

## REQUEST FOR INFORMATION

<b>RFI NUMBER:</b>	JW RFI 02 05 2024	<b>CLOSING DATE:</b>	09 MAY 2024 @ 16H00
<b>DESCRIPTION:</b>	THE SUPPLY, INSTALLATION, COMMISSIONING, MAINTENANCE, AND PROVISION OF REAGENTS AND TRAINING FOR REAL-TIME PCR SYSTEMS ON A ONCE-OFF BASIS AT CYDNA LABORATORIES, HOUGHTON.		
<b>ISSUE DATE</b>	02 May 2024		
<b>Submit via Email to:</b>	<a href="mailto:sinna.hlongwane@jwater.co.za">sinna.hlongwane@jwater.co.za</a>		

ENQUIRIES MAY BE DIRECTED TO:			
Bidding procedure inquiries <u>must</u> be sent to		Technical inquiries must be directed to	
<b>CONTACT PERSON</b>	Sinna Hlongwane	<b>CONTACT PERSON</b>	Nondalo Shandu
<b>TELEPHONE NUMBER</b>	011 688 1410	<b>TELEPHONE NUMBER</b>	011 688 4446
<b>E-MAIL ADDRESS</b> (Submissions must be made to this address)	<a href="mailto:sinna.hlongwane@jwater.co.za">sinna.hlongwane@jwater.co.za</a>	<b>E-MAIL ADDRESS</b>	<a href="mailto:nondalo.shandu@jwater.co.za">nondalo.shandu@jwater.co.za</a>

SUPPLIER INFORMATION			
<b>NAME OF BIDDER</b>			
<b>STREET ADDRESS</b>			
<b>TELEPHONE NUMBER</b>	<b>CODE</b>		<b>NUMBER</b>
<b>CELLPHONE NUMBER</b>			
<b>E-MAIL ADDRESS</b>			
<b>VAT REGISTRATION NUMBER</b>			
<b>CENTRAL SUPPLIER DATABASE No:</b>	MAAA		
<b>MANUFACUTER OR THIRD PARTY</b>			

## **1. PURPOSE OF THE REQUEST FOR INFORMATION**

To assist the organization with business decision-making purposes for a once-off Request for Tender with regards to budget, cost-effectiveness, risk assessment, specific goals to include in the tender, award, and allocation strategy to incorporate, non-firm prices, pricing schedule, and special conditions of the tender.

## **2. BACKGROUND**

Johannesburg Water invites service providers to respond to a Request for Information for the supply, installation, commissioning, maintenance, and provision of reagents and training for real-time PCR systems on a once-off basis at Cydna laboratories, Houghton. This RFI is strictly to solicit market-related information from potential bidder(s) for the supply, installation, commissioning, maintenance, and provision of reagents and training for real-time PCR systems on a once-off basis at Cydna laboratories, Houghton. This RFI does not constitute; an offer; or any impression none so ever to do business with Johannesburg Water.

## **3. SCOPE OF WORK AND SPECIFICATIONS**

### **REQUIREMENT**

Johannesburg Water seeks responses from interested parties for the supply, installation, commissioning, maintenance, and provision of reagents and training for real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.

### **GENERAL DESCRIPTION**

For Johannesburg Water, ensuring the safety and quality of the city's water supply is paramount. With real-time PCR machines, we can take proactive steps to protect public health by swiftly detecting a wide range of waterborne pathogens, including bacteria, viruses, and protozoa. This technology allows us to monitor water quality in real time, providing early warnings of any contamination that could pose a risk to residents.

Traditionally, water testing methods could take days to yield results, leaving us vulnerable to undetected contamination. However, real-time PCR offers rapid turnaround times, enabling us to detect contamination early and take immediate action to safeguard public health. By investing in this cutting-edge technology, we are enhancing our ability to manage water quality effectively and ensure the continued delivery of safe drinking water to the community.

In addition, it's important to note that over the last three years, the water sector has faced numerous scares regarding drinking water safety. Instances of typhoid, cholera, and legionella

outbreaks have underscored the critical importance of robust water quality monitoring and rapid response measures. Real-time PCR technology plays a crucial role in addressing these challenges, providing us with the ability to detect and respond to potential threats promptly, thereby safeguarding the health and well-being of Johannesburg's residents.

