



REQUEST FOR PROPOSALS No. 21-077

French Creek Pollution Control Centre Stage IV Expansion Value Engineering Study

ISSUED: September 10, 2021

CLOSING DATE AND TIME:

Submissions must be received on or before:
3:00 PM (15:00 hrs) Local Time on October 1, 2021

Submissions and Questions are to be directed to:

Rob Wood, Project Engineer
Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo, BC V9T 6N2
250-758-1157
rwood@rdn.bc.ca

Questions are requested at least five (5) business days before the closing date.

Proposals will not be opened in public



Instructions to Proponents

The Regional District of Nanaimo (RDN) invites qualified firms to submit a proposal package to provide value engineering services as set forth in this Request for Proposal (RFP).

Closing Date/Time/Submission Method

Submissions must be received on or before 3:00 PM (15:00 hrs), Local Time, on October 1, 2021.

Submission Method:

By Email: In PDF format with "21-077 FCPCC Value Engineering Study" as the subject line at this electronic address: rwood@rdn.bc.ca

Please note: Maximum email file size limit is 20MB, or less. The Regional District of Nanaimo (RDN) will not be liable for any technological delays of submissions.

Submissions received in any other manner will not be accepted.

Amendment to Proposals

Proposals may be amended in writing and sent via email to the RDN contact person identified on the cover page on or before the closing. Such amendments should be signed by the authorized signatory of the Proponent.

Addenda

If the RDN determines that an amendment is required to this RFP, the RDN will post the Addendum on the RDN (www.rdn.bc.ca) and BC Bid (www.bcbid.gov.bc.ca) websites. Each addendum will be incorporated into and become part of the RFP. No amendment of any kind to the RFP is effective unless it is contained in a written addendum issued by the RDN. It is the sole responsibility of the Proponent to check and ensure all amendments are included prior to submitting their final Proposal submission.

Withdrawal of Proposals

The Proponent may withdraw their Proposal at any time by submitting a written withdrawal email to the RDN contact person identified on the cover page on or before the closing.

Unsuccessful Vendors

The RDN will offer debriefings to unsuccessful Proponents, on request, at a mutually agreeable time.

1. INTRODUCTION

The purpose of this Request for Proposal is to solicit submissions from qualified firms to conduct a value engineering study of the RDN's French Creek Pollution Control Centre (FCPCC) Stage IV Expansion detailed design. The FCPCC is located at 957 Lee Road, Parksville, BC.

For reference, the overall project budget for the value engineering study is \$170,000, plus GST.

2. BACKGROUND

French Creek Pollution Control Centre Background

Wastewater from approximately 28,000 people and businesses in Qualicum Beach, Parksville and the service areas of French Creek, Pacific Shores, Surfside and Barclay Crescent flows to the French Creek Pollution Control Centre (FCPCC), constructed in 1977. FCPCC also treats septage from septic systems and wastewater from properties with holding tanks.

FCPCC currently provides primary and secondary treatment to remove more than 90% of the biological oxygen demand (BOD) and total suspended solids (TSS). Solids removed during the treatment process are treated further to become biosolids. FCPCC treated 3.6 billion litres of wastewater in 2020. Treated wastewater is discharged into the Strait of Georgia 2,440 m offshore at a depth of 61 m.

FCPCC currently treats wastewater via:

Liquid Stream

- Perforated plate screens (6mm and 10mm) and washer compactor
- Grit tank with Eutek Head Cell and standby aerated grit tank
- Primary clarifiers (sedimentation tanks)
- Trickling filters
- Aerated solids contact tanks
- Secondary clarifiers

Solids Stream

- Waste activated sludge rotary drum thickener
- Autothermal thermophilic aerobic digesters (ATAD's)
- Digested sludge storage tank
- Decanter centrifuge dewatering

Project Background

FCPCC is near its operating capacity (12 MLD Average Annual Flow) and the plant is scheduled to be expanded to meet growth in the service area to the year 2040. This upgrade is referred to as the Stage 4 Expansion. The secondary treatment process selection was performed in 2011 and a conventional activated sludge process was recommended.

