Supply of Multiparameter Water Quality Instruments

Call-Off Contract

- **Lot 1: Multi-Parameter Hand Held Water Quality Instruments**
- **Lot 2: Multi-Parameter Deployable Water Quality Instruments estuarine and fresh water use**

Reference: C26243 (P35487)
Contract No: C27712

Standard Contract for Goods and Services - Order Form

1. Purchase Order Number	TBC – Following Contract Signature
2. Customer	Environment Agency Caversham Lakes, Henley Road Reading RG4 9RA United Kingdom [redacted] Senior Team Leader –NWQIS - National Water Quality Instrumentation Service National Monitoring – Instruments & Systems Telephone: [redacted] Mobile: [redacted] E-mail: [redacted]@environment-agency.gov.uk
3. Contractor	Xylem Water Solutions UK Limited Private Road No.1 Colwick Industrial Estate Nottingham NG4 2AN United Kingdom [redacted] Strategic Bid Manager Telephone: [redacted] E-mail: [redacted]@Xylem.com
4. Defra Group Members	The following Defra Group members will receive the benefit of the Deliverables: • Environment Agency
5. The Agreement	This Order is part of the Agreement and is subject to the terms and conditions referenced at Appendix 1 and shall come into effect on the Start Date. Unless the context otherwise requires, capitalised expressions used in this Order have the same meanings as in the terms and conditions. The following documents are incorporated into the Agreement. If there is any conflict, the following order of precedence applies (in descending order): a) this Order; b) the terms and conditions at Appendix 1; and c) the remaining Appendices (if any) in equal order of precedence.

6. Deliverables	Applicable Deliverables	Goods Only: ☐ Services Only: ☐ **Good and Services: ☒**
	Goods and Services	**Goods and Services:** The services to be delivered are as outlined in the Specification/Statement of Requirements within 'PART 7' of the Invitation to Tender for Lot 1 and 2 Only. Goods will be purchased by the Authority on a need by basis, procured via the Basware Catalogue/Online Portal. **Delivery:** The delivery of Goods and Services must be in accordance with the NWQIS Service Level Requirements as outlined in the Specification/Statement of Requirements within 'PART 7' of the Invitation to Tender. The NWQIS Service Level Requirements are detailed within *Appendix 1: Terms and Conditions*, below.
7. Start Date	20th January 2025	
8. Expiry Date	20th January 2028 (3 Years) Option to extend to 20th January 2030 (Subject to Agreement)	
9. Charges	The Charges for the Goods shall be as set out in **Appendix 3 – Charges.** The Charges are fixed for the duration of the Agreement.	
10. Payment	Payments will be made to accordance with; • Appendix 3: Charges • Annex 2 Acceptance of Terms and Conditions (7. Charges and payment) • Terms and Conditions at; Low value terms and conditions for goods and services (under £10,000) - GOV.UK (www.gov.uk)	
11. Contractor's Liability Cap (Clause 13.2.1)	The liability of the Contractor as set out in Clause 15.2 of the terms and conditions is limited to [the greater of: (a) an amount equal to 100% of the Charges paid or payable to the Contractor; and (b) £5,000,000	

12. Customer's Authorised Representative(s)	For general liaison your contact will continue to be Attention: [redacted] E-mail: [redacted]@environment-agency.gov.uk
13. Contractor's Authorised Representative	For general liaison your contact will continue to be Attention: [redacted] E-mail: [redacted]@Xylem.com
14. Optional Intellectual Property Rights ("IPR") Clauses	The Customer has chosen **Option C** in respect of intellectual property rights provisions for the Agreement as set out in the terms and conditions. *Option C: Contractor ownership of all New IPR with Customer rights for the current contract and broader public sector functions.*
15. Progress Meetings and Progress Reports	The Contractor shall attend progress meetings with the Customer as required, with representatives, based on the Contract Management and business need. The Customer will agree the business need with the Contractor. The Authority will undertake periodic inspections annually to note any degradation in build quality of equipment casings and sensor performance to note any indications of premature failure.
16. Address for notices	**Customer:** **Environment Agency** Caversham Lakes, Henley Road Reading RG4 9RA United Kingdom Attention: [redacted] E-mail: [redacted]@environment-agency.gov.uk **Contractor:** **Xylem Water Solutions UK Limited** Xylem Water Solutions UK Limited Private Road No.1 Colwick Industrial Estate Nottingham NG4 2AN United Kingdom Attention: [redacted] E-mail: [redacted]@Xylem.com

