



Request for Proposals

Professional Engineering Services

For The

RDN Water Services SCADA Master Plan

Closing:

4 complete hard copies plus 1 electronic (CD or USB) copy prepared in .pdf format of each Response must be received before 2:00 PM Pacific Time on March 8th, 2018

Closing location:

Regional District of Nanaimo
Regional and Community Utilities
Second Floor
6300 Hammond Bay Road
Nanaimo, BC V9T 6N2

Contact person:

Gerald St. Pierre, P.Eng., PMP
Project Engineer, Water & Utility Services
Phone 250-390-6751
GStPierre@rdn.bc.ca

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1 Background

The Regional District of Nanaimo (RDN) Water Services Department supplies drinking water to nine (9) Water Service Areas (WSA) within the region. Currently there is not a centralized Supervisory Control and Data Acquisition (SCADA) hub where the systems relay information for storage or where Operators can remotely view and control the systems. Instead, each WSA and system component has its own local control system with some limited communication and automation functions.

In addition, communication between the various sites for automation of the systems is predominantly via dial-up analogue modems, which are historically unreliable and some replacement parts for the modems have recently become obsolete.

As such, the purpose of this RFP is to request proposals from qualified engineering firms for the development of a SCADA Master Plan (SMP) for all RDN WSAs. The proposed hub (historian, back-up drives, etc.) of the SCADA system are proposed to be located at the Nanoose Water Treatment Plant (WTP).

See Appendix A for a map showing the locations of each WSA and the WTP.

2 Scope

The intent and scope of this project is to develop a master plan to identify additions, upgrades and improvements to the SCADA system and detail a phased implementation plan that the RDN can use as a guide. Key issues that must be addressed will include compatibility, resiliency, security, communications, alarm notifications, data storage and retrieval, ease of operation, scalability, and lifecycle costs. The SMP will identify the scopes of work and cost estimates for the implementation of future SCADA upgrades.

It is expected that future projects will be necessary to design, tender, and construct the various upgrades identified in the SMP. Future projects will be awarded with additional RFP requests.

2.1 Tasks

2.1.1 Data Gathering

- Gather and review all relevant background information, including, but not limited to:
 - Record drawings
 - Operations & Maintenance manuals
 - Budgets
 - Previous reports and studies
 - Current RDN Water Services projects at design or construction phases
 - Historical alarm data
- Review and compile a record of existing control systems and components for all RDN water systems. Plan for one work week (5 days) of site visits.

2.1.2 Initial Review Meeting

- Organize a meeting to review existing systems with RDN Engineering, IT, and Operations staff to determine current communication and operation practices and preferred future SCADA system capabilities.
- The consultant will be responsible for preparing the agenda, chairing the meeting, and preparing meeting minutes for distribution within one week of the meeting. The meeting minutes should include a detailed comments log and action items.

2.1.3 Preliminary Plan

- Develop a Preliminary Plan (50%) and submit to the RDN for review.
 - The plan should include, at a minimum, the following components:
 - Recommended communication methods for each water system including emergency back-up communication
 - Recommended SCADA system and Operating system programs and setup
 - Recommended historian setup (database, logging, trending, analysis and reporting)

- Basic technical specifications for the main components to be included in the SCADA system (PLCs, RTUs, Modems, drives, historian, etc.)
 - Recommendations to ensure the upgraded SCADA system will meet industry standards for security (network setup, access, authentication, data transfer, etc.)
 - Recommendations as to whether the RDN should continue with its existing 3rd party alarm system or change over to a SCADA based alarm system
 - Preparation of preliminary network architecture drawings showing the recommended implementation strategy for each WSA
 - A brief risk/reward analysis comparing the existing system vs. upgrading to industry standard
 - A Class C costs estimate for the capital upgrades required for each water system, including design, tendering, contract management and installation/construction
 - Estimated operations and maintenance cost differences for each system as upgraded vs. existing conditions
 - A recommended implementation strategy for each system, identifying:
 - Electrical requirements
 - Communication system upgrades
 - PLC/RTU upgrades
 - Other hardware upgrades
 - Any other pertinent considerations
- Submit 4 hard copies and one .pdf copy of the Preliminary Plan

2.1.4 50% Review Meeting

- One week after submitting the Preliminary Plan, the consultant shall organize a review meeting with RDN Engineering, IT, and Operations staff.
- The consultant will be responsible for preparing the agenda, chairing the meeting, and preparing meeting minutes for distribution within one week of the meeting. The meeting minutes should include a detailed comments log and action items.

