

**LETTER OF AGREEMENT #4-1 FOR
THE WESTERN INTAKE PARTNERSHIP
ENVIRONMENTAL PERMITTING PROJECT**

WHEREAS, Chatham County, the City of Durham, Town of Pittsboro, and Orange Water and Sewer Authority entered into the Memorandum of Agreement (“Agreement”) for the Western Intake Partnership (“WIP”) on or about June 2019; and into Amendment #1 to the Agreement (“Agreement Amendment #1”) on or about September 2020; and

WHEREAS, the City of Durham as the Lead Agency entered into an on-call supplemental services contract on September 21, 2021, with Brown and Caldwell for the WIP Environmental Permitting Project (attached) in accordance with Sections 2 and 5 of the Agreement to accomplish early tasks; and

WHEREAS, the City of Durham as the Lead Agency entered into a contract on January 13, 2022, with Brown and Caldwell for the WIP Environmental Permitting Project (attached) in accordance with Sections 2 and 5 of the Agreement; and

WHEREAS, in accordance with Section 4 of the Agreement a Partner may decline to participate in a Project in which case the Partners will memorialize who is and who is not participating, and what the revised cost shares are for the Participating Partners, by a letter of agreement signed by the members of the Management Team.

NOW, THEREFORE, for and in consideration of the recitals in this Letter, and the Agreement, the Parties agree as follows:

- 1) Environmental Permitting Project Cost.
 - a) The maximum total cost of the on-call services contract with Brown and Caldwell for the WIP Environmental Permitting, early tasks is \$43,629.00.
 - b) The maximum total cost of the contract with Brown and Caldwell for the WIP Environmental Permitting, Phase 1 is \$771,100.00.
 - c) The total maximum project cost for Phase 1 is, therefore, \$814,729.00.
 - d) It is understood that there will be an amendment to the contract with Brown and Caldwell to accomplish Phase 2 which will necessitate a new Letter of Agreement #4-2, which will amend this Letter of Agreement #4-1.
- 2) Environmental Permitting Project Participation. Participation in the WIP Environmental Permitting Project is as follows.
 - a) Participating Partners: City of Durham, Chatham County.
 - b) Declining Partners: Town of Pittsboro, Orange Water and Sewer Authority (“OWASA”).
- 3) Cost Shares. Cost shares are based on Jordan Lake water supply storage allocation.

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- a) Cost shares for full participation, i.e., without any declining partners, would be as follows.

	Jordan Lake Allocation	Cost Share	Total Contract Maximum, Including On-Call Services
City of Durham	16.5	40.74%	\$331,920.59
Chatham County	13	32.10%	\$261,528.01
Town of Pittsboro	6	14.81%	\$120,661.36
Orange Water & Sewer Authority	5	12.35%	\$100,619.03
Total	40.5	100.00%	\$814,729.00

- b) Cost shares in consideration of the Declining Partners are as follows.

	Jordan Lake Allocation	Cost Share	Total Contract Maximum, Including On-Call Services
City of Durham	16.5	55.93%	\$455,677.93
Chatham County	13	44.07%	\$359,051.07
Town of Pittsboro	0	0%	\$ 0
Orange Water & Sewer Authority	0	0%	\$ 0
Total	29.5	100.00%	\$814,729.00

- c) Declining Partner, Later Participation. In accordance with Section 4 of the Agreement, should Town of Pittsboro and/or OWASA later choose to participate in the WIP Environmental Permitting Project, Town of Pittsboro and/or OWASA must first reimburse the Participating Partners any costs the Town of Pittsboro and/or OWASA avoided by declining to participate initially, plus interest calculated to accrue at the rate of 5% per year.
- 4) Invoicing. In accordance with Section 5 of the Agreement, the City of Durham will invoice each Participating Partner for its share of the costs as the City of Durham is invoiced by Brown and Caldwell under the WIP Environmental Permitting contracts, and each Participating Partner will pay the invoice within 30 days.

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Dan LaMontagne, County Manager
Chatham County

ATTEST: _____

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Donald F. Greeley, Director
City of Durham Department of Water Management

ATTEST: _____

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Todd Taylor, Executive Director
Orange Water and Sewer Authority

ATTEST: _____

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Chris Kennedy, Town Manager
Town of Pittsboro

ATTEST: _____

CONTRACT FOR WESTERN INTAKE PARTNERSHIP ENVIRONMENTAL PERMITTING

This contract is dated, made, and entered into as of the ____ day of _____, 2021, by the City of Durham ("City"), a N. C. municipal corporation, and Brown and Caldwell ("Contractor" or "Contractor"), a corporation organized and existing under the laws of the State of North Carolina.

Sec. 1. Background and Purpose. Brown and Caldwell will serve as the Western Intake Partnership's Environmental Permitting Consultant for the Jordan Lake Western Intake Regional Water Treatment Facility and Associated Regional Infrastructure (Project). Under this Contract, the Contractor will prepare the National Environmental Policy Act (NEPA)/State Environmental Policy Act (SEPA) environmental documentation and permitting of the raw water intake, raw water pump station, regional water treatment facility (RWTF) and raw water and finished water transmission infrastructure for the Western Intake Partnership's new Jordan Lake water supply. Contractor is contracting with the City of Durham, acting as lead agency on behalf of the Western Intake Partners, which consist of the City, Orange Water and Sewer Authority, Chatham County and the Town of Pittsboro. The purpose of this project is to construct a regional water supply intake, raw water pipeline, water treatment facility and finished water pipelines that will accommodate projected growth for the Western Intake Partners.

Sec. 2. Services and Scope to be Performed. Presumption that Duty is Contractor's. The Contractor shall provide the services described in Exhibit A. In this contract, "Work" means the services that the Contractor is required to perform pursuant to this contract and all of the Contractor's duties to the City that arise out of this contract. Unless the context requires otherwise, if this contract states that a task is to be performed or that a duty is owed, it shall be presumed that the task or duty is the obligation of the Contractor.

Sec. 3. Reserved.

Sec. 4. Complete Work without Extra Cost. Except to the extent otherwise specifically stated in this contract, the Contractor shall obtain and provide, without additional cost to the City, all labor, materials, equipment, transportation, facilities, services, permits, and licenses necessary to perform the Work.

Sec. 5. Contractor's Billings to City. Compensation. The Contractor shall send invoices to the City on a monthly basis for the amounts to be paid pursuant to this contract. Each invoice shall document using Contractor's standard format and to the reasonable satisfaction of the City, all work performed under each task for the month invoiced, the associated staff hours, reimbursable expenses, and the costs of subcontractors. The invoice will also include a look ahead to the next month with expected tasks, and projected hours, reimbursable expenses, and subcontract costs. Within twenty days after the City receives an invoice, the City shall send the Contractor a check in payment for all undisputed amounts contained in the invoice.

The City shall pay the Contractor for the Work as follows: Payments for services under this contract shall be based on an Hourly Rate basis, plus Reimbursable Expenses, in accordance with the terms of this contract. Hourly rates for Contractor staff, by classification, are listed in Exhibit B. Rates may vary depending on actual staff assigned to the project. Contractor shall complete each task without exceeding the total task amounts shown in Exhibit B for each task, unless the Contractor and Project Manager has previously agreed to shift funding between tasks or subtasks such that the total compensation amount for the contract remains \$771,100.

Compensation terms for additional services or amendments to this contract shall be as individually authorized, in accordance with the terms and conditions of the contract. The City shall not be obligated to pay the Contractor any payments, fees, expenses, or compensation other than those authorized by this section. The total dollar amount to be paid under this contract by the City to the Contractor shall not exceed \$771,100.

Sec. 6. Prompt Payment to Subcontractors. (a) Within 7 days of receipt by the Contractor of each payment from the City under this contract, the Contractor shall pay all Subcontractors (which term includes subconsultants and suppliers) based on work completed or service provided under the subcontract. Should any payment to the Subcontractor be delayed by more than 7 days after receipt of payment by the Contractor from the City under this contract, the Contractor shall pay the Subcontractor interest, beginning on the 8th day, at the rate of 1% per month or fraction thereof on such unpaid balance as may be due. By appropriate litigation, Subcontractors shall have the right to enforce this subsection (a) directly against the Contractor, but not against the City of Durham.

(b) If the individual assigned to administer this contract for the City (in this section, titled "Prompt Payment to Subcontractors," he or she will be referred to as the "Project Manager") determines that it is appropriate to enforce subsection (a) in this manner, the City may withhold from progress or final payments to the Contractor the sums estimated by the Project Manager to be

- (i) the amount of interest due to the Subcontractor under subsection (a), and/or
- (ii) the amounts past-due under subsection (a) to the Subcontractor but not exceeding 5% of the payment(s) due from the City to the Contractor.

This subsection (b) does not limit any other rights to withhold payments that the City may have.

(c) Nothing in this section (titled “Prompt Payment to Subcontractors”) shall prevent the Contractor at the time of invoicing, application, and certification to the City from withholding invoicing, application, and certification to the City for payment to the Subcontractor for unsatisfactory job progress; defective goods, services, or construction not remedied; disputed work; third-party claims filed or reasonable evidence that such a claim will be filed; failure of the subcontractor to make timely payments for labor, equipment, and materials; damage to the Contractor or another subcontractor; reasonable evidence that the subcontract cannot be completed for the unpaid balance of the subcontract sum; or a reasonable amount for retainage not to exceed 10%.

(d) The Project Manager may require, as a prerequisite to making progress or final payments, that the Contractor provide statements from any Subcontractors designated by the Project Manager regarding the status of their accounts with the Contractor. The statements shall be in such format as the Project Manager reasonably requires, including notarization if so specified.

Sec. 7. Insurance. Contractor agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this Contract the following coverage 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.

Professional Liability – Limits no less than \$1,000,000 per claim and in the annual aggregate. Tail coverage to be provided through 12 months following end of the project term.

Or

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, Cross Liability, or Personal and Advertising injury Liability.

Automobile Liability – Limits of no less than \$1,000,000 Combined Single Limit. Coverage per accident 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 City of Durham site.

Certificate of Insurance – Contractor agrees to provide the City of Durham a Certificate of Insurance evidencing that all coverage’s, 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 the coverage no longer in compliance. Certificate Holder address should read:

City of Durham
Attn: Department of Water Management
101 City Hall Plaza
Durham, NC 27701

The Certificate of Insurance must be uploaded into On Base for Risk Management’s approval. All insurance companies must be authorized to do business in North Carolina with a Best rating A-VIII or higher.

Sec. 8. Performance of Work by City. If the Contractor, as a result of factors within their control and not due to the actions of third parties, fails to perform the Work in accordance with the schedule required by this contract, the City may, in its discretion, in order to bring the project closer to the schedule, perform or cause to be

performed some or all of the Work, and doing so shall not waive any of the City's rights and remedies. Before doing so, the City shall give the Contractor notice of its intention. The Contractor shall reimburse the City for additional costs incurred by the City in exercising its right to perform or cause to be performed some or all of the Work pursuant to this section.

Sec. 9. Exhibits. The following exhibits are made a part of this contract:

Exhibit A - Scope of Services, containing 25 pages (including Table 1).

Exhibit B - Compensation, containing [redacted] pages.

In case of conflict between an exhibit and the text of this contract excluding the exhibit, the text of this contract shall control.

Sec. 10. Notice.

(a) In General. This subsection (a) pertains to all notices related to or asserting default, breach of contract, claim for damages, suspension or termination of performance, suspension or termination of contract, and extension or renewal of the term. All such notices must be in writing and made by personal delivery, UPS, Federal Express, a designated delivery service authorized pursuant to 26 U.S.C. 7502(f)(2), or certified United States mail, return receipt requested; in addition, subsection (b) must also be complied with.

(b) Additional Notice by Fax or Email. In addition to complying with subsection (a), the party giving notice or other communication shall also send it by fax or email if the other party has provided a valid, working fax number or email address.

(c) When Notice Period Is Less than 9 Days. If a required notice period is less than 9 days, the party shall also make reasonable attempts, before or promptly after giving written notice under subsections (a) and (b), to use a telephone to orally communicate the substance of the contents of the written notice. Communicating the substance of the contents by an in-person conversation will satisfy the preceding sentence.

(d) Change of Address; Discovery of Invalid Fax Number or Email Address. A change of address, fax number, email address, telephone number, or person to receive notice may be made by either party by notice given to the other party. At any time that a party discovers that the other party has provided it a fax number or email address that is not valid, the discovering party shall provide notice of the discovery to the other party, so that it can substitute a valid fax number or email address.

(e) Date Notice Deemed Given. If a notice is sent by United States mail, it is deemed complete upon actual delivery or on the third day following the day on which it is deposited with the United States Postal Service, whichever occurs first. Notice is deemed given when both subsection (a) and subsection (b) have been complied with.

(f) When Undeliverable Notice Is Deemed Sent. If a notice is undeliverable because the address or other information provided to the sender by the other party is incorrect, incomplete, or out of date, the notice will be deemed sent on the date that the sender attempts to deliver by fax or email, or the date it places the notice in the custody of UPS, Federal Express, a designated delivery service authorized pursuant to 26 U.S.C. 7502(f)(2), or the U. S. Postal Service for certified United States mail, return receipt requested. If a fax is not received because the recipient's fax number is busy on three attempts to fax that are at least ten minutes apart during a 4-hour period, the fax will be deemed undeliverable.

(g) Addresses. Subject to change pursuant to subsection (d), the addresses for these notices, are:

To the City:

Sydney Miller
Department of Water Management
City of Durham
101 City Hall Plaza
Durham, NC 27701-3329
Email: sydney.miller@durhamnc.gov

To the Contractor:

J. Brenan Buckley, P.E., BCEE
Brown and Caldwell
5430 Wade Park Avenue, Suite 200
Raleigh, NC 27607
Email: jbbuckley@brwncald.com

Sec. 11. Indemnification.

(a) (Definitions). These definitions apply to this Section unless otherwise stated.

Contractor – Each party to this contract except the City of Durham.

Construction agreement -- any promise or agreement in, or in connection with, a contract or agreement relative to the design, planning, construction, alteration, repair, or maintenance of a building, structure, highway, road, appurtenance, or appliance, including moving, demolition, and excavating connected therewith.

Defend – to pay for or furnish counsel at the expense of the Contractor to defend any of the Indemnitees against claims alleged or brought against any of the Indemnitees by a third party alleged or brought in any court or other tribunal, including forms of alternative dispute resolution required by law or contract, before the court or tribunal has reached a final determination of fault.

Derivative parties -- with respect to a party, any of that party's subcontractors, agents, employees, or other persons or entities for which the party may be liable or responsible as a result of any statutory, tort, or contractual duty.

Design professional -- a person or entity who is licensed under and provides professional services regulated by Chapters 83A, 89A, 89C, 89E, or 89F of the N. C. General Statutes.

Design professional agreement -- any promise or agreement in, or in connection with, a contract or agreement with a design professional to provide design professional services.

Design professional services -- a service or work performed by a design professional for which licensure is required under Chapters 83A, 89A, 89C, 89E, or 89F of the N. C. General Statutes.

Fault – a breach of contract; negligent, reckless, or intentional act or omission constituting a tort under applicable statutes or common law; or violations of applicable statutes or regulations.

Indemnitees -- City and its officers, officials, independent contractors, agents, and employees, excluding the Contractor.

Subcontractor – any person or entity, of any tier, providing labor or material through the Contractor for use on the project at issue in the applicable construction agreement or design professional agreement.

(b) (Standard Indemnification). (i) The Contractor shall defend, indemnify, and hold harmless Indemnitees from and against all Charges that arise in any manner from, in connection with, or out of this contract as a result of acts or omissions of the Contractor or its derivative parties. In performing its duties under this subsection “i,” the Contractor shall at its sole expense defend Indemnitees with legal counsel reasonably acceptable to City. (ii) “Charges” means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, and expenses. Included without limitation within “Charges” are (1) interest and reasonable attorney’s fees assessed as part of any such item, and (2) amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders -- including but not limited to any such alleged violation that arises out of the handling, transportation, deposit, or delivery of the items that are the subject of this contract.

(c) (Restriction regarding Indemnitees’ Negligence). This contract shall not require the Contractor to indemnify or hold harmless Indemnitees against liability for damages arising out of bodily injury to persons or damage to property proximately caused by or resulting from the negligence, in whole or in part, of Indemnitees.

(d) (Restriction regarding Fault). Nothing in this contract requires the Contractor to indemnify or hold harmless Indemnitees or any other person or entity against losses, damages, or expenses unless the fault of the Contractor or its derivative parties is a proximate cause of the loss, damage, or expense indemnified.

(e) (Restriction regarding Negligence). Nothing in this contract requires the Contractor, provided that it is a design professional, to defend Indemnitees or any other person or entity against liability or claims for damages, or expenses, including attorney’s fees, proximately caused or alleged caused by the professional negligence, in whole

or in part of the Contractor, the City, or their derivative parties, whether the claim is alleged or brought in tort or contract.

(f) (Liability when at Fault). It is agreed without limitation that nothing in this contract shall be interpreted to exclude from any indemnity or hold harmless provisions enforceable under subsection (c) and (d) any attorneys' fees, litigation or arbitration expenses, or court costs actually incurred by the City to defend against third party claims alleged in any court, tribunal, or alternative dispute resolution procedure required of the City by law or by contract, if the fault of the Contractor or its derivative parties is a proximate cause of the attorney's fees litigation or arbitration expenses, or court costs to be indemnified.

(g) (Insurance contracts and Bonds) This Section does not affect an insurance contract, workers' compensation, or any other agreement issued by an insurer; and those subsections do not apply to lien or bond claims asserted under Chapter 44A of the N.C. General Statutes.

(h) (Other Provisions) When this Section or any subsection or combination of subsections of this Section applies, it applies to every provision in this contract outside of this Section that would require the Contractor to indemnify, hold harmless, or defend Indemnitees regardless of whether the section in question is titled "indemnification," "warranty," or otherwise.

(i) (Survival) This Section shall remain in force despite termination of this contract (whether by expiration of the term or otherwise) and termination of the services of the Contractor under this contract.

(j) (Compliance with law). It is agreed that this Section shall be applied to the maximum extent allowed by law and limited only as necessary to comply with N.C.G.S. § 22B-1.

Sec. 12. Trade Secrets; Confidentiality. The request for qualifications (RFQ) section titled "Trade Secrets and Confidentiality" shall apply to any Trade Secrets disclosed to the City during the process leading to the parties' entering into this Contract (including all of the Contractor's responses to the RFQ). This section (titled "Trade Secrets; Confidentiality") shall remain in force despite termination of this contract (whether by expiration of the term or otherwise) and termination of the services of the Contractor under this contract. For purposes of this contract, the word "candidate" in the RFQ section just cited shall mean the "Contractor."

Sec. 13. Termination for Convenience ("TFC"). (a) *Procedure*. Without limiting any party's right to terminate for breach, which shall only be effective after written notice and the failure of the breaching party to so cure within a reasonable time as set forth in the written notice the parties agree that the City may, without cause, and in its discretion, terminate this contract for convenience by giving the Contractor written notice that refers to this section. TFC shall be effective at the time indicated in the notice. (b) *Obligations*. Upon TFC, all obligations that are still executory on both sides are discharged except that any right based on prior breach or performance survives, and the indemnification provisions and the section of this contract titled Trade Secrets and Confidentiality, if any, shall remain in force. At the time of TFC or as soon afterwards as is practical, the Contractor shall give the City all Work, including partly completed Work. In case of TFC, the Contractor shall follow the City's instructions as to which subcontracts to terminate. (c) *Payment*. The City shall pay the Contractor an equitable amount for the costs and charges that accrue because of the City's decisions with respect to the subcontracts, but excluding profit for the Contractor. Within 20 days after TFC, the City shall pay the Contractor one hundred dollars as a TFC fee and shall pay the Contractor for all Work performed except to the extent previously paid for. Work shall be paid for in accordance with the method (unit prices, hourly fees, etc.) to be used for payment had the Work been completed except to the extent it would be inequitable to either party, and if Work was to be paid for on a lump-sum basis, the City shall pay the part of the lump sum that reflects the percentage of completion attained for that Work. The Contractor shall not be entitled to any payment because of TFC except as stated in this section, whether on the basis of overhead, profit, damages, other economic loss, or otherwise.

Sec. 14. State Law Provisions.

E-Verify Requirements. (A) If this contract is awarded pursuant to North Carolina General Statutes (NCGS) 143-129 – (i) the contractor represents and covenants that the contractor and its subcontractors comply with the requirements of Article 2 of Chapter 64 of the NCGS; (ii) the words "contractor," "contractor's subcontractors," and "comply" as used in this subsection (A) shall have the meanings intended by NCGS 143-129(j); and (iii) the City is relying on this subsection (A) in entering into this contract. (B) If this contract is subject to NCGS 143-133.3, the contractor and its subcontractors shall comply with the requirements of Article 2 of Chapter 64 of the NCGS.

Sec. 15. Ownership of Work Products.

(a) The Contractor hereby assigns to the City, without reservation, all copyrights in all Work-related documents, including sketches, models, photographs, data sets, source code and scripts, and other Work-related expressions created by the Contractor. Among those documents are certain "Work Product," including Work-related deliverables, programs, applications, reports, design drawings, and construction documents. The City's obligation to pay the Contractor is expressly conditioned upon the Contractor's obtaining a valid written comprehensive assignment of copyrights from its subcontractors in terms identical to those that obligate the Contractor to the City as expressed in this subsection, which copyrights the Contractor, in turn, hereby assigns to the City. The City, in return, hereby grants the Contractor and its subcontractors a revocable, nonexclusive license to reproduce the documents for purposes relating directly to the Contractor's performance of its obligations under this Contract for the Contractor's archival records, and for the Contractor's reproduction of drawings and photographs in the Contractor's marketing materials. This nonexclusive license shall terminate automatically upon the occurrence of either a breach of this Contract by the Contractor or the accused commission by the Contractor of a tort or a crime affecting the City or the Work or upon termination of this Contract. This nonexclusive license is granted to the Contractor alone and shall not be assigned by the Contractor to any other person or entity, except that the non-exclusive license granted in this Contract to the Contractor for purposes of the Contractor's performance hereunder may be sub-licensed to the Contractor's subcontractors (with the same limitations). Subject to the foregoing, this nonexclusive license shall terminate automatically upon a Contractor's assignment of this nonexclusive license to another or its attempt to do so.

(b) To the extent that liability arises from misuse of the Work Product by the City or another Contractor or designer, the Contractor shall not be responsible for that misuse. If the City uses the Work Products for purposes including additions to and modifications of the Work, and for other projects, the City shall indemnify the Contractor for losses, including reasonable attorneys' fees, suffered by the Contractor as a result of the use of the design and these documents for such other purposes. If these documents are used for other purposes, the City shall see that they are modified (i) to indicate that the Contractor did not prepare them for such other purposes and is not responsible for their use in connection with such other purposes and (ii) to delete the Contractor's name and seal from the documents (where permitted or required by law).

(c) Except for the licenses granted in this Section, no other license or right shall be deemed granted or implied under this Contract. No other Work-related data, expression, or documents may be reproduced by the Contractor or its subcontractors for any other purposes without the express written permission of the City.

Sec. 16. Standard of Care. The standard of care for all professional design and related services performed or furnished by Contractor under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing on similar projects whether such projects can be found locally, regionally or nationally. Subject to the foregoing standard of care, Contractor and its consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards. The Contractor warrants the accuracy of Contractor's representations made to City as to Contractor's qualifications and experience during the process in which the City selected the Contractor. The Contractor represents and warrants that it has the requisite professional licensure and registration required by the State of North Carolina necessary to perform the work.

Sec. 17. [Reserved].

Sec. 18. Miscellaneous.

(a) Choice of Law and Forum; Service of Process. (i) This contract shall be deemed made in Durham County, North Carolina. This contract shall be governed by and construed in accordance with the law of North Carolina. The exclusive forum and venue for all actions arising out of this contract shall be the North Carolina General Court of Justice, in Durham County. Such actions shall neither be commenced in nor removed to federal court. This subsection (i) shall not apply to subsequent actions to enforce a judgment entered in actions heard pursuant to this subsection. (ii) If the Contractor is not a natural person (for instance, the Contractor is a corporation or limited liability company), this subsection (ii) applies. "Agent for Service of Process" means every person now or hereafter appointed by the Contractor to be served or to accept service of process in any State of the United States. Without excluding any other method of service authorized by law, the Contractor agrees that every Agent for Service of Process is designated as its non-exclusive agent for service of process, summons, and complaint. The Contractor will instruct each Agent for Service of Process that after such agent receives the process, summons, or complaint, such agent shall promptly send it to the Contractor. This subsection (ii) does not apply while the

Contractor maintains a registered agent in North Carolina with the office of the N. C. Secretary of State and such registered agent can be found with due diligence at the registered office.

