



**DISTRICT OF HUDSON'S HOPE
SPECIAL COUNCIL MEETING AGENDA**

Council Chambers

Monday, September 3, 2019

Call to Order:

2. Delegation

3. Notice of New Business:

Mayor's List
Councillors Additions
CAO's Additions

4. Adoption of Agenda by Consensus:

5. Declaration of Conflict of Interest:

6. Adoption of Minutes:

7. Business Arising from the Minutes:

8. Public Hearing:

9. Staff Reports

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10. Committee Meeting Reports:

11. Bylaws:

12. Correspondence

13. Reports by Mayor & Council on Meetings and Liaison Responsibilities

14. Old Business:

- 15. New Business:**
- 16. Public Inquiries:**
- 17. In-Camera Session**
- 18. Adjournment**

REQUEST FOR DECISION

RFD#: CC-2019-59	Date: August 30, 2019
Meeting#: SCM090319	Originator: Chris Cvik, CAO
RFD TITLE: Contract with BC Hydro - Well Water Project	

RECOMMENDATION:

1. That Council authorize staff to sign the contract with BC Hydro to amend the Partnering Relationship Agreement dated January 10, 2019, once any final edits the contract are completed.

BACKGROUND:

In the Partnering Relationship Agreement that was signed January 10, 2019, BC Hydro agreed to reconstruct or relocate the water intake and pumping components for the District's Water supply. Since that time, the parties agreed to look at other options for a water source. The parties agreed to replace the current water intake and pumping components with an entirely different water supply system consisting of water access from an aquifer through two deep wells, and the well water treatment plant, modified to treat the water through a nanofiltration process to reduce hardness in the water.

This report and attached agreement is being brought forward to amend the January 10, 2019, Partnering Relationship Agreement to reflect the scope of work and budget necessary to install the wells and modify the water treatment plant.

DISCUSSION:

The District has worked with our consultants including Darryl Brizan (L&M Engineering Limited) and Warren Grafton (Western Water Ltd.) to develop the project scope, schedule and budget that is contained in the updated agreement. There is more language in this agreement with respect to time and budget considerations as BC Hydro had costed out work to replace the old intake and pumping components and wants to stay within that general budget for this new scope of work. The draft agreement has been reviewed by external legal. **We are still working on final edits, but the substantive components of the agreement are complete.**

If approved, the work is expected to be completed by April 6, 2020, in order to allow BC Hydro to decommission and remove the old intake and pumping system and start construction on the berm that is to be built.

FINANCIAL CONSIDERATIONS:

The estimated cost to develop a new water source from an aquifer by drilling two deep wells, and modifying the water treatment plant with a nanofiltration treatment process is approximately \$2,736,400 dollars. BC Hydro has agreed to reimburse the District for this amount.

Attachment:

1. Partnering Relationship Agreement dated January 10, 2019 – Section 5.1 Water Supply Infrastructure and Section 5.2 Water Quality.
2. Draft Agreement – District of Hudson's Hope and BC Hydro regarding Well Water Supply and Water Treatment Plant Upgrades.

Other:



Chris Cvik, CAO

**ARTICLE 5
SITE C COMMUNITY MEASURES**

5.1 Water Supply Infrastructure

- (a) Certain water intake and pumping station components (the "Affected Components") of the District's municipal water supply system (the "Water System") will be adversely affected by the construction of the berm component of the Shoreline Protection Works (the "Berm") and the filling of the Reservoir.
- (b) For certainty, the Water System is comprised of the Affected Components and other components, including the District's water treatment plant.
- (c) BC Hydro agrees that it will reconstruct or relocate each of the Affected Components as required to maintain the functionality of the District's Water System to substantially the same standard and capacity in existence as of the Effective Date:
 - (i) by no later than the completion of construction of the Berm;
 - (ii) at an elevation directly, more or less, above the current location;
 - (iii) using a design that takes into account continued safe water supply for the District while components are reconstructed or relocated.
- (d) Prior to the commencement of final design and procurement for the Berm, BC Hydro will prepare a design to relocate and/or reconstruct the Affected Components. At standard design stages during design and the relocation and/or reconstruction of the Affected Components, BC Hydro will consult with an appropriately qualified engineering consultant retained by the District to ensure the design and the relocation and/or reconstruction take into account the District's reasonable Water System requirements and the Berm design and construction. The standard stages shall include at minimum feasibility design, preliminary design, detailed design and the contractor's construction plan. BC Hydro will compensate the District for the reasonable amounts paid by the District to the engineering consultant. Final detailed design will be subject to approval of the District acting reasonably, and BC Hydro will then implement the relocation and/or reconstruction of Affected Components at its cost in accordance with the detailed design.
- (e) Prior to the detailed design stage, BC Hydro and the District will enter into good faith negotiations in an effort to reach an agreement with respect to:
 - (i) the reasonable and necessary terms of a statutory right of way, *Land Title Act* Section 219 Covenant or other rights over the lands encompassing the Berm to be granted by BC Hydro to the District in order to accommodate the Affected Components after relocation or reconstruction;

- (ii) any further rights to access the lands encompassing the Berm required by the District for purposes of ongoing maintenance of the Water System;
 - (iii) ownership of any of the Affected Components by the District that may be located within the lands encompassing the Berm;
 - (iv) protocols for ongoing maintenance and decision-making by the District in respect of future upgrades of the Affected Components located within the lands encompassing the Berm.
- (f) In advance of the process set out at Section 5.1(d), BC Hydro will provide to the District a reasonable, scientifically based prediction of the conditions of the Reservoir relevant for the design of the relocated and/or reconstructed Water System. These predictions will be taken into account in the final design and construction of relocated and/or reconstructed components.
- (g) The District, pursuant to its responsibility to manage and plan for existing infrastructure, may undertake a technical study of the Water System infrastructure prior to the implementation of measures described above to address the Affected Components. The parties agree that if such a technical study is undertaken, then such study will take into account the plan for the Berm construction and the construction and relocation of the Affected Components. The District will provide BC Hydro the opportunity to review and comment upon the proposed terms of references for the technical study. BC Hydro will pay \$10,000 of the costs of the technical study provided it includes consideration of the Berm construction and the construction and relocation of the Affected Components. For greater certainty, such payment shall be distinct from payment made by BC Hydro to the District pursuant to Section 5.1(d).

5.2 Water Quality

- (a) If, before, during or after the filling of the Reservoir, performance of the Water System, including, for certainty, the District's water treatment plant, is reasonably and reliably demonstrated to be below that planned for during the design phase, and to the extent that any such difference in performance is caused or contributed to by Reservoir conditions that are materially different than the predicted conditions provided by BC Hydro and used for design pursuant to Section 5.1(f), BC Hydro and the District will discuss reasonable mitigation options and BC Hydro will pay the reasonable costs of implementing the agreed mitigation option. For greater certainty, the mitigation options contemplated in this Section 5.2(a) are alterations or additions to, or changes in the operations of the Water System only and will not relate to the operation of any of the Peace Region Operations nor to the construction and operation of the Site C Project.

