



REQUEST FOR PROPOSAL (RFP)

2025 Groundwater/Surface Water and Leachate /Vapour Monitoring Programs

Whitecourt Regional Solid Waste Management Authority

RFP # 2025-17-01

The Whitecourt Regional Solid Waste Management Authority is issuing this Request for Proposals (RFP) seeking the services of a qualified firm to complete a groundwater, surface water and vapour monitoring study for the Whitecourt Regional Waste Management Facility as outlined in the Whitecourt Regional Waste Management Facility's Alberta Environmental Protection and Enhancement Act approval #49852-02-00.

Whitecourt Regional Solid Waste Management Authority

5004 – 52 Avenue,
Whitecourt AB T7S 1N6
Phone: (780) 706-6765

CLOSES: Tuesday February 4, 2025 at 2:00 p.m. MST

Important Notes for Contractors:

The complete tender document is comprised of this RFP specifications document and any subsequent addendum.



Contents

1	Introduction	4
1.2	RFP Contacts.....	4
1.2.1	Clarification Questions.....	5
1.3	Withdrawal of Proposals.....	5
1.4	Mandatory Requirements.....	5
1.5	Cost of Preparation.....	6
1.6	Intention of the Authority.....	6
1.7	Rejection of Proposal	6
1.8	Statement of Decisions and Limitations	6
2	Administrative and Legal Requirements.....	7
2.1	Contract.....	7
2.2	Other Important Provisions.....	7
2.2.1	Addenda and Addenda Acknowledgement.....	7
2.2.2	Constraints.....	7
2.2.3	Conflict of Interest.....	8
2.3	Statement of Confidentiality	8
2.4	Safety.....	8
3	Proposal Format	8
3.1	RFP Proposal Package	8
3.2	Proposal Requirements.....	9
3.2.1	Mandatory Criteria	9
3.2.2	Technical Response	9
3.3	Pricing Response.....	10
4	Scope of Work Packages.....	11
4.1	Vapour Monitoring.....	11
4.1.1	Deliverables	13
4.2	Surface Water and Leachate Monitoring.....	14
4.2.1	Scope of Work	14
4.2.2	Deliverables	15
4.3	Groundwater Monitoring.....	15
4.3.1	Scope of Work	16
4.3.2	Deliverables	16
4.4	Schedule.....	18
4.5	Background Project Reports.....	18



4.6	Information that the Authority will provide	18
5	Proposal Evaluation.....	19
5.1	General Information	19
5.2	Evaluation Process	19
5.3	Stage 1 – Mandatory Criteria	19
5.4	Stage 2 – Evaluation Criteria.....	19
5.4.1	Vapour Monitoring Evaluation Matrix	20
5.4.2	Surface Water and Leachate Matrix	21
5.4.3	Groundwater Evaluation Matrix.....	21
6	References.....	22

List of Figures

Figure 1: Site Map

List of Appendices

Appendix A – Alberta Environment and Parks (AEP) Permit #49852-02-00

Appendix B – Contracting Template



1 Introduction

The Town of Whitecourt and Woodlands County formed the Whitecourt Regional Solid Waste Management Authority (the Authority) that serves the residents in both regions. The Whitecourt Waste Management Facility (the Facility) operated by the WRSWMA was constructed in 1990. The Facility accepts on average, approximately 20,000 tonnes of waste per year.

The Authority is issuing this Request for Proposals (RFP) seeking the services of a qualified firm or firms ("Contractor") to complete a groundwater, surface water, and vapour monitoring for the Whitecourt Waste Management Facility (the Facility). The requirements for these work scopes or components must meet the terms and conditions for these that are outlined in the Facility's recent *Environmental Protection and Enhancement Act* approval Alberta Environment and Parks (AEP) Permit #49852-02-00 (the Approval), provided as **Appendix A**.

1.1 This RFP has been structured such that any proponent or potential contractor ("Contractor") must apply for all components of the current monitoring program (i.e. groundwater, surface water and leachate, and vapour monitoring). Each work package will be evaluated on its own, and the evaluation criteria for each work package are outlined below. Project Schedule, Contract Period and Primary Work Location

Below is the approximate **schedule** that is expected to be followed for this RFP. However, this may be subject to change and is therefore presented primarily for guidance:

RFP Published	January 20, 2025
RFP Closes	February 4, 2025 at 2:00PM (MST)
RFP Award	February 11, 2025

The initial contract will be for a sampling period of three (3) years starting in 2025. The procuring entity reserves the right to extend the contract for two additional one (1) year periods beyond the initial contract period, for a maximum of five (5) years in total. Pricing may be negotiated at the time of extension. The new contract extension must be in place at least 90 days prior to the end of the contract term.

The work location for the work in this RFP is the Whitecourt Regional Solid Waste Management Facility is located 17 kms southeast of the Town of Whitecourt and approximately 2 km south of Highway 43.

All proposals should be submitted electronically as a Portable Document Format (PDF) file and should be sent directly to the Principal Contact shown in Section 1.2. For the basis of this submission the time received by the principal contact will be determined by the computer clock.