17. Key Personnel of the Contractor	Attention: [redacted] E-mail: [redacted]@Xylem.com
18. Procedures and Policies	For the purposes of the Agreement Key Personal of the Contractor has been provided within the Invitation to Tender – Reference Appendix 2.
19. Special Terms	Special Term 1 – The Service provided must comply with the ***NWQIS Service Level Requirements.*** *Please refer to* **Appendix 1: Terms and Conditions**
20. Additional Insurance	N/A
21. Further Data Protection Provisions	N/A

Signed for and on behalf of the **Customer**	Signed for and on behalf of the **Contractor**
[redacted] Commercial Manager [redacted]@defra.gov.uk	[redacted] UK Managing Director [redacted]@xylem.com

Appendix 1: Terms and Conditions

Low or Standard Good and Services Terms and Conditions will apply

Low value terms and conditions for goods and services (under £10,000) - GOV.UK (www.gov.uk)

Special Term 1 – The Service provided must comply with the ***NWQIS Service Level Requirements.***

NWQIS Service Level Requirements							
Multiparameter system/Response requirements	**Mandatory new equipment delivery timescale**	**Mandatory consumable delivery timescale**	**Mandatory repair delivery timescales**	**Mandatory replacement of any faulty equipment (which are within warranty) delivery timescale**	**Repair completed on time**	**Repair completed 2 weeks late**	**Repair completed beyond 2 weeks late**
Sonde body	6 weeks	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Optical Dissolved Oxygen	6 weeks	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Temperature	6 weeks	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Conductivity	6 weeks	4 weeks	6 week	2 weeks	Complete Payment	80% Payment	Free
pH	6 weeks	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Ammonium	6 weeks	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Turbidity	6 weeks	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Algal Sensor	6 week	4 weeks	6 weeks	2 weeks	Complete Payment	80% Payment	Free
Nitrate	6 weeks	4 weeks	6 week	2 weeks	Complete Payment	80% Payment	Free
	Mandatory Response Timescale						
Enquiry response time	24 hours						

Appendix 2: Specification

Background

The Environment Agency requires a new Call-Off Contract for the supply of multi-parameter instruments in order to equip the Environment Agency with the best evidence gathering instruments available.

Future equipment must require substantially less maintenance than previously required, have a longer working life and help create cost savings in future years.

The Call-Off Contract is for the supply of handheld meters, and units capable of being telemetry compatible. The latter will be used for estuarine and fresh water deployments.

The Call-Off Contract will be divided into **Two** Lots.

- **Lot 1: Multi-Parameter Hand Held Water Quality Instruments**
- **Lot 2: Multi-Parameter Deployable Water Quality Instruments estuarine and fresh water use**

The instruments will be used for statutory monitoring, (including spot sampling), European Union Directive and Environment Management investigations. Equipment will normally be transported by vehicle then carried to a sampling /deployment location by a member of staff.

The **Invitation to Tender (PART 7),** below provided the full detail of what is expected in terms of the goods / services supplied under this Call-Off Contract. All goods / service proposed must at comply with the mandatory requirements, specified or they will be considered non-compliant.

The Agency will retain the option to purchase upgrades throughout the term of the agreement and these upgrades should be at the same, if not lower prices as those tendered.

The Contractor will be required to use the EA catalogue system for our ordering purposes.

Contract Duration

The Call-Off Contract will be awarded for 3 years with the option to extend for 2 additional 12 month periods.

Pricing

The Prices will be those detailed in the pricelist as submitted in the tender. The Prices will be fixed for the duration of the Contract (3 years) and any agreed extension (2 years), until the Contract ends.

PART 7 – Specification/Statement of Requirement

The instruments will be used for statutory monitoring, (including spot sampling), European Union Directive and Environment Management investigations. Equipment will normally be transported by vehicle then carried to a sampling /deployment location by a member of staff.

This specification provides full detail of what is expected in terms of the goods / services supplied under this Call-Off Contract. All goods / service proposed must at least comply with the mandatory parts of the specification or they will be considered non-compliant. This will result in your tender being excluded from the process.

