



**CITY OF ARMSTRONG  
3570 BRIDGE STREET  
P.O. BOX 40  
ARMSTRONG, BC V0E 1B0**

## **REQUEST FOR PROPOSALS**

**for**

**WATER SOURCE ASSESSMENT AND PROTECTION  
REPORT 2030, AND BEYOND**

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## REQUEST FOR PROPOSALS

### CITY OF ARMSTRONG WATER SOURCE ASSESSMENT AND PROTECTION REPORT 2030, and Beyond

#### 1.0 **Introduction**

The City of Armstrong is a community of 4,241 residents (2006 census) located in the North Okanagan, approximately 30 km north of Vernon. For the most part, the area economy is focused on agriculture and ranching. Several *specified-area* Water Districts, beyond the City water service area, service these industries. The City currently supplies water, for a fee, to 6 of these Water Districts.

The City potable water supply consists of a diversion/intake on Fortune Creek and a piped gravity distribution system to the City. Fortune Creek continues to be a reliable water source and supply, however, increasing water demand from both the City and the Water Districts and compliance with Interior Health Authority regulations, requires that a Master Water Plan be developed.

There have been numerous studies and reports on the Fortune Creek water supply, however, none have confirmed **long-term** sustainable volumes.

As a prerequisite to the preparation of the Master Water Plan, the City is proceeding with a RFP for a Water Source Assessment and Protection Report, the objective of which will be to confirm the available long-term and seasonal sustainability of Fortune Creek, as a City water supply, to the year 2030 and beyond.

The Water Source Assessment and Protection Report will include a review of the water licences on Fortune Creek and the status of the existing Water Districts (and potential Water Districts) which are, or could be, supplied water by the City of Armstrong

**The Water Source Assessment and Protection Report will also include completion of the Comprehensive Drinking Water Source to Tap Assessment Guideline, Modules 1, 2, 7, 8, a Watershed Assessment and Protection Plan in accordance with Condition 1 on the City of Armstrong's Permit to Operate a Drinking Water Supply System, and, a Risk Management Plan, for the Fortune Creek source** (Provincial Ministry of Health publications and guidelines, to complete the Water Source Assessment and Protection Report and Modules 1, 2, 7, and 8).

The City of Armstrong is requesting proposals from interested firms having the required multidisciplinary experienced<sup>1</sup> professional consultants/staff to complete the Water Source Assessment and Protection Report.

<sup>1</sup> The consultant level of experience, required to complete each Module (1, 2, 7 & 8), is defined in the Module *Assessment Team* requirements for each Module.

[www.bcwwa.org/source-to-tap/index.php](http://www.bcwwa.org/source-to-tap/index.php)

## 2.0 **Summary**

- 2.1 The Consultant will confirm, to the best of their research, the long-term sustainability of Fortune Creek (m<sup>3</sup>/day) as a water supply for the City of Armstrong to year 2030 and beyond. The Consultant will review the existing water quality of Fortune Creek and recommend, if required, water treatment infrastructure requirements and the treatment implementation schedule, to year 2030 and beyond.
- 2.2 The Consultant will provide a review of the Fortune Creek Water Licences, status of the Water Districts, and develop a policy for acquisition of a Water District.
- 2.3 The Consultant will complete the Comprehensive Drinking Water Source to Tap Assessment Guidelines, Modules 1, 2, 7 and 8, for the Fortune Creek source (Provincial Ministry of Health publications and guidelines, to complete the Water Source Assessment Report and Modules 1, 2, 7, and 8).

## 3.0 **Scope of Works**

### 3.1 **The objectives** of this study are:

- A:** To confirm, to the best of the consultants research, the safe yield and sustainability of the Fortune Creek water supply above the City of Armstrong intake.

The study will examine the duration (worst, best, and most probable scenarios) where the Fortune Creek turbidity would exceed 1 NTU at the City intake.

The Consultant shall review and comment on the following as they may apply to the sustainability of the **existing** water supply/potential water storage from Fortune Creek:

- Big Swamp
- Fortune Lake Dam
- Fortune Creek Diversion
- Upper Reservoir Management Plan
- Dam Inspections
- Dam Maintenance to 2030 and Beyond
- Park Use Permit
- The Canadian Fisheries Act and the BC Fish Protection Act

3.1 **The objectives** (continued)

Review City of Armstrong Water Licence/Park Permit fees, and renewal status/dates.

