Request for Proposals # **274-08-2024-FMH**

Title: EM Johnson WTP/Remote Site Instrumentation Services

Issue Date: August 23, 2024

Due Date: September 18, 2024, **no later than 2:00PM EST**

LATE PROPOSALS WILL NOT BE ACCEPTED

Issuing Department: ***Raleigh Water / EMJ Water Treatment Plant***

Direct all inquiries concerning this RFP to:

Mike Hughes
Plant Operations Superintendent
Email: Frederick.Hughes@raleighnc.gov

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1 INTRODUCTION

1.1 Purpose

The City of Raleigh Public Utilities Department (CORPUD) is solicitating proposals from one or more firm(s) with which to contract for the following services: The City of Raleigh E.M. Johnson Water Plant (EMJ) is seeking the services of an established Instrumentation Service company to provide routine maintenance and calibration services of the items on attachment Exhibit A and Exhibit B at the frequencies indicated. Exhibit C list the weekly/monthly cleaning duties. The Contractor must provide calibrations to NIST (National Institute of Standards and Technology) Traceable standards or standards as defined by the equipment manufactures specifications or as defined the by City of Raleigh. To accomplish this Contractor will use ISO17025 Accredited Field Service Engineers or personnel certified and trained by the manufacturer of the equipment in Exhibit A or personnel having extensive experience and training on all devices within the equipment listing in Exhibit A. Please note new equipment has been added since the 2020 RFP.

A detailed scope of services is provided in Section 4 of this document.

All information related to this solicitation, including any addenda, will be posted to the North Carolina electronic Vendor Portal (eVP) at https://evp.nc.gov/.

All questions related to this solicitation must be submitted in writing (via email) to the following individual:

Contact Name	Email Address
Mike Hughes	Frederick.Hughes@raleighnc.gov

Questions submitted via telephone will not be answered.

1.2 Background

The City of Raleigh, the Capital City of North Carolina, remains one of the fastest growing areas in the country. A great economy, top educational institutions, and exceptional health care facilities are some of the characteristics that attract people to the triangle area. The mild climate, diverse work force and proximity to Research Triangle Park combine to make Raleigh a great place to live.

Raleigh is a 21st Century City of Innovation focusing on environmental, cultural, and economic sustainability. The City conserves and protects our environmental resources through best practice and cutting-edge conservation and stewardship, land use, infrastructure and building technologies. The City welcomes growth and diversity through policies and programs that will protect and enhance Raleigh's existing neighborhoods, natural amenities, history, and cultural and human resources for future generations. The City leads to improve quality of life for neighborhoods and standard of living for all citizens. The City works with universities, colleges, citizens, and local partners to promote new technology, create new job opportunities, and encourage local businesses and entrepreneurs. The City enlists and prepares 21st Century staff with the skill sets to carry

out the duties of the City through transparent civic engagement and by providing the very best customer service to our citizens.

CORPUD operates and maintains the 86 MGD E.M. Johnson Water Treatment Plant to produce potable drinking water for the City's retail and contract water customers. The City uses equipment and instrumentation throughout the water treatment process and in the distribution system remote sites (Tanks and Pump Stations) to continuously monitor pressure, flow, levels, chemical residual, turbidity, pH, ozone, temperature, gas, particle counts, etc. The new Star Road Compliance Lab has thermometers that will be serviced as well. This equipment and instrumentation requires repair, cleaning, and calibration at various frequencies as stated in Exhibits A, B, C, and E.

1.3 Request for Proposal (RFP) Timeline

Provided below is a list of the anticipated schedule of events related to this solicitation. The City of Raleigh reserves the right to modify and/or adjust the following schedule to meet the needs of the service. All times shown are Eastern Time (EST):

RFP Process	Date and Time
RFP Advertisement Date	*August 23, 2024*
Pre-Proposal Conference(Mandatory)	*August 28, 2024 @ 10:30 am*
Deadline for Written Questions	*September 3, 2024, 2:00 pm*
City Response to Questions (anticipated)	*September 6, 2024, 2:00 pm*
Proposal Due Date and Time	*September 18, 2024 @ 2:00 pm*
Evaluation Meeting (anticipated)	*September 20, 2024*
Interviews (if required)	*N/A*
Selection Announced (tentative)	*October 14, 2024*

1.4 Pre-Proposal Conference

If the City of Raleigh elects to conduct a Pre-Proposal Conference or Site Visit, attendance by prospective proposers is mandatory. Prospective Proposers are encouraged to submit written questions in advance. Date, time, and location of pre-proposal conference is shown above in the RFP Timeline (Section 1.3).

1.5 Proposal Questions

Requests for clarification and questions to this RFP must be received by the City not later than the date shown above in the RFP Timeline (Section 1.3) for the submittal of written

inquires. The firm's failure to request clarification and submit questions by the date in the RFP Timeline above shall be considered to constitute the firm's acceptance of all City's terms and conditions and requirements. The City shall issue addenda reflecting questions and answers to this RFP, if any, and shall be posted to North Carolina electronic Vendor Portal (eVP). No information, instruction or advice provided orally or informally by any City personnel, whether made in response to a question or otherwise in connection with this RFP, shall be considered authoritative or binding. Respondents shall be entitled to rely *only* on written material contained in an Addendum to this RFP.

It is important that all Respondents submitting to this RFP periodically check eVP for any Addenda. It is the Respondents responsibility to ensure that all addenda have been reviewed and, if required signed and returned.

All questions related to this solicitation must be submitted in writing (via email) to the following individual:

Contact Name	**Email Address**
Mike Hughes	Frederick.hughes@raleighnc.gov

Questions submitted via telephone will not be answered.

1.6 Proposal Submission Requirements and Contact Information

Proposals must follow the format as defined in Section 2 (PROPOSALS), and be addressed and submitted as follows:

DELIVERED BY US POSTAL SERVICE MAIL:	**DELIVERED BY OTHER DEIVERY SERVICES: UPS/Fed Ex**
DO NOT use US Postal Service	City of Raleigh ATTN: Mike Hughes EM Johnson WTP 10301 Falls of Neuse Rd Raleigh, NC 27614 RFQ No. 274-08-2024 FMH

Proposals must be enclosed in an envelope or package and clearly marked with the name of the submitting company, the *RFP number* and the *RFP Title*.
Proposers must submit:

A. one (1) signed original;
B. one (1) electronic version of the signed proposal and;
C. and (write number (x) of paper copies need by the evaluation team) copies of the signed proposal.

The electronic version of the Proposal must be submitted as a viewable and printable Adobe Portable Document File (PDF) on a USB Flash Drive. Both hard copy and

electronic versions must be received by the City on or before the RFP due date and time provided in RFP Timeline (Section 1.3). Proposals received after the RFP due date and time will not be considered and will be returned unopened to the return address on the submission envelope or package.

Any requirements in the RFP that cannot be met must be indicated on Appendix VI: Exceptions to the RFP and submitted with the proposal. **Proposers must respond to the entire Request for Proposals (RFP). Any incomplete proposal may be eliminated from competition at the discretion of the City of Raleigh.** The City reserves the right to reject any or all proposals for any reason and to waive any informality it deems in its best interest.

Proposals that arrive after the due date and time will not be accepted or considered for any reason whatsoever. If the firm elects to mail in its response, the firm must allow sufficient time to ensure the City's proper receipt of the package by the time specified in the RFP Timeline (Section 1.3). Regardless of the delivery method, it is the responsibility of the firm to ensure that their proposal arrives at the designated location specified in this Section by the due date and time specified in the RFP Timeline (Section 1.3).

1.7 MWBE Participation Form

The City of Raleigh prohibits discrimination in any manner against any person based on actual or perceived age, race, color, creed, national origin, sex, mental or physical disability, sexual orientation, gender identity or expression, familial or marital status, religion, economic status, or veteran status. The City maintains an affirmative policy of fostering, promoting, and conducting business with women and minority owned business enterprises.

Complete and submit the MWBE Participation Form (Appendix IV) with your proposal.

1.8 Rights to Submitted Material

All proposals and supporting materials, as well as correspondence relating to this RFP, shall become the property of the City. The content of all submittals will be held confidential until the selection of the firm is made. Proposals will be reviewed by the Evaluation Team, as well as other City staff and members of the general public who submit public record requests. ***Any proprietary data must be clearly marked.*** In submitting a Proposal, each Prospective Proposer agrees that the City may reveal any trade secret materials contained in such response to all City staff and City officials involved in the selection process and to any outside consultant or other third party who serves on the Evaluation Team or who is hired by the City to assist in the selection process.

The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the proposer of the conditions contained in this Request for Proposals. Proposals marked entirely as "confidential", "proprietary", or "trade secret" will be considered non-responsive and will be removed from the evaluation process.

1.9 Communications

All communications of any nature regarding this RFP with any City staff, elected City officials, evaluation committee members, are strictly forbidden from the time the

solicitation is publicly posted until award. Questions must be submitted in writing to the individual designated in Section 1.1 (Purpose), prior to the deadline provided in the RFP Timeline (Section 1.3). Violation of this provision may result in the firm's proposal being removed from consideration.

1.10 Lobbying

By responding to this solicitation, the firm certifies that is has not and will not pay any person or firm to influence or attempt to influence an officer or employee of the City or the State of North Carolina, or any elected official in connection with obtaining a contract as a result of this RFP.

1.11 Conflicts of Interest

City of Raleigh contracts are controlled by three conflict of interest provisions.

First, federal procurement standards provide in 2 CFR 200.318 (c)(1),

> No employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or a firm which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of the non-Federal entity may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts.

Similarly, the North Carolina General Statutes provides a *criminal* statute for conflicts of interest in public contracting. N.C.G.S. § 14-234(a):

> (1) No public officer or employee who is involved in making or administering a contract on behalf of a public agency may derive a direct benefit from the contract except as provided in this section, or as otherwise allowed by law. (2) A public officer or employee who will derive a direct benefit from a contract with the public agency he or she serves, but who is not involved in making or administering the contract, shall not attempt to influence any other person who is involved in making or administering the contract. (3) No public officer or employee may solicit or receive any gift, favor, reward, service, or promise of reward, including a promise of future employment, in exchange for recommending, influencing, or attempting to influence the award of a contract by the public agency he or she serves.

City of Raleigh Charter Section 3.9 regulates private transactions between the City and its officials and employees. The Charter states:

> No member of the City Council, official, or employee of the City of Raleigh shall be financially interested, or have any personal beneficial interest, either directly or indirectly, as agent, representative, or otherwise, in the purchase of, or contract for, or in furnishing any materials, equipment or supplies to the City of Raleigh, nor shall any official or employee of the City of Raleigh accept or receive, or agree to accept or receive, directly or indirectly, from any person, firm or corporation to whom any contract

may be awarded or from whom any materials, equipment or supplies may be purchased by the City of Raleigh, by rebate, gift, or otherwise, any money or anything of value whatsoever, or any promise, obligation or contract for future reward or compensation, for recommending or procuring the uses of any such materials, equipment or supplies by the City of Raleigh; no member of the City Council, official or employee of the City of Raleigh shall for his own personal benefit operate, directly or indirectly, any concession in any building or on any lands of the City of Raleigh, nor shall any official or employee of the City of Raleigh bid for or be awarded any contract granting concessionary rights of any nature or kind from the City of Raleigh; it shall be unlawful for any member of the City Council, official or employee of the City of Raleigh to bid for or to purchase or to contract to purchase from the City of Raleigh any real estate, equipment, materials, or supplies of any nature or kind whatsoever, either directly or indirectly, at either public or private sale, either singly, or through or jointly with any other person.

1.12 Proposer Expenses

The City of Raleigh will not be responsible for any expenses incurred by any Proposer in the development of a response to this Request for Proposal or any other activities associated with this procurement including but not limited to any onsite (or otherwise) interviews and/or presentations, and/or supplemental information provided, submitted, or given to City of Raleigh and/or its representatives. Further, the City of Raleigh shall reserve the right to cancel the work described herein prior to issuance and acceptance of any contractual agreement/purchase order by the recommended Proposer even if the awarding authority for each entity has formally accepted a recommendation.

1.13 Proposer Acceptance

Submission of any proposal indicates a Proposer's acceptance of the conditions contained in this RFP unless clearly and specifically noted otherwise on Appendix VI Exceptions to RFP and submitted with proposal. Furthermore, the City of Raleigh is not bound to accept a proposal on the basis of lowest price, and further, the City of Raleigh has the sole discretion and reserves the right to cancel this RFP, and to reject any and all proposals, to waive any and all informalities and/or irregularities and reserves the right to re-advertise this RFP with either the identical or revised scope and specifications if it is deemed to be in the best interests of the City of Raleigh to do so. The City of Raleigh reserves the right to accept or reject any or all of the items in the proposal, and to award the contract in whole or in part and/or negotiate any or all items with individual Proposers if it is deemed in the best interest of the City of Raleigh to do so. Moreover, the City of Raleigh reserves the right to make no selection if proposals are deemed to be outside the fiscal constraint or not in the best interest of the City of Raleigh.

