



<p>RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:</p> <p>Bid Receiving - Environment and Climate Change Canada / Réception des soumissions – Environnement et changement climatique Canada</p> <p>Electronic Copy:</p> <p>soumissionsbids@ec.gc.ca</p> <p>BID SOLICITATION DEMANDE DE SOUMISSIONS</p> <p>PROPOSAL TO: ENVIRONMENT AND CLIMATE CHANGE CANADA</p> <p>We offer to perform or provide to Canada the services detailed in the document including any attachments and annexes, in accordance with the terms and conditions set out or referred to in the document, at the price(s) provided.</p> <p>SOUMISSION À: ENVIRONNEMENT ET CHANGEMENT CLIMATIQUE CANADA</p> <p>Nous offrons d’effectuer ou de fournir au Canada, aux conditions énoncées ou incluses par référence dans le document incluant toutes pièces jointes et annexes, les services détaillés dans le document, au(x) prix indiqué(s).</p>	Title – Titre	
	Flood Hazard Modelling Sensitivity Pilot Study	
	EC Bid Solicitation No. /SAP No. – N° de la demande de soumissions EC / N° SAP	
	5000074864	
	Date of Bid solicitation (YYYY-MM-DD) – Date de la demande de soumissions (AAAA-MM-JJ)	
	2023-12-13	
	Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ)	Time Zone – Fuseau horaire
	at – à 2:00 P.M.	Eastern Standard Time (EST)
	on – le 2024-01-19	
	F.O.B – F.A.B	
	See herein	
	Address Enquiries to - Adresser toutes questions à	
	maureen.mateush@ec.gc.ca	
	Telephone No. – N° de téléphone	Fax No. – N° de Fax
431-813-6439	n/a	
Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ)		
See herein		
Destination of Services / Destination des services		
See herein		
Security / Sécurité		
There is no security requirement associated with this solicitation		
Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l’entrepreneur		
Telephone No. – N° de téléphone	Fax No. – N° de Fax	
Name and title of person authorized to sign on behalf of Vendor/Firm: Nom et titre de la personne autorisée à signer au nom du fournisseur/de l’entrepreneur		
Signature	Date	



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PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications and additional information to be provided;
- Part 6 Security and Other Requirements: includes specific requirements that must be addressed by Bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Attachments include Mandatory Technical Criteria And Point Rated Technical Criteria.

The Annexes include the Statement of Work and the Basis of Payment.

1.2 Summary

- 1.2.1 Environment and Climate Change Canada has a requirement for a Contractor to conduct a study to examine uncertainty in all steps of a flood hazard mapping project, and the corresponding effect that this has on the final flood map that will provide a better understanding of the impacts of decisions made throughout flood hazard analysis projects, and which steps in the analysis have the greatest impact on the final result, as detailed in the Statement of Work, Annex "A" to the bid solicitation. The period of the contract is from Contract award to August 31, 2024.
- 1.2.2 Bidders must provide a list of names, or other related information as needed, pursuant to section 01 Integrity Provisions of Standard Instructions [2003 - Standard Instructions - Goods or Services - Competitive Requirements](#) (2023-06-08)
- 1.2.3 For services requirements, bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 2.3 of Part 2 of the bid solicitation.
- 1.2.4 "The requirement is subject to the provisions of the "Canadian Free Trade Agreement (CFTA), the Canada–Chile Free Trade Agreement, the Canada–Colombia Free Trade



Agreement, the Canada–Honduras Free Trade Agreement, the Canada–Korea Free Trade Agreement, the Canada–Panama Free Trade Agreement, Canada-Peru Free Trade Agreement, the Comprehensive Economic Free Trade Agreement [CETA], the World Trade Organization – Agreement on Government Procurement [WTO-AGP], the Comprehensive and Progressive, Agreement for Trans-Pacific Partnership [CPTPP] and the Canada-Ukraine Free Trade Agreement”).

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.



PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the PSPC/PWGSC *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003 - Standard Instructions - Goods or Services - Competitive Requirements](#) (2023-06-08) are incorporated by reference into and form part of the bid solicitation.

The standard instructions 2003 are modified as follows:

Under “Text” at 02:

Delete: “Procurement Business Number”

Insert: “Deleted”

At Section 02 Procurement Business Number

Delete: In its entirety

Insert: “Deleted”

At Section 05 Submission of Bids, Subsection 05 (2d):

Delete: In its entirety

Insert: “send its bid only to Environment and Climate Change Canada as specified on page 1 of the bid solicitation or to the address specified in the bid solicitation;”

At Section 05 Submission of Bids, Subsection 05 (4):

Delete: “sixty (60) days”

Insert: “one hundred and twenty (120) days”

At Section 06 Late Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

At Section 07 Delayed Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

At Section 08 Transmission by Facsimile, Subsection 08 (1):

Delete: In its entirety

At Section 12 Rejection of Bid, Subsection 12 (1) a. and b.:

Delete: In their entirety

Insert: “Deleted”



At Section 17 Joint Venture, Subsection 17 (1) b.:

Delete: "the Procurement Business Number of each member of the joint venture,"

Insert: "Deleted"

At Section 20 Further Information, Subsection 20 (2):

Delete: In its entirety

Insert: "Deleted"

2.2 Submission of Bids

Bids must be submitted to Environment and Climate Change Canada at the address and by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Former Public Servant – Competitive Bid

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#) R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c.C-17, the [Defence Services Pension Continuation Act](#) 1970, c.D-3, the [Royal Canadian](#)



[Mounted Police Pension Continuation Act](#), , 1970, c.R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c.R-11, the [Members of Parliament Retiring Allowances Act](#), R.S., 1985, c.M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c.C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes () No ()**

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2019-01](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes () No ()**

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient



detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.5 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

2.6 Bid Challenge and Recourse Mechanisms

Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.



PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid – one (1) electronic copy in PDF format

Section II: Financial Bid – one (1) electronic copy in PDF format

Section III: Certifications – one (1) electronic copy in PDF format

Section IV: Additional Information – one (1) electronic copy in PDF format

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Note for electronic submission of bids:

In order to be considered, bids must be received by the date and time indicated on the cover page to herein as the “Closing Date.” Bids received after the Closing Date will be considered non-responsive and will not be considered for contract award. Bids submitted by email must be submitted ONLY to the following email address:

Email Address: soumissionsbids@ec.gc.ca

Attention: Maureen Mateush

Solicitation Number: 5000074864

Bidders should ensure that their name, address, Closing Date of the solicitation and Solicitation Number are clearly indicated in the body of their email. Bids and supporting information may be submitted in either English or French.

The total size of the email, including all attachments, must be less than 15 megabytes (MB). It is each Bidder's responsibility to ensure that the total size of the email does not exceed this limit.

Bids sent by fax will not be accepted.

It is important to note that emails systems can experience systematic delays and, at times, large attachments may cause systems to hold or delay transmission of emails. It is solely the Bidder's responsibility to ensure that the Contracting Authority receives a bid on time, in the mailbox that has been identified for bid receipt purposes. Date stamps for this form of transmission are not acceptable.

Section I: Technical Bid

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.



The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Part 4, Evaluation Procedures, contains additional instructions that bidders should consider when preparing their technical bid.

Section II: Financial Bid

- 3.1.1** Bidders must submit their financial bid in accordance with the Basis of Payment in Annex "B". The total amount of Applicable Taxes must be shown separately.
- 3.1.2** Bidders must submit their financial bid in Canadian funds and in accordance with the Basis of Payment in Annex "B". The total amount of Applicable Taxes must be shown separately.
- 3.1.3** Bidders must submit their prices FOB destination; Canadian customs duties and excise taxes included, as applicable; and Applicable Taxes excluded.

3.1.4 Price Breakdown

In their financial bid, the bidders are requested to provide a detailed breakdown of the price for the following elements for the performance of the Work, as applicable:

- (a) Professional fees: For each individual and (or) labour category to be assigned to the Work, the bidders should indicate: i) the firm hourly rate or the firm daily rate, inclusive of overhead and profit; and ii) the estimated number of hours or days, as applicable. The bidders should indicate the number of hours in one working day.
- (b) Equipment (if applicable): The bidders should specify each item required to complete the Work and provide the pricing basis of each one, Canadian customs duty and excise taxes included, as applicable. These items will be deliverable to Canada upon completion of the contract.
- (c) Materials and Supplies (if applicable): The bidders should identify each category of materials and supplies required to complete the Work and provide the pricing basis. The Bidder should indicate, on a per category basis, whether the items are likely to be consumed during the performance of any resulting contract.
- (d) Subcontracts (if applicable): The bidders should identify all of the proposed subcontractors and provide in their financial bid for each one a price breakdown.
- (e) Other Direct Charges (if applicable): The bidders should identify all of the categories of other direct charges anticipated, such as long distance communications and rentals, providing the pricing basis for each and explaining the relevance to the work described in Part 7 of the bid solicitation.



(f) Applicable Taxes: The bidders should indicate the Applicable Taxes separately.

3.1.5 Bidders should include the following information in their financial bid:

- (a) Their legal name; and
- (b) The name of the contact person (including this person's mailing address, phone and facsimile numbers and email address) authorized by the Bidder to enter into communications with Canada with regards to their bid; and any contract that may result from their bid.

Section III: Certifications

Bidders must submit the certifications required under Part 5.



PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.2 Technical Evaluation

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered.

Mandatory and point rated technical evaluation criteria are included in Attachment "1" to Part 4.

4.3 Financial Evaluation

4.3.1 Mandatory Financial Criteria

The total evaluated bid price must not exceed the budget outlined in Annex "B" – Basis of Payment, in addition to the maximum funding available under each year of the Contract.

4.3.2 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, the Applicable Taxes excluded, Canadian customs and excise taxes included.

4.4 Basis of Selection

Basis of Selection - Highest Rated Within Budget

1. To be declared responsive, a bid must:
 - a.) comply with all the requirements of the bid solicitation;
 - b.) meet all mandatory technical evaluation criteria; and
 - c.) obtain the required minimum points for each section of the point rated technical evaluation criteria, as well as obtain the required minimum of 60 percent overall of the total possible points available for the technical evaluation criteria which are subject to point rating.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement. In the event that two bids obtain the same number of points on the technical portion of the evaluation, the bid with the lowest evaluated price will be recommended for contract award.



**ATTACHMENT 1 TO PART 4,
MANDATORY TECHNICAL CRITERIA AND POINT RATED TECHNICAL CRITERIA**

4.2.1 Mandatory Technical Criteria

The bid must meet the mandatory technical criteria specified below. The Bidder must provide the necessary documentation to support compliance with this requirement, including the page number or section containing the required information. Bids which fail to meet the mandatory technical criteria will be declared non-responsive.