1.2 RFP Contacts

Questions about this RFP should be directed to the individuals listed below, or their designate(s). Information that is obtained from any other source is not official and may be inaccurate.



Principal Contact	RFP Technical Contact
<p>Juan Grande Acting Manager of Solid Waste Whitecourt Regional Solid Waste Management Authority c/o Town of Whitecourt 5004 – 52 Avenue Whitecourt, AB T7S 1N6 Email: juangrande@whitecourt.ca Phone: (780) 778-2273</p>	<p>Scott Garthwaite Technical Consultant Sperling Hansen Ltd. Email: sgarthwaite@sperlinghansen.com</p>

1.2.1 Clarification Questions

The proponent is responsible for obtaining any needed clarification of the RFP requirements, while the RFP is open. Questions should be directed **in writing** to the RFP Technical Contact identified above.

Email is the preferred method of contact. Only written responses from the RFP contacts will be considered an official response.

Responses to questions that are deemed by the procuring entity, in its sole discretion to be material to all prospective Contractors **will** be made available as an addendum while the RFP is open, for download from the Alberta Purchasing Connection (APC) website.

1.3 Withdrawal of Proposals

At any time prior to the execution of a written agreement for provision of the Deliverables, a potential Contactor may withdraw a submitted proposal. To withdraw a proposal, a notice of withdrawal must be received by the RFP Contact and should be signed by an authorized representative of the Contractor.

1.4 Mandatory Requirements

The Contractor shall be responsible for providing of and maintaining insurance of the following:

- Alberta Workers Compensation Board (WCB) clearance letter;
- Public Liability in the amount of \$2,000,000.00 to cover any occurrence of bodily injury, death, property damage; and,
- Errors and Omissions Insurance in the amount of \$2,000,000.00 to cover any occurrence.



1.5 Cost of Preparation

All costs incurred by a contractor in the preparation of its submission or in providing additional information necessary for the evaluation of its submission shall be borne by the contractor.

The Authority acknowledges and agrees that proposals in response to this RFP and Price Quote are provided in confidence and protected from disclosure to the extent permissible under law.

1.6 Intention of the Authority

It is the intention of the Authority to obtain a proposal most suitable to its interests and what it wishes to accomplish. Therefore, notwithstanding any other terms or conditions of this RFP, the Authority has a right to:

- Accept or reject all or part of any proposal;
- Negotiate with a contractor to modify its proposal to best suit the needs of the Authority;
- Accept the proposal that it determines to be most favorable to the interests of the Authority;
- Enter discussions with a contractor to clarify any outstanding issues and to identify and finalize those portions of the proposal, including negotiation of any changes that will form part of the final agreement.

1.7 Rejection of Proposal

Without limiting the Authority's rights under Intention of the Authority (Article 1.6 above), the Authority reserves the right to reject any proposal which:

- Is incomplete, obscure, irregular, or unrealistic;
- Has non-authorized (not initialed) erasures or corrections in the proposal offer or any schedule thereto;
- Contains a defect or fails in some way to comply with the RFP;
- Omits or fails to include any one or more items in the proposal offer for which a price is required by the RFP;
- Fails to complete the information required by the RFP to be furnished with a proposal, or fails to complete the information required whether the same purports to be completed or not;
- Is accompanied by an insufficient or irregular bid or proposal security, in an insufficiently executed or unsatisfactory form, or of an insufficient amount;
- Furthermore, a proposal may be rejected based on a contractor's completion schedule and/or non-compliance with federal, provincial, and municipal legislation;

1.8 Statement of Decisions and Limitations

This RFP is not an offer by the Authority to enter into a contract/agreement with responding contractors. This RFP represents the Authority's request to receive proposals from qualified contractors

This RFP does not commit the Authority to award a contract, to pay any costs incurred by the contractors in the preparation of a proposal in response to this request, or to procure or contract services or supplies. The Authority reserves the right to accept or reject any or all proposals received pursuant to this request, to negotiate with all qualified sources, or to cancel in part or in its entirety this RFP if it is in the best interest of the Authority to do so. The Authority may require the contractors selected to participate in negotiations and to submit any cost, technical, or other revisions of their proposal, as a result of any such negotiations.



2 Administrative and Legal Requirements

2.1 Contract

After the evaluation, the successful Contractor(s) will be required to sign a contract that will constitute the legal agreement with the procuring entity for this project and govern all aspects of the services/goods to be delivered. It will incorporate the relevant terms of this RFP and the provisions of the successful proposal as determined by the procuring entity, and any other terms as the procuring entity may require. **Appendix B** contains the standard contract with associated terms and conditions. The Contractor should indicate their willingness to sign the proposed contract and./or indicate any clauses that they would like to modify.

The selected contractor will be requested to enter direct contract negotiations to finalize an agreement with the Authority. The contract will be a time and materials type contract with an upset limit. Payments to the Contractor will be made monthly. All payments will be for materials used and work performed.

2.2 Other Important Provisions

2.2.1 Addenda and Addenda Acknowledgement

Potential Contractors are responsible to ensure that they are aware of and have complied with any addenda issued in respect of this RFP

Responding to this RFP requires the acknowledgement of all issued addendum as part of the submission. Potential Contractors must monitor the APC website for any addenda that may be issued during the open period of the RFP.

