



Orange Water and Sewer Authority

Our community's trusted partner for clean water and environmental protection.

REQUEST FOR QUALIFICATIONS

**Orange Water and Sewer Authority
Jones Ferry Road Water Treatment Plant PFAS Treatment Improvements
CIP Project No. 272-63
Issue Date: December 14, 2023**

Submittal Deadline: January 16, 2024 at 4 PM

1. INTRODUCTION

Your firm is hereby invited to submit a written statement of qualifications to provide professional engineering services for the Jones Ferry Road Water Treatment Plant (WTP) PFAS Treatment Improvements. OWASA will conduct a Qualification-Based Selection process to identify the best qualified firm, or team of firms, with which to negotiate a contract.

To be considered by OWASA, responses to this RFQ must be received by 4:00 p.m. Eastern Time on January 16, 2024. Refer to Section 5 – Submittal Requirements for details.

2. OBJECTIVES

The primary objectives of the project are:

- to design a new PFAS treatment process at the WTP capable of meeting the proposed regulatory compliance limits and OWASA treatment goals for PFAS, making best use of information and decisions contained in planning documents prepared or being finalized by the planning consultant (Brown and Caldwell);
- to place the new treatment process into operation by January 2028, and sooner if possible;
- to deliver the project using traditional design-bid-build delivery; and
- to coordinate with other major capital projects expected to be concurrently in design and construction, namely the Clearwell and Electrical Distribution Improvements.

Timeliness of project delivery is a critical success factor.

3. BACKGROUND AND DESCRIPTION

Water Treatment

Water from University Lake, Cane Creek Reservoir, and the Quarry Reservoir is treated at the 20 MGD Jones Ferry Road WTP in Carrboro. The WTP process schematic is included as an appendix to this RFQ. The WTP is configured with a chemical flash mixer followed by two parallel (independent) treatment trains: 1) conventional coagulation/flocculation chamber followed by gravity settling basins, and 2) upflow clarifiers. Clarified water is further treated through ten dual-media filters. Chemicals used in the treatment process include ferric sulfate for coagulation, liquid caustic (sodium hydroxide) for pH control, sodium permanganate and powdered activated carbon

(PAC) for taste and odor control, a blend of orthophosphates and polyphosphates for corrosion control, sodium hypochlorite and ammonia (ammonium sulfate) for chloramine disinfection, and hydrofluorosilicic acid for community-wide dental health. In November 2023, following bench scale PFAS removal testing of several PAC products conducted by Brown and Caldwell, OWASA began using CarbPure TRA, manufactured by ADA.

Proposed Drinking Water Rules

In March 2023, the Environmental Protection Agency (EPA) released [draft rules for the treatment of PFAS in drinking water](#). This draft rule set out proposed compliance limits (Maximum Contaminant Levels, or MCLs) below levels typically found in WTP finished water. Once this proposed rule is finalized, which is currently expected to happen within the next couple of months, there will be a three-year timeline for compliance with a potential two-year extension if capital facilities need to be constructed.

Ongoing Monitoring Program

In 2018, OWASA began quarterly monitoring for PFAS in our water supply in Cane Creek Reservoir and treated drinking water after elevated levels of PFAS were detected in the Cane Creek Reservoir, but not University Lake. Over the years, the monitoring program has expanded to include other parts of the system, and information and results from the monitoring program can be found [here](#) and [here](#). On a quarterly basis, we test the raw water from Cane Creek Reservoir and University Lake as well as the finished water leaving the Water Treatment Plant using EPA Methods 533 and 537.1. We also test wastewater treatment plant (WWTP) influent and effluent (since 2019), and biosolids (since 2022) on a quarterly basis using EPA Draft Method 1633, which is the best-available EPA PFAS test method for compounds in wastewater and other environmental media. Aside from that schedule, occasionally we sample at different sites within the water or wastewater plants, within feeder creeks to the Cane Creek Reservoir, and at certain points within the wastewater collection system to better understand the presence of PFAS as it moves through different parts of our system.

As noted in the above section, PFAS compounds found in the treated water (“finished water”) leaving the WTP generally exceed the proposed limits. A summary of sampling results for perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) is shown in Table 1 below.

Table 1: Finished Water Sampling Results 2018 – 2023 (20 events) and Proposed Limits

	PFOS	PFOA	Hazard Index*
Units	ppt	ppt	unitless
EPA Proposed MCL	4	4	1
Average	6.6	13	0.3
Range	ND** to 15.0	ND** to 24.0	0 to 0.7

*PFAS Hazard Index is a unitless index proposed to limit the sum of four PFAS compounds (PFNA, PFHxS, PFBS, and GenX) proportional to the relative EPA-determined health risks for that compound.