2.1.5 Draft Report

- Prepare a Draft (90%) SMP Report that includes all the components of the preliminary plan and addresses all comments and additional information provided during the 50% review process.
 - Submit 4 hard copies and one .pdf copy of the Draft SMP Report

2.1.6 90% Review Meeting

- One week after submitting the Draft SMP, the consultant shall organize a review meeting with RDN Engineering, IT, and Operations staff.
- The consultant will be responsible for preparing the agenda, chairing the meeting, and preparing meeting minutes for distribution within one week of the meeting. The meeting minutes should include a detailed comments log and action items.

2.1.7 Final Report

- Prepare a Final SMP Report that includes all the components of the Draft plan and addresses all comments and additional information provided during the 90% review process.
 - Submit 4 bound hard copies and one .pdf copy of the Final SMP Report

3 Schedule

The following dates, other than the RFP closing date, are guidelines only and may be adjusted based on the schedule provided by the successful proponent.

RFP Closing Date: March 8th, 2018

Anticipated Award Date: March 29th, 2018

Final Report: June 15th, 2018

4 Extra Works

The consultant must receive written approval prior to commencing any additional works which will affect the project cost or schedule. The consultant is to submit a Change Order indicating the impact the extra or additional works will have on the project for written approval from the RDN.

A Change Order must also be submitted in the event the consultants fees will exceed the original Proposal amount (i.e. original budget change must be requested and must be approved in writing). In this situation the consultant may be requested to provide scope change alternatives to meet budget.

An invoice encompassing additional works that have not been approved in writing will not be accepted by the RDN.

5 Proposal Submission

5.1 General

This section describes the expectations for proposal submission and the basis for evaluation. Proposal layout and content should be in general alignment with these expectations to facilitate comparative evaluation.

Before submitting proposals, proponents must satisfy themselves about the nature and location of the work, local conditions, the professional services, equipment, technology and facilities needed for the execution of the work, and all other factors that might have a bearing on their proposal. Proponents are fully responsible for obtaining all information required for the preparation of proposals and the execution of the work.

Proponents are solely responsible for their own expenses in preparing and submitting Proposals, and for any meeting, negotiations, or discussions with the RDN or its representatives and consultants, relating to or arising from this RFP. Proponents agree that by participating in the RFP process, and/or submitting a Proposal, they have no claim for compensation.

5.2 Submission

5.2.1 Contact Person

The contact person for the RDN is:

Gerald St. Pierre, P.Eng., PMP
Project Engineer, Water Services
Office Phone: 250-390-6751
GStPierre@rdn.bc.ca

5.2.2 Requests for Information

Any requests for information (RFI) related to this RFP are to be directed, in writing by email, at least seven (7) calendar days prior to the Closing Date, to Gerald St. Pierre at the RDN. Email contact is GStPierre@rdn.bc.ca.

RFI's and answers will be recorded and distributed via addendum posted to BC Bid (www.bcbid.gov.bc.ca). It is the responsibility of the Proponent to download and obtain any addenda posted. Information obtained from any other source is not official and should not be relied upon.

5.2.3 Closing Date

Four (4) complete hard copies of each proposal plus one (1) electronic copy on CD or USB flash drive, prepared in .pdf format, must be received before 2:00 PM, Pacific Time, on March 8th, 2018 at the address on the front cover of this RFP.

Proposals sent by facsimile (fax) or e-mail will not be accepted.

There will be no public opening for this RFP.

Proposals are to be submitted in sealed envelopes clearly marked with:

1. Name and address of the Proponent
2. Proposal for Professional Engineering Services for the RDN Water Services SCADA Master Plan
3. Closing 2:00 PM, Pacific Time, March 8th, 2018

5.2.4 Late Responses

Proposal envelopes will be marked with their receipt time at the closing location. Only complete proposals received and marked before closing time will be considered to have been received on time.

Hard copies of late submissions will not be considered or evaluated and will be returned to the proponent.

In the event of a dispute, the proposal receipt time will be as recorded at the closing location for the hard copy.

5.2.5 Signed Offer

The proposal must include a signed 'offer of services' and the offer must be signed, by a person / persons authorized to sign on behalf of the proponent(s) and to bind the proponent(s) to statements made in the proposal.

5.2.6 Changes to Proposal Wording

The Proponent will not change the wording of its proposal after the closing date and time specified on the front cover of this RFP and no words or comments will be added to the proposal unless requested by the RDN for purposes of clarification.

5.2.7 Withdrawal

Proposals may be withdrawn prior to the deadline upon emailed notice to Gerald St. Pierre. Withdrawn proposals may be replaced by alternative proposals providing emailed notice of intent is delivered to Gerald St. Pierre at least 24 hours prior to the deadline for closing noted above.

