



<p>RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:</p> <p>Bid Receiving - Environment and Climate Change Canada / Réception des soumissions – Environnement Canada</p> <p>Josee.francoeur@canada.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 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 Analysis of Wastewater and Sludge/Biosolids for Pharmaceuticals and Personal Care Products (PPCPs)</p>	
	<p>ECCC Bid Solicitation No. /SAP No. – N° de la demande de soumissions ECCC / N° SAP 5000024263</p>	
	<p>Date of Bid solicitation (2016-10-28) – Date de la demande de soumissions (2016-10-28)</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 December 12, 2016</p>	<p>Time Zone – Fuseau horaire Eastern Standard Time EST</p>
	<p>F.O.B – F.A.B</p>	
	<p>Address Enquiries to - Adresser toutes questions à Josee.francoeur@canada.ca</p>	
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	<p>Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ)</p>	
	<p>Destination - of Services / Destination des services</p>	
	<p>Security / Sécurité</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) / 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. 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 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, a Confidentiality Agreement, the Information - Ontario Labour Legislation, Financial Bid Presentation Sheet, Mandatory Technical Criteria.

The Annexes include the Statement of Work, the Basis of Payment, the Security Requirements Checklist, Insurance Requirements, the Schedule of Milestones, and any other annexes.

2. Summary

2.1 The objective of this work is to obtain high-quality chemical analysis of 165 PPCPs in raw influent, treated effluent, raw sludge and treated bio-solids from selected Wastewater Treatment Plants (WWTPs) in Canada as part of a monitoring program on the occurrence and fate of chemical substances in municipal wastewater.

2.2 There is no security requirement associated with this requirement.

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.

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

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 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, 2014-09-25 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 (ECCC) 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

Insert: “Bids may be submitted by facsimile if specified in the bid solicitation.”

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"

The standard instructions 2004 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 07 Rejection of Bid, Subsection 07 (1) a. and b.:

Delete: In their entirety

Insert: "Deleted"

At Section 10 Joint Venture, Subsection 10 (1b):

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

Insert: "Deleted"

2. Submission of Bids

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

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 page 7, 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: 2012-2 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.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

4. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than three (3) 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.

5. Applicable Laws

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

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.

8. Basis for Canada's Ownership of Intellectual Property

The Crown has determined that any intellectual property arising from the performance of the Work under the Contract will vest in Canada, on the following grounds:

6.4 Where the main purpose of the Crown Procurement Contract, or of the deliverables contracted for, is:

6.4.1 To generate knowledge and information for public dissemination;

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

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

Section I: Technical Bid (1 electronic copy),

Section II: Financial Bid (1 electronic copy),

Section III: Certifications (1 electronic copy)

Section IV: Additional Information (1 electronic copy)

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

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) format;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and

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.

Section II: Financial Bid

- 1.1** Bidders must submit their financial bid in accordance with the Financial Bid Presentation Sheet as seen in attachment 1 to part 3. The total amount of Applicable Taxes must be shown separately.
- 1.2** Bidders must submit their financial bid in Canadian funds and in accordance with the Financial Bid Presentation Sheet as seen in attachment 1 to part 3. The total amount of Applicable Taxes must be shown separately.
- 1.3** Bidders must submit their price and, rates, FOB destination; Canadian customs duties and excise taxes included, as applicable; and Applicable Taxes excluded.

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 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.
- (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) Travel and Living Expenses (if applicable): The bidders should indicate the number of trips and the number of days for each trip, the cost, destination and purpose of each journey, together with the basis of these costs without exceeding the meal, private

vehicle and incidental expenses provided in Appendices B, C and D of the *National Joint Council Travel Directive* and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".

- (e) Subcontracts (if applicable): The bidders should identify all of the proposed subcontractors and provide in their financial bid for each one a price breakdown.
- (f) 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.
- (g) Applicable Taxes: The bidders should indicate the Applicable Taxes separately.

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.

**ATTACHMENT 1 TO PART 3 -
FINANCIAL BID**

The tenderer must complete the presentation sheet of the financial bids and include in its financial bid when completed. At the very least, the bidder must meet this financial bid Format Sheet by including in its financial bid for the periods indicated below its rate for each deliverables

ECCC wishes to establish a contract until March 31, 2018

The anticipated sample load for all substances listed in Table 1 for this monitoring program will be 50 wastewater and 25 solids per year; this includes 3 equipment blanks each for water and solids.

Bidders must submit firm, all-inclusive unit prices for each element defined below. "All inclusive unit price" must include quality assurance/quality control measures, sample bottles and coolers, and shipping costs to the Canada Centre for Inland Waters in Burlington Ontario, as applicable.

Not all PPCPs will be analyzed every year. If applicable, bidders should provide pricing by categories of analytes, e.g. acidic vs basic, so that the technical authority can select sub-sets of analytes as needed by the program. A sample Financial Presentation Sheet is provided below.