The Bidder's Proposed Resource(s)			
Criterion ID	Mandatory Technical Criteria	Met/ Not Met	Cross-Reference to bid (indicate page #)
M1	<p>The Bidder must propose a Technical Lead with a minimum of five (5) years' experience in managing engineering projects related to flood hazard assessment in Canada between January 1, 2013 and the bid solicitation closing date.</p> <p>*Resume of the proposed resource must be included with the Bidder's proposal.</p>		
M2	<p>The Bidder's proposed Technical Lead must have a recognized university degree in civil engineering, water resources engineering, statistics, or a related field.</p> <p>*A copy of the degree or diploma must be included in the proposal submission, and must include the following:</p> <ul style="list-style-type: none"> • Name of the program completed • Name of the institution from which the certificate was obtained and the year the certificate was obtained. 		
M3	<p>The Bidder's proposed Technical Lead must be a licensed Professional Engineer or Professional Geoscientist in Canada.</p> <p>*A copy of the license must be included with the Bidder's proposal.</p>		
M4	<p>The Bidder must propose a minimum of two (2) additional resources with a minimum of three (3)</p>		



The Bidder's Proposed Resource(s)			
Criterion ID	Mandatory Technical Criteria	Met/ Not Met	Cross-Reference to bid (indicate page #)
	<p>years each of continuous experience in flood hazard assessment within the previous ten (10) years of the bid solicitation closing date.</p> <p>The Bidder must provide the resume for each of the proposed resources that demonstrates the required experience of each proposed resource including relevant project descriptions and their role and responsibilities for each project.</p>		
M5	<p>The Bidder must provide two (2) prior completed projects that demonstrate the proposed resources experience conducting Canadian flood hazard mapping projects from different physiographic characteristics (e.g. steep mountain valley; open floodplain; lakeshore; or urban environment). To demonstrate this requirement, the Bidder must provide two (2) examples of Canadian flood mapping projects that were completed by the Bidder within the last ten (10) years from the bid solicitation closing date.</p> <p>Each project example should be a maximum of one (1) page and must include the following:</p> <ol style="list-style-type: none"> 1. Project title 2. Project Summary 3. Project start and completion dates (month/year) 4. Client contact name and contact information (*References) 5. Description of services including: location, client, data sources, geographic scale of the project, software programs used, main assumptions, level of detail, and outcomes. <p>* Customer Reference</p> <p>Canada reserves the right to contact any of the customer references identified in the Bidder's bid to validate the information provided. If the customer reference fails to validate the information within five</p>		



The Bidder's Proposed Resource(s)			
Criterion ID	Mandatory Technical Criteria	Met/ Not Met	Cross-Reference to bid (indicate page #)
	<p>(5) days from the date of the request, the bid will be considered non-responsive.</p> <p>If there is a conflict between the information provided by the customer reference and the bid, the information provided by the customer reference will be evaluated instead of the information in the bid.</p> <p>If the named individual is unavailable when required during the evaluation period, the Bidder may be requested to provide the name and contact information of an alternate contact from the same customer. If this is requested, and the Bidder fails to provide this information within two (2) business days from the date of the request, the bid will be considered non-responsive.</p>		
M6	<p>The Bidder must provide written permission from all past clients (for each proposed project in M5) to use the data to perform the modelling sensitivity analysis. The permission must also encompass that data will be presented to/shared with ECCC and byproducts of the data may be used in the final report.</p>		



Criterion ID	Factor	Score Ranges	Page Number/reference in proposal
	<p>Steps are missing or steps are not presented in a logical order.</p> <p>The approach, methodology and workplan are satisfactory: a satisfactory number of elements and steps have been identified and presented; steps are presented clearly and logically, but some detail is lacking or challenges/risks are not clearly identified or elaborated upon. Mitigation measures in response of challenges/risks identified are mostly appropriate.</p> <p>The approach, methodology and workplan are well developed: most elements and steps are identified; ideas are presented clearly and logically, most challenges and risks are identified; a very good level of detail is presented to demonstrate the Bidder's approach and methodology to meet the requirements.</p> <p>The approach, methodology and workplan are excellent: all steps and elements are identified; ideas are presented clearly and logically, all of the challenges and risks have been identified; a comprehensive level of detail is presented to demonstrate the Bidder's approach and methodology to meet the requirements. Bidder proposes innovative solutions in their methodology.</p>	<p>30 points</p> <p>40 points</p> <p>50 Points</p>	
<p>PR2 WORK ALLOCATION</p> <p>MAXIMUM POINTS: 20 POINTS</p>	<p>The Bidder should propose a workplan detailing:</p> <ul style="list-style-type: none"> - allocation of resources (level of efforts and expertise) in a way that demonstrates that the objectives can be met 	<p>Max.: 20</p>	



Criterion ID	Factor	Score Ranges	Page Number/reference in proposal
<p>MINIMUM REQUIRED:</p> <p>15 POINTS</p>	<ul style="list-style-type: none"> - Allocation of resources that highlights that the experience, expertise and skills of the proposed resources align with the tasks assigned - that the proposed team can successfully deliver on the requirement detailed in the SOW, on time and within budget. <p>Points will be allocated as follows:</p> <p>The proposed work allocation in the workplan demonstrates a low likelihood that project will be delivered on time or on budget. There are significant gaps in the work plan; team expertise is not properly allocated or significant elements are missing, or obvious gaps are evident.</p> <p>The proposed work allocation in the workplan demonstrates a reasonable likelihood that the project will be delivered on time or on budget. Team expertise is reasonably allocated; however, there are cases where resource allocation does not align with tasks, or where level of effort is not appropriately allocated to tasks.</p> <p>The proposed work allocation in the workplan demonstrates a high likelihood that the project will be delivered on time or on budget. Team expertise is allocated in a way that aligns clearly with the tasks; there are minor cases where details may be missing with respect to team allocation, level of effort or tasks;</p>	<p>5 Points</p> <p>10 Points</p> <p>15 Points</p>	



Criterion ID	Factor	Score Ranges	Page Number/reference in proposal
	<p>on the overall, however, there is a high level of confidence that objectives will be met in the timeframe and budget allotted.</p> <p>The proposed work allocation in the workplan demonstrates a very high likelihood that project will be delivered on time and on budget. Team expertise is allocated in a way that very clearly and logically aligns with tasks; the level of effort for each task is entirely appropriate. The level of detail provided is comprehensive, the work plan is robust and complete, and consequently there is an extremely high level of confidence that the work plan will be executed on time and within budget.</p>	<p>20 Points</p>	
<p>R3 PROJECT TEAM EXPERIENCE</p> <p>MAXIMUM POINTS: 20 POINTS</p> <p>MINIMUM REQUIRED: 10 POINTS</p>	<p>The Bidder should demonstrate that the proposed team has relevant project experience in M1, M4, and M5. Points will be allocated as follows (combined experience of the team):</p> <p>2 to 4 relevant projects</p> <p>5 - 7 relevant projects</p> <p>8 - 10 relevant projects</p> <p>More than 10 relevant projects</p>	<p>Max.: 20</p> <p>5 Points</p> <p>10 Points</p> <p>15 points</p> <p>20 points</p>	



Criterion ID	Factor	Score Ranges	Page Number/reference in proposal
PR4 TECHNICAL LEAD EXPERIENCE MAXIMUM POINTS: 15 POINTS MINIMUM REQUIRED: 10 POINTS	<p>The proposed Technical Lead should demonstrate relevant project experience and skill that highlight experience managing a project of this nature.</p> <p>Less than 3 relevant projects</p> <p>3-6 relevant projects</p> <p>More than 6 relevant projects</p>	<p>Max.: 15</p> <p>5 Points</p> <p>10 points</p> <p>15 points</p>	
Total Possible Points		105	
Minimum Points Required		65	



PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

5.1. Certifications Required Precedent to Contract Award

5.1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

5.2 Additional Certifications Required Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

5.2.1 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's



representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

5.2.2 Education and Experience

SACC Manual clause A3010T (2010-08-16) Education and Experience



PART 6 – SECURITY AND OTHER REQUIREMENTS

6.1 Security Requirement

There is no security requirement associated with this requirement.

6.2 Insurance Requirements

The Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in the contract.

If the information is not provided in the bid, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.



PART 7 - RESULTING CONTRACT

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

Title: *(to be inserted at contract award)*

7.1 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A" and the Contractor's technical bid entitled _____, dated _____.

7.2 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the PSPC/PWGSC *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

[2035](#) (2022-12-01), General Conditions - Professional Services (High Complexity), as modified below, apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

The following supplemental general conditions apply to and form part of the Contract:

[4006](#) (2010-08-16), Contractor to own Intellectual Property Rights in Foreground Information

7.3 Security Requirement

There is no security requirement applicable to this Contract.

7.4 Term of Contract

7.4.1 Period of the Contract

The period of the Contract is from date of Contract to March 31, 2025 inclusive.

7.4.2 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to an additional six (6) month period under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least ten (10) calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.



7.5. Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Maureen Mateush
Title: Team Manager
Environment and Climate Change Canada
Procurement and Contracting Division
Address: 510 - 234 Donald Street Winnipeg, MB R3C 1M8

Telephone: 431-813-6439
E-mail address: maureen.mateush@ec.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.2 Project Authority *(to be inserted at contract award)*

The Project Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____-____-_____
Facsimile: ____-____-_____
E-mail address: _____

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority; however, the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.3 Contractor's Representative

Name: _____
Title: _____
(Legal & Operating Company Name): _____
Address: _____



Telephone: ____-____-_____
 Facsimile: ____-____-_____
 E-mail address: _____

7.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a *Public Service Superannuation Act* (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2019-01](#) of the Treasury Board Secretariat of Canada.

7.7 Payment

7.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price of \$ _____ (*to be inserted at contract award*). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.7.2 Limitation of Price

SACC Manual clause [C6000C](#) (2017-08-17) Limitation of Price

7.7.3 Schedule of Milestones

The schedule of milestones for which payments will be made in accordance with the Contract is as follows:

TASK 1 Milestone No.	TASK 1 Deliverable	Due Date of Deliverable
1	Detailed methodology memo and presentation	March 28, 2024
2	Task 1 Report draft delivered to ECCC	June 28, 2024
3	Task 1 final report received	August 31, 2024
OPTIONAL – TASK 2 Milestone No.	Optional – TASK 2 Deliverable (If decision to proceed with Task 2 – within 1 month of delivery of Task 1)	Due Date of Deliverable



1	Detailed Task 2 methodology memo and presentation	Within four (4) weeks of the decision to proceed to Task 2
2	Part Two report draft to ECCC	January 24, 2025
3	Part Two final report received	March 31, 2025

Exact dates subject to change depending on contract award date.