Proposals must remain valid for 90 days following the RFP closing date and time noted. Proposals are irrevocable after the closing date and time.

5.2.8 Acceptance of Proposals

This RFP is not an agreement to purchase goods or services. The RDN is not bound to enter into a Contract with any proponent. Proposals will be assessed in light of the proposal review criteria. The RDN will be under no obligation to receive further information, whether written or oral, from any proponent. The offer of services will prevail whether accurate or not.

The acceptance of any proposal may be subject to approval by the Board of the Regional District.

5.2.9 Definition and Form of Contract

The receipt of an offer of services with a proposal will not constitute a contract. A contract will not be entered into until the RDN accepts a proposal and the RDN and the proponent enter into a full written contract as a result of this RFP. Only after a contract is mutually agreed to and signed by both parties, will a proponent acquire any legal or equitable rights or privileges.

Any Contract with the selected proponent will be substantially similar to the terms and conditions of the MMCD Client /Consultant agreement.

5.2.10 Modification of Terms

The RDN reserves the right to modify the terms of this RFP, in its sole discretion, at any time up to 5 working days prior to the noted closing date. This includes the right to cancel this RFP at any time without entering into a Contract.

5.2.11 Ownership of Responses

All documents, including Responses, submitted to the RDN become the property of the RDN. The RDN is bound by the provisions of the Freedom of Information and Protection of Privacy Act. All Proponents submitting Proposals pursuant to this RFP are advised that such Proposals will be treated as public documents and the contents of the same disclosed upon written request if required to do so pursuant to the Act.

5.2.12 Confidentiality of Information

Information pertaining to the RDN obtained by the proponent as a result of participation in this RFP is confidential and must not be disclosed without written authorization from the RDN.

6 Proposal Evaluation Criteria

The Regional District of Nanaimo reserves the right to reject any or all Proposals or to accept the Proposal deemed most favorable in the interest of the District. The lowest priced or any Proposal may not necessarily be accepted.

Requests for Proposals will be evaluated against the following criteria.

6.1 Project Team, Experience, and Corporate Commitment

This component of the evaluation will constitute 25% of the evaluation points. The expectations for this component are:

1. Demonstrate that the firms' organization and proposed team, including sub-consultants and specialists, has the necessary technical and managerial background and experience to carry out the requirements of this project.
2. Include a team organization chart and provide resumes of two pages (maximum) per key individual detailing who will be assigned responsibility for each component of the work. List staff and/or sub-consultants, who will be assigned to each component, and include their related experience. Subsequent substitution of staff and/or sub-consultants shall be submitted in writing for review and approval by the RDN. Acceptance of staff and/or sub-consultant substitutions will be at the sole discretion of the RDN.
3. State the proponent's corporate commitment to completing this Project within the scope, budget and timelines outlined.

6.2 Past performance, and references

This component of the evaluation will constitute 25% of the evaluation points. The expectations for this component are:

1. Prepare a list, in chronological order of three (3) recent and similar projects completed by the proponent including details of which projects were undertaken by members of the proposed project team. Provide the name and telephone number of a contact person from previous projects. For each of the projects provided as references include a brief outline of the project and its relevance to this project. References may be contacted to confirm the proponent's ability to meet budget, schedule, and quality targets.
2. Preference will be given to Proponents with multiple recent projects of similar scope.
3. Preference will also be given to Proponents whose similar projects were completed by the team members proposed for the Districts project.

6.3 Project Understanding, Methodology, Task List and Deliverables

This component of the evaluation will constitute 30% of the evaluation points. The expectations for this component are:

1. Provide a task list summary to clearly show project understanding, the level of effort planned and time commitment for all members of the project team on each part of the project. Clearly identify each team member per task and number of hours. Clearly indicate in the proposal which items or which parts of items will be undertaken by your firm or by a sub-consultant.
2. Provide a Gantt chart style schedule of the key work activities proposed and identified deliverables to meet the RDN's schedule requirements. Include key activities, deliverables and notifications to proceed in terms of weeks. The schedule should include 10 working days for review of all submissions by the RDN.
3. Demonstrate that the proponent understands the critical issues for a successful project.