(b) Waiver. No action or failure to act by the City shall constitute a waiver of any of its rights or remedies that arise out of this contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

(c) Performance of Government Functions. Nothing contained in this contract shall be deemed or construed so as to in any way estop, limit, or impair the City from exercising or performing any regulatory, policing, legislative, governmental, or other powers or functions.

(d) Severability. If any provision of this contract shall be unenforceable, the remainder of this contract shall be enforceable to the extent permitted by law.

(e) Assignment. Successors and Assigns. Without the City's written consent, the Contractor shall not assign (which includes to delegate) any of its rights (including the right to payment) or duties that arise out of this contract. The City Manager may consent to an assignment without action by the City Council. Unless the City otherwise agrees in writing, the Contractor and all assignees shall be subject to all of the City's defenses and shall be liable for all of the Contractor's duties that arise out of this contract and all of the City's claims that arise out of this contract. Without granting the Contractor the right to assign, it is agreed that the duties of the Contractor that arise out of this contract shall be binding upon it and its heirs, personal representatives, successors, and assigns.

(f) Compliance with Law. In performing all of the Work, the Contractor shall comply with all applicable law.

(g) Notice of City Policy. THE CITY OPPOSES DISCRIMINATION ON THE BASIS OF RACE AND SEX AND URGES ALL OF ITS CONTRACTORS TO PROVIDE A FAIR OPPORTUNITY FOR MINORITIES AND WOMEN TO PARTICIPATE IN THEIR WORK FORCE AND AS SUBCONTRACTORS AND VENDORS UNDER CITY CONTRACTS.

(h) EBOP. The Contractor shall comply with all applicable provisions of Article III of Chapter 18 of the Durham City Code (Equal Business Opportunities Ordinance), as amended from time to time. The failure of the Contractor to comply with that article shall be a material breach of contract which may result in the rescission or termination of this contract and/or other appropriate remedies in accordance with the provisions of that article, this contract, and State law. The Participation Plan submitted in accordance with that article is binding on the Contractor. Section 18-59(f) of that article provides, in part, "If the City Manager determines that the Contractor has failed to comply with the provisions of the Contract, the City Manager shall notify the Contractor in writing of the deficiencies. The Contractor shall have 14 days, or such time as specified in the Contract, to cure the deficiencies or establish that there are no deficiencies." It is stipulated and agreed that those two quoted sentences apply only to the Contractor's alleged violations of its obligations under Article III of Chapter 18 and not to the Contractor's alleged violations of other obligations.

(i) No Third Party Rights Created. This contract is intended for the benefit of the City and the Contractor and not any other person.

(j) Principles of Interpretation and Definitions. (1) The singular includes the plural and the plural the singular. The pronouns "it" and "its" include the masculine and feminine. References to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation. References to contracts and agreements shall be deemed to include all amendments to them. The words "include," "including," etc. mean include, including, etc. without limitation. (2) References to a "Section" or "section" shall mean a section of this contract. (3) "Contract" and "Agreement," whether or not capitalized, refer to this instrument. (4) "Duties" includes obligations. (5) The word "person" includes natural persons, firms, companies, associations, partnerships, trusts, corporations, governmental agencies and units, and other legal entities. (6) The word "shall" is mandatory. (7) The word "day" means calendar day. (8) The word "Work" is defined in Section 2. (9) A definition in this contract will not apply to the extent the context requires otherwise.

(k) Modifications. Entire Agreement. A modification of this contract is not valid unless signed by both parties and otherwise in accordance with requirements of law. Further, a modification is not enforceable against the City unless it is signed by the City Manager, a deputy or assistant City Manager, or, in limited circumstances, a City department director. This contract contains the entire agreement between the parties pertaining to the subject matter of this contract. With respect to that subject matter, there are no promises, agreements, conditions, inducements, warranties, or understandings, written or oral, expressed or implied, between the parties, other than as set forth or

referenced in this contract.

(l) City's Manager's Authority. To the extent, if any, the City has the power to suspend or terminate this contract or the Contractor's services under this contract, that power may be exercised by City Manager or a deputy or assistant City Manager without City Council action.

(m) Covid-19 Impacts. While CONTRACTOR has made reasonable efforts to incorporate into its plan for the project any known current project impacts of the COVID-19 pandemic, CONTRACTOR has not accounted for unknown and unreasonably foreseen future changes due to the COVID-19 pandemic, including, without limitation, additional restrictions by government agencies or others (such as the availability of the site for access or the availability of OWNER or CONTRACTOR staff or others) to the extent they delay or otherwise impact the project. In that event, CONTRACTOR will notify OWNER and work in good faith to equitably address any unexpected impacts therefrom.

IN WITNESS WHEREOF, the City and the Contractor have caused this contract to be executed under seal themselves or by their respective duly authorized agents or officers.

ATTEST:

CITY OF DURHAM

By: _____

preaudit certificate, if applicable _____

BROWN AND CALDWELL:

By: _____ (SEAL)

Title of officer: _____

ACKNOWLEDGMENT BY CORPORATION

State of _____

County of _____

I, a notary public in and for the aforesaid county and state, certify that

_____ personally appeared before me this day and stated that he is Senior Associate of Brown and Caldwell, a corporation, and that by authority duly given and as the act of the corporation, he signed, under seal, the foregoing contract or agreement with the City of Durham. This the _____ day of _____, 2021.

My commission expires: _____

_____ Notary Public

Exhibit A

WESTERN INTAKE PARTNERSHIP ENVIRONMENTAL PERMITTING SERVICES SCOPE OF SERVICES PHASE I

PROJECT AND PURPOSE

The Western Intake Partnership¹ (WIP), for which the City of Durham (City) serves as Lead, has initiated the preliminary engineering phase of a planned new regional water system (PROJECT) on Jordan Lake that will include a new intake, raw water pump station, raw and finished water transmission pipelines, finished water pump stations, and a raw water treatment facility (RWTF). Brown and Caldwell (BC or CONSULTANT) was selected through a Request for Qualifications issued by the WIP to provide Environmental Permitting Services for the proposed water system.

As part of this effort, CONSULTANT will collaborate with the WIP Management and other engineering consultants selected for the WIP Water Supply Project as WIP Program Manager (WIP PM; HDR Engineering of the Carolinas, or HDR), Water Intake and Transmission Infrastructure Preliminary Engineering (Hazen and Sawyer, PC, or Hazen), and Water Treatment Facility Preliminary Engineering (CDM Smith, Inc., or CDM Smith), and Partnership Governance (Raftelis) in the furtherance of the PROJECT.

The purpose of this document is to provide the scope of work for the CONSULTANT's Environmental Permitting Services - Phase I, which will establish the work plan for subsequent phases to be authorized by amendment. These services will generally include WIP Team coordination and communications, planning and initiating environmental studies for in support of alternatives analysis and the National Environmental Policy Act (NEPA) environmental impact statement (EIS), collaborating with the WIP Team on PROJECT alternatives analysis, planning and scoping for federal and state environmental permitting efforts and the EIS.

SCOPE CONTEXT AND PHASING

In coordination with the WIP PM, CONSULTANT has agreed to a phased approach to contracting the Environmental Permitting Services work. The primary reason for phasing the work between Phase I and Phase II is that there are important regulatory and procedural steps to be further defined by the U.S. Army Corps of Engineers (USACE) and the North Carolina Division of Water Resources (DWR) before the Phase II work can be accurately described in a scope of work. Additionally, once the NEPA process begins, there will be required public meetings and public and agency scoping regarding the purpose for the PROJECT, alternatives to be considered, the potential environmental and social impacts, and required studies or evaluations. These comments will drive certain considerations and analyses required in the NEPA document and will need to be considered in the development of the Phase II scope of work.

¹ The partners include Chatham County, the City of Durham, and the Town of Pittsboro. Orange Water and Sewer Authority (OWASA) is committed to supporting the Western Intake Partnership as it provides regional reliability and resiliency for the Triangle's water supply.

This Phase I scope of work has been written to cover the period until the Phase I/Phase II transition, and CONSULTANT will work closely with the WIP and the WIP PM to ensure continuity of work as Phase I work is completed and Phase II begins. The timing of the Phase I/Phase II transition is anticipated to be when the WIP and USACE have reached a consensus about the type of NEPA document and elements of the NEPA process, and the USACE signals that it is comfortable with the progress of project development, project purpose and need, and ongoing alternatives analysis. CONSULTANT anticipates that the USACE will also be ready at that point to prepare and publish a Notice of Intent to prepare an EIS. CONSULTANT will closely monitor Phase I progress and submit the Phase II scope of work well in advance of the need to start the Phase II work to allow sufficient time for review and authorization. CONSULTANT expects the transition to Phase II will occur in mid to late 2022. The Phase II scope of work submittal will be timed to avoid delays or gaps in the CONSULTANT's work or overlap in services and to reflect a much better overall team understanding of the regulatory requirements and directions from the USACE and NCDWR available at that time. Work will transition seamlessly from Phase I to Phase II as discussed in several of the task descriptions below.

The Phase I scope of work includes close coordination with the WIP Team; early coordination with regulatory and resources agencies (USACE, NCDWR, NCDEQ, and other agencies); collaboration with the WIP PM and other WIP Consultants on alternatives development, screening, and evaluation; building and maintaining the GIS database to be used through the PROJECT duration; desktop and early field environmental resource investigations, NEPA and EIS planning and scheduling, project management, and PROJECT meetings and workshops.

Additionally, CONSULTANT has been authorized to work under a Preliminary Environmental Permitting Services agreement authorized under CONSULTANT's Water Management On-Call Services Contract with the City of Durham (Supplemental Agreement No.6 or SA-06). The purpose of that scope was to get an early start on permitting aspects of the PROJECT and allow coordination with the WIP Consultants already under contract and to begin early coordination meeting with the USACE and NCDWR to define the NEPA and permitting path and details. The SA-06 scope of work includes initial team coordination, regulatory agency engagement planning, some limited early environmental resource data collection and review, and early resource agency meetings. CONSULTANT will work closely with the WIP PM to ensure a seamless transition to the Phase I scope, avoid overlap or gaps. This early work is critical to the coordination of work being completed by Hazen and CDM Smith as the WIP PM seeks to integrate and coordinate alternatives analysis, collection and compilation of information and GIS data, coordinated understanding of the environmental regulatory requirements. Work under SA-06 will transition to work under this scope of work once the agreement is fully executed, following review of work completed under SA-06 with the WIP PM.

PHASE I - SCOPE OF WORK

TASK 010 – COORDINATION WITH WIP AND PHASE I AGENCY COORDINATION

Task 010 Objectives

The purpose of Task 010 is for CONSULTANT to work with the WIP PM to define the permitting regulatory and procedural requirements with the USACE and DWR and to coordinate with the WIP PM and other WIP Consultants to align efforts with the regulatory requirements and inform alternatives analysis with environmental review process. This includes (1) finalizing an agreement between WIP and USACE and DWR to agree on specific components and responsibilities of the Federal approval

processes, (2) submitting an Initial Land Use Request including access for investigations and studies, (3) developing a Memorandum of Agreement (MOA) with the USACE, and (4) engaging with resource management and other regulatory agencies to explore environmental resource concerns associated with the PROJECT that will need to be addressed during the process and in the NEPA document.

Subtask 1.1 - WIP Team Coordination Meetings and Communications

Subtask Activities

- CONSULTANT will participate in regularly scheduled monthly meetings with the WIP PM and WIP, virtually or in-person as deemed necessary, throughout the PROJECT for the purpose of reviewing project status and ongoing activities, presenting pertinent findings, addressing specific needs or information for project execution, and discussing required coordination with other consultants on technical matters.
- CONSULTANT will maintain regular communication with the WIP PM and its consulting team via email, virtual meetings, and phone calls on an as needed basis (assuming an email, meeting, or call occurs each week). CONSULTANT will prepare a meeting summary for dissemination to attendees for any meeting it convenes or leads.