7.8. Invoicing Instructions

7.8.1 Milestone Payments

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- (a) an accurate and complete claim for payment and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all such documents have been verified by Canada;
- (c) all work associated with the milestone and as applicable any deliverable required have been completed and accepted by Canada.

7.9. Certifications and Additional Information

7.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

7.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____. (*Insert the name of the province or territory as specified by the bidder in its bid, if applicable.*)

7.11 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;



- (b) the supplemental general conditions [4006 Contractor to Own Intellectual Property Rights in Foreground Information](#) (2010-08-16), Contractor to own Intellectual Property Rights in Foreground Information;
- (c) the general conditions [2035](#) (2022-12-01), General Conditions - Professional Services (High Complexity);
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____, (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award:* ", as clarified on _____ " **or** ", as amended on _____ " *and insert date(s) of clarification(s) or amendment(s)*).

7.12 Insurance

SACC Manual clause G1005C (2016-01-28) Insurance – No Specific Requirement

7.13 Dispute Resolution

- (a.) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b.) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c.) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d.) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "Dispute Resolution".



ANNEX “A” STATEMENT OF WORK

Flood Hazard Modelling Sensitivity Pilot Study

1. Background

The Flood Hazard Identification and Mapping Program (FHIMP) is an initiative within the Government of Canada with the goal of helping Canadians better plan and prepare for future floods. As a contributor to the FHIMP, Environment and Climate Change Canada (ECCC) provides guidance and best practices for hydrology, hydraulics, climate change impacts, and uncertainty. Under this mandate, ECCC intends to perform a pilot study to explore the sensitivity of steps of a flood hazard analysis.

In 2022, ECCC began a long-term strategy on exploring and describing the sources of uncertainty in the floodplain mapping process through an initial literature review project. Completion of this phase of the project in March 2023 illustrated the need for the next phase of uncertainty exploration: a pilot study exploring real world sources and magnitudes of uncertainty in all steps of a flood hazard mapping project and its impact on the final flood map.

1.1 Objective

The objective of this study is to examine uncertainty in all steps of a flood hazard mapping project, and the corresponding effect that this has on the final flood map. The Contractor must re-assess two (or more) completed mapping projects with different physiographic characteristics (e.g. steep mountain valley, open floodplain, lakeshore, or urban environment). The Contractor is responsible for proposing and providing the previously completed studies and data that will be used in this project for re-assessment. In this study, the contractor will re-analyze previously completed flood mapping projects with a specific focus on uncertainty assessment, and the sensitivities of each step on the final results (the map).

The purpose of performing this analysis is to provide a better understanding of the impacts of decisions made throughout flood hazard analysis projects, and which steps in the analysis have the greatest impact on the final result. This will allow ECCC to provide advice to practitioners in Canada on which phases of a project should have the most effort applied and improve our overall understanding of uncertainty in mapping.

1.2 Terminology

- Confidence bands: lines on a probability plot or fitted line plot that depict upper and lower confidence bounds for points on a fitted line within a range of data.
- Contractor: Individual or entity that contract to perform work or furnish materials in accordance with a contract
- Design flow: A flood elevation or peak flow used for floodplain management investigations. It is typically defined by probability of occurrence or estimated using a selected design storm.
- ECCC: Environment and Climate Change Canada (the Project Authority)



- **FHIMP:** Flood Hazard Identification and Mapping Program
- **Flood Frequency Analysis:** provides information about the magnitude and frequency of flood discharges based on records of annual maximum instantaneous peak discharges collected at stream gauging stations.
- **Flood Hazard Map:** A description of the threat of a flood at a given location, based on the flood's anticipated magnitude (e.g. its depth, horizontal extent, and flow velocity) and its probability of occurrence. It contains the extent of the regulatory flood hazard, potentially including two zones: floodway and flood fringe areas. This type of map is used for regulatory planning purposes.
- **GIS:** Geographic Information Systems.
- **HEC-RAS:** The United States Army Corps of Engineers Hydrologic Engineering Center-River Analysis System. Computer software that allows a user to perform one- and two-dimensional steady and unsteady flow hydraulic flow calculations.
- **Manning's roughness:** represents the resistance to flow (loss of energy) in channels and floodplains.
- **Rating curve:** describes the relationship between water elevation and discharge in a river.
- **Sensitivity analysis:** process to identify parameters that have a strong impact on flood mapping outputs.

1.3 Reference Documents

- i. Federal Hydrologic and Hydraulic Procedures for Flood Hazard Delineation November 2023, Natural Resources Canada, Version 2.0. Available from [GEOSCAN Search Results: Fastlink \(nrcan.gc.ca\)](#)

2. Scope of Work

The Contractor must perform a rigorous sensitivity analysis on all parts of the flood hazard mapping process to understand the impact of uncertainty on the final map. In order to do so, the Contractor must perform the sensitivity analysis by re-assessing two (or more) mapping projects. The Contractor must identify prior mapping studies that they (the Contractor) have completed that can be used for re-assessment in this project. These prior mapping studies must have different physiographic characteristics from each other (e.g. steep mountain valley, open floodplain, lakeshore, or urban environment). All data from the prior studies must be available to be re-assessed. Before conducting this portion of the requirement, the Contractor must request the previous client's written approval (previous client meaning the body that the prior mapping study was completed for).