2.2.2 Constraints

Site work must be carried out during normal operating hours. The Facility's operating hours are Monday to Saturday, 8:30 am to 4 pm. Exceptions to this rule may be allowed if required for a specific reason at the sole discretion of the Solid Waste Manager.



2.2.3 Conflict of Interest

The procuring entity reserves the right to disqualify any Contractor that in the procuring entity's sole opinion has an actual or potential conflict of interest or an unfair advantage in respect of this RFP, whether existing now or is likely to arise in the future, or may permit any such Contractor to continue and impose such terms and conditions on that Contractor, as the procuring entity in its sole discretion may require.

Contractors are required to disclose, to the RFP Contacts, any potential or perceived conflict of interest issues immediately upon becoming aware of any such conflict.

Information about the Alberta *Conflict of Interest Act* can be found at:
<http://www.ethicscommissioner.ab.ca/legislation/conflicts-of-interest-act/>

2.3 Statement of Confidentiality

In order to protect the confidentiality of Authority sanctioned projects, all information obtained by the Contractor shall not be disclosed to anyone except personnel authorized by the Authority. As well, all public communications and/or media inquiries regarding the project will be made through the Authority. Under no circumstances should the contractor disclose or discuss any information pertaining to the project to any member of the public or media without prior written approval. Breach of confidentiality may result in termination of contractor's contract and legal action taken.

2.4 Safety

The contractor shall be responsible for adherence to initiating, maintaining and supervising all safety precautions and programs in connection with the work to ensure:

- no person, property, right, easement or privilege is injured, damaged or infringed by reason of the contractor's activities in performance of the contract;
- pedestrian and other traffic on any public or private road is not endangered by the method or means of its performance;
- the health and safety of all persons employed in the performance of the work is not endangered by the method or means of its performance;
- Ensure that site and excavation shall always be secured for the health and safety of the public; and personnel and
- The Consultant must carry Alberta WCB coverage and provide proof of current coverage in their proposal submission.

3 Proposal Format

To help ensure consistency in Contractor responses and facilitate the evaluation process, the proposal should be prepared and packaged, as outlined in the sections that follow. Please print double-sided whenever possible and limit promotional and/or marketing materials to the information specifically requested in this RFP.

3.1 RFP Proposal Package

A complete proposal package is comprised of the elements below, presented in the order listed:



- One (1) Letter of Introduction – This should identify the Contractor and be signed by an authorized signing representative for the Contractor in order to bind the Contractor to the statements made in the proposal. This letter **MUST** indicate which components of this RFP your company is applying for either Vapour Monitoring, Surface Water and Leachate Monitoring or Groundwater Monitoring or a combination of components. Submissions that include all components of the monitoring program will be prioritized. This letter must also acknowledge all addendum.
- One (1) Technical Response (Section 4) which includes:
 - Table of Contents (for all components your company is applying for, broken down by monitoring component)
 - Body of Proposal (divided into the components applying for)
 - Appendices (where possible these should be common for all components – i.e. there should only be one set of resumes to cover all scopes of work being bid on)
- One (1) Electronic Copy – Prepare an electronic copy of your proposal as a Portable Document Format (PDF) file and send it directly to the Principal contact person (shown in Section 1.2) via email (please confirm receipt) or send a storage device if preferred.

3.2 Proposal Requirements

This section describes the proposal requirements to be included, which will be evaluated as per section 5.

3.2.1 Mandatory Criteria

Contractors must demonstrate that they meet all mandatory criteria as described above in Sections 1 and 2.

In addition, the technical portion of the response to each component of this RFP must be limited to 10 pages (i.e. up to 3 x 10 pages if the Contractor is submitting on all three components or work scopes).

For the purposes of determining the number of pages, the letter, table of contents and appendices do not count towards the total number of pages. The number of pages is not transferrable from one component to another (i.e. you can't use 8 pages for vapour monitoring and 12 for groundwater monitoring).

3.2.2 Technical Response

The technical response for each component or work package of this RFP should include the following:

Proposed Approach/Process and Project Plan

Describe the approach and/or process proposed to address the service requirements. Include any notable methodologies, innovative solutions, tools and techniques, and their respective suitability to this project.

Provide a project plan that reflects your proposed approach/process and demonstrates your ability to meet the schedule requirements for this project, including any applicable milestones. Include an overall schedule for the scopes of work being bid.

Demonstrated Expertise

Outline your experience with comparable projects. Provide enough detail outlining how these projects demonstrate expertise in the scope of work package(s) that you are bidding.

Contractor References

Provide **three references** for any work done by your firm in the past five (5) years that is similar in nature, complexity and size to the requirements specified in this RFP. Provide the name of each project reference, along with his/her phone number, fax number and email address. The project reference information provided



should identify the size of the projects conducted, how it is similar to this project, as well as demonstrate the extent of your previous experience, the clients' overall satisfaction with the services provided and the results achieved, including adherence to interim and final deadlines.

