Contractor and the subcontractors will retain all authority and control over their respective employees, agents and subcontractors.

1.8 No Poaching

The Contractor will not invite, hire or attempt in any way to hire, workers who are working at the Project Site for another contractor, and if a worker ceases employment with another contractor at the Project Site then, unless the Contractor has the prior written agreement from the other contractor, the Contractor will not employ that worker for a minimum of 60 calendar days beginning from the time the worker ceases the previous employment.

1.9 No Gate Hires

The Contractor will not hire workers directly at the Project Site who have not applied for employment through the Contractor's established usual employment application procedures.

1.10 Diversity

BC Hydro is committed to developing an inclusive workplace and a diverse workforce that represents the communities BC Hydro serves within British Columbia. The Contractor will take into account this commitment in attracting and employing workers for the performance of the Work at the Project Site.

1.11 Cultural Awareness

The Contractor will implement training and awareness programs for workers at the Project Site to increase cultural awareness, including aboriginal cultures.

1.12 Employment Information and Job Fairs

The Contractor will post employment opportunities on the BC Hydro Site C website, or other locations, and as determined by BC Hydro acting reasonably, publications and employment agencies in the Peace River Region and the websites of local employment agencies, including opportunities for new positions or job

openings.

The Contractor will, as requested by BC Hydro acting reasonably, participate in job fairs as may be requested by BC Hydro from time to time.

1.13 General Worker Conduct

The Contractor will be responsible for workers' behaviour generally on the Project Site, and with respect to the Project Site, and for workers' compliance with BC Hydro policies relating to behaviour at the Project Site.

1.14 Emergency Medical Coverage

The following minimum emergency medical coverage will be provided to all workers while present in British Columbia for in order to work on the Project, and when travelling to and from the Project Site from outside British Columbia. The Contractor will provide to Hydro's Representative an "Emergency Medical Services" manual describing how the Contractor will provide the following minimum emergency medical coverage:

- (a) emergency medical treatment for accidental injuries or illness requiring immediate medical care; and
- (b) emergency medical transportation and convalescence, including:
 - (i) medical transportation arrangements to transfer the worker to and from the nearest appropriate medical facility in the worker's home province or country of residence;
 - (ii) if medically necessary, round trip transportation for an attendant to accompany and care for the worker;
 - (iii) if the worker is unable to travel due to medical reasons after being discharged from a medical facility, expenses incurred for meals and accommodations until medical transport to the worker's place of permanent residence can take place up to a maximum of \$2,000; and
 - (iv) if a worker dies while travelling to or from the Project Site for work purposes from outside British Columbia or while living at or near the Project Site for work purposes, then:
 - (1) provide transportation for one family member of the employee's immediate family to identify the body prior to its release if necessary, including reasonable reimbursement for the cost of accommodation and meals for the family member; and
 - (2) obtain all necessary authorizations and make all necessary arrangements to transport the body to the employee's place of permanent residence, up to a maximum of \$7,000.

This coverage is in addition to WorkSafeBC regulations from employers regarding injuries or deaths in the workplace.

1.15 Employee Family Assistance Program

Contractor will provide the following minimum level of services:

- (a) on-site trauma counselling in response to accidents or incidents on the Project Site, including suicide, death of a fellow worker, serious injury to an worker, mass casualty incidents, threats to safety and natural disasters; and
- (b) phone access to counselling for the following:
 - (i) trauma, including suicide, death of a fellow worker or family member, serious injury to an worker, mass casualty incidents, threats to safety and natural disasters;
 - (ii) substance abuse, including alcohol, drugs and smoking;

- (iii) family problems, including parenting, child and adolescent;
- (iv) marital and relationship problems, including separation and divorce; and
- (v) emotional, physical and psychological problems, including anxiety, anger and depression.

1.16 Application to Subcontractors

The Contractor's obligations as set out in Appendix I –Labour Schedule will also apply to all subcontractors performing any of the Work at the Project Site.

1.17 Information for Workers

The Contractor will make reasonable efforts to assist BC Hydro in providing information to the workers including:

- (a) commuter program; and
- (b) logistical assistance and community services for new region residents program;

1.18 Change in Status

If the Contractor becomes a signatory to a collective agreement, or ceases to be a signatory to a collective agreement, it will notify BC Hydro in writing.

1.19 Work Force Reports

The Contractor will provide a monthly report, in a form satisfactory to Hydro's Representative, acting reasonably, on:

- (a) the Contractor's work force, broken down into number of workers per shift and the workers' turn-arounds;
- (b) the number of foreign workers the Contractor is employing in the performance the Work, the positions of such workers and details of their employment such as shift turn around;
- (c) the job categories and number of foreign workers in a job category, not including Canadian permanent residents, as relevant to support educational planning in the community;
- (d) the number of charter flights used for workforce travel, and total number of worker trips on charter flights, landing or taking off from the North Peace Regional Airport;
- (e) the number and type of apprenticeship opportunities over the previous 6 month period, and anticipated to be offered in the next 6 month period;
- (f) the job categories and number of workers that the Contractor is unable to fill by hiring from the local community, in sufficient detail to assist planning for training programs;
- (g) the number, name and home office address of local businesses that have a contract with the Contractor and perform work on the Project. A local business is a company whose home office is located in the Peace River Regional District or the Northern Rockies Regional Municipality; and
- (h) the Contractor's work force, broken down by gender and number of Aboriginal persons, visible minorities and persons with disabilities.

1.20 Notification of Labour Events

In the event of any labour dispute involving employees of the Contractor or subcontractors, whether at the Project Site or elsewhere, that will or may delay performance of the Work, the Contractor will provide Hydro's Representative within eight hours after the commencement of such labour dispute, a full report on such

dispute including, to the extent known to the Contractor, the cause of the dispute, the employer and employees affected or involved, the actions being taken to end the dispute and the known or probable effect on the Work program and schedule. The Contractor will provide further reports at Hydro's Representative request.

The Contractor will upon being aware immediately advise Hydro's Representative of any current or pending labour negotiations or actual, pending or threatened labour disputes that could interfere with the progress of the Project. The Contractor will take all necessary steps and develop a course of action with Hydro's Representative to ensure that the continuity and timeliness of the Project will not be jeopardized, and advise and update Hydro's Representative on all developments in the negotiations or dispute.

1.21 Other Contractor Obligations

The Contractor will:

- (a) once every six months distribute to and collect from the Contractor's workers a short housing survey to be conducted by BC Hydro;
- (b) pre-book hotel and motel space if the Contractor requires more than 30 rooms for temporary accommodation to house the Contractor's workers;
- (c) notify Hydro's Representative if the Contractor uses a local municipal provider's potable water or wastewater system or both or enters into an agreement with a local municipal provider to use a potable water or wastewater system; and
- (d) prior to beginning Work, provide Hydro's Representative with the Contractor's plan for housing its workforce. Any camp facilities or utilities must be designed, constructed, operated, decommissioned and permitted in compliance with all applicable regulations.

1.22 Global Sourcing

The Contractor will, on request from BC Hydro at any time, from time to time, report on the number of foreign workers the Contractor:

- (a) anticipates employing in the performance of the Work and the anticipated positions of such workers; and
- (b) is employing in the performance of the Work, the positions of such workers and details of their employment such as shift turn arounds.

1.23 Other Obligations

The Contractor :

- (a) will implement a drug and alcohol policy which, at a minimum, meets the Site C Contractor Drug and Alcohol Policy Requirements – Appendix K for a Drug & Alcohol Policy; and
- (b) may be required to participate on a committee that includes representatives of Other Contractors who are working on the Project at the Project Site for the purpose of consulting, and, as appropriate, reaching agreements, on labour matters that may arise at the Project Site of interest to the Contractor and other contractors. The Contractor will adhere to the Terms of Reference for the committee as established by BC Hydro when established.

1.24 No Seasonal Reduced Work Activity

BC Hydro expects that in-stream works may be conducted at any time, after March 15, 2015, and not confined to the least risk window.

The Project site will be operational 365/366 days per year.

1.25 Training and Apprenticeship

Contractors will facilitate and provide for training opportunities.