No.	Description	Firm, all – inclusive unit price	Estimated number of samples per year	Extended Cost
1	PPCP sub-set A		50	
2	PPCP sub-set B		50	
3	PPCP sub-set C		50	
4	PPCP sub-set D		50	
5	Etc		50	
6	Deconjugation treatment		25	

The Estimated number of samples per year is provided for evaluation purposes only.

First Option Period: April 1, 2018 to March 31, 2019

No.	Description	Firm, all – inclusive unit price	Estimated number of samples per year	Extended Cost
1	PPCP sub-set A		50	
2	PPCP sub-set B		50	
3	PPCP sub-set C		50	
4	PPCP sub-set D		50	
5	Etc		50	
6	Deconjugation treatment		25	

Second Option Period: April 1, 2019 to March 31, 2020

No.	Description	Firm, all – inclusive unit price	Estimated number of samples per year	Extended Cost
1	PPCP sub-set A		50	
2	PPCP sub-set B		50	
3	PPCP sub-set C		50	
4	PPCP sub-set D		50	
5	Etc		50	
6	Deconjugation treatment		25	

Third Option Period: April 1, 2020 to March 31, 2021

No.	Description	Firm, all – inclusive unit price	Estimated number of samples per year	Extended Cost
1	PPCP sub-set A		50	
2	PPCP sub-set B		50	
3	PPCP sub-set C		50	
4	PPCP sub-set D		50	
5	Etc		50	
6	Deconjugation treatment		25	

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1.1 Evaluation Procedures (Highest combined technical merit (70%) and price (30%))

For a proposal to be deemed technically compliant, a bid must:

- a) comply with all the requirements of the bid solicitation;
- b) meet all of the mandatory criteria;
- c) obtain the required minimum of **200 points (50%)** as an **OVERALL score** for the Technical Evaluation Criteria. The rating is performed on a scale of **400 points**.

Bids not meeting **(a) or (b) or (c)** will be declared non-responsive. Neither the responsive bid that receives the highest number of points nor the one that proposed the lowest price will necessarily be accepted. The responsive bid with the highest combined rating of **Technical (70%)** merit and **price (30%)** will be recommended for award of a contract.

Example of Highest Combined Rating of Technical Merit and Price

The *responsive* (compliant) Bidder with the highest combined rating of technical merit and price will be recommended for award of a contract. In this example, technical merit and price weighting are **70% and 30%** respectively. Contractor Selection Method is based on the Responsive Bidder achieving the highest total points.

Formula:

Bidder's Rated Score	x 70	+	Lowest Bidder Price	x 30
Maximum Possible Score			Bidder's Price	

Example:

Description	Bidder A	Bidder B	Bidder C
Bidder Technical Points Received	137	110	127
Bidder Proposed Price	\$39,000	\$28,000	\$33,000

Final Evaluation Score Calculation:

Bidder	Points for Technical Score	Points for Price	Total Points
Bidder A	$(137 / 146) \times 70 = 65.68$	$(28,000 / 39,000) \times 30 = 21.53$	87.21
Bidder B	$(110 / 146) \times 70 = 52.73$	$(28,000 / 28,000) \times 30 = 30$	82.73
Bidder C	$(127 / 146) \times 70 = 60.89$	$(28,000 / 33,000) \times 30 = 25.45$	86.34

2.1 Mandatory Requirement

For all evaluation criteria, the “Table” identified refer to Table 1 in the Statement of Work.

The Contractor must demonstrate that they have a thorough understanding and extensive experience with wastewater and sludge/bio-solids matrices and are able to generate technically valid results.

Item	Description	Met	Not Met
M-1	<p>The Bidder must provide evidentiary documentation as proof of valid accreditation to ISO 17025, at time of bid closing.</p> <p>This standard contains the requirements that testing and calibration laboratories must demonstrate that they operate a management system, are technically competent, and are able to generate technically valid results that are fit for purpose. This standard does not specify chemical parameters.</p>		
M-2	<p>The Bidder’s validated analytical methods must be based on United States Environmental Protection Agency Method 1694: Pharmaceuticals and Personal Care Products in Water, Soil, Sediment, and Biosolids by HPLC/MS/MS (https://www.epa.gov/sites/production/files/2015-10/documents/method_1694_2007.pdf). The Bidder must confirm that any in-house modifications to this method either (1) have no detrimental effect on its precision and accuracy, or (2) improve precision and/or accuracy of the method.</p>		
M-3	<p>The Bidder must provide evidentiary documentation and results of proficiency testing as proof of current accreditation from the Canadian Association for Laboratory Accreditation (CALA) for the shaded compounds in Table 1 in water and solids matrices for the facility that will be performing the analyses.</p>		
M-4	<p>The Bidder must provide the fully validated analytical methods for all compounds listed in Table 1 for both the wastewater and sludge/biosolids matrices. Methods for non-potable water, environmental water, sediments, or any other matrices are not considered equivalent to municipal wastewater influents, effluents, sludge and biosolids. The methods must include:</p> <ul style="list-style-type: none"> • sample container types and volumes, preservation, holding times and storage conditions; • preparation, extraction and cleanup procedures; • instrument specifications; 		

