



<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>SOUSSION 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>	<p>Title – Titre</p> <p>Flood Frequency Analysis (FFA) Manual for Hydrotechnical Practitioners in Canada</p>		
	<p>EC Bid Solicitation No. /SAP No. – N° de la demande de soumissions EC / N° SAP</p> <p>5000075974</p>		
	<p>Date of Bid solicitation (YYYY-MM-DD) – Date de la demande de soumissions (AAAA-MM-JJ) 2024-02-14</p>		
	<p>Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ)</p> <p>at – à 2:00 P.M. on-le 2024-03-12</p>	<p>Time Zone – Fuseau horaire</p> <p>Eastern Daylight Saving Time</p>	
	<p>F.O.B – F.A.B See Herein</p>		
	<p>Address Enquiries to - Adresser toutes questions à Maureen.mateush@ec.gc.ca</p>		
	<p>Telephone No. – N° de téléphone 431-813-6439</p>	<p>Fax No. – N° de Fax n/a</p>	
	<p>Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ)</p> <p>See Herein</p>		
	<p>Destination of Services / Destination des services See Herein</p>		
	<p>Security / Sécurité There is no security requirement associated with this solicitation.</p>		
<p>Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l'entrepreneur</p>			
<p>Telephone No. – N° de téléphone</p>	<p>Fax No. – N° de Fax</p>		
<p>Name and title of person authorized to sign on behalf of Vendor/Firm: (type or print) /</p> <p>Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</p>			
<p>Signature</p>		<p>Date</p>	



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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 and Additional Information: includes the certifications and additional information to be provided;

Part 6 Security, Financial 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 create and develop Volume 1 for the FFA manual for hydrotechnical practitioners in Canada. This volume of the manual will focus on frequency analysis methods for analyzing gauge data and describe the various methods, their application (including worked examples for each method), limitations, input variables to the method and how to obtain these, and the tools currently available as detailed in the Statement of Work, Annex A to the bid solicitation. The period of the contract is from contract award to September 20, 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 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 (2023-06-08) Standard Instructions - Goods or Services - Competitive Requirements, 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 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"

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

Delete: "sixty (60) days"

Insert: "one hundred and twenty (120) days"

2.2. SACC Manual Clauses

A7035T (2007-05-25), List of Proposed

2.3. 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.

2.4. 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.



2.5. 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.

2.6. 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.

2.7. Improvement of Requirement During Solicitation Period

Clause [A9076T](#) advises Bidders that they can propose improvement to the technical requirement(s) contained in the bid solicitation.

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least five (5) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

2.8. 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.

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: 5000075974

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 Canadian funds and in accordance with the Basis of Payment in Annex B. The total amount of Applicable Taxes must be shown separately.

3.1.2 Price Breakdown

In their financial bid, the bidders are requested to provide a detailed breakdown of the price for the following elements 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.

3.1.3 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 number of points for each section of the point rated technical evaluation criteria, as well as obtain the required minimum of 70 points 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.



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

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.

7.1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A.

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*

7.2.3 Specific Person(s)

The Contractor must provide the services of the following person(s) to perform the Work as stated in the Contract: _____ (*insert name(s) of person(s)*).

7.3. Security Requirement

7.3.1 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 September 20, 2024 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.

7.5.3 Project Authority

The Project Authority for the Contract is: *(to be inserted at contract award)*

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.

7.5.4 Contractor's Representative *(to be inserted at contract award)*

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

TASK 1	Period of Initial Contract (April 1/24 – September 20/24)
Project kickoff meeting	On or before April 5, 2024
Virtual Presentation for Task One to ECCC	On or before May 17, 2024
Volume One draft delivered to ECCC	On or before July 12, 2024
ECCC comments to Contractor	On or before August 2, 2024
Volume One final report received	On or before September 6, 2024
OPTIONAL- TASK 2 (If decision to proceed with Task 2)	Option Period – (September 20, 2024 – March 14, 2025)
ECCC Decision to proceed to Task 2	On or before September 20, 2024
Virtual Presentation for Task 2 to ECCC	On or before November 1, 2024
Volume Two report draft to ECCC	On or before January 17, 2025



ECCC comments to Contractor	On or before February 7, 2025
Volume Two final report received	On or before March 14, 2025

Exact dates subject to change dependent upon Contract Award.