2 PROPOSALS

Responses must follow the format outlined below. The City may reject as non-responsive at its sole discretion any proposal that does not provide complete and/or adequate responses or departs in any substantial way from the required format.

2.1 Request for Proposals Required Document Format

Responses should be divided using tabs to separate each section, listed sequentially as follows:

Tab 1: Cover Letter

Provide an introduction letter summarizing the unique proposal of your firm to meet the needs of this service requirement. This letter should be presented on the firm's official letterhead and signed by an authorized representative who has the authority to enter into a contract with the City on behalf of the firm. Additionally, include the name, address, telephone and email address of the individual who serves as the point of contact for this solicitation.

Tab 2: Corporate Background and Experience

Include background information on the firm and provide detailed information regarding the firm's experience with similar projects. Provide a list of all similar contracts performed in the past 5 years, accompanied by at least 3 references (contact persons, firm, telephone number and email address).

Include the total amount invoiced for each listed project, the length of the project, and list of those involved in the project who are also proposed for the subject project named in this solicitation. Failure to provide a list of all similar contracts in the specified period may result in the rejection of the firm's proposal. The evaluation team reserves the right to contact any or all listed references, and to contact other public entities regarding past performance on similar projects.

Tab 3: Financial Information

Review and provide one of the following three (3) financial statement options:

1. Recent audited or reviewed financial statements prepared by an independent certified public accountant (CPA) that shall include, at a minimum, a balance sheet, income statement (i.e., profit/loss statement) and cash flow statement **and**, if the audited or reviewed financial statements were prepared more than six (6) months prior to the issuance of this RFP, the Proposer shall submit its most recent internal financial statements (balance sheet, income statement and cash flow statement or budget with entries reflecting revenues and expenditures from the date of the audited or reviewed financial statements to the end of the most recent financial reporting period (i.e., the quarter or month preceding the issuance date of this RFP)).

   OR

2. Recent compiled financial statements prepared by an independent CPA that shall include, at a minimum, a balance sheet, income statement (i.e., profit/loss statement) and cash flow statement **and**, if the compiled financial statements were prepared more than three (3) months prior to the issuance of this RFP, the Proposer shall submit its most recent internal financial statements (balance sheet, income statement and cash flow statement or budget with entries reflecting revenues and expenditures to date), and other evidence of financial stability such as most recently filed income tax return, evidence of a line of credit/loans/other type of financing with statement of amount in use/outstanding balance (e.g., a complete copy commitment letter, loan agreement,

billing statement reflecting the line of credit or statement from lender acknowledging the commitment to fund the Proposer's stated financing), personal guaranty with copies of personal income tax filing and statement of net worth or such other evidence that is accurate, reliable and trustworthy regarding the Proposer's financial stability.

OR

3. Include a certified, signed statement from a licensed CPA regularly engaged in the review of the firm's financial information verifying the financial viability of the firm.

All financial information, statements and/or documents provided in response to this solicitation shall be kept confidential provided that EACH PAGE is marked as follows: "CONFIDENTIAL – DO NOT DISCLOSE EXCEPT FOR THE EXPRESS PURPOSE OF PROPOSAL EVALUATION."

"Recent" shall be defined as financial statements that were prepared within the 12 months preceding the issuance date of this RFP.

Consolidated financial statements of the Proposer's parent or related corporation/business entity shall not be considered, unless: (1) the Proposer's actual financial performance for the designated period is separately identified in and/or attached to the consolidated statements, (2) the parent or related corporation/business entity provides the State with a document wherein the parent or related corporation/business entity will be financially responsible for the Proposer's performance of the contract and the consolidated statement demonstrates the parent or related corporation's/business entity's financial ability to perform the contract, financial stability and/or such other financial considerations identified in the evaluation criteria; and/or (3) Proposer provides its own internally prepared financial statements and such other evidence of its own financial stability identified above.

The firm's failure to provide any of the above-referenced financial statements may result in the proposal being removed from consideration. Proposers are also encouraged to explain any negative financial information, and to provide documentation supporting those explanations and demonstrating the financial strength of the firm.

Tab 4: Project Understanding, Approach and Schedule

Provide a comprehensive narrative, outline, and/or graph demonstrating the firm's understanding and approach to accomplishing the tasks outlined in the Scope of Work section of this RFP. A description of each task and deliverable and the schedule for accomplishing each shall be included.

Tab 5: Team Firm, Experience and Certifications

This section must include the proposed staffing, deployment and firm of personnel to be assigned to this project. The Proposer shall provide information as to the Proposals and experience of all executive, managerial, legal, and professional personnel to be assigned to this project, including resumes citing experience with similar projects and the responsibilities to be assigned to each person. A project-specific firm chart which clearly illustrates the roles, responsibilities, and the reporting relationships of each team member should be included.

Tab 6: Cost

In a separate sealed envelope provide a minimum of three (3) complete copies of cost schedule. Hourly rates shall be fully burdened to include all costs, all applicable overhead and profit (including lodging, meals, and transportation). Attach any additional pricing details.

2.2 RFP Documents

This RFP is comprised of the base RFP document, any attachments, and any addenda released before Contract award. All attachments and addenda released for this RFP in advance of any Contract award are incorporated herein by reference.

3 PROPOSAL EVALUATION

3.1 Proposal Evaluation Criteria *(Stage 1)*

This is not a bid. There will not be a public opening. The Proposals received in response to this RFP will be evaluated and ranked, by the Proposal Evaluation Committee in accordance with the process and evaluation criteria contained below. Responses will be evaluated in light of the material and substantiating evidence presented in the response, and not on the basis of what is inferred. After thoroughly reading and reviewing this RFP, each Evaluation committee member shall conduct his or her independent evaluation of the proposals received and grade the responses on their merit in accordance with the evaluation criteria set forth in the following table.

The maximum interview/demonstration points a Proposer can receive is five (5) points. The Proposers selected for interviews/demonstrations under this section will be notified in writing of the date and time. The Proposers' interview/demonstrations shall be based solely upon information provided in each Proposer's original proposal. No new information may be presented.

Criteria	(a) Weight	(b) Score (0-3)	(a) x (b) Weighted Score
Corporate Background and Experience	20		
Firm Financial Stability	10		
Project Understanding	10		
Project Approach	15		
Team Firm Experience	20		
Proposed Cost	25		
Total Score (without Interview/Demonstrations)			
Interview/Demonstration (if applicable)	0		
Final Score (with Interview/Demonstrations)			

Score Points

0- Missing or Does Not Meet Expectation
1- Partially Meets Expectation
2- Meets Expectation
3- Exceeds Expectation

***Cost Formula*:** The cost criterion is rated by giving the proposal with the lowest total cost the maximum number of Cost points available. The remaining proposals are rated by applying the following formula:

$$1 - \frac{B - A}{A} \times C = D$$

A—the lowest Proposer's cost.
B—the Proposer's cost being scored.
C—the maximum number of cost points available.
D—Proposer's cost score (points).

Note: If the formula results in a negative number (which will occur when the Offeror's cost is more than twice the lowest cost), zero points shall be assigned.

3.2 Interview/Demonstration *(Stage 2)*

A short-list of firms may be invited to Stage 2 of the evaluation process, the *Interview*/ *Demonstration*. Interview/demonstrations are an important aspect of the evaluation process that offers the City an opportunity to see how the proposer's solution meets the critical components of the RFP.

3.3 Final Selection

Proposals will be evaluated and ranked according to the criteria and weighted values set forth in Section 3.1. Either a final selection for recommendation will be made at this time or the short-list of firms will be invited to participate in Stage 2 of the evaluation process. If Stage 2 is implemented, each firm will be evaluated and assigned a score to determine the best firm for recommendation.

After which negotiations of a contract with the most qualified firm will commence. If negotiations are unsuccessful, the City will then pursue negotiations with the next most qualified firm. All Proposers will be notified of their standing immediately following the City's decision.

The City shall not be bound or in any way obligated until both parties have executed a contract. The City also reserves the right to delay the award of a contract or to not award a contract.

3.4 Notice to Proposers Regarding RFP Terms and Conditions

It shall be the Proposer's responsibility to read the Instructions, the City's Standard Contract Terms and Conditions (Appendix V), all relevant exhibits, attachments, and any other components made a part of this RFP and comply with all requirements and

specifications herein. Proposers are also responsible for obtaining and complying with all Addenda and other changes that may be issued in connection with this RFP.

3.5 Contract Term

The Contract shall have an initial term of One (1) year, beginning on the date of the Contract award (the "Effective Date"). At the end of the Contract's current term, the City shall have the option, in its sole discretion, to renew the Contract on the same terms and conditions for up to a total of three (3) additional one-year terms. The City will give the Contractor written notice of its intent whether to exercise each option no later than thirty (30) days before the end of the Contract's then-current term. In addition, the City reserves the right to extend a contract term for a period of up to 180 days in 90-day-or-less increments.

4 SCOPE OF SERVICES

Awarded Contractor shall provide services, all as set forth in this RFP and more particularly described in this Section 4. Any exceptions should be listed in Appendix X on Page 34

4.1 Intent of Service

The Contractor shall provide maintenance and calibration services for the instrumentation shown on Exhibits A, B, and E and in accordance with the outlined schedule shown on Exhibits A, B, and E. All services shall be performed using ISO17025 Accredited or manufacture certified personnel properly trained and equipped to perform calibrations. All calibrations shall be performed to meet manufacture's specification or documented industry specifications.

The Contractor must be experienced at performing the services being requested (section 3 Minimum Contractor Qualifications, Experience and Capabilities) and have an established and documented Quality System (section 4.1 Quality and Operational Systems). At a minimum, The Contractor must be certified by the manufacture to perform services or the Contractor and it personnel must be accredited to ISO17025 or personnel having extensive experience and training on all devices within the equipment listing in Exhibits A, B, and E.

The Contractor's Mission shall be to provide a productive contract work force which is well trained/experienced and strives to provide excellence in quality, safety, and workmanship. In doing so, The Contractor shall be proactive in providing training, documenting processes, utilize the best available equipment and shall stay up to date with the latest innovations. The Contractor shall be responsible for the adherence to all local, state, and federal environmental, safety and health regulations. As well as, assure the City of Raleigh that all documentation and calibrations fully meet the requirements of NCDENR permitting

4.2 Engagement of Work

The Contractor will assume responsibility for maintenance, calibrations and scheduling of service within 5 calendar days of the issuance of the contract or a notice to proceed. The Contractor must maintain a computerized schedule of the annual service requirements for each device. Calibration reports must be preprinted and distinctly identify each instrument. Calibration data is to be entered into the preprinted report by the field personnel and signed after work is completed.

The Contractor must perform a site walk through with at least three (3) field personnel who will be performing the routine service prior to submitting proposal or have extensive on-site experience. (Unless the field personnel already have experience at the plant and remote sites) The purpose of the walk through is to familiarize the individuals with the sites, safety requirements, facility operations, and contact persons.

4.3 Minimum Contractor Qualifications, Experience, and Capabilities: Requirements and Performance of Work

A. The Contractor will coordinate with the City of Raleigh's designated contact person to schedule service. All service must be performed between the hours of 7:00am and 4:00pm Eastern Standard Time, Monday through Friday; unless prior approval from the City of Raleigh's designated contact person. (Plant Operations Supervisor/Remote Maintenance Supervisor, or Water Quality Supervisor) All calibrations must be performed in the month scheduled. It is The Contractor's responsibility to assure that all instruments are in Calibration and remain on the established schedule. Deviations from the schedule must be approved by City of Raleigh's contact person.
B. The Contractor must be Legally incorporated and in good standing
C. The Contractor (The Contractor, not an individual) must have a minimum of 10 years of on-site field calibration in the water and wastewater industry maintaining and calibrating the instruments like those on the Exhibits A, B, and E.
D. The Contractor must have a minimum of four (4) fully accredited Field Service Engineers within 100 mile radius of the EMJ Water Plant. All Field Service Engineers must be accredited to perform services to ISO17025 Specifications or equal standards and have a minimum of 5 years of documented hands-on experience in the maintenance and calibration of the instruments on Exhibits A, B, and E. Field Service Engineers must also have documented training in Electrical Theory, Calibration Theory, Calibration Documentation and traceability practices, OSHA required Safety Training, and advanced Electrical Safety Training.