Subtask Deliverables

- Preparation for and documentation of regular coordination and communications by CONSULTANT.
- Meeting summaries for meetings led by CONSULTANT.

Subtask Assumptions

- The budget for this subtask provides for preparation for and meeting summaries (when CONSULTANT leads the meeting) for up to 18 meetings, including Monthly Progress Meetings and Consultant Coordination Monthly Meetings, as well as up to two periodic technical meetings with other WIP Consultants to be coordinated on an as-needed basis. Information prepared by CONSULTANT on environmental permitting strategy and GIS data management will be shared during Consultant Coordination Monthly Meetings.
- Recurring meetings covered under Phase I are assumed to begin in December 2021 and continue through July 2022. This task includes budget for the preparation for meetings, meeting agendas, meeting summaries, and follow up action items. Budgets for actual attendance in the meetings is included under Task 090 – Meetings. Coordination meetings prior to Notice to Proceed for this Phase I scope (assumed to be December 2022) will be conducted by CONSULTANT under the Early Work SA-06 agreement.
- A list of meetings expected to involve CONSULTANT is provided in Task 090 and meeting time is budgeted within that task.

Subtask 1.2 - USACE/NCDWR Consultation Meetings

Subtask Activities

- CONSULTANT will participate in up to two (2) consultation meetings with the USACE Operations and/or NCDWR during Phase I to refine the understanding of the required approvals and submittals, leveraging the initial regulatory agency engagement planning to be completed in the Initial WIP Team Coordination and Communications subtask from SA-06, and using the products from that subtask to lead the discussions, outline process using the WIP's preference for an Environmental Impact Statement² (EIS), and initial planning document.
- CONSULTANT will participate in two (2) consultation meetings from December 2021 through July 2022 with the USACE Regulatory Division and NCDWR, in addition to meetings covered under SA-06, to build their understanding of the PROJECT, discuss commenting agency participation and potential areas of concern, and discuss specific approaches for obtaining and submitting information for USACE consideration.
- CONSULTANT will also participate in up to two (2) coordination meetings with primary USACE points of contact to review the status of action items and coordination regarding ongoing initiatives. These virtual meetings will be scheduled to correspond with progress on efforts requiring communication with the USACE and are assumed to be no more than one hour in duration.

Subtask Deliverables

- Meeting agendas, slide presentations, and meeting summaries for interactions with USACE, NCDWR, and other agencies.

Subtask Assumptions

- The USACE/NCDWR meetings included in this task are in addition to the three virtual meetings included in SA-06. The first of the virtual meetings in SA-06 was conducted on October 14, 2021.
- Per the 2020 WIP meetings with the USACE and NCDWR, these meetings will focus on the Land Use Request, the NEPA/SEPA Compliance process and the details of the required environmental review. The completion of the Initial Land Use request will be important in this process. CONSULTANT will work with the WIP PM to develop draft agendas, PowerPoint presentation(s), questions to clarify process and other meeting content.
- CONSULTANT assumes the WIP PM and CONSULTANT will lead meetings and other communication with the USACE and NCDWR and that other WIP Consultants will coordinate any needed meetings, requests, or communications with the USACE and NCDWR regarding the PROJECT through the WIP PM and CONSULTANT to ensure consistency of information flow and awareness of any developing issues.

² A final determination has not yet been made with the USACE regarding whether the NEPA document will be an Environmental Impact Statement or an Environmental Assessment (EA). This scope has been written in anticipation of the preparation of an EIS, however, in the event a decision is made to prepare an EA instead, it will have only minor ramifications on Phase I efforts and would primarily affect Phase II.

- The Phase I budget assumes up to four (4) USACE and/or NCDWR consultation meetings and up to two (2) one-hour coordination meetings from December 2021 through July 2022. When feasible, meetings will be held with multiple agencies for the sake of efficiency and collaboration.

Subtask 1.3 - Develop Memorandum of Agreement with USACE

Subtask Activities

- CONSULTANT will assist the WIP PM in developing the Memorandum of Agreement (MOA) with the USACE Operations Branch. Based on our understanding from the results of the WIP's 2020 meeting with the USACE, the USACE will require a Memorandum of Agreement (MOA) with the Partnership to address USACE administrative costs for the review of the environmental document, land use request, and easement documents. Based on our experience and understanding from similar projects nationally, there may also be the need for the MOA, or a separate MOA, to memorialize agreements between the WIP, USACE, and NCDWR as to roles and responsibilities, the NEPA process including WIP's preference for an Environmental Impact Statement (EIS) and required points of review and concurrence, submittal of applicant prepared NEPA documents, and other matters.
- If a separate MOA is required, as an optional task, CONSULTANT can assist with preparation of a second required MOA in advance of Phase II. This MOA would help establish the expectations for the Phase II scope of work for environmental permitting and schedule. This optional effort can be provided on a time and materials basis as Additional Services upon request. An allowance of \$20,000 has been allocated for this effort. CONSULTANT will prepare a scope of work and fee estimate for review and approval by the WIP Partners prior to initiating work.

Subtask Deliverables

- Draft and revised language for Memorandum of Agreement with NCDWR
- Draft and revised language for Memorandum of Agreement with USACE.

Subtask Assumptions

- CONSULTANT assumes legal review and approval of any MOA will be the responsibility of the WIP and its legal representative. CONSULTANT assumes up to two (2) meetings or teleconferences with WIP's legal representative to review and receive comments on the MOA.
- CONSULTANT assumes discussion of potential content and terms of an MOA will be held with the USACE during one or more of the meetings identified in Subtask 1.2.

Subtask 1.4 - Initial Regulatory Agency Engagement and Pre-Scoping Meetings

Subtask Activities

- CONSULTANT will coordinate one (1) meeting via the WIP PM with NCDWR, NC Wildlife Resources Commission, NC Nongame Wildlife Advisory Committee, U.S. Fish and Wildlife Service, and other state and federal agencies. The meeting will be used to address which resources are expected to be of concern and the level of effort anticipated to obtain and evaluate information in addressing them for various environmental permits and approvals.

Subtask Deliverables

- Slide presentation for meeting with wildlife resource agencies
- Summary of information from communication with wildlife resource agencies regarding expectations and requirements for data collection or other assessments.

Subtask Assumptions

- The Phase I budget assumes up to one (1) agency engagement and pre-scoping meeting held with multiple agencies for the sake of efficiency and collaboration.

Subtask 1.5 – Miscellaneous Consultant Team Coordination

Subtask Activities

- Consultant will respond to miscellaneous coordination and support requests from WIP PM and WIP consultants via email or phone in order to expedite their efforts related to environmental permitting. These efforts are for activities not expressly budgeted in other tasks but are essential to supporting the overall program.

Subtask Assumptions

- 80 hours are budgeted for miscellaneous team coordination, be used by the Project Manager and the WIP team liaison.

TASK 020 – PREPARE INITIAL LAND USE REQUEST

Task 020 Objective

The primary purpose of this task is to develop and submit an Initial Land Use Request to the USACE via the NCDWR so the USACE can initiate full internal review of the proposal and determine the path for NEPA compliance and understand the level of effort for the MOA. Per direction from the USACE and NCDWR received during the WIP's 2020 meeting, the Initial Land Use Request will be provided "...with as much detail as possible to initiate the environmental review process, when this information is defined with some clarity, including a review of PROJECT alternatives with the identification of the preferred alternative." An additional purpose of this task is to support the preparation of a request for an "outgrant" to allow access to USACE lands to acquire information needed for WIP planning and engineering efforts in the near term.

Task 020 Activities

- CONSULTANT will coordinate with USACE to obtain an outgrant approval to access USACE lands for investigations to be performed by the WIP consultants as part of Phase I. A single request using USACE's SF-299 form will be prepared for review and approval by USACE's Operations and Real Estate Branches. CONSULTANT will also coordinate with NC Department of Administration, if needed, as the lease holder for subject USACE lands, but the intent is to obtain an agreement from USACE for access by the City of Durham as a third party and, by subsequent assignment, its Consultants. This has been initiated as part of the SA-06 Early Work efforts and is expected to transition into Phase I for completion.

- CONSULTANT will prepare the Initial Land Use Request for use of property within the USACE's Jordan Lake Project. The Land Use Request will describe the WIP PROJECT, potential construction phase impacts, and permanent facility and operations impacts relating to the raw water intake and pump station and raw water and finished water transmission facilities proposed to permanently reside on USACE land. The elements of the PROJECT outside of USACE project lands will also be described for context, along with description of the entire PROJECT up to and including connection points to individual WIP member water systems.

Task 020 Deliverables

- Preparation of USACE SF-299 Form based upon information provided to CONSULTANT by Engineering Consultants requiring access to USACE lands for studies.
- Draft version of Initial Land Use Request for WIP review.
- Final version of Initial Land Use Request based upon WIP comments

Task 020 Assumptions

- Details of specific investigations and other activities to be requested as part of the USACE lands access will be defined by the parties conducting the investigations and conveyed to the CONSULTANT for inclusion in the SF-299 form.
- The Initial Land Use Request will be submitted to the NCDWR/NCDOA because the State of North Carolina holds the lease for the water supply pool of Jordan Lake. The State will then transmit this request to the USACE. CONSULTANT has planned for one (1) round of review and comment by each entity, and revision to the Initial Land Use Request after review by NCDWR, before submittal to the USACE, response to one (1) round of requests for additional information from each, and one (1) round of revision based on comments from the USACE.
- The Detailed Land Use Request, for submittal to the NCDWR and USACE, will be developed in Phase II, after the finalization of the alternatives analysis and PERs and once the WIP PROJECT preferred alternative has been established through the NEPA process.

TASK 030 – ALTERNATIVES DEVELOPMENT, SCREENING, AND DOCUMENTATION

Task 030 Objective

The purpose of this task is to support the development and evaluation of alternatives as mandated by Federal regulations for review of the PROJECT. The USACE requires an alternatives analysis pursuant to two main regulatory drivers – the Section 404(b)(1) Guidelines and the National Environmental Policy Act (NEPA). The USACE also considers alternatives as part of its public interest review evaluation. Selection and environmental evaluation of potential sites, routes, or engineering approaches is an important early-stage activity, the results of which will be carried into the NEPA document, Section 404 permit review, and Initial Land Use Request. Alternative sites, routes, and designs are evaluated not only with respect to project objectives and costs, but also with regard to the degree to which significant negative environmental and socioeconomic impacts can be minimized.

Subtask 3.1 – Develop Purpose and Need

Subtask Objectives

The statement of Purpose and Need drives the process for alternatives consideration, influences the environmental analysis, and ultimately the preferred alternative selection.

Subtask Activities

- Preparation of a draft PROJECT Purpose and Need Statement for WIP Team review will be performed by CONSULTANT under the Early Start SA-06 agreement. Under this subtask, CONSULTANT will update the draft Purpose and Need Statement to reflect feedback from the WIP Partners, PM, and consultant team and from initial agency meetings and generate a final proposed statement of PROJECT Purpose and Need for submittal to the USACE. CONSULTANT will also update the Purpose and Need based on feedback from the USACE for use in future environmental permitting efforts.

Subtask Deliverables

- Revised and Final Project Purpose and Need Statements.

Subtask Assumptions

- In developing the statement, CONSULTANT assumes that the PROJECT Purpose and Need will establish Jordan Lake as the source of the water as determined by the State's prior Round 4 allocation of water in Jordan Lake. CONSULTANT will summarize the planning, studies and reports, regionalization efforts, and allocation processes that have occurred over the past thirty years as part of the PROJECT Purpose and Need leading to the proposed PROJECT.
- Work by the other WIP Consultants may affect the PROJECT Purpose and Need. Changes such as RWTF capacity, water connections to parties other than the current WIP Partners, and other factors may alter the PROJECT Purpose and Need. CONSULTANT assumes it will be advised of, and/or participate in, meetings or discussions that may require revisions to the PROJECT Purpose and Need.
- CONSULTANT assumes up to two (2) meetings or teleconferences with WIP PM and WIP Team Management to review PROJECT Purpose and Need language prior to submittal to the USACE.