## **LOCATION OF SITES**

The site is located within a radius of 40 km of the center of Johannesburg, and it is as follows:

- Cydna Laboratories

Cydna laboratories are situated at No. 75 4th St, Houghton Extend, Johannesburg, 2192.

## **SPECIFICATION & SCOPE OF WORK**

Supply, installation, commissioning, maintenance, and provision of reagents and training for real-time PCR systems on a once-off basis at Cydna laboratories, Houghton: The work consists of the following:

- **Supply of real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.**
- **Delivery of real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.**
- **Installation of real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.**
- **Commissioning of real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.**
- **Training real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.**
- **Provision of Reagents and consumables for real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.**
- **Three-year Maintenance of real-time PCR systems on an as and when basis at Cydna laboratories, Houghton.**

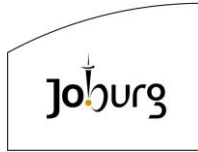
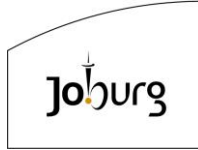


Table 1: Breakdown of equipment to be serviced and repaired, equipment summary:

**a) SPECIFICATIONS FOR REAL-TIME PCR SYSTEM (96-WELL, 0.1 ML)**

ITEM	SPECIFICATIONS REQUIRED	COMPLIED YES/NO
1	Throughput: 96-well, 0.1 ml format	
2	Detection Method: Real-time fluorescence detection	
3	Sample Capacity: Minimum 96 samples per run	
4	Thermal Block: Peltier-based heating and cooling system for precise temperature control	
5	Temperature Range: Adjustable temperature range from ambient to 100°C	
6	Temperature Uniformity: $\pm 0.5^{\circ}\text{C}$ across all wells	
7	Heating/Cooling Rate: Rapid heating and cooling rates for efficient PCR cycling	
8	Optical System: Highly sensitive photodetectors for accurate detection of fluorescence signals	
9	Excitation Sources: Multiple LED excitation sources for various fluorophores	
10	Detection Channels: At least four detection channels for multiplexing capability	
11	Detection Filters: Interchangeable filters for versatile fluorescence detection	
12	Software: User-friendly software interface for easy experiment setup, data analysis, and result interpretation	
13	Data Analysis: Advanced algorithms for accurate quantification, melting curve analysis, and genotyping	
14	Connectivity: USB and Ethernet connectivity for data transfer and remote operation	
15	Compatibility: Compatible with standard PCR reagents and consumables	
16	Calibration: Automated calibration procedures for consistent performance	



17	Quality Control: Built-in quality control features to ensure reliable results	
18	Training: Comprehensive training provided for instrument operation and data analysis (08 Employees)	
19	Installation and commissioning	
20	The PC must have the following minimum features: Intel Core i7 CPU 4- Core 3.50GHz, 8GB DDR4-2133 4C RAM, 1 TB HDD, NVIDIA Quadro K60 (2GB) Graphics Card, DVD Writer, Windows 10 64-bit MS Office or above, 24" LED Monitor with 2 USB ports, Mouse, keypad, PCI Express Slots-2Nos., USB ports.	



Table 2: Breakdown of Reagents, and consumables to be procured over three (3) years:

**b) SPECIFICATIONS REAGENTS AND CONSUMABLES COMPATIBLE WITH APPLIED BIOSYSTEMS 7500 REAL-TIME PCR SYSTEM AND PROPOSED MODEL ON AN AS AN WHEN BASIS FOR THREE YEARS**

ITEM	SPECIFICATIONS REQUIRED	COMPLIED YES/NO
1	96 well Kit - Verification plates	
2	Quality control kits	
3	Nucleic acid decontamination solution that effectively and efficiently degrades nucleic acids from all types of surfaces	
4	Nucleic-free water 500ml	
5	PCR Buffer (with MgCl <sub>2</sub> or other divalent cations)	
6	PCR Grade Water (nuclease-free water for reconstitution of reagents)	
7	PCR Plates (96-well PCR plates)	
8	PCR Tubes (0.2 mL tubes)	
9	PCR Tube Strips	
10	PCR Tube Racks or Plate Holders	
11	DNA Extraction Kits (for isolation of genomic DNA from various sample types)	
12	RNA Extraction Kits (for isolation of RNA in RT-PCR experiments)	
13	RNase Inhibitors (for RNA preservation)	
14	DNA/RNA Storage Buffer (e.g., TE buffer)	
15	Cryogenic Tubes (for long-term storage of DNA/RNA samples)	