1.26 No employment relationship with BC Hydro

The relationship between BC Hydro and the Contractor under the Agreement is that of the Contractor being an independent contractor, notwithstanding any other provision in the Agreement or anything arising out of the actions of the parties. BC Hydro and the Contractor expressly deny that it is their intention to create any partnership, joint venture, agency, employment or other relationship. Unless otherwise agreed in writing, the Contractor is not the agent of BC Hydro in any capacity whatsoever under the Agreement, and has no authority to act as an agent of BC Hydro.

1.27 Contractor Code of Conduct

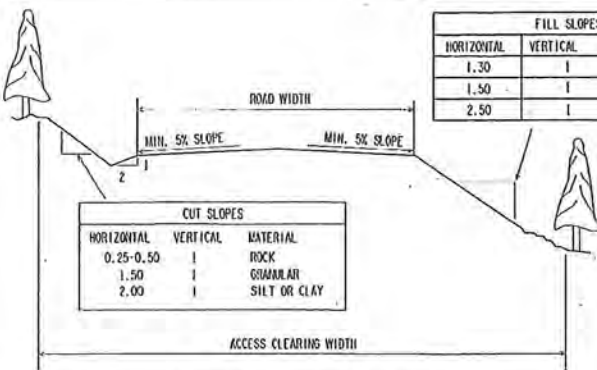
See Appendix C

1.28 Privacy Policy

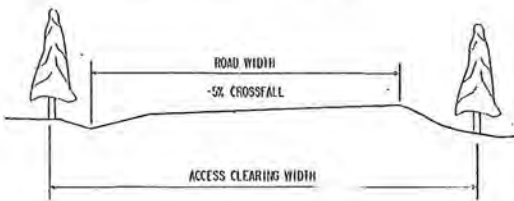
Please refer to Appendix H.

APPENDIX J – DRAWINGS

Drawing. No.	Title
SKGJT-02	Main Summer Access & Main Winter Access
2L102-T08-00004	Culvert Installation Specification for Non-Fish Bearing Stream Access Requirements.
1016-C14-D7601-1	Pricing Map
1016-C14-D7601-2	Pricing Map
1016-C14-B7603-1	Contract Map
1016-C14-B7603-2	Contract Map
1016-C14-B7603-3	Contract Map
1016-C14-B7603-4	Contract Map
1016-C14-B7603-5	Contract Map
1016-C14-B7603-6	Contract Map
1016-C14-B7603-7	Contract Map
1016-C14-B7603-8	Contract Map
1016-C14-B7603-9	Contract Map
1016-C14-B7603-10	Contract Map
1016-C14-B7603-11	Contract Map
1016-C14-B7603-12	Contract Map
1016-C14-B7784 1-4	Forestry Clearing



MAIN SUMMER ACCESS (MS)



MAIN WINTER ACCESS (MW)

FILL SLOPES		
HORIZONTAL	VERTICAL	MATERIAL
1.30	1	ROCK
1.50	1	GRAVEL
2.50	1	SILT OR CLAY

CUT SLOPES		
HORIZONTAL	VERTICAL	MATERIAL
0.25-0.50	1	ROCK
1.50	1	GRAVEL
2.00	1	SILT OR CLAY

NOTES:

1. MAXIMUM GRADE SHALL BE 20% UNLESS OTHERWISE APPROVED BY HYDRO'S REPRESENTATIVE.
 2. ON MODERATE TO EASY TERRAIN THE MINIMUM CENTRELINE RADIUS FOR CURVES SHALL BE 20m IN AREAS OF DIFFICULT TERRAIN A LESSER RADIUS MAY BE USED IF APPROVED BY HYDRO'S REPRESENTATIVE. IN NO CASE SHALL THE RADIUS BE LESS THAN 8m.
 3. AFTER CLEARING REMOVE THE TOPSOIL OR ORGANIC LAYER. FOR MAIN WINTER ACCESS OVER FIELDS AVOID SCALPING AND CUTS WHERE POSSIBLE.
 4. CONSTRUCT GRADE WITH A MINIMUM OF GROUND DISTURBANCE BY BALANCING CUTS AND FILLS AND SPREADING TOPSOIL, ORGANIC MATERIAL, SURPLUS SUBSOIL AND RIPRAVE ROCK ON SURROUNDING AREAS IN A MANNER THAT WILL NOT DISRUPT NATURAL DRAINAGE PATTERNS AND WILL NOT CAUSE DEPOSITION OF THE MATERIAL INTO WATERCOURSES.
 5. INSTALL BRIDGES, CULVERTS AND WATERBARS IN ACCORDANCE WITH THE SPECIFICATIONS AND OTHER DRAWINGS.
- FOR MAIN SUMMER ACCESS
6. THE ROAD CLEARING WIDTH SHALL BE THE GREATER OF 15m OR 2m BEYOND THE TOP OF CUTS OR TOE OF FILLS.
 7. CUT SLOPES, FILL SLOPES AND ROADWAY DIMENSIONS ARE TYPICAL MINIMUMS WHICH MAY HAVE TO BE EXCEEDED TO MEET OTHER REQUIREMENTS SUCH AS CULVERT COVER, DITCH DRAINAGE.
 8. DITCHES SHALL BE PROVIDED ALONG THE ENTIRE LENGTH OF THE ROAD ON THE UPHILL SIDE.
 9. IN ROCK DITCH DEPTH MAY BE REDUCED TO 0.15M.

MINIMUM DIMENSIONS IN METRES			
ACCESS TYPE	ROAD WIDTH	DITCH DEPTH	MIN. CLEARING WIDTH
MS	4.50	0.30	15.0
MW	4.50	N/A	15.0

Contract No. _____
ISSUED FOR TENDER PURPOSES ONLY
 By Date May 14, 2012
 Hydro Resource Centre

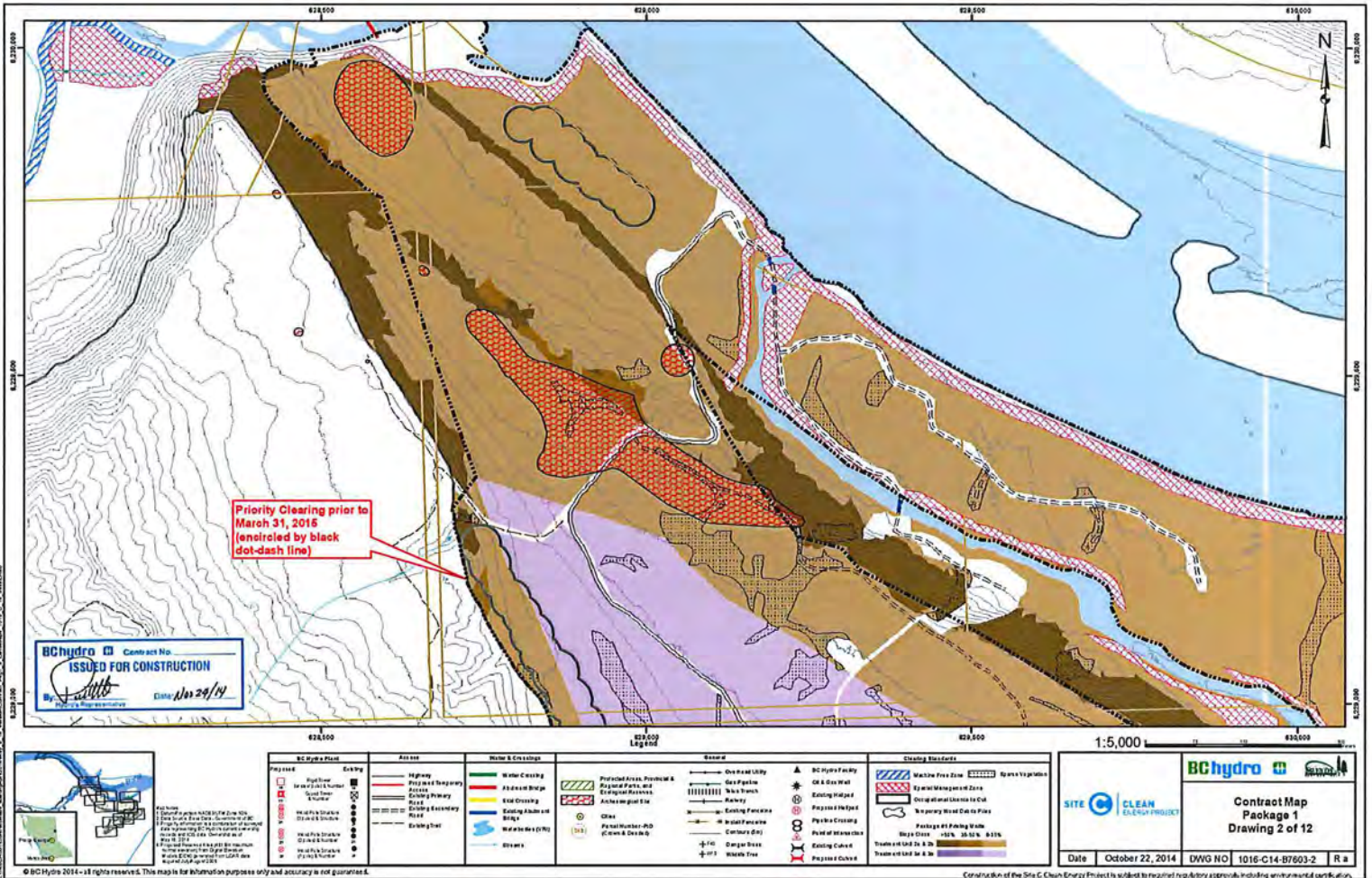
THIS DRAWING MADE FROM DWG NO. ESM11-0001-03 AND 21289-107-0144