Subtask 3.2 – Alternatives Development, Screening, and Evaluation

Subtask Objectives

The purpose of this task is to closely coordinate and collaborate with the WIP Consultants to develop and evaluate PROJECT alternatives for inclusion in the EIS, which is to be developed as part of a future phase.

With the water source established in the PROJECT Purpose and Need, alternatives evaluation may focus on construction phase and permanent impacts from intake location, intake design and withdrawal depth(s), raw water pump station location, raw water storage sites and transmission route, WTP location and footprint, treatment methods, temporary and permanent NPDES discharge locations and alternatives, finished water pumping and storage sites along the route, and finished

water transmission routes. The alternatives analysis is also expected to examine various combinations of the most favorable siting and routing elements as well as potential phasing options. Both the RWTF and the Intake, Raw Water, and Finished Water Conveyance preliminary engineering scopes of work include efforts for alternatives analysis for various project elements. Collaboration among the WIP Consultants is critical during this process, and from the very outset.

A critical consideration is that the process of screening out less favorable or impracticable alternatives and the description of the alternatives carried forward for detailed analysis in the EIS will be a central part of Chapter 2 of the EIS and thus must be well-documented and transparent for reviewers.

Subtask Activities

- CONSULTANT will develop materials for use by the WIP Consultant team to advance the common understanding of the various alternatives analyses being examined and how the WIP team will collaborate to ensure effective understanding of roles, coordination points, review, use of the PROJECT GIS database, and importantly, schedule for environmental-related aspects of the alternatives analysis. This is planned to occur in advance of any substantive alternatives development and should consider the draft Purpose and Need, approach to developing and evaluating alternatives, and agreement on coordination points. This information will be shared in a joint Environmental Permitting and Alternatives Analysis workshop included in Subtask 1.1. Content development for alternatives analyses discussions will be included in Subtask 3.2.
- CONSULTANT will collaborate with the other WIP team members to define and document key points of agreement, including factors for developing alternatives, establishing criteria for evaluation (environmental, social, engineering and constructability, cost, and other factors), documentation needs, and internal team reporting. This will include consideration of evaluating project alternatives with Hazen-Converge (multi-criteria decision tool) and how that process affects, or is affected by, NEPA/404 needs.
- CONSULTANT will provide guidance regarding avoidance of environmental resource impacts, permitting considerations, and NEPA requirements and to facilitate writing EIS Chapter 2 Alternatives and Chapter 3 Environmental Consequences as well as to document avoidance and minimization as required by CWA Section 404(b)(1) Guidelines. This information will be shared in Monthly Consultant Coordination Meetings.
- CONSULTANT will support the alternatives evaluation process by recommending objective Alternatives Screening Criteria that can or should be used in developing and evaluating alternatives and the multi-criteria decision support tool (MCDST) planned for use by Hazen. For those alternatives that require spatial analysis (GIS) for siting or routing, CONSULTANT will provide recommendations for these analyses to be consistent with the screening criteria and NEPA/Permitting requirements and will review and comment on up to four (4) alternatives evaluation reports produced by WIP Consultants. CONSULTANT will maintain a list and GIS data set for spatial alternatives evaluated and their reasons for being dismissed or carried forward for use in the EIS.
- CONSULTANT will coordinate with the Water Intake and Transmission Infrastructure Consultant to assist in the evaluation of potential stream, wetland, and other surface water crossings using horizontal directional drilling or other approaches. Such crossings may pose risks to water resources that must be considered in NEPA documentation and permitting processes. This effort will include coordination on the locations, extents, and approaches for making such crossings

and will document the process of determining the optimal approach for the crossings. Field assessments will not be included.

- CONSULTANT will coordinate with the Regional Water Treatment Facility Consultant to assist in the evaluation of potential stream and wetland resources that may influence site layout considerations on the Partner's preferred site.

Subtask Deliverables

- Content for Alternatives Analysis Workshop to be presented in Subtask 1.1 as part of monthly consultant coordination meetings.
- Guidance for considering avoidance of environmental impacts in alternatives analyses to support future EIS and CWA Section 404(b)(1) guidelines, presented in monthly meetings. Set of objective alternatives screening criteria to be used by WIP Consultants in assessing alternatives they develop to be consistent with NEPA/Permitting requirements.

Subtask Assumptions

- Phase II of the Environmental Permitting scope of work will describe additional steps in the alternatives development and selection process, including the Alternatives Analysis Technical Report, description of Alternatives Considered and Not Carried Forward, and description of the WIP's Proposed Alternative for the EIS.

TASK 040 – BUILD AND MAINTAIN PROJECT GIS DATABASE

Task 040 Objective

The purpose of this task is to develop and maintain a centralized GIS data repository and standards that will be used for consistency throughout the PROJECT, particularly for alternatives analysis, environmental analysis in the EIS, and for development of PROJECT graphics. This GIS repository will be used to both reference locations and house GIS layers developed and/or obtained by CONSULTANT and by WIP Consultants. Included in the GIS repository will be environmental data layers, PROJECT features, existing infrastructure, parcel information from publicly available state, county, and municipal sources, and other layers developed or further refined by the WIP team.

The purpose of the common GIS repository is to ensure consistency and quality control of spatial data used by the WIP Consultants and the WIP, with the recognition that in the early PROJECT stages that WIP Consultants have in their scopes, there is a need for development of certain spatial data for early screening of alternatives. The initial phase of the Project will use the WIP PM's SharePoint site as the data repository, but another platform such as ArcGIS Online may be more functional for subsequent phases. This determination will be made by others at a later date.

Subtask 4.1 – GIS Database Protocols

Subtask Activities

- CONSULTANT will coordinate with other WIP Consultants to develop GIS and mapping standards as needed with graphical standards, symbology, and templates to be used during the PROJECT. These will be provided as map and figure templates.

- CONSULTANT will work with the WIP PM to define the process by which WIP Consultants can submit GIS layers developed in their work to be included in the PROJECT GIS repository as well as conveniently access the PROJECT GIS for their work. CONSULTANT will work closely with WIP consultants to ensure open and regular access to GIS information and avoid conflicts or delays in retrieving or submitting data. In order to facilitate this process, CONSULTANT will review the approach and procedures for the WIP PM and WIP Consultants in a Monthly Consultant Coordination Meeting.
- Additionally, CONSULTANT will develop protocols for GIS Data Management for project and team needs. Protocols will be developed in such a manner that they would be compatible with a future data sharing and hosting platform beyond SharePoint, such as ArcGIS Pro.
- CONSULTANT will design the database structure to be used for Phase I, including polling WIP Partners, WIP PM and WIP consultants concerning desired GIS layers and data sources.

Subtask Deliverables

- GIS Data Management Plan, including established metadata requirements and protocols for WIP team members on how to access and store GIS information for their project efforts. The plan will also include a Data Collection and Management section focusing on geospatial data.

Subtasks 4.2 and 4.3 – Build and Maintain GIS Database

Subtask Activities

- CONSULTANT will build and maintain a single, common, and accessible PROJECT GIS repository using ESRI GIS desktop software during Phase I only. The repository, hosted on the WIP PM's SharePoint site, will be used for a variety of purposes throughout the duration of Phase I, including for alternatives analysis, environmental impact analysis for the NEPA document, graphics for various documents and reports including the NEPA document, and general documentation. Management of the repository for use in subsequent phases will be scoped as part of future amendments, if desired.
- CONSULTANT will develop a matrix of needed layers and data sources for the EIS and alternatives analysis and will use this information to complete acquisition of publicly available relevant layers focused on early alternatives and pipeline alternative routing (e.g., topography, roads, ownership parcel data, NHD streams, known historical and cultural sites, NWI wetlands, utilities, etc.) and to identify potential data/coverage gaps that need to be addressed for this or subsequent phases.
- CONSULTANT will also compile other readily available sources of data from public sources and include them in the GIS repository. These will come primarily from NC OneMap and will include such layers as topography, aerial imagery, land use/land cover, natural areas and parks, roads, infrastructure, utilities, structures, parcels, and zoning in addition to layers mentioned in the sections above.

Subtask Assumptions

- Effort to maintain the repository for use with or during subsequent project phases are not included in the current scope of work beyond Phase I.
- CONSULTANT assumes that GIS layers developed by WIP Consultants other than CONSULTANT will be shared with and integrated into the PROJECT GIS repository by the CONSULTANT using GIS

data and metadata standards that are developed as part of the Data Collection and Management Plan. In this way, the CONSULTANT will be the single point of contact for data versioning. The WIP PM will retain authority for granting editing and access permissions.

- WIP PM will provide access to project SharePoint site for publishing GIS Data repository.
- Hours in budget assume 8 months of maintenance of GIS repository (through July 2022).
- CONSULTANT will update GIS repository no more than once a month with GIS layers developed by WIP Consultants.
- For the purposes of developing the GIS scope and for tasks that involve creating GIS layers representing environmental resources (e.g., wetlands and streams, species, historical resources), CONSULTANT has based its level of effort assuming that the analysis area include the WTF site, the currently proposed alignments for raw and finished water, and the intake plus a ½ mile buffer on either side of these project components.

TASK 050 – PERMITTING AND REGULATORY APPROVALS

Task 050 Objectives

Under the Early Start SA-06 agreement, CONSULTANT is identifying all required environmentally focused federal and state permits and regulatory approvals for review by the WIP Team. This information is to be shared with the WIP Consultants in meetings or workshops during the Early Start period. CONSULTANT has preliminarily identified the primary federal and state permits that will drive the bulk of the environmental permitting work. This information will be updated and expanded upon in Task 5 as defined below.

Task 050 Activities

- During Phase I, CONSULTANT will adapt the initial list of environmentally-focused federal and state permits and regulatory approvals, authorizations, and related processes started in SA-06 into a working matrix for tracking the status and progress toward each approval or permit. The matrix and schedule will show the anticipated timing in the PROJECT permitting process, major concerns or issues associated with certain approvals, and interdependencies with other required information that will feed into the permit applications and permit decisions.
- During Phase I, CONSULTANT will focus on environmental permit requirements that may be affected by planning and engineering efforts associated with the Preliminary Engineering Report stage of the PROJECT. Early in Phase I, an approach or strategy to pursue each environmental permit will be developed and shared with the WIP, WIP PM, and WIP Consultants as a working document for review and consideration. This will also help the other WIP Consultants understand how their work will fit into the Environmental Permitting process. CONSULTANT will maintain communications with the WIP, WIP PM, and WIP Consultants and regulatory agencies to help identify any potential permitting and regulatory issues.
- CONSULTANT will advise the WIP Partners and WIP PM on the potential advantages and disadvantages available for creating the environmental documents needed to comply with the USACE's preferred NEPA approach. During the October 14, 2021 teleconference, the USCAE seemed to express an assumption that an Environmental Assessment (EA) would be sufficient for the WIP project, while the WIP Partners currently prefer an Environmental Impact Statement (EIS). This evaluation will include a general desktop assessment of the known potential for significant impacts, schedule impacts, or third-party actions that may contribute to uncertainties

in project the project schedule. Information developed by CONSULTANT will be compiled for review by the WIP Partners and WIP PM and decision on a preferred path forward.

- CONSULTANT will advise the WIP team of current and anticipated regulatory changes to environmental regulations that may affect the WIP PROJECT, including recent and pending changes to regulations implementing NEPA, Endangered Species Act, 2020 401 Water Quality Certification Rule, 2020 Navigable Waters Protection Rule (2020 WOTUS Rule), and other regulatory developments that may become important during the WIP Environmental Permitting process. During the October 14, 2021 teleconference, the USCAE stated that it currently follows the guidance from the *Rapanos* legal decision, but CONSULTANT will monitor and report on pertinent regulatory changes through Phase I.

Task 050 Deliverables

- Annotated list/matrix of federal and state environmental permits, approvals, and related processes, including permitting requirements.
- Anticipated schedules and major milestones to obtain approvals, linkages between processes, and strategic approaches for each process.
- Advisement on relevance of changing environmental regulations for NEPA, Clean Water Act Section 404, WOTUS Rule, and ESA. These updates will be provided during monthly team coordination calls as necessary.

Task 050 Assumptions

- CONSULTANT understands that the scopes of work for the Water Intake and Transmission Infrastructure Preliminary Engineering and the Water Treatment Plant Preliminary Engineering also include identification and listing of some permits. CONSULTANT will not be responsible for compiling a master list of required permits and authorizations, but will provide environmental-related permitting information to the WIP PM for inclusion in the master schedule.
- CONSULTANT recognizes that certain state and local permits and authorizations may be needed such as local zoning and land use authorizations, authorizations to construct and operate, erosion and sediment control plans and approvals, roadway access approvals, septic system permit, county Improvement Permit, and other such permits. CONSULTANT assumes planning for, scheduling, and obtaining these permits will be the responsibility of the appropriate Water Intake and Transmission Infrastructure and the Water Treatment Plant WIP Consultants.
- In Phase II of the Environmental Permitting scope of work, CONSULTANT will include the scope of work for preparing the permit applications, submittal, response to request for additional information, agency consultation on permitting and compliance issues, and obtaining the environmental permits.

TASK 060 – ENVIRONMENTAL RESOURCE INVESTIGATIONS SUPPORTING NEPA DOCUMENTATION

Task 060 Objectives

The purpose of this task is to develop and compile environmental resource information to be used in alternatives and to support the environmental analyses required in the EIS, aligning with NEPA and Section 404 requirements.

During Phase I, CONSULTANT will prepare plans for and initiate both desktop and limited field natural and human resource investigations that are known to be needed at this point for the NEPA process and to support permit applications. CONSULTANT will also begin compiling other data needed for the EIS and permit applications to assess what data gaps may exist and provide recommendations for any additional studies or assessments that appear to be necessary to support the alternatives analysis and environmental consequences analysis for the EIS.

This work will initially focus on desktop analysis and limited field efforts to support project planning and alternatives analysis. Efforts during Phase I will include field evaluations necessary to establish allowable extents of built-upon area on the proposed RWTF site. Completion of detailed field studies to evaluate impacts of specific water transmission routes and other potential RWTF sites identified during the alternatives screening will be completed as part of Phase II.

Task 060 Assumptions

- Certain field surveys are best completed, or are required to be completed, during certain seasons or periods of biological activity for the surveys to be considered valid. This is true for surveys for specific federally listed plant or animal species as well as for some surveys of jurisdictional stream and wetland resources. These limitations may prevent completion of some field evaluations during Phase I (e.g., delineation of certain wetland areas on the RWTF site). If scheduling dictates, these investigations will be postponed and completed as part of Phase II.
- CONSULTANT currently assumes remotely sensed data and existing databases will be sufficient for alternatives analysis and that detailed field studies will be limited to sites and routes that are carried forward to detailed analysis into the EIS. This approach was validated by USACE in the meeting held October 14, 2021.

Subtask 6.1 - Wetlands and Other Waters

Subtask Activities

- During Phase I, CONSULTANT will obtain information relevant to the location, type, and quality of wetlands and streams available from online sources, including National Wetland Inventory data and maps, Natural Resource Conservation Service (NRCS) county soil surveys, Landsat Thematic Mapper (TM) imagery, NHDPlus (National Hydrography Dataset Plus, a national, geospatial data set of streams and rivers) and other available sources from NCDOT or other agency sources. These GIS layers will then be used in initial planning and alternatives analysis. Use of these remotely sensed data for alternatives analysis has been validated with USACE.
- CONSULTANT will complete a preliminary field delineation of wetlands and streams that are under the jurisdiction of the USACE and/or NCDWR for the proposed RWTF site using current protocols. Delineated features will be recorded with GPS units with submeter accuracy for spatial

location. Forms for evaluating wetland and stream functional value will be completed using the NC Wetland Assessment Method (NCWAM) and NC Stream Assessment Method (NCSAM) for two (2) representative locations within each wetland unit.

- Based upon this effort, a GIS layer will be developed with jurisdictional streams and wetlands identified with attributes including wetland name, wetland type, delineated length or area, assessment area index, WAM and SAM score, hydrologic connection to adjacent wetlands or waters, 8-digit HUC identifier, drainage name, delineation reference, date, and delineator, and other relevant data as well as a link to field data form(s) for each stream segment or wetland unit delineated. The wetland and stream layer will be added to the PROJECT GIS database and made available to the team for analysis and/or consideration in developing plans and analyses for that site.
- CONSULTANT will provide summary tables derived from field delineations identifying wetland acreage and stream length that are and are not USACE jurisdictions and will identify potential permanent and temporary impacts based on information provided by WIP engineering consultants.

Subtask Deliverables

- Various GIS layers and maps documenting desktop-based locations of wetlands and other waters associated with the overall proposed PROJECT area.
- GIS layers documenting field-based preliminary jurisdictional boundaries of wetlands and other waters on the proposed RWTF site.
- Summary tables defining USACE and other jurisdictional wetlands and streams on RWTF site, including estimated temporary and permanent impacts.

Subtask Assumptions

- Only the RWTF site will have a field delineation during Phase I. Field delineation of wetlands and waters associated with the intake site and transmission routes will be performed during Phase II, including performing wetland and stream assessments using NCWAM and NCSAM. CONSULTANT will coordinate with the USACE and with NCDWR regarding which wetlands and waters are jurisdictional to each agency. Based on a submittal of delineated streams and wetlands and a request for a Jurisdictional Determination (JD), the USACE will document the presence and location of wetlands that may be jurisdictional under Section 404 of the Clean Water Act. CONSULTANT assumes a delineation request for the PROJECT will not be submitted until Phase II.
- Field delineations will not be conducted on USACE property as part of Phase I.
- Wetlands and waters not subject to jurisdiction of the USACE may be under the jurisdiction of the State of NC and will be addressed accordingly. Based upon information submitted to the USACE for its jurisdictional determination, the NCDWR identifies the presence and location of waters of the State, including streams and isolated wetlands that are not under the jurisdiction of the USACE. A state permit authorizing impacts to such areas will be required, if applicable.

Subtask 6.2 – Jordan Lake Rules

Subtask Objectives

The Jordan Lake Nutrient Management Strategy Rules (15A NCAC 02B .0262 - .0273) require specific vegetation buffers adjacent to lakes, reservoirs, and streams, with additional requirements for stormwater runoff entering buffer areas. For most of the PROJECT area, these requirements are implemented by Chatham County through its Watershed Protection Ordinance. Other portions of the Jordan Lake Rules address new development projects and wastewater discharges, but their implementation has been delayed pending revision of the rules by the NC Department of Environmental Quality.

Subtask Activities

- Applicability of the Jordan Lake Rules will be evaluated, and CONSULTANT will include in the permitting matrix any specific requirements that will apply to the PROJECT pursuant to the buffer requirements, new development stormwater management requirements, and wastewater disposal requirements. In the event NCDWR promulgates new rules in the near future, CONSULTANT will provide an update during Phase II.

Subtask Deliverables

- Memorandum summarizing applicability and requirements of the Jordan Lake Rules to the PROJECT.

Subtask 6.3 - Historical and Cultural Resources

Subtask Objectives

The NEPA and CWA Section 404 processes trigger the requirement to address potential impacts to cultural and historic resources and to comply with the NHPA's Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800. Section 106 requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve. If a federally authorized project has the potential to affect historic properties, a Section 106 review will take place, and mitigation may be required for adverse effects. Such consultations often require identification of known resources and surveys in potentially affected areas for such resources.

There are suspected historical resources located on the preferred RWTF site in Chatham County. These resources will need to be confirmed and mapped for the PROJECT. Because knowledge of the location and extent of these resources may be important for the RWTF Consultant for initial site design, CONSULTANT will initiate planning for a Phase I historical and archeological survey of the two site parcels totaling approximately 122 acres.

During Phase II of the Environmental Permitting, the results of the RWTF Site Archaeological and Cultural Resource Survey and report will be shared with WIP Consultants to support their planning efforts. They will also be provided to the NC SHPO for use in further consultation and the broader process of NHPA Section 106 compliance. The broader context of Section 106 compliance for the PROJECT and any additional required surveys will also be established in the Phase II Environmental Permitting scope.

Subtask Activities

- CONSULTANT will obtain and compile readily available information from the North Carolina State Historic Preservation Office (SHPO) on historical and cultural resources available from the public sources, particularly those already confirmed and on the National Register of Historic Places.
- CONSULTANT will query and download data from the State's SHPO survey files, NCHPOWeb, known historic places on NRHP, unevaluated resources, any historic districts, and other relevant sources. This will include a download of spatial data for known, eligible or unassessed sites from the HPOWeb2 database. This GIS layer will be added to the GIS database and will be used for initial alternatives screening.
- CONSULTANT will create summary table and GIS coverage of sites/resources potentially affected and any particular locations or issues that may arise for the proposed project based on candidate project sites and alignments and including buffers to account for potential visual, noise, or physical impacts.
- CONSULTANT will obtain the data, conduct initial consultation with SHPO and complete an initial assessment of potentially affected resources in the likely or estimated Area of Potential Effect for the general study area (intake, proposed RWTF plant site, initial proposed pipeline routes) buffered appropriately to allow for analysis of alternate sites and routes, and then identify the initial best approach for consultation with the SHPO for the PROJECT and the potential value of a programmatic approach to Section 106 Compliance.
- CONSULTANT will prepare a study plan for a phase I Archaeological and Cultural Resource Survey of the RWTF site in a manner consistent with Section 106 compliance currently employed throughout the United States. The plan will include a literature and records search and proposed plan for fieldwork. This study plan will be provided to SHPO for review and approval prior to scoping the Phase II services. As part of Phase II services, CONSULTANT will perform the survey according to the plan, once confirmed to proceed by the WIP PM.

Subtask Deliverables

- GIS layers of known or potential cultural and historical resources within the PROJECT study area and initial recommendations for consideration and avoidance during alternatives analysis.
- Study plan for evaluating historical resources on the PROJECT site suitable for review and approval by SHPO.
- The field survey will be completed as part of Phase II.

Subtask 6.4 - Federal Listed and State Protected Species

Subtask Objectives

CONSULTANT will coordinate with the U.S. Fish and Wildlife Service (USFWS) and National Oceanographic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) regarding the federally listed plant and animal species potentially occurring in the PROJECT area within the possible site and route locations via available databases including North Carolina Natural Heritage Program (NCNHP), the USFWS's Information for Planning and Consultation (IPaC), and other relevant sources.

The information needed to determine whether a listed species is actually located at locations at a given site or along a route is not generally available from existing sources. The desktop analysis provides the means by which the potential occurrence can initially be evaluated during alternatives analysis based on the potential occurrence of the species and their habitat preferences. This also assists with the process of identifying areas that may require field survey during appropriate seasons or biological conditions during Phase II.

CONSULTANT will use available information on the potential occurrence of protected species and habitat requirements together with habitat analysis on potential sites and transmission routes to assess the possibility for species occurrence, potential effects of PROJECT activities, and the need for surveys to confirm their presence or absence. CONSULTANT will provide the findings to the WIP Consultants for planning purposes and will advise the WIP on potential ramifications of the findings. CONSULTANT will also discuss findings with the USFWS to address potential avoidance and mitigative steps.

Subtask Activities

- CONSULTANT will determine the extent of potential effects to define the geographic extent for the general study area (intake, proposed RWTF plant site, initial proposed pipeline routes) buffered appropriately to allow for analysis of alternate sites and routes.
- CONSULTANT will obtain and compile electronic and spatial data on known species occurrences and their attributes using available data sources, including U.S. Fish and Wildlife IPaC planning tool, the North Carolina Natural Heritage Data Explorer, ECOS Environmental Conservation Online System, and other readily available databases. GIS coverage for managed areas, natural areas and ratings, land use, and land cover will also be obtained from NC OneMap. This information will be used to create an attributed GIS layer for species, habitat, and protected areas for use by WIP consultants.
- CONSULTANT will summarize data on known federally listed species in the project area, including known occurrences, species profiles, habitat use, and other factors relevant to potential occurrence in the Project study area.
- CONSULTANT will identify other projects for which biological assessments and biological opinions were completed for other projects in Chatham, Durham, and adjacent counties and download and list the relevant documents from publicly-available sources.
- CONSULTANT will compile a list of potentially-affected federally listed species and their likelihood of occurrence within the PROJECT area and identify areas or habitats relative to candidate project sites and alternative alignments where surveys may be required in Phase II to establish presence.

Subtask Deliverables

- Summary of available information on potential presence and use of PROJECT area by listed species.
- Attributed GIS layer showing potential species, habitat, and protected areas for use by WIP consultants.

Subtask Assumptions

- During Phase II, CONSULTANT will complete necessary surveys to determine, to the extent practicable, whether there may be impacts on federally listed species and will complete consultation with the USFS as required under Section 7 of the Endangered Species Act (ESA). If needed, CONSULTANT will then prepare a biological assessment for the PROJECT and develop mitigative measures to prevent the take of federally threatened or endangered animal species. CONSULTANT assumes the WIP PM will coordinate access to parcels or properties as needed to complete surveys.
- This subtask is a desktop assessment and does not include field surveys for critical habitat or field reconnaissance of alignments.

Subtask 6.5 - Initial Environmental Justice Community Assessment

Subtask Objectives

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, states that each federal agency must make achieving environmental justice a part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations.

CONSULTANT will conduct an initial desktop environmental justice assessment for the PROJECT area, which will include identifying, mapping low income and minority populations in the study area to support PROJECT planning and alternatives analysis. The results of the initial EJ assessment will be provided to the WIP, WIP PM, and WIP Consultants so that the results can be considered during alternatives analysis.

Should the potential for impacts to EJ communities be identified during Phase I, CONSULTANT will advise the WIP PM as to what required community outreach to EJ populations may be advisable or required by regulations on behalf of the PROJECT and include associated work in the Phase II scope. This work would include such measures as community outreach, measures to avoid, minimize, or mitigate such impacts. Should impacts to EJ communities be a possibility, avoidance will be important, if practicable.

Subtask Activities

- CONSULTANT will obtain demographic data from within one (1) mile of the general study area (intake, proposed RWTF plant site, initial proposed pipeline routes) buffered appropriately to allow for future analysis of alternate sites and routes. Potential EJ communities will be identified based on federal guidance from US EPA or CEQ.
- CONSULTANT will obtain and review electronic spatial data from North Carolina Community Mapping System (NCCMS) and Environmental Justice Tool, EPA's EJSCREEN mapping and screening tool, and demographic analysis to define "EJ areas." These areas will be tentatively defined as any Census block group in which the minority or low-income population meets either of the following: (1) the minority or low-income population in the block group exceeds 50 percent, and/or (2) the percentage of a minority or low-income population in the affected area is meaningfully greater than the lowest percentage in the respective county. Other refined criteria may be established for the refined analysis in Phase II.
- CONSULTANT will develop tabular data and GIS layers showing potentially-affected census blocks, demographic data, and potential EJ communities for use by WIP consultants.

Subtask Deliverables

- Summary of findings from Environmental Justice assessment and a GIS layer of Census block attributes and potential EJ concerns for alternatives analysis.

Subtask Assumptions

- Potential EJ communities will be identified based on relevant federal guidance.

Subtask 6.6 - Environmental Screening of OWASA Site

Subtask Activity

- CONSULTANT will conduct an initial desktop due diligence environmental screening to obtain available data regarding potential environmental risks for the WIP's preferred Regional Water Treatment Facility (RWTF) site. CONSULTANT's efforts will include a visual site screening and desktop review of available Environmental Database Reports (EDR) for the target properties, which include contiguous Chatham County parcel numbers 17538 and 17546. These initial activities will be performed in general accordance with the Phase I ESA Standard (ASTM E 1527-13) to identify potential environmental conditions at the subject properties.

Subtask Deliverable

- Report documenting initial environmental due diligence for the RWTF site.

Subtask Assumption

A formal Phase I ESA in compliance with the standard (ASTM E 1527-13) should not be conducted prior to six (6) months of any planned real estate transaction and will therefore be deferred until a future Phase. Any Phase II Environmental Site Assessments (ESAs) required in response to the due diligence findings will not be performed as part of this Scope of Work.

Subtask 6.8 – Data Gap Assessment and Recommendations

Subtask Activities

- CONSULTANT will develop a tracking matrix for potential additional resource investigations that may be needed to address data gaps, analyses, or studies that may be needed based on meetings with the USACE, NCDWR, or other agency or stakeholder comments and recommendations.
- CONSULTANT will assess these potential needs and provide recommendations to the WIP and WIP PM so that decisions can be made as to their need and justification, and alternatives and methods to address the information need.

Subtask Deliverables

- Annotated list of data and information gaps and recommendations for addressing them. List will be updated on a regular basis as additional information is acquired.

Subtask 6.9 – Site Reconnaissance

Subtask Activities

- CONSULTANT will conduct a one-day site reconnaissance tour by up to six team members representing the CONSULTANT's full team capabilities including historic and cultural resources, fisheries and aquatic science, wetlands and stream delineation and functional analysis, permitting, and field studies logistics. This is important to allow the team to be familiar with the study area, access points, travel times, and logistical considerations for the remainder of Phase I and for Phase II efforts.

Subtask Deliverables

- No formal deliverables, but CONSULTANT will obtain photographs and other information that will be used to inform other tasks.

TASK 070 – NEPA PROCESS AND DOCUMENTATION

Task 070 Objectives

The primary purpose of this task is to map out the NEPA process and schedule (assuming an EIS) and work with the WIP PM to identify critical inputs to the EIS process and their timing relative to the completion of the work by other WIP Consultants so that there is a clear plan going into Phase II of the Environmental Permitting Services scope of work.

The Council on Environmental Quality's (CEQ) new NEPA regulations set presumptive time limits for completion of EISs in two years, and internal USACE guidance (EIS Timeline) is consistent with this guidance. The two-year timeline begins with publication by the USACE of the Notice of Intent (NOI) to prepare an EIS and ends when the Record of Decision (ROD) is published. The USACE will seek some certainty that they can complete the EIS in two years and will want to see agreement on the PROJECT Purpose and Need and clarity on alternatives likely to be evaluated in detail in the EIS before publishing the NOI and triggering the EIS Timeline. CONSULTANT's EIS planning and scheduling work in Phase I will reflect findings of consultation meetings with the USACE and NCDWR.

Task 7.1 – NEPA Process and Work Planning

Subtask Activities

- CONSULTANT will identify and document action-focused steps to navigate the NEPA process anticipated for the PROJECT. These refinements will be made throughout Phase 1 based on the results of meetings held with the USACE, NCDWR, other resource agencies, and WIP Partners and consultant team members. These steps will be defined in a schedule format with appropriate descriptions of actions provided in Task 2. A written work plan will not be developed as part of Phase I. CONSULTANT will provide NEPA process information to the WIP partners in a presentation format at a WIP team coordination meeting. This information will include both an EA and EIS centered approach for WIP comment and decision-making.

Subtask Deliverables

- Presentation summarizing the NEPA approach for use at WIP team coordination meeting.

Task 7.2 – Project Schedule and Sequencing

Subtask Activities

- CONSULTANT will build and maintain a schedule using Microsoft Project to facilitate the planning, organization, and timely initiation of the environmental permitting and NEPA process. A single schedule will be developed based on the agreed-upon NEPA approach (EA or EIS). The schedule will include the pre-NOI period and the 2-year NOI to ROD period showing key requirements and points of concurrence needed with the USACE/NCDWR to identify and track progress towards the initiation of the EIS preparation with the USACE and NCDWR. The schedule will be updated bi-monthly during Phase I to reflect PROJECT status. Updates will be provided to the WIP PM to ensure key milestones are reflected in the master Program schedule maintained by the WIP PM. CONSULTANT will coordinate with the WIP PM to discuss the progress of supporting efforts and add them to the overall NEPA schedule so critical path elements can be identified.

Major elements of the NEPA and EIS process that will be included in the schedule, and completed in the Phase II Environmental Permitting scope, will include, but not be limited to:

- Notice of Intent to Prepare an EIS
- Public NEPA Scoping Meetings
- Agency NEPA Scoping Meetings
- Scoping Summary Report
- Additional Resource Studies
- Determination of Inter-related and Interdependent Actions for EIS
- Preparation and Review of Draft EIS
- Publication of DEIS
- Ongoing Agency Scoping and Issue Resolution Meetings
- DEIS Public Comment Period and Public Meetings
- Responses to DEIS Comments
- Additional Analysis to Respond to DEIS Comments (if needed)
- Preparation and Review of Draft EIS
- Final EIS
- Draft Record of Decision
- Preparation of Section 404 permit application
- Preparation of Section 401 water quality certification application (and associated NC Isolated Wetlands and Water permit application, if applicable)

Subtask Deliverables

- Permitting and NEPA schedule maintained in Microsoft Project.

TASK 080 – PROJECT MANAGEMENT AND ADMINISTRATION

Task 080 Activities

- CONSULTANT will provide project management, administration, and coordination efforts for its staff and subconsultants. CONSULTANT's duties will include the following:
 - Monitoring, managing, and scheduling the efforts of CONSULTANT's staff.
 - Preparing monthly, project-level invoices using CONSULTANT's standard invoice format and progress reports documenting completed activities scope variances, estimated completion percentages by task, and planned work activities for the upcoming period.

Task 080 Deliverables

- Monthly invoices on CONSULTANT's standard invoice template.
- Monthly progress reports documenting completed activities, estimated completion status, and planned activities for the upcoming period using WIP-specific reporting guidelines

Task 090 - PROJECT MEETINGS AND WORKSHOPS

Task 090 Objective

Meetings and workshops will be components of many of the tasks and subtasks outlined above, and they were generally noted in the text of each section. Task and subtask descriptions include the actual work associated with information to be conveyed or discussed during meetings and workshops. Because of the number of meetings and the need to track meeting participation and associated budget, CONSULTANT has included the anticipated level of effort for meetings and workshops, and this task has a separate budget for meeting participation. A list of anticipated meetings to be attended by CONSULTANT is provided in Table 1, attached.

Task 090 Deliverables

- Meeting agendas for events coordinated or requested by CONSULTANT
- Meeting summaries for events coordinated or requested by CONSULTANT

Task 090 Assumptions

The budget for the meetings task includes actual time spent in meetings and workshops. Direct preparation for the meeting such as agenda development and preparation of meeting summaries is included in Task 010. Time required for preparation of technical information for presentation or discussion during meetings is included within the other tasks above. In many cases, CONSULTANT would be represented by more than one individual during a meeting (including CONSULTANT's subcontractors as appropriate), based on the purpose and content of the meeting and technical expertise required. In general, CONSULTANT's staff located outside of the local office will participate virtually but will attend up to five (5) key meetings or workshops in person as part of the Phase I scope of work.

GLOBAL ASSUMPTIONS

CONSULTANT has made the following assumptions in developing this Phase I Environmental Permitting Scope of Work:

- The NEPA document will be an EIS
- The USACE and NCDWR will agree to the preparation of the EIS by CONSULTANT on behalf of the WIP.
- USACE and other agencies will review and act upon submittals and requests for access in a timely fashion.
- During the NEPA process, CONSULTANT will organize and support certain NEPA process tasks (public meetings, drafting public notices, receiving comments on the EIS, etc.) but roles on these tasks are anticipated to be shared among the WIP, WIP PM, USACE (as the Lead Federal Agency), NCDWR as the Allocation Lessee, and CONSULTANT. Roles will be defined in coordination with the WIP PM.
- Procedural details for USACE approval (e.g., land use authorization, NEPA compliance details) of the WIP PROJECT are based on early discussions with the USACE and NCDWR but may change as consultation proceeds. We have assumed that these procedural and role details will be established during meetings with the WIP, WIP PM, USACE, NCDWR, and CONSULTANT. Changes in the Environmental Permitting scope that may be needed to reflect these changes will be addressed in coordination with the WIP PM.
- Results of meetings with the USACE, NCDWR, and other federal and state agencies will likely affect the types of required studies, methods, and issues to be addressed. CONSULTANT will advise WIP PM of the implications of study recommendations and revise its scope accordingly to reflect decisions of the WIP and WIP PM in coordination with CONSULTANT.
- Coordination needs and potential points of overlap in the scope of work of the WIP Consultants may develop during the execution of work on the PROJECT. WIP Consultants will be required to notify WIP Program Manager promptly of coordination needs, issues of scope overlap or interaction, or other issues that may affect the effective coordination and completion of their work and seek resolution. As required, the WIP Program Manager will assist the WIP Consultants in resolving questions related to coordination requirements or scope of services boundaries. Issues raised and resolutions will be documented in writing.
- The WIP will be responsible for, and CONSULTANT may rely upon, the accuracy and completeness of reports, data and other information furnished pursuant to this scope of work. CONSULTANT may use such reports, data, and information in performing or furnishing services in this Scope of Work.
- Certain optional tasks are identified in the Water Intake and Transmission and Water Treatment Plant preliminary engineering scopes of work (e.g., intake design, hydrodynamic modeling, enhanced modeling tasks including climate change considerations) and these have not yet been authorized. As each of these has relevance to CONSULTANT's scope of services and needs for environmental permitting and the content of the EIS. CONSULTANT assumes it will be engaged and provide input on the need and design of these optional tasks.
- Collaboration is expected between the WIP Consultants as each completes its Scope of Services.
- The WIP Program Management Plan will provide guidance for administrative procedures, document standards, formats which will be followed by the WIP Consultants.

- WIP Consultants will utilize a WIP PM-sponsored PROJECT SharePoint site to share documents and data with the Partners, WIP Program Manager, and other WIP consultants.
- Environmental factors and evaluation criteria for screening and evaluation of transmission main site and route alternatives, including for MCDST, and for evaluation of intake options and hypolimnetic aeration system, will be developed in collaboration with the CONSULTANT.
- GIS data for environmental features in PROJECT areas (including existing streams and wetlands, threatened and endangered species, cultural/historical areas, and hazardous sites) will be managed by the CONSULTANT and made accessible to the WIP Consultants.
- The details of the presence and spatial extent or numbers of federally listed species, cultural resources, and the details of agency consultation procedures have yet to be determined and will be established as agency consultation proceeds during Phase I and will be reflected in the Phase II scope, as understood at that time.
- Any agency application fees, or resource support funding, will be paid by the WIP. All easements, right-of-entry permits, and licenses for work on federal land under the jurisdiction of the US Army Corps of Engineers (Jordan Lake) will be obtained by others.
- When submitting a draft product or deliverable, CONSULTANT will receive a single set of consolidated review comments within two weeks from submittal by CONSULTANT. The WIP PM will generally respond to questions and requests for information within one week, understanding that responses requiring input from other (or multiple) WIP Team members may require additional time.

Exhibit A - Table 1: Anticipated Meeting and Workshop Participation and Effort
 Western Intake Partnership
 WIP Environmental Permitting - Phase I

Meeting/Workshop	BC Task	Expected Attendees	Meeting Duration* (hours)	Number of Events	Meetings Per Team Member					Effort Per Meeting (hours)															Notes / Assumptions						
					DD	PL	BB	SP	NA	Preparation					Attend					Summary						Total by Team Member					Total by Meeting
WIP Coordination Meetings																															
Monthly Progress Meetings	1.1	WIP PM	1	8	8	4	4			1	1	1			1	1	1			0	0	0	16	8	8	0	0	32			
Regular Communications (Weekly WIP PM Coordination)	1.1	WIP PM	1	27	27										1					0			27	0	0	0	0	27	1 meeting per week / 35 weeks - 8 monthly overlaps = 27		
Consultant Coordination Monthly Meeting	1.1	WIP PM, Hazen, CDM	2	6	6	3	3			1	1	1			2	2	2			1.5	0.5	0.5	27	11	11	0	0	48			
Permitting Planning and Strategy Meetings																															
Planning & Permitting Strategy Presentation - Consultant Coord Meeting	1.1	WIP PM, Hazen, CDM	2	1	1	1	0	1	1	2	8	0.5	8		2	2	2	2		1.5	0.5		2.5	5.5	11	0	8	4.5	28.5		
GIS Data Management Presentation - Consultant Coord Meeting	1.1, 4.1	WIP PM, Hazen, CDM	2	1	1		1	1		2	2		8		2	2		2	2	0.5	0.5		1.5	2.5	4.5	4.5	0	12	4.5	25	
Periodic Technical Meetings - Misc Meetings	1.1	WIP PM, Hazen, CDM	2	2	2	2	0		2	2	8		4		2	8	2	2		1.5	0.5		2.5	11	33	0	0	9	53		
WIP Team Internal MOA Development Meetings	1.3	WIP PM	1	2	2	2	0			2	2	0.5			1	1	1			2	1	0.5		10	8	0	0	0	18		
MOA Legal Review Meetings	1.3	WIP PM, WIP Attorney	1	2	2	2				1	2				1	1				2	1			8	8	0	0	0	16		
Project Purpose & Need Development Meetings	3.1	WIP PM, WIP Mgmt.	1	2	2	2	0			1	2	0.5			1	1	1			2	1	0.5		8	8	0	0	0	16		
USACE, NCDWR and Other Agency Meetings																															
USACE Operations / NC DWR Meeting - approvals/submittals	1.2	USACE, WIP PM	2	2	2	2	0	2		2	2	1			2	4	2	2		1.5	1	0.5	2.5	11	14	0	0	9	34		
USACE Regulatory / NC DWR Meeting - agency participation/areas of concern	1.2	USACE, WIP PM	2	2	2	2	0	2		2	2	1			2	4	2	2		1.5	1	0.5	2.5	11	14	0	0	9	34		
USACE Monthly Coordination Meetings	1.2	USACE/NCDWR, WIP	1	2	2	2	0			2	2	1			1	1	1			1.5	0.5	0.5		9	7	0	0	0	16		
Agency Clearinghouse Meeting (USFWS, NCWRC, Etc.)	1.4	USACE, WIP PM	2	1	1	1		1	1	2	6		6		2	2		2	2	1.5	1		2.5	5.5	9	0	8	4.5	27		
Water Intake/Transmission Preliminary Eng. Meetings																															
includes travel time for meetings																															
Demand Data and Preliminary Assumptions (Hazen 1.d)	3.2	WIP PM & Consultants	1.5	1	1		1								2		2			0.5	0.5		2.5	0	2.5	0	0	5			
Combined Transmission Alternatives (Hazen 2.b.ii)	3.2	WIP PM & Consultants	1.5	1	1		1								2		2			0.5	0.5		2.5	0	2.5	0	0	5			
Finished Water Transmission Route Development Review (Hazen 3.a)	3.2	WIP PM & Consultants	2	1		1	1			0.5	0.5				2	2.5				0.5	0.5		0	3	3.5	0	0	6.5			
Finished Water Transmission Alternatives Review (Hazen 3.j)	3.2	WIP PM & Consultants	2	2		2	2			0.5	0.5				2	2.5				0.5	0.5		0	6	7	0	0	13			
Multi-criteria DST Transmission Route Evaluation (Hazen 3.n)	3.2	WIP PM & Consultants	1.5	2		2	2			1	0.5				2	2.5				0.5	0.5		0	7	7	0	0	14			
In-Lake raw Water Quality Evaluation Review (5 meetings) (Hazen 5.g)	3.2	WIP PM & Consultants	1.5	2	2	2				0.5	0.5				2	1.5				0.5	0.5		6	5	0	0	0	11	includes 2 of 5 meetings		
Initial Intake & Pumping Scenario Development (Hazen 5.k.i)	3.2	WIP PM & Consultants	2	1	1		1								2		2			0.5	0.5		2.5	0	2.5	0	0	5			
Intake and Raw Water Pumping Alternative Review (Hazen 5.n)	3.2	WIP PM & Consultants	2	2		2	2			0.5	0.5				2	2.5				0.5	0.5		0	6	7	0	0	13			
Multi-criteria DST Intake and Raw Water Pumping Evaluation (Hazen 5.q)	3.2	WIP PM & Consultants	1.5	2		2	2			1	0.5				1.5	2				0.5	0.5		0	6	6	0	0	12			
Envision Kick-off Workshop (Hazen 6.a)	3.2	WIP PM & Consultants	4	2	2					1					4.5					0.5			12	0	0	0	0	12			
Envision Quarterly Workshops (6 meetings) (Hazen 6.b)	3.2	WIP PM & Consultants	1.5	2	2					0.5					2					0.5			6	0	0	0	0	6	includes 2 of 6 meetings		
Regional RWTF Preliminary Engineering (Task 3)																															
includes travel time for meetings																															
Permit Approvals / Tracking Virtual Workshop (CDM Smith 3.1)	3.2	WIP PM & CDM Smith	1.5	1	1					0.5					1.5					0.5			2.5	0	0	0	0	2.5	durations of RWTF meetings assumed		
Facility and Site Programming - Site Planning Workshop (CDM Smith 4.1)	3.2	WIP PM & CDM Smith	1.5	1		1					0.5					2				0.5			0	0	3	0	0	3	durations of RWTF meetings assumed		
Master Plan Concepts (CDM Smith 6.6)	3.2	WIP PM & CDM Smith	2	1	1		1			0.5	0.5				2.5	2.5				0.5	0.5		3.5	0	3.5	0	0	7	durations of RWTF meetings assumed		
Site Development Concepts / Site Plan Programming (CDM Smith 8.1)	3.2	WIP PM & CDM Smith	2	1		1					0.5					2.5				0.5			0	0	3.5	0	0	3.5	durations of RWTF meetings assumed		

Notes:

- Meeting duration reflects the length of the actual event. Travel time is included in meeting attendance column, where appropriate.
- Meeting and workshops based on scopes of work prepared by Hazen (final agreement) and CDM Smith (August 2021 version).
- Participants include: Doug Durbin (DD), Paul Leonard (PL), Brenan Buckley (BB), unnamed senior professional that may vary by task (SP), and Natalie Archambault (NA). Expected meeting participation by staffer is defined in "Meetings Per Team Member".

totals: 191 168 67 28 41 493

Exhibit B

WESTERN INTAKE PARTNERSHIP
ENVIRONMENTAL PERMITTING SERVICES
COMPENSATION
PHASE I

COMPENSATION

Compensation for services performed under this Agreement shall be billed on a time and material basis as described in the following Fee Schedule and attached rate schedules. Billing for time related charges will be on the basis of total hours worked on the project by each employee multiplied by the hourly rate inclusive of salary cost, fringe benefits, general and administrative overhead and profit for the employee's job classification as provided on the rate schedule. Billing for direct expenses will be at actual cost. Billing for time-related subconsultant services and subconsultant direct expenses will include a 10 percent surcharge.

Fee Schedule			
Task	Description	Base Fee	Allowance
010	Coordination with WIP and Phase I Agency Coordination	\$102,030	\$20,000
020	Prepare Initial Land Use Request	\$49,160	
030	Alternatives Development, Screening, and Documentation	\$75,548	
040	Build and Maintain Project GIS Database	\$70,535	
050	Permitting and Regulatory Approvals	\$29,590	
060	Environmental Resource Investigations	\$224,654	
070	NEPA Process and Documentation	\$34,873	
080	Project Management and Administration	\$82,310	
090	Project Meetings and Workshops	\$64,400	
100	Project Expenses (Brown and Caldwell Only)	\$18,000	
Fee by Category:		\$751,100	\$20,000
Total Fee, Phase I:		\$771,100	

Billing shall be on a monthly basis in conformance with Section 5 of the Agreement. The total amount billed to the City under this Agreement shall not exceed \$771,100 nor shall the Consultant incur costs above \$771,100 without the written permission of the City of Durham. This total amount includes an allowance of \$20,000 that must be authorized in advance in writing by the City.

**Western Intake Partnership
Environmental Permitting Services
Brown and Caldwell Hourly Rate Schedule
Effective August 1, 2021 - December 31, 2022**

Classification	Hourly Rate
Engineering Intern	\$70
Project Administrative Support I	\$85
Project Accountant / Biller	\$90
Project Administrative Support II	\$95
Senior Administrative Support	\$110
Scientist / Engineer I	\$115
Graphic Artist	\$120
Project Communications / Technical Writer	\$120
Project Analyst	\$120
Scientist / Engineer II	\$130
Senior Project Analyst	\$135
Scientist / Engineer III	\$145
Senior Scientist / Engineer	\$155
Senior Communications Manager	\$185
Principal Scientist / Engineer	\$190
Supervising Scientist / Engineer	\$210
Managing Scientist / Engineer	\$240
Senior Technical Specialist	\$250
Project Principal / Liaison	\$265
Project Manager	\$270
Chief Technical Specialist	\$310

- Notes:
1. Hourly rates may be adjusted on an annual basis after January 1, 2023 by an amount not to exceed 3.5 percent.
 2. Direct expenses of Engineer will be invoiced at cost.
 3. Subcontractor costs will be invoiced at cost plus 10 percent.