All requirements in sections 2.1, 2.2 or 2.3 of this specification that use the word ‘must’ will be considered mandatory. Where a requirement also uses the words ‘or exceed’, the basic requirement is still mandatory but extra technical marks can be scored as described in the table in section 1.4.1 of the tender document. These sections carry an asterisk to identify them.

The successful tender will be required to use the EA catalogue system for our ordering purposes. NWQIS will undertake periodic inspections annually to note any degradation in build quality of equipment casings and sensor performance to note any indications of premature failure.

2.1 General Specification for All Lots

G1*
Sonde, sensor, data logging units and any associated battery housings must be waterproof and meet or exceed IP68 standard. Display units must be waterproof and meet or exceed IP67 standard. Robust, quality assured evidence to support this must be provided.

G2
All sonde / sensor and display units must be fully interchangeable.

G3
Calibration information and recorded data must be secure and recoverable following a battery failure.

G4
There must be an auto switch off function.

G5
The Sonde, sensor and display assemblies must have built in Good Laboratory Practice (GLP) diagnostics and data. They must record time / date of calibration, sensor coefficients, slopes and offsets.

G6
The instruments must be capable of providing automatic pH buffer recognition and must accept manual entry of temperature corrected pH values if required.

G7*
The ranges, accuracy and resolution of sensors fitted to the instruments must meet or exceed the requirements of Sensor specification (below).

Sensor performance must be stated in the tender return by the manufacturer. These stated performance values must apply across the whole working temperature range of the instrument.

All automatic or manual sensor, temperature correction factors must apply across the full working range of the instrument.

Robust, quality assured evidence to support this must be provided.

G8*
The equipment (handsets, sonde bodies and sensor assemblies) proposed must have or exceed a working lifespan of 7 years. With the exception of DO and pH tips that must be warranted for a year and NH4 tips 6 months.

G9
The sensors and battery/batteries if fitted must be housed into a single sonde body.

G10*
The sonde and sensor assembly bulkheads must be constructed of marine grade stainless steel (316) or a material that exceeds this specification regards its corrosion and strength characteristics such as duplex or titanium. Robust, quality assured evidence to support this must be provided.

G11
The sonde and sensor assembly bulkheads must be capable of withstanding exposure to detergents; methanol based cleaning agents and Virkon disinfectant. Robust, quality assured evidence to support this must be provided.

G12*
The instruments must meet or exceed a period of 4 weeks to remain within calibration.

G13
The sonde, sensor and display assemblies must be capable of direct connection to a PC for the purposes of calibration and / or software update.

G14
Instruments must retain all calibration offsets, coefficients and settings indefinitely. Individual sensors must be fully transferable from sonde to sonde and retain calibration offsets, coefficients and settings without the need for re-configuration.

G15
The data must be able to be downloaded from the unit to an Environment Agency networked computer (currently a Windows 7 desk PC).

G16
Suppliers must carry out preventative measures to ensure all software is virus free for the life of the contract.

G17
The instruments must be capable of outputting data in RS232 or SDI12 format directly or via an appropriate adapter.

G18
The Contractor must provide any manufacturer derived software upgrades free of charge to the Agency for the life of the contract.

G19
Stored data must be exported in Excel readable format and be able to be converted to an ‘XML’ format.

G20
Stored data must be protected by non-volatile memory.

G21
All necessary software licensing requirements must be provided. The software and licenses will not be chargeable to the Agency for the life of the contract.

G22
The instruments must offer flexible data logging options.

G23
Data must be secure in the event of a power failure.

G24
Display units must be small enough for hand-held operation in the field and have a backlight for use at night.

G25
The Instruments must be robust and fit for the purpose of use in the field. Robust, quality assured evidence to support this must be provided.

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G26*
Handset battery covers must be waterproof and meet or exceed IP67. Robust, quality assured evidence to support this must be provided.

G27
All sensors must be field replaceable.

The instrument must be capable of delivering the following sensors:

Optical Dissolved Oxygen %
Optical Dissolved Oxygen mg/L (derived)
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH
Ammonium
Ammonia (derived)
Turbidity
Chlorophyll A
BGA
Optical Nitrate
FDOM
And have the capability to read additional analogue sensors such as the Turner Hydrocarbon Sensor or other in the same series.