16	Freezer Boxes and Racks (for organization and storage of samples)	
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Table 3: Breakdown of Real-Time PCR Essays to be procured over three (3) years:

**c) SPECIFICATIONS REAL-TIME PCR ASSAYS - PATHOGEN ESSAY KITS COMPATIBLE WITH APPLIED BIOSYSTEMS  
7500 REAL-TIME PCR SYSTEM AND PROPOSED MODEL ON AN AS AN WHEN BASIS FOR THREE YEARS**

ITEM	SPECIFICATIONS REQUIRED	COMPLIED YES/NO
1	Escherichia coli (E. coli)	
2	Salmonella spp.	
3	Legionella pneumophila	
4	Campylobacter spp.	
5	Vibrio cholerae	
6	Enterococcus spp.	
7	Pseudomonas aeruginosa	
8	Helicobacter pylori	
9	Shigella spp.	
10	Aeromonas hydrophila	
11	Listeria monocytogenes	
12	Clostridium perfringens	
13	Mycobacterium avium complex (MAC)	

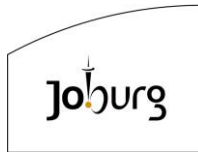


14	Staphylococcus aureus	
15	Giardia lamblia (protozoan)	
16	Cryptosporidium parvum (protozoan)	
17	Entamoeba histolytica (protozoan)	
18	Cyclospora cayetanensis (protozoan)	
19	Leptospira spp.	
20	Arcobacter spp.	
21	Norovirus	
22	Rotavirus	
23	Hepatitis A virus	
24	Adenovirus	
25	Astrovirus	

Table 4: Breakdown of Real-Time PCR Essays to be procured over three (3) years:

**d) SPECIFICATIONS MAINTENANCE FOR TWO REAL-TIME PCR MACHINE**

ITEM	SPECIFICATIONS REQUIRED	COMPLIED YES/NO
1	<p>Annual Preventive Maintenance for existing Applied Biosystems 7500 Real-Time PCR System:</p> <p><i>Conduct annual preventive maintenance checks to ensure the proper functioning of the real-time PCR system. This includes:</i></p> <ul style="list-style-type: none"> <li>• Inspection of the thermal block, heating/cooling system, and optical components for any signs of wear or damage.</li> <li>• Calibration of temperature control settings to maintain <math>\pm 0.5^{\circ}\text{C}</math> uniformity across all wells.</li> <li>• Verification of heating and cooling rates to ensure efficient PCR cycling.</li> <li>• Examination of photodetectors and LED excitation sources for optimal fluorescence signal detection.</li> <li>• Replacement of detection filters if necessary for continued versatile fluorescence detection.</li> <li>• Software updates and calibration checks to maintain accurate data analysis and result interpretation.</li> </ul>	
2	<p>Annual Preventive Maintenance for the new proposed real-time PCR model:</p> <p><i>Conduct annual preventive maintenance checks to ensure the proper functioning of the real-time PCR system. This includes:</i></p>	



	<ul style="list-style-type: none"><li>• Inspection of the thermal block, heating/cooling system, and optical components for any signs of wear or damage.</li><li>• Calibration of temperature control settings to maintain <math>\pm 0.5^{\circ}\text{C}</math> uniformity across all wells.</li><li>• Verification of heating and cooling rates to ensure efficient PCR cycling.</li><li>• Examination of photodetectors and LED excitation sources for optimal fluorescence signal detection.</li><li>• Replacement of detection filters if necessary for continued versatile fluorescence detection.</li><li>• Software updates and calibration checks to maintain accurate data analysis and result interpretation.</li></ul>	
3	Warranty Coverage and Extended Service for at least 1 year	

## **QUALITY ASSURANCE**

All materials and components used in the installation and commissioning of real-time PCR systems equipment shall comply with the requirements of the original equipment manufacturer (OEM) specifications and shall be of the best quality suitable for the purpose for which they are intended.

## **REPORTING**

Test certificates for the software program, along with all necessary paperwork to confirm the equipment's operational status, must be submitted to the facilities administrator at Cydna Laboratories within three weeks of the work's completion.