Proposed Resources, Resumes and References

The Contractor should be able to demonstrate that its **proposed team has** the experience/skills to perform the services in accordance with the requirements. Prepare the table below to identify **all** personnel who will be assigned to the project and contribute to (i) the **routine management** and/or (ii) the **performance** of the required services. As shown, provide each person's name, title, role on this project, experience in this role and his/her respective employment status (i.e. Contractor team or subcontractor).

Name	Title	Project Role	Years of Experience	Contractor Team or Subcontractor

If subcontractors are to be used for this project, they must be identified in your table. If so, describe the general range of services that the respective contractors (companies or individuals) will provide.

Submit the individual resumes for all proposed resources including any identified subcontractors. The resumes should be structured to emphasize their relevant qualifications and experience in successfully completed projects of a similar size and scope to that required by this RFP. **Resumes are to be no longer than 3 pages.**

For key personnel, such project manager, technical authority and/or task / field managers, the potential Contractor should include at least two project references, where the proposed individual served in a similar role, including:

- Name of client Procuring Entity
- Name, title, telephone number and email of a client contact
- Brief description of the scope, complexity, dates and duration of the project
- Role the proposed individual played in the referenced project

Resource Management

If at time of award the resources that have been proposed by a Contractor are not available, and no replacements acceptable to the client procuring entity can be identified, the procuring entity reserves the right, in its sole discretion to rescind the offer of award and award the work to an alternate Contractor.

3.3 Pricing Response

The Contractor shall break down pricing for each work package as a separate cost estimate. Pricing is to include all related disbursements. All applicable taxes are **not to be included in the pricing**. The following three tables must be included for all work scopes being bid on. Inclusion of full cost matrix in the technical proposals would be appreciated and the cost estimate should be summarized in the following tables or similar tables.



COST ESTIMATE BY ACTIVITY

Activity	Labour Costs	Expenses	Activity and Grand Totals

PERSONNEL RATES AND LEVEL OF INVOLVEMENT

Name	Role	Rate	Hours	Total
			TOTAL	

DISBURSEMENT TABLE

Resource or Expenditure Type	Unit (hour, day, meal, kilometer etc.)	Rate

The potential Contractor shall identify laboratory costs separately (including any markup from the Contractor). The Authority reserves the right to contract for laboratory services directly if pricing is favorable – the Contractor will remain responsible for taking / preparing / shipping samples to the preferred laboratory.

If the Contractor includes disbursements, they **MUST** identify the percentage of markup on any items that they have identified and included in their disbursement table.

Each work package will be evaluated on its own and the evaluation criteria for each work package are outlined below in Section 5.

4 Scope of Work Packages

The objective of this RFP is to engage a qualified firm or firms to complete vapour, surface water and groundwater monitoring for the Whitecourt Regional Solid Waste Management Facility as outlined in the Facility's Alberta *Environmental Protection and Enhancement Act* Approval, #49852-02-00. Monitoring programs for each of these scopes of work has been in place for several years and associated reporting to the provincial regulator as per the terms and conditions of the Facility's Approval.

The monitoring programs associated with the Facility, in accordance with the requirements of AEP approval #49852-02-00, are further described below with their associated scopes of work and deliverables for this RFP.

4.1 Vapour Monitoring

Vapour monitoring at the Site began in 2013 but the original vapour monitoring (VM) wells were completed in 2012. Vapour monitoring on the Site includes three main activities, that are conducted twice per year:



1. Monitor subsurface vapour conditions at nine Vapour Monitor (VM) well locations (VM12-01- to -09 with 12-02 replaced by 13-10).
2. Monitor surface vapor concentrations on 50 m grid and look for dead spots in the vegetation.
3. Monitor inside buildings (health and safety objective).

Vapour monitoring requirements of the Approval #49852-02-00 are laid out in clauses 4.7.1, 4.7.2, 4.7.3 and clause 4.9.8, 4.9.9 and 4.9.10.

Monitor Subsurface Vapour Concentrations

Field-measured parameters are recorded prior to sample collection at each monitoring location using an instrument that records:

- Temperature (Degrees Celsius, °C);
- Barometric Pressure (Hectopascal, hPa); and
- Wind speed for surface grid point sampling (meters per second, m/s).

Landfill gases should be monitored with equipment that is calibrated daily (all calibration records to be included in the report). This instrument should measure:

- Methane (CH₄), (parts per million or percent of the lower explosive limit (LEL));
- Hydrogen Sulphide (H₂S), (parts per million (ppm));
- Carbon Dioxide (CO₂), (percent volume of air);
- Carbon Monoxide (CO), (ppm); and
- Oxygen (O₂), (percent volume of air).

VM wells where groundwater was absent or below the screen were sampled without purging groundwater. If water is present in the VM well, then the depth to water is recorded and then the well is purged to dryness if possible. Two well volumes are purged before sampling and recording the results. Groundwater level is measured again and if it is more than 1.5 m from the well bottom, the well screen is considered totally within the groundwater and a vapour sample was not taken. All measurements of groundwater levels and the amount of groundwater purged should be recorded and included in the report. The final readings are obtained when relatively constant readings are observed for two readings separated by five (5) minutes. Generally, a 10% variation in readings was considered constant readings.