3. Tasks

3.1 Task 1

The Contractor will perform a rigorous sensitivity analysis to understand the impact of uncertainty of flood inundation from all parts of the flood hazard identification, modelling, and mapping process.

In order to demonstrate the sensitivity analysis results, the Contractor must re-assess at least two existing mapping projects. The mapping projects proposed by the contractor must be re-assessed with a focus on uncertainty in design flow estimation, hydraulic model parameters,



and GIS post-processing to examine the impact of these steps on the flood hazard map. The outcome of this sensitivity analysis will be a report describing and visualizing the impacts of uncertainty on flood hazard mapping, specifically illustrating the impacts that decisions or uncertainty earlier in a project have on the final results (e.g. inundation maps).

The Contractor must:

- a. Reassess flood hazard analysis projects according to the description in this scope of work and their proposed methodology.
- b. Draft a report outlining the reassessment process and sensitivity results, including identifying which steps of the mapping process are most sensitive to uncertainty and how this may change by physiographic region. Draft report must be in standard scientific report format and may include the following sections: introduction, methodology, analysis, results, conclusion. The report must document the findings of the sensitivity analysis.

The report must include the full process of the study and results, including:

- i. Uncertainty sources that were explored
 - ii. Sensitivity analysis of the models, with description of how it was performed
 - iii. Discussion and visual illustration of the impacts of the various process perturbation and impacts on final results (e.g. model area inundation, water depth, and velocity)
 - iv. Conclusions about the most significant sources of uncertainty for the projects assessed and how they differ between the physiographic regions tested (both due to the underlying terrain of the different regions and potentially due to the different flood types experienced in the regions)
- c. Plan monthly virtual check in meetings between the contractor and ECCC Project Authority, where ECCC Project Authority may provide comments/feedback to be incorporated into the draft report.
 - d. Provide a draft copy of the final report document to the ECCC Project Authority for comments/feedback on. Three weeks' review time by ECCC should be included in the proposed project schedule.

The steps of a flood hazard analysis that must be explored during Task 1 of the sensitivity study are below. The Contractor may provide other information beyond this list:

1. Uncertainty in hydrology/design flows or lake levels
 - i. Uncertainty in peak flow observations and rating curve for extreme events
 - ii. Confidence bands in flood frequency analysis



- iii. Methods for flood frequency analysis (e.g. distribution type, fitting method, annual maximum series vs peak over threshold, single vs. combined distribution)
 - iv. Assumptions in alternate methods for determining design flows/levels, if used (e.g. regionalization, hydrologic modelling, rational method)
 - v. Note that uncertainty in design flows due to potential impacts of climate change is beyond the scope of this study
2. Uncertainty in hydraulic modelling
- i. Impact of different locations for input of design flows
 - ii. Upper and lower plausible ranges for Manning's roughness in hydraulic modelling
 - iii. Impact of different assumptions for functionality of built infrastructure (culverts, bridges, dikes, etc.). For example, is it assumed that all dikes work properly and bridge/culvert debris clogging does not occur?
 - iv. Impact of different hydraulic modelling choices (e.g. timestep, model grid size, steady vs. unsteady flow calculations, etc.)
 - v. The impact of model calibration on the final result (e.g. how strictly is the model calibration required to match high water marks, or is the result substantially different if a different event is used for calibration)
3. If a lake inundation project is proposed
- i. Methods for determining design wind speeds
 - ii. Joint probability of lake level and wind calculation methods
 - iii. Runup calculation assumptions
4. Uncertainty in mapping
- i. Assumptions in post processing of model output (e.g. removal of isolated islands of inundation, percent change from manual editing, etc.)

The Contractor must make efforts to protect the privacy of the projects to be re-analyzed to minimize any potential confusion between this pilot study and the official regulated flood hazard maps. Potential options to protect the privacy of the study areas include (but are not limited to):

- i. Removal of place names on figures and within the final reports;
- ii. Showing summary figures and zoomed in figures rather than full maps; and
- iii. Minimizing the use of orthoimagery in the final reports.



3.2 Task 2 (optional, with decision to move forward by ECCC)

The reanalyzed projects will extend further and must include the development and application of multiple types of hydraulic modelling software and multiple types of hydraulic modelling methods over the same areas. For example, if Hydrologic Engineering Center-River Analysis System (HEC-RAS) one dimensional modelling was initially used, Task 2 must include re-developing using a HEC-RAS two-dimensional model and development of an alternate (non-HEC) model. Additionally, this task must include investigation of different configurations of the 2-D (or higher) modelling mesh within the different hydraulic modelling software.

For lake shore mapping projects, if statistical modelling was used to estimate wave runup and storm surge inundation, this task will include use of a physically based model as an alternate, and alternate wave runup (i.e. fetch) zones should be proposed.

The Contractor must:

- a. Develop alternate hydraulic modelling methods over the study areas, following their proposed methodology and assess impacts on the final flood hazard map
- b. Test the impact of alternate underlying terrain models, following their proposed methodology, and assess impacts on the final flood hazard map
- c. Draft a report outlining the alternate model and terrain development methods, including identifying differences in the modelling methods, how varying methods may be more or less appropriate by physiographic region and how this may change by physiographic region. The Contractor must write a summary report to document the findings of the study and include the full process of the study and results, including:
 - i. Uncertainty sources that were explored
 - ii. Sensitivity analysis of the models, with description of how it was performed
 - iii. Discussion and visual illustration of the impacts of the various process perturbation and impacts on results (e.g. model area inundation, water depth, and velocity)
 - iv. Conclusions about the most significant sources of uncertainty for the projects assessed and how they differ between the physiographic regions tested (both due to the underlying terrain of the different regions and potentially due to the different flood types experienced in the regions)
- d. The Contractor will coordinate monthly check-in meetings between the Contractor and ECCC Project Authority, where ECCC may provide comments/feedback to be incorporated.
- e. The Contractor must provide a draft copy of the final report document for ECCC to provide comments/feedback on. ECCC will provide a review within three weeks.

The proposed extended study methods will include (but are not limited to):



1. Differences between hydraulic modelling software
 - i. Assessment of the impact of different manufacturer's hydraulic modelling software
 - ii. Assessment of the differences in results of one-dimensional vs. two- (or three-) dimensional hydraulic modelling
 - iii. For 2-D (or higher) hydraulic modelling, an assessment of the impacts of mesh resolution and the differences between structured and unstructured model grids.
 - iv. The impact of sub-grid features or parameters within a 2-D model mesh
2. Uncertainty in grid mesh for hydraulic models
 - i. Impact of grid resolution
 - ii. Impact of regular vs irregular grid sizes
 - iii. Impact of irregular grid shapes (e.g. triangulated irregular networks)
 - iv. Sub grid feature assumptions
3. If a proposed project is a lake mapping study (and thus doesn't include hydraulic modelling)
 - i. Development of a physically based runup model if statistical calculations were used prior, or vice-versa
 - ii. Assessment of alternate (or more/less) fetch/runup zones

The Contractor must make efforts to protect the privacy of the projects to be re-analyzed to minimize any potential confusion between this pilot study and the official regulated flood hazard maps. Potential options to protect the privacy of the study areas include (but are not limited to):

- i. Removal of place names on figures and within the final reports;
- ii. Showing summary figures and zoomed in figures rather than full maps; and
- iii. Minimizing the use of orthoimagery in the final reports.

4. Deliverables



4.1 Task 1

	Deliverable	Content and requirements	Format	Deadline
1	Memo and presentation	<ul style="list-style-type: none"> - Maximum 10 pages - Description of technical methods for assessing uncertainty and quantifying impacts of each uncertainty assessment on the final map - Drafted after consultation with ECCC about the analysis methods - Memo delivered along with a presentation (approx. 15 minutes) to ECCC about the analysis 	<p>Memo: Electronic format MS Word & PDF</p> <p>Presentation: Virtual Teams/Zoom meeting</p>	On or before March 28, 2024
2	Draft report	<ul style="list-style-type: none"> - Comprehensive report on all facets of Task 1, and include draft versions of all figures, tables and images to be included in the final report. - Prepared in accordance with good engineering/professional practices and include, as a minimum : <ul style="list-style-type: none"> o Executive Summary o Title page o Table of contents o Introduction o Technical discussion with conclusions o Supporting graphs, tables and figures (as applicable) 	Electronic format MS Word & PDF	On or before, June 28, 2024 – ECCC feedback within three (3) weeks of receipt..
3	Final report		Electronic format MS Word & PDF	Within four weeks of receipt of ECCC feedback



4.2 Task 2 (optional, decision by ECCC after Task 1 completion)

After receipt of the final report for Task 1, ECCC will determine whether to proceed with Task 2. ECCC will inform the Contractor of the decision to proceed to Task 2 within one month of receipt of the Task 1 final report.

If ECCC decides to proceed to Task 2, the Contractor must provide the following deliverables:

	Deliverable	Content and requirements	Format	Deadline
1	Memo and presentation	<ul style="list-style-type: none"> - Maximum 10 pages - Description of updated methodology with any proposed changes to the technical methods for Task 2 based on learnings from Task 1 - Memo delivered along with a presentation (approx. 15 minutes) to ECCC . Any changes to methods must be in mutual agreement. 	Memo: Electronic format MS Word & PDF Presentation: Virtual Teams/Zoom meeting	Within four (4) weeks of the decision to proceed to Task 2
2	Draft report	<ul style="list-style-type: none"> - Comprehensive report on all facets of Task 2, and include draft versions of all figures, tables and images to be included in the final report. - Prepared in accordance with good engineering/professional practices and include, as a minimum : <ul style="list-style-type: none"> o Executive Summary o Title page o Table of contents o Introduction o Technical discussion with conclusions o Supporting graphs, tables and figures (as applicable) 	Electronic format MS Word & PDF	On or before January 24, 2025– ECCC feedback within three (3) weeks of receipt
3	Final report		Electronic format MS Word & PDF	Within four (4) weeks of receipt of ECCC feedback.



5. Schedule of Milestones

TASK 1	Period of Initial Contract (Contract Award – August 31, 2024)
Project kickoff meeting	Within 5 days of contract award
Detailed methodology memo and presentation	28 March, 2024
Task 1 Report draft delivered to ECCC	28 June, 2024
ECCC comments to Contractor	Within 3 weeks of receipt of Part 1 report draft
Task 1 final report received	Within four weeks of receipt of ECCC feedback
Optional - TASK 2 (If decision to proceed with Task 2)	Option Period of Contract (Within two (2) weeks of delivery of Task 1 – March 31, 2025)
ECCC Decision to proceed to Task 2	Within two (2) weeks of receipt of Task 1 final report
Detailed Task 2 methodology memo and presentation	Within four (4) weeks of the decision to proceed to Task 2
Part Two report draft to ECCC	January 24, 2025
ECCC comments to contractor	Within 3 weeks of receipt of Part 2 report draft
Part Two final report received	Within four (4) weeks of receipt of ECCC feedback.

*30 to 60 minute monthly progress meetings (virtual), led by the contractor, should be planned throughout the project.

Exact dates subject to change depending on contract award date.

6. Government Supplied Materiel

ECCC will provide the following:

- i. Uncertainty in Floodplain Mapping (FINAL DRAFT). March 2023. Prepared by MacDonald Hydrology Consultants Ltd. On behalf of Environment and Climate Change Canada. 38 Pages.

7. Method of Acceptance



All tasks and deliverables are subject to inspection by the ECCC Project Authority. Should any deliverable not be to the satisfaction of the Project Authority as submitted, the Project Authority will have the right to reject or require correction by the Contractor at no extra cost to ECCC before payment is authorized.

8. Official Languages

The work may be conducted in an official language, English and/or French of the Contractor's choice.

The department is under the obligation to respect the spirit and the letter of the Official Languages Act R.S. 1985, C. 31 (4th Suppl.). It is therefore imperative that the Contractor when representing the Crown ensures that verbal communications are in the preferred official language of the participants. Written communications will be in the language(s) of the participants and must be submitted to the Department Representative before they are issued. If participants are required to communicate by telephone with the Contractor or his/her representatives, the Contractor must ensure that all persons, including receptionists and other contacts who will be receiving these calls, are bilingual.

9. Location of Work

Unless otherwise indicated, all work is to be conducted at the Contractor's premises. All meetings and presentations will be done via teleconference/videoconference.

10. Travel

There is no requirement for travel for this work.

11. Sustainable Procurement Considerations

The Contractor should make an effort to ensure that their operations and performance of the work align with the Treasury Board [Policy on Green Procurement](#) and [Greening Government Strategy](#).

Procurement documents will specify the green procurement criteria and standards to be met and provide guidelines for the evaluation of proposals with respect to those criteria and standards.

The following green procurement criteria and standard must form part of the work:

- a. Provide all correspondence and deliverables including (but not limited to) documents, reports, and invoices in electronic format.

12. Accessibility

The Government of Canada strives to ensure that the goods and services it procures are inclusive by design and accessible by default, in accordance with the [Accessible Canada Act](#), its associated regulations and standards, and [Treasury Board Contracting Policy](#).



All electronic deliverables must be provided in a format that is compatible with accessibility software (i.e. to resize or read the provided content).



ANNEX “B”

BASIS OF PAYMENT

For the Work described in Annex A Statement of Work to which this Basis of Payment applies:

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid in accordance with the table below.

The firm price indicated below is **all-inclusive**, including but not limited to: professional fees, materials and equipment, as well as any administrative expenses such as overhead, insurance or training, required to complete the work. All taxes extra.

Deliverable	Delivery Date	% of Initial Contract Value	Firm Price (\$CDN)
Task 1: Contract Award – August 31, 2024			
Detailed methodology memo and presentation	March 28, 2024	15%	
Draft Report of Task 1 Delivered to ECCC	June 28, 2024	60%	
Final Report for Task 1 Delivered to ECCC	August 31, 2024	25%	
Total Task 1* (taxes extra)			
Optional - Task 2: Within 1 month of delivery of Task 1 Final Report – March 31, 2025			
Detailed methodology memo and presentation	Within six (6) weeks of receipt of Task 1 final report	15%	
Draft Report of Task 2 Delivered to ECCC	January 24, 2025	60%	
Final Report for Task 2 Delivered to ECCC	March 31, 2025	25%	
Total Task 2** (taxes extra)			
TOTAL ESTIMATED VALUE (Total Task 1 + Task 2)*** (taxes extra) (For Evaluation Purposes)			

* Total Task 1: *Not to exceed \$150,000.00*
 ** Total Task 2: *Not to exceed \$200,000.00*
 *** Total Estimated Value: *Not to exceed \$350,000.00*

Exact dates subject to change depending on contract award date.



An estimated breakdown of prices is as follows:

Deliverable	Professional Fees (\$) per Resource	Equipment & Materials (\$)	Other Expenses (\$) (please identify)	TOTAL
Task 1: Contract Award – August 31, 2024				
Detailed methodology memo and presentation				
Draft Report of Task 1 Delivered to ECCC				
Final Report for Task 1 Delivered to ECCC				
Optional - Task 2: Within two (2) weeks of delivery of Task 1 – March 31, 2025)				
Detailed Task 2 methodology memo and presentation				
Draft Report of Task 2 Delivered to ECCC				
Final Report for Task 2 Delivered to ECCC				
TOTAL				