5.3 Waste Water System

- (a) The Parties acknowledge that:

- (i) the District's existing waste water system is currently a lagoon system located on the north bank of the Peace River; and
- (ii) the District intends to construct a replacement system for the existing waste water system (the "**Replacement System**").
- (b) The Parties agree that the Replacement System shall be located no closer to the Reservoir than the Boundary Line.
- (c) If the District intends to commence the construction of the Replacement System prior to the filling of the Reservoir:
 - (i) it will provide BC Hydro with advance written notice of its intention to do so;
 - (ii) BC Hydro will provide to the District an estimate of the expected Reservoir operating range, Reservoir water level and water velocity conditions in the vicinity of the Replacement System after the filling of the Reservoir;
 - (iii) the District will take into account BC Hydro's estimates of the expected conditions after the filling of the Reservoir in the final design of the Replacement System;
 - (iv) the District will, as part of the final design and construction of the Replacement System, include a minimum of 4 monitoring sites with 4 wells which will be placed to allow for the collection of monitoring data suitable to determine if the Replacement System experiences any deterioration of performance and whether or not such deterioration is caused or contributed to by the Site C Project;
 - (v) prior to installation of the monitoring sites and wells, the District will provide BC Hydro with an opportunity to review the location of the monitoring sites and wells and will consider any feedback provided by BC Hydro prior to finalising the placement of the monitoring sites and wells;
 - (vi) the District will obtain the data from the monitoring sites as part of the District's normal operations at its sole cost and will share all such data with BC Hydro;
 - (vii) BC Hydro may, at its sole discretion and at its sole cost, elect to install additional monitoring sites in the vicinity of the existing waste water system or the Replacement System. If the additional locations are on property owned by the District, it will not unreasonably withhold permission for BC Hydro to install and operate such monitoring sites. BC Hydro will obtain the data from the monitoring sites as part of BC Hydro's operations at its sole cost and will share all such data with the District; and

- (viii) if any deterioration in the performance of the exfiltration of the Replacement System is observed by either Party, and such deterioration is caused or contributed to by the Site C Project, BC Hydro and the District will discuss and in good faith seek to agree upon reasonable mitigation measures and, to the extent such deterioration is caused or contributed to by the Site C Project, BC Hydro will pay the reasonable costs of implementing any agreed mitigation measure.
- (d) If by October 1, 2019, the District has not given notice to BC Hydro pursuant to Section 5.3(c)(i) of its intention to commence construction of the Replacement System prior to the filling of the Reservoir; then:
 - (i) BC Hydro will develop a monitoring program at its sole cost which will include the installation of monitoring wells to provide the baseline system performance data and will provide all data collected to the District. If monitoring locations are on District owned land, the District will not unreasonably withhold permission from BC Hydro to install and operate monitoring facilities. BC Hydro will provide the draft monitoring program for the District to review. Monitoring well installation will take place no later than three years prior to the filling of the Reservoir;
 - (ii) BC Hydro will provide the District with all data obtained from other monitoring wells in the vicinity of the existing waste water system during construction of the Site C Project and during the first five years after the filling of the Reservoir;
 - (iii) if deterioration of performance of the exfiltration of the existing waste water system is observed by either Party, and such deterioration is caused or contributed to by the Site C Project, BC Hydro and the District will discuss and in good faith seek to agree upon reasonable mitigation options and, to the extent such deterioration is caused or contributed by the Site C Project, BC Hydro will pay the reasonable costs of implementing the agreed mitigation option.
- (e) The District acknowledges and agrees that the District will inform itself and will take account of the permitted operations of the Reservoir and existing conditions in the design and construction of the Replacement System if it undertakes the construction of the Replacement System after the filling of the Reservoir. BC Hydro will, from time to time, at the reasonable request of the District, provide to the District such information in respect the permitted operations of the Reservoir as may be reasonably required for the design and construction of the Replacement System.
- (f) Other than as expressly provided for in this Section 5.3, BC Hydro is not liable for and is not obligated to take any action or pay any amounts in relation to any impact that the filling or operation of the Reservoir may have on the existing waste water system or on the Replacement System. For certainty, the Parties acknowledge and agree that this Section 5.3 satisfy BC Hydro's obligations

pursuant to Condition #47 of the Environmental Assessment Certificate with respect to the existing waste water system.

5.4 Road Rescue Services

- (a) Within 3 months of the Effective Date, BC Hydro will make a one-time payment to the District in the amount of \$20,000 to be used by the District as a contribution toward the District's fire and road rescue programs for the purpose of supporting the provision of road rescue services in the community of Hudson's Hope during the Construction Period.
- (b) The District will report through the Community Engagement Committee on the use of the funds provided by BC Hydro pursuant to Section 5.4(a), and will acknowledge BC Hydro's support of fire and road rescue services in District communications.

5.5 DA Thomas Road Boat Launch

- (a) BC Hydro will:
 - (i) by 2024, at its sole cost, construct and install facilities for a new small craft launch and day use facility to be located in the vicinity of the foot of DA Thomas Road together with an adjacent day use site, such facilities to be appropriate for the purpose of launching boats for recreational use in the Reservoir given the space available at that location. BC Hydro will provide the District with an opportunity to review the specifications for these facilities and provide feedback and will take the feedback into account in the final design of the facilities; and
 - (ii) within one year following completion of the Shoreline Protection Works, at its sole cost repair portions of the existing walking trail to the community of Hudson's Hope from the small craft launch impacted by Shoreline Protection Works and re-establish an all-season looping trail connecting to the existing trail from the day use site. BC Hydro will work with the District to determine ownership of the impacted portions of the walking trail from the new small craft launch to the community of Hudson's Hope. For certainty, BC Hydro will not pay for the costs of acquiring any property rights that may be required for such a trail.
- (b) The new small craft launch and the adjacent day use site will be owned and maintained by BC Hydro, and will be operated on a seasonal basis, all in accordance with BC Hydro's standards for the operation of recreational facilities located on its reservoirs. BC Hydro will ensure that the seasonal operation, including any seasonal closure, of the launch and day use site does not interrupt the access to the trail connecting to the community of Hudson's Hope.
- (c) The trail between the boat launch area and the community of Hudson's Hope will be owned or permitted, and maintained, by the District.

WATER AGREEMENT

For Hudson's Hope Well Water Supply and Water Treatment Plant Upgrades and to amend the Partnering Relationship Agreement dated January 10, 2017 (the "Agreement")

THIS AGREEMENT is dated as of the ____ day of _____, 2019.

BETWEEN:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY, a Crown Corporation of the Province of British Columbia having an office at 333 Dunsmuir Street, Vancouver, BC V6B 5R3

("BC Hydro")

AND:

THE DISTRICT OF HUDSON'S HOPE, a district municipality under the Local Government Act, and incorporated pursuant to the laws of the Province of British Columbia

("District")

Collectively referred to as the "Parties" or individually as a "Party"

RECITALS:

- A. The Parties entered into a Partnering Relationship Agreement dated January 10, 2017 (the "**PRA**") for the purpose of working together to ensure their mutual issues, interests, and concerns raised as a result of the construction and operation of the Site C Dam are fully addressed, and in that regard, each Party under Article 5.1 and 5.2 of the PRA, has certain legally binding obligations to the other in respect of the District water supply infrastructure and quality.
- B. For reasons set out in the PRA, BC Hydro has agreed under Article 5.1(c) and 5.1(d) of the PRA that it will relocate and reconstruct the District's water intake and pumping station components (the "**Affected Components**") in order to maintain the functionality of the District's water system to substantially the same standard and capacity in existence as of the effective date of the PRA (the "**Like for Like Replacement**") and that BC Hydro would implement the Like for Like Replacement of the Affected Components at its cost.
- C. The District has retained consultants to undertake a technical study of its water system replacement options, and based on the advice of its consultants, the District has advised BC Hydro that instead of a Like for Like Replacement of the Affected Components, a better and more viable solution for the District would be to replace the Affected Components with an entirely different water supply system consisting of water access from an aquifer through the use of two wells, and the well water will be connected to a water treatment plant, which will be modified to include aeration and nanofiltration to treat the well water (the "**Preferred Solution**").
- D. The District has carried out all investigations it identified as necessary to inform itself on the feasibility of the Preferred Solution as a better alternative to the Like for Like Replacement, and BC Hydro has reimbursed the District for all its costs to date associated with the investigations of the Preferred Solution.

