



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

Bid Receiving  
PWGSC  
33 City Centre Drive  
Suite 480C  
Mississauga  
Ontario  
L5B 2N5  
Bid Fax: (905) 615-2095

**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**  
Public Works and Government Services Canada  
Ontario Region  
33 City Centre Drive  
Suite 480  
Mississauga  
Ontario  
L5B 2N5

<b>Title - Sujet</b> Spectrophotometer	
<b>Solicitation No. - N° de l'invitation</b> KW405-180727/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> KW405-180727	<b>Date</b> 2018-01-17
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$TOR-015-7429	
<b>File No. - N° de dossier</b> TOR-7-40117 (015)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2018-01-26</b>	
<b>Time Zone</b> Fuseau horaire Eastern Standard Time EST	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Abela, Aaron	<b>Buyer Id - Id de l'acheteur</b> tor015
<b>Telephone No. - N° de téléphone</b> (905) 615-2061 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> (type or print) <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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**Solicitation Amendment No. 002 is being issued to address the following:**

**A) Question and Answer**

**B) Amend Annex A – Requirement**

**C) Amend Annex D – Evaluation Criteria**

Q1: In regards to Annex A (Requirement), Section 2.1.1, Item 3 - A system that collects the Sample, Reference, and Dark signals, and then the gratings moves on the next non-measurement spin of the chopper?

- This design is a significant improvement over non measurement phase stepping technology (grating moves during dark signal), in that the readings for all photometric components are recorded while the gratings are truly stationary.

A1: Yes this would be acceptable. This requirement has been removed from the spec sheet. See below for further information.

Q2: In regards to Annex D (Evaluation Criteria), Item 1.3 - A system that collects the Sample, Reference, and Dark signals, and then the gratings moves on the next non-measurement spin of the chopper?

- This design is a significant improvement over non measurement phase stepping technology (grating moves during dark signal), in that the readings for all photometric components are recorded while the gratings are truly stationary.

A2: See response in A1 above and see below for further information.

Q3: In regards to Annex A (Requirement), Section 2.1.1, Item 5 - A true double beam monochromater rather than pre-monochromater?

- Superior ultra-low stray light capability with true double monochromater. A pre-monochromater was only offered in previous generation of our lower end instrumentation.

A3: Yes this would be acceptable – this requirement has been amended. Please see below.

Q4: In regards to Annex D (Evaluation Criteria), Item 1.5 - A true double beam monochromater rather than pre-monochromater?

- Superior ultra-low stray light capability with true double monochromater. A pre-monochromater was only offered in previous generation of our lower end instrumentation.

A4: See response in A1 above and see below for further information.

Q5: In regards to Annex A (Requirement), Section 2.1.1, Item 7 - A 100 mm sphere rather than a 70 mm (we don't carry a 70 mm)?

- Superior performance from 100mm integrating sphere with industry leading 3% port fraction and internal baffling to remove spectral artifacts. 70mm spheres have port fractions of up to 9% and cannot satisfy many ASTM methods.

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A5: Yes this would be acceptable. Preference is for 100mm, with the ideal solution being 100-150mm, but this is not a mandatory requirement. We would accept 70mm otherwise as a minimum mandatory requirement. The requirement has been amended. Please see below. Note: Bidders can submit multiple bid proposals if they would like to offer more than one Spectrophotometer system.

**Q6:** In regards to Annex D (Evaluation Criteria), Item 1.7 - A 100 mm sphere rather than a 70 mm (we don't carry a 70 mm)?

- Superior performance from 100mm integrating sphere with industry leading 3% port fraction and internal baffling to remove spectral artifacts. 70mm spheres have port fractions of up to 9% and cannot satisfy many ASTM methods.

A6: See response in A1 above and see below for further information.

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## **B) At Annex A – Evaluation Criteria**

**Delete in its entirety;**

**Insert:**

## **ANNEX "A"**

### **REQUIREMENT**

#### **1 Requirement**

For our research application measuring the optical properties of natural waters Environment and Climate Change Canada's Watershed Hydrology and Ecology Research Division (WHERD) requires the supply, delivery, and installation of one (1) complete UV VIS Spectrophotometer. The system must be a double beam scanning instrument (covering the spectral range 300 to 800nm at a minimum) incorporating a single PMT detector for the larger dynamic range capability. The instrument must have excellent stray light rejection and be able to read accurately at least 5 Abs and contain an integrating sphere attachment for measurements of absorption on highly scattering media.