DESIGNED CHECKED DATED BY REV APPR	OLYMPIC RESOURCE MANAGEMENT	 MAIN SUMMER ACCESS AND MAIN WINTER ACCESS REQUIREMENTS
DATE	SEP 21, 2012	DWG NO CAD
		SKGJT-02

NO.	REVISIONS	DATE	DESIGNED	CHECKED	DATED	BY	REV	ACPT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
Area (ha)		Merch. + Non-Merch.	SMZ	Machine Free
	<5%	520.4	7.6	0.0
	5-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	\$41.0	8.3	0.0
	Notes:	includes 22.8 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	>15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤25 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - ≤5 pieces		>2m long - ≤5 pieces	
	>2m long - ≤5 pieces			
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
Area (ha)		Merch. + Non-Merch.	SMZ	Machine Free
	<5%	67.9	1.7	0.0
	5-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:				
		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	≤15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤5 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			



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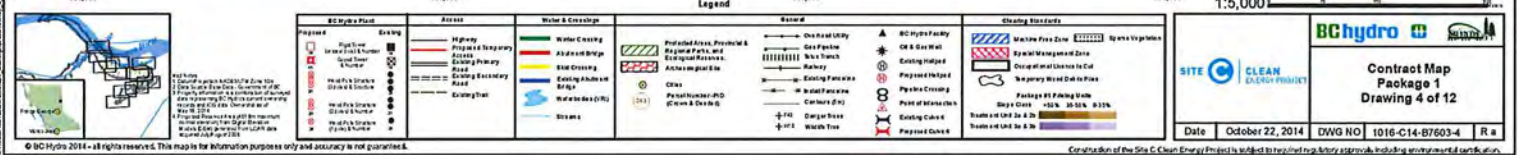
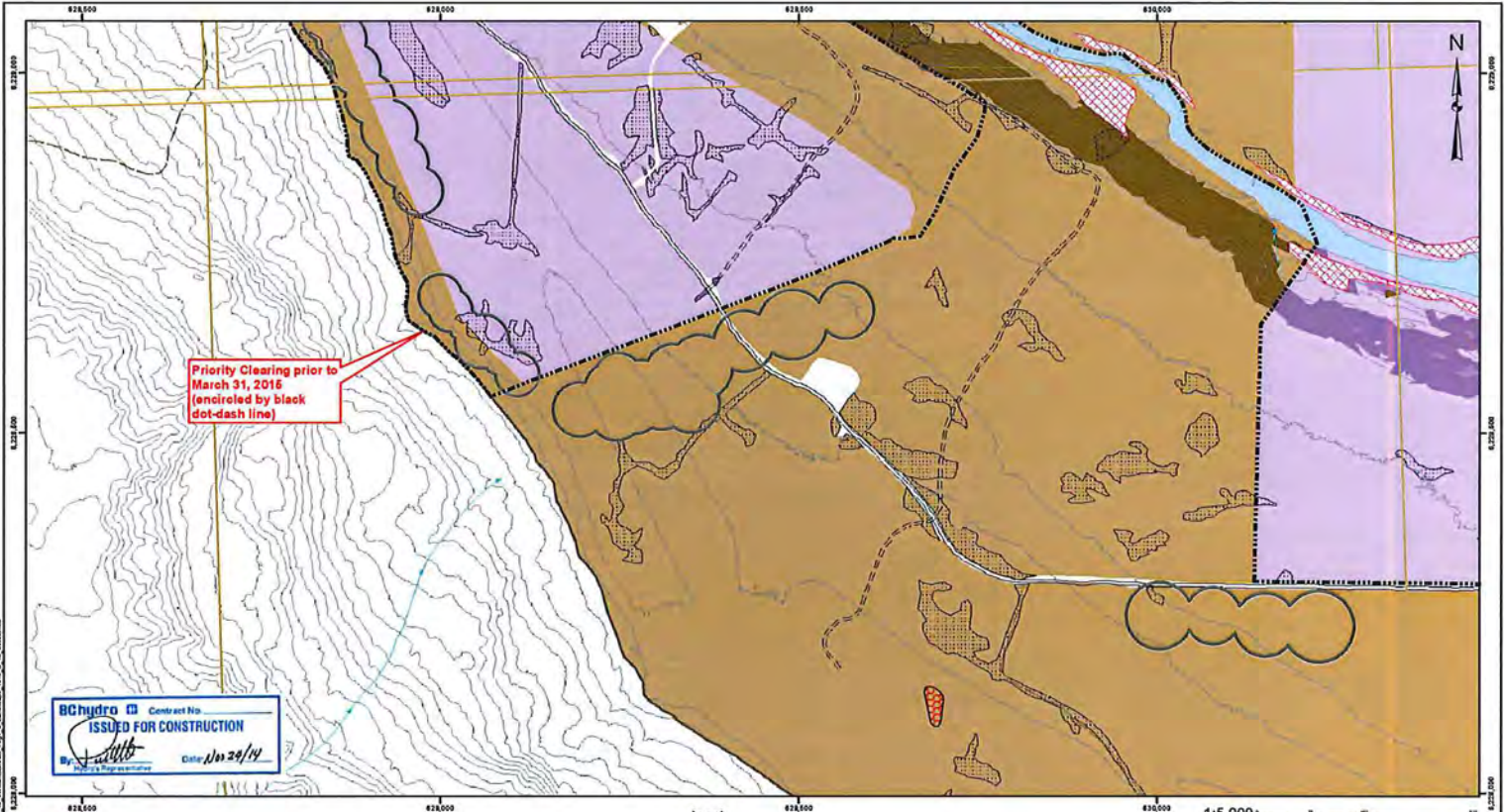
Continuation of the Site C Clean Energy Project is subject to regulatory approvals including environmental certification.