- E. By funding the Preferred Solution or the Like for Like Replacement, BC Hydro will satisfy its obligations under 5.1 and 5.2 of the PRA, and Environmental Assessment Certificate ("EAC") condition 47.
- F. In accordance with the District's wishes, BC Hydro is willing to contribute funds towards the Preferred Solution instead of toward a Like for Like Replacement of the Affected Components on the terms and conditions set out in this Agreement.
- G. The Parties will need to amend the PRA in order to facilitate the Preferred Solution.

NOW THEREFORE, in consideration of the mutual covenants and promises made by the Parties and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS and ACRONYMS:

- (a) "**Affected Components**" has the meaning set out in the Recitals at paragraph B;
- (b) "**Agreement**" means this agreement and all schedules attached hereto;
- (c) "**Amended Budget**" has the meaning set out in Clause 4(h);
- (d) "**Budget**" has the meaning set out in Clause 4(a);
- (e) "**Claims**" means all actions, causes of action, suits, judgments, proceedings, demands and claims, whether at law or in equity, losses, damages, expenses and costs (including legal fees and disbursements on an indemnity basis) of any kind or nature whatsoever, at law or in equity, for any damage, loss, injury or death;
- (f) "**Contractors**" has the meaning set out in Clause 3(c)(i);
- (g) "**Defaulting Party**" has the meaning set out in Clause 17(a)(i);
- (h) "**Dispute**" has the meaning set out in Clause 17(a);
- (i) "**Dispute Notice**" has the meaning set out in Clause 17(a)(iii);
- (j) "**EAC**" has the meaning set out in the Recitals at paragraph E;
- (k) "**Final Completion Certificate**" means the certificate to be issued by the District to its Contractors when all deficiencies in the Work have been corrected and the Work is fully complete, in accordance with the requirements of Schedule A;
- (l) "**Force Majeure Events**" has the meaning set out in Clause 3(c)(v);
- (m) "**Indemnified Party (Parties)**" has the meaning set out in Clause 10(b);
- (n) "**Like for Like Replacement**" has the meaning set out in the Recitals at paragraph B;
- (o) "**Milestone**" has the meaning set out in Clause 2(b);

- (p) **"Milestone Budget"** has the meaning set out in Clause 4(a);
- (q) **"Milestone Contingency"** has the meaning set out in Clause 4(a);
- (r) **"PRA Amendment"** has the meaning set out in Clause 3(a)(ii);
- (s) **"Preferred Solution"** has the meaning set out in the Recitals at paragraph C;
- (t) **"Substantial Completion Certificate"** means the certificate to be issued by the District to its Contractors when the Work is sufficiently complete so that the District can use the Work for its intended purpose as reasonably inferred in Schedule A;
- (u) **"Revised Work Plan"** means a work plan to address and mitigate a situation where a Milestone Schedule has been missed or is anticipated to be missed or when the Budget or a Milestone Budget has been exceeded or has occurred or is expected to be exceeded;
- (v) **"Warranty Period"** means a two-year period commencing upon the date of issuance of the Substantial Completion Certificate.
- (w) **"Work"** has the meaning set out in Clause 2(a).

2. THE WORK

- (a) The District will replace the Affected Components with the Preferred Solution, consisting of installation of two wells to access water from an aquifer, the connection of the well water to a water treatment plant, and the modification of the water treatment plant to include a aeration and nanofiltration treatment system to treat the aquifer water, all as described in Schedule A of this Agreement (the **"Work"**).
- (b) A milestone for the Work is achieved when:
 - (i) the Work allocated to a particular milestone has been completed in accordance with Schedule A of this Agreement;
 - (ii) the Work allocated to a particular milestone has been completed on or before the scheduled date for completion of that milestone in accordance with Schedule A; and,
 - (iii) the Work allocated to a particular milestone has been completed within the allocated Milestone Budget and allocated Milestone Contingency for completion of that milestone in accordance with Schedule A and B of this Agreement;

(all three requirements collectively a **"Milestone"**).

For clarity, a Milestone has not been achieved if any of the three requirements set out above have not been met by the District.

- (c) If a Milestone is delayed or is not expected to be completed on schedule in accordance with Schedule A, the Parties agree to collaboratively take whatever steps can be taken to mitigate the projected or actual delay of the Milestone and the District shall provide an updated schedule for the Milestone and for each remaining Milestone, and a Revised

Work Plan for completion of the Milestone and each remaining Milestone for discussion and agreement between the Parties;

- (d) If the Parties do not reach agreement on the Revised Work Plan, then BC Hydro shall have the right at its sole discretion to terminate this Agreement under Clause 7, and exercise its rights under Clause 9 of this Agreement;
- (e) If the Parties reach agreement on the Revised Work Plan and thereafter the District identifies that the amended Milestone schedule is forecast to be delayed, or an updated Milestone in the agreed Revised Work Plan is forecast to be delayed, the District will notify BC Hydro as soon as reasonably possible to discuss the status of the Revised Work Plan; and
- (f) In the event the amended Milestone schedule is not met, BC Hydro shall have the right at its sole discretion to agree to a new amended Milestone schedule on terms agreeable to the Parties, or to terminate this Agreement under Clause 7 of this Agreement, and exercise its rights under Clause 9 of this Agreement.

3. ROLES AND RESPONSIBILITIES

(a) Mutual Responsibilities:

The Parties agree to:

- (i) each designate, and make available, appropriate staff, or other representatives, as may be required for the purposes of completing their respective obligations under this Agreement;
- (ii) amend Article 5.1 and Article 5.2 of the PRA to allow for inclusion of the Preferred Solution, all as set out in Schedule C of this Agreement (the "**PRA Amendment**"), and upon execution of this Agreement, the PRA Amendment shall become effective; and
- (iii) upon issuance of a Final Completion Certificate by the District, and upon payment by BC Hydro to the District in accordance with this Agreement, the Parties shall sign a document in the form attached as Schedule D of this Agreement.

(b) BC Hydro Role and Responsibilities:

- (i) BC Hydro shall pay the costs of completion of the Work, in accordance with Clause 4 and Clause 5 herein, and Schedule A and B of this Agreement;
- (ii) BC Hydro shall not be liable for any warranty costs related to the Work except as set out in the PRA Amendment;
- (iii) BC Hydro shall be at liberty to decommission and remove the Affected Components located within the Shoreline Construction Protection Area as shown in Schedule E of this Agreement at its own cost, upon receipt of a copy of the Substantial Completion Certificate issued by the District to its Contractors, which Certificate shall be provided to BC Hydro concurrently with the delivery of the Substantial Completion Certificate to the District's Contractors; and

- (iv) BC Hydro shall at its cost and at the request of the District, make available its consultant, Radloff & Associates, to provide comments to the District for its consideration regarding the designs for the production well and water treatment plant received by the District as part of its tendering process for the Work. The comments provided by Radloff and Associates, shall in no way diminish or reduce the District's responsibility for all aspects and decisions related to the Work, including the designs chosen by the District.

