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167 Lombard Ave.  
Winnipeg  
Manitoba  
R3B 0T6  
Bid Fax: (204) 983-0338

## 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 -  
Western Region  
Room 100  
167 Lombard Ave.  
Winnipeg  
Manitoba  
R3B 0T6

<b>Title - Sujet</b> In-Situ Observational Systems	
<b>Solicitation No. - N° de l'invitation</b> A7100-174040/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> A7100-174040	<b>Date</b> 2018-05-29
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$WPG-113-10526	
<b>File No. - N° de dossier</b> WPG-7-40242 (113)	<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 2018-06-04</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Central Daylight Saving Time CDT
<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> Chubey, Karen	<b>Buyer Id - Id de l'acheteur</b> wpg113
<b>Telephone No. - N° de téléphone</b> (204) 291-5928 ( )	<b>FAX No. - N° de FAX</b> (204) 983-7796
<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> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<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> <b>(type or print)</b> <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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## IN-SITU OBSERVATIONAL SYSTEMS

Amendment No. 002 is raised to answer a question and amend the Solicitation as follows:

Amendment No. 002 is raised to answer:

### QUESTION 1:

In section 1.6 do you mean that 2 of the systems would include CDOM or FDOM and 2 would include Turbidity?

### RESPONSE 1:

As indicated, 2 of the 4 systems are to include a sensor for CDOM, and 2 of the 4 systems are to include a sensor for Turbidity. Item 1.5 and 1.6 have been modified to indicate that CDOM measurement is the requirement, see Amendment 1 below.

### QUESTION 2:

What do you mean by stand-alone data loggers in 1.6? Can one unit include water level, conductivity, temperature, dissolved oxygen, and CDOM/FDOM or Turbidity?

### RESPONSE 2:

One unit can include all of the sensor components as long as data are able to be logged and stored internally for the operation time period.

### QUESTION 3:

What do you mean by interchangeable in section 1.6? Why is it required?

### RESPONSE 3:

Interchangeable refers to the ability to use different optical sensors with the same data loggers. Meaning you could exchange optical sensors between the data loggers on the two different systems. This will allow flexibility between the four moored systems, where CDOM and Turbidity optical sensors could be interchanged.

### QUESTION 4:

What is the minimum deployment time you would consider? On internal battery the systems could not operate for a year, and they require maintenance/calibration more often than that. This maintenance time varies based on water conditions, as you may need to clean the unit more often in biologically active waters.

### RESPONSE 4:

Because of the remote nature of deployments and the short field season, the required deployment time is one year. Our intention is to deploy the moored systems for 2-3 month intervals as opportunity allows, however in some instances moored systems may need to stay in place until access is available again in the following field season, so operation continuously for a 1-yr period is required.

#### QUESTION 5:

Would you accept an external power supply (cited on land) to reach the one-year deployment period?

#### RESPONSE 5:

No an external power supply cited on land does not meet our requirements due to the remote nature of the field sites and complex terrain. The intention is not to have a permanent station, but to move stations around as opportunity allows.

Amendment No. 002 is raised to amend:

**AMENDMENT 1:** Reference Annex A Requirement Compliance Matrix – Minimum Mandatory Performance Specifications

#### DELETE:

**Compliance Matrix: In-situ Sensor and Data Logger requirements for River Moorings**  
In its entirety

#### INSERT:

**Compliance Matrix: In-situ Sensor and Data Logger requirements for River Moorings**

<b><u>Completion and submission of Mandatory Performance Specification is required to be considered responsive and for your offer to be given further consideration.</u></b>		
<p>a. Bidder must cross reference where in their technical offer, the performance specification is located.</p> <p>b. Provide the specification being offered which meets or exceeds <u>and cross-reference as to where the supporting documentation is found within your proposal</u>. If there is insufficient space in the table, assign SIR # (Supplementary Information Reference) and provide the appropriate details on a separate page in your offer. Where published supporting documentation is not available in the form of brochures, technical data sheets etc., prepare a written narrative complete with a detailed explanation of how its offer demonstrates compliance.</p>		
<u>All work and materials herein specified must meet and maintain minimum Canadian and Provincial certification(s) and approval(s) as applicable by Industry Standards.</u>		
<b>Item</b>	<b>Specifications</b>	Bidder Response: indicate how they meet the specifications addressed below/ cross-reference where this technical specification is indicated in their bid documentation
1.	<b>River Moorings</b> - Instrumentation components necessary to assemble four (4) independent mooring systems to deploy for Arctic shallow water data collection. <u>Each of the 4 sensor packages:</u>	

1.1	Must include standalone data loggers with sensors configured to record measurements of <b>water level, conductivity, temperature, and dissolved oxygen</b> in fresh (0 µS/cm) and brackish estuarine waters (up to 10,000 µS/cm) experienced within a tidal river mouth. With Temperature measurement precision to at least +/-0.1C.	
1.2	Must be operable in depth range of 0-30m; in temperature range of 10 to -2 degrees Celsius; operable continuously for minimum 1 year period.	
1.3	Must be able to operate on internal battery power, with data loggers able to record at minimum hourly measurements for minimum 1 year period.	
1.4	Must include all relevant communication cables, benchtop connection tools, power cables, attachments, brackets, protective enclosures, anti-fouling guards, wipers, logger computer interface for both Mac and PC, replacement dissolved oxygen sensor cap, as required for operation, data transfer, and data interpretation.	
1.5	<b>Must include relevant materials for calibration of all sensors, including sodium sulfite calibration solution for dissolved oxygen sensor, as well as turbidity calibration solutions across a range of NTU, and solid secondary standard for CDOM (as required for optical sensors in 1.6).</b>	

Solicitation No. – N° de l'invitation  
A7100-174040/A  
Client Ref. No. - N° de réf. du client  
A7100-17040

Amd. No. - N° de la modif.  
002  
File No. - N° du dossier  
WPG-7-40242

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wpg113  
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1.6	<p><b>In addition to the above (1.1-1.5), 2 of the 4 sensor packages:</b></p> <p><b>a. Must include standalone data loggers with interchangeable optical sensors for CDOM.</b></p> <p><b>and 2 of the 4 sensor packages:</b></p> <p><b>b. Must include standalone data loggers with interchangeable optical sensors for Turbidity.</b></p>	
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**ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.**