**ND = not detected (< 2 ppt for the compounds of concern)

PFAS Planning Study

In November 2022, after a separate qualifications-based selection process, OWASA engaged Brown and Caldwell for a conceptual planning study to develop a roadmap to guide OWASA's efforts in responding to future regulations.

Rapid small-scale column testing (RSSCT) for technology selection was completed by Brown and Caldwell on raw water collected in a late July 2023 sampling event. The bench scale testing compared five types of GAC and IX media (F400, Norit400, Hydrodarco4000, PSR2+, Cal Res 2301) to determine media performance over time in removing PFAS compounds. Testing was designed to simulate the long-term (i.e., 18 to 20 month) performance of the media under operational conditions.

The GAC media performed similarly, with PFOA samples (as the treatment driver) exceeding 4 ng/L at the first collected sample (approximately 74 days of simulated operation). IX resins were non-detect for the five EPA proposed regulated compounds, except for PFOA, which exceeded 4 ng/L in the sample simulating approximately 377 days of operation time. PFPrS and PFPrA breakthrough was observed very quickly for each of the GAC RSSCTs; PFPrS was not detected with IX resin samples, while PFPrA breakthrough was observed immediately in the IX columns. In general, GAC media results pointed to infeasible media changeout times.

Brown and Caldwell's bench scale testing report is still in draft form and under review prior to finalization. OWASA anticipates posting additional summary and detailed information about the testing results as an addendum to this RFQ by December 22, 2023. However, the project team has reached consensus on the draft report's major findings and recommendations, including:

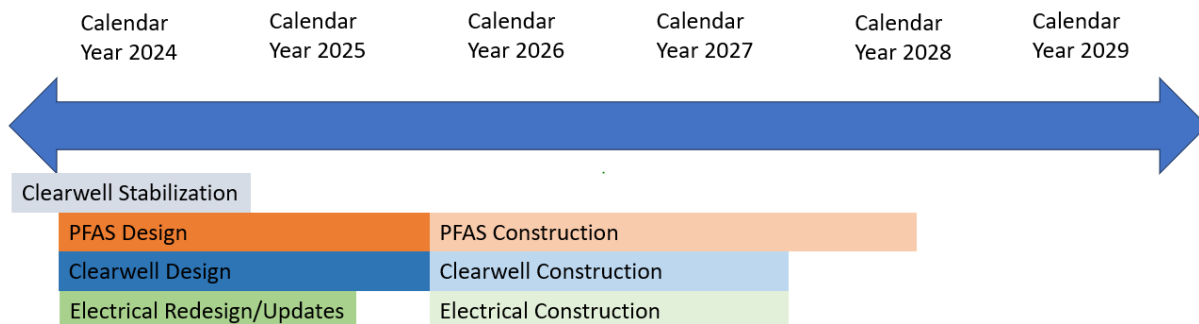
- IX provides superior performance compared to GAC with respect to removal of the PFAS compounds found in the OWASA source water tested. (EPA Method 533 and a modified version of EPA Method 537.1 were used.) As a result, IX media would be expected to last considerably longer than GAC under the conditions simulated.
- An IX system would require a pretreatment step designed to lower the risk of physical or biological fouling.
- GAC, while not performing as well as IX for PFAS removal, provides additional desirable treatment such as removal of organic compounds, and would allow for the elimination of PAC.
- A combined treatment approach, with GAC media serving as the pretreatment step ahead of IX media, is a promising alternative that should be further examined in a detailed pilot study. In this approach, GAC media changeout would not be based on PFAS performance but some other treatment parameter; the IX media would function as the workhorse for PFAS removal.
- Depending on decisions to be further refined in detailed design, the combined GAC-IX approach is expected to result in a treatment process with a footprint of roughly 18,000 square feet. Taking into account operational and maintenance access, plans for future site improvements, modifications to existing piping, flexibility of layout, impacts to parking, and other factors, the best location for the new treatment process is expected to be in the parking area north or east of the Administration Building.

- Class V construction cost of the GAC-IX option is currently estimated at \$66 million, with annual operating costs of \$940,000. Brown and Caldwell will provide a Class IV cost estimate in January 2024 to inform upcoming budget development.