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<35%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	641.0	8.3	0.0
Notes:		Includes 22.8 ha of sparsely vegetated area		Includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤25 pieces	
	≤15cm diameter and 1m - 2m long - ≤25 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - ≤5 pieces		>2m long - ≤5 pieces	
	>2m long - ≤5 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile.			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<35%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total		2.0	0.0
	Notes:	includes 3.4 ha of sparsely vegetated area		includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with Machine
Non-Merch. Conservation		No Retention		
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with machine and remove from site
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤25 pieces	
	≤15cm diameter and 1m - 2m long - ≤5 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces		>2m long - ≤5 pieces	
	>2m long - 0 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<35%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	641.0	8.3	0.0
Notes:		Includes 22.9 ha of sparsely vegetated area	Includes 0.8 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with Machine
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with machine and remove from site
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		>15cm diameter and 1m - 2m long - <25 pieces	
	<15cm diameter and 1m - 2m long - <25 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile.			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<35%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
	Notes:	Includes 3.4 ha of sparsely vegetated area	Includes 0.8 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		>15cm diameter and 1m - 2m long - <25 pieces	
	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			



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Treatment Unit 2 (a+b): Clear All – No Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (Ha)	<5%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
	Notes:	includes 22.6 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with Machine
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with machine and remove from site
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		<15cm diameter and 1m - 2m long - <25 pieces	
	<15cm diameter and 1m - 2m long - <25 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
	Ground Conditions			
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		Includes 3.4 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited <td colspan="2"><1m long - unlimited</td>		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces <td colspan="2"><15cm diameter and 1m - 2m long - <25 pieces</td>		<15cm diameter and 1m - 2m long - <25 pieces	
	<15cm diameter and 1m - 2m long - <25 pieces <td colspan="2">>15cm diameter and 1m - 2m long - <5 pieces</td>		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces <td colspan="2">>2m long - <5 pieces</td>		>2m long - <5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

BC Hydro Contract No.
ISSUED FOR CONSTRUCTION
 Date **Nov 24/14**



Priority Clearing prior to
 March 31, 2016
 (enclosed by black
 dot-dash line)



BC Hydro Plant		Access		Water & Drainage		Legend		Road		Clearing Standards	
Proposed	Existing	Highway	Proposed Temporary	Water Crossing	Protected Areas, Provincial & Regional Parks, and Ecological Reserves	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	One Road Utility	BC Hydro Facility	CR & Gas Main	Machine Free Zone	Open Vegetation
Proposed	Existing	Proposed Temporary	Proposed Primary	Stream Crossing	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Gas Pipeline	CR & Gas Main	Existing Pipeline	Machine Free Zone	Open Vegetation
Proposed	Existing	Proposed Temporary	Proposed Secondary	Stream Crossing	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Water Trunk	CR & Gas Main	Existing Pipeline	Machine Free Zone	Open Vegetation
Proposed	Existing	Proposed Temporary	Proposed Tertiary	Stream Crossing	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Water Trunk	CR & Gas Main	Existing Pipeline	Machine Free Zone	Open Vegetation
Proposed	Existing	Proposed Temporary	Proposed Tertiary	Stream Crossing	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Provincial Parks, Provincial & Regional Parks, and Ecological Reserves	Water Trunk	CR & Gas Main	Existing Pipeline	Machine Free Zone	Open Vegetation

Contract Map
Package 1
Drawing 5 of 12

Date: October 22, 2014
 DWG NO: 1016-C14-87603-5
 R:

© BC Hydro 2014 - all rights reserved. This map is for information purposes only and accuracy is not guaranteed.
 Construction of the Site C Clean Energy Project is subject to receiving all necessary approvals including environmental certification.

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<5%	520.4	7.6	0.0
	>5-10%	2.5	0.0	0.0
	>10%	18.1	0.7	0.0
	Total	641.0	8.3	0.0
Notes:		Includes 22.6 ha of sparsely vegetated area	Includes 0 ha of sparsely vegetated area	Includes 0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	≤15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤25 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - ≤5 pieces		>2m long - ≤5 pieces	
	>2m long - ≤5 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile.			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<5%	67.9	1.7	0.0
	36-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤5 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces		>2m long - ≤5 pieces	
	>2m long - 0 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
Notes:		includes 22.6 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation		No Retention		
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances		≤15cm diameter and <1m long - unlimited	<1m long - unlimited	
		>15cm diameter and <1m long - ≤5 pieces	≤15cm diameter and 1m - 2m long - ≤75 pieces	
		≤15cm diameter and 1m - 2m long - ≤25 pieces	>15cm diameter and 1m - 2m long - ≤5 pieces	
		>15cm diameter and 1m - 2m long - ≤5 pieces	>2m long - ≤5 pieces	
Ground Conditions				
Stumps		15cm		
Ground Profile		Minimize disturbance - if site disturbance occurs, stabilize and re-establish natural ground profile		

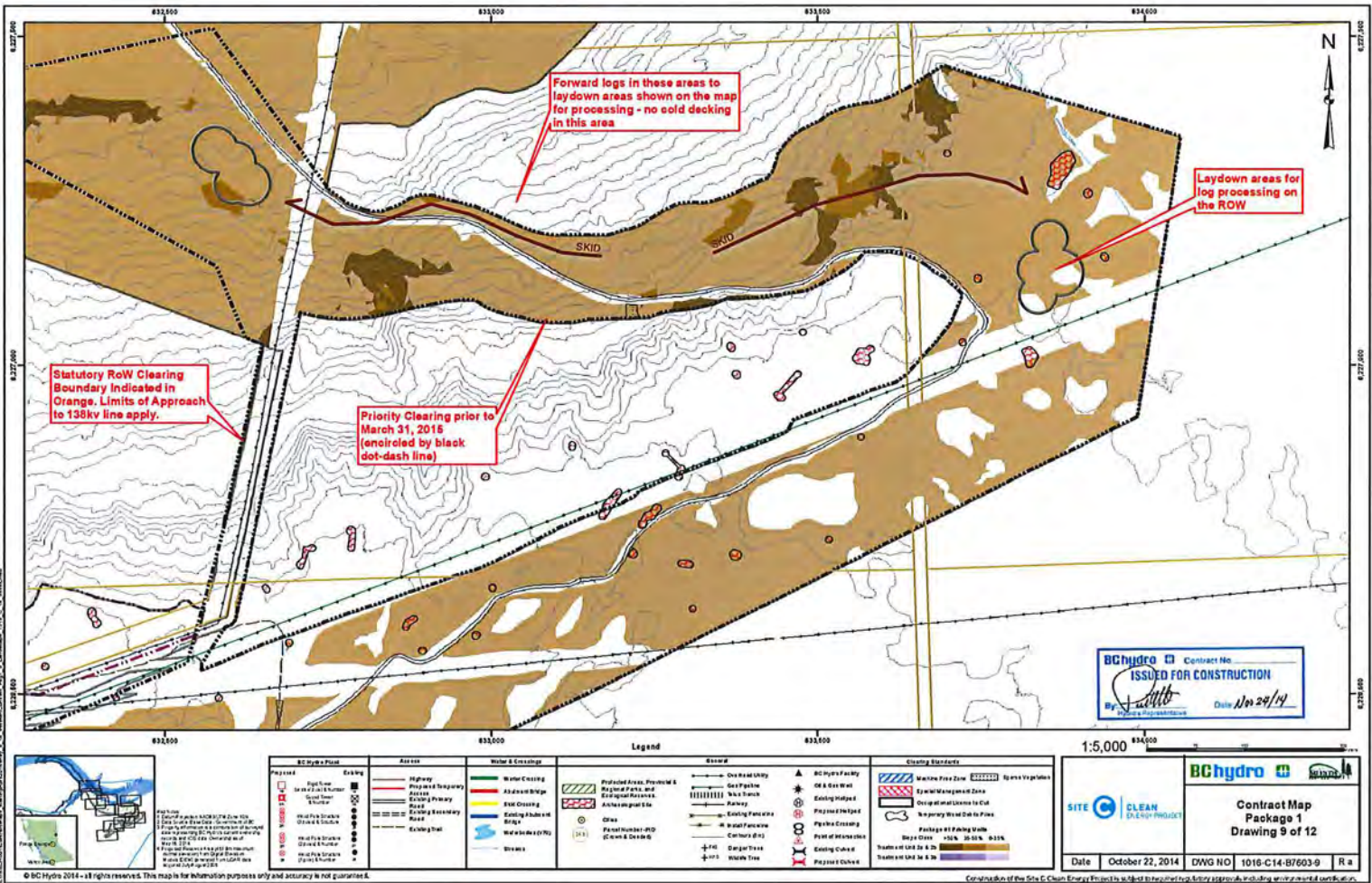
Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation		No Retention		
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances		≤15cm diameter and <1m long - unlimited	<1m long - unlimited	
		>15cm diameter and <1m long - ≤5 pieces	≤15cm diameter and 1m - 2m long - ≤75 pieces	
		≤15cm diameter and 1m - 2m long - ≤5 pieces	>15cm diameter and 1m - 2m long - ≤5 pieces	
		>15cm diameter and 1m - 2m long - 0 pieces	>2m long - ≤5 pieces	
Ground Conditions				
Stumps		Mechanical - Grub (remove stumps and roots)		
		Mechanical - Remove top soil		
Ground Profile		Mechanical - Rough grade		