PROVIDE DOCUMENTATION AS ATTACHMENT WITH RESUME, TRAINING RECORDS (TECHNICAL & SAFETY) OF PROPOSED FIELD SERVICE ENGINEERS LABELED **3D**

D. The Contractor must be compliant with ISO9001 and accredited ISO 17025 or Certified by the Manufacturer to calibrate the items on Exhibits A, B, and E or provide documentation of extensive experience and training on all devices within the equipment listing in Exhibits A, B, and E and the Contractor shall have an internal documented Quality Management Program.

PROVIDE CERTIFICATION AND PRINTED QUALITY PROGRAMS AND LABEL AS ATTACHMENT **3E**

E. The Contractor must demonstrate to the City it has the capability to and/or the personnel responsible for calibrating, installing, implementing, and servicing instruments shown on Exhibits A,B, and E and that these resources are skilled, experienced, and maintain significant training to assure proper technical knowledge of all types and manufactures of the instrumentation shown on Exhibits A, B, and E. The use of Sub-contractors will be permitted on a maximum of 10% of the listed equipment (based on instrument/equipment piece count); the remaining 90% of the equipment must be serviced by employees, directly employed by The Contractor. All work performed by Sub-contractors must be reviewed and approved by an Accredited Field Engineer directly employed by the Contractor

PROVE LISTING OF ANY SUB-CONTRACTORS AND DOCUMENTATION AS ATTACHMENT LABELED **3F**

G. The Contractor must maintain insurance coverage in accordance with the minimum standards established by the City of Raleigh.

PROVIDE DOCUMENTATION (COI) AS ATTACHMENT LABELED **3G**

H. The Contractor must have an Anti-Harassment Policy and Substance Abuse Program in effect which includes testing on demand.

PROVIDE POLICIES AND PROGRAMS AS ATTACHMENT LABELED **3H**

I. The Contractor must provide a Personnel Security Program which incorporates third party background checks for all personnel entering City water plant facility without escort.

PROVIDE DOCUMENTATION OF PROGRAM OR POLICY AND AS ATTACHMENT LABELED **3I**

J. The Contractor must provide Health and Safety Program that at a minimum contains the following training:

a. Confined Space Entry
b. Electrical Safety Awareness
c. ARC/Flash (NFPA 70E)
d. Fall Protection Awareness
e. Hazard Communication
f. Ladder Safety
g. Lockout/'Tagout
h. Safety Data Sheets
i. Personnel Protective Equipment

PROVIDE DOCUMENTATION TRAINING RECORDS FOR INDIVIDUALS PROVIDING THE SERVICES HEREIN AND A COPY YOUR CURRENT HEALTH AND SAFETY PROGRAM AS ATTACHMENT LABELED **3J**

4.2 Service Requirements

A. The Contractor will provide an accredited or manufactures certified Field Service Engineer a minimum of three (3) days per week (totaling twenty-four (24) hours per week) 52 weeks per year on-site at the EMJ Water Plant to maintain and calibrate all the instrumentation listed in Exhibit A. The contractor will provide an accredited or manufacturers certified Field Service Engineer a minimum of six (6) hours per week 52 weeks per year at remote sites listed in Exhibit B. Remote site pH, turbidity, and chlorine meter failures must be addressed within 24 hours after notification is given.

   The lump sum price quoted is to include 24 hours on site at EMJ and 6 hours per week at remote sites per week plus any additional cost for travel and other expenses.

B. The Contractor shall perform other unscheduled Emergency On-call services calls (within the scope of this document) as required at any location at no additional cost to the City. The Contractor must respond to Emergency On-call service within two (2) hours of notification and, if required, be on-site within four (4) hours of notification at no additional cost to the city.

C. The Contractor must provide an Emergency On-Call service call number, which will be manned continuously, and must not be forward to a voicemail system, answering machine or other devices. Emergency Number required direct human interface for dispatch confirmation.

   CONTRACTOR PROVIDE DETAILS OF THIS PROCESS & CONTACT NUMBERS AS ATTACHMENT LABELED **4A**

D. The Contractor must establish and maintain a spare/replacement parts inventory at a centralized location on the EMJ water plant location for an Inventory as established by the City and will be modified as needed by both parties. This will be equipment less than $1000. The cost for supporting this inventory will be funded thru a $30,000 allowance for EMJ/Remote Sites that will be over and above the value of the services in this agreement. The Contractor will provide a fixed Markup Percentage (%) for all materials supplied. Large dollar equipment over $1000 will be obtained through the Procurement Analyst or Warehouse Supervisor at the EM Johnson water plant warehouse. Minimum stock items will be maintained at the EMJ warehouse for critical equipment.

E. All equipment shown on Exhibits A, B, and E are to be serviced, maintained, and calibrated in accordance with specified frequencies. (Note carefully the frequencies contained in Exhibits A, B, and E)

F. The Contractor will complete a Weekly Instrumentation Equipment Check List during the weekly service calls and submit to the designated supervisor at the end of each week documenting the inspection of the instrumentation, showing correction actions, and noting repairs needed above and beyond the scope of this agreement. A weekly and monthly checklist for contactor instrumentation duties is shown on Appendix C. (Cleaning streaming current/Surface Scatter, pH probes, etc.)

G. The Contractor will maintain Laboratory Thermometers at the new Star Rd Lab, EM Johnson WTP, and DEB WTP as listed in Exhibit E

H. The Contractor will designate an Accredited Field Engineer as a LEAD Instrumentation / Quality Assurance person who will function as primary operational and quality assurance contact with onsite personnel. This LEAD individual will establish a weekly meeting with the EMJ Operations Supervisor/EMJ Dewatering Supervisor/and Water Quality Supervisor to brief them on the last week's action, concerns, and follow-up items. It is imperative that lead instrumentation person communicates with the plant/remote supervisors what work was performed at the plant and at remote sites. If the LEAD individual is not available the contractor shall designate a replacement person that can perform all duties as the Lead individual.

I. The Contractor will maintain a continuous record at the EMJ Water plant and remote sites that contains all services reports, checklist, and documentation concerning calibration and maintenance of instrumentation. When new or replacement equipment is installed the contractor must place a sticker on the instrument that list the month and year of installation.

J. The EM Johnson WTP is currently under construction. As facilities are upgraded, new instrumentation/equipment may be installed. Typically, the SCADA systems integrator will purchase the new equipment and maintain and coordinate any warranty work with the equipment. (Usually, 1 year from date of installation) After the warranty period has expired, the instrumentation contractor will be responsible for servicing and calibrating the equipment.

K. All equipment used to calibrate instrumentation must be documented as being NIST traceable and managed in accordance with ISO 17025 or documented Quality Program.

L. Calibration and service reports must be provided for each device listed in Exhibit A, B, and E and must be compliant with ANSI Z540-1-1994 calibration documentation requirements and submitted prior to departing location for supervisor review. Each device serviced shall have a water resistant, chemical resistant, machine print (no hand written labels) calibration label attached indicating the individual performing the service, date of service, and due date of next calibration.

M. The Contractor shall prepare and submit to the supervisor a flow chart showing the action of the service personnel in the completion of the service call. This should document the process flow and general action to be taken by The Contractor during each service call. All differential pressure flow meter calibrations/flushing must be scheduled with Operations Supervisor at least 1 week in advance.

PROVIDE FLOW CHART AS ATTACHMENT LABELED **4B**

N. The Contractor will be responsible for the inventory and ordering of chemical, reagents and spare/repair parts (less than $1,000) as needed. This will be accomplished either by

advising the Plant Operations Supervisor of the needs or purchasing the materials and charging them against an allowance. EMJ will issue a separate PO to cover the cost of these items. The Contractor will provide a fixed Markup Percentage (%) for all materials supplied.

O. The Contractor will schedule a monthly meeting between appropriate City personnel and The Contractor's Senior Management to discuss any problems and update status. A vendor evaluation form will be utilized by Raleigh staff Biannually to revies the contractor's performance (See Appendix D)

P. The Contractor must maintain a computerized Calibration Management Program that manages the schedule of the service requirements for each device. The program shall be accessible via a web portal and provide the ability to run reports to determine: instrument's next calibration date, instruments due for calibration (in current month and future months with adjustable window), Calibration Reports, and other management reports. Calibration reports must be electronically printed and distinctly identify each instrument, identify the status of the instrument, and document calibration actions/data such as "as found" and "as left". Calibration data is to be entered by the field personnel and copies distributed to appropriate people and permanent record maintenance location.

4.3 Quality and Operational Systems

Since the Instrumentation Contractor is required to provide a professional service with specific accountability, the City of Raleigh is requiring The Contractor to be ISO9001 Compliant and Accredited to ISO17025 or certified be each manufacture concerning the ability to calibrate and maintain the instruments in Exhibit A or show evidence of having extensive experience and training on all devices within the equipment listing in Exhibit A and maintain a documented Quality Program that meets or exceeds the following minimum quality requirements:

4.3.1 Quality Management/Assurance Program

A. The Contractor must provide to the City of Raleigh, as part of a response (must be part of proposal package), documented programs that have been implemented to assure the City of Raleigh that the operational processes and methods used by The Contractor are managed to prevent failures, miscommunication, and non-conformities. The City of Raleigh will require the successful contractor to provide evidence that these programs are in place and being used as part of the daily operations of The Contractor. As a minimum, the Contract must have developed programs and evidence of implementation for the following:

• **Control of Documents**: Outlines and describes the use and control of documents, forms, and drawings used by The Contractor's management, and employees. This prevents obsolete information from being passed to City of Raleigh and work being performed to obsolete specifications. All calibration documentation must be compliant with ANSI Z540-1-1994

• **Control of Records**: Outlines and describes how documents, forms, and drawings are controlled to assure that the current items are being used and distributed. This prevents obsolete information from being passed to City of Raleigh or contractor's employees.

• **Purchasing Process**: Outlines and describes the process used by The Contractor to specify, receive, and inspect materials. Additionally, specifies how suppliers and manufacturer(s) are evaluated to assure supplied materials arrive in a timely manner, shipped in a manner to prevent damage, and materials are tested for acceptance against specifications. This benefits the City of Raleigh by preventing delays, damaged equipment, and failure to meet required specifications.

• **Control of Materials & Installations:** Outlines and describes how materials will be handled, stored, and preserved in a fashion to maximize usable life to the City of Raleigh.
• **Monitoring & Measuring of Processes:** The Contractor shall have developed processes to monitor and measure their internal processes. The intent is that The Contractor continuously evaluated its processes for improvement; therefore, able to provide a streamlined effective and efficient service to the City of Raleigh.
• **Control of Non-conforming Materials and Installation:** The Contractor must have a defined process of identifying and controlling materials and equipment which do not meet defined specifications. This will benefit the City of Raleigh by preventing materials and/or equipment which do not meet specifications for being inadvertently used or left in place.

• **Corrective Action Process:** The Contractor must have a process in place to identify, correct, and prevent failures in the processes and systems used. The Corrective Action Process must include an evaluation of the cause of failure, immediate action, the Root-Cause of the failure, corrective actions taken, and follow-up that the actions will prevent future occurrences. Corrective Action Process must include a Recall procedure to cover manufacture(s) recalls and failed equipment recalls (i.e. calibration equipment found Out of Tolerance).

• **Internal / External Audits:** The Contractor must routinely evaluate the internal processes and programs defined about to assure that the processes are operating and implemented as described in the documented programs above.

B. The Contractor must demonstrate to the City of Raleigh that the personnel used to service, install, calibrate and manage the Instrumentation and Control Systems are skilled, experienced, and maintain significant training to assure a successful calibration and service. The Contractor must routinely perform a Gap Analysis of the organization's personnel as to competency, qualifications and training needs of employees.

C. Contractor must be certified by the manufacture of the equipment serviced (certified to perform service on each type of equipment in Exhibits A and B); or the organization and

personnel utilized in servicing the equipment must be Accredited to ISO17025 by a NACLA recognized accreditation body.

5.0 Pricing

The pricing for the aforementioned services shall be as follows:

Annual Price to perform all maintenance, calibrations and weekly checks listed on the Exhibits A, B, and C, to be billed in equal monthly installments plus parts purchased against the part allowance. Term of the agreement will be 1 year. There will be an option to renew this agreement for an additional 3 years based on yearly renewals with the consent of both parties.

A. Total Annual Lump Sum Price For EMJ/Remote Site Services to include all travel and expenses:	$ .00
B. PLUS Annual (fixed) Parts Allowance EMJ/Remote Sites:	$ 30,000.00
Total Annual Cost for Services and Parts Allowance DEB: (A+B)	$ .00

C. All Materials (parts, equipment, chemicals and reagents) supplied by the contract will be Marked up by: _____% over contractor's cost of the item. Invoices must list materials, shipping cost and applicable sales tax. Contractor's cost information should be provided.