	<ul style="list-style-type: none"> • positive identification criteria¹; • quantification references; • procedure for analyte quantification²; • description of the reporting limit employed³; • description of the QA/QC system; and, • QA/QC criteria (blank levels and acceptable recovery ranges). <p>¹Positive identification criteria must include a) identification of the surrogate internal standard for each native compound, b) the required signal to noise ratio for parent ion to daughter ion transitions for native compounds and standards, and c) the retention time window allowance between the compound in the sample and the calibration standard.</p> <p>²Isotope dilution / recovery correction techniques must be used for quantification of all analytes in Table 1.</p> <p>³Reporting limit must be determined using the EDL/EQL approach for all analytes in Table 1, as described in section 4 of the SOW.</p>		
M-5	The Bidder must achieve the required reporting limits for all compounds and both matrices listed in Table 1.		
M-6	The Bidder's analytical methods must use all of the labeled surrogates listed in Table 1. The use of additional surrogates would increase the quality of the method but will not be considered for evaluation.		
M-7	The Bidder must provide a detailed procedure and evidence of experience in deconjugation treatment of wastewater and sludge/biosolids samples, as described in section 5.6 of the SOW.		
M-8	The Bidder must confirm the level of QA/QC required as described in section 5.8 of the SOW.		

2.2 Rated Requirement

Point Rated Technical Criteria

Item	Description	Scoring Methodology	Available Points
R-1	<p>The Bidder should demonstrate experience conducting ultra-trace analysis of PPCPs in municipal wastewater raw influent and treated effluent samples within the past 5 years.</p> <p>Analysis undertaken prior to method validation will not be considered as demonstrated experience.</p>	<p>The Bidder should provide a summary of the number of wastewater samples analyzed for each compound. The summary should include the client name, date range of project, and # of samples where available.</p> <p>Bidders who have analyzed 12 samples or more of each compound will receive 1 point per compound.</p>	165
R-2	<p>The Bidder should demonstrate experience conducting ultra-trace analysis of PPCPs in municipal raw sludge and treated biosolids samples within the past 5 years.</p> <p>Analysis undertaken prior to method validation will not be considered as demonstrated experience.</p>	<p>The Bidder should provide a summary of the number of wastewater samples analyzed for each compound. The summary should include the client name, date range of project, and # of samples where available.</p> <p>Bidders who have analyzed 6 samples or more of each compound will receive 1 point per compound.</p>	165
R-3	<p>The Bidder should demonstrate experience and proficiency as reflected in the Reporting Limits achieved by their validated methods submitted under M4.</p>	<p>Bidders with Reporting Limits below the mandatory values will receive 1 point per compound up to a maximum of 70 points.</p>	70
TOTAL AVAILABLE POINTS			400
A MINIMUM OF 200/400 IS REQUIRED AS A GLOBALE MARK			

2.3 Financial Criteria

<i>MF-1 Financial Criteria</i>	<i>Met</i>	<i>Not Met</i>
Environment and Climate Change Canada has established funding for this project at a maximum amount of \$150,000.00 (in Canadian dollars) – excluding GST – for professional services, including all associated costs for the initial period.		

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.

Certifications Required Precedent to Contract Award

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.

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.

2. 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.

2.1 Education and Experience

PWGSC SACC Manual clause A3010T 2010-08-16 Education and Experience

2.2 Former Public Servant in Receipt of a Pension

As per page 7, 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:

- c. name of former public servant;
- d. 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: 2012-2 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:

- h. name of former public servant;
- i. conditions of the lump sum payment incentive;
- j. date of termination of employment;
- k. amount of lump sum payment;
- l. rate of pay on which lump sum payment is based;
- m. period of lump sum payment including start date, end date and number of weeks;
- n. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

Signed

Date

PART 6 – SECURITY AND OTHER REQUIREMENTS

1.0 Security Requirement

There are no security requirement.

2.0 Insurance Requirements

N/A

PART 7 - RESULTING CONTRACT

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

TITLE: Analysis of Wastewater and Sludge/Biosolids for Pharmaceuticals and Personal Care Products (PPCPs)

1. Statement of Work

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

2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the 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.

2.1 General Conditions

2010B 2014-09-25, General Conditions - Professional Services (Medium Complexity), as modified below, apply to and form part of the Contract.

General conditions 2010B is modified as follows:

At Section 12 Transportation Costs

Delete: In its entirety

Insert: "Deleted"

At Section 13 Transportation Carriers' Liability

Delete: In its entirety.

Insert: "Deleted"

At Section 18, Confidentiality:

Delete: In its entirety

Insert: "Deleted"

Insert Subsection: "35 Liability"

"The Contractor is liable for any damage caused by the Contractor, its employees, subcontractors, or agents to Canada or any third party. Canada is liable for any damage caused by Canada, its employees or agents to the Contractor or any third party. The Parties agree that no limitation of liability or indemnity provision applies to the Contract unless it is specifically incorporated in full text in the Articles of Agreement. Damage includes any injury to persons (including injury resulting in death) or loss of or damage to property (including real property) caused as a result of or during the performance of the Contract."