(c) **The District Roles and Responsibilities**

- (i) The District will retain all qualified consultants, contractors, and others as may be necessary (collectively the "**Contractors**") to perform the Work, and the District shall direct, manage, and supervise all Contractors that perform the Work in accordance with Schedule A and Schedule B of this Agreement;
- (ii) The District will ensure that its Contractors provide all labour, materials and equipment necessary for the complete performance of the Work, as described in Schedule A of this Agreement;
- (iii) The District will have complete and sole responsibility for the Work, including but not limited to making all underlying decisions associated with the Work, such as the choice of the Preferred Solution, and the chosen design for the production well and water treatment plant;
- (iv) The District will perform the Work in accordance with this Agreement, applicable laws and permits; and good industry practice. If more than one standard, including building codes, other governmental requirements, work practices and procedures, and specifications, applies to the performance of the Work, then the standard(s) that produce the highest level of quality, safety, reliability, durability and performance will apply;
- (v) The District is excused from performance of Work under this Agreement if and to the extent and for the time that performance is prevented or materially hindered by events or circumstances, including any unreasonable acts or omissions of the other Party and its agents, consultants and its and their employees, (collectively, "**Force Majeure Events**") beyond the reasonable control of the District and which by the exercise of reasonable diligence by such Party could not have been prevented (except lack of financial capability or lack of labour, material or utilities shall not be Force Majeure Events hereunder unless caused by an event or circumstance that would otherwise excuse a Party from performance of its obligations), provided that prompt notice is given to the other Party. The District shall resume promptly the performance of the Work after cessation of the particular Force Majeure Event.
- (vi) The District shall upon receipt, promptly provide all copies of its Contractors weekly/monthly progress/status reports to BC Hydro, and such progress/status reports shall contain sufficient details to allow BC Hydro to track the progress of the Work completed against the Milestone completion date and the allocated budget and allocated contingency amount for completion of that Milestone;
- (vii) The District shall keep all records related to or incurred for the Work, including all applicable receipts and invoices from Contractors and other third Parties for which the District was reimbursed by BC Hydro, for a minimum period of two

years from issuance of the Final Completion Certificate. The District shall permit BC Hydro, at its request upon reasonable notice, to examine those records at their offices during normal business hours for any purpose, including verifying the accuracy of the invoices;

- (viii) The District will concurrently provide BC Hydro and its Contractors with a copy of the Substantial Completion Certificate when issued by the District, and the District at the time of providing the Substantial Completion Certificate to BC Hydro will also provide BC Hydro with the earliest date that it can proceed with decommissioning of the Affected Components;
- (x) Prior to the date on which BC Hydro can commence decommissioning of the Affected Components, the District may remove at its cost any equipment or other materials it wishes to retain from the Affected Components; and
- (xi) Upon issuance of the Final Completion Certificate, the District will in perpetuity be responsible for all repair, operation and maintenance costs of the Preferred Solution or the Like for Like Replacement, as the case may be except as otherwise set out in the PRA Amendment.

4. BUDGET FOR THE WORK

- (a) BC Hydro and the District have agreed to a total budget for the Work (the **Budget**"), and the Budget is comprised of the allocated costs for each Milestone of the Work (each a **"Milestone Budget"**), and an additional allocated contingency amount if necessary for each Milestone Budget (each a **"Milestone Contingency "**), as set out in Schedule A and B to this Agreement;
- (b) The District will use its best efforts to complete each Milestone without using the allocated Milestone Contingency;
- (c) BC Hydro shall pay the District 50% of any unspent Budget funds in accordance with the PRA Amendment;
- (d) If the District identifies that it may be required to use a portion of a Milestone Contingency, the District shall promptly advise BC Hydro of the extent and reasons for possible usage of the Milestone Contingency for information purposes only;
- (e) If the District does use a Milestone Contingency for a particular Milestone, the District shall promptly advise BC Hydro in writing once the District reaches a 50% threshold of the Milestone Contingency, and shall provide BC Hydro with an estimate of the total amount expected to be used from the Milestone Contingency (in addition to the 50% threshold) in order to meet the Milestone completion date (the **"Contingency Notice"**);
- (f) In the event BC Hydro receives a Contingency Notice, BC Hydro and the District shall promptly meet to discuss the reasons for Milestone Budget and Milestone Contingency overages and ways to limit the Milestone Contingency overage;
- (g) If the District identifies that the Milestone Contingency for a Milestone is forecast to be exceeded, the District will notify BC Hydro in writing as soon as reasonably possible of the expected exceedance and identify why the exceedance has occurred or is expected to occur, and BC Hydro and the District shall promptly meet to discuss the status and expected Milestone Contingency exceedance;

- (h) If a Milestone Budget and Milestone Contingency has been exceeded or has occurred or is expected be exceeded, the Parties agree to collaboratively take whatever steps can be taken to mitigate the projected or actual exceedance and the District shall provide an updated Budget (the "**Amended Budget**") for each remaining Milestone, and a Revised Work Plan for completion of each remaining Milestone, for discussion and agreement between the Parties;
- (i) If the Parties reach agreement on the Amended Budget and the Revised Work Plan, then BC Hydro shall contribute the necessary Amended Budget amount required for the Revised Work Plan. If the Parties do not reach agreement on the Amended Budget or Revised Work Plan, then BC Hydro shall have the right at its sole discretion to terminate this Agreement under Clause 7, and exercise its rights under Clause 9 of this Agreement;
- (j) If the Parties reach agreement on the Amended Budget and Revised Work Plan and thereafter the District identifies that the Amended Budget is forecast to be exceeded, or an updated Milestone in the agreed Revised Work Plan is forecast not to be met, the District will notify BC Hydro as soon as reasonably possible to discuss the status of the Revised Work Plan and Amended Budget;
- (k) In the event the Amended Budget is exceeded and/or the Revised Work Plan has not been completed, BC Hydro shall have the right at its sole discretion to continue to fund the Revised Work Plan on terms agreeable to the Parties, or to terminate this Agreement under Clause 7 of this Agreement, and exercise its rights under Clause 9 of this Agreement; and
- (l) If exceedance of a Milestone Budget, a Milestone Contingency, or the Amended Budget has occurred, and one or more Milestone completion dates or updated Milestone completion dates in the Revised Work Plan are not being met or are expected to not be met as a result of the District not performing the Work in accordance with its obligations under this Agreement, BC Hydro shall have the right at its sole discretion to terminate this Agreement by written notice under Clause 7 of this Agreement, and exercise its rights under Clause 9 of this Agreement.

5. PAYMENTS AND ADJUSTMENTS

- (a) BC Hydro shall pay the costs for completion of the Work, in accordance with Clause 4 and Clause 5 and Schedule A and B of this Agreement, as supported by backup documentation consisting of the Contractors invoices and supporting documentation substantiating the validity of the costs claimed, up to a maximum of CDN Two Million, Seven hundred and ninety six thousand, two hundred dollars (\$2,736,400), plus GST, as applicable;
- (b) Full payment for the Work is contingent upon the Work being completed in accordance with Schedules A, and B of this Agreement, or as otherwise agreed to in Clauses 4 and 5, or in writing by the Parties;
- (c) The Parties agree that the District may pay its Contractors as it deems fit for the Work, and the District may submit invoices to BC Hydro for the amounts paid by the District to the District's Contractors at any time from the date of payment to no later than 90 days after the District has paid its Contractors;
- (d) The total of all GST/HST shall be calculated and included as separate line items on the District invoices;

- (e) BC Hydro will pay the District's invoices within 30 days of submission to BC Hydro, provided the District invoices are acceptable to BC Hydro;
- (f) BC Hydro reserves the right to withhold payment of any invoice, or, at BC Hydro's discretion, any portion of an invoice, which BC Hydro determines acting reasonably, does not satisfy the requirements of this Agreement and BC Hydro shall on receipt of such unsatisfactory invoice promptly notify the District in writing of the reason for such withholding; and
- (g) In the event BC Hydro provides prepayment to the District for components of the Work, and the District cancels or materially adjusts the Work which is the subject matter of the prepayment, the District shall provide BC Hydro with prompt written notice of such cancellation or material adjustment to the Work and shall, as appropriate, refund BC Hydro the portion of the cost BC Hydro has paid that corresponds to the value of the cancellation or adjustment as agreed upon by the Parties, acting reasonably.