SUBMITTED BY:_____
Name:
Date:
Company:

Attachments: Exhibit A EMJ Water Plant Equipment List, Exhibit B Remote Site Equipment List, Exhibit C Weekly EMJ Water Plant Cleaning Schedule, Exhibit D

APPENDIX I

PROPOSAL COST FORM

Awarded Contractor shall perform the services to be performed as set forth in this RFP and more particularly described in Section 4 for a not to exceed total amount of

$_____.

Proposer shall attach proposal cost breakdown to this Appendix I Proposal Cost Form.

Firm Name: _____

Authorized Signature _____Date_____

Signed by: _____
[Type or Print Name]

Title of Signer: _____

APPENDIX II
PROPOSER QUESTIONNAIRE

The following questions must be answered, and data given must be clear and comprehensive. If necessary, questions may be answered on separate sheets. The Proposer may submit any additional information desired.

Company Name:				d/b/a (if applicable)			
Street / PO Box:							
City:				State:		Zip:	
Phone:		Fax:		E-Mail:			
Website (if applicable):							
☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Other							
Number of years in business under company's present name:							
Fed Tax ID #:				DUNS #			
Are you registered with the North Carolina Secretary of State to conduct business (if required)? (Check One) YES: ☐ NO: ☐ Not Applicable: ☐							
Are you properly licensed/certified by the Federal and/or State of North Carolina to perform the specified work? YES: ☐ NO: ☐ Not Applicable: ☐ ATTACH COPY OF ALL APPLICABLE LICENSING/CERTIFICATION DOCUMENTS							
Are/will you be properly insured to perform the work? YES: ☐ NO: ☐							
Contact for this Contract:				Title:			
Phone:		Fax:		E-Mail:			
Have you ever defaulted or failed on a contract? (If yes, attach details) YES: ☐ NO: ☐							

List at least three (3) references for which you have provided these services (same scope/size) in the past three years - preferably government agencies. Do not include City of Raleigh as a reference to meet the requirement of listing at least (3) references. **PROPOSERS ARE RESPONSIBLE FOR SENDING REFERENCE QUESTIONNAIRE (APPENDIX III) TO THEIR REFERENCES.**

1. Company:					
Contact Person:				Title:	
Phone:		Fax:		E-Mail:	
Describe Scope of Work:					
2. Company:					
Contact Person:				Title:	
Phone:		Fax:		E-Mail:	
Describe Scope of Work:					
3. Company:					
Contact Person:				Title:	
Phone:		Fax:		E-Mail:	
Describe Scope of Work:					
4. Company:					
Contact Person:				Title:	
Phone:		Fax:		E-Mail:	
Describe Scope of Work:					
5. Company:					
Contact Person:				Title:	
Phone:		Fax:		E-Mail:	
Describe Scope of Work:					

The undersigned swears to the truth and accuracy of all statements and answers contained herein:

Authorized Signature:		Date:	

APPENDIX III

REFERENCE QUESTIONNAIRE
(Instructions)

RFP#274-08-2024 FMH-EM Johnson WTP/Remote Site Instrumentation Services

The City of Raleigh, as a part of the RFP, requires proposing companies to submit a minimum of three (3) business references as required within this document. The purpose of the references is to document the experience of the proposer relevant to the scope of services and assist in the evaluation process.

- The Proposer is required to send the reference form (the following two pages) to each business reference listed on Proposer Questionnaire.

- The business reference, in turn, is requested to submit the Reference Form directly to the City of Raleigh Point of Contact identified on the Reference Questionnaire form for inclusion in the evaluation process.

- The form and information provided will become a part of the submitted proposal. The business reference may be contacted for validation of the response.

- It is the Proposer's responsibility to verify their references have been received by the City of Raleigh Point of Contact by the date indicated on the reference form.

APPENDIX III

REFERENCE QUESTIONNAIRE FORM

RFP#274-08-2024 FMH-EM Johnson WTP/Remote Site Instrumentation Services

_____

(Name of Business Requesting Reference)

This form is being submitted to your company for completion as a business reference for the company listed above.

This form is to be returned to the City of Raleigh, ***Mike Hughes*** via email to ***Frederick.Hughes@raleighnc.gov*** no later than ***2:00 p.m. EST***, ***September 11, 2024*** and **MUST NOT** be returned to the company requesting the reference.

For questions or concerns regarding this form, please contact the City of Raleigh, Point of Contact above.

Company Providing Reference _____

Contact Name and Title/Position _____

Contact Telephone Number _____

Contact Email Address _____

Questions:

1. In what capacity have you worked with this company in the past? If the company was under a contract, please acknowledge and explain briefly whether or not the contract was successful.
   Comments:

2. How would you rate this company's knowledge and expertise?
   ☐ 3= Excellent ☐ 2= Satisfactory ☐ 1= Unsatisfactory ☐ 0= Unacceptable
   Comments:

3. How would you rate the company's flexibility relative to changes in the scope and timelines?
   ☐ 3= Excellent ☐ 2= Satisfactory ☐ 1= Unsatisfactory ☐ 0= Unacceptable
   Comments:

4. What is your level of satisfaction with hard-copy materials, e.g. reports, logs, etc. produced by the company?

☐ 3= Excellent ☐ 2= Satisfactory ☐ 1= Unsatisfactory ☐ 0= Unacceptable

Comments: _____

5. How would you rate the dynamics/interaction between the company and your staff?

☐ 3= Excellent ☐ 2= Satisfactory ☐ 1= Unsatisfactory ☐ 0= Unacceptable

Comments: _____

6. Who were the company's principle representatives involved in providing your service and how would you rate them individually? Would you comment on the skills, knowledge, behaviors or other factors on which you based the rating?

(3= Excellent; 2= Satisfactory; 1= Unsatisfactory; 0= Unacceptable)

Name: _____ Rating: _____
Name: _____ Rating: _____
Name: _____ Rating: _____
Name: _____ Rating: _____

Comments: _____

7. With which aspect(s) of this company's services are you most satisfied?

Comments: _____

8. With which aspect(s) of this company's services are you least satisfied?

Comments: _____

9. Would you recommend this company's services to your organization again?

Comments: _____

APPENDIX IV
MWBE PARTICIPATION FORM

(REMOVE THIS FORM AND USE THE NEXT FORM IF COST IS ESTIMATED TO BE OVER 300K)

IDENTIFICATION OF MWBE PARTICIPATION FOR INFORMAL CONTRACTS

Contract amount is between $30,000.00 - $299,999.99

This Identification of MWBE Participation Form is for the purpose of capturing information regarding the utilization of MWBEs and other subcontractors and suppliers on Informal City Contracts. MWBE participation is encouraged for all City of Raleigh contracting opportunities. Please refer to the City's MWBE Policy for any contract specific requirements. *Copy this Form as needed*.

COMPANY NAME			
PROJECT NAME			
PROJECT NUMBER		**CITY DEPARTMENT**	
CONTRACT TYPE	☐ Services ☐ Other _____*		
☐ **PRIME IS MWBE**	Classification: _____ ¨ Certified with NCHUB ¨ Certified with NCDOT-DBE	**RFP SUBMITTAL DATE**	

*MWBE Classifications:
American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

☐ **WORK TO BE SELF-PERFORMED**

Check this box **only** if you intend to perform 100% of the work for this Contract with your own current work forces, and you normally perform and have the capability to perform all elements of this work for this Contract with your own current work forces.

MWBE SUBCONTRACTORS

Complete the chart below for all MWBE subcontractors that you intend to use for this Contract regardless of dollar amount.

Company Name	MWBE Classification*	Description of Services	Percentage of Total Contract	Total Projected Utilization ($)

*MWBE Classifications:
American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

Total Estimated MWBE Utilization* $ _____

Total Proposal Amount* $ _____

Percent Estimated MWBE Utilization* _____%

(Total Estimated MWBE Utilization divided by Total Bid Amount)

APPENDIX IV
MWBE PARTICIPATION FORM

(REMOVE THIS FORM AND USE THE ABOVE FORM IF COST IS ESTIMATED TO BE BELOW 300K)

IDENTIFICATION OF MWBE PARTICIPATION FOR FORMAL CONTRACTS

Contract amount is ≥ (greater than or equal to) $300,000.00

This Identification of MWBE Participation Form is for the purpose of capturing information regarding the utilization of MWBEs and other subcontractors and suppliers on Formal City Contracts. MWBE participation is encouraged for all City of Raleigh contracting opportunities. Please refer to the City's MWBE Policy for any contract specific requirements. *Copy this Form as needed.*

COMPANY NAME			
PROJECT NAME			
PROJECT NUMBER		**CITY DEPARTMENT**	
CONTRACT TYPE	¨ Services ¨ Other _____*		
☐ **PRIME IS MWBE**	Classification: _____ ¨ Certified with NCHUB ¨ Certified with NCDOT-DBE	**RFP SUBMITTAL DATE**	

MWBE Classifications:
American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

☐ **WORK TO BE SELF-PERFORMED**

Check this box **only** if you intend to perform 100% of the work for this Contract with your own current work forces, and you normally perform and have the capability to perform all elements of this work for this Contract with your own current work forces.

MWBE SUBCONTRACTORS

Complete the chart below for all MWBE subcontractors that you intend to use for this Contract regardless of dollar amount.

Company Name	MWBE Classification*	Description of Services	Percentage of Total Contract	Total Projected Utilization ($)

*MWBE Classifications:
American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

Total Estimated MWBE Utilization* $_____

Total Proposal Amount* $_____

Percent Estimated MWBE Utilization* _____%

(Total Estimated MWBE Utilization divided by Total Bid Amount)

APPENDIX V

CONTRACT STANDARD TERMS AND CONDITIONS

The contract terms provided herein shall become a part of any contract issued as a result of this solicitation. Any exceptions to the contract terms must be stated in the submittal. Any submission of a proposal without objection to the contract terms indicates understanding and intention to comply with the contract terms. If there is a term or condition that the firm intends to negotiate, it must be stated in the proposal. The successful firm will not be entitled to any changes or modifications unless they were first stated in the proposal. The City of Raleigh reserves the right, at its sole discretion, to reject any or all submittal package(s) containing unreasonable objections to standard City of Raleigh contract provisions.

1. Compensation; Time of Payment
   The standard City of Raleigh payment term is NET 30 days from the date of invoice. For prompt payment all invoices should be emailed to (accountspayable@raleighnc.gov) or mail to the City of Raleigh, Accounts Payable, PO Box 590, Raleigh, North Carolina 27602-0590. All invoices must include the Purchase Order Number. Invoices submitted without the correct purchase order number will result in delayed payment.

2. Workmanship and Quality of Services
   All work performed under this Contract shall be performed in a workmanlike and professional manner, to the reasonable satisfaction of the City, and shall conform to all prevailing industry and professional standards.

3. Non-discrimination
   To the extent permitted by North Carolina law, the Parties for themselves, their agents, officials, directors, officers, members, representatives, employees, and contractors agree not to discriminate in any manner or in any form based on actual or perceived age, mental or physical disability, sex, religion, creed, race, color, sexual orientation, gender identity or expression, familial or marital status, economic status, veteran status or national origin in connection with this Contract or its performance.

   The Parties agree to conform with the provisions and intent of Raleigh City Code §4-1004 in all matters related to this Contract. This provision is incorporated into the Contract for the benefit of the City of Raleigh and its residents and may be enforced by an action for specific performance, injunctive relief, or any other remedy available at law or equity. This section shall be binding on the successors and assigns of all parties with reference to the subject matter of the Contract.

4. Minority and Women Owned Business Enterprise
   The City of Raleigh prohibits discrimination in any manner against any person based on actual or perceived age, race, color, creed, national origin, sex, mental or physical disability, sexual orientation, gender identity or expression, familial or marital status, religion, economic status, or veteran status. The City maintains an affirmative policy of fostering, promoting, and conducting business with women and minority owned business enterprises.

5. Assignment
This Contract may not be assigned without the express written consent of the City.

6. Applicable Law
All matters relating to this Contract shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.

7. Insurance
Contractor agrees to maintain, on a primary basis and at is sole expense, at all times during the life of this Contract the following coverages and limits. The requirements contained herein, as well as City's review or acceptance of insurance maintained by Contractor is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by Contractor under this Contract.

Commercial General Liability – Combined single limit of no less than $1,000,000 each occurrence and $2,000,000 aggregate. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations, Contractual Liability or Cross Liability.

Automobile Liability – Limits of no less than $1,000,000 Combined Single Limit. Coverage shall include liability for Owned, Non-Owned and Hired automobiles. In the event Contractor does not own automobiles, Contractor agrees to maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Auto Liability policy. Automobile coverage is only necessary if vehicles are used in the provision of services under this Contract and/or are brought on a COR site.

Worker's Compensation & Employers Liability – Contractor agrees to maintain Worker's Compensation Insurance in accordance with North Carolina General Statute Chapter 97 with statutory limits and employees liability of no less than $1,000,000 each accident.