7.8. Invoicing Instructions

7.8.1 Milestone Payments

7.8.1.1 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 Alberta.

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);
- (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](#)".



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

1. MANDATORY EVALUATION 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	Mandatory Technical Criteria	Met/ Not Met	Cross-Reference to bid (indicate page #)
M1	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. *Resume of the proposed resource must be included with the Bidder's proposal.		
M2	The Bidder's proposed Technical Lead must have a recognized university degree in civil engineering, water resources engineering, statistics, or a related field. *A copy of the degree or diploma must be included in the proposal submission, and must include the following: <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	The Bidder's proposed Technical Lead must be a licensed Professional Engineer or Professional Geoscientist in Canada.		

The Bidder's Proposed Resource(s)			
Criterion	Mandatory Technical Criteria	Met/ Not Met	Cross-Reference to bid (indicate page #)
	*A copy of the license must be included with the Bidder's proposal.		
M4	<p>The Bidder must propose a minimum of one (1) additional resource with a minimum of three (3) years 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 four (4) prior completed projects that demonstrate the proposed resources experience estimating design flows for flood hazard related engineering projects using both methods for gauged locations (relating to Volume 1 of the Scope of Work) and methods on ungauged or poorly gauged locations (relating to Volume 2 of the Scope of Work).</p> <p>To demonstrate this requirement, the Bidder must provide four (4) project examples for both gauged and ungauged design flow estimation. It is acceptable for a project to count for both gauged and ungauged estimation methods if both were used. The projects must have been completed by the Bidder within the last ten (10) years.</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) 		

The Bidder's Proposed Resource(s)			
Criterion	Mandatory Technical Criteria	Met/ Not Met	Cross-Reference to bid (indicate page #)
	<p>4. Client contact name and contact information (*References)</p> <p>5. Description of services including: location, client, data sources, geographic scale of the project, software program used, main assumptions, level of detail, and outcomes.</p> <p><u>* Customer Reference</u></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 (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	The bidder must demonstrate that members of the project team have project experience performing flood frequency analyses using freely available programming language/software (e.g. R, Python, FORTRAN, Julia, or other freely available programming language).		

Point-Rated Technical Criteria	Factor	Score Ranges	Page Number/reference in proposal
	<p>detail is lacking or challenges/risks are not clearly identified or elaborated upon.</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>50 points</p> <p>60 points</p>	
<p>PR2</p> <p>WORK ALLOCATION</p> <p>MAXIMUM POINTS:</p> <p>20 POINTS</p> <p>MINIMUM REQUIRED:</p> <p>10 POINTS</p>	<p>Does the proposed workplan allocate resources (level of efforts and expertise) in a way that demonstrates that the objectives can be met? Do the experience, expertise and skills of the proposed resources align with the tasks assigned? Is the allocation of resources between senior and junior appropriate? Can the proposed team successfully deliver what they are required to deliver, on time and within budget?</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,</p>	<p>Max.: 20</p> <p>0 Points</p> <p>10 Points</p>	

Point-Rated Technical Criteria	Factor	Score Ranges	Page Number/reference in proposal
PR3 PROJECT TEAM EXPERIENCE MAXIMUM POINTS: 20 POINTS MINIMUM REQUIRED: 10 POINTS	The proposed team should demonstrate relevant project experience in M1, M4, and M5. Points will be allocated as follows (combined experience of the team) : Less than 5 relevant projects 5-7 relevant projects 8-10 relevant projects More than 10 relevant projects	Max.: 20 5 Points 10 Points 15 points 20 points	
PR4 PROJECT MANAGER EXPERIENCE MAXIMUM POINTS: 15 POINTS MINIMUM REQUIRED: 10 POINTS	The proposed Project Manager should demonstrate relevant project experience and skill set to manage projects of this nature. Less than 3 relevant projects 3-6 relevant projects More than 6 relevant projects	Max.: 15 5 Points 10 points 15 points	
Total Possible Points		115	
Minimum Points Required		70	



ANNEX A STATEMENT OF WORK

1.0 Title

Flood Frequency Analysis (FFA) Manual for Hydrotechnical Practitioners in Canada

1.1 Background

The Flood Hazard Identification and Mapping Program (FHIMP) is an initiative of 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 is working to deliver an instructive manual for engineering and hydrology practitioners outlining methods to calculate a Flood Frequency Analysis (FFA).