6. TERM

This Agreement is effective as of the Effective Date and will expire upon execution by both Parties of a document in the form attached as Schedule D of this Agreement (the "Term"), or as otherwise agreed to in writing by the Parties.

7. TERMINATION BY BC HYDRO

- (a) If the District does not achieve a Milestone as defined in Clause 2(b) and as set out in Schedule A of this Agreement or in a Revised Work Plan; or if the Parties are unable to agree to revised Milestones; or if the District does not achieve a revised Milestone once agreed to; then at its sole discretion, BC Hydro by written notice to the District, may terminate this Agreement;
- (b) BC Hydro may by written notice to the District terminate this Agreement as set out in Clause 4; or
- (c) BC Hydro may by written notice to the District, terminate this Agreement if the District does not otherwise substantially comply with the requirements of this Agreement.

8. TERMINATION BY THE DISTRICT

- (a) The District, by notice to BC Hydro, may terminate this Agreement if BC Hydro defaults in payment of any undisputed invoice amount for 60 days after the receipt of notice of overdue payment from the District; or
- (b) if BC Hydro fails to otherwise substantially comply with the requirements of this Agreement.

9. OBLIGATIONS ON TERMINATION

- (a) If BC Hydro terminates this Agreement, the District shall deliver to BC Hydro all completed Work and work-in-progress, and BC Hydro shall:
 - (i) complete the Work or Revised Work Plan, or in the alternative:

- (ii) provide the District with a Like for Like Replacement of the Affected Components, instead of completing the Work for the Preferred Solution, by whatever method BC Hydro may consider expedient; and

in connection with its rights under this Clause 9(a):

- (iii) BC Hydro may at its sole discretion elect to use the District's Contractors and equipment provided it does not compromise the contractual rights of the District with its Contractors;
 - (iv) BC Hydro shall not compromise the District's water system or the operation of it;
- (b) If BC Hydro terminates this Agreement, the District agrees to reasonably cooperate and make all reasonable efforts as requested by BC Hydro to assist BC Hydro to exercise its rights under Clause 9(a), including as may be required, consultation and collaboration in respect of issuance of a Substantial Completion Certificate and Final Completion Certificate, and assignment of its agreements with the Contractors to BC Hydro. The District shall ensure that its agreements with the Contractors for performance of the Work contain an assignment clause that would permit assignment to BC Hydro;
 - (c) On issuance of a Final Completion Certificate, for either the Preferred Solution, or the Like for Like Replacement of the Affected Components, and upon payment by BC Hydro of the District's Contractor costs as described in Clause 9(d) below, the Parties shall execute a document in the form of Schedule D;
 - (d) If this Agreement is terminated by BC Hydro, BC Hydro shall make no further payments to the District other than those already incurred by the District or its Contractors in accordance with this Agreement prior to BC Hydro exercising its rights under Clause 9(a).

10. LIABILITY

- (a) District acknowledges and agrees that the District in consultation with its Contractors is solely responsible for its choice of the Preferred Solution instead of the Like for Like Replacement, and for its choice of Contractors to implement the Preferred Solution and for the Work done under this Agreement to implement the Preferred Solution, and that BC Hydro, does not bear any liability whatsoever with respect to the District's decision to proceed with the Preferred Solution, or the choice of Contractors to do the Work, or the manner in which the Work is completed.
- (b) The District will indemnify 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 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 the errors, omissions or negligent acts, willful misconduct, or fraudulent or criminal acts, or breach of this Agreement of or by the District, the District's Contractors, subcontractors, 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.

11. **LIMITATION OF LIABILITY**

The District's maximum aggregate liability to the Indemnified Parties for Claims and Claim costs relating to or arising out of this Agreement, whether or not terminated, and whether

arising in contract, tort (including negligence), indemnity, by statute, as matters of strict or absolute liability, or from any other cause, will be limited to an amount equal to the aggregate of:

- (i) The total amount paid by BC Hydro to the District under this Agreement; plus,
- (ii) any insurance proceeds received, recoverable or claimable under any insurance policy obtained and maintained or required to be obtained and maintained under this Agreement, up to the minimum required amount of the applicable policy under this Agreement.

12. CONSEQUENTIAL DAMAGES

Neither Party is liable to the other Party for that other Party's own special, contingent, exemplary, punitive, indirect, incidental or consequential loss or damage, loss of anticipated revenue, overhead or profit.

13. EXCEPTIONS TO LIMITATION OF LIABILITY

The limits on the District's liability under Clause 11 and all other limitations of liability in favour of the District specified in this Agreement will not apply to or limit the District's responsibility and liability for, and the District will be fully liable for:

- (i) Claims and Claim costs relating to or arising out of the gross negligence, recklessness or willful, fraudulent, criminal or intentional misconduct on the part of the District, the District's Affiliates, Contractors, subcontractors, or those for whom such Persons may in law be responsible;
- (ii) third Party Claims and Claim costs; and,
- (iii) Claims and Claim costs relating to or arising out of any breach of any laws by the District, the District's Affiliates, Contractors, subcontractors, or those for whom such Persons may in law be responsible.

14. INSURANCE

The District shall obtain, maintain until expiry or earlier termination of this Agreement or such longer period as may be specified below, and pay the premiums for, the following insurance coverage:

- (i) Professional Liability Insurance. A "Professional liability insurance policy" in an amount of \$5 million per claim and in the aggregate, to cover damages because of any error, omission or negligent act in professional services rendered by the District, its Contractors or those for whom the District may in law be responsible. Subject to reasonable commercial availability coverage shall be maintained for at least 24 months after expiry or earlier termination of this Agreement.
- (ii) Commercial General Liability Insurance. A "commercial general liability insurance policy", in an amount of \$5 million per occurrence, with cross liability and severability of interest clauses or equivalent wording, including coverage for "sudden and accidental pollution", and a standard "non-owned automobile liability endorsement". The policy shall name BC Hydro as an additional insured with respect to liabilities that arise out of District's operations. The policy shall provide

coverage not less than the insurance required by IBC Form 2100, or its equivalent replacement, and shall remain in place for 24 months following expiry, or earlier termination of this Agreement. All insurance policies required under this clause shall be considered primary but only with respect to the Named Insured's negligence in the performance of this Agreement.