Additional Insured – Contractor agrees to endorse the City as an Additional insured on the Commercial General Liability, Auto Liability and Umbrella Liability if being used to meet the standard of the General Liability and Automobile Liability. The Additional Insured shall read **'City of Raleigh is named additional insured as their interest may appear'.**

Certificate of Insurance – Contractor agrees to provide COR a Certificate of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect, and Certificates of Insurance shall provide a minimum thirty (30) day endeavor to notify, when available, by Contractor's insurer. If Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify the City within five (5) business days with a copy of the non-renewal or cancellation notice, or

written specifics as to which coverage is no longer in compliance. **The Certificate Holder address should read:**

City of Raleigh
Post Office Box 590
Raleigh, NC 27602-0590

Umbrella or Excess Liability – Contractor may satisfy the minimum liability limits required above under an Umbrella or Excess Liability policy. There is no minimum Per Occurrence limit of liability under the Umbrella or Excess Liability, however, the Annual Aggregate limits shall not be less than the highest 'Each Occurrence' limit for required policies. Contractor agrees to endorse City of Raleigh as an 'Additional Insured' on the Umbrella or Excess Liability, unless the Certificate of Insurance states the Umbrella or Excess Liability provides coverage on a 'Follow-Form' basis.

Professional Liability – Limits of no less than $1,000,000 each claim. This coverage is only necessary for professional services such as engineering, architecture or when otherwise required by the City.

All insurance companies must be authorized to do business in North Carolina and be acceptable to the City of Raleigh's Risk Manager.

8. Indemnity

Except to the extent caused by the sole negligence or willful misconduct of the City, the Contractor shall indemnify and hold and save the City, its officers, agents and employees, harmless from liability of any kind, including all claims, costs (including defense) and losses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Contract, and from any and all claims, costs (including defense) and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Contractor in the performance of this Contract. This representation and warranty shall survive the termination or expiration of this Contract.

The Contractor shall indemnify and hold and save the City, its officers, agents and employees, harmless from liability of any kind, including claims, costs (including defense) and expenses, on account of any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this Contract.

9. Intellectual Property

Any information, data, instruments, documents, studies, reports or deliverables given to, exposed to, or prepared or assembled by the Contractor under this Contract shall be kept as confidential proprietary information of the City and not divulged or made available to any individual or organization without the prior written approval of the City. Such information, data, instruments, documents, studies, reports or deliverables will be the sole property of the City and not the Contractor.

All intellectual property, including, but not limited to, patentable inventions, patentable plans, copyrightable works, mask works, trademarks, service marks and trade secrets

invented, developed, created or discovered in performance of this Contract shall be the property of the City.

Copyright in and to any copyrightable work, including, but not limited to, copy, art, negatives, photographs, designs, text, software, or documentation created as part of the Contractor's performance of this project shall vest in the City. Works of authorship and contributions to works of authorship created by the Contractor's performance of this project are hereby agreed to be 'works made for hire' within the meaning of 17 U.S.C. 201.

10. Force Majeure

Except as otherwise provided in any environmental laws, rules, regulations or ordinances applicable to the parties and the services performed under this Contract, neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by an act of war, hostile foreign actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Either party to the Contract must take reasonable measures and implement reasonable protections when a weather event otherwise defined as a force majeure event is forecast to be eligible to be excused from the performance otherwise required under this Contract by this provision.

11. Advertising

The Contractor shall not use the existence of this Contract, or the name of the City of Raleigh, as part of any advertising without the prior written approval of the City.

12. Acknowledgement of City Brand and Tree Logo Ownership and Restrictions

The City of Raleigh has developed proprietary branding (the "City Brand") centered around the Raleigh tree mark logo (the "Tree Logo"). The City's exclusive rights and ownership in and to the Tree Logo are protected under trademark and copyright, including U.S. Copyright Reg. No. VAu1-322-896, N.C. State Trademark Registration Reg. No. T-23070 and Federal Trademark Registration Reg. No. 5,629,347, as well as under other federal and state laws.

Contractor acknowledges and understands that the City is not conferring any license to Contractor under this Agreement to use or depict the Tree Logo or other aspects of the City Brand.

Contractor shall not make any use or depiction of the Tree Logo or other aspects of the City Brand without the prior express written approval of the City. In this regard, should any materials being produced by Contractor for the City under this Agreement contemplate use or depiction of the Tree Logo, including, but not limited to, printed materials, digital media, signage and/or display materials, Contractor shall proceed under the auspices and direction of the City's Communications Department and shall comply with all guidelines and restrictions governing use or depiction of the Tree Logo.

13. Communications

If communications to the public and/or City employees are required as part of the Contractor's scope of work under this Contract, then the Contractor shall work with the City in the development of a communications plan ("Communications Plan") that must

first be approved by the City in writing before any such communications are delivered to the public and/or City employees.

For purposes of this Section 13, such written approval by the City shall be provided by electronic mail by the applicable City Communications Department employee who is responsible for reviewing and approving the Communications Plan, such electronic mail to be sent to the electronic mail address listed in Section 5, above, as part of the contact information for the Contractor representative identified in Section 5, above.

Among other things, the Communications Plan must establish whether the City or the Contractor will be responsible for sending any such communications to the public and/or City employees as required either by this Contract or the Communications Plan. The Communications Plan also shall include, but not be limited to, communications objectives, target audience, and deliverables (print, video, website, social, direct, or digital). The Contractor shall comply with the Communications Plan when communicating to the public and/or City employees pursuant to this Contract and the Communications Plan. All such communications shall comply with the City's brand and communications guidelines, as the same may be amended or modified from time to time.

The City's current brand and communications guidelines are incorporated into this Contract by reference and can be found on the City's website here: https://raleighnc.gov/doing-business/city-brand-guidance-vendors.

For purposes of this Section 13, "Communications" is defined as any public or City employee facing information presented in channels such as, but not limited to, a website, mobile applications, social media, printed materials, vehicles, billboards, and videos.

a. Communications Plan Approval:
   Any materials, messaging or outreach from the Contractor related to marketing and communications of any service or effort under this Contract must first be reviewed and approved by the City's Communications Department. This is to ensure that the Communications Plan: (i) complies with the City's brand and communication guidelines; (ii) integrates with the City's other communications channels and digital strategy; (iii) meets accessibility guidelines; and (iv) conforms to communications best practices with respect to general user experience.

b. Accessibility Requirements:
   For web content that the Contractor is to make accessible to the public and/or City employees as part of an approved Communications Plan that is included in the Contractor's scope of work under this Contract, all web materials including, but not limited to, tools, mobile applications, and websites, generated by, or on behalf of, the Contractor must meet at least the mid-range conformance level, AA compliance of the current Web Content Accessibility Guidelines, as the same may be amended from time to time.

   Any such web content generated by, or on behalf of the Contractor, as part of a Communications Plan associated with this Contract shall meet all standards of good cognitive web accessibility, which include the following:

i. Using proper headings and lists

ii. Using unique links

iii. Using alternative text and captions

iv. Using more white space

v. Dividing content into more manageable pieces

vi. Making forms manageable by breaking them into multiple, sequential steps

vii. Providing a logical reading order

viii. Being consistent with fonts, colors and locations of page elements

ix. Offering keyboard access

x. Offering content in multiple formats

xi. Understanding minimum contrast

c. Languages:
Digital sites/ tools that are for public use/consumption, including for use by City employees, under a Communications Plan associated with this Contract must have translation module (e.g., G-translate, Weglot) so that the service is available in all languages. At minimum, Spanish translation is required on all such digital sites/tools based on low English proficiency requirements:

i. In most cases, entities that are recipients of federal financial assistance through U.S. Department of Health and Human Services (HHS) must provide language assistance services in order to comply with their legal obligation to take reasonable steps to ensure meaningful access to their programs by persons with Limited English Proficiency (LEP).

d. Content:
For any communications content that the Contractor is required to generate, or have generated, as part of its scope of work under this Contract, the Contractor shall send such content to City Communications Department staff in raw, high-resolution format for inclusion in communications materials to be made accessible to the public and/or City employees as set forth in the Communications Plan that arises from this Contract (i.e., websites, mobile applications, printed materials collateral, and social media). PDF attachments shall be used only as a last resort and only after written approval by the City, with such written approval to be provided by the City in electronic mail format as described elsewhere in this Section 13.

i. Contractor shall only provide to the City communications materials for which the City has rights to use, with written documentation of such use rights being provided to the City as requested from time to time by the City in its sole discretion.

ii. All working files agreed upon for the specific Communications Plan shall be provided to the City Communications Department, i.e., text, graphics, charts and data, infographics, and original native files such as Illustrator, Excel, ArcGIS, etc. Following are the file format specifications:

1. Images: At least 300dpi for printing at actual size; 96dpi and at least 1920x1080px for digital/Web.
2. Video: Any video should be no less than Standard HD (1920x1080) but preferable 4k.
3. Text: Word document using accessibility best practices (heading structure, table of contents, and tables).

14. Cancellation

The City may terminate this Contract at any time by providing thirty (30) days written notice to the Contractor. In addition, if Contractor shall fail to fulfill in timely and proper manner the obligations under this Contract for any reason, including the voluntary or involuntary declaration of bankruptcy, the City shall have the right to terminate this Contract by giving written notice to the Contractor and termination will be effective upon receipt. Contractor shall cease performance immediately upon receipt of such notice.

In the event of early termination, Contractor shall be entitled to receive just and equitable compensation for costs incurred prior to receipt of notice of termination and for the satisfactory work completed as of the date of termination and delivered to the City. Notwithstanding the foregoing, in no event will the total amount due to Contractor under this section exceed the total amount due Contractor under this Contract. The Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract, and the City may withhold any payment due to the Contractor for the purpose of setoff until such time as the City can determine the exact amount of damages due the City because of the breach.

Payment of compensation specified in this Contract, its continuation or any renewal thereof, is dependent upon and subject to the allocation or appropriation of funds to the City for the purpose set forth in this Contract.

15. Laws/Safety Standards

The Contractor shall comply with all laws, ordinances, codes, rules, regulations, safety standards and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and/or authority.

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and

approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization, such as the American Society of Mechanical Electrical Engineers for pressure vessels; the Underwriters' Laboratories and/or National Electrical Manufacturers' Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type(s) of devices offered and furnished. Further, all items furnished by the Contractor shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

Contractor must comply with *North Carolina Occupational Safety and Health Standards for General Industry 13 NCAC 07F (29CFR 1910).* In addition, Contractor shall comply with all applicable occupational health and safety and environmental rules and regulations.

Contractor shall effectively manage their safety and health responsibilities including:

a. Accident Prevention
   Prevent injuries and illnesses to their employees and others on or near their job site. Contractor managers and supervisors shall ensure personnel safety by strict adherence to established safety rules and procedures.

b. Environmental Protection
   Protect the environment on, near, and around their work site by compliance with all applicable environmental regulations.

c. Employee Education and Training
   Provide education and training to all contractors employees before they are exposed to potential workplace or other hazards as required by specific OSHA Standards.

16. Applicability of North Carolina Public Records Law
Notwithstanding any other provisions of this Contract, this Contract and all materials submitted to the City by the Contractor are subject to the public records laws of the State of North Carolina and it is the responsibility of the Contractor to properly designate materials that may be protected from disclosure as trade secrets under North Carolina law as such and in the form required by law prior to the submission of such materials to the City. Contractor understands and agrees that the City may take any and all actions necessary to comply with federal, state, and local laws and/or judicial orders and such actions will not constitute a breach of the terms of this Contract. To the extent that any other provisions of this Contract conflict with this paragraph, the provisions of this section shall control.

17. Miscellaneous
The Contractor shall be responsible for the proper custody and care of any property furnished or purchased by the City for use in connection with the performance of this Contract and will reimburse the City for the replacement value of its loss or damage.

The Contractor shall be considered to be an Independent Contractor and as such shall be wholly responsible for the work to be performed and for the supervision of its employees. Nothing herein is intended or will be construed to establish any agency, partnership, or joint venture. Contractor represents that it has, or will secure at its own expense, all personnel required in performing the services under this Contract. Such employees shall not be employees of or have any individual contractual relationship with the City.

This Contract may be amended only by written agreement of the parties executed by their authorized representatives.