FFA provides information about the magnitude and frequency of flood discharges based on recorded data. The most common method for flood frequency analysis is to fit an extreme value distribution to an annual maximum series of peak flow data. This is appropriate in many cases; however, there are several under-utilized FFA methods that may be more appropriate in specific situations in Canada.

1.2 Objective

The objective of the Work is to create and develop a reference manual for hydrotechnical practitioners in Canada to assist with preparing for future floods in Canada. The manual will describe various flood frequency analysis methods, their application (including worked examples for each method), limitations, input variables to the method and how to obtain the variables, and the tools currently available to complete the analysis.

1.3 Terminology

Annual maximum series: a list of the largest observed flow for each water year.

Autocorrelation: the correlation of a dataset with a delayed (lagged) copy of itself.

Covariates: an independent variable that is not considered in the FFA that can influence a dependent variable, therefore changing the outcome of calculations.

ECCC: Environment and Climate Change Canada.

FHIMP: Flood Hazard Identification and Mapping Program.

L-moments: sequence of statistics used to summarize the shape of a probability distribution.

Non-stationary data: data with statistical properties that change through time; data that does not adhere to a statistical trend.



Peak over threshold: consists of using observations which are above a given threshold.

Qualitative knowledge: incorporates non-numerical or descriptive data into the data set to expand the period of record or amount of data points.

Stage-storage relationship: defines the relationship between the depth of water and storage volume.

1.4 Reference Documents

Alberta Transportation; Civil Projects Branch. (2004). Guidelines on Extreme Flood Analysis. [Microsoft Word - Extreme Flood Guide final.doc \(alberta.ca\)](#)

Bobée, B. F. Ashkar, (1991). The Gamma Family and Derived Distributions Applied in Hydrology. *Water Resources Publications*. 203p.

Cohn, T. A., Lane, W. L., & Baier, W. G. (1997). An algorithm for computing moments-based flood quantile estimates when historical flood information is available. *Water Resources Research*, 33(9), 2089–2096.

el Adlouni, S., Ouarda, T. B. M. J., Zhang, X., Roy, R., & Bobée, B. (2007). Generalized maximum likelihood estimators for the nonstationary generalized extreme value model. *Water Resources Research*, 43(3), 1–13. <https://doi.org/10.1029/2005WR004545>

England, J. F., Cohn, T. A., Faber, B. A., Stedinger, J. R., Thomas, W. O., Veilleux, A. G., Kiang, J. E., & Mason, R. R. (2018). Guidelines for Determining Flood Flow Frequency Bulletin 17C. In *Hydrologic Analysis and Interpretation* (p. 168). U.S. Geological Survey, U.S. Department of the Interior. <https://doi.org/http://dx.doi.org/10.3133/tm4-BXX/>

Environment Canada (1993). Consolidated Frequency Analysis Version 3.1 Reference Manual. https://www.trentu.ca/iws/sites/trentu.ca.iws/files/documents/CFA_Manual2_compressed.pdf

Gilleland, E., & Katz, R. W. (2016). extRemes 2.0: An Extreme Value Analysis Package in R. *Journal of Statistical Software*, 72(8). <https://doi.org/10.18637/jss.v072.i08>

GitHub - floodnetProject16/floodnetRfa (2020). R Package implementing FloodNet recommendations for flood frequency analysis. <https://github.com/floodnetProject16/floodnetRfa>

Khaliq, M.N. (2017). Flood Frequency Analysis: Review of Selected Software Tools. Version 1.2. National Research Council Canada.

Water Information Coordination Program – Advisory Committee on Water Information (2019). USGS Reports – Regional Skew and Flood Frequency. <https://acwi.gov/hydrology/Frequency/b17c/supplementary-materials/reports.html>

Waylen, P., & Woo, M. (1982). Prediction of annual floods generated by mixed processes. *Water Resources Research*, 18(4), 1283–1286. <https://doi.org/10.1029/WR018i004p01283>

Watt, E. W., Lathem, K. W., Neill, C. R., Richards, T. L., & Rouselle, J. (1989). *Hydrology of floods in Canada — a guide to planning and design*. <https://doi.org/10.1139/I92-064>



2.0 Scope of Work

The Contractor must draft a reference manual for the intended audience of hydrotechnical practitioners in Canada. The Contractor will explore various methods to complete a FFA as outlined in Tasks 1 and 2. Each method must be described in its own section of the manual and must include, but not be limited to, the following:

- a. Description of the method including cases in which the method should be applied, and strengths and weaknesses of each method.
- b. A worked example on real gauged data (or appropriate real data for the methods that do not use gauged data). The selected example data should highlight the intricacies of that method.
- c. Lists of computer code and/or software options available to carry out the FFA for each method, and assessment of these options.
- d. A decision tree or flowchart indicating which method should be followed for FFA for any given project location or hydrologic inputs. Practitioners will utilize this resource to determine the method they should follow for any given project.