Surface Concentrations

Surface Vapour concentrations should be monitored on a 50 m by 50 m grid (Facility structures and terrain may impede or require changes in the grid so that readings can be collected). Where possible the vapour concentrations should be the same as what was used for the above portion and the locations be recorded, gridded and plotted. This may include the installation of monitoring points and obtaining field measurements with gas detection devices to verify if landfill gas is present. During conducting this survey of the waste disposal areas, the appearance of any dead spots should also be recorded. Visual observations of vegetation will be documented in the monitoring reports and maintained in the operating record for the landfill.

Building Survey

On-site buildings are monitored by sampling in areas of potential gas entry into the building as follows (if applicable):

- Around the foundation and floor junction; cracks are easy conduits for gas entry into buildings;
- Cracks in concrete floors;
- Around the walls of the building and electrical sockets;
- Closets or other enclosed wall spaces;
- Ceiling areas;



- Crawl spaces and basements;
- Areas where below ground utilities enter the building (i.e. floor drains); and
- Any other confined area (i.e. ponds, ditches and any low-lying areas).

These sampling locations are monitored for compliance with the Approval limit of 20% LEL. On-site Structure monitoring should be done prior to any workers arriving at the Facility to prevent disturbance of potential measurable gas concentrations that may be reduced by opening doors or windows.

The Contractor is requested to provide an approach and methodology (including the instruments to be used for this scope) for undertaking the above three activities as well as identify its quality control and quality assurance program. Inclusion of vapour sample analysis should be considered as part of the approach and methodology and discussed. If the Contractor selects to conduct analyses at a laboratory, then the laboratory should be indicated.

If anomalous readings are encountered, these readings should be confirmed. If the anomalous readings persist, then the causes of the anomalous readings will need to be investigated. The Contractor will be required to develop a scope and approach in how they will determine the reason of the anomalous readings. This will be provided to the Solid Waste Manager for approval prior to proceeding with the additional scope.

4.1.1 Deliverables

The deliverables associated with this scope of work shall include the following:

- Undertaking the biannual vapour monitoring program as submitted to the AEP as part of the Approval
- Documentation of all results of the program into a comprehensive annual report which will include the following:
 - Detailed borehole logs for all new wells completed in that year;
 - A summary table of WM wells with the following information date drilled; type of material (i.e. waste or soil) that wells were drilled into; screened interval; and depths of the wells.
 - Table of field observations including the amount of groundwater purged from the VM wells and the last period of significant rainfall prior to sampling;
 - Preparation of subsurface methane concentration versus time plots and discussion regarding any trending of results from previous years;
 - Details regarding any incidents/occurrences of exceedances and explanation as to why these occurred and how they were mitigated and/or what corrective action was put in place to correct; and
 - Recommendations with respect to the monitoring program and areas for improvement and any other information as determined from previous reporting.
- Draft report and a version of the final report should be provided to the Authority as an unlocked PDF.
- All text, tables and figures should be provided to the Authority within 30-day of acceptance of the final annual report in native digital format (e.g. Word, Excel and AutoCAD).

All vapour gas monitoring data will be interpreted by a professional registered with APEGA (as noted in clause 4.9.10 of the Approval).

The draft report will be prepared and provided to the Authority for review, on or before the end of the January in the subsequent year. The Authority's review will be a comprehensive review for consistency, accuracy, completeness, satisfying the Approval conditions and readability. The contractor will need to make the required changes within the existing budget and/or provide written justifications as to why the changes are not required.



4.2 Surface Water and Leachate Monitoring

The Facility is required to monitor landfill runoff and landfill leachate under clauses 4.9.11 and 4.9.6 of the Approval. Currently on-site there are a leachate collection system and a surface water management system. The leachate collection pond is located on the northwest portion of the landfill site surround by a fence and locked gate. The leachate pond is approximately 130 by 25 m with an unknown depth. Surface drainage from within the Facility is collected by ditches which empty into surface drainage pond located on the northern property boundary.

The purpose of on-site surface water and leachate monitoring program is to characterize the water in the leachate and/or storm water retention ponds in order to assess the water quality and options for disposal. Sampling frequency is driven in part by the amount of leachate and storm water generated within the year or as an on-demand basis. Historically at the Facility, sampling events have occurred once or twice per year when the ponds contain enough water that requires discharge.

As per Table 4.9-C in the Approval, the monitoring parameters listed indicate the time frame for monitoring prior to a discharge or release and then the requirements for monitoring during the discharge or release event. Landfill run-off and any associated releases/discharges are to be reported annually to the Regulator. The surface water sampling program follows Alberta's Environmental Quality Guidelines for Alberta Surface Waters (2018 Alberta EQS) and sampling parameters are indicated in Table 4.9-C in the Approval. Canadian Council of Environment Ministers (CCME) guidelines as well as other guidelines and criteria, such as the United States Environmental Protection Agency (USEPA) are utilized to assess sampling results to ensure regulatory compliance.

