

REQUEST FOR PROPOSALS

Guidance on Contaminant Containment and Remediation Techniques Appropriate to Permafrost Sites

Contaminated Sites Working Group Canadian Council of Ministers of the Environment

1.0 BACKGROUND

The Canadian Council of Ministers of the Environment (CCME) is the primary minister-led intergovernmental forum for collective action on environmental issues of national and international concern. The 14 member governments work as partners in developing consistent environmental standards and practices.

As climate change increases temperatures in the North, permafrost may warm and thaw. This will potentially affect contaminated sites within permafrost regions by releasing contaminants that were thought to be contained by a permanent barrier provided by the frozen ground.

Management of contaminated sites located in permafrost regions requires specialized knowledge and guidance because soil characteristics such as porosity and stability significantly change in the thawing soils. As well, research indicates that contaminant transport through the active layer (seasonally frozen and thawed layer) is more prevalent than once thought, suggesting that containment of contaminant sources by permafrost may not be an acceptable risk management strategy.

CCME's Contaminated Sites Working Group (CSWG) is undertaking the last phase of a multi-phase project to develop guidance on containment and remediation techniques appropriate to contaminated sites in permafrost areas.

The first phase of this project resulted in a preliminary (unpublished) report (phase I report) which examined the transport, fate and transformation of contaminants in permafrost, and identified risks associated with relying on the permafrost layer as a contaminant barrier to movement. These include containment barrier failure, contaminant migration, and chemical exposure and transformation.

The second phase resulted in a preliminary (unpublished) report (phase II report) focused on identifying sampling techniques for permafrost soils and groundwater at sites with permafrost, and developing sampling guidance.

The third phase resulted in a preliminary (unpublished) report (phase III report) which focuses on guidance on containment and remediation techniques appropriate to permafrost sites. To avoid any repetitions or redundancies, the Phase I and III reports were compiled into one guidance document - hereafter referred to as Phase III guidance. The Phase III guidance document will be updated as

required, and published as a complement to the Phase II report. This last phase builds on the first phases, led by the Permafrost Project Team of CSWG (hereafter the “Project Team”).

2.0 STATEMENT OF WORK

The Contractor will develop a guidance document on risk management of contaminated sites located in permafrost and permafrost transition zones throughout Canada’s alpine and northern regions.

3.0 SCOPE OF WORK

The project will commence on September 20, 2021 and will be complete by March 31, 2022.

The Contractor will have expertise in permafrost, permafrost hydrology, active layer dynamics, and contaminated sites management; knowledge of CCME’s Canadian Environmental Quality Guidelines; experience with writing guidance documents, Standard Operating Procedures, or other manuals for approaching a scientific investigation; and an understanding of CCME’s soil quality guideline protocol.

The guidance document will be written and structured in a clear, concise and user-friendly manner for use by a broad audience of federal, provincial and territorial decision-makers, practitioners and others involved in various aspects of contaminated site management. The guidance document will focus on contaminants in permafrost, and communicate to decision-makers and practitioners the impacts on potential risks posed to human health and the environment by contaminated sites and implications of contaminants in thawing permafrost and the potential effects of climate change.

Information will be presented in a consistent format and use tables, charts, graphs, figures, diagrams and pictures to facilitate clarity and comprehension. The deliverable will follow the CCME style guide, which will be provided to the Contractor. Draft submissions will be prepared and submitted with the same content and quality as if they were final submissions (i.e., drafts should be of high quality: clear, concise, complete), including considerations for grammar, tone, logical process flow, proper citation, consistency, and technical contents. All visuals will be correctly referenced and permission to reproduce the visuals into the guidance document will be provided. All graphics will be delivered in a format that can be edited by CCME.

3.1 Tasks

Without limiting the scope of work, the Contractor shall carry out the main items of work as described herein.

Task 1: Draft guidance document initial review and project initiation meeting

The Project Authority will provide the Contractor with a copy of the draft Phase III guidance on contaminant containment and remediation techniques appropriate to permafrost sites, as well as any other relevant background materials, including the unpublished Phase I and III reports, and

the Phase II guidance document for sampling of contaminated sites in permafrost regions, upon signature of the contract.