G28
The Agency will retain the option to purchase upgraded instrumentation throughout the term of the agreement. A technical assessment would be undertaken by specialists at NWQIS to assess whether the upgrade is needed and provides improved quality, based on Price.

The Authority would enter into dialogue with the Contractor to achieve the Best Price and Value for Money.

Sensor Specification

Dissolved Oxygen

The instrument must use a dissolved oxygen sensor that employs the Luminescent “Life Time” Dissolved Oxygen measurement technique.

The sensor must be capable of measuring dissolved oxygen in the range of 0-20 mg/l with an accuracy of +/- 0.1 mg/l; and in the range of 0-200% saturation with an accuracy of +/- 1% air saturation.

The sensor must be able to measure dissolved oxygen in the range of 20-50 mg/l with an accuracy spec at this range of +/- 5% of the reading; and in the range of 200-500% saturation with an accuracy spec of +/- 5% of the reading.

The optical DO sensor membrane must be field replaceable component that does not require the use of tools to replace.

The Dissolved Oxygen sensor must be able to be calibrated with a one-point saturated air or water technique.

Turbidity

The instrument must be capable of measuring turbidity using a Nephelometric type probe.

It must be able to measure turbidity in the range 0-4000 NTU.

The sensor must have an accuracy of +/- 2% of reading or 0.2 NTUs (whichever is greater) from 0-999 NTU and an accuracy of +/- 5% of reading from 1000-4000 NTU.

Temperature

The instrument must be capable of measuring temperature using a NIST-traceable calibrated thermistor in the range of -5 to 50 degrees C with an accuracy of +/- 0.01 degrees C; with a resolution of 0.01 degrees C from -5 to 35 degrees C.

Each temperature sensor must include a factory calibration/NIST reference sheet.

Conductivity

The instrument must be capable of measuring conductivity in the range of 0-200 mS/cm with an accuracy of +/- 0.5% or 0.001 mS/cm and a resolution of 0.001 to 0.1 mS/cm.

The sensor must also be capable of measuring/deriving salinity in the range 2-40 PSU with an uncertainty of.2 PSU when calibrated in standard seawater.

pH

The instrument must be capable of measuring pH in the range of 0-14 with an accuracy of +/- 0.2 for the entire temperature range with a resolution of 0.01.

NH4

The instrument must be capable of measuring ammonium (NH4) in the range 0-200mg/L

with a resolution of 0.01mg/L, with an accuracy ±10% or ±0.5mg/L or whichever is greater, in the range 0-2mg/L and ±20% or 2mg/L, whichever is greater in the range 2-200mg/L.

Chlorophyll and BGA

The instrument must be capable of measuring Chlorophyll A and Phycocyanin with a Total Algae Sensor, a dual-channel fluorescence sensor which measures both chlorophyll and blue-green algae (cyanobacteria) in a single probe.

ORP

The instrument must be capable of measuring ORP in the range of -999 to +999 mV with an accuracy of +/- 20 mV and a resolution of 1 mV using a combination electrode with a gel-filled reference electrode.

FDOM

The instrument shall be capable of measuring FDOM in the range of 0-300ppb QSU with a resolution of 0.01 ppb QSU and a linearity of R2>0.999 in a serial dilution of 300ppb Quinine Sulphate solution using a UV light sensor.

Nitrate

The instrument must be capable of measuring Nitrate using optical methodology as Nitrogen in the range of 0-10 mg/L with an accuracy of or +/- 0.4 mg/L, in freshwater, across the full temperature range and within a resolution of 0.01 mg/L.

This sensor will be fully integrated into the instrument without the need for any additional infrastructure.

2.2

Lot Specific Information

Lot 1 specific: Multi-parameter Hand Held Water Quality Instruments (only to be answered by bidders for Lot 1)

LS1.1*
The Instrument must be powered by a re-chargeable battery able to achieve or exceed 48 hours continuous operation on a single charge.

LS1.2
The display unit must be supplied with and be capable of being re-charged using a car charger directly into the unit.