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
Notes:		Includes 22.8 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with Machine
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with machine and remove from site
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		<15cm diameter and 1m - 2m long - <5 pieces	
	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile.			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
	Notes:	Includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation		No Retention		
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances		<15cm diameter and <1m long - unlimited	<1m long - unlimited	
		>15cm diameter and <1m long - <5 pieces	<15cm diameter and 1m - 2m long - <5 pieces	
		<15cm diameter and 1m - 2m long - <5 pieces	>15cm diameter and 1m - 2m long - <5 pieces	
		>15cm diameter and 1m - 2m long - 0 pieces	>2m long - <5 pieces	
Ground Conditions				
Stumps		Mechanical - Grub (remove stumps and roots)		
Ground Profile		Mechanical - Remove top soil		
		Mechanical - Rough grade		

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	MacNoa Free
Area (ha)	<5%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
	Notes:	includes 22.8 ha of sparsely vegetated area	includes 0.6 ha of sparsely vegetated area	includes 0.6 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		<15cm diameter and 1m - 2m long - <25 pieces	
	<15cm diameter and 1m - 2m long - <25 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
	>2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Fine
Area (ha)	<5%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
	Notes:	Includes 3.4 ha of sparsely vegetated area	Includes 0.6 ha of sparsely vegetated area	Includes 0.6 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation		No Retention		
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		<15cm diameter and 1m - 2m long - <25 pieces	
	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			



Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<3%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
Notes:		Includes 22.8 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	≤15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤25 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - ≤5 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile.			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<3%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use a low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	<15cm diameter and 1m - 2m long - ≤5 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
Area (ha)	Marsh + Non-Marsh		SMZ	Machine Free
	<5%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	641.0	8.3	0.0
Notes:		Includes 22.8 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area	Includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Marsh, Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	≤15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤25 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - ≤5 pieces		>2m long - ≤5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile.			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
Area (ha)	Marsh + Non-Marsh		SMZ	Machine Free
	<5%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Marsh, Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	≤15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - ≤5 pieces		≤15cm diameter and 1m - 2m long - ≤75 pieces	
	≤15cm diameter and 1m - 2m long - ≤5 pieces		>15cm diameter and 1m - 2m long - ≤5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces		>2m long - 0 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