2.2 Supplemental General Conditions

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

4007, 2010-08-16, *Canada to own Intellectual Property Rights in Foreground*

3. Security Requirement

3.1 N/A

4. Term of Contract

4.1 Period of the Contract

The period of the Contract is from contract award to **March 31, 2018** inclusive.

4.2 Option Period

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to **three (3) additional one (1) year period(s)** 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.

4.3 Transition Period

The Contractor acknowledges that the nature of the services provided under the Contract requires continuity and that a transition period may be required at the end of the Contract. The Contractor agrees that Canada may, at its discretion, extend the Contract by a period of 5 days under the same conditions to ensure the required transition. 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.

The Contracting Authority will advise the Contractor of the extension by sending a written notice to the Contractor at least 5 days calendar days before the contract expiry date. The extension will be evidenced for administrative purposes only, through a contract amendment.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Josée Francoeur

Title: Contracting Officer
Environment and Climate Change Canada
Procurement and Contracting Division
Address: 200 Sacré-Coeur Blvd.,
Gatineau, QC

Telephone: 819-938-3822
Facsimile: 819-938-4848
E-mail address: josee.francoeur@canada.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.

5.2 Technical Authority (at contract award)

The Technical Authority for the Contract is:

Name:
Title:
Organization:
Address:

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

The Technical Authority named above 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 Technical Authority, however the Technical 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.

5.3 Contractor's Representative (at contract award)

Name:
Title:
Organization:
Address:

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

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: 2012-2 of the Treasury Board Secretariat of Canada.

7. Payment

7.1 Basis of Payment

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, as determined in accordance with the Basis of Payment in Annex B , to a limitation of expenditure of \$_____ (**at contract award**) and Applicable Taxes are extra.

7.2 Limitation of Expenditure

- (a) Canada's total liability to the Contractor under the Contract must not exceed \$ _____. Customs duties are included and the Applicable Taxes are extra.
- (b) No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - (i) when it is 75 percent committed, or
 - (ii) four (4) months before the contract expiry date, or
 - (iii) as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work, whichever comes first.
- (c) If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.3 Time Verification

C0711C 2008-05-12 Time Verification

8. Invoicing Instructions

8.1 Milestone Payments

H3010C, 2010-01-11 Milestone Payments

- 8.1.1 The Contractor must submit invoices in accordance with Annex "B" Basis of Payments.

9. Certifications

9.1 Compliance

Compliance with the certifications provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification or it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

10. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

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) [4007](#) Supplemental General Conditions, 2010-08-16;
- (c) 2010B General Conditions - Professional Services (Medium Complexity) [2014-09-25](#) as modified;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated _____, as clarified on _____ **or** as amended on _____

ANNEX A STATEMENT OF WORK

CONFIDENTIALITY

The parties anticipate that it may be necessary to transfer information relating to the Licensed Process, Patents, Trade-mark, Know-How or other information relating to this Agreement, of a confidential nature. The parties shall keep all such information confidential during and after the life of this Agreement.

Subject to the Access to Information Act, R.S. 1985, c.A-1, the parties agree that the terms of this Agreement are confidential and each party shall use the same degree of care to prevent disclosure of the terms of this Agreement to third parties as it uses to protect its own confidential information of similar nature.

INTELLECTUAL PROPERTY

The purpose of this contract is to generate information for public dissemination. Therefore the Crown will retain title to intellectual property as per **Section 6, Subsection 6.4.1** in the Implementation Guide for the Policy: Title to Intellectual Property Arising under Crown Procurement Contracts.

1. INTRODUCTION

First established by the *Department of the Environment Act* in 1971, Environment and Climate Change Canada's (ECCC's) role is to assess, monitor and protect the environment, and to provide weather and meteorological information to keep Canadians informed and safe.

ECCC's acts outline the Department's obligations and authorities to conduct and publish research, monitor and publish environmental indicators, make regulations to protect the environment, and consult with partners. ECCC administers or shares responsibility for over two dozen Acts addressing issues as diverse as pollution prevention, weather modification, wildlife protection and emergency management.

Water quality is defined in terms of the chemical, physical, and biological content of water. The Federal government, particularly ECCC, plays a leading role in scientific research and monitoring of water quality. The Chemicals Management Plan (CMP, www.chemicalsubstances.gc.ca) provides a transparent, systematic, scientifically-based program to assess and manage the risks posed by chemical substances to the health of Canadians and their environment, including monitoring of environmental compartments such as water and wastewater inputs.

2. BACKGROUND

Pharmaceuticals and personal care products (PPCPs) enter the aquatic and terrestrial environment via effluent discharges and land application of biosolids from Canadian wastewater treatment plants (WWTPs). ECCC developed a monitoring program to determine the occurrence and fate of PPCPs during the wastewater treatment process. This program requires high-quality chemical analysis of many PPCPs that may be present at trace levels in wastewater raw influent, treated effluent, raw sludge, and treated biosolids. The results of this program contribute to sound decisions on the assessment and management of PPCPs in Canada.