The RDN engaged AECOM to design an expansion and odour control upgrade to:

- increase plant capacity by about 30% and meet the service area demands to 2040,
- improve operational efficiency and replace aging infrastructure in the existing plant,
- incorporate extensive odour control upgrades for the existing plant,
- include odour controls for the expansion, and
- contribute to carbon neutrality by using solar panels and recovering heat from treated effluent.

More specifically, the plant expansion and upgrade scope included:

- New secondary treatment infrastructure based on a conventional activated sludge process
- Maintenance building and storage area adjacent to secondary treatment infrastructure
- Effluent pump station replacement with a new facility for all flows
- *Piping, valve and odour control upgrades for the existing trickling filter process – Part of reduced scope of work being completed in 2022*
- New odour control system for the dewatering building
- New dewatered sludge bin loading conveyors and relocated truck scale
- Improved forklift access to digester pump room roof structure area
- Renovations and upgrades to the existing administration building
- *Upgrades to the Morningstar Creek crossing – Part of reduced scope of work being completed in 2022*
- *New site access from the Island Highway complete with vehicle gate – Part of reduced scope of work being completed in 2022*
- New electrical service and power distribution
- Relocate existing MCC's above the hydraulic grade line where needed to mitigate flood risk
- New generator and fuel tank adjacent to new Stage 4 secondary treatment infrastructure
- Equalization tank to attenuate peak diurnal flows and improve wet weather management

The design is complete and ready to tender for construction. However, construction costs escalated through the design process, due in large part to outside economic factors such as the recent global pandemic. As a result, the RDN chose to proceed with a reduced scope of work only in 2022. The work to be completed in 2022 includes trickling filter piping, valve and odour control upgrades, Morningstar Creek crossing upgrades and a new site access road. The remainder of the project is to be reviewed in this value engineering study.

The proposed upgrade works, along with further background on the facility and rationale for the upgrade, are described in the 60% design report by AECOM included in **Appendix A**.

3. SCOPE OF SERVICES

The objective of the value engineering study is not to simply provide a peer review of the existing design, but to provide a holistic review of the existing process and plant capacity to determine the best-value alternatives to meet current and future needs for:

- Wastewater treatment options to meet the service demands of the community to 2040, or the best-value time horizon for the investment. Updated population growth prediction data will be provided at the time of award.
- Improvement of the operational efficiency and replacement of the aging infrastructure of the existing plant.
- Odour mitigation, including septage receiving.
- Moving toward a carbon-neutral operation.
- Future treatment processes to consider contaminants of emerging concern such as micro-plastics, pharmaceuticals, etc.

The Scope of Services requested to deliver the above objectives is as follows. The successful Proponent shall:

1. Assemble a Value Engineering (VE) Team that includes personnel who are proficient in value analysis and wastewater design and management, including activated sludge and ATAD treatment processes. The VE Team will have access to RDN staff and AECOM, the RDN's design consultant, to provide information as-needed. The RDN will provide a contact person for the project that will be the RDN's Project Manager (PM). The RDN PM shall be copied on all correspondence and be a member of the VE Team. Participants in the VE workshop will include operational and engineering staff from the RDN and may also include other third-party subject-matter experts invited by the RDN.
2. Ensure all VE team members have reviewed this RFP and its appendices, and the Proponent's proposal in advance of the workshop.
3. Provide the RDN with a list of additional information/plans that are necessary to commence with the workshop, at least two-weeks in advance of the workshop.
4. Facilitate and lead an up to five-day (40 hr) in-person workshop – unless COVID travel restrictions are imposed – in Nanaimo or Parksville, BC to develop project options / alternatives with the RDN and AECOM. The time includes a tour of the existing facility and an information gathering session with RDN staff and AECOM at the outset. The workshop shall include review of:
 - The proposed design outlined in AECOM's 60% design report and pre-tender cost estimate.
 - The Jacobs FCPCC ATAD Mixing and Odour Control Upgrade Feasibility Study.
 - Carbon neutral alternatives.
 - Updated population growth prediction data.
 - Future expansion planning beyond 2040 or Stage IV, including treatment processes for contaminants of emerging concern, such as micro-plastics and pharmaceuticals.