Drought conditions must be considered and taken into account when determining the worst case scenario for the sustainable water supply.

Comment on the adverse effects of climate change (forest fires, mountain Pine Beetle damage, landslides, warming temperatures, freezing).

Examination of the feasibility and costs of installing a source monitoring station, at the Fortune Creek intake, which would collect water quality data for future filtration plant design.

Any Proponents questions regarding yield and sustainability of Fortune Creek can be submitted in writing to Patrick Hickerson, AScT, Public Works Manager, City of Armstrong, e-mail: phickerson@cityofarmstrong.bc.ca.

***This contact also applies to Item B.***

**B:** To review the status of the Fortune Creek Water Licences:

**To review status of existing Fortune Creek Water Licences Upstream and Downstream of the City Diversion/Intake.**

This review would include, but not be limited to, confirming the status of the existing Water District water licences, the present and projected water demand for each Water District (Domestic MDD and Livestock MDD), and the feasibility of the City of Armstrong supplying water to the Water Districts if requested by the Water Districts.

***To prepare a Policy for the acquisition of a Water District by the City of Armstrong only when such acquisition is requested by a Water District (refer to **Columbia Shuswap Regional District water acquisition strategy**).***

**C:** To complete the Comprehensive Drinking Water Source to Tap Assessment Guidelines for:

**Module 1** Delineate and Characterize Drinking Water Source(s)

The Consultant shall complete the requirements of Module 1 as detailed in the Comprehensive Drinking Water Source to Tap Assessment Guidelines.

**Module 1** (continued)

Digital Files, Mapping and Maps to be compatible with City of Armstrong GIS System where applicable.

When preparing the Proposal and the Proponent requires confirmation of the relevancy or non-relevancy, of particular requirements of a Module, confirmation can be requested in writing to Bryn Lord, BSc, BTech, CPHIC(C), Water Quality Specialist at bryn.lord@interiorhealth.ca.

**This paragraph also applies to Modules 2, 7 and 8.**

**Module 2** Conduct Contaminate Source Inventory

**Module 7** Characterize Risks from Source to Tap

**Module 8** Recommend Actions to Improve Drinking Water Protection

The recommendations provided within Module 8 must be prioritized for implementation.

**Watershed Assessment and Protection Plan and Risk Management Plan**

The Consultant shall provide a Watershed Assessment and Protection Plan and Risk Management Plan based on Modules 1, 2, and 7, and best practices for protection of water quality.

The Source to Tap Assessment Guidelines for Modules 1, 2, 7 & 8 shall be compliant with the current version (2010) of the guidelines.

The Comprehensive Drinking Water Source to Tap Assessment Guideline includes the Module Introduction Document. Prior to completing the required modules within the scope of this study, the proponent must become familiar with and fully understand the Introduction Document, as it contains important information relevant to all of the Modules.

There will be overlap in survey and data acquisition required to address the City of Armstrong Item A: Water Supply, and, Item C: Modules 1, 2, 7 & 8, however, the City requests that these two Items be reported separately.

- 3.2 A review of the new Water Treatment Facility, deep well development, domestic ADD, MDD and PHD water consumption, reservoir capacity, fire flows, alternate water sources, water distribution, and water conservation, are not part of this study, **except**, where may be required for completion of Modules 1, 2, 7 & 8.

#### **4.0 Technical Advisory Committee and Liaisons**

4.1 The Technical Advisory Committee (TAC) shall include, but not necessarily be limited to:

- City of Armstrong (Patti Ferguson, Pat Hickerson, Kerry Fox, Tim Perepolkin)
- Interior Health Authority (Bryn Lord)
- Fisheries and Oceans Canada (Dean Watts)
- Ministry of Environment (Solvej Patschke)
- Ministry of Forests (Kim Magill-Hoffmann and Rob Dinwoodie)
- Ministry of Tourism and Culture (Wade Anderson)
- Regional District of the North Okanagan (Greg Betts)
- Township of Spallumcheen (Lynda Shykora)

Consultant shall liaison directly with all regulatory agencies.

A copy of all correspondence (e-mails and/or hard copies), with TAC, regulatory agencies and affected parties, shall be included in the Report as an Appendix.