Coordination

OWASA will have other projects in design and construction concurrently with the new PFAS treatment facilities, most notably electrical distribution improvements and the new clearwell that are part of a [separate RFQ](#). A rehabilitation project for the existing clearwell is expected to be in construction during calendar year 2024 and not have overlap with PFAS construction. The PFAS project will require significant coordination between other consultants or consultant teams and contractors, as well as OWASA. OWASA WTP staff must be able to perform their normal day-to-day responsibilities, while still participating in the design and construction processes for the various projects. OWASA may entertain on-site consultant or consultant team representation to ensure this project runs smoothly and has appropriate resources. Additionally, space for onsite office trailers and contractor storage will be a challenge and allocation of space between the projects will be a critical planning and coordination detail. OWASA expects that a portion of this project will be to coordinate with the PFAS designer (or designer team) to provide reasonable solutions and support for these efforts.

A draft timeline of the projects concurrent at the WTP is shown below:



4. SCOPE OF SERVICES

The engineering services required for this project are expected to be completed to meet the objective outlined above and in general accordance with a scope of services as needed to accomplish the tasks listed below. **However, the final scope of services will be negotiated with the selected engineering firm and may include modified and/or additional tasks.**

1. Pilot testing:
 - a. To meet the following objectives:
 - i. compare alternative treatment approaches
 1. GAC-IX, including assumption that this approach would eliminate use of PAC
 2. IX
 3. Novel sorbent (Fluorosorb FS-200)
 - ii. identify fouling or clogging concerns and any necessary pretreatment processes

- iii. evaluate impacts of chlorine
 - iv. estimate pretreatment media changeout frequencies.
 - v. inform design criteria such as EBCT, hydraulic loading rate, and other parameters
2. Design services may include:
- a. Assessment of construction phasing and procurement strategies to reduce project delivery schedule
 - b. Permitting, including modification of the site SUP through the Town of Carrboro
 - c. Pump station and yard piping design
 - d. PFAS treatment design
 - e. Parking lot design and parking/staging coordination
 - f. Maintenance of operations planning
 - g. Construction coordination planning
 - h. Communications support
 - i. Bid assistance, potentially including contractor prequalification
 - j. Funding application identification and assistance
3. Construction services may include:
- a. Construction inspection
 - b. Construction administration
 - c. Assistance with stakeholder engagement and communications
 - d. Preparation of Record Drawings and other closeout information

The draft and final plans, reports, etc. will be provided in electronic and hard copy formats in a manner acceptable to and usable by OWASA. The actual list and format of deliverables will be negotiated with the selected firm.

5. SUBMITTAL REQUIREMENTS

Because the conceptual planning documents are still in draft form, and because of the relatively shorter timeframe of RFQ issuance, the assumptions below should be made by responding firms. Any evaluation or commenting on these topics within a firm's response will not be considered in the SOQ scoring; they should be held as valid assumptions for purpose of the RFQ:

- Treatment alternatives outside of the WTP are not viable.
- A GAC-only deep bed or vessel configuration is not viable.
- Reverse osmosis or nanofiltration is not viable.
- Combination of the project with Clearwell and Electrical Distribution project, either design or construction) will not occur.
- Alternate delivery will not be utilized for this project.
- The process to modify the site SUP will take 12 months.
- The selected consultant will be authorized to proceed with pilot development on February 1, 2024.

A non-mandatory virtual/in-person hybrid pre-submittal meeting will be held, and recorded, on December 21, 2023 at 11:00AM at 400 Jones Ferry Road, Carrboro NC. Please email

vgangadharan@owasa.org to RSVP.

Responses to this RFQ must be received by OWASA no later than 4:00 p.m. Eastern Time on January 16, 2024. To be considered, please submit four (4) hard copies and one (1) electronic copy in PDF format of the required qualifications to:

Vishnu Gangadharan
Director of Engineering and Planning
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, North Carolina 27510

Submittals (**including** resumes) shall be limited to a maximum of 8 double-sided pages (i.e., 16 pages printed double-sided onto 8 sheets of 8-1/2"x11" paper). Please note that all Submittals shall become public documents upon delivery to OWASA. If there is sensitive or confidential information that cannot be shared publicly, please include additional documentation along with your submittal.