The Contractor, Project Authority and Contract Authority will meet via teleconference within two weeks following the provision of the draft documents to provide clarification on the content of the document and to discuss and agree upon the scope of the project, expectations for deliverables and periodic reports, format of deliverables and expected timelines.

Task 2: Literature review

To ensure the guidance document contains the most up-to-date information, the Contractor will conduct a literature review on the impacts of climate change on permafrost and on contaminants in permafrost zones, as well as on contaminant containment and remediation techniques pertinent to permafrost areas, focusing on peer-reviewed and institutional literature published in the last ten years.

By October 29, 2021 the Contractor will provide to the Project Authority and Contract Authority a summary of the literature sources reviewed and pertinent information gathered from the literature. The literature review summary will present a few bullet points per reference, highlighting any information that is out-of-date in the draft Phase III guidance document, and any recent studies that bring new information and should be considered for inclusion in the guidance. The Project Authority will provide Project Team comments on the summary by November 22, 2021. Comments from the Project Team will be addressed by the Contractor and incorporated into the draft guidance document.

Task 3: Revise the guidance document for coherence

The Contractor will review the draft phase III guidance document and revise it to build on, and strengthen, the science, identify and address any gaps or inconsistencies, and address Project Team comments. The Contractor will revise the guidance document to incorporate any updates discovered in the literature review process. The Contractor will cross-reference the bibliography, and ensure that tables, photos, figures and graphs are properly referenced, and that CCME has the permission to reproduce them in its guidance document. The Contractor will refine the document's language where necessary for ease of reading, continuity, accuracy, completeness and consistency of terminology, ideas, concepts and guidance to arrive at a coherent guidance document.

The draft guidance document must include, but is not limited to, guidance on:

- the applicability of the Canadian Environmental Quality Guidelines for permafrost areas with respect to contaminant transport pathways and mechanisms for exposure pathways, including but not limited to:
 - development of a site-specific approach to investigate the potential impacts of climate change on a contaminated site, in support of assessment of potential ecological and human health risks
 - guidance to account for remediation technologies, remedial design methods and construction methods used during the management of contaminated sites

- limiting the fate and transport of contaminants that accompany a changing climate and thawing permafrost, and related implications
- development of monitoring plans for the short- and long-term containment and transport of contaminants
- remediation and risk management techniques and options appropriate to permafrost sites (including containment)
- site closure tools and long-term liability considerations
- suggestions for remediation decision making and strategies as well as generic recommendations regarding opportunities for integrated assessments related to permafrost, climate change risks and remediation
- references to relevant guidance from other Canadian jurisdictions.

The Contractor will submit the revised draft guidance document to the Project Authority and Contract Authority by January 14, 2022. The Project Authority will provide Project Team comments on the draft guidance document to the Contractor by February 4, 2022. The Contract Authority will organize a webinar with the Project Authority and the Contractor the week of February 7, 2022 to discuss the Project Team comments and provide any necessary guidance to the Contractor on incorporating the comments into the final guidance document.

Task 4: Final guidance document

The Contractor will incorporate Project Team comments into the final guidance document and submit the final guidance document to the Project Authority and the Contract Authority by March 4, 2022.

Task 5: Project Team meeting

The Contractor will attend a maximum two-hour webinar with the Project Team the week of March 14, 2022 to respond to any questions the Project Team may have on the final guidance document.

Task 6: Project close meeting

The Contractor, Project Authority and Contract Authority will meet by March 31, 2022 to review the project to identify successes, challenges, and opportunities for improvement.

3.2 Payment and Deliverables

Payments will be based upon the Contractor's completion of tasks and as evidenced by the production of the specified deliverables listed below. Payments will be made only after receipt of such deliverables and acceptance thereof by the Project Authority and the Contract Authority. Except as otherwise specifically provided for herein or in the professional services contract entered into with CCME, CCME will not be required to pay for partially completed tasks or for any additional work that may be required that the Contractor may not have budgeted for in its proposal. CCME shall not be committed to any other basis of payment by virtue of CCME having requested or received information regarding the Contractor's method of determining its bid for the completion of the Project, including, without limitation, any information regarding estimates of

time spent and hourly rates of the Contractor's employees, contractors and agents involved in the Project.