15. NOTICES

- (a) The Parties will provide notices under this Agreement to the following addresses, as applicable:

BC Hydro:

Nancy Pepper
6911 Southpoint Dr.
c/o Nancy Pepper OCS to 1111 W. Georgia
Burnaby BC V3N 4X8
Nancy.Pepper@bchydro.com
604-202-4572

The District:

Chris Cvik
9904 Dudley Drive
Hudson's Hope, BC V0C1V0
cao@hudsonshope.ca
250-783-9901

16. PRIVACY

- (a) The Parties are subject to FOIPPA and, accordingly, in order for each of them will comply with the requirements of FOIPPA, In particular, each Party will, prior to or at the same time as providing the other Party with copies of, or access to copies of, any records containing personal information, obtain the written consent of each affected individual to the indirect collection of his or her personal information in connection with this Agreement. . Upon request, at any time, from a Party, the other Party will provide, within five business days of such request, evidence satisfactory to other Party, acting reasonably, that such consent has been obtained.

17. DEFAULT AND DISPUTE RESOLUTION

- (a) Except as expressly set out otherwise in this Agreement, all disputes relating to or arising out of this Agreement (each, a "**Dispute**") will be resolved as follows:

(i) Default Notice

Without in any way limiting the Parties rights under this Agreement, if a Party (the "**Defaulting Party**") defaults in observing or performing any obligation under this Agreement, that Party will rectify such default within 30 days after receipt of written notice from the other Party and in the event the Defaulting Party does not rectify such default within 30 days, the Parties shall have recourse to the Dispute Resolution provisions of this Clause 17.

(ii) Good Faith Efforts to Resolve any Dispute

Without in any way limiting the Parties' rights under this Agreement, BC Hydro will encourage and support Hydro's Representative and the District will encourage and support the District's Representative to use good faith efforts to resolve any Dispute promptly upon becoming aware of the Dispute, and the Representatives will continue to use such efforts after the delivery of a Dispute Notice, including the early full disclosure and exchange of all documents and information that may be relevant to the Dispute.

(iii) Dispute Notice

A Party with a Dispute may, at any time, deliver written notice to the other Party, with a copy to Hydro's Representative or the District's Representative, as applicable, describing the Dispute (the "**Dispute Notice**"). A Dispute Notice will include, at a minimum:

1. a summary of the facts relevant to the Dispute;
2. the applicable provisions of this Agreement relevant to the Dispute or other basis for the claim upon which the disputing Party relies;
3. additional supporting documentation, if any, as may be relevant to the dispute and available; and
4. a clear statement of the resolution to the Dispute being sought by the disputing Party.

(iv) Settlement Meeting

Within 15 days of delivery of a Dispute Notice, or such other time as the Parties may agree in writing, the Dispute will, if not already settled, be referred to a representative(s) of each of the Parties who, to the extent reasonably practicable, have not been previously involved in the events leading to the Dispute for a settlement meeting to occur within such 15-day period. The Parties may, if mutually agreed, hold further settlement meetings to resolve the Dispute.

(v) Representatives at Settlement Meetings

The Parties will send representatives to the settlement meeting(s) as described in above, in each case with authority to enter into a Settlement Agreement that is binding on the Parties, and with instructions to use all commercially reasonable efforts to resolve the Dispute without delay. The Parties may have any individuals in attendance at any settlement meeting, including their respective Representatives.

(vi) Ultimate Time for Settlement

If a Dispute is not settled by a Settlement Agreement within 90 days after receipt of the Dispute Notice, or such other time as the Parties may agree in writing, then

upon written notice of either Party delivered to the other Party, the unresolved Dispute will be submitted to arbitration pursuant to (b) below.

(b) Arbitration

- (i) A Dispute submitted to arbitration will be finally resolved by arbitration before a single arbitrator under the appropriate rules of the British Columbia International Commercial Arbitration Centre ("BCICAC"). The seat of arbitration will be Vancouver, British Columbia, Canada. The language of the arbitration will be English. The arbitrator will conduct the arbitration in a cost-effective manner and on an expedited basis, having regard for the subject matter of the Dispute.
- (ii) Arbitration proceedings, evidence at an arbitration proceeding and the decision of the arbitrator, will be treated as strictly confidential, and not disclosed to any third Party without the prior written consent of the Parties, and the Parties will jointly instruct the arbitrator to maintain the strictest confidentiality of the proceedings, evidence and his or her decision. Notwithstanding the preceding sentence:
- (iii) BC Hydro may disclose information with respect to a Dispute and the arbitration proceeding, including evidence at the arbitration proceedings and the decision of the arbitrator, to the British Columbia Utilities Commission, the Province of British Columbia and any Governmental Authority to the extent that BC Hydro considers disclosure necessary or desirable to support its position in any regulatory proceeding or otherwise in order to fulfill its duties to the British Columbia Utilities Commission, the Province of British Columbia, any Governmental Authority or its customers; and
- (iv) a decision of the arbitrator may be filed in any court of competent jurisdiction, and may be enforced by either Party as a final judgment of such court as permitted by Law in the jurisdiction in which enforcement is sought.

(c) No Influence

The Parties expressly acknowledge that the Dispute Resolution Procedure is to encourage timely resolution of Disputes, and that for it to have the best opportunity for success the procedures should be respected and, accordingly, neither Party will make efforts to influence the Parties' representatives by making contact with senior representatives of the other Party, or the government, or any third Party for the purpose of attempting to influence the terms of a resolution of a Dispute, and, for certainty, the Parties agree that any such contact will be a breach of this Agreement.

(d) Must Continue with Work

Notwithstanding any Dispute, the Parties will continue to fulfill their obligations pursuant to this Agreement, without interruption to the performance of the Work by the District, without prejudice to either Party's rights relating to the Dispute.

18. MISCELLANEOUS

- (a) Nothing in this Agreement shall be deemed or construed to create a joint venture, partnership, employment or agency relationship between the Parties for any purpose.

- (b) This Agreement will be governed by and interpreted in accordance with the laws of the Province of British Columbia.
- (c) This Agreement, and the amended PRA embody the entire Agreement between the Parties with regard to the subject matters dealt with herein, and no understanding or agreements, oral or otherwise, exist between the Parties except as contained in this Agreement.
- (d) This Agreement may not be modified except in writing signed by both Parties.
- (e) Time is of the essence in this Agreement.
- (f) Neither Party may assign this Agreement without the written consent of the other Party, not to be unreasonably withheld;
- (g) All provisions of Clauses 3(a)(ii), 3(a)(iii), 3(c)(vii), 3(c)(xi), 4(c), 9, 10, 11, 12, 13, 14, 17, and Schedule C, and each other provision of this Agreement which either expressly in accordance with its terms or by its nature survives the termination, suspension, cancellation, completion or expiration of this Agreement, including each other provision necessary for the interpretation or enforcement of such provisions, will continue as valid and enforceable obligations of the Parties notwithstanding any termination, suspension, cancellation, completion or expiration of this Agreement.
- (h) Each Party represents and warrants to the other that it has received independent legal advice regarding this Agreement.
- (i) This Agreement enures to the benefit of and is binding on the Parties and their successors and assigns.
- (j) No waiver will be inferred from anything done or omitted to be done by a Party and any waiver by a Party of a breach or obligation of this Agreement must be made by that Party in writing and shall extend only to the particular breach or obligation identified in such written waiver.
- (k) Nothing contained in this Agreement shall fetter in any way the discretion of the Council of the District of Hudson's Hope or shall derogate from, prejudice or affect the District's rights, powers, duties or obligations in the exercise of its functions pursuant to any statute or bylaw.
- (l) This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same agreements. Delivery of an executed counterpart of this Agreement by facsimile or electronic transmission shall be as effective as delivery of an originally executed counterpart hereof.

IN WITNESS TO THE ABOVE, the duly authorized representatives of each Party have executed this Agreement on the date and year first written above.