LS1.3*
The instrument must be able to deliver or exceed three sensor configurations including the following

Configuration 1

Optical Dissolved Oxygen
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH
Ammonium
Ammonia (derived)

Configuration 2

Optical Dissolved Oxygen
Temperature
Conductivity
Specific Conductivity (derived)
Salinity(derived)
pH
Turbidity

Configuration 3

Optical Dissolved Oxygen
Turbidity
Additional spare optical port for future proofing e.g.: chlorophyll
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)

2.2

Lot 2 Specific: Multi- Parameter Deployable Water Quality Instruments (only to be answered by bidders for Lot 2)

LS2.1
The logger must be capable of use with real time telemetry systems and must communicate using RS232, SDI12 or RS485. The use of adapters for converting communications protocol is acceptable.

LS2.2
The instrument must be capable of being deployed unattended and log data to an internal memory and third party telemetry systems. The sonde must also be capable of remote configuration through telemetry via RS232 and/or SDI12.

LS2.3
An integrated and effective anti- fouling wiper system that cleans all the sensors must be a configurable option. Robust, quality assured evidence to support this must be provided.

LS2.4*
The multi-parameter water quality instrument when used as a logger must be able to meet or exceed a period of 12 weeks normal operating use (at 15min interval) without needing to change batteries or charge the power unit.

LS2.5
The multi parameter instrument must comprise of one discreet sonde body and be waterproof to a depth of at least 200m.

LS2.9
The instrument must be capable of delivering the following distinct sensor configuration:

Configuration 1

Optical Dissolved Oxygen %
Optical Dissolved Oxygen mg/L (derived)
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH
Ammonium
Ammonia (derived)
Turbidity
Chlorophyll A
BGA

Configuration 2

Optical Dissolved Oxygen %
Optical Dissolved Oxygen mg/L (derived)
Temperature
Conductivity
Specific Conductivity (derived)
Salinity (derived)
pH
Ammonium
Ammonia (derived)
Chlorophyll A
BGA

Nitrate

2.3 After Sales Provision

AS1
All handsets and sondes must offer or exceed a free full 2 years parts and labour warranty.

Sensor warranties must be clearly defined and agreed with the Agency.

AS2
All repairs must be completed within 8 weeks. Ant repairs beyond 8 weeks will adhere to the Service Level Agreement Terms. Please refer to **Proposed Timeline and Project Milestones.**

AS3
All equipment that fails whilst under warranty must be replaced free of charge with equivalent equipment for the duration of the repair.

AS4
Supplier must carry a stock of spares throughout the working life described by the supplier in their response to G8. Ion selective modules including pH and NH4 must be provided for the whole life of the contract.

AS5
The Supplier must provide a single point of contact for purchase of equipment and scheduling of aftersales service. Response to queries from the Agency must be made within 1 working day

AS6
Warranty of sensors will commence on receipt of goods at Environment Agency Premises.

2.4 Future Upgrades

Please provide information regarding any planned upgrades to a) products you are offering under this Call-Off Contract and b) related products not being offered under this Call-Off Contract. We would like to know what improvements / benefits the new products offer. You must inform us if any of the products you are proposing under this Call-Off Contract may become obsolete during the term.

Please also provide the expected launch dates for any new products. For any upgrades to products awarded under this Contract, the Agency will be entitled to take like for like upgrades at the prices awarded for the original product.

This section is for information only and will not be included in the technical evaluation.

Lot 3 - Lot Specific Information

Lot 3 specific: Multi- Parameter Deployable Water Quality Instruments Marine (only to be answered by bidders for Lot 3)

NOTE: Lot 3 was not awarded and does not form part of this Contract.

Authority's Invitation to Tender	Contractor's Tender
[redacted]	**Lot 1:** **Multi-parameter Hand Held Water Quality Instruments** [redacted] **Lot 2:** **Multi- Parameter Deployable Water Quality Instruments** [redacted] S[redacted]

Appendix 3: Charges

The Cost of the Contractor's instrumentation will be in accordance with the **Unit Prices** of Each Product, as provided within ***Appendix A – Lot Based Price***, as part of the Tender.

The Prices will be fixed for the duration of the Contract (3 years) and any agreed extension (2 years), until the Contract ends.

Please note that the estimated Quantities that were provided in the Tender will not mandate the Quantity of Products purchased during the life of the Contract.

Appendix A - Lot Based Price.xlsx

Goods and Services will be procured by the Authority on a Call-Off basis. The number of Goods or Services procured will not be guaranteed throughout the life of the Contract.

Customers will procure these Goods and Services using their own Cost Centre Code. The Contract Value will be capped at the allocated Budget, agreed by the Authority.