18. Right to Audit and Access to Records

a. The City may conduct an audit of any services performed and fees paid subject to this Contract. The City, or its designee, may perform such an audit throughout the contract period and for three (3) years after termination thereof or longer if otherwise required by law.

b. The Contractor and its agents shall maintain all books, documents, papers, accounting records, contract records and such other evidence as may be appropriate to substantiate costs incurred under this Contract. The City, or its designee, shall have the right to, including but not limited to: review and copy records; interview current and former employees; conduct such other investigation to verify compliance with contract terms; and conduct such other investigation to substantiate costs incurred by this Contract.

c. “Records” shall be defined as data of every kind and character, including but not limited to books, documents, papers, accounting records, contract documents, information, and materials that, in the City's sole discretion, relate to matters, rights, duties or obligations of this Contract.

d. Records and employees shall be available during normal business hours upon advanced written notice. Electronic mail shall constitute written notice for purposes of this section.

e. Contractor shall provide the City or its designee reasonable access to facilities and adequate and appropriate workspace for the conduct of audits.

f. The rights established under this section shall survive the termination of the Contract, and shall not be deleted, circumvented, limited, confined, or restricted by contract or any other section, clause, addendum, attachment, or the subsequent amendment of this Contract.

g. The Contractor shall reimburse the City for any overcharges identified by the audit within ninety (90) days of written notice of the City’s findings.

h. Contractor shall, upon request, provide any records associated with this engagement to the North Carolina State Auditor that are necessary to comply with the provisions of G.S. § 147-64.7.

19. E – Verify

Contractor shall comply with E-Verify, the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law and as in accordance with N.C.G.S. § 64-25 et seq. In addition, to the best of Contractor's knowledge, any subcontractor employed by Contractor as a part of this contract shall be in compliance with the requirements of E-Verify and N.C.G.S. § 64-25 et seq.

20. Iran Divestment Act Certification

Contractor certifies that, as of the date listed below, it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. § 147-86.55, *et seq*. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 147-86.59, Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.

21. Companies Boycotting Israel Divestment Act Certification

Contractor certifies that it has not been designated by the North Carolina State Treasurer as a company engaged in the boycott of Israel pursuant to N.C.G.S. § 147-86.81.

APPENDIX VI

EXCEPTIONS TO THE RFP

CHECK ONE:

☐ NO EXCEPTIONS, PROPOSER COMPLIES WITH ALL DOCUMENTS IN RFP.
☐ EXCEPTIONS ARE LISTED BELOW:

#	RFP Page #, Section, Name, Title, Item #	Exceptions (Describe nature of Exception)	Explain Why This is an Issue	Proposed Alternative	Indicate if exception is Negotiable (N), or Non-negotiable (NN)
1					
2					
3					
4					
5					
6					
7					
8					

9					
10					
11					
12					

FAILURE TO IDENTIFY ANY EXCEPTIONS WILL INDICATE ACCEPTANCE OF ALL TERMS AND CONDITIONS, AND REQUIREMENTS OF THE RFP AND ANY CORRESPONDING ADDENDUM ISSUED. THE CITY, AT ITS SOLE DISCRETION, MAY MODIFY OR REJECT ANY EXCEPTION OR PROPOSED CHANGE.

Firm:	Authorized Signature:	Title:
Printed Name of Signer:		Date:

Appendix VII-EM Johnson Instrumentation List

Updated August 2024

Description	Instrument Type	Location	Manufacturer	Model Number	Calibration Frequency
AMMONIA/MONOCHLORAMINE ANALYZER	Free Ammonia/Monochloramine/Total NH3/Total Cl2	PLANT SITE (495 Pump Station)	ChemScan	2150S	QUARTERLY
Chlorine					
CFE FREE CHLORINE	CHLORINE ANALYZER	Main Building 1st floor	HACH	CL17:54400-60	QUARTERLY
12 MG CW Inlet Free Chlorine	CHLORINE ANALYZER	Main Building 1st floor	Swan	AMI Codes-II AC	QUARTERLY
12 MG CW EFF. 48" FREE CHLORINE	CHLORINE ANALYZER	495 pump station	HACH	CL17:54402-60	QUARTERLY
12 MG CW EFF. 72" FREE CHLORINE	CHLORINE ANALYZER	Main Building 1st floor	HACH	CL17:54400-60	QUARTERLY
5 MG CW Inlet. FREE CHLORINE	CHLORINE ANALYZER	5 MG CW	Swan	AMI Codes-II AC	QUARTERLY
5 MG EFF. 30" FREE CHLORINE	CHLORINE ANALYZER	5 MG CW	HACH	CL17:54400-60	QUARTERLY
54" FINISHED FREE CHLORINE	CHLORINE ANALYZER	495 pump station	HACH	CL17:54400-60	QUARTERLY
12 MG CW FINISHED 48" TOTAL CHLORINE	CHLORINE ANALYZER	495 pump station	HACH	CL17:54402-60	QUARTERLY
12 MG CW FINISHED 54" TOTAL CHLORINE	CHLORINE ANALYZER	495 pump station	HACH	CL17:54402-60	QUARTERLY
5 MG CW FINISHED 30" TOTAL CHLORINE	CHLORINE ANALYZER	605 bldg	HACH	CL17:54400-60	QUARTERLY
West CFE Free Chlorine	CHLORINE ANALYZER	Main Building pipe gallery near filter 2	HACH	Cl17sc new style	QUARTERLY
Filter Inlet Flume Free Chlorine	CHLORINE ANALYZER	Filter Inlet by filters 1 and 2	Swan	AMI Codes-II AC	QUARTERLY
	*Start 2025 once meter is installed				
Treated Dissolved Oxygen METER	DISSOLVED OXYGEN	Pre-Chem Bldg	HACH	SC100/LDO sc Model 2	QUARTERLY
Fluoride					
12 inlet FLUORIDE ANALYZER	FLUORIDE ANALYZER	Main Building 1st floor	Orion-ThermoFisher	2109XPEN	MONTHLY
54 Finished FLUORIDE ANALYZER	FLUORIDE ANALYZER	495 pump station	Orion-ThermoFisher	2109XPEN	MONTHLY
5 inlet FLUORIDE ANALYZER	FLUORIDE ANALYZER	5 MG Clearwell	Orion-ThermoFisher	2109XPEN	MONTHLY
605 Finished FLUORIDE ANALYZER	FLUORIDE ANALYZER	605 Bldg	Orion-ThermoFisher	2109XPEN	MONTHLY
pH					
RAW pH	pH INSTRUMENT	Filter Pipe Gallery	HACH	SC200/DPD1	QUARTERLY
CHEM BUILDING EAST TREATED pH	pH INSTRUMENT	Pre Chem Bldg	HACH	SC100/DPD1	QUARTERLY
CHEM BUILDING WEST TRATED pH	pH INSTRUMENT	Pre Chem Bldg	HACH	SC100/DPD1	QUARTERLY
Rapid Mix 1 pH	pH INSTRUMENT	Rapid Mix Bldg	HACH	SC200/DPD1	QUARTERLY
Rapid Mix 2 pH	pH INSTRUMENT	Rapid Mix Bldg	HACH	SC200/DPD1	QUARTERLY
Settled/pre filter flume pH	pH INSTRUMENT	Main Building 1st Floor	HACH	SC200/DPD1	QUARTERLY
FILTERED pH	pH INSTRUMENT	Main Building 1st Floor	HACH	SC200/DPD1	QUARTERLY
12 MG CW INF. 72" pH	pH INSTRUMENT	Main Building 1st Floor	HACH	SC100/DPD1	QUARTERLY
5 MG CW INF. 48" pH	pH INSTRUMENT	5 MG CW	HACH	SC200/DPD1	QUARTERLY
12 MG CW FINISHED 48" pH	pH INSTRUMENT	494 pump station	HACH	SC200/DPD1	QUARTERLY
12 MG CW FINISHED 54" pH	pH INSTRUMENT	495 pump station	HACH	SC100/DPD1	QUARTERLY
5 MG FINISHED 30" pH	pH INSTRUMENT	605 Bldg	HACH	SC100/DPD1	QUARTERLY
PRESS THICKENER BUILDING pH (parshall flume)	pH INSTRUMENT	Press	HACH	SC100/DPD1	QUARTERLY
PRESS RECYCLE pH	pH INSTRUMENT	Press	HACH	SC100/DPD1	QUARTERLY
PRESS NORTH BASIN pH	pH INSTRUMENT	Press	HACH	SC1500/DPD1	QUARTERLY
PRESS SOUTH BASIN pH	pH INSTRUMENT	Press	HACH	SC1500/DPD1	QUARTERLY
Filter Inlet Flume pH	pH INSTRUMENT	Filter Inlet by filters 1 and 2	Swan	AMI Codes-II AC	QUARTERLY
	*Start 2025 once meter is installed				
Rapid Mix Streaming Current	Streaming Current	Rapid Mix	ChemTrac	DuraTrac 4	QUARTERLY
Turbidity					
FILTERED WATER TURBIDITY METER (CFE)	TURBIDITY	Filter pipe gallery	HACH	TU5300	QUARTERLY
SETTLED WATER TURBIDITY METER	TURBIDITY	Filter pipe gallery	HACH	1720E	QUARTERLY
RAW WATER TURBIDITY METER	TURBIDITY	Filter pipe gallery	HACH	Surface Scatter 6	QUARTERLY

Basin 1 TURBIDITY	TURBIDITY	Sed Basins	HACH	SOLITAX	QUARTERLY
Basin 2 TURBIDITY	TURBIDITY	Sed Basins	HACH	SOLITAX	QUARTERLY
Basin 3 TURBIDITY	TURBIDITY	Sed Basins	HACH	SOLITAX	QUARTERLY
Basin 4 TURBIDITY	TURBIDITY	Sed Basins	HACH	SOLITAX	QUARTERLY
Basin 5 TURBIDITY	TURBIDITY	Sed Basins	HACH	SOLITAX	QUARTERLY
PRESS NORTH BASIN TURBIDITY	TURBIDITY	Press	HACH	SOLITAX	QUARTERLY
PRESS SOUTH BASIN TURBIDITY	TURBIDITY	Press	HACH	SOLITAX	QUARTERLY
PRESS RECYCLE TURBIDITY METER	TURBIDITY	Press	HACH	1720E	QUARTERLY
PRESS THICKENER 1 TURBIDITY METER	TURBIDITY	Press	HACH	SOLITAX	QUARTERLY
PRESS THICKENER 2 TURBIDITY METER	TURBIDITY	Press	HACH	SOLITAX	QUARTERLY
PRESS THICKENER 3 TURBIDITY METER	TURBIDITY	Press	HACH	SOLITAX	QUARTERLY
PRESS THICKENER 4 TURBIDITY METER	TURBIDITY	Press	HACH	SOLITAX	QUARTERLY
Flow					
THICKENER OVERFLOW FLOW	FLOW METER	Press	MILLTRONICS	OCMIII	QUARTERLY
NORTH/SOUTH BASIN EFFLUENT FLOW	FLOW METER	Press	MILLTRONICS	OCMIII	QUARTERLY
PRESS FIT-02 / RECYCLE FLOW	PRESSURE/FLOW TRANSMITTER	Press	ROSEMOUNT	1151	QUARTERLY
36" RAW WATER LINE	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
54" RAW WATER LINE	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
FIT-5055 / 16" FINISHED WATER LINE 0-10 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
FIT-5053 / 48" FINISHED WATER LINE 0-60 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
FIT-5050 / 54" FINISHED WATER LINE 0-80 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	3051DP	QUARTERLY
FIT-5017 / 72" FINISHED WATER LINE 0-90 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
FIT-0101 / 30" 5MG CW INF. WATER LINE 0-35 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
FIT-0120 / 30" FINISHED WATER LINE 0-30 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	ROSEMOUNT	1151DP	QUARTERLY
FIT-5070/48" 12 MG CW Effluent water line	MAG FLOW METER	CONFINED SPACE	SIEMENS		QUARTERLY
FIT-1010-1 / E VENTURI 0-100 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	FOXBORO	IDP10	QUARTERLY
FIT-1010-2 / W VENTURI 0-100 MGD	PRESSURE/FLOW TRANSMITTER	CONFINED SPACE	FOXBORO	IDP10	QUARTERLY
FIT-2014-A / BACKWASH FLOW PUMP #1	PRESSURE/FLOW TRANSMITTER	FILTER GALLERY	ENDRESS + HAUSER	PMD75	QUARTERLY
FIT-2014-B / BACKWASH FLOW PUMP #2	PRESSURE/FLOW TRANSMITTER	FILTER GALLERY	ENDRESS + HAUSER	PMD75	QUARTERLY
LIT-0103: 5 MG CW LEVEL	LEVEL TRANSMITTER	5MG Clearwell	MILLTRONICS	HYDRORANGER	QUARTERLY
LIT-0112: 12 MG CW Level	LEVEL TRANSMITTER	12 MG Clearwell	MILLTRONICS	HYDRORANGER	QUARTERLY
LIT-5030-1: Low Service Pump Well #1 level	LEVEL TRANSMITTER	Low Service pump room	MILLTRONICS	HYDRORANGER	QUARTERLY
LIT-5030-2: Low Service Pump Well #2 level	LEVEL TRANSMITTER	Low Service pump room	MILLTRONICS	HYDRORANGER	QUARTERLY
LIT-5030-3: Low Service Pump Well #3 level	LEVEL TRANSMITTER	Low Service pump room	MILLTRONICS	HYDRORANGER	QUARTERLY
PRESS RECYCLE WETWELL LEVEL	LEVEL TRANSMITTER	RECYCLE BUILDING	SIEMENS	HYDRORANGER 200	QUARTERLY
EAST RAW RESERVOIR LEVEL	LEVEL TRANSMITTER	East Reservoir Outlet	MOBREY	MSP400	SEMI-ANNUALLY
WEST RAW RESERVOIR LEVEL	LEVEL TRANSMITTER	West Reservoir Outlet	SIEMENS	SITRANS PROBE LU	SEMI-ANNUALLY
605 BLDG PRESSURE	PRESSURE TRANSMITTER	605 Bldg	ROSEMOUNT	1151GP	QUARTERLY
HIGH SERVICE PUMP PRESSURE (Plant Pressure)	PRESSURE TRANSMITTER	Low Service pump room	ROSEMOUNT	1151GP	QUARTERLY
LOW SERVICE PUMP PRESSURE	PRESSURE TRANSMITTER	Disharge of Low Service pump 1	FOXBORO	821GM-1K1NM1	QUARTERLY
Main Building Plant water flow	MAG FLOW METER	Low Service pump room	SIEMENS		QUARTERLY
Hypo Bldg water flow	MAG FLOW METER	Hypo Bldg	SIEMENS		
Pre-Chem water flow	MAG FLOW METER	Polymer room	SIEMENS		
FIT-10401 48" Rapid Mix 1 Flow	MAG FLOW METER	Rapid Mix Bldg	SIEMENS		QUARTERLY
FIT-10402 48" Rapid Mix 2 Flow	MAG FLOW METER	Rapid Mix Bldg	SIEMENS		QUARTERLY
PRESS BLDG SLUDGE TRANSFER RECORDER (CH1)	FLOW RECORDER	Press	ABB	1900	QUARTERLY
PRESS BLDG SLUDGE TRANSFER RECORDER (CH2)	FLOW RECORDER	Press	ABB	1901	QUARTERLY
Sludge Level					
PRESS THICKENER 1 SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Press	HACH	SONATAX	QUARTERLY
PRESS THICKENER 2 SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Press	HACH	SONATAX	QUARTERLY
PRESS THICKENER 3 SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Press	HACH	SONATAX	QUARTERLY
PRESS THICKENER 4 SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Press	HACH	SONATAX	QUARTERLY