- Operational efficiencies, safety and life-cycle costs.
- 5. Include discussion and consideration of other alternate solutions in the workshop, such as:
 - Converting the existing plant to provide primary treatment only – removing the ATAD's – and constructing an entirely new secondary treatment facility.
 - Replacing the ATAD's with aerobic digesters to provide longer range capacity.
 - Other proven technologies.

4. DELIVERABLES AND OUTCOMES

Following conclusion of the workshop, the Proponent shall deliver a:

- Draft value analysis report outlining the results of the workshop with sufficient rationale and detail to allow the RDN to determine if the option / alternative should be implemented. The report should, at minimum, include the following:
 - Executive Summary
 - Project Description
 - Scope and method of VE analysis
 - Summary and ranking of viable options including description, pros and cons and estimated construction costs with final recommendations.
 - Notes to designer
 - Data used and design notes in appendices
- Final value analysis report that incorporates comments from the RDN and AECOM generated by the draft report.

The reports shall be provided in electronic copy in the following formats:

- Written portion of report in Word and PDF.
- Cost estimates in Excel and PDF.

5. SCHEDULE

The Proponent shall agree to meet the following deliverable milestones:

- The workshop shall be completed by December 3, 2021, assuming contract award by October 22, 2021.
- The draft value analysis report shall be delivered by December 17, 2021.
- The final value analysis report shall be delivered three weeks following review comments by the RDN. Target delivery is by February 4, 2022, assuming RDN comments are returned by January 14, 2022.

6. REFERENCE/BACKGROUND INFORMATION

The following reference documents are included in the appendices for additional facility and project background.

- **Appendix A** – AECOM 60% Design Report – October 2019
- **Appendix B** – AECOM Pre-Tender Cost Estimate – April 9, 2021
- **Appendix C** – AECOM Issued For Tender Drawings Excerpts – February 2021
- **Appendix D** – Jacobs ATAD Mixing and Odour Control Upgrade Feasibility Study Rev B – January 8, 2021
- **Appendix E** – AECOM ATAD Assessment Technical Memo 6 – August 17, 2017
- **Appendix F** – AECOM Secondary Treatment Process Selection Final Report – March 30, 2011
- **Appendix G** – VIU Malodorous Air Sampling and Mapping Study Executive Summary – October 30, 2020
- **Appendix H** – RDN FCPCC 2020 Annual Report – February 2021

The above noted documents can be found at the following link:

<https://cloud.rdn.bc.ca/s/pktXB2WAbxrWpCa>

7. PROPOSAL SUBMISSION AND EVALUATION

Submission

To assist in receiving similar and relevant information, and to ensure your Proposal receives fair evaluation, the RDN asks Proponents to provide the following information.

Please include with your proposal:

- a) Corporate background, history, and areas of expertise;
- b) Curriculum vitae of key project team members, reasons why they were selected for this project and demonstrate how they will add value to the project;
 - a. Proposed subject-matter expert team and roles of each member, including detailed project resumes complete with dates.
- c) Details of the proposed methodology for conducting the workshop and value analysis.
- d) Layout the plan to accomplish the project including timelines and key milestones;
- e) Three samples of value analysis reports and cost estimates from similar projects and scopes of work. Details can be removed for confidentiality purposes provided overall content and structure can still be understood and evaluated.
- f) Three client references from similar projects and scopes of work.
- g) Comprehensive proposed fee, in Canadian Dollars, in a Schedule of Effort Table, identifying all project contributors, their per hour charge out rates, individual tasks, hours and all disbursements including travel. Provide separate estimated costs for the workshop and the value analysis report complete with cost estimates for options.

Evaluation

Proposals will be evaluated on a 40% financial, 60% technical basis. Proposals submitted should be in enough detail to allow the RDN to determine the Proponent's qualifications and capabilities from the



documents received. The selection committee, formed at the RDN's sole discretion, will score the Proposals in accordance with the criteria provided.

The RDN may evaluate proposals on a comparative basis by comparing one Proponent's proposal to another Proponent's proposal. The RDN reserves the right to not complete a detailed evaluation if the RDN concludes the proposal is materially incomplete, irregular or if it contains any financial or commercial terms that are unacceptable to the RDN.