**BRITISH COLUMBIA HYDRO AND
POWER AUTHORITY**

By its authorized representative:

THE DISTRICT OF HUDSON'S HOPE

By its authorized representative:

Signature

Signature

DRAFT

SCHEDULE A – SCOPE OF WORK



District of Hudson's Hope Potable Water Supply Treatment System Replacement Project Schedule - Overview

Prepared by: Luke McDonald, PMP, ASCT

Reviewed by: Dairyl Brizan, P. Eng

Revision 12
Date: August 30, 2019

#	Task	Start Date	End Date	Days	Total Duration	Milestones
1	1 BCH Schedule & Cost Estimate Peer Review	August 5, 2019	August 11, 2019	5	5	
2	2 Production Well RPO				389	
2.1	2.1 MDE Water License	August 6, 2019	August 5, 2020	365		August 5, 2020
2.2	2.2 RFP sent out	August 23, 2019	August 24, 2019	1		
2.3	2.3 Tender period	August 24, 2019	September 6, 2019	13		
2.4	2.4 Review of tenders and Recommendation is award	September 8, 2019	September 10, 2019	2		
2.5	2.5 Award Tender	September 10, 2019	September 16, 2019	6		September 16, 2019
3	3 Production Well Drilling				49	
3.1	3.1 Mobilization to Site	October 1, 2019	October 14, 2019	13		
3.2	3.2 Drill and Develop PW1	October 14, 2019	October 31, 2019	17		
3.3	3.3 Drill and Develop PW2	October 31, 2019	November 17, 2019	17		
3.4	3.4 Camera inspections	November 17, 2019	November 18, 2019	1		
3.5	3.5 Substantial Completion Well Drilling	November 18, 2019	November 18, 2019	1		November 18, 2019
4	4 Pump Testing				110	
4.1	4.1 Pump Test PW1	November 18, 2019	November 29, 2019	10		
4.2	4.2 Pump Test PW2	November 18, 2019	November 28, 2019	10		
4.3	4.3 Asset Sample Results	December 2, 2019	January 1, 2020	30		
4.4	4.4 Production of PW Drilling Report	December 2, 2019	January 18, 2020	47		
4.5	4.5 Substantial Completion Well Testing	January 18, 2020	January 31, 2020	13		January 31, 2020
5	5 Monitoring Well Installation and Source Water Protection Plan				276	
5.1	5.1 Installation of Monitoring Well	October 14, 2019	December 13, 2019	80		
5.2	5.2 (Substantial) Completion of monitoring well	December 13, 2019	December 14, 2019	1		
5.3	5.3 Source Water Protection Plan	October 14, 2019	May 16, 2020	215		May 16, 2020
6	6 Pumping System, Electrical, Controls and Design / Tendering / Construction				288	
6.1	6.1 Detailed Design	September 10, 2019	September 24, 2019	14		
6.2	6.2 Design review DHH & BCH Peer Review	September 24, 2019	September 29, 2019	5		
6.3	6.3 Tender Documents	September 29, 2019	October 4, 2019	5		
6.4	6.4 Tenders Received	October 4, 2019	October 25, 2019	21		
6.5	6.5 Review of Tenders and Recommendation is award	October 25, 2019	October 27, 2019	2		
6.6	6.6 Award Tender	October 27, 2019	November 8, 2019	12		November 8, 2019
6.7	6.7 Installation	November 8, 2019	August 3, 2020	147		
6.8	6.8 Commissioning & Staff Training	August 3, 2020	August 5, 2020	2		
6.9	6.9 Substantial Completion	August 5, 2020	August 6, 2020	1		August 6, 2020
7	7 Water Treatment Plant Preliminary Design & Tendering				92	
7.1	7.1 Preliminary Design	September 2, 2019	September 8, 2019	7		
7.2	7.2 Design review OTH & BCH Peer Review	September 8, 2019	September 14, 2019	5		
7.3	7.3 RFP sent out	September 14, 2019	September 16, 2019	2		
7.4	7.4 Tenders Received	September 16, 2019	October 7, 2019	21		
7.5	7.5 Review of Tenders and Recommendation is award	October 7, 2019	October 8, 2019	1		
7.6	7.6 Award Tender	October 8, 2019	October 29, 2019	21		October 29, 2019
7.7	7.7 NHA Cont. Permit	November 24, 2019	December 28, 2019	25		
8	8 Water Treatment Plant Design Build Fabrication & Installation				282	
8.1	8.1 Design & Project Management	October 29, 2019	November 19, 2019	21		
8.2	8.2 Design review	November 19, 2019	November 24, 2019	5		
8.3	8.3 Purchasing & Fabrication	November 24, 2019	March 1, 2020	98		
8.4	8.4 Factory Testing	March 1, 2020	March 8, 2020	7		March 8, 2020
8.5	8.5 Installation	March 8, 2020	July 28, 2020	143		
8.6	8.6 Commissioning & Staff Training	July 28, 2020	August 5, 2020	8		
8.7	8.7 Substantial Completion	August 5, 2020	August 6, 2020	1		August 6, 2020
9	9 BCH Decommissioning of the river intake				14	
9.1	9.1 Decommissioning of the river intake system	August 6, 2020	August 20, 2020	14		
10	10 Two Year Warranty Period				730	
10.1	10.1 Warranty Period	August 6, 2020	August 6, 2022	730		

SCHEDULE B –BUDGET

Additional Information to be Inserted



District of Hudson's Hope Potable Water Supply and Treatment System Replacement Opinion of Overall Project Cost