6.4 Fees

This component of the evaluation will constitute 20% of the evaluation points. The expectations for this component are:

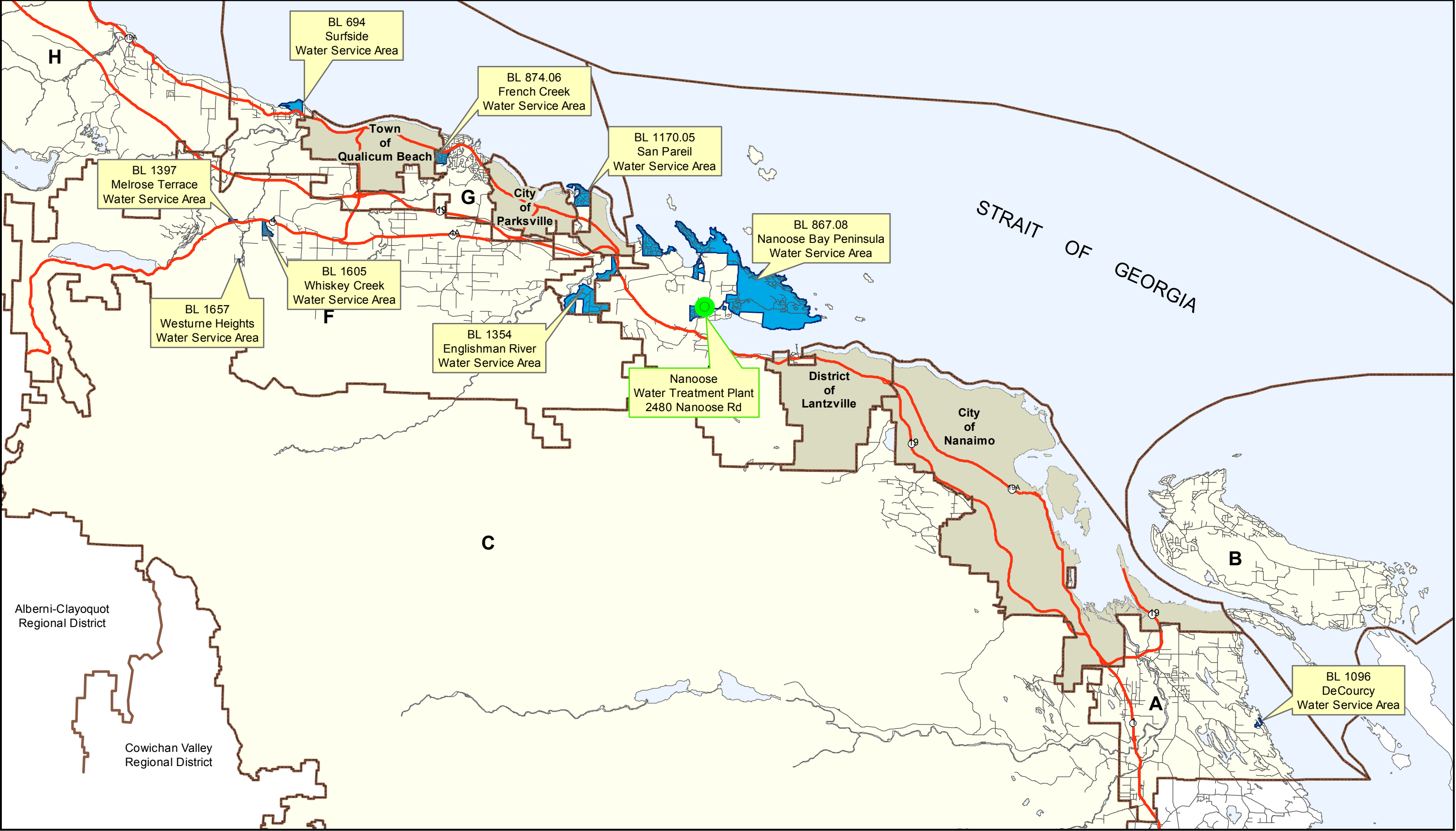
1. Provide a total fee budget for the provision of all services required to provide the deliverables noted in Section 2 of this RFP. Identify hourly rates that include local travel, detail and include any and all travel expenses expected with the proposed team and task list, and estimated disbursements.

Evaluation criteria for fees will be as per the following formula:

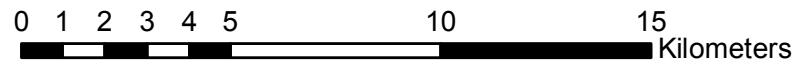
$$\text{Fees score} = \frac{\text{Lowest Price} \times 20 \text{ Points}}{\text{Proposal Price}}$$

7 Appendices

Appendix A – RDN Water Service Areas Map



Regional District of Nanaimo Local Water Service Areas



- Local Water Service Area
- Electoral Area Boundary
- Highway
- Road Centreline