#### **5.0 Meetings and Draft Reports**

5.1 The Consultant shall attend the following meetings and make the following presentations:

5.1.1 The Consultant shall schedule, coordinate and attend, at a minimum, the following meetings at the City of Armstrong Municipal Office:

- (a) An orientation meeting with the TAC Committee to review the project goals and scope of works.
- (b) Meeting with TAC to review draft reports after completion of Modules 1 & 2, and again after completion of Modules 7 & 8 (note: draft reports to be provided to TAC members 4 weeks in advance of the meetings)
- (c) Draft presentation to TAC (note: copies of draft to be provided to TAC members 4 weeks in advance of meeting)
- (d) To review draft revisions with IHA and City of Armstrong.
- (e) To present Report to City of Armstrong Council

5.2 Other than the attendee meetings itemized in Clause 5.1, the Consultant may coordinate e-committee meetings where deemed beneficial by the Consultant.



## **8.0 Deliverables**

- 8.1.1 Hard Copies - 12
- 8.1.2 PDF on CD
- 8.1.3 Master Hard Copy, complete and not bound
- 8.1.4 Hard Copies of all correspondence and e-mails

Provide detail of deliverables in proposal.

## **9.0 Confidentially and Ownership**

All information received or prepared as a result of the work performed under this Proposal shall be considered to be the property of the City of Armstrong and shall be treated as confidential and shall not be released or published without the written consent of the City of Armstrong.

## **10.0 Proponents Proposal Fixed Fee**

### **10.1 All Inclusive Proposal **Fixed Fee****

The Proponent shall provide an all inclusive **Fixed Fee** (including sub-consultants, travel, disbursements, meetings and presentations) to complete the RFP Items A, B, C.

In the event the city has insufficient funds to complete a Report for Items A, B and C, the City may elect to proceed with one or more of RFP Items A, B and C.

The Proponent shall identify individual **Fixed Fees** for Items A, B and C.

The Consultant is advised that the individual Fixed Fee amounts may, or may not, total the all inclusive Fixed Fee amount identified for the Report which includes RFP Items A, B and C.

The Fixed Fee(s) shall include all taxes exclusive of GST (or HST if applicable)

### **10.2 Fee Payment per Milestone**

The fee payment at each milestone shall correspond to the milestones identified in Clause 6.0. Total milestone payments shall not exceed 80% of the total Proposal Fixed Fee at the Draft Presentation to the City of Armstrong and TAC.

## **11.0 Evaluation Matrix**

The Evaluation Matrix for Consultant selection is found in Appendix A.

## **12.0 Proposal Award**

The intention is to select the acceptable Proposal within 30 days of RFP closing subject the funds being legally available to the City of Armstrong.

The lowest or any Proposal will not necessarily be accepted. The City of Armstrong unequivocally reserves the right to reject any or all Proposals or accept any Proposal or part of any one Proposal as deemed to be in their interest.

The City of Armstrong will not accept any responsibility for the costs incurred by the proponents for the preparation of a proposal, or for loss of potential profits, where a proposal is not accepted.

## **13.0 Sole Point of Contact**

Any request for clarification or inquiries relating to this request for proposal shall be directed by email to the **Contact Person**. Information obtained from any other source, including employees of the City of Armstrong, is not deemed official and shall not be relied upon or otherwise used in any way for any purpose whatsoever.

The **Contact Person** is:

Patrick Hickerson, AScT  
Public Works Manager  
City of Armstrong  
PO Box 40  
3570 Bridge Street  
Armstrong, BC, V0E 1B0  
Phone (250) 546-3023  
Email: [phickerson@cityofarmstrong.bc.ca](mailto:phickerson@cityofarmstrong.bc.ca)

## **14.0 Receipt Confirmation Form**

Respondents shall promptly fill out and **fax** the Receipt Confirmation Form to the Contact Person. All subsequent information relating to this request for proposal, including any Addenda, will be directed only to the Respondents that have returned the Receipt Confirmation Form, and in accordance with the method described on the Receipt Confirmation Form.

The Receipt Confirmation form is found in Appendix B.

## 15.0 **Available Information**

- 15.1 The following relevant studies/reports, and reference materials, are current and the information therein may be adopted and reproduced, with credit to the author.