Prepared by: Luko McDonald, PMP, ASCT
Reviewed by: Darryl Brizan, P.Eng

Revision 11
Date: August 30, 2019

Project Components	Unit	Quantity	Rate	Estimated Cost
Section 1 - Production Well Drilling and Testing Program				
1.1 Drill and Develop Two New 250mm Diameter Production Wells	LS	1	\$320,000.00	\$320,000.00
1.2 Pumping Tests (Step tests and 72hr constant rate tests)	LS	1	\$100,000.00	\$100,000.00
1.3 Camera inspection of production wells	LS	1	\$5,000.00	\$5,000.00
1.4 Monitoring Well	LS	1	\$27,400.00	\$27,400.00
1.5 Western Water Oversight of Drilling & Pumping, Testing, Reporting	LS	1	\$30,000.00	\$30,000.00
1.6 Western Water Source Water Protection Plan	LS	1	\$20,000.00	\$20,000.00
1.7 Ministry of Environment water license application fee	LS	1	\$5,000.00	\$5,000.00
1.8				
Subtotal				\$ 507,400
1.9				
Contingency (30%)				\$ 152,220
1.10				
Section Total, including Contingency				\$ 659,620
Section 2 - Production Well Pump & Controls				
2.1 Supply and install (200usgpm @ 50m (160ft) 30hp well pumps & check valves	ea	2	\$60,000.00	\$120,000.00
2.2 Supply and install 100mm diameter well riser pipe	lm	200	\$100.00	\$20,000.00
2.3 Supply and install pitless adapter including excavation & backfill	lm	30	\$300.00	\$9,000.00
2.4 Supply and install 150mm G-900 water pipe & fittings from well to building	ea	2	\$2,000.00	\$4,000.00
2.5 Mobile demulsification bonding (DMA) remediation tests & disinfection	LS	1	\$3,000.00	\$3,000.00
2.6 Supply & install electrical wire, level pressure transducers, flow meters	ea	2	\$4,000.00	\$8,000.00
2.7 Supply and install electrical control panel (PLM) & VFD	LS	1	\$60,000.00	\$60,000.00
2.8 Electrical service panel upgrade & temporary power for drilling	ea	2	\$20,000.00	\$40,000.00
2.9 Shop dwg, O&M manual, testing, commissioning, & training	LS	1	\$10,000.00	\$10,000.00
2.10 Design, tender, field review Civil & Electrical Engineering (12.5%)	LS	1	\$41,100	\$41,100.00
2.11				
Subtotal				\$ 315,100
2.12				
Contingency (30%)				\$ 94,530
2.13				
Section Total, including Contingency				\$ 409,630
Section 3 - Water Treatment Plant				
3.1 Supply & install nanofiltration water treatment plant (design build)	LS	1	\$1,050,000.00	\$1,050,000.00
3.2 Contingency for methane removal	LS	1	\$20,000.00	\$20,000.00
3.3 Temporary power during construction	LS	1	\$20,000.00	\$20,000.00
3.4 Temporary treatment plant & piping bypass rental during construction	LS	1	\$50,000.00	\$50,000.00
3.5 Predesign, tender, field review Civil & Electrical Engineering (10%)				
3.6				
Subtotal				\$ 1,140,000
3.7				
Contingency (30%)				\$ 376,800
3.8				
Section Total, including Contingency				\$ 1,516,800
Implementation Costs				
4.1 Well pump and controls commissioning	day	1	\$1,000.00	\$1,000.00
4.2 WTP Water Treatment plant commissioning	day	2	\$1,000.00	\$2,000.00
4.3 Staff time for inspections & communications during construction	day	10	\$1,000.00	\$10,000.00
4.4 Staff and Consultant Time - 2 year warranty period amount for management of deficiency and warranty issues	day	15	\$1,000.00	\$15,000.00
4.5				
Subtotal				\$ 28,000
4.6				
Contingency (30%)				\$ 8,400
4.7				
Section Total, including Contingency				\$ 36,400
Section 5- Project Management & Contract Administration				
5.1 L&M Engineering Limited Percentage Based Fee (5% of Project and Contingency Value)				\$ 136,808

Total Project (Rounded)

\$ 2,105,000

Total Contingency (Rounded)

\$ 631,400

Project Total, including Contingency (Rounded)

\$ 2,736,400

NOTES:

- Section 1 is based on a Well drilling cost estimate prepared by Western Water Associates
- Section 2 is based on preliminary quotes from Canadian Western Mechanical, RKS Electric, and NRS engineering electrical subconsultant.
- Section 3 is based on preliminary NF package treatment plant design build cost estimates from Dipure water and Sapphire Water.

SCHEDULE C

PARTNERING RELATIONSHIP AGREEMENT AMENDMENT

RECITALS

- A. BC Hydro and the District of Hudson's Hope ("the Parties") entered into a Partnership Relationship Agreement dated January 10, 2017 (the "PRA")
- B. The Parties wish to amend Article 5.1 and Article 5.2 of the PRA to allow for replacement of the District's water intake and water treatment plant with the Preferred Solution as defined below and inclusion of other related amendments.

The Parties therefore agree as follows:

AMENDMENTS:

1. PRA Article 5.1 Water Supply Infrastructure is deleted in its entirety and replaced with the following:

5.1 Water Supply Infrastructure

- (a) Certain water intake and pumping station components (the "Affected Components") of the District's municipal water supply system will be adversely affected by the construction of the berm component of the Shoreline Protection Works (the "Berm") and the filling of the Reservoir.
- (b) The District's municipal water supply system is currently comprised of the Affected Components, and other related components, including the District's water treatment plant (collectively the "District Water System").
- (c) BC Hydro has agreed that it would pay for the reconstruction or relocation of each of the Affected Components as required to maintain the functionality of the District's Water System (the "Like for Like Replacement"), and that the Like for Like Replacement would operate to substantially the same standard and capacity as the District Water System.
- (d) The District has retained consultants to undertake a technical study of its water system replacement options, and based on the advice of its consultants, the District has advised BC Hydro that instead of a Like for Like Replacement of the Affected Components, a better and more viable solution for the District would be to replace the Affected Components with an entirely different water supply system consisting of water access from an aquifer through the use of two wells, and the well water will be connected to a water treatment plant, which will be modified to include aeration and nanofiltration to treat the well water (the "Preferred Solution").
- (e) The District and BC Hydro have decided to proceed with the Preferred Solution on the terms and conditions set out in the related Hudson's Hope Well Water Supply Agreement (the "Water Agreement").

2. PRA Article 5.2 Water Quality is deleted in its entirety and replaced with the following:

5.2 Water Supply Infrastructure Warranty Period

- (a) Upon execution by the Parties of a document in the form of Schedule D to the Water Agreement, BC Hydro shall retain any unspent funds from the Budget under the Water Agreement for a period of 24 months (the "Warranty Period"). Any project management, expert review and inspection of Contractor warranty work costs incurred by the District during the Warranty Period as a result of District warranty claims shall be reimbursed by BC Hydro to the District from the unspent Budget funds. BC Hydro will ensure that a minimum of \$_____ is available to reimburse the District for project management, expert review and inspection of Contractor warranty work costs for the Preferred Solution if insufficient unspent Budget funds are available.
- (b) BC Hydro shall, at the end of the Warranty Period and upon confirmation by the District that they have received reimbursement by BC Hydro for all invoices submitted under Article 5.2 (a), provide the District with 50% of the remaining unspent Budget funds, if any, and the District shall allocate those Budget funds towards the maintenance and operational costs of the Preferred Solution.
- (c) For certainty, the payment by BC Hydro to the District of 50% of the unspent Budget funds after reimbursement to the District during the Warranty Period under Article 5.2(a) represents a sharing between the Parties of cost savings after all costs have been settled between the Parties, and upon receipt of its share of the remaining unspent Budget Funds, if any, the District shall not be entitled to any further payments under Article 5.2, or under the Water Agreement.

ENTIRE AGREEMENT

This PRA Amendment supplements, forms part of, and is subject to the terms and conditions of the PRA. All other terms and conditions of the PRA remain unchanged, and the PRA remains in full force and effect.

SCHEDULE D

COMPLETION OF WORK FORM

In accordance with the terms and conditions of this Agreement:

1. The District confirms that:
 - (a) BC Hydro has met its obligations to the District under Article 5.1 of the PRA, and met EAC condition 47 in relation to the District water supply system, and BC Hydro has no further obligation to the District in respect of replacement of its water supply system except as described in the PRA Amendment;
 - (b) All invoices for the Work have been submitted to BC Hydro and the District has received all payments due from BC Hydro in respect of those invoices;
 - (c) A Final Completion Certificate has been issued by the District to the District's Contractors in respect of the Work.
2. BC Hydro confirms that:
 - (a) Payment has been made by BC Hydro to the District for all invoices submitted by the District for the Work.
 - (b) In accordance with the PRA Amendment, \$_____ in unspent Budget funds will be held by BC Hydro.

IN WITNESS TO THE ABOVE, the duly authorized representatives of each Party have executed this form on the ____ day of _____, 2020.

**BRITISH COLUMBIA HYDRO AND
POWER AUTHORITY**

By its authorized representative:

THE DISTRICT OF HUDSON'S HOPE

By its authorized representative:

Signature

Date:

Signature

Date:

SCHEDULE E

SHORELINE PROTECTION CONSTRUCTION AREA

Map of area in which BC Hydro will remove the existing District water supply infrastructure

TO BE INSERTED

DRAFT