Off-site surface water monitoring is out of scope for this RFP, however, the reporting from others on the off-site program will be appended in this report and summarized in the text of the document.

4.2.1 Scope of Work

The Authority is seeking a qualified Contractor to undertake the following:

- Identification and discussion of the aspects of both the on-site leachate system and run-off management or storm water control system which will include mapping of the component of these sites and presenting them on site drawings.
- Identification and undertaking of a leachate sampling program for the Facility including at minimum the submission of a blind duplicate for QC/QA purposes per sampling event.
- Development of reporting to conform with the reporting requirements as per section 4.9.14, Table 4.9-C and in accordance with the parameters as outlined in Table 4.6-A.
- Response to requests for sampling from the Solid Waste Manger.
- Submit the collected samples to an accredited laboratory (please indicate the laboratory that is being used for this scope).
- Develop and present a QA/QC programs for these samples.

Please assume that both the leachate pond and storm water pond must both be sampled twice and that all visits are conducted as separate monitoring events but clearly indicate the travel time that would be saved by sampling both the ponds at the same time.

Please also provide incremental / optional pricing for the costs of an additional sampling event for both ponds.



4.2.2 Deliverables

The deliverables for this scope of work shall include the following:

- The workplan should consider the required reporting as outlined in Table 4.9-C of the Approval #49852-02-00.
- Documentation of all results of the program into a comprehensive annual report which will include the following:
 - A summary of the performance of the leachate collection system and the storm water management system.
 - For any release event, as per Table 4.9-C, all items noted are to be documented in tabular format with a discussion/description of what led to the event and any identified issues or concerns.
 - Include detailed site drawings of the leachate collection system and the storm water management system (to be provided by the Authority).
 - Recommendations for any improvements to the system and/or sampling/monitoring program.
- Based on information provided by the Solid Waste Manager include information on the eventual disposal of the leachate and surface waters (including approvals, dates of discharge or disposal and volume disposed of) in the annual report.
- Draft report and a version of the final report should be provided to the Authority as an unlocked PDF.
- All text, tables and figures should be provided to the Authority within 30-day of acceptance of the final annual report in native digital format (e.g. Word, Excel and AutoCAD).

The draft annual report will be prepared and provided to the Authority for review, on or before the end of the January in the subsequent year. The Authority's review will be a comprehensive review for readability, consistency, accuracy, completeness, satisfying the Approval conditions and readability. The contractor will need to make the required changes within the existing budget and/or provide written justification as to why the changes are not required.

4.3 Groundwater Monitoring

Groundwater monitoring is required under clause 4.10.1 of the Approval. The approved monitoring program is conducted to characterize groundwater quality, compare past and current program results, identify potential trends and delineate any groundwater contamination. Table 4.10-A outlines the parameters to be analyzed under the groundwater monitoring program. In addition, the groundwater monitoring program is required to be reported to the Regulator on an annual basis. The current groundwater monitoring network at the Facility comprises of ten (10) groundwater monitoring wells. The testing and sampling of these wells will continue into 2021 and beyond but the monitoring network will be augmented as discussed below.

There is currently an environmental monitoring review underway. As part of this review, additional monitoring wells and testing will be included in the groundwater scope to delineate vertical flow and the effect of any layers at the Facility. Contractors should include the following in the 2021 groundwater scope:

- Drilling, soil sampling and completion of 7 new monitoring wells (assume an average of 20 m deep), and the decommissioning and replacement of W145. These new wells are further investigation potential sources of contamination, including near MW07-04, and also to assess vertical groundwater flow at the Facility.
- High precision GPS with a vertical error of less than 0.2 m of all groundwater monitoring wells and all VM wells that are on-site in UTMs.
- These new monitoring wells should be surveyed using a high precision GPS, developed prior to sampling and undergo single well response testing.



- Single well response (slug) testing conducted following industry best practices is required on at least four wells.
- Field monitoring (absence/thickness of any LNAPLS, field conductivity, pH and temperature) and the collection of all required samples.
- Samples will be submitted to an accredited laboratory for the analyses as per Table 4.10-A of the Approval. The name and location of the accredited laboratory and their accreditations should be discussed in the proposal.

The Contractor should include all the above in the proposed 2021 annual monitoring scope.

In 2022 assume that the sampling of the above seven wells is decreased to the standard salinity suite of parameters and an additional three wells will be completed and tested. These additional three wells will potentially be required to further define groundwater flow at the Facility and/or delineate any groundwater impacts. These three 2022 wells should be surveyed, sampled and tested as above for the 2021 wells. Assume that these wells are on average 15 m deep. The level of testing and analyses will be as outlined above for the initial sampling. The Contractor should discuss and include costs for these wells in the 2022 budget.

4.3.1 Scope of Work

The Authority is seeking a qualified firm to undertake the following:

- Development of the annual groundwater monitoring program including the monitoring of groundwater levels, field notes on well development and sampling, collection of groundwater samples and submission to an accredited laboratory for analysis of the parameters as outlined in Table 4.10-A of AER approval #49852-02-00.
- Interpretation of the laboratory analysis and assess groundwater monitoring data in accordance with section 5.3 of the Standards for Landfills in Alberta, as amended, unless otherwise specified in writing by the Director).
- Development of a comprehensive groundwater monitoring report that encompasses all the required components as outlined in clause 4.10.7 of AER approval #49852-02-00.