Basin 4-Train 1-SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Sed Basins	Endress & Hauser		QUARTERLY
Basin 4-Train 2-SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Sed Basins	Endress & Hauser		QUARTERLY
Basin 4-Train 3-SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Sed Basins	Endress & Hauser		QUARTERLY
Basin 5-Train 1-SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Sed Basins	Endress & Hauser		QUARTERLY
Basin 5-Train 2- SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Sed Basins	Endress & Hauser		QUARTERLY
Basin 5-Train 3- SLUDGE LEVEL MONITORING	LEVEL TRANSMITTER	Sed Basins	Endress & Hauser		QUARTERLY
Basin 3-Train 1-SLUDGE LEVEL MONITORING			Endress & Hauser		QUARTERLY
Basin 3-Train 2-SLUDGE LEVEL MONITORING			Endress & Hauser		QUARTERLY
Basin 3-Train 3-SLUDGE LEVEL MONITORING	*Estimated 2026 start service once instrument is outside warranty period		Endress & Hauser		QUARTERLY
Ozone					
Ambient Ozone	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ambient Ozone	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ambient Ozone	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ambient Ozone	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ambient Ozone	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ambient Ozone	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485950	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485951	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485952	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485953	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485954	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485955	ANNUAL
Ambient Oxygen	Oxygen	Ozone Bldg	MSA	Toxguard 485956	ANNUAL
Ozone HC Gen 1	High Concentration Ozone	Ozone Bldg	Teledyne	465H	ANNUAL
Ozone HC Gen 2	High Concentration Ozone	Ozone Bldg	Teledyne	465H	ANNUAL
Ozone HC Gen 3	High Concentration Ozone	Ozone Bldg	Teledyne	465H	ANNUAL
Ozone Destruct 1 MC	Medium Concentration Ozone	Ozone Bldg	Teledyne	465M	ANNUAL
Ozone Destruct 2 MC	Medium Concentration Ozone	Ozone Bldg	Teledyne	465M	ANNUAL
Ozone Destruct 1 LC	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Ozone Destruct 2 LC	Low Concentration Ozone	Ozone Bldg	Teledyne	465L	ANNUAL
Filters					
PDIT-2010-1 / FILTER 1A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-2 / FILTER 1BLOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-3 / FILTER 2A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-4 / FILTER 2B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-5 / FILTER 3A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-6 / FILTER 3B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-7 / FILTER 4ALOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-8 / FILTER 4B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-9 / FILTER 5A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-10 / FILTER 5B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-11 / FILTER 6A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2020-12 / FILTER 6B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-13/ FILTER 7A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-14 / FILTER 7B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-15 / FILTER 8A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-16 / FILTER 8B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-17/ FILTER 9A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-18 / FILTER 9B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-19 / FILTER 10A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-20/ FILTER 10B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
PDIT-2010-21 / FILTER 11A LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY

PDIT-2010-22 / FILTER 11B LOSS OF HEAD	PRESSURE TRANSMITTER	PIPE GALLERY	FOXBORO	IDP10	QUARTERLY
AIT-101 / FILTER 1A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-102 / FILTER 1B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-103 / FILTER 2A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-104 / FILTER 2B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-201 / FILTER 3A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-202 / FILTER 3B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-203 / FILTER 4A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-204 / FILTER 4B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-205 / FILTER 5A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-206 / FILTER 5B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-207 / FILTER 6A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-208 / FILTER 6B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-209 / FILTER 7A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-210 / FILTER 7B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-211 / FILTER 8A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-212 / FILTER 8B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-213 / FILTER 9A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-214 / FILTER 9B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-215 / FILTER 10A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-216 / FILTER 10B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-217 / FILTER 11A - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
AIT-218 / FILTER 11B - PARTICLE COUNTER	DIGITAL PARTICLE COUNTER	PIPE GALLERY	CHEMTRAC	PC3400	SEMI-ANNUALLY
FIT-2020-1 / FILTER 1A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-2 / FILTER 1B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-3/ FILTER 2A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-4 / FILTER 2B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-5 / FILTER 3A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-6 / FILTER 3B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-7 / FILTER 4A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-8 / FILTER 4B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-9 / FILTER 5A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-10 / FILTER 5B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-11 / FILTER 6ARATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-12 / FILTER 6B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-13/ FILTER 7A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-14/ FILTER 7B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-15/ FILTER 8A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-16 / FILTER 8B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-17 / FILTER 9A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-18 / FILTER 9B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-19/ FILTER 10A RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	IFC 300 W	QUARTERLY
FIT-2020-20/ FILTER 10B RATE OF FLOW	ELECTROMAGNETIC FLOWMETER	PIPE GALLERY	KROHNE	OPTIFLUX 2300 C	QUARTERLY
FIT-2020-21 / FILTER 11A RATE OF FLOW	PRESSURE/Flow TRANSMITTER-Orifice Plate	PIPE GALLERY	ROSEMOUNT	3051	QUARTERLY
FIT-2020-22 / FILTER 11B RATE OF FLOW	PRESSURE/Flow TRANSMITTER-Orifice Plate	PIPE GALLERY	ROSEMOUNT	3051	QUARTERLY
FILTER 1A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 1B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 2A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 2B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 3A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 3B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 4A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY

FILTER 4B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 5A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 5B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 6A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 6B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 7A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 7B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 8A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 8B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 9A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 9B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 10A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 10B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 11A TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY
FILTER 11B TURBIDITY METER	TURBIDITY	PIPE GALLERY	HACH	TU5300	MONTHLY

Appendix VII - Remote Site Instrumentation
List Updated August 2024

Remote Site Pump Stations with Venturi Style Flow Meters and Transmiters

Description	Instrument Type	Manufacturer	Model Number	Calibration Frequency
Shelley Rd. pump station	16" DIFFERENTIAL PRESSURE/FLOW	Badger	PMT Lo-Loss	QUARTERLY
Westgate pump station **[confined space]**	16" DIFFERENTIAL PRESSURE/FLOW			QUARTERLY
Mt. Herman pump station **[confined space]**	16" DIFFERENTIAL PRESSURE/FLOW			QUARTERLY
Wade ave. pump station **[confined space]**	36" DIFFERENTIAL PRESSURE/FLOW			QUARTERLY
Bain Pump station **[confined space]**	20" DIFFERENTIAL PRESSURE/FLOW			QUARTERLY
Knightdale Booster Station **[confined space]**	16" DIFFERENTIAL PRESSURE/FLOW	PFS-Primary Flow Signal, Inc	16" A HVT-P1-Siemens	QUARTERLY
Forestville Rd. Pump Station to Rolesville	10" DIFFERENTIAL PRESSURE/FLOW	PFS-Primary Flow Signal, Inc	10" HVT-PS-Rosemount	QUARTERLY
Forestville Rd Pump Station to Wake Forest	16" DIFFERENTIAL PRESSURE/FLOW	PFS-Primary Flow Signal, Inc	16"A-HVT-PS-Rosemount	QUARTERLY

Remote Site Water Quality Panels

Description	Instrument Type	Manufacturer	Model Number	Calibration Frequency	Install Year
E.B. BAIN PUMP STATION CHLORINE	CHLORINE ANALYZER	Swan	AMI Codes II CC with pH	QUARTERLY	
E.B. BAIN PUMP STATION CONDUCTIVITY	CONDUCTIVITY Probe	Swan	AMI Solicon 4 with Swansensor Shurecon P	QUARTERLY	
E.B. BAIN PUMP STATION pH	pH Probe	Swan	AMI Codes II CC with pH	QUARTERLY	2021
E.B. BAIN PUMP STATION TEMPERATURE	TEMPERATURE TRANSMITTER (pH ATC)	Swan	AMI Codes II CC with pH (ATC)	QUARTERLY	
E.B. BAIN PUMP STATION TURBIDITY	Turbidimeter	Swan	AMI Turbiwell	QUARTERLY	
GREEN PACE ROAD TANK CHLORINE	CHLORINE ANALYZER	HACH new style	CL17sc	QUARTERLY	
GREEN PACE ROAD TANK CONDUCTIVITY	CONDUCTIVITY Probe	HACH	PN D3422C3	QUARTERLY	
GREEN PACE ROAD PH	pH Probe	HACH	DPD1P1	QUARTERLY	2020
GREEN PACE ROAD TANK TURBIDITY	Turbidimeter	HACH	TU5300	QUARTERLY	
GREEN PACE ROAD TANK PRESSURE	PRESSURE TRANSMITTER	HACH	PN 2200BGG	QUARTERLY	
GREEN PACE ROAD TANK TEMPERATURE	TEMPERATURE TRANSMITTER (pH ATC)	HACH	DPD1	QUARTERLY	
HODGE ROAD TANK CHLORINE	CHLORINE ANALYZER	HACH new style	CL17sc	QUARTERLY	
HODGE ROAD TANK CONDUCTIVITY	CONDUCTIVITY Probe	HACH	PN D3422C3	QUARTERLY	
HODGE ROAD TANK PH	pH probe	HACH	DPD1	QUARTERLY	2019
HODGE ROAD TANK TURBIDITY	TURBIDITY	HACH	TU5300	QUARTERLY	
HODGE ROAD TANK Pressure	Pressure Transmitter	HACH	PN 6842600	QUARTERLY	
HODGE ROAD TANK Temperature	TEMPERATURE TRANSMITTER (pH ATC)	HACH	DPD1	QUARTERLY	
HWY 54 TANK CHLORINE	CHLORINE ANALYZER	HACH new style	CL17sc	QUARTERLY	
HWY 54 TANK CONDUCTIVITY	CONDUCTIVITY INSTRUMENT	HACH	PN D3422C3	QUARTERLY	
HWY 54 TANK pH	pH Probe	HACH	DPD1P1	QUARTERLY	
HWY 54 TANK TURBIDITY	TURBIDITY	HACH	TU5300	QUARTERLY	2019
HWY 54 Tank Pressure	PRESSURE TRANSMITTER	HACH	PN 2200BGG	QUARTERLY	
HWY 54 Tank Temperature	TEMPERATURE TRANSMITTER (pH ATC)	HACH	DPD1	QUARTERLY	
LIONS CLUB ROAD TANK CHLORINE	CHLORINE ANALYZER	HACH	CL17	QUARTERLY	
LIONS CLUB ROAD TANK PH	pH INSTRUMENT	HACH	DPD1R1	QUARTERLY	?
New Hope Tank Chlorine	CHLORINE ANALYZER	Swan	AMI Codes II CC with pH	QUARTERLY	
New Hope Tank Conductivity	CONDUCTIVITY Probe	Swan	AMI Solicon 4 with Swansensor Shurecon P	QUARTERLY	
New Hope Tank pH	pH probe	Swan	AMI Codes II CC with pH	QUARTERLY	2020
New Hope Tank Turbidity	Turbidimeter	Swan	AMI Turbiwell	QUARTERLY	
New Hope Tank Temperature	TEMPERATURE TRANSMITTER (pH ATC)	Swan	AMI Codes II CC with pH (ATC)	QUARTERLY	
Pine Hollow Tank Chlorine	CHLORINE ANALYZER	HACH new style	CL17sc	QUARTERLY	
Pine Hollow Tank Conductivity	CONDUCTIVITY Probe	HACH	PN D3422C3	QUARTERLY	
Pine Hollow Tank pH	pH Probe	HACH	DPD1P1	QUARTERLY	
Pine Hollow Tank Turbidity	Turbidimeter	HACH	TU5300	QUARTERLY	Dec-21
Pine Hollow Tank Pressure	PRESSURE TRANSMITTER	HACH	PN 2200BGG	QUARTERLY	