Payment will be made by CCME via electronic funds transfer (TelPay is CCME's current provider) to the Contractor according to the following schedule, subject to the deliverables listed below having been received and accepted by the Project Authority and the Contract Authority, and invoices having been submitted by the Contractor, and approved by the Project Authority and the Contract Authority and received by CCME. The Contractor will provide all necessary information to enable electronic funds transfers before initiating work on the project. If the electronic payment information provided by the contractor is incorrect and results in a returned payment, the Contractor will be responsible for reimbursing CCME for the service fees charged by CCME's electronic funds transfer provider.

Deliverables	Payment Amount (% of contract value, inclusive of all applicable taxes)	Target Date
Summary of the literature sources reviewed and pertinent information gathered, as per task 2	15 %	October 29, 2021
Submission of revised draft guidance document, as per task 3	40%	January 14, 2022
Submission of final draft guidance document, as per task 4	35%	March 4, 2022
Project Team and project close meetings, as per tasks 5 and 6	10%	March 31, 2022

The Contractor agrees to initiate work on the project by September 20, 2021.

The Contractor must provide all deliverables in electronic format to the Project Authority and Contract Authority no later than the dates specified above. All records, including but not limited to documents, reports, briefing notes and correspondence, generated by the contractor during the course of this project must be prepared in English using *Microsoft Word* for word processing, *Microsoft Excel* for data management, and *Microsoft PowerPoint* for presentations and other graphics.

All deliverables are the property of CCME and CCME reserves the right to publish them. The copyright in all materials produced as a product of the services shall belong exclusively to CCME. The Contractor shall waive all moral rights to all materials produced as a product of the services. The Contractor must advise the Project Authority of any information provided by a third party on a confidential basis for the purpose of the study and is to transmit the original documents containing any such information to the Project Authority under separate cover.

All discussion papers, reports and correspondence produced by the Contractor are subject to review by people designated by the Project Authority. The Contractor must perform all work to the satisfaction of the Project Authority and the Project Team.

Sufficient flexibility is required of the Contractor to respond to changing schedules and developments.

3.3 Budget

The maximum budget for this project is \$25,000 Canadian, inclusive of all fees, expenses and applicable taxes; proposals in excess of the maximum budget will not be considered. Proposed professional fees must be inclusive of all office and administrative costs. Project-specific expenses such as travel costs, where required, must be estimated and included in the total estimated cost of the project. These project-specific expenses may be billed on an “as incurred” (or monthly) basis and payment will be made after written confirmation from the Project Authority that the expenses were authorized and approved. The Contractor must supply reasonable and adequate documentation to support the expense claims. Travel-related expenses must follow *CCME Guidelines for Reimbursement of Expenses*.

Bidders from HST jurisdictions are advised that CCME’s office is located in Winnipeg, Manitoba and accordingly only GST should be applied.

4.0 PROPOSALS

4.1 The proposal shall not exceed a maximum of 10 pages in length, excluding appendices.

The proposal must:

- Provide an outline of the intended approach including basic tasks, schedule of activities, and budget.
- Describe the personnel of the project team, areas of responsibility, time allotted and charge out rates.
- Document contingent procedures and personnel to be used if key team members become unavailable.
- Provide a brief description of any similar projects undertaken. Include the timeframe that the work was undertaken and key individuals involved in its completion.
- Include the names and contact information of three references.
- Include as an appendix *curricula vitae* and contact information of key team members.
- Include as an appendix:
 - the bidder’s legal name and mailing address
 - the name and contact information of the bidder’s authorized signing officer
 - the name and contact information for the bidder’s administrator of the contract if different from the signing officer
 - the bidder’s GST registration number or if exempt, proof of exempt status.

4.2 Personal information requested above is required to enable CCME to evaluate the proposal. All individuals noted in the proposal should be advised of and approve the release of personal information for the purpose of the proposal and the bidder is responsible for obtaining such approval.