Each submittal must include the following in order to be considered:

- a) **Project Team/Org Chart [30 points]** showing the proposed project team members, including sub-consultants (if any), identifying their respective roles on the project, and indicating their availability to support this project. In particular, the competence, ability, and availability of the proposed project manager to deliver a project of this size and schedule-focus should be demonstrated and will be a large scoring factor in this category.
- b) **Project Approach [10 points]** This project is assumed to follow a typical design-bid-build path, with primary design elements as identified in Section 4. Category is weighted lower than other scoring categories due to the limitations in the planning information being provided. Describe your proposed approach to accomplish the work to meet the project objectives and manage project quality. Describe piloting approach to meet the pilot objectives listed in Section 4.
- c) **Project Schedule [30 points]** Time is of the essence with this project, and a firm's understanding of schedule risks and opportunities will be a key scoring factor. Assuming an initial task authorization of February 1, 2024 for piloting development and initial data gathering and review, provide a moderately aggressive schedule for completion of the project and discussion of schedule risks and opportunities, and the interrelationships of key findings from the pilot and other decisions. OWASA's current desire is to have the system in operation by early 2028, and earlier if possible.
- d) **Firm PFAS Experience [30 points]** Demonstrate your firm's PFAS expertise and relevant experience in delivering similar PFAS treatment projects for other clients. Identify the members of the proposed team who played key roles in those projects.

6. SELECTION PROCESS

OWASA intends to shortlist up to four firms on a qualifications basis within one week of receiving the responses to this RFQ. OWASA reserves the right to reject any and all proposals, to waive any and all formalities, and to disregard all nonconforming or conditional submittals.

OWASA is planning to conduct interviews with the shortlisted firms on the afternoon of Monday, January 22, 2024, and to finalize a selection decision by January 26, 2024.

If OWASA cannot reach an agreement with the initially selected firm, OWASA will then proceed to negotiate with other firms that submitted qualifications, or will reissue the RFQ.

7. OWASA POINT OF CONTACT

Vishnu Gangadharan will be OWASA's primary point of contact for all consultant selection matters relating to this project. **All questions regarding this Request for Qualifications must be emailed on or before January 10, 2024** to Vishnu Gangadharan at vgangadharan@owasa.org.

8. SUPPLEMENTAL INFORMATION

The following information will be made available upon email request to vgangadharan@owasa.org: WTP Process Schematic

Materials from the December 14, 2023 PFAS Update to OWASA Board of Directors can be accessed here: <https://www.owasa.org/board-of-directors-meetings/>

Additional information summarizing and detailing RSSCT testing results will be issued as an addendum by December 22, 2023.

AGREEMENT
BETWEEN

ORANGE WATER AND SEWER AUTHORITY,

a political subdivision of the State of North Carolina, its successors and assigns, hereinafter referred to as "Owner" through its Board of Directors,

and

{CONSULTANT NAME}

its successors and assigns, hereinafter referred to as "Consultant"

IN ORANGE COUNTY NORTH CAROLINA

FOR
CONSULTING SERVICES

W I T N E S S E T H :

WHEREAS, Owner intends to design electrical distribution improvements and a new clearwell at the Jones Ferry Road Water Treatment Plant;

WHEREAS, Owner requires certain consulting services in connection with the project (the Services); and,

WHEREAS, Consultant is prepared to provide the Services;

NOW THEREFORE, in consideration of the mutual terms and conditions, promises and payments contained in this Agreement, Owner and Consultant agree as follows:

ARTICLE 1 - TIME FOR PERFORMANCE

1.1 The effective date of this Agreement is _____ and shall remain in effect until terminated. Consultant shall perform the services described in Attachment B (herein, the Project Scope of Services) to this Agreement. Owner will issue a separate Notice to Proceed for the work, and the work shall proceed according to the schedule as described in the Project Scope of Services. Any work initiated by Consultant prior to the Owner's written authorization of the Project will be at the Consultant's sole risk.

ARTICLE 2 - GOVERNING LAW

2.1 This Agreement shall be governed by the laws of the state of North Carolina. Any disputes which may arise out of this agreement shall be filed in the North Carolina Court of Justice, The Superior Court of Orange County NC.

ARTICLE 3 - SERVICES TO BE PERFORMED

3.1 Consultant shall perform the Services described in the Project Scope of Services as authorized

under this Agreement. Consultant shall provide all services as set forth in the Project Scope of Services, including the necessary, incidental and related activities and services required and contemplated in the Consultant's level of effort.

3.2 Consultant and Owner acknowledge that the Scope of Services described for the Project does not delineate every detail and minor work task required to be performed by Consultant to complete the work authorized by the Scope of Services. If during the course of the performance of the services authorized by this Agreement, Consultant determines that work should be performed to complete the Project which is in the Consultant's opinion outside the level of effort originally anticipated, whether or not the Project Scope of Services identifies the work items, Consultant shall notify Contract Administrator in writing within 30 days and wait for Owner approval before proceeding with the work. If Consultant proceeds with said work without notifying the Contract Administrator, said work shall be deemed to be within the original level of effort described in the Project Scope of Services. Notice to the Contract Administrator does not constitute authorization or approval by Owner to perform the work. Performance of work by Consultant outside the originally anticipated level of effort without prior written Owner approval is at the Consultant's sole risk.

3.3 Upon mutual written agreement, the Project Scope of Services may be modified. The Owner and the Consultant may negotiate additional scopes of services, compensation, time of performance and other matters related to the project. If the Owner and Consultant cannot contractually agree, Owner shall have the right to immediately terminate negotiations at no cost to the Owner and to procure services from another source.

ARTICLE 4 - OWNER'S RESPONSIBILITIES

4.1 Owner shall be responsible for all matters described in the Project Scope of Services (Attachment B).

ARTICLE 5 - COMPENSATION AND METHOD OF PAYMENT

5.1 Owner agrees to pay Consultant as compensation for performance of services as described in the Project Scope of Services. Compensation may be as a lump sum or as maximum amount not-to-exceed. The maximum amount not-to-exceed method of compensation will utilize hourly billing rates established as part of this Agreement.

5.2 Consultant shall separately invoice for services rendered each month. Each project invoice shall reflect percentage of work completed to date and for the invoiced month. Invoices shall provide a detailed breakdown of hours worked, hourly billing rates by each individual, and the expenses attributable to the project during the period.

5.3 The Owner shall assign a Project CIP Number, as well as a Purchase Order Number for the Project to facilitate internal contract administration. Each Project Invoice must reference the assigned CIP Number and the Purchase Order Number for the Project and be sent directly to the Owner's Project Manager as assigned. Payment terms shall be the net invoice amount within 30 days.

5.4 The hourly billing rates for this agreement are set forth in Attachment A to this agreement and shall be used for maximum not-to-exceed compensation.

5.5 The reimbursable expenses for this agreement are set forth in Attachment A to this agreement and shall be used for maximum amount not-to-exceed compensation. Consultant shall be allowed to adjust expense items in accordance with changes in IRS criteria for deductible expenses.

5.6 Consultant shall keep such records and accounts and require any and all consultants and sub-consultants to keep records and accounts as may be necessary in order to record complete and correct entries as to personnel hours charged to the project and any expenses for which Consultant expects to be reimbursed. All books and records relative to the project shall be available at all reasonable times for examination and audit by Owner and shall be kept for a period of three (3) years after completion of all work pursuant to this Agreement. Incomplete or incorrect entries in such books and records shall be grounds for Owner's disallowance of any fees or expenses based upon such entries.

ARTICLE 6 - STANDARD OF CARE

6.1 General: Consultant shall exercise the same degree of care and diligence in the performance of the Services as is ordinarily exercised by a professional serving under similar circumstances.

ARTICLE 7 - LIABILITY AND INDEMNIFICATION

7.1 General: Having considered the potential liabilities that may exist during the performance of the Scope of Services, the benefits of the project, and the Consultant's fee for the Services, and in consideration of the promises contained in this Agreement, Owner and Consultant agree to allocate and limit such liabilities in accordance with this Article.

7.2 Indemnification by Consultant: Consultant agrees to defend, indemnify, and hold harmless Owner, its agents, and its employees from and against legal liability for all claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are caused by Consultant's negligent acts, errors, or omissions.

7.3 Employee Claims: Consultant shall indemnify Owner against legal liability for damages arising out of claims by Consultant's employees to the extent such claims arise out of Consultant's negligent acts, errors or omissions.

7.4 Survival: Upon completion of all Services, obligations, and duties provided for in this Agreement, or if this Agreement is terminated for any reason, the terms and conditions of this Article shall survive.

ARTICLE 8 - INSURANCE

8.1 During the performance of the Services under this Agreement, Consultant shall maintain the minimum levels of insurance shown below and provide certificates of such coverage to Owner prior to performance. All policies must provide ten (10) days advance written notice to Owner in the event of cancellation, expiration, or alteration.

8.1.1 General Liability Insurance, with a combined single limit of \$1,000,000 for each occurrence and \$1,000,000 in the aggregate.

8.1.2 Automobile Liability Insurance, with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.

8.1.3 Workers' Compensation Insurance in accordance with statutory requirements and Employers' Liability Insurance, with a limit of \$500,000 for each occurrence.