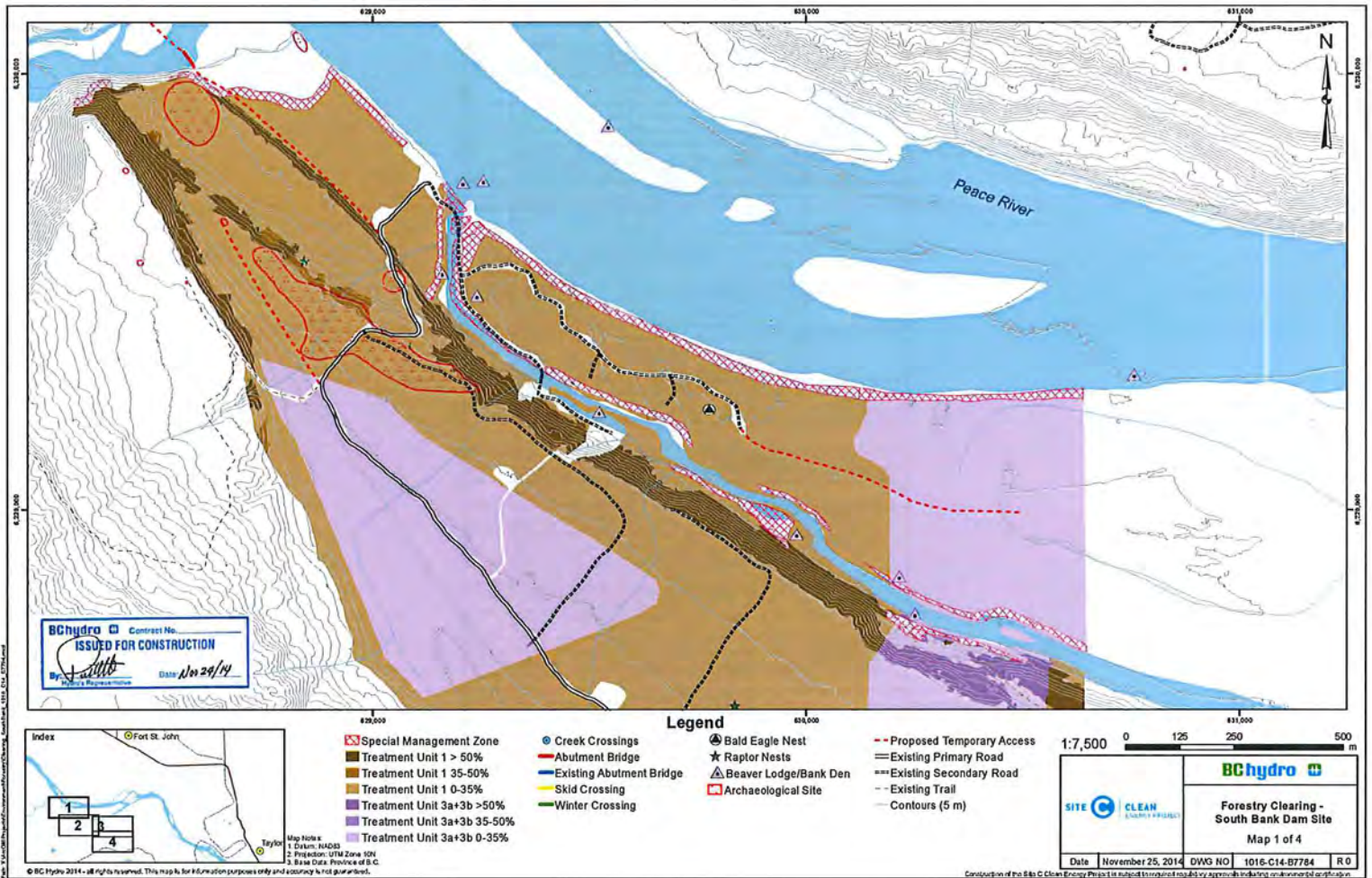


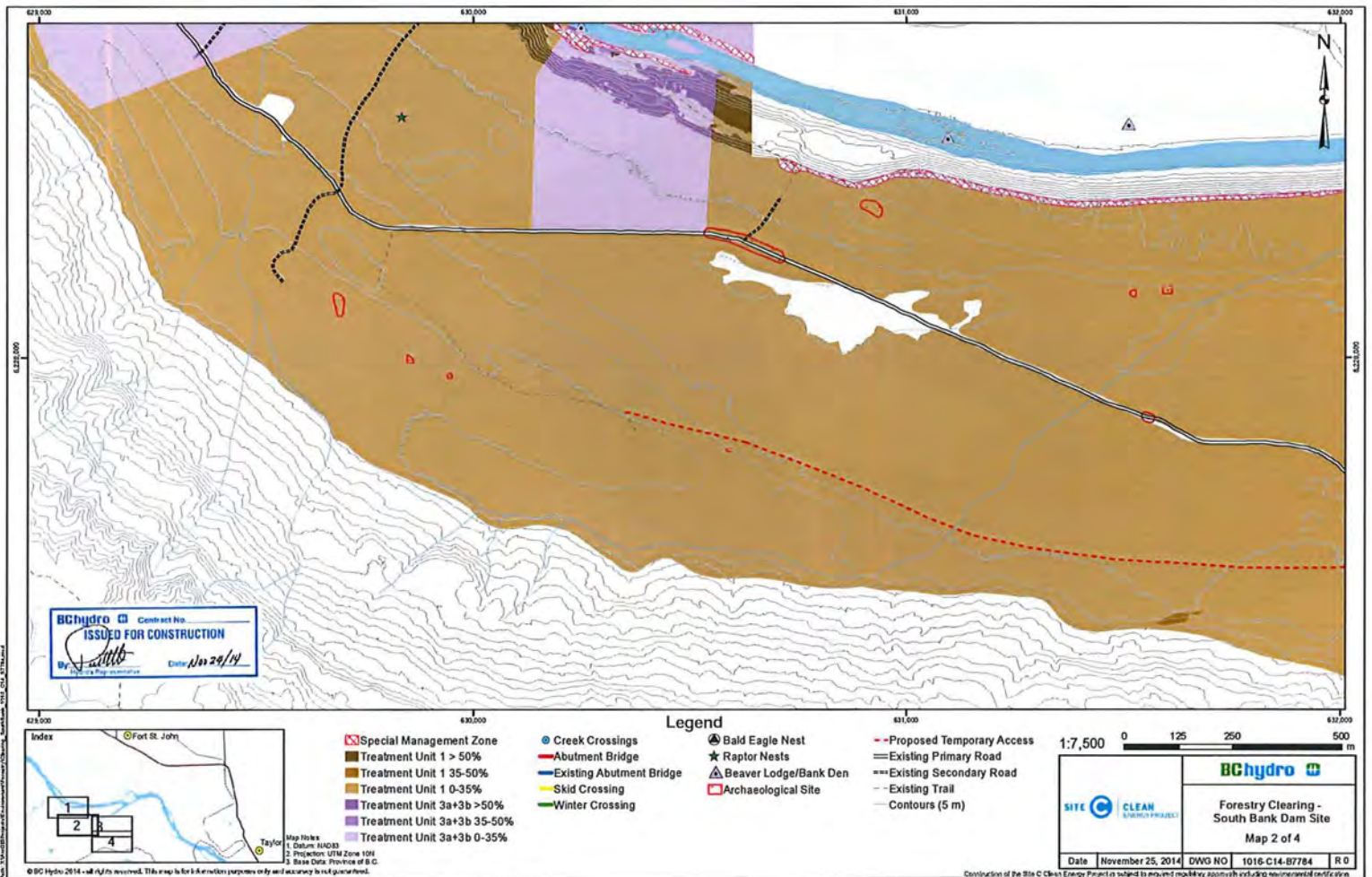
Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<3%	520.4	7.6	0.0
	35-50%	2.5	0.0	0.0
	>50%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
Notes:		includes 22.6 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with Machine
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure		Hand and/or Reach in with machine and remove from site
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
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	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
	>2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile			

Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
Area (ha)	Merch. + Non-Merch.		SMZ	Machine Free
	<3%	67.9	1.7	0.0
	35-50%	0.1	0.1	0.0
	>50%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
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	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
	>2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

Treatment Unit 2 (a+b) : Clear All – No Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	520.4	7.6	0.0
	35-55%	2.5	0.0	0.0
	>55%	18.1	0.7	0.0
	Total	541.0	8.3	0.0
Notes:		includes 22.6 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
Non-Merch. Conservation	No Retention			
Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		<15cm diameter and 1m - 2m long - <5 pieces	
	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - <5 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	15cm			
Ground Profile	Minimize disturbance. If site disturbance occurs, stabilize and re-establish natural ground profile			

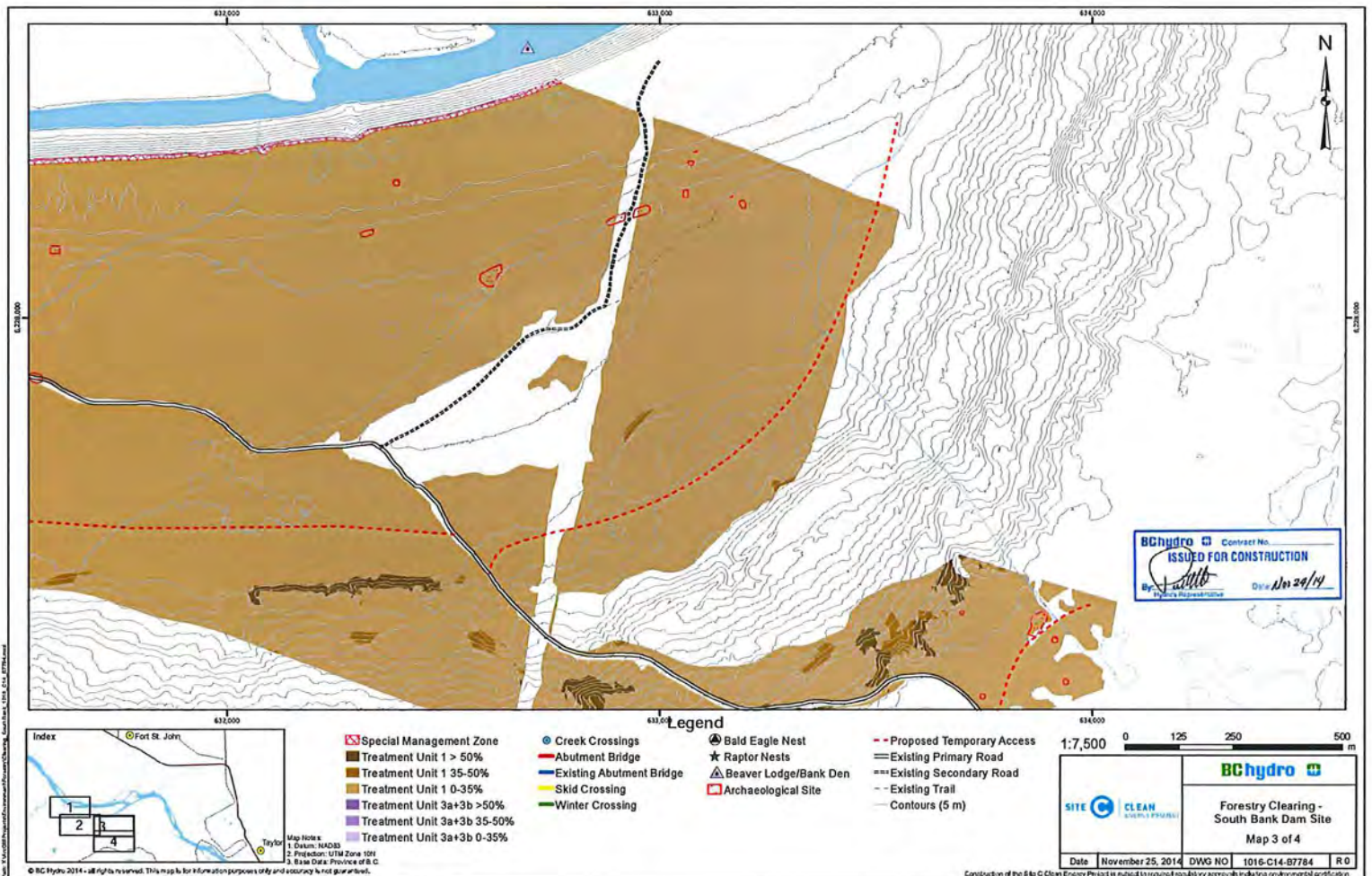
Treatment Unit 3 (a+b): Clear All – Grub				
Stand Characteristics				
		Merch. + Non-Merch.	SMZ	Machine Free
Area (ha)	<5%	67.9	1.7	0.0
	35-55%	0.1	0.1	0.0
	>55%	2.8	0.2	0.0
	Total	70.8	2.0	0.0
Notes:		includes 3.4 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area	includes 0.0 ha of sparsely vegetated area
Clearing Specifications				
Felling	Mechanical	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with Machine	
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Waste Wood	Mechanical: Pile and Burn	Mechanical on Snowpack or Frozen Ground or use low ground pressure	Hand and/or Reach in with machine and remove from site	
Waste Wood Tolerances	<15cm diameter and <1m long - unlimited		<1m long - unlimited	
	>15cm diameter and <1m long - <5 pieces		<15cm diameter and 1m - 2m long - <5 pieces	
	<15cm diameter and 1m - 2m long - <5 pieces		>15cm diameter and 1m - 2m long - <5 pieces	
	>15cm diameter and 1m - 2m long - 0 pieces		>2m long - <5 pieces	
Ground Conditions				
Stumps	Mechanical - Grub (remove stumps and roots)			
Ground Profile	Mechanical - Remove top soil			
	Mechanical - Rough grade			