## **GUARANTEE PERIOD**

All consumables, software, and parts commissioned and installed on equipment undertaken must have a guarantee.

## **PAYMENT**

Payment will be made, upon presentation of an invoice, according to the work being fulfilled by the supplier, which is to supply, install, commissioning, maintain, and provision reagents and training for real-time PCR systems on a once-off basis at Cydna laboratories, Houghton.

## **STATUTORY, REGULATORY AND OHSA REQUIREMENTS**

The Service provider shall at all times during the contract, comply in all respects with the safety and other requirements of the Occupational Health and Safety Act 85 of 1993 and the regulations applicable hereunder.

#### 4. PRICE SCHEDULE

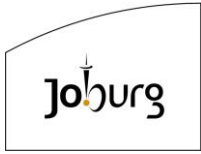
##### 4.1 THE SUPPLY, INSTALLATION, COMMISSIONING, MAINTENANCE, AND PROVISION OF REAGENTS AND TRAINING FOR REAL-TIME PCR SYSTEMS ON A ONCE-OFF BASIS AT CYDNA LABORATORIES, HOUGHTON

ITEM DESCRIPTION	UNIT PRICE (Excl VAT) R	VAT@15% R	TOTAL PRICE (INCL VAT) R
Real-time PCR system (96-well, 0.1 ml)			
Reagents and consumables compatible with applied biosystems 7500 real-time PCR system and proposed model			
Real-time PCR assays - pathogen essay kits compatible with applied biosystems 7500 real-time PCR system and proposed model			
Maintenance for two real-time PCR machine			
PC workstation			
Installation and commissioning			
One day Training of 8 employees			
<b>TOTAL COSTS (INCL VAT) R</b>			

Prices Firm / Non-Firm?

Suppliers are to complete the below according to their company details.

INFORMATION FOR SPECIFIC GOALS ANALYSIS	
<b>BUSINESS OWNED BY 51% OR MORE -BLACK PEOPLE</b>	
1. Percentage (%) of Black Ownership)	
2. Is Black Ownership 51% or more? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE – BLACK YOUTH</b>	
1. Percentage (%) of Ownership by Black Youth	
2. Is the percentage of Black Youth Ownership 51 % or more? (Yes or No)	
<b>BUSINESSES OWNED BY 51% OR MORE WOMEN</b>	
1. Percentage (%) of Ownership by People who are Women	
2. Is the percentage of People who are Women 51 % or more? (Yes or No)	
<b>BUSINESSES LOCATED WITHIN THE BOUNDARIES OF A REGION IN COJ, COJ MUNICIPALITY, OR IN GAUTENG PROVINCE</b>	
1. Is your business located in the Gauteng Province? (Yes or No)	
2. Is your business located in the COJ Municipality? (Yes or No)	
3. Is your business located within the region of the COJ? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE - BLACK PEOPLE WHO ARE MILITARY VETERANS</b>	
1. Percentage (%) of Ownership by Black People Who Are Military Veterans	
2. Is the percentage of Ownership by Black People Who Are Military Veterans 51% or more? (Yes or No)	
<b>BUSINESS OWNED BY 51% OR MORE-BLACK PEOPLE WITH DISABILITIES</b>	
1. Percentage (%) of Ownership by Black People With Disabilities	
2. Is the percentage of Ownership by Black People with Disabilities 51% or more? (Yes or No)	
<b>SMME (AN EME OR QSE) OWNED BY 51% OR MORE - BLACK PEOPLE</b>	
1. What is the Enterprise Type? EME – turnover is less than R10m QSE – Turnover between R10m and R50m Generic – Turnover is R50M of more	
<b>JOINT VENTURE (JV), CONSORTIUM OR EQUIVALENT</b>	
1. What is the percentage (%) of ownership for each party?	
<b>SUBCONTRACTING WITH COMPANIES AT LEAST 51% OWNED BY HISTORICALLY DISADVANTAGED INDIVIDUAL (HDI) GROUPS MENTIONED ABOVE</b>	



- |   |  |
|---|--|
| <p>1. What is the percentage (%) that will be subcontracted to companies that are at least 51% owned by Historically Disadvantaged Individual (HDI) groups mentioned above?</p> |  |
|---|--|