8.1.4 Professional Liability Insurance, with a limit of \$1,000,000 annual aggregate.

ARTICLE 9 - OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

9.1 Except as otherwise provided herein, documents and reports prepared by Consultant as part of the Services shall become the property of Owner upon payment for same. All finished or unfinished documents, data studies, surveys, drawings, maps, models, photographs and reports prepared or provided by Consultant in connection with this Agreement become the property of the Owner, whether the projects are completed or not, and shall be delivered by Consultant to the Owner within ten (10) days after receipt of written notice and upon payment for same. Consultant shall retain its rights to its specifications, databases, computer software, and other proprietary property. Rights to intellectual property developed, utilized, or modified in the performance of the Services shall remain the property of Consultant. Any use by Consultant of intellectual property owned by Owner is authorized solely for the project.

ARTICLE 10 - TERMINATION

10.1 This Agreement may be terminated by either party upon written notice in the event of substantial failure by the other party to perform in accordance with the terms of this Agreement. The nonperforming party shall have fifteen calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

10.2 Owner may terminate or suspend performance of this Agreement for Owner's convenience upon written notice to Consultant. Consultant shall terminate or suspend performance of the Services on a schedule acceptable to Owner. If termination or suspension is for Owner's convenience, Owner shall pay Consultant for all the Services performed and termination or suspension expenses. Upon restart, an equitable adjustment shall be made to Consultant's compensation.

ARTICLE 11 - DELAY IN PERFORMANCE

11.1 Neither Owner nor Consultant shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the nonperforming party. For purposes of this Agreement, such circumstances include: floods; earthquakes; fire; epidemics; war, riots, and other civil disturbances; strikes, lockouts, and other labor disturbances; sabotage; judicial restraint; and the inability to procure permits, licenses, or authorizations from any local, state, or federal agency for which such permits have been properly applied for in accordance with the specified Project Schedule for any of the supplies, materials, accesses, or services required to be provided by either Owner or Consultant under this Agreement.

11.2 Should such circumstances occur, the nonperforming party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement. Consultant shall be entitled to an equitable adjustment in schedule and compensation in the event such circumstances occur.

ARTICLE 12 - COMMUNICATIONS

12.1 Any communication required by this Agreement shall be made in writing to the address specified in the Project Scope of Services. The Contract Administrator for the Owner shall be specified in the Project Scope of Services. Nothing contained in this Article or the Project Scope of Services shall be construed to restrict the transmission of routine communications between representatives of Owner and Consultant.

ARTICLE 13 - WAIVER

13.1 No waiver by either Owner or Consultant of any breach of this Agreement shall be of any effect unless it shall be written and signed by the waiving party. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

ARTICLE 14 - SEVERABILITY

14.1 The invalidity, illegality, or unenforceability of any provision of this Agreement, or the occurrence of any event rendering any portion or provision of this Agreement void, shall in no way affect the validity or enforceability of any other portion or provision of this Agreement. Any void provision shall be deemed severed from this Agreement, and the balance of this Agreement shall be construed and enforced as if this Agreement did not contain the particular portion or provision held to be void. The parties further agree to amend this Agreement to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire Agreement from being void should a provision which is of the essence of this Agreement be determined void.

ARTICLE 15 - SUCCESSORS AND ASSIGNS

15.1 Owner and Consultant each binds itself and its directors, officers, partners, successors, executors, administrators, assigns, and legal representatives to the other party to this Agreement and to the directors, officers, partners, successors, executors, administrators, assigns, and legal representatives of such other party in respect to all provisions of this Agreement.

ARTICLE 16 - ASSIGNMENT

16.1 Neither Owner nor Consultant shall assign any rights or duties under this Agreement without the prior written consent of the other party. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this Agreement. Nothing contained in this Article shall prevent Consultant from employing independent consultants, associates, and subcontractors to assist in the performance of the Services. Consultant will not employ subcontractors for the performance of the Services without the prior written approval of Owner, which approval shall not be unreasonably withheld. Consultant shall have the right to assign duties to any of Consultant's related or affiliated companies.

ARTICLE 17 - THIRD PARTY RIGHTS

17.1 Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Owner and Consultant.