The selection committee may proceed with an award recommendation or the RDN may proceed to negotiate with the highest evaluated Proponent with the intent of developing an agreement. If the parties after having bargained in good faith are unable to conclude a formal agreement, the RDN and the Proponent will be released without penalty or further obligations other than any surviving obligations regarding confidentiality and the RDN may, at its discretion, contact the Proponent of the next best rated Proposal and attempt to conclude a formal agreement with it, and so on until a contract is concluded or the proposal process is cancelled.

The RDN reserves the right to award the assignment in whole or in part or to add or delete any portion of the work. Throughout the evaluation process, the evaluation committee may seek additional clarification on any aspect of the Proposal to verify or clarify the information provided and conduct any background investigation and/or seek any additional information it considers necessary.

7. PROPOSED PURCHASE CONTRACT

The RDN's preferred form of Contract is attached herein in **Appendix I** within the above Cloud link. Proponents should carefully review this form of Contract. Proponents may (but are not required to) request that the RDN consider revisions to the form of Contract, including the Scope of Services. Proponents should submit such requests to the RDN well before the Closing Date and Time. If the RDN agrees to a request received prior to the Time, then the RDN will issue an Addendum to modify the Contract. Failure to do so means acceptance of the agreement as presented.

8. GENERAL CONDITIONS

8.1 No Contract

By submitting a Request for Proposal (RFP) and participating in the process as outlined in this RFP, Proponents expressly agree that no contract of any kind is formed until a fully executed contract is in place.

8.2 Privilege Clause

The lowest or any proposal may not necessarily be accepted.

8.3 Acceptance and Rejection of Submissions

This RFP does not commit the RDN, in any way to select a preferred Proponent, or to proceed to negotiate a contract, or to award any contract. The RDN reserves the right in its sole discretion cancel this RFP, up until award, for any reason whatsoever.



The RDN may accept or waive a minor and inconsequential irregularity, or where applicable to do so, the RDN may, as a condition of acceptance of the Submission, request a Proponent to correct a minor or inconsequential irregularity with no change in the Submission.

8.4 Conflict of Interest

Proponents shall disclose in their Proposals any actual or potential Conflict of Interest and existing business relationships it may have with the RDN, its elected officials, appointed officials or employees.

8.5 Solicitation of Board Members and RDN Staff

Proponents and their agents will not contact any member of the RDN Board or RDN Staff with respect to this RFP, other than the RDN Contact named in this document.

8.6 Litigation Clause

The RDN may, in its absolute discretion, reject a Proposal submitted by Proponent, if the Proponent, or any officer or director of the Proponent is or has been engaged either directly or indirectly through another corporation in legal action against the RDN, its elected or appointed officers and employees in relation to:

- (a) any other contract for works or services; or
- (b) any matter arising from the RDN's exercise of its powers, duties, or functions under the Local Government Act, Community Charter or another enactment within five years of the date of this Call for Proposals.

In determining whether to reject a Proposal under this clause, the RDN will consider whether the litigation is likely to affect the Proponent's ability to work with the RDN, its consultants and representatives and whether the RDN's experience with the Proponent indicates that the RDN is likely to incur increased staff and legal costs in the administration of this Contract if it is awarded to the Proponent.

8.7 Exclusion of Liability

Proponents are solely responsible for their own expenses in preparing and submitting a Proposal and for any meetings, negotiations, or discussions with the RDN. The RDN will not be liable to any Proponent for any claims, whether for costs, expense, losses or damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by the Proponent in preparing and submitting a Proposal, or participating in negotiations for a Contract, or other activity related to or arising out of this RFP. Except as expressly and specifically permitted in these Instructions to Proponents, no Proponent shall have any claim for compensation of any kind whatsoever, as a result of participating in this RFP, and by submitting a Proposal each Proponent shall be deemed to have agreed that it has no claim.

8.8 Ownership of Proposals

All Proposals, including attachments and any documentation, submitted to and accepted by the RDN in response to this RFP become the property of the RDN.



8.9 Freedom of Information

All submissions will be held in confidence by the RDN. The RDN is bound by the Freedom of Information and Protection of Privacy Act (British Columbia) and all documents submitted to the RDN will be subject to provisions of this legislation. The successful vendor and value of the award is routinely released.