3. OBJECTIVE

The objective of this work is to obtain high-quality chemical analysis of 165 PPCPs in raw influent, treated effluent, raw sludge and treated biosolids from selected WWTPs in Canada as part of a monitoring program on the occurrence and fate of chemical substances in municipal wastewater.

4. DEFINITIONS / ACRONYMS

CAS #	Chemical Abstract Service number (www.cas.org)								
Quarterly	Canada defines the quarterly periods as follows: <table style="margin-left: 40px;"> <tr> <td>1st Quarter</td> <td>1 April to 30 June</td> </tr> <tr> <td>2nd Quarter</td> <td>1 July to 30 September</td> </tr> <tr> <td>3rd Quarter</td> <td>1 October to 31 December</td> </tr> <tr> <td>4th Quarter</td> <td>1 January to 31 March</td> </tr> </table>	1 st Quarter	1 April to 30 June	2 nd Quarter	1 July to 30 September	3 rd Quarter	1 October to 31 December	4 th Quarter	1 January to 31 March
1 st Quarter	1 April to 30 June								
2 nd Quarter	1 July to 30 September								
3 rd Quarter	1 October to 31 December								
4 th Quarter	1 January to 31 March								
Reporting Limit (RL)	Estimated Detection Limit or Estimated Quantitation Limit as described in United States Environmental Protection Agency methods 1613B and 1668A/C: 3 times the signal to noise ratio in the target channel converted to an equivalent sample concentration, or the concentration equivalent to the lowest calibration standard, whichever is greater.								

5. SCOPE OF WORK

5.1 Summary

The Technical Authority will provide a quarterly sampling plan to the Contractor within one week of contract award and updated on a quarterly basis. The sampling plan will be utilized to determine the quantity and type of sample container and shipping container to be provided by the Contractor, as detailed below.

The Contractor will receive 24-hour equal volume composite samples of wastewater and grab samples of solids for 3 consecutive days from up to 16 Wastewater Treatment Plants (WWTPs) per year in Canada.

Generally, two WWTPs will be sampled per sampling trip, which will take place between April and November of each year. Samples will be shipped (postage paid) by the Technical Authority to the Contractor on Tuesday, Wednesday, and Thursday afternoons for overnight delivery. The maximum number of samples to be shipped per sampling trip will be 12 wastewater and 12 solids samples per substance.

The wastewater monitoring program includes all of the PPCPs on a rotating basis; i.e. not every compound will be measured every year.

5.2 Sample Description

Treated wastewater effluents can contain suspended solids up to 60 mg/L depending on the treatment type. Raw wastewater influents can contain suspended solids up to 200 mg/L. All

results from wastewater influent and effluent samples must be reported on a mass/volume basis (e.g. ng/L or µg/L).

Raw sludge and treated biosolids samples can contain anywhere from 2% to 30% solids, and 50% to 75% organic material. The solids are the important phase of these samples; therefore if phase separation is required for sample preparation and extraction the Contractor must analyse the solid phase. All results from raw sludge and treated biosolids must be reported on a mass/mass and dry weight basis (e.g. ng/g or µg/g).

5.3 Sampling Protocol

The Contractor must provide a sampling protocol for collection of wastewater and sludge/biosolids samples. The sampling protocol must specify the type of container to use for collection of samples for PPCPs, and the required sample volume to achieve the reporting limits stipulated in Table 1, and any preservation requirements to maintain sample integrity during transit.

5.4 Submission Forms

The Contractor must provide submission forms for collection of wastewater and solids samples. Submission forms must include fields for Project Name; Client name, address and phone; Client Sample Identification; Matrix, Sampling Date; Container Type; Analyses Requested; Relinquished by with Date; Received by with Date.

5.5 Containers

The Contractor must provide sampling containers (e.g., bottles or jars) and shipping containers (e.g., coolers) as part of the contract. The number of containers and coolers will be dictated by the container type and volume requirements as described in the Contractor's sampling protocol. All sampling and shipping containers will be delivered to the Technical Authority.

5.6 Analyses

The Work includes the analysis and reporting of concentrations of 165 PPCPs in raw influent, treated effluent, raw sludge, and treated biosolids samples. The selected compounds are listed in Table 1. The Contractor must use validated analytical methods based on United States Environmental Protection Agency (U.S. EPA)Method 1694: Pharmaceuticals and Personal Care Products in Water, Soil, Sediment, and Biosolids by HPLC/MS/MS (https://www.epa.gov/sites/production/files/2015-10/documents/method_1694_2007.pdf). Any in-house modifications to the U.S. EPA method must be documented and must either (1) have no detrimental effect on precision or accuracy, or (2) improve precision and/or accuracy of the method. The contractor must be accredited at the facility that will be performing the analyses for the shaded compounds in Table 1 in water and solids matrices by the Canadian Association for Laboratory Accreditation (CALA).