3.0 Tasks

3.1 Task 1 – Volume 1 of FFA Manual

The Contractor will create and develop Volume One of the FFA manual that outlines the appropriate uses for each FFA method as well as its limitations. The volume must include a decision tree or flowchart outlining how to select the appropriate method(s) for FFA. It is recognized that multiple methods may be appropriate in many situations. The decision tree/flow chart should provide guidance to the practitioner on the choice of method, depending on data availability, characteristics of the data and watershed in question, and purpose of the analysis.

Each method must include a worked example using real gauge data (preferably Water Survey of Canada (WSC) data: <https://wateroffice.ec.gc.ca/>). The worked example data should clearly describe the results of each method and the strengths and differences of each method. Freely available software must be used for each example (whether a graphical interface or a code-based method).

The Contractor must include the following methods as below. The Contractor may include other methods beyond this list:

- a. Annual maximum series method:
 - i. The manual must discuss fitting methods (e.g., maximum likelihood, L-moments) and distribution choice, including recommendations for minimum record lengths and distribution type (e.g., length of record required for two and three parameter distributions).
 - ii. Additionally, the Contractor must outline common statistical tests that are used to assess the observation data.



- b. Peak over threshold method:
 - i. May be appropriate in areas where floods are caused by rainfall-runoff processes rather than snowmelt runoff.
 - ii. Event separation and threshold choice must be discussed.
- c. Incorporation of floods outside the standard record:
 - i. The Contractor must discuss the incorporation of non-systematic information such as Indigenous Knowledge, manual highwater marks (e.g., measured on buildings), local accounts (photographs, newspaper articles, etc.) for FFA.
- d. Mixed distribution method:
 - i. Applicable in areas where floods can be generated from multiple processes (e.g. open water and ice jam flooding) or in multiple seasons (e.g., snowmelt freshet and winter rain on snow).
 - ii. The Contractor must discuss the process of separating the observation data and how to combine distributions.
- e. Non-stationary method:
 - i. Potentially useful for climate change analysis and situations where an observation record exhibits a trend.
 - ii. The Contractor must discuss the options for managing a recognized trend or a step change in the observation record. (e.g., separate record into smaller blocks, incorporation of covariates or other).
- f. Empirical frequency analysis:
 - i. In cases with a long observational record and non-standard distribution of peaks, empirical frequency analysis may be most appropriate.
 - ii. The Contractor must describe how an empirical frequency analysis is performed and describe situations when its use should be considered. (e.g. when the goal is to determine exceedance probabilities that are substantially smaller than the period of record.
- g. Frequency analysis for regulated data:
 - i. Many situations require the estimation of design flows on regulated waterways. The Contractor must describe methods that have been applied to these scenarios and briefly cover the benefits and drawbacks of the different approaches.
- h. Methods for frequency analysis on water level data (for lakes or rivers) or stage-storage relationships (e.g., design levels for lakes):



- i. The same methods are often performed on both flow data and water level data. However, this may not be the best approach due to a nonlinear relation between water level and volume of water.
- ii. For water level analysis, the Contractor must investigate:
 - a. Methods appropriate for direct analysis of lake water levels; and
 - b. Methods for performing FFA on water volume.
- iii. Method to account for autocorrelation issues that may occur on large lakes (e.g., the peak annual lake level is not always independent from the peak level of the prior year).
- iv. Method to estimate peak instantaneous water levels due to atmospheric effects (i.e., wind and pressure setup).