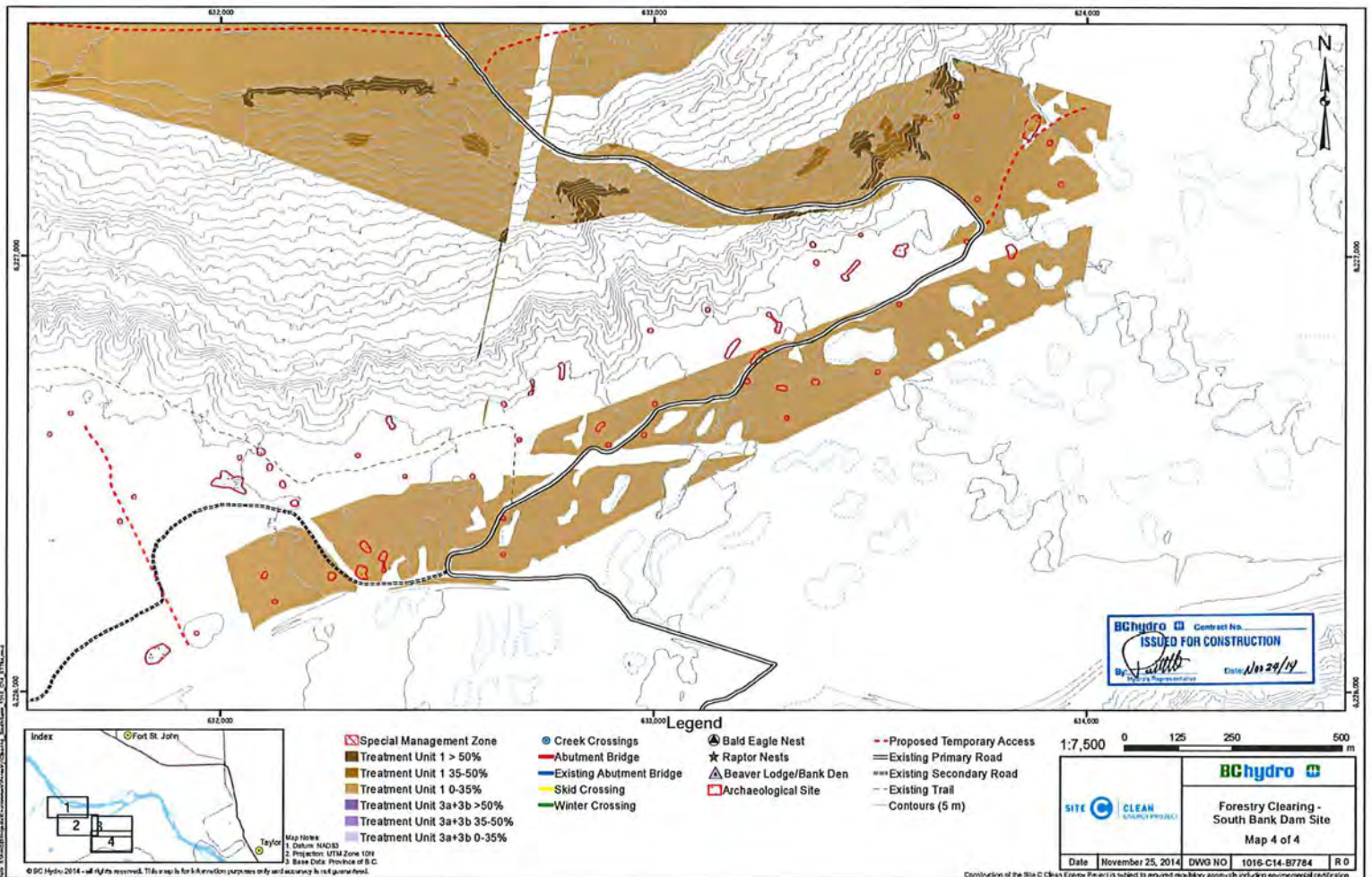




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Development of the Site C Clean Energy Project is subject to approval by the appropriate regulatory authorities.





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Contributions of the Site Clean Energy Project are subject to approved regulatory approvals including environmental certification.

APPENDIX K
SITE C CONTRACTOR DRUG AND ALCOHOL POLICY REQUIREMENTS

Site C Contractor Drug and Alcohol Policy Requirements

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Site C Contractor Drug and Alcohol Policy Requirements

Purpose

BC Hydro's Site C Project has a strong commitment to provide a safe workplace for employees and other persons working or visiting the Site C Project worksites or facilities. BC Hydro recognizes the safety-sensitive nature of Site C's worksites and the requirement for an alcohol and drug policy is one component of an overall comprehensive strategy to maximize safety for Site C Contractors, their respective employees, BC Hydro employees, other persons on BC Hydro property or facilities, and to protect property and the environment.

Site C recognizes that the use of illicit drugs or mood altering substances, and the inappropriate use of alcohol and medications can adversely affect the safety and well-being of employees and the public, and can negatively impact the work environment, and job performance. It can also place the integrity and safety of our facilities, worksites and operations at risk.

Contractors, subcontractors, and suppliers (herein collectively referred to as "Site C Contractors") performing work or carrying out work on behalf of Site C in Canada must have in place and must administer/enforce a drug and alcohol policy and testing program that meets or exceeds the following requirements set out below:

Minimum Requirements:

Fitness for Work:

Workers are expected to report to work fit for work and not under the influence of alcohol and/or other drugs or after-effects of alcohol and/or other drugs.

Medications:

Workers are expected to responsibly use prescribed and over-the-counter medications in accordance with the physician's or pharmacist's instructions. Medications of concern are those that inhibit or may inhibit an employee's ability to perform their job safely and productively. A guideline on medications is found in Appendix A.

Prohibited Actions/Conduct:

The following actions must be prohibited while working on Site C worksites and facilities or engaged in Site C work/business:

Illicit drugs and alcohol

- the use, possession, distribution, offering or sale of beverage alcohol or illicit drugs or other mood altering substances, or illicit drug paraphernalia;
- reporting to work or being at work while under the influence of alcohol or illicit drugs or other mood altering substances; and
- a positive alcohol or drug test result as determined through a Contractor's testing program

Medications (Prescription Drugs or Over-The-Counter Medicines)

- the intentional misuse of medications in a manner that could negatively impact job performance (e.g. not using the medication as it has been prescribed or directed by the pharmacy, using someone else's prescription medication, combining medication and alcohol use against direction);

- the possession of prescribed medications without a legally medically obtained prescription; and distribution, offering or sale of prescription medications (trafficking).

Alcohol and Drug Testing Program:

Contractors will have an alcohol and drug testing program that provides for testing of workers, as follows:

Pre-qualification/pre-employment

- Applies to safety sensitive positions¹ only, to be conducted prior to hiring the worker/employee
- At the discretion of Site C Contractors, individuals already employed and working for a Site C Contractor prior to the effective date of this Contract will not be required to meet this pre-employment testing requirement

Reasonable Cause / Unfit for work situations

- Applies to safety sensitive positions only
- To be conducted when reasonable grounds/suspicion exists that an employee, while at work or on Site C premises, exhibits signs indicative of the use of alcohol or drugs

Post Incident

- Applies to both safety sensitive and non-safety sensitive positions
- To be conducted following a serious work-related incident (e.g. fatality, serious personal injury requiring medical attention away from site, environmental incidents that cause adverse effects, significant damage/loss to property equipment or vehicles, etc.) as part of a full investigation into the circumstances.