The Contractor's analytical methods must achieve Reporting Limits (RLs) equal to or lower than those listed in Table 1 for each listed compound in the wastewater and sludge/biosolids matrices, and the methods must employ, at a minimum, the labeled surrogate standards listed in Table 1 for analyte quantification.

The work also includes deconjugation treatment of wastewater and sludge/biosolids samples. The contractor must split all samples and treat one portion of each sample with a sufficient

amount of deconjugating agent in the presence of a conjugated indicator compound that will confirm complete deconjugation. Deconjugated samples are then analyzed for PPCPs. The purpose of this treatment is to determine if a significant proportion of PPCPs are present in the samples in conjugated form. The contractor must provide a detailed procedure and evidence of experience with their deconjugation method.

Table 1: 165 Pharmaceuticals and Personal Care Products (PPCPs) to be monitored in wastewater influent, effluent, sludge and biosolids

Name	CAS #	Required reporting limit in wastewater (ng/L)	Required reporting limit in sludge/ biosolids (ng/g)	Labeled surrogate for quantification
1,7-Dimethylxanthine (paraxanthine)	611-59-6	1000	100	
10-hydroxy-amitriptyline		10	10	
2-Hydroxy-ibuprofen	51146-55-5	1000	500	
4-Epianhydrochlortetracycline	158018-53-2	1000	500	
4-Epianhydrotetracycline	4465-65-0	500	100	
4-Epichlortetracycline	14297-93-9	100	50	
4-Epioxytetracycline	14206-58-7	50	50	
4-Epitetracycline	23313-80-6	100	50	
Acetaminophen	103-90-2	5000	1000	13C2-15N-Acetaminophen
Albuterol	18559-94-9	10	10	D3-Albuterol
Alprazolam	28981-97-7	10	10	d5-Alprazolam
Amitriptyline	50-48-6	10	10	d6-Amitriptyline
Amlodipine	88150-42-9	50	10	
Amphetamine	300-62-9	50	10	D5-Amphetamine
Amsacrine	51264-14-3	10	10	
Anhydrochlortetracycline	4497-08-9	500	100	
Anhydrotetracycline	4496-85-9	500	50	
Atenolol	29122-68-7	100	10	D7-Atenolol
Atorvastatin	134523-00-5	50	10	
Azathioprine	446-86-6	50	100	13C4-Azathioprine
Azithromycin	83905-01-5	50	100	
Benztropine	86-13-5	10	10	d3-Benztropine
Betamethasone	378-44-9	100	10	
Bupropion	31677-93-7	10	50	d9-Bupropion
Busulfan	55-98-1	100	500	d8-Busulfan
Carbadox	6804-07-5	50	10	
Carbamazepine	298-46-4	100	10	D10-Carbamazepine
Cefotaxime	63527-52-6	500	500	
Cefprozil	92665-29-7	500	50	

Chlortetracycline	57-62-5	100	10	
Cimetidine	51481-61-9	50	10	D3-Cimetidine
Ciprofloxacin	85721-33-1	100	100	13C3-N15-Ciprofloxacin
Citalopram	59729-33-8	500	100	D6-Citalopram
Clarithromycin	81103-11-9	100	10	
Clinafloxacin	105956-97-6	100	100	
Clonidine	4205-90-7	100	10	D4-Clonidine
Clopidogrel	113665-84-2	10	10	d3-Clopidogrel
Clopidogrel carboxylic acid	144457-28-3	10	10	d4-Clopidogrel Carboxylic Acid
Clotrimazole	23593-75-1	10	50	d5-Clotrimazole
Cloxacillin	61-72-3	100	10	
Codeine	76-57-3	100	10	D6-Codeine
Colchicine	64-86-8	100	100	d6-Colchicine
Cyclophosphamide	50-18-0	50	50	D4-Cyclophosphamide
Daunorubicin	20830-81-3	100	500	13C-d3-Daunorubicin
Decoquinatate	18507-89-6	10	10	d5-Decoquinatate
Dehydronifedipine	67035-22-7	100	10	
Demeclocycline	127-33-3	100	50	
Desmethyldiltiazem		10	10	
Diatrizoic acid	117-96-4	500	500	D6-Diatrizoic acid
Diazepam	439-14-5	10	10	d5-Diazepam
Diclofenac	15307-86-5	10	50	13C6-Diclofenac
Digoxigenin	1672-46-4	1000	100	
Digoxin	20830-75-5	100	50	
Diltiazem	42399-41-7	10	10	
Diphenhydramine	58-73-1	10	10	
Doxorubicin	23214-92-8	1000	5000	
Doxycycline	564-25-0	100	50	
Drospirenone	67392-87-4	500	1000	13C3-Drospirenone
Enalapril	75847-73-3	50	10	D5-Enalapril
Enrofloxacin	93106-60-6	50	10	
Eprosartan	13304-01-4	10	10	d3-Eprosartan
Erythromycin-H2O	114-07-8	10	10	13C2-Erythromycin-H2O
Etoposide	33419-42-0	100	100	d3-Etoposide
Fenofibrate	49562-28-9	10	10	d6-Fenofibrate
Fenofibric acid	42017-89-0	10	10	d6-Fenofibric Acid
Flumequine	42835-25-6	50	10	
Fluocinonide	356-12-7	100	50	
Fluoxetine	54910-89-3	10	10	D5-Fluoxetine
Fluticasone propionate	80474-14-2	50	10	
Furosemide	54-31-9	500	100	
Gabapentin	60142-96-3	100	50	d4-Gabapentin
Gemfibrozil	25812-30-0	50	10	D6-Gemfibrozil
Glipizide	29094-61-9	50	10	D11-Glipizide
Glyburide	10238-21-8	50	10	D3-Glyburide