ARTICLE 18 - MISCELLANEOUS

18.1 INTERPRETATION: The language of this Agreement has been agreed to by both parties to express their mutual intent and no rule of strict construction shall be applied against either party hereto. The headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement. All personal pronouns used in this Agreement shall include the other gender, and the singular shall include the plural, and vice versa, unless the context otherwise requires. Terms such as “herein,” “hereof,” “hereunder,” and “hereinafter” refer to this Agreement as a whole and not to any particular sentence, paragraph, or section where they appear, unless the context otherwise requires. Whenever reference is made to a Section or Article of this Agreement, such reference is to the Section or Article as a whole, including all of the subsections of such Section unless the reference is made to a particular subsection or subparagraph of such Section or Article.

18.2 CONSULTANT'S STAFF: Consultant shall provide the key staff identified in their proposal for the Project as long as said key staff are in Consultant's employment.

18.2.1 Consultant will obtain prior written approval of Contract Administrator to change key staff members. Consultant shall provide Contract Administrator with such information as necessary to determine the suitability of proposed new key staff. Contract Administrator shall be reasonable in evaluating key staff qualifications.

18.2.2 If Contract Administrator desires to request removal of any of Consultant's staff, Contract Administrator shall first meet with Consultant and provide reasonable justification for said removal.

18.3 ENTIRE AGREEMENT: This Agreement, including all documents identified below, represents the entire understanding between the Owner and the Consultant as to this particular scope of work and shall supersede all prior and contemporaneous communications, representations, understandings, and Agreements relating to the subject matter hereof and may be amended only by written mutual Agreement of the parties.

18.4 ATTACHMENTS: Current listing of Attachments includes:

- Attachment A – Hourly Billing Rates and Reimbursable Expenses.
- Attachment B – Project Scope of Services.

ARTICLE 19 – PRE-EXISTING CONTAMINATION

19.1 Anything herein to the contrary notwithstanding, title to, ownership of, and legal responsibility and liability for any and all pre-existing contamination shall at all times remain with Owner. “Pre-existing contamination” is any hazardous or toxic substance, material, or condition present at the project site or sites concerned which was not brought onto such site or sites by Consultant.

ARTICLE 20 – LIMITATIONS OF RESPONSIBILITY

20.1 Consultant shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project; (2) the failure of any contractor, subcontractor, vendor, or other participant, not under contract to Consultant, to fulfill contractual responsibilities to Owner or to comply with federal, state, or local laws, regulations, and codes; or (3) procuring permits, certificates, and licenses required for any

construction unless such responsibilities are specifically assigned to Consultant in Scope of Services.

ARTICLE 21 – NON DISCRIMINATION CLAUSE

21.1 The Consultant shall not discriminate against any person on the grounds of race, color, national origin, sex, age, or handicap in administration of this Agreement. Nor shall any person be excluded from participation in, or be denied the benefits of any project designed under this Agreement on the grounds of race, color, national origin, sex, age, or handicap.

ARTICLE 22 – MINORITY BUSINESS PARTICIPATION

22.1 It is the policy of OWASA to provide minority businesses an equal opportunity to participate in all aspects of OWASA's contract activities. Consultant shall comply with OWASA's Minority Business Participation Outreach Plan and Guidelines.

ARTICLE 23 – E-VERIFY

23.1 Consultant shall comply with the requirements of Article 2 of Chapter 64 of the General Statutes. Further, if Consultant utilizes a subcontractor, Consultant shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes.

IN WITNESS WHEREOF, Owner and Consultant have executed this Agreement.

OWNER:

ORANGE WATER AND SEWER AUTHORITY

BY: _____

TITLE:

DATE: _____

CONSULTANT:

{CONSULTANT NAME}

BY: _____

TITLE:

DATE: _____

APPROVED AS TO FORM AND LEGALITY:

Date

Robert Epting, Esquire
Authority General Counsel

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act:

Date

Stephen Winters
Director of Finance and Customer Service

ATTACHMENT A**HOURLY BILLING RATES AND REIMBURSABLE EXPENSES****INTRODUCTION**

The hourly billing rates are set forth below.

Billing Category	Individual Name and Title	Hourly Billing Rate for the Agreement
Principal		
Senior Project Manager		
Senior Discipline Engineer		
Project Manager		
Project Engineer		
Engineer		
Engineering Associate		
Senior Technician		
Technician		
Administrative Assistant		

BILLING CATEGORY DEFINITIONS

The following table provides broad definitions for various Billing Categories. As a guideline, expected experience and duties for each of the categories have been included in the Billing Category Definitions. It is expected that in some instances the actual experience of an individual may be different than what is required for the corresponding Billing Category. In all such cases, Consultant will provide appropriate justification and seek approval from the Owner.