The Contractor must:

- a. Describe the various methods of flood frequency analysis available to practitioners, when they should be applied and the tools available to carry out the analysis
- b. Identify FFA methods that are to be included in the manual. The final included methods are to be determined in collaboration with ECCC.
- c. Identify software options for each FFA method.
- d. Source example data that demonstrate the intricacies of each method. Data examples should be different for each FFA method.
- e. Host a virtual presentation for ECCC representatives demonstrating the worked examples and associated software for each FFA method that is recommended to be included in the manual.
- f. For each method, provide:
 - i. A description of the input variables or decisions required
 - ii. Recommended software options and a brief analysis of each option
 - iii. Examples of when the method should be applied
 - iv. Examples of when the method should not be applied
 - v. Strengths and weaknesses of the method
 - vi. A worked example and tutorial using real data with all steps and results within the manual (e.g. via lines of code, screen shots for graphical interface methods)



- g. Create a decision tree or flowchart to aid practitioners in method selection.
- h. Lead monthly progress update virtual meetings between the Contractor and ECCC Project Authority
- i. Provide a draft final report in Microsoft Word to the ECCC Project Authority for comments/feedback. Three weeks review time by ECCC must be incorporated into the proposed project schedule.

3.2 Optional Task 2 - Volume 2 of FFA Manual (optional, with decision to move forward by ECCC)

The ECCC Project Authority will notify the Contractor via email if proceeding with optional Task 2 – Volume 2 within two weeks of receipt of the Task 1 final report.

The Contractor will draft Volume 2 of the FFA manual which will outline design flow estimation methods for sites without gauge data, or with only minimal observations (e.g. five or less years of observation, or only high water marks). Volume 2 must include a decision tree or flowchart outlining how to select the appropriate method(s) for FFA. The decision tree or flowchart must include variables as inputs to the FFA method.

Volume 2 must include a description of the method and the situations in which the approach is most appropriate, and assumptions that must be made in each application. Each method described must include a worked example using freely available software and real data from within Canada. The worked example data must clearly describe each method and the strengths and differences of that method.

The FFA methods that must be covered in Volume 2 of the manual include, but are not limited to, as follows:

- a. Watershed area based scaling methods
- b. Stage-stage methods for transferring information upstream or downstream on the same reach
- c. Index flood methods
- d. Geomorphic methods based on channel geometry
- e. Geospatial methods, including interpolation from other nearby gauges with similar characteristics
- f. Hydraulic routing methods from upstream or downstream locations
- g. Regional skew adjustment
- h. Rational method calculations
- i. Hydrologic modelling for design flow estimation. It is recognized that hydrologic modelling is an extremely large topic. A simplified example of when this approach may be most appropriate is warranted in this case.



The Contractor must:

- a) Describe the various methods for estimating design flows on ungauged or poorly gauged locations including when they should be applied and the tools available to carry out the analysis.
- b) Identify methods that are pertinent to include in the manual.
- c) Identify software options and variables for each method.
- d) Provide source example data that demonstrates the intricacies of each method. Example data is encouraged to be different for each method to ensure the data is fully suited to demonstrate the method.
- e) Host a virtual presentation for ECCC representatives demonstrating the worked examples and associated software for each FFA method that is going to be included in the manual.
- f) For each method, provide:
 - i. A description of the input variables or decisions required to complete the method.
 - ii. Recommended software options and a brief analysis of each option.
 - iii. Cases in which the method should be applied.
 - iv. Cases in which the method should not be applied.
 - v. Strengths and weaknesses of the method.
 - vi. A worked example and tutorial using real data with all steps and results shown within the manual (whether via lines of code or screen shots for graphical interface methods).
- g) Create a decision tree or flowchart to aid practitioners in method selection.
- h) Lead monthly check-in meetings between the Contractor and ECCC Project Authority.
- i) Provide a draft final report document to the ECCC Project Authority for comments/feedback. Three weeks' review time by ECCC must be included in the proposed project schedule.

4.0 Deliverables

4.1 Task One – Volume 1 of FFA Manual

The Contractor must host a virtual presentation for ECCC representatives demonstrating the numerical examples and associated software for each FFA method that is going to be included



in the manual. The presentation should be 1 to 2 hours in length and must be hosted within 6 weeks after the award of the contract.

The Contractor must submit a draft of Volume 1 of the manual in Word and PDF electronic format to the ECCC Project Authority for approval on or before July 12th, 2024. It must be a comprehensive report on all facets of the manual and must include all items outlined in Section 2.0 of this Statement of Work in addition to all draft versions of all figures, tables, and images to be included in the final report. The report must be prepared in accordance with good engineering/professional practices and include, as a minimum, the following: an executive summary, a title page, a table of contents, an introduction, a technical discussion with conclusions.