Hydrochlorothiazide	58-93-5	100	50	
Hydrocodone	125-29-1	1000	100	D3-Hydrocodone
Hydrocortisone	50-23-7	1000	500	d4-Hydrocortisone
Ibuprofen	15687-27-1	500	100	13C3-Ibuprofen
Iopamidol	60166-93-0	1000	1000	D8-Iopamidol
Iopromide	73334-07-3	50	100	d3-Iopromide
Irbesartan	138402-11-6	10	10	d7-Irbesartan
Isochlortetracycline	514-53-4	50	10	
Lamotrigine	84057-84-1	50	50	13C3-Lamotrigine
Lamotrigine 2-N-glucuronide	133310-19-7	10	10	
Lincomycin	154-21-2	50	10	
Lomefloxacin	98079-51-7	50	10	
Maduramicin	79356-08-4	10	10	
m-Chlorophenylpiperazine	13078-15-4	10	10	d8-m-Chlorophenylpiperazine
Medroxyprogesterone acetate	71-58-9	100	100	d6-Medroxyprogesterone Acetate
Melengesterol acetate	2919-66-6	10	10	d3-Melengestrol Acetate
Melphalan	148-82-3	1000	5000	d8-Melphalan
Meprobamate	57-53-4	50	10	
Metformin	657-24-9	1000	100	D6-Metformin
Methylprednisolone	83-43-2	500	100	d3-Methylprednisolone
Metoprolol	51384-51-1	50	10	d7-Metoprolol
Metronidazole	443-48-1	100	100	d4-Metronidazole
Miconazole	22916-47-8	50	10	
Minocycline	10118-90-8	500	500	
Moxifloxacin	151096-09-2	100	500	13C-d3-Moxifloxacin
Mycophenolate Mofetil	128794-94-5	10	10	d4-Mycophenolate Mofetil
Mycophenolic acid	24280-93-1	50	10	d3-Mycophenolic Acid
Naproxen	22204-53-1	100	10	13C-D3-Naproxen
Norethindrone	68-22-4	1000	1000	D6-Norethindrone
Norfloxacin	70458-96-7	100	100	
Norfluoxetine	126924-38-7	50	10	d5-Norfluoxetine
Norgestimate	35189-28-7	100	10	
Norquetiapine		10	10	
Norverapamil	67018-85-3	10	10	
Ofloxacin	82419-36-1	50	50	
Ormetoprim	6981-18-6	100	10	
Oxacillin	66-79-5	100	50	
Oxazepam	604-75-1	100	500	d5-Oxazepam
Oxolinic Acid	14698-29-4	50	50	
Oxycodone	76-42-6	50	10	D6-Oxycodone
Oxytetracycline	79-57-2	100	10	
Paroxetine	61869-08-7	50	10	d6-Paroxetine
Penicillin G	61-33-6	50	10	