Principal	This is the firm's corporate officer. In some cases "Principal" may be the owner or one of the partners of the firm, and is generally in a position to make all the corporate level decision for the firm as it pertains to this Agreement.
Senior Project Manager	Person in this position provides senior level project management, provides high level of professional input for the project and is generally responsible for conducting high level project review. This person has a Professional Engineering license in North Carolina and professional-level experience of over 15 years.

DESIGN SERVICES AGREEMENT

Senior Discipline Engineer	Person in this position is considered the firm's expert for a particular discipline. This person will oversee Engineering work of particular discipline at the highest level for the firm. This person has a Professional Engineering license in North Carolina and professional-level experience of over 18 years. Engineering Disciplines may include, but are not limited to: Structural Engineering, Water Resources, Environmental Engineering, Transportation, Electrical Engineering, Mechanical Engineering, Pump Station Design, Instrumentation and Control, Construction Management, Power Generation, etc.
Project Manager	Person in this position provides day-to-day Project Management for the Project and acts as the key client contact. This person has a professional license in North Carolina and professional-level experience of over 8 years.
Project Engineer	Person in this position provides day-to-day engineering work for various disciplines as required by individual projects. This person has a professional license in North Carolina and professional-level experience of over 8 years.
Engineer	Person in this position provides day-to-day engineering support to the Project Manager, Project Engineer and other team members as required for their respective projects. This person has a professional license in North Carolina and professional-level experience of over 3 years.
Engineering Associate	Person in this position provides day-to-day engineering support to the Project Manager, Project Engineer, Engineer and other team members as required for their respective projects. This person is an Engineering Intern or has an Engineering Associates degree with appropriate technical experience.
Senior Technician	Person in this position provides senior technical-level support to the Project Team. Support may include CAD services, GIS, or other technical-level work. This person has 10 years of experience providing technical-level work.
Technician	Person in this position provides technical-level support to the Project Team. Support may include CAD services, GIS, or other technical-level work. This person has 4 years of experience providing technical-level work.
Registered Land Surveyor	This person is a North Carolina Board of Engineers and Land Surveyors certified Land Surveyor and has 4 years of professional-level experience.
2 Person Survey Crew	These individuals form a surveying team, acting as an Instrument Person and Rod-Person.
Administrative Assistant	This person performs administrative and clerical-level work for the Project Team, including data entry, word processing, and other non-technical support work as needed for the Project.

REIMBURSABLE EXPENSES

Reimbursable expenses for each individual project shall be clearly itemized by the Consultant. The following guidelines shall be used to develop these expenses:

1. Overtime at straight time rates shall apply for exempt employees to the extent the employee works more than 40 hours per week on Owner's project.
2. Subcontracted services shall be based on Cost Plus 5%. Consultant shall obtain Owner's approval before authorizing such services.
3. Cost of printing and reproducing drawings and bid documents, except for those included in the lump sum cost.
4. Cost for use of field equipment, safety equipment and field sampling equipment.
5. Cost of courier and express mail services.
6. Living and traveling expenses when Consultant's employees are away from home on Owner's project assignments. The following limitations shall apply:
 - Base room charges (excluding taxes and other fees) shall not exceed \$119 per night.
 - Base rental car charges (excluding taxes and other fees) shall not exceed \$60 per day.
 - Meal charges per individual shall not exceed \$51 per day.
7. Automobile mileage to be reimbursed at rate established and updated by Internal Revenue Service.

ATTACHMENT B

PROJECT SCOPE OF SERVICES

Project Title: WTP Electrical Distribution Improvements and New Clearwell

OWASA's CIP #: 272-64

Project Contract Administrators:

OWASA

...
Utilities Engineer
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510
Office: (919) 537-4248

Consultant

...
...
...
...

Project Background:

...
...

Project Scope:

Task 1 – Kickoff Meeting, Flow Monitoring and Data Collection

...

Task 2 -

...

Deliverables:

Specify deliverables, number of copies, and format.

Project Team:

...

Key Team Members:

...

The OWNER will be notified in writing of changes to the project team members. Other staff may participate in the project in a minor role at Consultant's discretion.

Project Schedule:

....

List durations for interim milestones and final completion in total number of days from Notice to Proceed.

Compensation:

...

Provide compensation basis (lump sum, cost ceiling) and subtotals by task.

Provide separate subtask breakdowns for projects above exemption limit, or as warranted.

Owner Responsibilities

...

Scope Exceptions, Additional Services, etc