If anomalous readings are encountered, these readings should first be confirmed and then an investigative approach of the potential concern is required to be prepared and approved by the Solid Waste Manager prior to proceeding with the additional scope.

Please also provide incremental pricing for the following:

- Incremental pricing for addition of a groundwater monitoring well for sampling and testing at each the sampling event.

4.3.2 Deliverables

The deliverables for this scope of work shall include the following:

- Undertake the bi-annual groundwater monitoring program and the associated reporting for the Facility. Clause 4.10.7 outlines all the required components for the annual groundwater monitoring program reporting which shall be included in the Contractors final report in order to comply with the annual reporting requirements as outlined in Clause 4.10.7. Components identified in this clause include the following:
 - a completed Record of Site Condition Form, Alberta Environment, 2009, as amended;
 - a legal description of the landfill and a map illustrating the landfill boundaries and topography;



- a description of the activities and processes at the landfill;
 - a map showing the location of all surface and groundwater users and, a listing describing surface water and water well use details, within at least a five-kilometer radius of the landfill;
 - a general hydrogeological characterization of the region within a five-kilometer radius of the landfill;
 - a detailed hydrogeological characterization of the landfill, including an interpretation of groundwater flow patterns (vertical and horizontal, groundwater velocity and impact of any layers on the groundwater flow patterns);
 - two cross-section(s) at approximately right angles to each other showing depth to water table, patterns of groundwater movement and hydraulic gradients at the landfill;
 - borehole logs and completion details for groundwater monitoring wells;
 - a map showing locations of all known buried channels within at least five kilometers of the landfill;
 - a map of surface drainage within the landfill and surrounding area to include nearby water bodies;
 - a map of groundwater monitoring well locations and a table summarizing the existing groundwater monitoring program for the landfill;
 - a summary of any changes to the groundwater monitoring program made since the last groundwater monitoring report;
 - analytical data recorded as required above
 - a summary of groundwater elevations recorded and an interpretation of changes in groundwater elevations;
 - an interpretation of QA/QC program results;
 - an interpretation of all the data in this report, including the following:
 - diagrams indicating the location and extent of any contamination,
 - a description of probable sources of contamination, and
 - a site map showing the location and type of current and historical potential sources of groundwater contamination;
 - a summary and interpretation of the data collected since the groundwater monitoring program began including:
 - control charts which indicate trends in concentrations of parameters, and
 - the migration of contaminant(s);
 - a description of the following:
 - contaminated groundwater remediation techniques employed,
 - source elimination measures employed,
 - risk assessment and risk management studies undertaken;
 - a sampling program for the upcoming year(s);
 - a description of any contaminant remediation, risk assessment or risk management action conducted at the landfill; and
 - recommendations for changes to the groundwater monitoring program to make it more effective.
- An initial draft table of contents with list of tables and figures to be included in the draft report should be provided to and discussed with the Solid Waste Manager by October 1st each year
 - Draft report and a version of the final report should be provided to the Authority as an unlocked PDF
 - All text, tables and figures should be provided to the Authority within 30-day of acceptance of the final annual report in native digital format (e.g. Word, Excel and AutoCAD)

The Annual Groundwater Monitoring Report shall be signed and stamped by a professional registered with APEGA, or other professional authorized in writing by the Director.



The draft annual report will be prepared and provided to the Authority for review, on or before the end of the January in the subsequent year. The Authority's review will be a comprehensive review for consistency, accuracy, completeness, satisfying the Approval conditions and readability. The contractor will need to make the required changes within the existing budget and/or provide written justifications as to why the changes are not required.

4.4 Schedule

All work packages are required to develop a high-level schedule for the associated work and deliverables identified. This is to be provided with key milestones indicated. Annual reports are required to be submitted to the regulator by 31 March of each year and as a result draft reports need to be submitted to the Solid Waste Manager on or before the end of January.

Allow minimum of two weeks for the Authority to review and provide comments on all draft reporting products. Ensure that this is considered when constructing the schedules for the components that are being bid. Also note the requirements for any biannual or quarterly sampling as per the Approval.

4.5 Background Project Reports

The following 2019 monitoring reports have been made available electronically via the APC website and procurement system:

- Alta Tech Environmental Services Inc. 2019 Annual Vapour Monitoring Program Report, Whitecourt Regional Landfill NW-29-58-10-W5M, Prepared for the Town of Whitecourt, February 13, 2020.
- Nichol's Environmental (Canada) Ltd. Surface Water Sampling Program Whitecourt Regional Landfill, LSD NE-029-058-10-W5M, Woodlands County, Alberta, Prepared for the Town of Whitecourt. November 19, 2019.
- Alta Tech Environmental Services Inc. 2019 Annual Groundwater Monitoring and Sampling Program. Whitecourt Regional Landfill NW-29-058-10-W5M. Prepared for the Town of Whitecourt. February 13, 2019.