4.3 The Contractor shall not, without written consent of CCME, subcontract any obligation of the Contractor.

5.0 CONDITIONS

5.1 CCME reserves the right in its sole discretion to consider or reject any and all proposals. CCME reserves the further right to extend the deadline for proposals and to add, delete and/or change the terms of this Request for Proposals (RFP) and issue corrections and amendments to it. CCME has made every effort to ensure the completeness and accuracy of the information contained in this RFP. CCME shall not be liable for any errors or omissions or responsible for any bidder interpretations or conclusions regarding the information contained in this RFP. Contractors who submit proposals will not acquire any legal or equitable rights or privileges whatsoever until a contract is signed with CCME. CCME will not pay any compensation for the preparation of the proposal and all proposals become the property of CCME.

5.2 The successful bidder is required to agree to a professional services contract with CCME. A sample CCME professional services contract is posted with this RFP. Bidders must identify in their proposals any changes requested to CCME's sample professional services contract and CCME reserves the right in its sole discretion to consider, accept, reject or amend such requested changes. CCME further reserves the right to revoke any offer to enter into a professional services contract. As part of a commitment to environmentally-sound business practice, it is CCME's practice to prepare, sign and transmit contracts electronically.

5.3 Proposal Deadline

The Contract Authority must receive proposals no later than 12:00 noon Central Daylight Time, September 7, 2021; proposals received after the deadline will not be considered. The time stamp on CCME's email server shall be deemed to be conclusive evidence of time of receipt.

5.4 Method of Submission

Bidders must submit proposals by email to the Contract Authority in an unsecured electronic format, file size to be no larger than 5.0 MB, compatible with MS Word or Adobe Acrobat.

5.5 Ineligible Bidders

The following organizations and individuals, and organizations proposing such individuals as part of a project team, are ineligible to bid on this project:

- 5.5.1 Federal, provincial and territorial governments and all their departments and ministries and Crown corporations, boards, commissions and agencies and any officials and employees of them.
- 5.5.2 Members of the House of Commons and provincial and territorial legislative assemblies.
- 5.5.3 Persons providing administrative and related services to the CCME group responsible for the project.
- 5.5.4 Members and participants of CCME committees and groups, and for a period of six months after such membership ends.
- 5.5.5 Any company that is ineligible to bid on federal, provincial or territorial government contracts.

6.0 CONTACTS

Prospective bidders should direct questions to the Contract Authority.

6.1 Contract Authority

Olivier Berreville
 Canadian Council of Ministers of the Environment
 123 Main Street, Suite 360
 Winnipeg, MB R3C 1A3
 Tel: (204) 451-6571
 Email: oberreville@ccme.ca

6.2 Project Authority

Leslie Gray
 Environment and Climate Change Canada
 5021 52nd Street, Yellowknife NT, X1A 1T5
 Tel: (867) 765-8495
 Email: leslie.gray@ec.gc.ca

7.0 PROPOSAL EVALUATION

All assessments and weighting of criteria is at the sole discretion of CCME. The Project Team will evaluate proposals based on the following criteria:

Technical and Management Proposal Evaluation Criteria

TECHNICAL PROPOSAL	Score
Demonstrated understanding of the project scope and objectives	10
Technical approach and methodology to meet project objectives	10
Work plan feasibility and organization	10
Recognition of possible problems, proposed solutions and additional innovative suggestions	10
MANAGEMENT PROPOSAL	
Experience and qualification of Program/Project Manager	10
Experience and qualifications of project team members, and alternate team members in case of unforeseen availability:	15
(a) qualifications of team members	

(b) depth and breadth of the team’s experience	
(c) depth and breadth of individual team members experience in similar assignments	
Experience of organization in similar assignments	10
Experience working with a range of stakeholders	5
Ability to communicate effectively and to provide leadership/ coordination/ management under multi-partnership team setting	10
Value for money	10

8.0 AWARD OF CONTRACT

The Project Team will determine award of the contract by September 14, 2021. The lowest or any bid will not necessarily be accepted.

Upon award, the work must proceed on a timely basis as outlined in the table of deliverables. The successful proponent must not commence work until a contract is in place.