Pine Hollow Tank Temperature	TEMPERATURE TRANSMITTER (pH ATC)	HACH	DPD1	QUARTERLY	
RAND MILL TANK CHLORINE	CHLORINE ANALYZER	HACH new style	CL17sc	QUARTERLY	2019
RAND MILL TANK CONDUCTIVITY	CONDUCTIVITY Probe	HACH	PN D3422C3	QUARTERLY	
RAND MILL TANK PH	pH probe	HACH	DPD1P1	QUARTERLY	
RAND MILL TANK TURBIDITY	TURBIDIMETER	HACH	TU5300	QUARTERLY	
RAND MILL TANK Pressure	Pressure Transmitter	HACH	PN 2200BGG	QUARTERLY	
RAND MILL TANK Temperature	TEMPERATURE TRANSMITTER (pH ATC)	HACH	DPD1	QUARTERLY	
Raw Water Pump Station Pump Well	Level	Siemens	Hydroranger	Semi-Annually	
~~Strickland Tank Chlorine~~	~~CHLORINE ANALYZER~~	~~HACH old style~~	~~CL17~~	~~QUARTERLY~~	2005?
~~Strickland Tank Conductivity~~	~~CONDUCTIVITY Probe~~	~~HACH~~	~~53~~	~~QUARTERLY~~	
~~Strickland Tank pH~~	~~pH Probe~~	~~HACH~~	~~EC1000~~	~~QUARTERLY~~	
~~Strickland Tank Turbidity~~	~~Turbidimeter~~	~~HACH~~	~~1720C~~	~~QUARTERLY~~	
~~Strickland Tank Pressure~~	~~PRESSURE TRANSMITTER~~	~~HACH~~	~~N/A~~	~~QUARTERLY~~	
~~Strickland Tank Temperature~~	~~TEMPERATURE TRANSMITTER (pH ATC)~~	~~HACH~~	~~N/A~~	~~QUARTERLY~~	
Wendell Booster Pump Station Chlorine	CHLORINE ANALYZER	Swan	AMI Codes II CC with pH	QUARTERLY	2020
Wendell Booster Pump Station Conductivity	CONDUCTIVITY INSTRUMENT	Swan	AMI Solicon 4 with Swansensor Shurecon P	QUARTERLY	
Wendell Booster Pump Station pH	pH INSTRUMENT	Swan	AMI Codes II CC with pH	QUARTERLY	
Wendell Booster Pump Station Turbidity	TURBIDITY	Swan	AMI Turbiwell	QUARTERLY	
Wendell Booster Pump Station Temperature	TEMPERATURE TRANSMITTER (pH ATC)	Swan	AMI Codes II CC with pH (ATC)	QUARTERLY	
WESTGATE TANK CHLORINE	CHLORINE ANALYZER	Swan	AMI Codes II CC with pH	QUARTERLY	2021
WESTGATE TANK CONDUCTIVITY	CONDUCTIVITY Probe	Swan	AMI Solicon 4 with Swansensor Shurecon P	QUARTERLY	
WESTGATE TANK pH	pH Probe	Swan	AMI Codes II CC with pH	QUARTERLY	
WESTGATE TANK TEMPERATURE	TEMPERATURE TRANSMITTER (pH ATC)	Swan	AMI Codes II CC with pH (ATC)	QUARTERLY	
WESTGATE TANK TURBIDITY	Turbidimeter	Swan	AMI Turbiwell	QUARTERLY	
ZEBULON Booster Pump Station CHLORINE	CHLORINE ANALYZER	HACH new style	CL17sc	QUARTERLY	2020
ZEBULON Booster Pump Station Conductivity	CONDUCTIVITY Probe	HACH	PN D3422C3	QUARTERLY	
ZEBULON Booster Pump Station pH	pH probe	HACH	DPD1P1	QUARTERLY	
ZEBULON Booster Pump Station Turbidity	Turbidimeter	HACH	TU5300	QUARTERLY	
ZEBULON Booster Pump Station Pressure	PRESSURE TRANSMITTER	HACH	PN 2200BGG	QUARTERLY	
ZEBULON Booster Pump Station Temperature	TEMPERATURE TRANSMITTER (pH ATC)	HACH	DPD1	QUARTERLY	

Appendix IX -EMJ Instrumentation Duties 2024

Instrument	Weekly	Monthly	Every visit	Comments
Clean Streaming Current	X			twice week in summer
Check Chemscan Chemicals			X	Make up new reagents as needed
Clean Surface Scatter Raw			X	
Clean IFE turbidimeters		X		
Clean CFE turbidimeter		X		
Clean Cl17 Sample cells		X		
Clean treated pH probe	X			
Clean Basin Solitaxs	X			
Clean Pre filter/settled turbidimeter	X			

Appendix X

City of Raleigh
Raleigh Water

Vendor Evaluation Form

Vendor Name: _____ **Today's Date:**

Service/Product Description: Description

Contract Monitor: Employee Name

Contract #: Contract Number

Contract Date Range: Click here to select date **through** Click here to select date

Evaluation Frequency: ☐ Choose an item.
Date Range:Click or tap to enter a date. through Click or tap to enter a date.

☐ **End of Contract** Date:Click or tap to enter a date.

Please rate and evaluate the vendor in the key areas defined below. Evaluations should include specific examples.
Rating scale: 1 = Unsatisfactory: standards not being met
2 = Meets Expectations: all standards are sufficiently met
3 = Exceeds Expectations; vendor is consistently performing above the standards

Area	Rating	Evaluation
Quality	Choose a rating	
Performance	Choose a rating	
Communication	Choose a rating	
Responsiveness	Choose a rating	

Additional comments and/or concerns: *(attach any/all relevant documentation)*

Recommend Vendor for future use? ☐ **Yes** ☐ **No**

Evaluation Performed by: **Date:** Click or tap to enter a date.

Appendix XI

Laboratory Thermometer List

Building Location EMJ/DEB/STAR RD	Description	Instrument ID	Manufacturer	Model Number	Room Number Location	Serial Number	Calibration Frequency
STAR RD	MICRO INCUBATOR TOP	1635.007	FISHER SCIENTIFIC		141 MICROBIOLOGY LAB	230858207-1	QUARTERLY
STAR RD	MICRO INCUBATOR BOTTOM	1635.008	FISHER SCIENTIFIC		141 MICROBIOLOGY LAB	230858207-2	QUARTERLY
STAR RD	ENTEROCCUS INCUBATOR	1635.009	FISHER SCIENTIFIC		141 MICROBIOLOGY LAB	230858223-2	QUARTERLY
STAR RD	R2A INCUBATOR	1635.01	FISHER SCIENTIFIC		141 MICROBIOLOGY LAB	230858223-1	QUARTERLY
STAR RD	CONDUCTIVITY METER	1635.015	THERMO SCIENTIFIC		123 LAB CALIBRATION AREA	13756	QUARTERLY
EMJ	DO METER	1635.016	YSI	PRO 20	2ND FLOOR	20G101555	QUARTERLY
STAR RD	LAB ANALYST PH METER (BG)	1635.02	HACH	SL1000	123 LAB CALIBRATION AREA	202020106158	QUARTERLY
STAR RD	LAB ANALYST PH METER (RC)	1635.021	HACH	SL1000	123 LAB CALIBRATION AREA	191220204829	QUARTERLY
STAR RD	LAB ANALYST PH METER (GW)	1635.023	HACH	SL1000	123 LAB CALIBRATION AREA	191440104897	QUARTERLY

Building Location EMJ/DEB/STAR RD	Description	Instrument ID	Manufacturer	Model Number	Room Number Location	Serial Number	Calibration Frequency
STAR RD	LAB ANALYST PH METER (EXTRA)		HACH	SL1000	123 LAB CALIBRATION AREA	241790100675	QUARTERLY
STAR RD	SAMPLE RECEIVING THERMOMETER	1635.024	FISHER SCIENTIFIC		122 SAMPLE RECEIVING	A184131	QUARTERLY
EMJ	EMJ OPERATOR PH METER	1635.028	METTLER-TOLEDO	S220	2ND FLOOR	C117664356	QUARTERLY
EMJ	EMJ OPERATOR INCUBATOR THERMOMETER	1635.029	FISHER SCIENTIFIC		2ND FLOOR	160528123	QUARTERLY
DEB	DEB OPERATOR PH METER	1635.03	METTLER-TOLEDO	S220	DEB LAB	C133371181	QUARTERLY
DEB	DEB OPERATOR INCUBATOR	1635.031	FISHER SCIENTIFIC	60L	DEB LAB	42831079	QUARTERLY
STAR RD	REFRIDGERATOR IC THERMOMETER	1635.036	FISHER SCIENTIFIC		125 PHYSICAL/WET LAB	210498045	QUARTERLY
STAR RD	SAMPLE RECEIVING MINI REFRIGERATOR TOP	1635.045	FISHER SCIENTIFIC		122 SAMPLE RECEIVING	192240152-1	QUARTERLY
STAR RD	SAMPLE RECEIVING MINI REFRIGERATOR BOTTOM	1635.046	FISHER SCIENTIFIC		122 SAMPLE RECEIVING	192240152-2	QUARTERLY

Building Location EMJ/DEB/STAR RD	Description	Instrument ID	Manufacturer	Model Number	Room Number Location	Serial Number	Calibration Frequency
STAR RD	SAMPLE RECEIVING WALK-IN REFRIDGERATOR	1635.048	FISHER SCIENTIFIC		122 SAMPLE RECEIVING	240059049	QUARTERLY
STAR RD	MICROBIOLOGY LAB REFER/FREEZER	1635.049	FISHER SCIENTIFIC		141 MICROBIOLOGY LAB	230858144-1	QUARTERLY
STAR RD	MICROBIOLOGY LAB REFER/FREEZER	1635.05	FISHER SCIENTIFIC		141 MICROBIOLOGY LAB	230858144-2	QUARTERLY
STAR RD	ORGANIC PREP LAB REFER/FREEZER	1635.051	FISHER SCIENTIFIC		147 ORGANIC PREP LAB	230858115-1	QUARTERLY
STAR RD	ORGANIC PREP LAB REFER/FREEZER	1635.052	FISHER SCIENTIFIC		147 ORGANIC PREP LAB	230858115-2	QUARTERLY
STAR RD	VOLATILE ORGANIC LAB REFER/FREEZER	1635.053	FISHER SCIENTIFIC		149 VOLATILE ORGANIC LAB	230858228-1	QUARTERLY
STAR RD	VOLATILE ORGANIC LAB REFER/FREEZER	1635.054	FISHER SCIENTIFIC		149 VOLATILE ORGANIC LAB	230858228-2	QUARTERLY
STAR RD	ADVANCED INORGANIC LAB I REFER/FREEZER	1635.055	FISHER SCIENTIFIC		157 ADVANCED INORGANIC LAB I	240059149	QUARTERLY
STAR RD	ADVANCED INORGANIC LAB II REFER/FREEZER	1635.056	FISHER SCIENTIFIC		153 ADVANCED INORGANIC LAB II		QUARTERLY
STAR RD	ADVANCED INORGANIC LAB II REFER/FREEZER	1635.057	FISHER SCIENTIFIC		153 ADVANCED INORGANIC LAB II		QUARTERLY
STAR RD	ALGAL TOXIN LAB WATER BATH	1635.058	FISHER SCIENTIFIC		139 ALGAL TOXIN LAB	240250604	QUARTERLY