4.6 Information that the Authority will provide

In addition to Facility access and some limited assistance from Authority personnel. The Authority will provide the successful Contractor will the following information:

- Up to date Facility plan including all major features, and monitoring locations in a CAD format;
- A summary of the development history of the Facility;
- Latest Unmanned Aerial Vehicle (UAV or drone) site photography and elevation data; and
- Borehole logs as they are available.

The successful Contractor will be responsible for updating these documents on an annual basis and providing the digital information to the Authority in a format that is acceptable to the Authority.

If the Contractor would require or assumes that other data is available, please make those assumptions clear in your proposal.



5 Proposal Evaluation

5.1 General Information

The Evaluation Team will consist of representatives of the procuring entity and may include other representatives as deemed appropriate by the procuring entity. It is understood and accepted by the Contractor that all decisions about the degree to which a proposal meets the requirements of this RFP are in the sole determination of this Evaluation Team.

To assist in the evaluation of proposals, the Evaluation Team may, but is not required to:

- Conduct reference checks relevant to the proposal with any or all the references cited in a proposal to verify information regarding a Contractor and rely on and consider any relevant information from such cited references in the evaluation of a proposal.
- Conduct any background investigations that it considers necessary and consider any relevant information resulting there from.
- Seek clarification from a Contractor with respect to their proposal. Such clarification **will not** offer the Contractor the opportunity to change or provide new information. To the extent possible, requests made by the Evaluation Team will be sent from the email addresses of the RFP Contacts.

A proposal will be examined in accordance with the evaluation process and criteria outlined in the sections below.

5.2 Evaluation Process

The proposal will be evaluated using the following process:

- Stage 1: Proposal will be reviewed to determine compliance with all mandatory criteria identified in section 5.3
- Stage 2: Proposals that meet all mandatory criteria will be evaluated and scored using the evaluation criteria and assigned weights set out in each evaluation table for each work package.

Proposals that do not meet the qualifying score for subtotal A set out in section 5.4 will be given no further consideration.

The compliant proposal that scores the highest number of rated points will be recommended for award of a contract.

5.3 Stage 1 – Mandatory Criteria

Mandatory requirement is discussed in Sections 1 and 2. There are no marks for including the requested data, but the Contractor may be disqualified based on the lack of these data.

5.4 Stage 2 – Evaluation Criteria

If a proposal meets the Mandatory Criteria, it will be evaluated using the Evaluation Criteria set out below for each of the work packages. Scores will be recorded for each criterion and a total score will be determined.



A minimum Qualifying Score is required at Subtotal A for the work package proposal to be given further consideration. This score is noted for each work package below.

If the proposal's score meets or exceeds the minimum qualifying score at subtotal A, the Pricing Response will then be evaluated using the formula below:

$$\text{Score} = \text{weight} \times (\text{low} / \text{bid})$$

5.4.1 Vapour Monitoring Evaluation Matrix

The evaluation matrix for this scope of work is as follows:

Criterion	Weight	Minimum Score Required (points)	Contractor's Reference/Page Number
Technical Response:			
Proposal Format and Readability	5		
Proposed Approach/Process & Project Plan	20		
Corporate Experience	10		
Project Manager	5		
Proposed Resources, Resumes & References	10		
Safety Record and Plan	5		
Local Content and Resources	10		
Subtotal A – Qualifying Score	65	40	
Pricing Response	35		
Maximum Score Possible	100		



5.4.2 Surface Water and Leachate Matrix

The evaluation matrix for this scope of work is as follows:

Criterion	Weight	Minimum Score Required (points)	Contractor's Reference/Page Number
Technical Response:			
Proposal Format and Readability	5		
Proposed Approach/Process & Project Plan	15		
Corporate Experience	10		
Project Manager	5		
Proposed Resources, Resumes & References	10		
Safety Record and Plan	5		
Local Content and Resources	15		
Subtotal A – Qualifying Score	65	40	
Pricing Response	35		
Maximum Score Possible	100		

5.4.3 Groundwater Evaluation Matrix

The evaluation matrix for this scope of work is as follows:

Criterion	Weight	Minimum Score Required (points)	Contractor's Reference/Page Number
Technical Response:			
Proposal Format and Readability	5		
Proposed Approach/Process & Project Plan	25		
Corporate Experience	10		
Project Manager and Technical Lead	10		
Proposed Resources, Resumes & References	10		
Safety Record and Plan	5		
Local Content and Resources	5		
Subtotal A – Qualifying Score	70	40	
Pricing Response	30		
Maximum Score Possible	100		



6 References

CCME (Canadian Council of Ministers of the Environment). 1999. Canadian environmental quality guidelines, 1999, Canadian Council of Ministers of the Environment, Winnipeg.

Government of Alberta. 2010. Standards for Landfills in Alberta.

Government of Alberta. 2018. Environmental Quality Guidelines for Alberta Surface Waters. Water Policy Branch, Alberta Environment and Parks. Edmonton, Alberta.

Government of Alberta. 2019. Alberta Tier 1 Soil and Groundwater Remediation Guidelines January 10, 2019

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