

ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-186
Name of the item to be scouted:	Phosphate Sensor
State item to be used in:	None

Describe the Item:

<p>Please describe the item application/the end use of the item.</p>	<p>The National Oceanic and Atmospheric Administration (NOAA) Oceanic and Atmospheric Research (OAR), Great Lakes Environmental Research Laboratory (GLERL) a multidisciplinary environmental research laboratory that provides scientific understanding to inform the use and management of Great Lakes and coastal marine environments. By measuring active Phosphorus in the water, the GLERL will be able to refine in their HABs prediction model. Additional sensors similar in form, fit, and function to ClearWater Sensors phosphate sensors are needed to integrate into the existing system.</p>
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Supplier Information:

Type of Supplier Being Sought (select from the list below):

Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	

Reason for Scouting Submission (select from the list below)

2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	x
Other (Please Specify)	

Summary of Technical Specifications and Performance Requirements:

Describe the manufacturing processes (elaborate to provide as much detail as possible)	Unknown except as provided on the attached specs sheet.
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<p>Provide dimensions / size / tolerances / performance specifications of the item</p>	<p>The ClearWater Sensors phosphate sensor is a miniaturized microfluidic phosphate sensor that performs lab-grade measurements in all liquid water environments. The wet-chemistry based sensor will calculate an output in either uM or mg/L of phosphorus from In-Situ samples. It provides on-board reagent cartridges for long term in-situ deployments. This is the only known instrument that can meet the Government's needs, and this notice's intent is to identify any other products that meet the full requirements listed below. Instrument must be compact. Size cannot exceed 56 cm height and 16 cm width It must weigh less than 6.8 kg in air with reagents on board for our mooring purposes It must work on an LED wavelength of 870 nm It must draw no more than 1.8W at max capacity It must have either RS233/RS485 communications output It must have a detection limit of Less than or equal to .02 uM It must have a range of zero to 100 uM It must be able to internally record at least 1GB of memory It must have a sample rate of at least a sample/6 minutes Reagents must be enclosed in plastic cartridges. It must be able to record 1000 samples at a minimum Software and communications cables must be provided by vendor Must have a depth rating of 6000m Must operate within a temperature range of 0-35 deg C Waste must be stored in on-board canister Must have a deployment cable (open tail) 5 meters in length</p>
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List required materials needed to make the product, including materials of product components, if applicable	Unknown except as provided on the attached specs sheet.
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Are there applicable certification requirements?








Yes	
No	x
Please explain:	

Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	
No	x
Please explain:	
NAICS CODES:	
NAICS 1	334513 Instruments and related products manufacturing for measuring, displaying, and controlling industrial process variables
NAICS 2	
Additional Comments:	
Additional technical comments:	Any proposed products must be fully compatible (form, fit, and function) with existing systems without need for modifications to the product or system.
Volume and Pricing:	
Estimated Potential Business Volume (i.e. #units per day, month, year):	One-time purchase
Estimated Target Price/Unit Cost Information:	Quantity 3 phosphate sensors, \$27,895.00 each; quantity 3 lab cables, \$595.00 each; estimated shipping \$1,800.00 total
Delivery Requirements:	
When is it needed by? (Immediate, 30 days, 6 months, etc.)	Anticipate award of purchase order by end of current fiscal year (before 09/20/2024), with delivery by 10/01/2024.
Describe packaging requirements (i.e. individually/group packaging, etc.)	N/A
Where will this item be shipped?	Ann Arbor, MI
Additional Comments:	
Is there other information you would like to include?	This is a Simplified Acquisition, which has a shorter lead time to completion than an action over \$250,000.00. It is expected that this requirement will be awarded within the next 30-60 days, and any timely scouting (requested completed within 15 days from submission) would be appreciated to align with Simplified Acquisition requirements for posting and the Buy American Act Waiver process. Department of Commerce Point of Contact: Marcelle Loveday, Director, Acquisition Policy & Workforce, Office of Acquisition Management, MLoveday@doc.gov.

Phosphate sensor

Based on advanced lab-on-chip technology, this miniaturised microfluidic phosphate sensor performs lab-grade measurements in all liquid water environments.



-  High performance - Sensitive wet-chemical analysis
-  High-resolution data - up to every 5 minutes
-  User friendly - Easily swappable reagents
-  Long endurance - Thousands of readings per reagent canister
-  No drift - Onboard calibration and standardisation
-  Environmentally friendly - Contained onboard waste storage
-  Deep sea - Deployable to 6000 m depth

Specifications

Temperature range: 0-35 °C

Power consumption: 1.8 W

Range: 0-100 µM

Limit of Detection: 0.02 µM

Sample volume: 0.6 mL

Max depth: 6000 m

Comms: USB/serial

Total height: 56 cm

Applications: rivers/estuarine monitoring, aquaculture, ocean science, autonomous vehicles, wastewater monitoring