ECCC Project Authority will provide feedback on the report within three weeks of receipt. The Contractor must provide the final report, in electronic format, to the Project Authority on or before September 6th, 2024.

4.2 Task Two – Volume 2 of FFA Manual (optional, with decision to move forward by ECCC)

After receipt of the final Task One report, ECCC will determine whether to proceed with Task Two. ECCC will inform the Contractor of the decision to proceed to Task Two on or before September 20th, 2024.

If ECCC decides to proceed to Task 2, the Contractor must host a virtual presentation for ECCC representatives demonstrating the numerical examples and associated software for each FFA method that is going to be included in the manual. The presentation should be 1 to 2 hours in length and must be on or before November 1st, 2024.

The Contractor must submit a draft of Volume 2 of the manual in electronic format ECCC Project Authority for approval on or before January 17th, 2025. It must be a comprehensive report on all facets of the manual and must include all items outlined in the Statement of Work in addition to all draft versions of all figures, tables, and images to be included in the final report. The report must include, as a minimum, the following: an executive summary, a title page, a table of contents, an introduction, a technical discussion with conclusions.

ECCC will provide feedback on the report within three weeks of receipt. The Contractor must provide the final report, in electronic format, to the Project Authority on or before March 14th, 2025.

5.0 Milestones

TASK 1	Period of Initial Contract (April 1, 2024 – September 20, 2024)
Project kickoff meeting	On or before April 5, 2024
Virtual Presentation for Task One to ECCC	On or before May 17, 2024
Volume One draft delivered to ECCC	On or before July 12, 2024
ECCC comments to Contractor	On or before August 2, 2024
Volume One final report received	On or before September 6, 2024



TASK 2 (If decision to proceed with Task 2)	Option Period – Sept 20/24 – March 14/25
ECCC Decision to proceed to Task 2	on or before September 20, 2024
Virtual Presentation for Task 2 to ECCC	on or before November 1, 2024
Volume Two report draft to ECCC	on or before January 17, 2025
ECCC comments to Contractor	on or before February 7, 2025
Volume Two final report received	on before March 14, 2025

* The Contractor will plan and lead 30 to 60 minute monthly progress meetings with ECCC Project Authority virtually throughout the project.

Exact dates subject to change dependent upon contract award date.

6.0 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.

7.0 Official Languages

The work is to be completed in English.

8.0 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.

9.0 Travel

There is no requirement for travel for this work.

10.0 Sustainable Procurement Considerations

The Contractor must 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 standards must form part of the Work:



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

11.0 Accessibility Considerations

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, as well as the [Directive on the Management of Procurement](#) and [Policy on the Planning and Management of Investments](#).

The following accessibility standards form part of the Work:

- All written reports and submissions must be created in the requested format that is accessible as per the Accessibility, Accommodation and Adaptive Computer Technology Program (AAACT) [Digital Accessibility Toolkit](#).



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: April 1, 2024 – September 6, 2024			
Virtual Presentation for Task One to ECCC	May 17, 2024	15%	
Draft Report of Task 1 Delivered to ECCC	July 12, 2024	60%	
Final Report for Task 1 Delivered to ECCC	September 6, 2024	25%	
Total Task 1* (taxes extra)			
Optional - Task 2: September 20, 2024 – March 14, 2025			
Detailed methodology memo and presentation	November 1, 2024	15%	
Draft Report of Task 2 Delivered to ECCC	January 17, 2025	60%	
Final Report for Task 2 Delivered to ECCC	March 14, 2025	25%	
Total Task 2** (taxes extra)			
TOTAL ESTIMATED VALUE (Total Task 1 + Task 2)*** (taxes extra)			
(For Evaluation Purposes)			

* Not to exceed \$75,000.00

** Not to exceed \$75,000.00

*** Not to exceed \$150,000.00

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: April 1, 2024 – September 6, 2024				
Virtual Presentation for Task One to ECCC				
Draft Report of Task 1 Delivered to ECCC				
Final Report for Task 1 Delivered to ECCC				
Optional - Task 2: September 20, 2024 – March 14, 2025				
Virtual Presentation for Task Two to ECCC				
Draft Report of Task 2 Delivered to ECCC				
Final Report for Task 2 Delivered to ECCC				
TOTAL				