Penicillin V	87-08-1	100	10	
Pravastatin	81131-70-6	100	10	d3-Pravastatin
Prednisolone	50-24-8	100	50	
Prednisone	53-03-2	500	100	
Promethazine	60-87-7	10	10	d4-Promethazine
Propoxyphene	469-62-5	10	10	d5-Propoxyphene
Propranolol	525-66-6	50	10	d7-Propranolol
Quetiapine	111974-69-7	10	10	d8-Quetiapine
Ramipril	87333-19-5)	10	10	d5-Ramipril
Ramiprilat	87269-97-4	50	10	d5-Ramiprilat
Ranitidine	66357-35-5	50	10	
Rosuvastatin	287714-41-4	500	500	d6-Rosuvastatin
Roxithromycin	80214-83-1	10	10	
Sarafloxacin	98105-99-8	100	50	
Sertraline	79617-96-2	10	10	
Simvastatin	79902-63-9	100	50	
Sucralose		50	50	D6-Sucralose
Sulfachloropyridazine	80-32-0	50	10	
Sulfadiazine	68-35-9	50	10	
Sulfadimethoxine	122-11-2	50	10	
Sulfamerazine	127-79-7	50	10	
Sulfamethazine	57-68-1	100	50	13C6-Sulfamethazine
Sulfamethizole	144-82-1	50	10	
Sulfamethoxazole	723-46-6	50	10	13C6-Sulfamethoxazole
Sulfanilamide	63-74-1	100	50	
Sulfathiazole	72-14-0	50	10	
Tamoxifen	10540-29-1	10	10	D5-Tamoxifen
Telmisartan	144701-48-4	10	10	d3-Telmisartan
Teniposide	29767-20-2	100	100	
Tetracycline	60-54-8	50	10	
Theophylline	58-55-9	1000	500	13C1-15N2-Theophylline
Thiabendazole	148-79-8	50	10	D6-Thiabendazole
Tilmicosin	108050-54-0	10	10	
Topiramate	97240-79-4	10	10	d12-Topiramate
Trazadone	19794-93-5	10	10	d6-Trazadone
Trenbolone	10161-33-8	50	10	
Trenbolone acetate	10161-33-8	10	10	
Triamterene	396-01-0	0	10	
Triclocarban	101-20-2	50	50	13C6-Triclocarban
Triclosan	3380-34-5	00	100	13C12-Triclosan
Trimethoprim	738-70-5	50	10	13C3-Trimethoprim
Tylosin	1401-69-0	50	10	
Valsartan	137862-53-4	100	10	
Venlafaxine	93413-69-5	50	50	D6-Venlafaxine

Verapamil	52-53-9	10	10	
Virginiamycin	11006-76-1	500	50	
Warfarin	81-81-2	100	10	D5-Warfarin
Zidovudine	30516-87-1	500	1000	d3-Zidovudine

The Contractor must communicate any anomalous situations with respect to sample integrity or analytical challenges to the Technical Authority by email within 3 business days of discovering such situation.

5.7 Storage and Disposal

The Contractor must adhere to the maximum sample holding time and storage conditions as specified in the analytical method.

5.8 Quality Assurance/Quality Control (QA/QC)

Samples are to be analyzed in a batch system, with each batch consisting of a method blank, spiked blank, and replicate sample. These QA/QC elements must comprise 5% or more of each analytical batch, i.e. every batch of 20 samples or fewer must contain a blank, spike, and replicate. Blank corrections or blank subtractions must not be used.

Field duplicates and equipment blanks submitted by ECCC will be considered as samples. Method blanks, spiked blanks, and laboratory replicate analyses will be conducted as part of the Contractor's Quality Assurance/Quality Control (QA/QC) program and are not considered as samples submitted.

Laboratory raw data, chromatograms, and all relevant laboratory notes must be retained by the Contractor for a minimum period of 36 months following submission of samples. Raw data must include chromatograms and area tables for all instrument calibrations including linearity, resolution, and sensitivity checks showing date and time of analysis, and evidence that all QA/QC specifications have been met; and aliquot masses, volumes, suspended solids content and moisture content for all samples, including original and re-analyses, dilutions, and other details of the analytical procedure.

The Contractor will provide consultation on sampling procedures, delivery schedules, unexpected analytical results, and other contingencies as requested by the Technical Authority.

5.9 Reports

Sample submittal confirmation must be provided electronically to the Technical Authority within five business days of sample receipt.

Sample Data Reports

Sample Data reports must be delivered to the Technical Authority within six (6) weeks following receipt of samples. Reports must include the following:

- concentrations of each analyte in the samples and replicates;
- concentrations of each analyte in the method blank;
- per cent recoveries in spiked blanks;
- the reporting limit for each analyte; and,
- percent recovery of surrogates.

Any problems with samples or data, including corrective actions taken, resolutions, and explanation of flagged data must be documented with the data reports.

Final Reports

The final report will include the project name, sample site name, date of sample receipt, sample temperatures upon receipt, reporting conventions and laboratory qualifiers, QA/QC notes, analytical discussion, correlation table showing client and Contractor sample identifiers, and analysis reports for each sample and substance.

6. TECHNICAL ENVIRONMENT

Data reports must be delivered in spreadsheet format, Microsoft Excel or equivalent compatible format. Data reports must be separated by sampling site, i.e. WWTP. Final data reports must be delivered in PDF format including a cover letter signed by the analyst in Microsoft Word. Reports should be submitted electronically to the Technical Authority.

7. LANGUAGE OF WORK

All written and verbal communication will be in English.

8. DELIVERABLES

The deliverables from this Work will be the analytical results, including QA/QC reports.

- Sampling protocol within one week of contract award
- Submission forms within one week of contract award
- Sample containers as per the quarterly sampling plan
- Sample Data Reports within six weeks of sample receipt
- Final Report within four weeks of Sample Data Report

9. WORK LOCATION / TRAVEL

The work will take place at the Contractor's facilities. The Contractor's representative may be required to travel to the Canada Centre for Inland Waters, 867 Lakeshore Road, Burlington ON annually to provide updates and present findings, including any technical issues.

ANNEX B BASIS OF PAYMENT

(to be completed at contract award)