Return to Work

- Applies to both safety sensitive and non-safety sensitive positions
- Where employment is continued after a Policy violation program, employees will be required to pass a return to work test and be subject to unannounced testing as a condition of continued employment. Unannounced testing may be used as a monitoring tool to support the recovery of any employee assuming duties after treatment for an alcohol or drug dependency

When drug testing is conducted it will comply with applicable laws and the requirements set out in Appendix B.

Consequences

Site C Contractors will remove a worker from the Site C facilities and/or worksites if they appear on site while under the influence of alcohol or drugs.

Workers tested as a result of reasonable cause or post-incident circumstances will be removed from work until the investigation is complete. Depending on the test result, a fitness for work assessment may also be

¹ Safety Sensitive Position Definition:

- a) a position that has the ability to create hazards or danger to other individuals, the community or the environment
- b) a position in which individuals have a key and direct role in an operation where performance impacted by alcohol or drug use could result in a serious incident or a failure to adequately respond to a serious incident, and could affect the health, safety or security of the employee, other persons, property or the environment)

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required before a worker can return to work.

A positive drug test and/or an alcohol test result of .04 BAC or higher and/or a refusal or failure to test are considered a violation of this Policy.

If a worker tests positive, such worker will be prohibited from working at or entering Site C worksites or facilities or carrying out work on behalf of Site C until such worker is cleared to return to work.

When BC Hydro is prime, BC Hydro reserves the right, based on reasonable grounds and/or post-incident, to request a Site C Contractor to conduct an alcohol and/or drug test on any of the Site C Contractors' workers while on Site C worksites and/or facilities. Such individual will be removed from Site C worksites and not returned until certification is provided by the Site C Contractor that the individual has tested negative or that the individual is participating in a rehabilitation program for substance abuse and BC Hydro's consent provided to reinstate such individual.

Worker Support and Rehabilitation

A Site C Contractors' Alcohol and Drug Policy must respect the duty to accommodate in the case of disability due to alcohol or drug dependence and provide for worker access to medical and rehabilitation assistance such as:

- medical benefits if available, and
- return to work agreements following treatment.

Site C Contractors are to encourage workers who have an alcohol or drug dependency to access an employee and family assistance program, their personal physician or appropriate community services for assistance and support.

Workers who return to work following treatment (i.e. residential or out-patient treatment) for alcohol or drug dependency/addiction will be required to participate in an aftercare program to assist them to maintain recovery. Workers will be required to enter into return to work agreements which outline the conditions of their return to work.

Enforcement of Requirements

Site C Contractors are expected to enforce these requirements at all times.

Violation of any of these requirements will subject the contractor and/or employee(s) to denial of entry to Site C Project worksites and facilities.

BC Hydro shall have the right to terminate a Site C Contractors' contract for material breach in addition to any other remedies that may be available at law.

Documentation

Contractors must maintain records that validate compliance with these requirements, which may, from time to time, be subject to auditing by BC Hydro. Such records must include: drug and alcohol testing statistics.

Appendix A: Guideline on Medications

All employees are expected to responsibly use prescribed and over-the-counter medications in conjunction with work. The following drug categories can have a negative impact on performance, and are provided as a guideline to employees in assessing their own situation. The list is not exhaustive; there are numerous other over-the-counter and prescription drugs which when taken may impact negatively on overall safe performance.

Therefore, employees are expected to consult with their personal physician a pharmacist or another health professional to determine if use of the medication can have any potential negative impact on job performance. If advised the medication they are using will affect their ability to operate safely, the employee is expected to advise their supervisor of any need for modified work. In this situation, a medical work modification may be issued, and the employee may be assigned to alternate duties if available and at the discretion of the Contractor. The Contractor must reserve the right to confirm the nature and duration of any required work modification with the treating physician without any breach of medical confidentiality or privacy laws.

1. Antihistamines - are widely prescribed for hayfever and other allergies (e.g. Allegra, Dimetane). They are also found in many cold medications. These medications may cause drowsiness.
2. Motion Sickness Drugs - are used to prevent motion sickness and nausea (e.g. Gravol, Antivert). Side effects may include drowsiness.
3. Barbiturates, Sedatives, Hypnotics, Tranquilizers, Antidepressants - (e.g. Ativan, Imovane, Paxil), Potential side effects may include mild sedation, hypnotic state, dizziness or drowsiness.
4. Narcotics - (e.g. Demerol, Codeine, OxyCotin and Percoset). Codeine is often found in combination drugs such as 222s or 292s or Tylenol 1,2,3s. Drowsiness, dizziness, and light-headedness may be side effects.
5. Stimulants - Medication used for central nervous system stimulation and for appetite suppression can produce sensations of well-being which may have an adverse effect on judgment, mood and behaviour (e.g. amphetamines or medications sold as "diet pills").
6. Anticonvulsants - are used to control epileptic seizures and can cause drowsiness in some patients (e.g. Dilantin).
7. Muscle Relaxants - are used to treat musculoskeletal pain. Most common side effects are sedation and drowsiness (e.g. Flexeril, Robaxisal).
8. Cold Tablets/Cough mixtures – in particular, nighttime remedies can cause drowsiness (e.g. Sinutab, Contac, Triaminic, Tussionex and preparations containing dextromethorphan (DM) or codeine).
9. Medical Marijuana – Marijuana is categorized as a controlled substance; however, the new Marijuana for Medical Purposes Regulations allow physicians to authorize use of marijuana for treatment purposes. Its use can present serious negative impacts on performance at work.

Appendix B: Alcohol and Drug Testing Procedures

The alcohol and drug testing process is based on rigorous collection, analysis and reporting procedures designed to ensure the accuracy and integrity of the results. Steps in the testing process are highlighted below.

1. Testing will be conducted in those circumstances outlined under the Contractor Policy to determine the presence of six classes of drugs: cannabinoids, amphetamines, cocaine, opiates, phencyclidine and alcohol. If the Contractor concludes there is justification to include additional drugs in this list, employees will be advised of the change. Testing for additional drugs may also be required on an individualized basis on the advice of a treatment centre or substance abuse professional in a post-treatment situation.
2. Collection of specimens for drug testing and administration of alcohol tests will be performed by trained collection agents. All individuals who are tested are required to sign a form to acknowledge the accuracy of the employee and collector information and authenticity of the specimen(s). They will be given a copy of the forms for their records.
3. Alcohol tests will be administered by a calibrated evidential breath analyzer with a printout of test results. Drug tests will be administered by urinalysis either using split sample collection for transfer to the laboratory, or using a Point of Collection (quick test) urine drug screen at the collection site with confirmation testing at the lab should it be required. Laboratory analysis of oral fluid samples may also be a part of this program using parallel technology.
4. All laboratory testing will be conducted by a fully qualified and accredited laboratory performing a confirmation test by gas chromatography/mass spectrometry (GC/MS).
5. Laboratory confirmed positive drug test results will be reviewed by a qualified Medical Review Officer (MRO) or equivalent. This is an independent physician who will endeavour to discuss the result with the employee in an effort to determine whether a positive test could have resulted from the legitimate use of medications. The individual concerned will be given an opportunity to explain the finding to the MRO who will then determine whether the result will be reported to the Contractor Program Administrator as a negative, or a verified positive, or a tampered or substituted specimen result.
6. In the case of a verified positive drug test result, or a tampered or substituted finding, the employee may ask the MRO to require the split sample to be tested (or for single sample collection, their sample to be retested) within seventy-two (72) hours of receiving their results. If a second confirmed positive test is reported, the person who requested the second analysis is responsible for reimbursing the Contractor for the associated costs.
7. If the test is reported as dilute and negative, or cancelled because the specimen is invalid, the employee will be required to provide an additional specimen for testing as soon as possible.
8. All test results will be reported directly to the Contractor's Program Administrator or designate. Except for the release of information in accordance with this Policy and in situations affecting the health and safety of workers and the public, results of all testing will be maintained by the Program Administrator and kept confidential unless otherwise required by law or authorized by order of a tribunal or court.

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9. Testing levels should be based on generally accepted industry and medical standards (e.g. similar to those developed by United States Department of Transportation, Construction Owner's Association of Alberta, and the Construction Labour Relations Association of British Columbia).