**Reports:** (available for viewing at City of Armstrong Municipal Hall where applicable) Hard copies will be provided to successful proponent where applicable.

- True Consulting *Water Supply Assessment and Treatment Study IHA "43210" Compliance Plan* January, 2007
- City of Armstrong *Water Management Plan Update - 2004*
- Summit Environmental Emergency Preparedness Plan (EPP) For the Water Supply Reservoirs at South and North Silver Star Lakes, August 2006
- Summit Environmental Operation, Surveillance, and Maintenance Plan (O&M) For the Water Supply Reservoirs at South and North Silver Star Lakes, June 2006.
- Glazier Creek (tributary to Fortune Creek) 1997 Interior Watershed Assessment Procedure available on the Ecocat website.
- Fortune Creek Draft Hydrology Study 1980 available on Ecocat website.

**Reference Materials:** (available for viewing at City of Armstrong Municipal Hall where applicable) Hard copies will be provided to successful proponent where applicable.

- Silver Star Lakes Dam Inspections
  - 2008 by Kerr Wood Leidal Associates Ltd.
- City of Armstrong - Drinking Water Quality Improvements Program
  - 2009 Conditions on Permit
  - 2007 Annual Report
  - 2008 Annual Report
- MoE – Water Licence reports
  - Fortune Creek – 22 licences
  - South Fortune Creek – 8 licences
  - Big Swamp Creek – 2 licences
- IHA Guidelines for Operating Permit
- Summit Environmental Drinking Water Source Protection *Reference Materials*, January 2008

**15.0 Available Information** (continued)

- Source-To-Tap Screening Tool  
- 2007 Prepared by City of Armstrong Staff
- Fortune Creek Watershed Scoping Study  
- April 30, 2007 by Tanya Seebacher, Adam Wei and Craig Nichol  
University of British Columbia
- MOE - Park Use Permit (2005) - Silver Star Provincial Park
- City of Armstrong Water Supply in Silver Star Park – Timeline Allowances
- Columbia Shuswap Regional District Water System Acquisition Strategy,  
Discussion Paper 4: Water System Acquisition Policies and Assessment  
- 2009 by CSRD/Urban Systems
- IHA Drinking Water Quality Improvement Program  
Conditions of Operating Permit  
- May 2006 by Interior Health Authority (reference material)
- Freshwater For Fish and People: Moving Towards "Living Water Smart"  
[http://www.fish.bc.ca/files/brochure\\_freshwater\\_for\\_fish\\_and\\_perople\\_2009.pdf](http://www.fish.bc.ca/files/brochure_freshwater_for_fish_and_perople_2009.pdf)

# **APPENDIX A**

## **Evaluation Matrix**

## APPENDIX A

### EVALUATION MATRIX

#### WATER SOURCE ASSESSMENT AND PROTECTION REPORT

Proponent: \_\_\_\_\_

Date \_\_\_\_\_

	CRITERIA	ELIGIBLE POINTS	PROPONENT SCORE
<b>PROPOSAL EVALUATION</b>			
1	Project Understanding	12	
2	Project Work Plan	12	
3	Organization and Clarity of Presentation	3	
4	Schedule	3	
	<b>Total This Section</b>	30	
<b>PROPONENT EVALUATION</b>			
5	<b>Key Personnel</b> Qualifications & Experience	20	
6	Firm's Relevant Experience	15	
7	Workload Commitment and Availability	7	
8	Local Knowledge and Location of <b>Key Personnel</b>	8	
	<b>Total This Section</b>	50	
<b>RESOURCE EVALUATION &amp; FEES</b>			
9	Level of Effort	3	
10	Fees and Disbursements	17	
	<b>Total This Section</b>	20	
	<b>Total Points</b>	100	

# **APPENDIX B**

## **Receipt Confirmation Form**

**APPENDIX B**

RECEIPT CONFIRMATION FORM

WATER SOURCE ASSESSMENT AND PROTECTION REPORT

**PROPONENT**

CONTACT PERSON: \_\_\_\_\_

PROPONENT NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PHONE NO: \_\_\_\_\_

FAX NO: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

**FAX TO:**

Patrick Hickerson, AScT  
Public Works Manager  
City of Armstrong

Fax No. (250) 546-3710