#### **2 Specifications:**

General Instrument Design:

The UV Vis Spectrophotometer must be a double beam, dual chopper, UV-Vis scanning spectrophotometer covering the spectral range 300-800nm, with an added integrating sphere, and centrally controlled by a PC.

##### **2.1.1 Minimum Mandatory Specification Requirements**

The complete UV Vis Spectrophotometer System must have each of the following mandatory specifications:

1. The instrument must be a true Double Beam Spectrophotometer system with One (1) UV and one VIS source, with a channel for sample and channel for reference and one PMT detector.
2. The instrument must be linear and be guaranteed to read up to 5 Abs.
3. Sample, reference, (and if possible, dark current) signals must be measured while grating is stationary
4. The optical bench must be a single cast piece

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5. Must offer enhanced stray light rejection (as provided by a pre-monochromator or true double beam monochromator).
6. Must have high speed accurate scanning of at least 3000 nm/ minute
7. Must include an integrating sphere diffuse reflectance accessory (at least 70mm) for the measurement of absorbance of highly scattering media on glass-fiber filters
8. Must be centrally controlled by a PC

3. **Delivery Address:**

All deliverables must be delivered and installed by the Contractor to the following address:

Canada Centre for Inland Waters - Environment and Climate Change Canada  
867 Lakeshore Road, Burlington, Ontario.  
L7S1A1

4. **Other Requirements:**

4.1 The Contractor must install the Spectrophotometer on site and configure the apparatus (to ensure that it is in proper working order). The installation must be completed by a manufacturer certified engineer. The Contractor must provide a walk-through of the instrument setup during the installation and is responsible for providing labour and covering own travel expenses.

4.2. The Contractor must provide a minimum of ½ day of training on site, for 3 operators, in the use and maintenance of the Spectrophotometer for Environment and Climate Change Canada, located at the location specified in Section 3 – Delivery address, above.

4.3 The Contractor must provide in English complete and current user documentation for the delivered Spectrophotometer, including all technical reference manuals and user and maintenance guides of the original equipment manufacturer in both hard copy and electronic PDF format.

4.4 The Contractor must provide technical support response within 24 hours to address instrument concerns and minimum instrument down time in case of equipment malfunction or operational questions or technical support during the warranty period.

5. **Optional Warranty Requirement:**

In addition to the minimum standard Original Equipment Manufacturer (OEM) warranty including, but not limited to parts, labour and manufacturer defects, pricing and details, the Contractor must provide the option for four (4) one (1) year extended warranty coverage and must include the same coverage in the OEM warranty and technical support indicated in Section 4 - Other Requirements, Item 4.4 above.

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**C) At Annex D – Evaluation Criteria**

**Delete in its entirety;**

**Insert:**

**ANNEX “D”**

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### EVALUATION CRITERIA

1. Bidders must clearly demonstrate compliance with each mandatory technical criteria. Failure to demonstrate compliance will result in the offer being deemed non-responsive, and be given no further consideration.
2. It is the Bidders responsibility to ensure that the submitted supporting technical documentation provides detail to prove that the proposed product(s) meet the requirements detailed herein.
3. Bidders must address any concerns with the performance specifications in written detail to the Contracting Authority before bid closing as outlined in the Request for Proposal (RFP) document.

Requirement	Manufacturer Offered	Model number offered#
Spectrophotometer		

Item #	Performance Specification	Cross Reference: In this column, Bidders should cross-reference where this performance specification is indicated in their supporting documents.
1.1	The instrument must be a true Double Beam Spectrophotometer System with One (1) UV and one Vis source, with a channel for sample and channel for reference and one PMT detector.	
1.2	The instrument must be linear and be <i>guaranteed</i> to read up to 5 Abs	
1.3	Sample, reference, (and if possible, dark current) signals must be measured while grating is stationary	
1.4	The optical bench must be a single cast piece	
1.5	Must have a pre-monochromator or true double beam monochromator for enhanced stray light rejection	
1.6	Must have High speed accurate scanning of at least 3000 nm/minute	
1.7	Must include a minimum 70 mm diffuse reflectance accessory	
1.8	Must be centrally controlled by a PC Controller	

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**ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME**