PURCHASE OF SERVICE AGREEMENT

THIS PURCHASE OF SERVICE AGREEMENT, made and entered into on the day of ______ 2022, by and between the **LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**, an urban county government of the COMMONWEALTH OF KENTUCKY created pursuant to KRS Chapter 67A ("LFUCG"), 200 East Main Street, Lexington, Kentucky 40507, and <u>Tetra Tech, Inc.</u>, a Kentucky corporation, ("Organization" or "Contractor") with offices located at <u>424 Lewis Hargett Circle</u>, <u>Suite 110</u>, <u>Lexington</u>, <u>Kentucky 40503</u>.

WITNESSETH

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, the receipt and sufficiency of which are acknowledged, the parties hereby agree as follows:

- **1. EFFECTIVE DATE; TERM.** This Agreement shall commence on ______, 2022 and shall last for a period of <u>one</u> year(s) unless terminated by LFUCG at an earlier time.
- **2. RELATED DOCUMENTS.** This Agreement shall consist of the terms herein as well as the following additional documents, which are attached hereto as exhibits and incorporated herein by reference as if fully stated:
 - 1. a. Exhibit "A" RFP #42-2022 Leachate Management Alternatives Analysis and Engineering Study, Haley Pike Landfill
 - b. Exhibit "B" Certificate of Insurance
 - c. Exhibit "C" Proposal Response to RFP #42-2022

To the extent that there is any conflict between or among any of these documents, the terms and provisions of this Agreement shall prevail, followed by terms and provisions of Exhibit "A", "B", and "C" in that order.

- **3. SCOPE OF SERVICES.** Organization shall perform the services outlined in the attached Exhibit "A" Scope of Work for LFUCG in a timely, workmanlike and professional manner (the "Services").
- **PAYMENT.** LFUCG shall pay Organization a total amount not to exceed <u>seventy</u> <u>seven thousand seven hundred dollars (\$77,700)</u> for the performance of the Services. Payments shall be made monthly for expenditures the Organization actually incurred, only after receipt of monthly invoices. Such payments shall be made as work progresses based on expenditure of effort. The funds are limited to the services provided herein and may not be spent by the Organization for any other purpose without the prior written consent

of LFUCG. Absent any additional written agreement stating otherwise any travel or other expenses are included in the above payment.

- a. LFUCG shall make payment under this Agreement upon timely submission of an invoice(s) from Organization specifying that the Services have been performed, accompanied by data satisfactory to LFUCG to document entitlement to payment for the Services performed to date. LFUCG shall have thirty (30) days from the date of receipt of the invoice to pay the invoice amount. LFUCG reserves the right to refuse payment if it is determined by LFUCG that the Services performed or materials provided for the Services are inadequate or defective.
- b. LFUCG also reserves the right to reject any invoice submitted for services more than sixty (60) days after the services were rendered.
- **TERMINATION.** LFUCG, through the Mayor or the Mayor's designee, may terminate this Agreement for any reason whatsoever by providing Organization with at least thirty (30) days advance written notice. Organization shall be entitled for payment of all work performed up to that period of time, calculated on a reasonable basis.
- a. In the event of a termination based upon a material condition of non-performance or default by Organization, LFUCG shall provide Organization advance written notice and a reasonable period of time to cure the breach.
- b. Organization may only terminate this Agreement based upon LFUCG's failure to timely pay for properly invoiced and accepted work. Organization shall provide LFUCG with at least thirty (30) days advance written notice and an opportunity to cure prior to termination.
- c. Organization acknowledges that LFUCG is a governmental entity, and that the validity of this Agreement is based upon the availability of appropriated funding. In the event that such funding is not appropriated in a future fiscal year, LFUCG's obligations under this Agreement shall automatically expire without penalty to the LFUCG thirty (30) days after written notice to Organization. LFUCG shall exercise any application of this provision in good faith.
- **REPORTING.** Organization shall provide LFUCG with timely reports and updates related to the provisions of the Services in the form and manner reasonably specified by LFUCG. As outlined in the RFP, reporting shall at a minimum include:
 - Meeting Minutes and Agendas for any formal meetings.
 - Monthly Summary Updates
 - Final Option Recommendations Report
 - Draft Alternatives Analysis and Engineering Study
 - Final Alternatives Analysis and Engineering Study

- Presentable version of the feasibility study (i.e., PowerPoint)
- **REGISTRATION; COMPLIANCE; AUTHORITY TO SIGN.** Organization shall be lawfully registered or authorized to do business in the Commonwealth of Kentucky and Lexington-Fayette County and shall at all times comply with any and all applicable federal, state, and local laws, ordinances, and regulations. LFUCG may request proof that Organization has timely filed federal, state, or local tax forms which shall be provided by Organization on a timely basis. The person signing this Agreement on behalf of Organization is fully authorized to do so.

8. **INSURANCE**; **INDEMNITY**.

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- (4) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.
- (5) Notwithstanding, the foregoing with respect to any professional services performed by CONTRACTOR hereunder (and to the fullest extent permitted by law), CONTRACTOR shall indemnify, save, and hold harmless LFUCG from and against any and all liability,

damages and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees, for any damage due to death or injury to any person or injury to any property (including the loss of use resulting therefrom) to the extent arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of CONTRACTOR in the performance of this agreement.

- **9. RECORDS.** Organization shall keep and make available to LFUCG any records related to this Agreement as are necessary to support its performance of the services for a period of at least five (5) years following the expiration or termination of this Agreement, or as otherwise required depending upon the source of funds. Books of accounts shall be kept by Organization and entries shall be made therein of all money, goods, effects, debts, sales, purchases, receipts, payments and any other transactions of Organization related to this Agreement and shall be made available to LFUCG upon request.
- a. LFUCG shall be the owner of all final documents, data, studies, plans, reports, and information prepared by Organization under this Agreement. Organization shall not be held liable for reuse of documents or modifications thereof by LFUCG or its representatives for any purpose other than the original intent of this Agreement without written authorization of Organization.
- b. Organization understands and agrees that this Agreement and any related documents may be subject to disclosure under the Kentucky Open Records Act and will comply with any reasonable request by LFUCG to provide assistance with such a request.
- **10.** <u>ACCESS.</u> Organization shall allow LFUCG any necessary reasonable access to monitor its performance under this Agreement.
- **11. CONTRACTUAL RELATIONSHIP ONLY.** In no event shall the parties be construed, held or become in any way for any purpose the employee of the other party, or partners, associates or joint ventures in the conduct of their respective endeavors or otherwise.
- **12. EQUAL OPPORTUNITY; FAIRNESS ORDINANCE.** Organization shall provide equal opportunity in employment for all qualified persons, and shall (a) prohibit discrimination in employment because of race, color, creed, national origin, sex, age, sexual orientation, gender identity, or handicap, (b) promote equal employment through a positive, continuing program of equal employment, and (c) cause any subcontractor or agency receiving funds provided pursuant to this Agreement to do so. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices. Organization agrees to comply with LFUCG's Fairness Ordinance (Ordinance No. 201-99) and all sources of applicable law, including those specified in any Exhibit attached to this Agreement and incorporated herein by reference.

- **SEXUAL HARASSMENT.** Organization must adopt or have adopted a written sexual harassment policy, which shall, at a minimum, contain a statement of current law; a list of prohibited behaviors; a complaint process; and a procedure which provides for a confidential investigation of all complaints. The policy shall be given to all employees and clients and shall be posted at all locations where Organization conducts business. The policy shall be made available to LFUCG upon request.
- **14. ANNUAL AUDIT.** Organization agrees that all revenue and expenditures related to this Agreement shall be audited at least annually by independent certified public accountants who shall express an opinion as to whether or not revenue and expenditures during the year audited have conformed to state and local law and regulation. A copy of this audit, or clean audit opinion letter from an independent certified public accountant, shall be submitted to LFUCG each year of the Agreement.
- **15. INVESTMENT**. Any investment of the funds received pursuant to this Agreement must fully comply with any restrictions imposed by law.
- **16. NO ASSIGNMENT**. Organization may not assign any of its rights and duties under this Agreement without the prior written consent of LFUCG.
- **17. NO THIRD PARTY RIGHTS.** This Agreement does not create a contractual relationship with or right of action in favor of a third party against either Organization or LFUCG.
- **18. KENTUCKY LAW AND VENUE.** This Agreement shall be governed in all respects by the laws of the Commonwealth of Kentucky and venue for all actions shall lie in the Circuit Court of Fayette County, Kentucky.
- **19. AMENDMENTS.** By mutual agreement, the parties to this Agreement may, from time to time, make written changes to any provision hereof. Organization acknowledges that LFUCG may make such changes only upon approval of its legislative authority, the Lexington-Fayette Urban County Council, and the signature of its Mayor.
- **20. NOTICE.** Any written notice required by the Agreement shall be delivered by certified mail, return receipt requested, to the following:

For (Orga	ani	zati	on:	

For Government:

Lexington-Fayette Urban County Government
200 East Main Street
Lexington, Kentucky 40507
Attn:

- **21. WAIVER.** The waiver by either party of any breach of any provision of this Agreement shall not constitute a continuing waiver or waiver of any subsequent breach by either party of either the same or another provision.
- **22. ENTIRE AGREEMENT.** This Agreement shall constitute the entire agreement between the parties and no representations, inducements, promises or agreements, oral or otherwise, which are not embodied herein shall be effective for any purpose. This Agreement shall replace any previous agreement between the parties on the same subject matter.
- **23. <u>DISPUTE RESOLUTION.</u>** LFUCG and Organization agree that they shall diligently pursue resolution of all disagreements within 45 days of either party's written notice using a mutually acceptable form of mediated dispute resolution prior to exercising their rights under law. Organization shall continue to perform services for the Project and LFUCG shall pay for such services during the dispute resolution process unless LFUCG issues a written notice to suspend work. Causes of action between the parties to this Agreement shall be deemed to have accrued and the applicable statutes of repose and/or limitation shall commence not later than the date of substantial completion.
- **24. FORCE MAJEURE.** Organization shall not be liable for any damages caused by any delay that is beyond Organization's reasonable control, including but not limited to unavoidable delays that may result from any acts of God, strikes, lockouts, wars, acts of terrorism, riots, acts of governmental authorities, extraordinary weather conditions or other natural catastrophes, or any other cause beyond the reasonable control or contemplation of either party.
- **25. INSURANCE AND LIABILITY.** Organization shall maintain the insurance, coverage limits, and insurance conditions required in Exhibit A during the period of service. LFUCG will be named as an additional insured on the Commercial General Liability and Automobile Liability insurance policies.
- **26. STANDARD OF CARE.** Services provided by Organization under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. Organization makes no other warranty or guaranty, either express or implied. Organization will not be liable for the cost of any omission that adds value to the Project.

SUSPENSION OF WORK. LFUCG may suspend services performed by 27. Organization with cause upon seven (7) days written notice. Organization shall submit an invoice for services performed up to the effective date of the work suspension and LFUCG shall pay Organization all outstanding invoices within thirty (30) days. If the work suspension exceeds sixty (60) days from the effective work suspension date, Organization shall be entitled to renegotiate the Project schedule and the compensation terms for the Project.

IN WITNESS WHEREOF, the parties	have executed this Agreement at Lexington,
Kentucky, the day and year first above wri	itten.
	LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
ATTEST:	BY:LINDA GORTON, MAYOR
Clerk of the Urban County Council	
	ENTITY
	BY: Herbert R. Lemaster, PE Senior Project Manager
Mary L Corbitt ATTEST:	_
WITNESS: Richal W. Warth	_
DATE:	_

EXHIBIT "A"

RFP #42-2022 Leachate Management Alternatives Analysis and Engineering Study, Haley Pike Landfill



Lexington-Fayette Urban County Government

Request for Proposals

The Lexington-Fayette Urban County Government hereby requests proposals for RFP #42-2022 Leachate Management Alternatives Analysis and Engineering Study to be provided in accordance with terms, conditions and specifications established herein.

Sealed proposals will be received through Ion Wave until **2:00 PM**, prevailing local time, on **October 18, 2022.** All forms and information requested in RFP must be included and attached in Response Attachments tab in Ion Wave.

Proposals received after the date and time set for opening proposals will not be accepted. It is the sole responsibility of the Proposer to assure that his/her proposal is submitted in Ion Wave before the date and time set for opening proposals.

Proposals, once submitted, may not be withdrawn for a period of one hundred twenty (120) calendar days.

The Lexington-Fayette Urban County Government reserves the right to reject any or all proposals, and to waive technicalities and informalities when such waiver is determined by the Lexington-Fayette Urban County Government to be in its best interest.

Signature of this proposal by the Proposer constitutes acceptance by the Proposer of terms, conditions and requirements set forth herein.

Minor exceptions may not eliminate the proposal. Any exceptions to the specifications established herein shall be listed in detail on a separate sheet and attached hereto. The Lexington-Fayette Urban County Government shall determine whether any exception is minor.

The Lexington-Fayette Urban County Government encourages the participation of minority- and women-owned businesses in Lexington-Fayette Urban County Government contracts. This proposal is subject to Affirmative Action requirements attached hereto.

A mandatory pre-proposal meeting is being held September 29, 2022, 9:00 am, at Haley Pike Landfill, 4216 Hedger Ln, Lexington, KY. Directions: Once entering the landfill, please drive past the scale house which will be on the right side of the driveway. Proceed straight. The meeting will be held in the maintenance building, which is a metal building on the right past the scale house.

Please do not contact any LFUCG staff member or any other person involved in the selection process other than the designated contact person(s) regarding the project contemplated under this RFP while this RFP is open and a selection has not been finalized. Any attempt to do so may result in disqualification of the firm's submittal for consideration. Laws and Regulations

All applicable state laws, municipal ordinances and regulations of all authorities having jurisdiction over the project shall apply to the contract, and shall be deemed to be incorporated herein by reference.

Equal Employment Opportunity

The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, religion, sex (including pregnancy, sexual orientation or gender identity), national origin, disability, age, genetic information, political affiliation, or veteran status, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.

Kentucky Equal Employment Opportunity Act

The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any "county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

"During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, or national origin;
- (2) The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, or national origin;
- (3) The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provision of the nondiscrimination clauses required by this section; and
- (4) The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses."

The Act further provides:

"KRS 45.610. Hiring minorities -- Information required

(1) For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetables.

(2) Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.

KRS 45.620. Action against contractor -- Hiring of minority contractor or subcontractor

- (1) If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.
- (2) If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.
- (3) The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that employee was employed prior to the date of the contract.

KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job."

It is recommended that all of the provisions above quoted be included as <u>special conditions</u> in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his workforce in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

LFUCG Non-Appropriation Clause

Contractor acknowledges that the LFUCG is a governmental entity, and the contract validity is based upon the availability of public funding under the authority of its statutory mandate.

In the event that public funds are unavailable and not appropriated for the performance of the LFUCG's obligations under this contract, then this contract shall automatically expire without penalty to the LFUCG thirty (30) days after written notice to Contractor of the unavailability and non-appropriation of public funds. It is expressly agreed that the LFUCG shall not activate this non-appropriation provision for its convenience or to circumvent the requirements of this contract, but only as an emergency fiscal measure during a substantial fiscal crisis, which affects generally its governmental operations.

In the event of a change in the LFUCG's statutory authority, mandate and mandated functions, by state and federal legislative or regulatory action, which adversely affects the LFUCG's authority to continue its obligations under this contract, then this contract shall automatically terminate without penalty to the LFUCG upon written notice to Contractor of such limitation or change in the LFUCG's legal authority.

Contention Process

Vendors who respond to this invitation have the right to file a notice of contention associated with the RFP process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.

Notice of contention with the RFP process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the RFP process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with RFP processes. If, based on this review, a RFP process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a RFP recommendation must be filed within 3 business days of the RFP recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

AMERICAN RESCUE PLAN ACT

AMENDMENT 1 — CERTIFICATION OF COMPLIANCE FOR EXPENDITURES USING FEDERAL FUNDS, INCLUDING THE AMERICAN RESCUE PLAN ACT

The Lexington-Fayette Urban County Government ("LFUCG") <u>may</u> use Federal funding to pay for the goods and/or services that are the subject matter of this bid. That Federal funding may include funds received by LFUCG

under the American Rescue Plan Act of 2021. Expenditures using Federal funds require evidence of the contractor's compliance with Federal law. Therefore, by the signature below of an authorized company representative, you certify that the information below is understood, agreed, and correct. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

The bidder (hereafter "bidder," or "contractor") agrees and understands that in addition to all conditions stated within the attached bid documents, the following conditions will also apply to any Agreement entered between bidder and LFUCG, if LFUCG uses Federal funds, including but not limited to funding received by LFUCG under the American Rescue Plan Act ("ARPA"), toward payment of goods and/or services referenced in this bid. The bidder also agrees and understands that if there is a conflict between the terms included elsewhere in this Request for Proposal and the terms of this Amendment 1, then the terms of Amendment 1 shall control. The bidder further certifies that it can and will comply with these conditions, if this bid is accepted and an Agreement is executed:

- 1. Any Agreement executed as a result of acceptance of this bid may be governed in accordance with 2 CFR Part 200 and all other applicable Federal law and regulations and guidance issued by the U.S. Department of the Treasury.
- 2. Pursuant to 24 CFR § 85.43, any Agreement executed as a result of acceptance of this bid can be terminated if the contractor fails to comply with any term of the award. This Agreement may be terminated for convenience in accordance with 24 CFR § 85.44 upon written notice by LFUCG. Either party may terminate this Agreement with thirty (30) days written notice to the other party, in which case the Agreement shall terminate on the thirtieth day. In the event of termination, the contractor shall be entitled to that portion of total compensation due under this Agreement as the services rendered bears to the services required. However, if LFUCG suspects a breach of the terms of the Agreement and/or that the contractor is violating the terms of any applicable law governing the use of Federal funds, LFUCG may suspend the contractor's ability to receive payment by giving thirty (30) days' advance written notice. Further, either party may terminate this Agreement for cause shown with thirty (30) days written notice, which shall explain the party's cause for the termination. If the parties do not reach a settlement before the end of the 30 days, then the Agreement shall terminate on the thirtieth day. In the event of a breach, LFUCG reserves the right to pursue any and all applicable legal, equitable, and/or administrative remedies against the contractor.
- 3. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
 - (1) Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 - (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation

- of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- (4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event a contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

- 4. If fulfillment of the contract requires the contractor to employ mechanic's or laborers, the contractor further agrees that it can and will comply with the following:
 - (1) Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.
 - (2) Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
 - (3) Withholding for unpaid wages and liquidated damages. LFUCG shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be

- withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.
- 5. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- 6. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
- 7. The contractor shall include these requirements in numerical paragraphs 5 and 6 in each subcontract exceeding \$100,000 financed in whole or in part with Federal funding.
- 8. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.
- 9. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
- 10. The contractor shall include these requirements in numerical paragraphs 8 and 9 in each subcontract exceeding \$100,000 financed in whole or in part with Federal funds.
- 11. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.
- 12. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency regional office.
- 13. The contractor shall include these requirements in numerical paragraphs 11 and 12 in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.
- 14. The contractor shall include this language in any subcontract it executes to fulfill the terms of this bid: "the sub-grantee, contractor, subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this contract (or agreement). Title VI also includes protection to persons with 'Limited English Proficiency' in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this contract or agreement."

- 15. Contractors who apply or bid for an award of \$100,000 or more shall file the required certification that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier, up to the recipient. The required certification is included here:
 - a. The undersigned certifies, to the best of his or her knowledge and belief, that:
 - (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
 - (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
 - b. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 16. The contractor acknowledges and certifies that it has not been debarred or suspended and further acknowledges and agrees that it must comply with regulations regarding debarred or suspended entities in accordance with 24 CFR § 570.489(1). Funds may not be provided to excluded or disqualified persons.
- 17. The contractor agrees and certifies that to the greatest extent practicable, it will prefer the purchase, acquisition, and use of goods, products or materials produced in the United States, in conformity with 2 C.F.R. § 200.322.
- 18. The contractor agrees and certifies that all activities performed pursuant to any Agreement entered as a result of the contractor's bid, and all goods and services procured under that Agreement, shall comply with 2 C.F.R. § 200.216 (Prohibition on certain telecommunications and video surveillance services and equipment) and 2 C.F.R. 200 § 200..323 (Procurement of recovered materials), to the extent either section is applicable.
- 19. If this bid involves construction work for a project totaling \$10 million or more, then the contractor further agrees that all laborers and mechanics, etc., employed in the construction of the public facility project assisted with funds provided under this Agreement, whether employed by contractor, or contractor's contractors, or subcontractors, shall be paid wages complying with the Davis-Bacon Act (40 U.S.C. 3141-3144). Contractor agrees that all of contractor's contractors and subcontractors will pay laborers and mechanics the prevailing wage

as determined by the Secretary of Labor and that said laborers and mechanics will be paid not less than once a
week. The contractor agrees to comply with the Copeland Anti- Kick Back Act (18 U.S.C. § 874) and its
implementing regulations of the U.S. Department of Labor at 29 CFR part 3 and part 5. The contractor further
agrees to comply with the applicable provisions of the Contract Work Hours and Safety Standards Act (40 U.S.C.
Section 327-333), and the applicable provisions of the Fair Labor Standards Act of 1938, as amended (29 U.S.C.
et seq.). Contractor further agrees that it will report all suspected or reported violations of any of the laws
identified in this paragraph to LFUCG.

Signature	Date

SELECTION CRITERIA:

EVALUATION CRITERIA	POINTS POSSIBLE
Qualifications and Past Performance	30 points possible
Proposal / Project Approach	30 points possible
Schedule for Implementation	15 points possible
Cost	15 points possible
Degree of Local Employment	10 points possible
Total points possible	100 points possible

Proposals shall contain the appropriate information necessary to evaluate based on these criteria. A committee composed of government employees as well as representatives of relevant user groups will evaluate the proposals.

Questions shall be submitted via IonWave at: https://lexingtonky.ionwave.net

Affirmative Action Plan

All vendors must submit as a part of the proposal package the following items to the Urban County Government:

- 1. Affirmative Action Plan for his/her firm;
- 2. Current Work Force Analysis Form;

Failure to submit these items as required may result in disqualification of the submitter from award of the contract.

All questions regarding this proposal must be directed to the Division of Central Purchasing, (859)-258-3320.

AFFIDAVIT

Comes	s the Affia	ant,				, and afte	r being first duly
sworn, states	under per	nalty of perjury a	as follows	3:			
1. His/her r	name is _					and he/she	is the individual
submitting	the	proposal	or	is	the	authorized	representative
of		· · · · · · · · · · · · · · · · · · ·				, the	e entity submitting
the proposal ((hereinafte	r referred to as	"Propose	er").			

- 2. Proposer will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
- 3. Proposer will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
- 4. Proposer has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
- 5. Proposer has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Proposer will not violate any provision of the campaign finance laws of the Commonwealth.
- 6. Proposer has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

Continued on next page

aware or should have been aware that his conduct is of that na	ature or that the circum	stance
Further, Affiant sayeth naught.		
STATE OF		
COUNTY OF		
The foregoing instrument was subscribed, sworn to and	l acknowledged before	me
by	on this the	_ day
by of, 20	on this the	_ day
of, 20		_ day
		_ day
of, 20		_ day
of, 20 My Commission expires:		_ day
of, 20		_ day
of, 20 My Commission expires:		_ day

7. Proposer acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is

EQUAL OPPORTUNITY AGREEMENT

Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

<u>Bidders</u>		
I/We agree to comply with the Civil Rights Laws veterans, handicapped and aged persons.	listed above that govern employment rigl	hts of minorities, women, Vietnam
O'markens	Alexand Devices	_
Signature	Name of Business	

WORKFORCE ANALYSIS FORM

Name of Organization:	

Categories	Total	Wh (No Hispa oi Latii	ot anic r	Hispanic or Latino		Black or African- American (Not Hispanic or Latino		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino		Asian (Not Hispanic or Latino		India Alas Nat (no Hisp	American Indian or Alaskan Native (not Hispanic or Latino		Two or more races (Not Hispanic or Latino		Total	
		М	F	M	F	М	F	М	F	М	F	М	F	М	F	M	F	
Administrators																		
Professionals																		
Superintendents																		
Supervisors																		
Foremen																		
Technicians																		
Protective																		
Para-																		
Office/Clerical																		
Skilled Craft																		
Service/Maintena																		
Total:																		

Prepared by: _	Date:/	
	(Name and Title)	Revised 2015-Dec-15

DIRECTOR, DIVISION OF CENTRAL PURCHASING LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT 200 EAST MAIN STREET LEXINGTON, KENTUCKY 40507

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) Contract participation. Disadvantaged Business Enterprises (DBE) consists of Minority-Owned Business Enterprises (MBE) and Woman-Owned Business Enterprises (WBE).

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this Contract be subcontracted to Disadvantaged Business Enterprises, which is made up of MBEs and WBEs. The Lexington Fayette Urban County Government also has set a goal that not less than three percent (3%) of the total value of this Contract be subcontracted to Veteran-owned Small Businesses. The goal for the utilization of Disadvantaged Business Enterprises as well Veteran –owned Small Businesses as subcontractors is a recommended goal. Contractor(s) who fail to meet such goal will be expected to provide written explanations to the Director of the Division of Purchasing of efforts they have made to accomplish the recommended goal, and the extent to which they are successful in accomplishing the recommended goal will be a consideration in the procurement process. Depending on the funding source, other DBE goals may apply.

For assistance in locating Disadvantaged Business Enterprises Subcontractors contact:

Sherita Miller, MPA, Division of Central Purchasing Lexington-Fayette Urban County Government 200 East Main Street, 3rd Floor, Room 338

Lexington, Kentucky 40507

smiller@lexingtonky.gov

Firm Submitting Prop	osal:		
Complete Address:	Street	City	Zip
Contact Name:		Title:	
Telephone Number:		Fax Number:	
Email address:			

Lexington-Fayette Urban County Government MWDBE PARTICIPATION GOALS

A. GENERAL

- 1) The LFUCG request all potential contractors to make a concerted effort to include Minority-Owned (MBE), Woman-Owned (WBE), Disadvantaged (DBE) Business Enterprises and Veteran-Owned Small Businesses (VOSB) as subcontractors or suppliers in their bids.
- 2) Toward that end, the LFUCG has established 10% of total procurement costs as a Goal for participation of Minority-Owned, Woman-Owned and Disadvantaged Businesses on this contract.
- 3) It is therefore a request of each Bidder to include in its bid, the same goal (10%) for MWDBE participation and other requirements as outlined in this section.
- 4) The LFUCG has also established a 3% of total procurement costs as a Goal for participation for of Veteran-Owned Businesses.
- 5) It is therefore a request of each Bidder to include in its bid, the same goal (3%) for Veteran-Owned participation and other requirements as outlined in this section.

B. PROCEDURES

- 1) The successful bidder will be required to report to the LFUCG, the dollar amounts of all payments submitted to Minority-Owned, Woman-Owned or Veteran-Owned subcontractors and suppliers for work done or materials purchased for this contract. (See Subcontractor Monthly Payment Report)
- 2) Replacement of a Minority-Owned, Woman-Owned or Veteran-Owned subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another MWDBE Firm; this is subject to approval by the LFUCG. (See LFUCG MWDBE Substitution Form)
- 3) For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
 - a) The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)
- 4) The LFUCG will make every effort to notify interested MWDBE and Veteran-Owned subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

C. DEFINITIONS

- 1) A Minority-Owned Business Enterprise (MBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage.
- 2) A Woman-Owned Business Enterprise (WBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by one or more women.

- 3) A Disadvantaged Business (DBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by a person(s) that are economically and socially disadvantaged.
- 4) A Veteran-Owned Small Business (VOSB) is defined as a business which is certified as being at least 51% owned, managed and controlled by a veteran and/or a service disabled veteran.
- 5) Good Faith Efforts are efforts that, given all relevant circumstances, a bidder or proposer actively and aggressively seeking to meet the goals, can reasonably be expected to make. In evaluating good faith efforts made toward achieving the goals, whether the bidder or proposer has performed the efforts outlined in the Obligations of Bidder for Good Faith Efforts outlined in this document will be considered, along with any other relevant factors.

D. OBLIGATION OF BIDDER FOR GOOD FAITH EFFORTS

- 1) The bidder shall make a Good Faith Effort to achieve the Participation Goal for MWDBE and Veteran-Owned subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.
- 2) Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) The Form of Proposal includes a section entitled "MWDBE Participation Form". The applicable information must be completed and submitted as outlined below.
- 4) Failure to submit this information as requested may be cause for rejection of bid or delay in contract award.

E. DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS

- 1) Bidders reaching the Goal are required to submit only the MWDBE Participation Form." The form must be fully completed including names and telephone number of participating MWDBE firm(s); type of work to be performed; estimated value of the contract and value expressed as a percentage of the total Lump Sum Bid Price. The form must be signed and dated, and is to be submitted with the bid.
- 2) Bidders not reaching the Goal must submit the "MWDBE Participation Form", the "Quote Summary Form" and a written statement documenting their Good Faith Effort to do so. If bid includes no MWDBE and/or Veteran participation, bidder shall enter "None" on the subcontractor / supplier form). In addition, the bidder must submit written proof of their Good Faith Efforts to meet the Participation Goal:
 - a. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.
 - b. Included documentation of advertising in the above publications with the bidders good faith efforts package

- c. Attended LFUCG Central Purchasing Economic Inclusion Outreach event
- d. Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned businesses of subcontracting opportunities
- e. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses.
- f. Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
- g. Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
- d. Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs and/or Veteran-Owned businesses soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
- e. Followed up initial solicitations by contacting MWDBEs and Veteran-Owned Businesses to determine their level of interest.
- j. Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.
- k. Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce
- l. Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.
- m. Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.
- n. Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

- o. Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal
- p. Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.
- q. Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

<u>Note</u>: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.



MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller, MPA
Minority Business Enterprise Liaison
Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507
smiller@lexingtonky.gov
859-258-3323

OUR MISSION: The mission of the Minority Business Enterprise Program is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long term economic viability of Lexington-Fayette Urban County Government.

To that end the city council adopted and implemented Resolution 484-2017 – A Certified Minority, Women and Disadvantaged Business Enterprise ten percent (10%) minimum goal and a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and Certified Service Disabled Veteran – Owned Businesses for government contracts.

The resolution states the following definitions shall be used for the purposes of reaching these goals (a full copy is available in Central Purchasing):

Certified Disadvantaged Business Enterprise (DBE) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a person(s) who is socially and economically disadvantaged as define by 49 CFR subpart 26.

Certified Minority Business Enterprise (MBE) — a business in which at least fifty-one percent (51%) is owned, managed and controlled by an ethnic minority (i.e. African American, Asian American/Pacific Islander, Hispanic Islander, Native American/Native Alaskan Indian) as defined in federal law or regulation as it may be amended from time-to-time.

Certified Women Business Enterprise (WBE) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a woman.

Certified Veteran-Owned Small Business (VOSB) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

Certified Service Disabled Veteran Owned Small Business (SDVOSB) — a business in which at least fifty-one percent (51%) is owned, managed and controlled by a disabled veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

The term "Certified" shall mean the business is appropriately certified, licensed, verified, or validated by an organization or entity recognized by the Division of Purchasing as having the appropriate credentials to make a determination as to the status of the business.

We have compiled the list below to help you locate certified MBE, WBE and DBE certified businesses. Below is a listing of contacts for LFUCG Certified MWDBEs and Veteran-Owned Small Businesses in (https://lexingtonky.ionwave.net)

Business	Contact	Email Address	Phone		
LFUCG	Sherita Miller	smiller@lexingtonky.gov	859-258-3323		
Commerce Lexington – Minority Business Development	Tyrone Tyra	ttyra@commercelexington.com	859-226-1625		
Tri-State Minority Supplier Diversity Council	Susan Marston	smarston@tsmsdc.com	502-365-9762		
Small Business Development Council	Shawn Rogers UK SBDC	shawn.rogers@uky.edu	859-257-7666		
Community Ventures Corporation	Phyllis Alcorn	palcorn@cvky.org	859-231-0054		
KY Transportation Cabinet (KYTC)	Melvin Bynes	Melvin.bynes2@ky.gov	502-564-3601		
KYTC Pre-Qualification	Shella Eagle	Shella.Eagle@ky.gov	502-782-4815		
Ohio River Valley Women's Business Council (WBENC)	Sheila Mixon	smixon@orvwbc.org	513-487-6537		
Kentucky MWBE Certification Program	Yvette Smith, Kentucky Finance Cabinet	Yvette.Smith@ky.gov	502-564-8099		
National Women Business Owner's Council (NWBOC)	Janet Harris-Lange	janet@nwboc.org	800-675-5066		
Small Business Administration	Robert Coffey	robertcoffey@sba.gov	502-582-5971		
LaVoz de Kentucky	Andres Cruz	lavozdeky@yahoo.com	859-621-2106		
The Key News Journal	Patrice Muhammad	production@keynewsjournal.com	859-685-8488		



LFUCG MWDBE PARTICIPATION FORM Bid/RFP/Quote Reference #_____

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Company	Company Representative
Date	Title



LFUCG MWDBE SUBSTITUTION FORM Bid/RFP/Quote Reference #_____

The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project.

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.					
2.					
3.					
4.					

8	es that any misrepresentation may result in termination of the contract and/or be su ws concerning false statements and false claims.
upprenate i ederat and come in	The conferming range statements and range statement
Company	Company Representative
Date	Title



MWDBE QUOTE SUMMARY FORM Bid/RFP/Quote Reference #_____

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form di	id
submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.	

Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS	Veteran
Contacted	to be	Communication (email, phone meeting, ad,	Do Not Leave Blank (Attach	AA HA AS	Veteran
Contacted	to be	Communication (email, phone meeting, ad,	Do Not Leave Blank (Attach	AA HA AS	Veteran
			,	NA Female	
1					
information	is accurate.	Any misrepresentat	ion may result in to	ermination	
	-	Company Represe	ntative		
	information	information is accurate. As e Federal and State laws c	information is accurate. Any misrepresentate Federal and State laws concerning false state.	information is accurate. Any misrepresentation may result in to e Federal and State laws concerning false statements and claims Company Representative	



Bid/RFP/Quote #

LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran contractors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Total Contract Amount Awarded to Prime Contractor for this Project_____

Project Name/ Contract #			Work Period/ From:				To:		
Company Name:				Address:					
Federal Tax ID:				Cor	ntact Person	1:			
Subcontractor Vendor ID (name, address, phone, email	Description of Work	Total Subcontract Amount	% of Total Contract Awarde to Prim for this Project	ct ed ie	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date	
By the signature be of the representation prosecution under a	ons set forth belo	ow is true. Any	misrepres	sentat	ions may res	ult in the termina	ation of the co		
Company			C	Comp	any Repres	entative			
Date			Ī	itle					

LFUCG STATEMENT OF GOOD FAITH EFFORTS Bid/RFP/Quote #_____

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation.
Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.
Included documentation of advertising in the above publications with the bidders good faith efforts package
Attended LFUCG Central Purchasing Economic Inclusion Outreach event
Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities
Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses
Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.
Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.
Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items

Date		Title
Company		Company Representative
	of the contract and/or be subject to a	s accurate. Any misrepresentations may result opplicable Federal and State laws concerning
	cause for rejection of bid. Bidders relevant to this requirement which	documentation requested in this section may be may include any other documentation deemed is subject to approval by the MBE Liaison. orts must be submitted with the Bid, if the
	•	at the bidder submits which may show that the aith efforts to include MWDBE and Veteran
	Made efforts to expand the sbusinesses beyond the usual geograp	search for MWBE firms and Veteran-Owned phic boundaries.
	Veteran-Owned businesses to obtain	ance to or refer interested MWDBE firms and a the necessary equipment, supplies, materials, the work requirements of the bid proposal
	unacceptable. The fact that the bidd contract work with its own forces rejecting a MWDBE and/or Vetera	reasons why the quotations were considered der has the ability and/or desire to perform the will not be considered a sound reason for an-Owned business's quote. Nothing in this are the bidder to accept unreasonable quotes in an goals.
	firms and Veteran-Owned businesse	quotations received from interested MWDBE es which were not used due to uncompetitive ptable and/or copies of responses from firms omitting a bid.
	businesses not rejecting them as un	interested MWDBE firms and Veteran-Owned equalified without sound reasons based on a bilities. Any rejection should be so noted in an agreement could not be reached.
	-	facilitate MWDBE and Veteran participation, y otherwise perform these work items with its

Date

GENERAL PROVISIONS

1. Each Respondent shall comply with all Federal, State & Local regulations concerning this type of service or good.

The Respondent agrees to comply with all statutes, rules, and regulations governing safe and healthful working conditions, including the Occupational Health and Safety Act of 1970, 29 U.S.C. 650 et. seq., as amended, and KRS Chapter 338. The Respondent also agrees to notify the LFUCG in writing immediately upon detection of any unsafe and/or unhealthful working conditions at the job site. The Respondent agrees to indemnify, defend and hold the LFUCG harmless from all penalties, fines or other expenses arising out of the alleged violation of said laws.

- 2. Failure to submit ALL forms and information required in this RFP may be grounds for disqualification.
- 3. Addenda: All addenda and IonWave Q&A, if any, shall be considered in making the proposal, and such addenda shall be made a part of this RFP. Before submitting a proposal, it is incumbent upon each proposer to be informed as to whether any addenda have been issued, and the failure to cover in the bid any such addenda may result in disqualification of that proposal.
- 4. Proposal Reservations: LFUCG reserves the right to reject any or all proposals, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
- 5. Liability: LFUCG is not responsible for any cost incurred by a Respondent in the preparation of proposals.
- 6. Changes/Alterations: Respondent may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the proposal, and received by LFUCG prior to the scheduled closing time for receipt of proposals, will be accepted. The proposal, when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of proposal".
- 7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from a Respondent.
- 8. Bribery Clause: By his/her signature on the bid, Respondent certifies that no employee of his/hers, any affiliate or Subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.

- 9. Additional Information: While not necessary, the Respondent may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the Respondent's response. Additional documentation shall not serve as a substitute for other documentation which is required by this RFP to be submitted with the proposal,
- 10. Ambiguity, Conflict or other Errors in RFP: If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
- 11. Agreement to Bid Terms: In submitting this proposal, the Respondent agrees that it has carefully examined the specifications and all provisions relating to the work to be done attached hereto and made part of this proposal. By acceptance of a Contract under this RFP, proposer states that it understands the meaning, intent and requirements of the RFP and agrees to the same. The successful Respondent shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to Respondent shall be authorized for services or expenses reasonably covered under these provisions that the proposer omits from its Proposal.
- 12. Cancellation: If the services to be performed hereunder by the Respondent are not performed in an acceptable manner to the LFUCG, the LFUCG may cancel this contract for cause by providing written notice to the proposer, giving at least thirty (30) days notice of the proposed cancellation and the reasons for same. During that time period, the proposer may seek to bring the performance of services hereunder to a level that is acceptable to the LFUCG, and the LFUCG may rescind the cancellation if such action is in its best interest.

A. Termination for Cause

- (1) LFUCG may terminate a contract because of the contractor's failure to perform its contractual duties
- (2) If a contractor is determined to be in default, LFUCG shall notify the contractor of the determination in writing, and may include a specified date by which the contractor shall cure the identified deficiencies. LFUCG may proceed with termination if the contractor fails to cure the deficiencies within the specified time.
- (3) A default in performance by a contractor for which a contract may be terminated shall include, but shall not necessarily be limited to:
 - (a) Failure to perform the contract according to its terms, conditions and specifications;
 - (b) Failure to make delivery within the time specified or according

- to a delivery schedule fixed by the contract;
- (c) Late payment or nonpayment of bills for labor, materials, supplies, or equipment furnished in connection with a contract for construction services as evidenced by mechanics' liens filed pursuant to the provisions of KRS Chapter 376, or letters of indebtedness received from creditors by the purchasing agency;
- (d) Failure to diligently advance the work under a contract for construction services:
- (e) The filing of a bankruptcy petition by or against the contractor; or
- (f) Actions that endanger the health, safely or welfare of the LFUCG or its citizens.

B. At Will Termination

Notwithstanding the above provisions, the LFUCG may terminate this contract at will in accordance with the law upon providing thirty (30) days written notice of that intent, Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

- 13. Assignment of Contract: The contractor shall not assign or subcontract any portion of the Contract without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
- 14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this Contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
- 15. Authority to do Business: The Respondent must be a duly organized and authorized to do business under the laws of Kentucky. Respondent must be in good standing and have full legal capacity to provide the services specified under this Contract. The Respondent must have all necessary right and lawful authority to enter into this Contract for the full term hereof and that proper corporate or other action has been duly taken authorizing the Respondent to enter into this Contract. The Respondent will provide LFUCG with a copy of a corporate resolution authorizing this action and a letter from an attorney confirming that the proposer is authorized to do business in the State of Kentucky if requested. All proposals must

be signed by a duly authorized officer, agent or employee of the Respondent.

- 16. Governing Law: This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this Contract, the Parties agree that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division. All parties expressly consent to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to this Contract or any rights or obligations arising thereunder. Service of process may be accomplished by following the procedures prescribed by law.
- 17. Ability to Meet Obligations: Respondent affirmatively states that there are no actions, suits or proceedings of any kind pending against Respondent or, to the knowledge of the Respondent, threatened against the Respondent before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of Respondent to perform its obligations under this Contract, or which question the legality, validity or enforceability hereof or thereof.
- 18. Contractor understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Contractor is an independent contractor at all times during the performance of the services specified.
- 19. If any term or provision of this Contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.
- 20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.

Signature	Date

RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION

INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- (5) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.
- (6) Notwithstanding, the foregoing with respect to any professional services performed by CONTRACTOR hereunder (and to the fullest extent permitted by law), CONTRACTOR shall indemnify, save, hold harmless and defend LFUCG from and against any and all liability, damages and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees, for any damage due to death or injury to any person or injury to any property (including the loss of use resulting therefrom) to the extent arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of CONTRACTOR in the performance of this agreement.

BIDDER/CONTRACTOR understands and agrees that it shall demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions prior to final acceptance of its bid and the commencement of any work or provision of goods.

INSURANCE REQUIREMENTS

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

Coverage	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Automobile Liability	\$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$100,000
Professional Liability	\$1 million per occurrence

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include Premises and Operations coverage unless it is deemed not to apply by LFUCG.
- d. The General Liability Policy shall include Employment Practices Liability coverage or an endorsement in a minimum amount of \$1 million unless it is deemed not to apply by LFUCG.

- e. The Policy shall include Umbrella/Excess Liability coverage in the amount of \$1 million per occurrence, \$1 million aggregate, unless it is deemed not to apply by LFUCG.
- f. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- g. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

<u>Deductibles and Self-Insured Programs</u>

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage

Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as

available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

Leachate Management Alternatives Analysis and Engineering Study Haley Pike Landfill RFP 42-2022

Lexington-Fayette Urban County Government (LFUCG) is accepting proposals from interested professional engineering firms for engineering services at the Haley Pike Landfill located at 4216 Hedger Lane in Lexington, Fayette County, Kentucky. The selected firm shall anticipate two phases of work: Phase 1 Background Review and Final Option Recommendations and Phase 2 Leachate Management Alternatives Analysis and Engineering Study.

1. Objectives

Leachate at the Haley Pike Landfill is currently being managed and treated through the use of a passive Wetland Treatment System (WTS). Discharge from the WTS is permitted by a Kentucky Pollutant Discharge Elimination System (KPDES) Permit No. KY0092100. Notices of Violation (NOVs) have been issued due to permit exceedances associated with the WTS and currently the LFUCG is under an Agreed Order (AO) with the Kentucky Energy and Environment Cabinet, Division of Enforcement. As part of the AO, LFUCG has committed to performing an engineering study to determine if there are changes that can be made to the current system to more reliably meet permit limits or if there are alternative treatment/management solutions that should be considered for management of leachate generated at the Haley Pike Landfill.

The first Phase of work under this RFP, **Phase 1**, will be a **Background Review and Final Option Recommendations**. As part of this Phase the selected firm shall perform project management, review of technical data related to the current site conditions, and perform a review of previously completed engineering studies. The outcome of Phase 1 will be to create the final list of up to five treatment options to be considered in Phase 2. As this time, the final five treatment options to be studied as part of **Phase 2** are assumed to be comprised of the following:

- <u>Treatment Option #1</u> should be an analysis of the current onsite treatment system and recommended modifications to the current system (amending the existing passive Wetland Treatment System).
- <u>Treatment Options #2 through #4</u> should include up to three different onsite treatment options which
 are not the current passive onsite treatment system. Additional scope definition is provided in Section 3,
 Scope of Services.
- <u>Treatment Option #5</u>, if onsite treatment is not technically feasible, should be an evaluation of offsite treatment at the Town Branch Wastewater Treatment Plant (TB WWTP) in Lexington, Kentucky, through the construction of a pump station and force main.

Phase 2, the **Alternatives Analysis and Engineering Stud**y, will include an in depth evaluation of the five selected management/treatment options. Each of the five management/treatment options should at a minimum be evaluated for the following factors:

- (1) Technical Feasibility;
- (2) Regulatory Feasibility;
- (3) Implementation Feasibility;
- (4) Cost for Construction/Implementation;

- (5) Annual Costs for Operations and Maintenance (O&M);
- (6) Long Term Management Considerations; and,
- (7) System Life/Replacement Cost Considerations.

2. Background

2.1. General Site Description

The Haley Pike Landfill Complex is located on 420 acres in eastern Fayette County. Haley Pike Landfill is a two phase closed municipal solid waste (MSW) landfill. Unit 1 Phase 1, a 45-acre cell, opened in January 1977 and received waste for approximately 4 years. The phase was covered with soil in the early 1980s, briefly opened again in late 1989 to fill low spots and improve grade and then was closed again. The total volume of MSW in Unit 1 Phase 1 is estimated to be approximately 906,000 tons. Unit 1 Phase 2, a 97-acre cell, opened in June 1981 and received MSW until June 1995. Starting in 1995, construction demolition debris (C/DD) continued to be accepted near the center of Phase 2 on a 35-acre portion of the unit. As C/DD waste was accepted, initial closure planning was conducted. After approval of a Closure Plan in August 2004, partial landfill closure activities were performed from 2005 through 2008. The total volume of MSW in Unit 1 Phase 2 is estimated to be 3,700,000 tons. In 2011, the portion of the landfill accepting C/DD waste was closed and the landfill ceased accepting all C/DD waste and the final closure was completed.

Based on historical information available, leachate was collected at the toe of the fill and re-circulated through waste by spray irrigation until 1991. From 1991 through 2006, leachate was collected and transported by truck to the Town Branch WWTP. From 1995 through 2003, annual leachate generation varied from 1.2 to 4.2 million gallons per year (MGY) with 200,000 gallons per month on average.

In 2005, a wetland treatment system for landfill leachate was constructed and began discharging in 2006. It initially received leachate from only Unit 1 Phase 2 but in May 2008, leachate collection lines were installed around Phase I and tied into the leachate collection sump and treatment system. Landfill leachate from the contained landfill is conveyed by gravity line to the final collection manhole. Originally, specific conductance was measured as a surrogate parameter for chloride, and if specific conductance values exceeded a predetermined set point, groundwater from an augmentation well, well A10, was pumped into the final collection manhole to augment flow. Furthermore, well A10 was used to sustain water in the wetland cells in periods of severe drought. Well A10 stopped working in approximately 2015 for unknown reasons and has not been used since that time. Though electronic system testing indicates positive electrical signals, well water does not appear to be entering the leachate manhole.

From the final collection manhole, leachate is conveyed to the leachate pump station, pumped via two pumps to a 4.4 million gallon equalization basin (EQ Basin). The EQ Basin is lined with a double HDPE membrane over compacted clay and is approximately 10 feet deep at its deepest point. From the EQ Basin, water is gravity fed to two parallel horizontal subsurface ½ acre constructed wetland cells that are planted with native cattails. The treatment cells are also lined and filled with gravel and cells are approximately 2.5 to 3.5 feet deep. The outflow from each treatment cell is discharged via two separate pipes to a common outfall structure.

Seasonal adjustments are made to the system's operation. Target water level elevations in the EQ basin range from 972 feet (winter) to 975 feet (summer). There are also elevation meters located in each wetland cell. The system is operated as a pass through wetland system in the winter (wetland cells do not fill but water passes

through the cells). In the summer, the wetland cells are filled roughly 3 feet deep on average throughout the growing season.

The WTS was designed for treatment of leachate collected from perimeter toe drains around Unit 1, Phase 2, an assumed flow of five million gallons per year (MGY); however, based on system monitoring data, the WTS manages an average of 35 MGY of leachate per year (average total leachate inflow from 2013 through 2021) and an average of 45 MGY of total volume (to include precipitation over the EQ basin and treatment cells). Historically, during times of heavy rainfall, stormwater and leachate runoff collected from the 5 acre concrete pad at the LFUCG mulching operation was diverted to the EQ Basin; however, this process has ceased. Outside of the leachate from Unit 1, Phases 1 and 2, no other process water is currently diverted into the system.

2.2. Current Regulatory Oversight

Discharge from the wetland is permitted by a Kentucky Pollutant Discharge Elimination System (KPDES) Permit No. KY0092100. The permit covers discharge from six outfalls, only one of which is associated with the Wetland Treatment System (Outfall 005). An Agreed Order (AO) was filed on February 9, 2022, with the Kentucky Energy and Environment Cabinet, Division of Enforcement for the Haley Pike Landfill related to permit exceedances at two of the permitted outfalls, including Outfall 005. For Outfall 005, the AO addresses permit exceedances associated with three main parameters: Total Ammonia Nitrogen (TAN), Total Suspended Solids (TSS), and Total Recoverable Iron (TRI), which was added as a permit parameter in 2015 (with limits added in 2020).

As part of the AO, LFUCG submitted a Corrective Action Plan (CAP) to the Cabinet on March 9, 2022. This CAP and a subsequent Progress Report dated April 26, 2022, provide a summary of exceedance history and a review of exceedance frequency. The purpose of this RFP is to meet the requirements of Task Item Number Six on page nine of the CAP (supplemental and/or alternative leachate treatment options).

2.3. Previous Engineering Evaluation Summary

Since 2010, LFUCG has engaged in several concept-level engineering evaluations related to both the Wetland Treatment System and alternative treatment technologies. These have included two evaluations of the operations and improvements of the Wetland Treatment System (MACTEC, 2010; Wood, 2022), a Preliminary Evaluation Report of a Landfill Pump Station and Force Main (Palmer, February 2021), and an Addendum Report Evaluating Alternative Treatment Options (May 2021). LFUCG completed a Wetlands Improvement Project in 2011 based on some of the recommendations made in MACTEC's 2010 report. The following provides a brief summary of each report but does not include a full summary of the technical evaluations or conclusions. Copies of each report have been provided with the RFP so that bidders can review each report as needed during the bid process.

In 2010, as a result of a previous Agreed Order (Case No. DOW-110265), LFUCG hired MACTEC Engineering and Consulting, Inc., to perform an evaluation of the WTS and to develop concept-level recommendations for improvements. The results of the evaluation are summarized in *Report of Treatment System Evaluation*, MACTEC, 2010.

Based on the evaluation completed by MACTEC, several management changes were made and a WTS improvement project was conducted in 2011. Improvements included upgrades to the SCADA monitoring system (level and flow controls installed plus remote operation ability added), upgrades to the leachate pump station, modification of wetland flow pattern to increase available dissolved oxygen (installation of a surface floating intake for the EQ Basin), modification of wetland water levels to enhance plant growth, replanting of wetland cells with

native plants, and operational changes to address the seasonal nature of the system's treatment capabilities and to control the EQ Basin's operations.

Improvements made to the system greatly improved TAN concentrations; however, TRI was added as a permit parameter in 2015 at Outfall 005 (with limits added in 2020).

In 2021, because of NOVs related to TRI, TAN, and TSS exceedances and enforcement discussions related to those NOVs, LFUCG performed a number of preliminary engineering studies not only to evaluate the current system, but also to determine alternative leachate management methods.

A Preliminary Engineering Report was completed by Palmer Engineering in February 2021, which focused on evaluating options for a proposed pump station and force main to convey leachate to a point within the Urban Service Boundary. Palmer performed a desktop level review of utilities and route considerations and provided a number of route options. Two routes appear to be most favorable because of the shorter length of construction and resulting costs (identified in the Palmer report as the purple and cyan routes).

An Addendum Engineering Report was completed by Palmer in May 2021, which provided a high level evaluation of a range of options for leachate treatment onsite at the Haley Pike Landfill. Both modification of the existing leachate treatment system and installation of new types of treatment systems were reviewed. Each type of potential treatment was compared based on the effectiveness for treatment based on age of the leachate, target compounds removed by each treatment method, and generalized cost for construction. While the report provided a summary of factors to consider, no final conclusions were made recommending one treatment method over the others evaluated.

Finally, in 2021 and 2022, LFUCG engaged Wood Environment & Infrastructure Solutions, Inc., to perform an evaluation of the WTS operations and to make recommendations for design or operation considerations to improve performance of the existing system. The results of the evaluation are summarized in *Wetland Evaluation Final Report*, Wood, 2022.

2.4. Supporting Documentation Provided

The following supporting documentation is being provided with this RFP.

- KPDES Permit No KY0092100
- Agreed Order DOW-21-3-007 Filed on February 9, 2022
- Corrective Action Plan, LFUCG, March 2022
- Corrective Action Plan Progress Reports
- Report of Treatment System Evaluation, MACTEC Engineering and Consulting, Inc., August 18, 2010
- Wetland Evaluation Final Report, Wood Environment & Infrastructure Solutions, Inc., May 17, 2022
- Preliminary Engineering Report, Palmer Engineering, February 25, 2021
- Preliminary Engineering Report, Addendum 1, Palmer Engineering, May 19, 2021
- Administratively Continued Permit for Town Branch Wastewater Treatment Plant

3. Scope of Services

LFUCG seeks to hire an engineering company to perform the following major tasks:

- Review background information, analytical data, site information, and previous engineering reports to the extent necessary to create a final recommended treatment options list for further evaluation;
- Provide a summary of recommendations letter which selects up to five treatment options to be fully evaluated;
- Fully evaluate each of the five treatment options based on a minimum of seven factors:
 - Technical Feasibility;
 - Regulatory Feasibility;
 - o Implementation Feasibility;
 - Cost for Construction/Implementation;
 - Annual Costs for Operations and Maintenance (O&M);
 - o Long Term Management Considerations; and,
 - System Life/Replacement Cost Considerations.
- Conduct any additional investigations, sampling, leachate characterization studies, treatment studies, surveys, analysis, or inspections to support the project; and
- Prepare a final report which includes a thorough discussion of the seven factors for comparison of each
 of the five treatment options and includes feasibility level cost estimates for each of the five treatment
 options (-30% to +50% accuracy range).

3.1. Project Schedule

LFUCG has provided a schedule as part of the Agreed Order and has committed to meeting that schedule. To meet the deadline to the State, LFUCG has established a project deadline of <u>June 30, 2023</u>. Bidders should assume that Notice to Proceed will be provided by December 30, 2022, and should provide a schedule of how bidders intend to meet the June 30, 2023, deadline for the final project deliverable.

3.2. Scope and Deliverable Requirements for Phase 1 – Background Review and Final Option Recommendations

The objective of Phase 1 of the project will be to complete a desktop review of the existing data to determine a final list of technological alternatives to further analyze as part of Phase 2.

- 1. As stated in section 1 of this RFP (Objectives), bidders should assume that the five treatment options to be considered in Phase 2 will include the following:
 - Treatment Option #1 (Existing System Modification Option) should be an evaluation of onsite treatment through modifications to the current system (amending the existing passive Wetland Treatment System).
 - Treatment Options #2 through #4 should include up to three different onsite treatment options which are not solely the current passive onsite treatment system. These three options can amend the existing Wetland Treatment System with additional active treatment measures or can be removal of the current system and installation of a stand-alone more active treatment system. LFUCG has reviewed the alternative treatment options included in Palmer's Addendum Engineering Report. LFUCG' review of the recommendations focused on the effectiveness for treatment for medium and old ages of leachate. Based on the summary report, LFUCG

preliminarily concluded that the three most feasible types of treatment to consider in Palmer's list are Physiochemical Treatment options (e.g., Activated Carbon, Coagulation/Flocculation) and Membrane Filtration options (e.g., Membrane Bioreactor, Reverse Osmosis). Respondents should consider the Palmer report findings, but based on technical experience, can make recommendations for alternative treatment options not mentioned in the Palmer report that should be considered as part of the final list.

- Should onsite treatment be determined to be technically infeasible, Treatment Option #5 (TB WWTP Option) should be an evaluation of offsite treatment at the Town Branch WWTP in Lexington, Kentucky, through the construction of a pump station and a force main. As outlined in the Palmer report, routes identified as Purple and Cyan were determined to be the most feasible. LFUCG agrees with this assessment and therefore, unless compelling information is provided by the selected company to consider other routes, the Engineering Study should focus on more fully evaluating the feasibility of these two routes.
- In the bidder's RFP response, the bidder's schedules should provide a target date as to when bidder's
 estimate the Final Option Recommendations Report will be delivered at the completion of the Phase 1
 evaluation.
- 3. Because of the firm final due date for the project, if bidders believe that certain time sensitive field tasks/bench testing steps are necessary regardless of the options to be considered during Phase 2 (e.g., data gap sampling, field surveys, further leachate bench testing studies, etc.), those can begin as part of Phase 1. Bidders should provide a discussion of those potential tasks in their proposed project approach.

3.3. Scope and Deliverable Requirements for Phase 2 – Alternatives Analysis and Engineering Study

After delivery of the Final Options Recommendations Report to LFUCG, the selected company can begin Phase 2 of the scope of work. As part of Phase 2, the five selected options will be fully evaluated for a number of factors. These factors are listed below along with example considerations to be assessed (not an exhaustive list). If at any time during the feasibility study an option is determined not to be viable, no further examination of this option will be required (though a summary should be included in the final report).

Technical Feasibility

- Ability for the technology to remove contaminants to the current objectives (permit limits).
- Flexibility to manage changing concentrations in leachate.
- Flexibility to manage seasonal flows (or technical ability to regulate flow within the system).

Regulatory Feasibility

- An evaluation of the permits required to implement the option.
- Any regulatory considerations or hurdles for each evaluated option.

Implementation Feasibility

- Feasibility in obtaining right of way access (as applicable).
- Footprint of technology versus available space.

Cost for Construction/Implementation

• Feasibility level cost estimates, to include direct and indirect costs for implementing each option (professional services, construction oversight, permitting, etc.).

Annual Costs for Operations and Maintenance (O&M)

Feasibility level cost estimates for a 30-year period to include costs for disposal of any waste generated
as part of treatment process, utility operating costs, annual operations and maintenance costs, and
oversight costs.

Long Term Management Considerations

- Safety considerations to community, workers, environment.
- Waste generation and waste disposal considerations, including feasibility for onsite disposal of any treatment system byproduct (as applicable).
- Fouling / scaling considerations.
- Long term regulatory considerations (as applicable).

Life of System and Replacement Considerations

• Life expectancy of each option and considerations for replacement of the system or its components.

The following provides specific task requirements for those evaluations related to Option #1 and Option #5.

- 1. As part of Treatment Option #1 (Existing System Modification), the following tasks should be included in the evaluation.
 - a. Because the system has operated since 2006, LFUCG believes that certain components are close to reaching their useful life expectancy. As part of Phase 2, bidders should include an evaluation of the condition of the current system's operations of various major components. Cost estimates should include the cost to replace or upgrade components that need to be addressed as part of any system improvements, including, but not limited to, pumps, flow meters, valves, electronic components, etc.
 - b. Bidders should include an evaluation of whether Well A10, the augmentation well, is a feasible source for future flow augmentation (including an evaluation of the current water chemistry at Well A10 in comparison to leachate concentrations and permit limits).
- 2. As part of Treatment Option #5 (TB WWTP Option), the following tasks should be included in the evaluation.
 - a. The scope of work for evaluating this treatment option should include a more detailed evaluation of the current leachate chemical concentrations in comparison to the Town Branch WWTP Discharge Limits (https://www.lexingtonky.gov/industrial-discharge-local-limits) and Chapter 16, Article V of LFUCG's Code of Ordinances (Sewage, Garbage, Refuse and Weeds/Sanitary Sewers).

The selected respondent will work closely with the LFUCG Division of Water Quality representatives to determine the final sampling protocol; however, for now, bidders should assume that leachate samples will need to be collected once per month for three months to evaluate concentrations against the Town Branch discharge limit parameters.

b. The scope of work for evaluating this treatment option should also include an evaluation of the applicability for requirements in 40 CFR Part 445, Landfills Point Source Category, and as stated in 40 CFR Part 445.3, General Pretreatment Standards, also consider 40 CFR Part 403 (General Pretreatment Regulations for Existing and New Sources of Pollution).

3.4. Deliverables

The following minimum deliverables should be anticipated for this project:

- Meeting Minutes and Agendas for any formal meetings.
- Monthly Summary Updates to be delivered by the first Wednesday of each month during the project.
 These summaries should be stand-alone summary memos (e.g., PDF documents) but can be emailed.
- A Final Option Recommendations Report to be provided to LFUCG after completion of Phase 1 (electronic deliverable in PDF format).
- A Draft Alternatives Analysis and Engineering Study report to be delivered to LFUCG as draft no later than June 9, 2023, (Word version of the text of the report plus a draft PDF document of the entire deliverable).
- A Final Alternatives Analysis and Engineering Study report to be delivered to LFUCG by June 30, 2023, (electronic deliverable in PDF format).
- Presentable version of the feasibility study (i.e., PowerPoint) that can be utilized by LFUCG to present findings at meetings.

3.5. Meetings

The selected company shall schedule, coordinate, and preside over meetings; develop the agenda; and keep and distribute meeting minutes. Meetings shall be, **at a minimum**, the following:

Phase 1 - Background Review and Final Option Recommendations

- 1. Kick-off meeting to address project scope and introduce the project team
- 2. One meeting with LFUCG to review and discuss the option recommendations prior to finalizing recommendations.

Phase 2 – Alternatives Analysis and Engineering Study

- 1. One meeting to discuss project progress at 50% complete.
- 2. Meeting to discuss outcomes of the study after delivery of a draft report. This meeting should be anticipated to occur sometime the week of **June 19, 2023**.

The preference is that meetings occur in person; however, LFUCG will consider virtual meetings on occasion and will allow key experts who might not reside in the local office to attend meetings virtually. **Please be sure to state in the response any assumptions made with respect to meeting platforms or attendance**. The selected company is encouraged to keep LFUCG informed of progress and to involve LFUCG technical staff as much as necessary during the process. The above list of meetings is the minimum number of formal in person meetings for the key members of the project team.

4. Proposal Evaluation Criteria

Proposals will be evaluated by LFUCG based on the following criteria.

EVALUATION CRITERIA	POINTS POSSIBLE
Qualifications and Past Performance	30 points possible
Proposal / Project Approach	30 points possible
Schedule for Implementation	15 points possible
Cost	15 points possible
Degree of Local Employment	10 points possible
Total points possible	100 points possible

Qualifications and Past Performance (up to 30 points): Respondents are required to provide a statement detailing their experience (years of experience, nature of work, etc.) in performing similar projects and also provide a summary of past projects completed with LFUCG. Resumes (not to exceed 1-pg per person) should be provided for the personnel who will be part of the core project team including, but not limited to, the Project Manager and any technical leads for treatment option areas. Indicate the number of executive and professional personnel by skill area that will be part of the project team. If subcontractors will be part of the team, their role shall be clearly defined and qualifications for the subcontractor must be provided. LFUCG will award points based on the team's familiarity with the Haley Pike Landfill, familiarity with LFUCG's operations, familiarity with Kentucky's regulatory environment, and qualifications/past project experience in performing a feasibility study of this scope and intent. Provide up to three project examples for similar technical projects completed by the firm.

<u>Proposal / Project Approach (up to 30 points)</u>: Each respondent shall provide a narrative detailing how they will meet the objectives and requirements of this RFP. Respondents shall include detailed and clearly identified projects milestones. Each response will be evaluated based on their explanation in their written proposal including the clarity, thoroughness, and content of their proposed Project Approach. It is imperative that each respondent provided a section in the RFP response which clearly outlines any scope deviations and assumptions made with respect to the scope. This includes any assumptions made to meet the project schedule and any assumptions made that impact the project cost estimate, as well as assumptions with respect to information the Proposer will need from City staff in order to complete the project.

<u>Schedule for Implementation (up to 15 points)</u>: Each respondent shall provide a schedule for completing the project by June 30, 2023. Any assumptions made to meet the schedule should be clearly identified in the proposal response. The schedule shall have a list of major scope items and shall list out the assumed dates for delivery of key deliverables.

Cost (up to 15 points): Provide an estimated fee to complete the project.

<u>Degree of Local Employment (up to 10 points)</u>: Points will be awarded for companies with an office in Lexington, Kentucky.

5. Method of Invoice and Payment

The selected company may submit monthly invoices for basic services or work rendered, based upon their estimate of the portion of the total services actually completed during the billing cycle. Each invoice shall show the amount to be paid, the subtotal of all prior invoices, and the LFUCG Purchase Order Number against which the invoice is to be charged. The Division of Environmental Services – Project Manager will either approve or deny each invoice within fourteen (14) calendar days of receipt.

6. Stop Work Notice

The selected company shall at all times monitor time allotted and amounts invoiced for tasks and activities as compared to their original estimates and expectations. They shall notify the Division of Environmental Services immediately upon discovery of facts that may necessitate a change in the contract amount or may extend the contract time. If the amount of the change is expected to exceed ten percent (10%) of the original contract amount, the selected company shall immediately stop all work related to this Scope of Services. Work shall not recommence without written notification from the Division of Environmental Services. The selected company shall submit all requests for changes to the Division of Environmental Services in writing and shall be present when the issue is discussed before the Urban County Council. Failure by LFUCG to endorse the requested change does not relieve the selected company of the contractual requirements and activities defined by this entire Scope of Services.

LFUCG reserves the right to terminate the contract when a mutually satisfactory agreement cannot be reached in a timely manner. All engineering project data must be submitted to LFUCG upon request. If it is determined that the selected company failed to notify LFUCG on a timely basis regarding insufficient fee or inadequate schedule, LFUCG reserves the right to terminate the contract at any time thereafter.



TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #1

RFP Number: #42-2022 Date: October 3, 2022

Subject: Leachate Management Alternatives Analysis and Engineering Study Address inquiries to:

Sondra Stone sstone@lexingtonky.gov

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced RFP:

- 1. See attached pre-proposal sign-in sheet and agenda.
- 2. As part of your RFP response, please provide the name, qualifications, and role of any subconsultants to be used on the project.
- 3. If solids are generated during treatment process can they be landfilled or spread on land? If any solids would be generated as part of any proposed treatment process being evaluated as an option, the feasibility level costs estimates are to include costs for disposal (and also to perform a concept level determination of potential disposal options). As stated on page 7 of the scope of work, under Long Term Management Considerations: Waste generation and waste disposal considerations, including feasibility for onsite disposal of any treatment system by product (as applicable).
- 4. Why do we want change the current wetland treatment system?

 The current wetland treatment system was not designed for treatment of iron because iron was not a parameter in the original KPDES permit granted for the discharge. Because LFUCG is now under an agreed order for intermittent exceedances of iron in the system's discharge, the current system is not adequate to reliably meet the discharge limits in our permit.
- 5. Which option is our preference?

 LFUCG has no preferred option. The purpose of this study is to more fully evaluate potential treatment options to make the determination of what makes the most sense from a cost, feasibility and long term management and treatment standpoint.



- 6. Would investigation of the augmentation well be part of this scope of work?

 Evaluating whether there are feasible improvements that can be made to the current wetland treatment system to more reliably meet the discharge limits is part of the scope of work. Because the augmentation well was part of the original design, and because the 2022 wetland treatment system evaluation did recommend providing augmentation water as a potential system improvement, LFUCG does wish to determine (1) if the source of water in the augmentation well is still a feasible source of groundwater for the system and if so (2) is the well operational or can it be made to be operational to be included in any future system improvements.
- 7. Has sediment in the EQ basin been considered?

 The May 2022 Wetland Evaluation report prepared by Wood summarizes the most recent evaluation completed of the wetland system. This study did include a sediment survey in the EQ basin. Please refer to this report for a summary of the results of the evaluation.
- 8. Is color an issue with the leachate?

 Iron staining is present on the rock lined ditch downgradient of the wetland discharge.

Todd Slatin, Director
Division of Central Purchasing

Toda Sla

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME:	
ADDRESS:	
SIGNATURE OF BIDDER:	



SIGN-IN SHEET

Pre-RFP Conference #42-2022 – Haley Pike Landfill Leachate Management Alternatives
Analysis and Engineering Study
September 29, 2022 @ 9:00 AM

Representative Company Name Phone# Email Adv. Sondra Stone LFUCG 859-258-3320 sstone@lexingtor Sherita Miller LFUCG 859-258-3323 smiller@lexingtor Sarah Donaldson LFUCG 859-425-2518 sdonaldson@lexi Richard Bone LFUCG 859-425-2518 sdonaldson@lexi Richard Bone LFUCG 859-948-3054 sdonaldson@lexi Richard Bone LFUCG 859-948-3054 sdonaldson@lexi Prince Construction WSP 859-948-3054 sdonaldson@lexi Mathan Duval HDR Engineering 859-948-3054 sdonalds	
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LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT

HALEY PIKE LANDFILL LEACHATE MANAGEMENT ALTERNATIVES ANALYSIS AND ENGINEERING STUDY

PREBID MEETING

SEPTEMBER 29, 2022

AGENDA

- 1) Introduction Sarah Donaldson Division of Environmental Services
- 2) Commercial and Bid Instructions— Sondra Stone, Senior Buyer, Central Purchasing and Sherita Miller, Minority Business Liaison.
 - a. Important Proposal Dates
 - i. Closing Date for Questions and Clarifications Monday October 10, 2022 at 12 PM EST
 - ii. Bid Due Date Tuesday October 18, 2022 at 2 PM EST
 - b. Bid Submittal General Information
- 3) Review Scope of Work Sarah Donaldson Division of Environmental Services
 - a. Key Anticipated Project Dates
 - i. Assumed NTP Date December 30, 2022
 - ii. Discussion Meeting and Completion of Phase 1 Deliverable (Final Option Recommendations Report) – Date to be provided by bidders in their proposed scheduled
 - iii. Draft of Phase 2 Deliverable (Alternatives Analysis and Engineering Study) June 9, 2023
 - iv. Meeting to discuss the Phase 2 Report Week of June 19, 2023
 - v. Final Phase 2 Deliverable June 30, 2023
- 4) Miscellaneous Q&A
- 5) Optional Site Walk For Interested Parties

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(2) OWNER/FACILITY INFORMATION	- 8 9	1 5			
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Mailing Address: 200 East Main St	_	m-7		vacci weiria oring well lah	els begin with "8".
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Phone: (606) 258 3410 (4) USGS Quadrangle Name	County		() pump	() other	
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Distribution: White copy to DOW, pink copy to Inspecting Agency,	yellow copy to Owner.		Printed w	ith State Funds.	DEP 4051 Revised 3/1/1993

Augmentation Well Information

This well, sometimes referred to as well A-10 or as Augmentation Well, was part of the original wetland design. This well is reported to be a 6" diameter well, 160' deep (see figure called "leachate Treatment site plan and liner details"). The well was installed in 1977.

Viet

Ground surface view of augmentation well with electronic controls and water valve type access point.

View inside the leachate manhole. The well piping is presumed to be the piping at the top (approximately 2-3 feet down in the manhole). This piping turns 90 degrees to discharge in the bottom of the leachate manhole.



View inside the water valve access point at the top of the well head. This piping is approximately 2-3 feet below ground surface and is not easily accessible in this tight space.

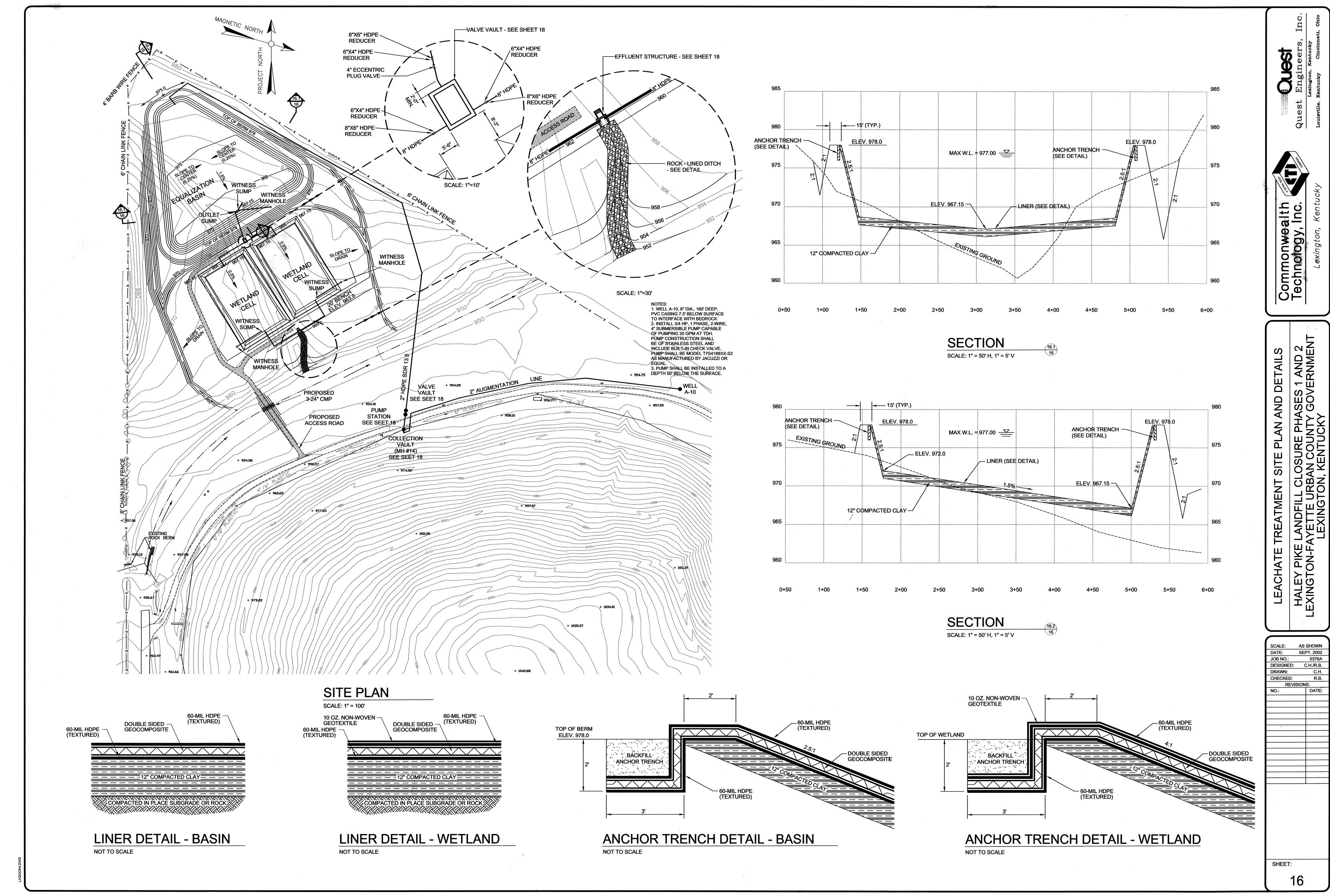


EXHIBIT "B"

Certificate of Insurance



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY) 09/27/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Insurance Services West. Inc.	CONTACT NAME:					
Aon Risk Insurance Services West, Inc. Los Angeles CA Office 707 Wilshire Boulevard	PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (800) 363-	0105				
Suite 2600	E-MAIL ADDRESS:					
Los Angeles CA 90017-0460 USA	INSURER(S) AFFORDING COVERAGE	NAIC#				
INSURED Tetra Tech, Inc. 424 Lewis Hargett Circle	INSURER A: Zurich American Ins Co	16535				
	INSURER B: American International Group UK Ltd	AA1120187				
Suite 110	INSURER C: Allied World Surplus Lines Insurance Co	24319				
Lexington KY 40503 USA	INSURER D:					
	INSURER E:					
	INSURER F:					
COVERAGES CERTIFICATE NUM	BER: 570095591906 REVISION NUMBER:					

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSR LTR TYPE OF INSURANCE		ADDL S	SUBR WVD	POLICY NUM	IBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	wn are as requested	
	Х	COMMERCIAL GENERAL LIABILITY			GL0181740604		10/01/2022	10/01/2023	EACH OCCURRENCE	\$2,000,000
	-	CLAIMS-MADE X OCCUR				DA	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000		
	Х	X,C,U Coverage							MED EXP (Any one person)	\$10,000
									PERSONAL & ADV INJURY	\$2,000,000
	GE	N'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$4,000,000
		POLICY X PRO- OTHER:							PRODUCTS - COMP/OP AGG	\$4,000,000
	AU	TOMOBILE LIABILITY			BAP 1857085 04		10/01/2022	10/01/2023	COMBINED SINGLE LIMIT (Ea accident)	\$5,000,000
	X	ANYAUTO							BODILY INJURY (Per person)	
1	^	OWNED SCHEDULED							BODILY INJURY (Per accident)	
		AUTOS ONLY HIRED AUTOS ONLY ONLY AUTOS NON-OWNED AUTOS ONLY							PROPERTY DAMAGE (Per accident)	
	Х	UMBRELLA LIAB X OCCUR			62785232		10/01/2022	10/01/2023	EACH OCCURRENCE	\$10,000,000
		EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$10,000,000
		DED X RETENTION \$100,000								
		ORKERS COMPENSATION AND	27, 19		WC254061604		10/01/2022	10/01/2023	X PER STATUTE OTH-	
	AN	MPLOYERS' LIABILITY Y PROPRIETOR / PARTNER / EXECUTIVE	OPRIETOR / PARTNER / EXECUTIVE		10/01/2022 10/	10/01/2023	E.L. EACH ACCIDENT	\$1,000,000		
	(Ma	andatory in NH)	N/A						E.L. DISEASE-EA EMPLOYEE	\$1,000,000
	If y	res, describe under SCRIPTION OF OPERATIONS below							E.L. DISEASE-POLICY LIMIT	\$1,000,000
		v Contr Prof			03120276		10/01/2022	10/01/2023	Each Claim	\$5,000,000
					Prof/Poll Liab SIR applies per	nolicy ton	ne e condi		Aggregate	\$5,000,000
:	Evi	TION OF OPERATIONS / LOCATIONS / VEHICL idence of Insurance. ap Coverage for the following					attached if more	space is require	a)	
ER	TIF	FICATE HOLDER				CANCELLA	TION			
						SHOULD A EXPIRATION POLICY PRO	N DATE THERE	ABOVE DESCRI OF, NOTICE W	BED POLICIES BE CANCELLE ILL BE DELIVERED IN ACCORD	D BEFORE THE ANCE WITH THE
Tetra Tech, Inc. 424 Lewis Hargett Circle, Suite 110 Lexington KY 40503 USA						AUTHORIZED R	EPRESENTATIVI			
						CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Alon Plish Insurance Services West, Inc.				

CERTIFICATE HOLDER

CANCELLATION



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CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY) 09/27/2022

1

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	West, Inc.	CONTACT NAME:					
Aon Risk Insurance Services W Los Angeles CA Office 707 Wilshire Boulevard Suite 2600 Los Angeles CA 90017-0460 USA		PHONE (A/C. No. Ext):	(866) 283-7122	FAX (A/C. No.): (800) 363-03	105		
		E-MAIL ADDRESS:					
	5A		INSURER(S) AFFOR	DING COVERAGE	NAIC#		
INSURED Tetra Tech, Inc.		INSURER A:	Zurich American	Ins Co	16535		
		INSURER B:	American Interna	ational Group UK Ltd	AA1120187		
424 Lewis Hargett Circle Suite 110		INSURER C:	Allied World Su	rplus Lines Insurance Co	24319		
Lexington KY 40503 USA		INSURER D:					
		INSURER E:					
		INSURER F:					
COVERAGES	CERTIFICATE NUMBER: 57009550	6760	DE	VICION NUMBER.	•		

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

ISR TR	7	TYPE OF INSURANCE	ADDU SUBF		ER POLICY ER	F POLICY EXP Y) (MM/DD/YYYY	LIMITS	vn are as requested
	Х	COMMERCIAL GENERAL LIABILITY		GL0181740604	10/01/20	22 10/01/202	EACH OCCURRENCE	\$2,000,000
		CLAIMS-MADE X OCCUR					DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
	х	X,C,U Coverage					MED EXP (Any one person)	\$10,000
							PERSONAL & ADV INJURY	\$2,000,000
	GE	N'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE	\$4,000,000
		POLICY X PRO- OTHER:					PRODUCTS - COMP/OP AGG	\$4,000,000
	AU	TOMOBILE LIABILITY		BAP 1857085 04	10/01/20	22 10/01/2023	COMBINED SINGLE LIMIT (Ea accident)	\$5,000,000
	X	ANYAUTO					BODILY INJURY (Per person)	
	-	OWNED SCHEDULED					BODILY INJURY (Per accident)	
		AUTOS ONLY HIRED AUTOS ONLY AUTOS ONLY AUTOS ONLY					PROPERTY DAMAGE (Per accident)	
	х	UMBRELLA LIAB X OCCUR		62785232	10/01/20	22 10/01/202	EACH OCCURRENCE	\$10,000,000
		EXCESS LIAB CLAIMS-MADE					AGGREGATE	\$10,000,000
		DED X RETENTION \$100,000						
		ORKERS COMPENSATION AND	S' LIABILITY V/N WC185708704			22 10/01/202		
		IV DDODDIETOD / DADTNED / EVECUTIVE			10/01/2022	22 10/01/2023	E.L. EACH ACCIDENT	\$1,000,000
	i (N	fandatory in NH)	N/A				E.L. DISEASE-EA EMPLOYEE	\$1,000,000
	IF D	yes, describe under ESCRIPTION OF OPERATIONS below					E.L. DISEASE-POLICY LIMIT	\$1,000,000
7.		nv Contr Prof		03120276	10/01/20	22 10/01/202	Each Claim	\$5,000,000
				Prof/Poll Liab	policy terms & con	distant	Aggregate	\$5,000,000
		TION OF OPERATIONS / LOCATIONS / VEHICL CE of Insurance. Stop Gap Cov					ed)	
EF	RTI	FICATE HOLDER			CANCELLATION			
					SHOULD ANY OF TH EXPIRATION DATE THI POLICY PROVISIONS.	REOF, NOTICE V	RIBED POLICIES BE CANCELLED VILL BE DELIVERED IN ACCORDA	D BEFORE THE ANCE WITH THE
		Tetra Tech, Inc. 424 Lewis Hargett Circle, Su			AUTHORIZED REPRESENTA	rive		

CERTIFICATE HOLDER



EXHIBIT "C"

Proposal Response to RFP #42-2022





OCTOBER 18, 2022

Mr. Todd Slatin – Purchasing Director Lexington-Fayette Urban County Government 200 East Main Street, Third Floor Lexington, KY 40507

Subject: RFP # 42-2022 Leachate Management Alternatives Analysis and Engineering Study

Dear Mr. Slatin and Selection Committee:

Herbert R. Lemaster, PE 424 Lewis Hargett Circle, Suite 110 Lexinaton, KY 40503 859-514-8752 herb.lemaster@tetratech.com

Point of Contact

Lexington-Favette Urban County Government (LFUCG) and the Kentucky Energy and Environment Cabinet, Division of Enforcement entered into an Agreed Order partially related to Outfall 005, the discharge from the constructed wetland treatment system due to exceedances of Total Ammonia Nitrogen, Total Suspended Solids and Total Recoverable Iron. The constructed wetland treatment system was included in the Haley Pike Landfill Closure Plan that was approved by the Kentucky Division of Waste Management (KDWM) in 2004 as an economical and passive method to treat the leachate generated from the closed landfill. The initial design of the constructed wetland system was based on an estimated treatment capacity for five million gallons per year; the constructed wetland system is currently receiving approximately thirty-five million gallons a year. Tetra Tech fully understands LFUCG's commitment to complying with environmental requirements and standards based on our role as the EPA Consent Decree MS4 Program Manager and the being the engineer of record on several Consent Decree Remedial Measures Program design and construction projects, including the West Hickman Wet Weather Storage and Headworks Improvements project. Tetra Tech is committed to helping LFUCG meet their goals.

Tetra Tech has been conducting projects at the Haley Pike Landfill facility since 1995. Tetra Tech developed the Haley Pike Closure Plan and obtained Kentucky Division of Waste Management approval in 2004. We developed the design/bidding documents for all four phases of the landfill closure and provided construction administration and resident project representative services for phases one, two, and three. Additionally, Tetra Tech has conducted many other projects around the facility including sampling of surface water and groundwater for regulatory reporting purposes and monitoring/operation of the wetland treatment system. As a result, Tetra Tech has an in-depth understanding of the leachate collection and conveyance system, surface drainage system, and the constructed wetland treatment system. In addition, we have the institutional knowledge of the activities and decisions of LFUCG and KDWM regarding the closure plan, design, operation, and maintenance of the constructed wetland treatment system.

Our team's knowledge and experience at this facility is unmatched. We fully understand the critical importance of managing the leachate and protecting the environment. The objective of this project is to evaluate and analyze five alternatives to manage or treat the leachate that will return the facility to compliance with regulatory requirements. Completing these objectives will require a team that has a thorough understanding of the existing facility, experience in managing and handling leachate, experience with treatment, and experience with current technologies and equipment capable of treating leachate in order to meet regulatory obligations. Tetra Tech has assembled that team.

EXTENSIVE DESIGN EXPERIENCE

Tetra Tech is a leading national consulting firm that has been ranked Number 1 in the nation for water by Engineering News-Record (ENR) for the past 19 years in a row, Number 2 in Solid Waste, Number 4 in Environmental Engineering/Design, and Number 4 in the Top 500 Design Firms. For over 30 years, our Lexington office's technical design staff has studied, planned, designed, and permitted landfill related and leachate management facilities across Kentucky and assisted our offices with these tasks across the United States. Additionally, we will have national experts assisting on this project that have conducted evaluations similar to this project and have designed systems specifically to treat leachate from municipal landfills.

We are the Engineer of Record for the Haley Pike Landfill Closure Plan and have conducted several projects for leachate management and treatment at closed landfills under House Bill 174 for the Kentucky Finance and Administration Cabinet and Kentucky Division of Waste Management, Closure Branch. As part of our previous work on these projects we have evaluated several alternatives and approaches to leachate treatment and management. Since Tetra Tech has no learning curve associated with understanding the needs for this facility and associated challenges, we can quickly provide cost effective solutions. The Qualifications and Past Performance section of our submittal lists projects performed by the people on our team who have the necessary understanding and experience to perform this project quickly and efficiently. We have provided studies, planning activities, and landfill closure/leachate management designs for many projects like this across Kentucky.

PROVEN PERFORMANCE WITH LFUCG

Tetra Tech is the Engineer of Record for the Haley Pike Landfill Closure Design, West Hickman Wastewater Treatment Plant Headworks and Wet Weather Storage (WWS) facilities, Wolf Run WWS facility, and the Walhampton Stormwater Improvements project. Our local office has provided planning, permitting, design, and construction administration services for these projects. When necessary, we have integrated our national experts within Tetra Tech into a cohesive and responsive team that has met the demanding requirements and schedules of these highly complex projects. Because of our past experiences with LFUCG processes and procedures, there will be no learning curve – we will hit the ground running, saving you time and money.

TEAM-ORIENTED APPROACH

Tetra Tech understands the importance of listening to the people who will be maintaining and operating this facility. We are committed to providing open communication to ensure that the needs and concerns of LFUCG staff are addressed and included in the evaluation of the alternatives for treatment and handling of the leachate. Our goal is to operate as a direct extension of your staff, as we have done on previous maintenance activities at the Haley Pike Landfill. In addition, we have demonstrated our ability to do this on other projects such as the Consent Decree projects at West Hickman and Wolf Run.

WHY CHOOSE TETRA TECH

- Unmatched experience with the Haley Pike Landfill facility, there will be no learning curve.
- Experience evaluating and designing leachate treatment facilities; we know the available treatment equipment and their operational capabilities.
- Extensive experience working with KDWM Closure Branch on similar projects.
- Long-term experience working with LFUCG on various projects.
- Established a reputation of providing the high-level of service you expect.
- Uses a problem-solving approach. When we identify a problem that requires input by your staff, we will always bring you viable solutions to consider.
- Staff and resources available to meet your schedule.
- An extension of your staff.

Tetra Tech has included team members Third Rock Consulting to assist with environmental permitting and Salt River Engineering to provide cost analysis. All of the work for this project will be performed in the Lexington office with assistance from leachate treatment experts from sister offices. If necessary, Tetra Tech has ample additional resources that can be utilized to meet schedule demands. Being local to the community means that we are personally invested in improving the quality of life in Lexington, and we take great pride in working together with you to reach your goals. We look forward to working with you on this project and continuing the relationships we have developed.

Sincerely,

Richard W. Walker, PE, CFM

2. chard W. Walker

Vice President

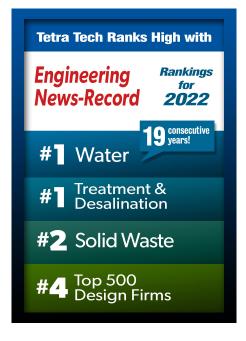
Herbert R. Lemaster, PE Senior Project Manager

01 Qualifications and Past Performance..... 02 Proposal/Project Approach......35 03 Schedule for Implementation43 05 Degree of Local Employment47 06 Required Forms49



O1: Qualifications and Past Performance

Tetra Tech is a leading provider of consulting, engineering, program management, and construction management services with over 21,000 employees. Tetra Tech is a leading national consulting firm that has been ranked Number 1 in the nation for water by **Engineering** News-Record (ENR) for the past 19 years in a row, Number 2 in Solid Waste, Number 4 in Environmental Engineering/Design, and in the Top 500 Design Firms. Tetra Tech has a national reputation as a leader in water, wastewater, and stormwater engineering. Tetra Tech is a full service firm that routinely provides civil engineering, structural engineering, electrical engineering, mechanical



engineering, and architectural services to our clients. The Lexington office provides engineering services for water and wastewater engineering, stormwater management, landfill engineering, and environmental services projects. In addition, the Lexington office provides project support to multiple Tetra Tech offices for accounting, human resources, information technology, operations, and marketing.

Our major clients in the region include the following:

- LFUCG
- Commonwealth of Kentucky Division of Waste Management
- Blue Grass Airport
- East Kentucky Power Cooperative
- Kentucky Utilities
- U.S. Army Corps of Engineers

We have demonstrated our ability to deliver high-quality products, on schedule, and within budget. As a result, we understand your operating style and culture, and how to best respond to your needs.

We have built a relationship of mutual trust and respect, which has allowed us to work as an extension of your staff.

Our team members include:

Third Rock Consulting was established in 2001. They will be supporting our team with environmental permitting. Their services include ecological surveys and analyses; stream and wetland restoration design and construction; environmental planning (including environmental permitting, NEPA documentation, and feasibility studies); MS4 program management and permit monitoring; erosion protection and sediment control planning and inspection; and aquatic taxonomy. Their staff includes ecologists, professional engineers, professional geologists, environmental planners, construction inspectors, technical writers, GIS analysts, and AutoCAD technicians. Third Rock is certified as a disadvantaged business enterprise (DBE), small business (SB), and woman-owned business (WBE) by various federal, state and local agencies and maintain DOT consultant prequalification in Kentucky, Tennessee, Georgia, Illinois, Ohio, and North Carolina. Tetra Tech has worked with Third Rock on multiple projects since its founding and has a strong working relationship.

Salt River Engineering (SRE) is a DoD verified, veteran-owned small business specializing in engineering design and rate-making for water, wastewater and stormwater utilities. They offer design solutions for water and wastewater utilities and will provide cost analysis for this project. With over 30 years of experience serving Kentucky municipalities and regulated utilities, SRE's system planning and infrastructure projects are practical, effective and efficient solutions for city officials and utility managers. SRE's owner is both a professional engineer and a certified construction manager. SRE provides agency construction management for municipal and private utility capital construction including time, cost and general project management.



Summary of Haley Pike Landfill Projects

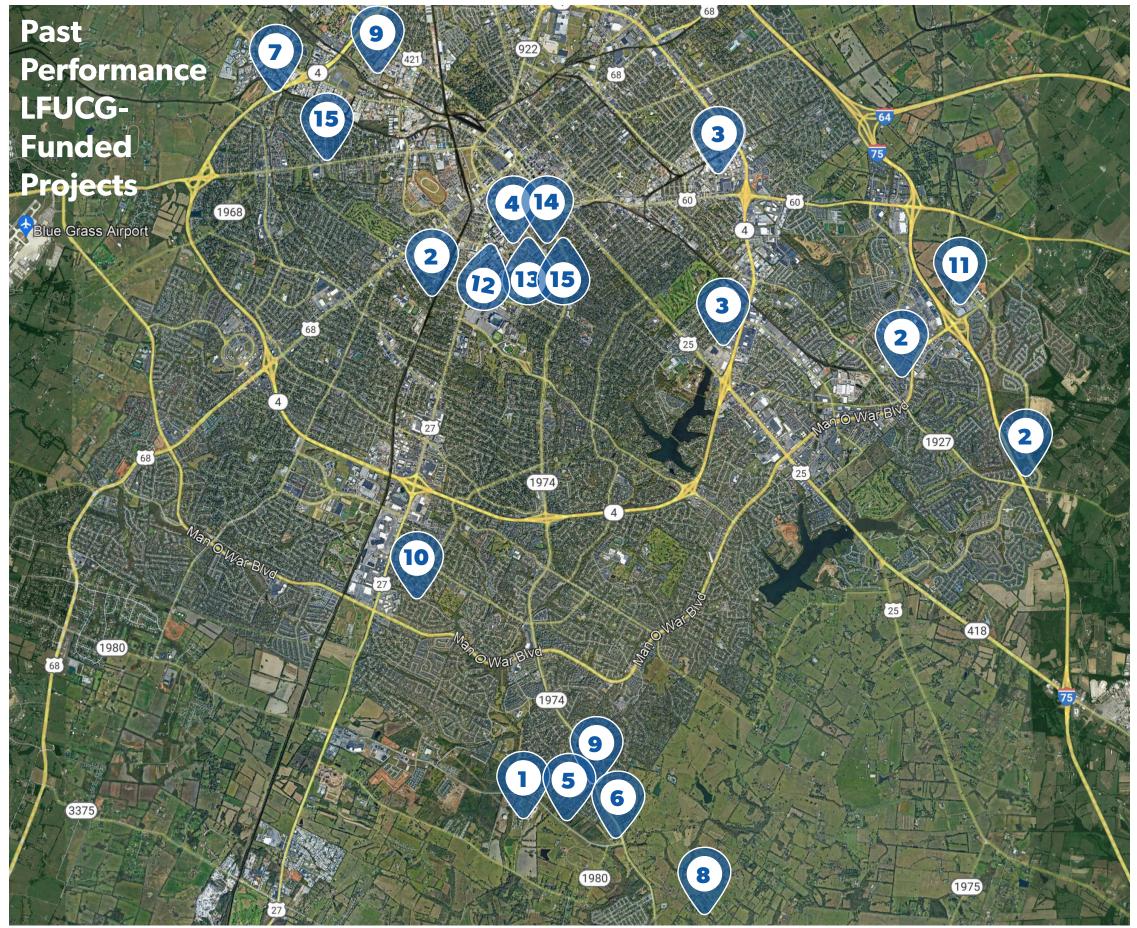
- 1. Surface Water and Groundwater Monitoring*
- 2. Closure plan for Haley Pike Landfill
- 3. Phases 1 and 2 of the Haley Pike Landfill Closure
- 4. Phase 3 of the Haley Pike Landfill Closure
- 5. Haley Pike Wetlands Operation and Reporting

- **6.** Haley Pike Annual Volume Survey
- 7. Haley Pike Compost Pad Treatability Study
- 8. Haley Pike Landfill Pump Station Upgrade
- 9. Phase 4 of the Haley Pike Landfill Closure
- 10. Haley Pike Compost Pad Reconstruction
- **11.** Haley Pike Compost Pad Replacement

- **12.** Haley Pike Landfill Permit Assessment
- 13. Haley Pike Landfill Wetlands Liner Evaluation
- 14. Haley Pike Compost Pad Addition
- **15.** Haley Pike Landfill Groundwater Assessment Plan (BTEX)

*Multiple sampling locations

PAST PERFORMANCE HALEY PIKE LANDFILL PROJECTS					
Project Name, Location	Completion Date	Services Provided / Project Description			
Haley Pike Landfill Wetlands Liner Evaluation	2020	Conducted integrity testing by means of physical and dipole electrical methods to evaluate suspected liner leaks in the wetland cells.			
Haley Pike Landfill Permit Assessment	2017-2018	Evaluation of the necessary requirements and cost to proceed with construction of the permitted landfill area and determine the timeline of construction and operational life of landfill.			
Haley Pike Compost Pad Replacement	2015-2016	Design/Bidding Document development, bidding, construction administration, and on-site Resident Project Representative for the removal and replacement of approximately 8,600 square yards of the existing compost pad.			
Haley Pike Compost Pad Reconstruction	2012	Design/Bidding Document development, bidding, construction administration, and on-site Resident Project Representative for the removal and replacement of approximately 5,700 square yards of the existing compost pad.			
Phase 4 of the Haley Pike Landfill Closure	2011	Design/Bidding Document development for the construction of Phase 4 the Haley Pike Landfill Closure.			
Haley Pike Annual Volume Survey	2008-2012	Developed mapping from aerial and topographic survey to determine annual volume of C/DD waste placed in landfill and to determine remaining airspace volume available in landfill. Prepared report for submittal to KDWM.			
Haley Pike Compost Pad Treatability Study	2009	Evaluation of facilities and options for management of discolored water running off compost pad area.			
Haley Pike Landfill Pump Station Upgrade	2009	Design/Bidding Document development, bidding, construction administration, and on-site Resident Project Representative for the construction of the leachate pump station upgrades. The upgrades increased the capacity of the pump station from 10 gpm to 150 gpm.			
Haley Pike Wetlands Operation and Reporting	2007-2011	Conducted inspections of pump station, equalization basin, wetland cells, liquid levels, and flow data. Adjusted liquid levels in wetland cells and flow rates into cells. Conducted sampling and analytical testing to evaluate treatment process. Prepared annual report to document data and maintenance needs.			
Phase 3 of the Haley Pike Landfill Closure	2006-2008	Design/Bidding Document development, bidding, construction administration, and on-site Resident Project Representative for the construction of Phase 3 of the Haley Pike Landfill Closure.			
Phases 1 and 2 of the Haley Pike Landfill Closure	2004-2006	Design/Bidding Document development, bidding, construction administration, and on-site Resident Project Representative for the construction of Phases 1 and 2 of the Haley Pike Landfill Closure Representative.			
Haley Pike Compost Pad Addition	2004	Design/Bidding Document development, bidding, construction admisistration, and on-site Resident Project Representative for the construction of an addition of approximately 3 acres to the existing compost pad and reconstruction of the sediment pond.			
Closure Plan for Haley Pike Landfill	2000-2004	Development of the necessary closure documents for submittal and approval by the Kentucky Division of Waste Management.			
Surface Water and Groundwater Monitoring	1998-2008	KPDES surface water monitoring and KDWM groundwater monitoring – sample collection, analytical testing, and preparation of DMRs and reports for submittal to regulatory agencies.			
Haley Pike Landfill Groundwater Assessment Plan	1995-1999	Sampling, Analytical testing, coordination with KDWM, and report preparation to address issues related to the observance of BTEX in monitoring well 4d.			



Summary of LFUCG-Funded Projects

- West Hickman Wet Weather Storage –
 Phase 2
- 2. Campbell, Barnard, Bob-O-Link Stormwater Analysis
- Idle Hour and Industry Road Stormwater Analysis
- **4.** County-wide MS4 Program Management
- West Hickman WWTP Wet Weather Storage – Phase I
- 6. West Hickman WTP Biological Phosphorus Removal
- 7. Wolf Run WWTP Wet Weather Storage
- 8. Jacks Creek Pike Landfill at Raven Run Sanctuary
- **9.** West Hickman and Town Branch WWTPs Risk Management Plans
- **10.** Walhampton Stormwater Improvements
- **11.** Expansion Area 2 Stormwater Management Plan
- **12.** County-wide Infrastructure
 Development Procedures Manual
- 13. County-wide Stormwater Manual
- **14.** County-wide Detention Basin Maintenance Program
- 15. Vaughns Branch Flood Mitigation

	PAST PERFORMANCE LFUCG-FUNDED PROJECTS
Project Name	Services Provided / Project Description
West Hickman Wet Weather Storage – Phase 2	Design and construction administration for an 18-MG wet weather storage tank and related facilities.
Campbell, Barnard, Bob-O-Link Stormwater Analysis	Hydraulic evaluation of stormwater conveyance systems, development of improvement alternatives, and development of design/construction documents.
Idle Hour and Industry Road Stormwater Analysis	Hydraulic evaluation of stormwater conveyance systems, development of improvement alternatives, and development of design/construction documents.
MS4 Program Management	Program management and technical support to ensure compliance with the KPDES MS4 Permit that includes illicit discharges, construction site erosion control, post-construction stormwater management, pollution prevention for municipal operations, industrial, and commercial, water quality monitoring, and annual reporting.
West Hickman WWTP Wet Weather Storage – Phase I	Design and construction Administration of a new headworks facility, screens, grit handling facilities, 70-MGD influent pump station, 80 MGD wet weather pump station, and a 22-MG storage tank.
West Hickman WTP Biological Phosphorus Removal	Design and construction administration of BPR improvements, including rehabilitation of BPR basins, installation of 32 submersible mixers, new on-line nutrient process monitoring systems, eight associated sampling pumps, and four sodium aluminate pumps.
Wolf Run WWTP Wet Weather Storage	Design and construction administration of a 7-MGD pump station and a 1.8-MG storage tank.
Jacks Creek Pike Landfill at Raven Run Sanctuary	Design and construction administration of the closure plan for the abandoned landfill, which included a leachate treatment system. Provided additional technical support for ongoing maintenance related activities.
West Hickman and Town Branch WWTPs Risk Management Plans	LFUCG staff training and annual review of the risk management plans for chlorine and sulfur dioxide at each plant.
Walhampton Stormwater Improvements	Design of new storm sewers and a detention basin to improve subdivision drainage system.
Expansion Area 2 Stormwater Management Plan	Developed a stormwater master plan for 3,000 acres of new development, including detention ponds, wetlands, riparian buffers, and greenways to control flooding and protect water resources.
County-wide Infrastructure Development Procedures Manual	Developed Procedures Manual for Infrastructure Development describing role of developer, engineer, and government beginning with construction plans submission, extending through building. Conducted stakeholder involvement meetings with elected officials, government agencies, developers, citizen groups, and engineering firms. Coordinated consultants who wrote roadway, geotechnical, structures, sanitary sewer, and construction inspection manuals.
County-wide Stormwater Manual	Developed first Stormwater Manual in 2001 (updated 2005, 2009, 2016, 2020), including: post-construction water quantity and quality design standards for new development and redevelopment; design standards for detention basins, underground detention, and manufactured treatment devices; site design standards for green infrastructure, storm sewers, culverts, and open channels; EXCEL-based water quality volume calculation tool; Executive Summary Stormwater Management Form to demonstrate compliance with the manual; and flood protection requirements.
County-wide Detention Basin Maintenance Program, Fayette County	Evaluation of 50 privately-owned detention basins. Addressed complaints from citizens/neighborhood associations about ownership and maintenance responsibilities. Completed field investigation checklist to record erosion problems, standing water, and repairs to spillway and embankment. Assisted with comprehensive plan for upgrading management of County detention basins and retention ponds.
Vaughns Branch Flood Mitigation	Design and construction oversight of a seven-acre detention basin, channel widening, and enlargement of four culverts.

Confidential Client, MI

Confidential Client, WI

Confidential Client, WI

DAST DEDECOMAL	NCE LEACHATE TREATMENT MANAGEMENT RELATED PROJECTS
Project Name, Location	Services Provided / Project Description
Johnson County Landfill Leachate Management System, KDWM, KY	Design and Construction management for leachate management system from closed landfill.
Billy Glover Waste Facility Closure, KDWM, Jessamine County, KY	Design and Construction Administration for landfill closure and leachate management system.
Landfill Characterization 34 Inactive Sites, KDWM, Various Southern KY Counties	Compiled site geology, hydrogeology, and geomorphic conditions; collected water and soil samples, determined environmental issues; completed report for each site detailing finding.
Richmond Landfill, Closure Leachate Management, KDWM, Madison County, Y	Design and construction management for leachate management system from closed landfill.
Cynthiana Landfill Leachate Management, KDWM, Harrison County, Kentucky	Design and construction of leachate management system for closed landfill that included pump station, equalization basin, and two surface flow wetland cells.
Harlan County Landfill Leachate Management, KDWM, Harlan County, KY	Design and construction of leachate management system for closed landfill that included equalization basin, and two subsurface flow wetland cells.
Monmouth County Reclamation Center, Tinton Falls, NJ	Upgrades included the integration of denitrification into the treatment process and expanding treatment capacity from 150,000 gpd to 250,000 gpd in anticipation of the pending landfill expansion.
Confidential Client, NY	Reviewed collection and conveyance system, and identified opportunities for reducing leachate generation through capping, cap maintenance, and construction of a slurry wall to reduce infiltration.
Confidential Client, NY	Procurement services for a concentrate management facility producing concentrate from a 100,000-gpd reverse osmosis landfill leachate treatment facility.
Confidential Client, PA	Evaluated performance of a 20,000-gpd landfill leachate treatment system meeting permit requirements.
Anchorage Regional Landfill, Anchorage, AK	Feasibility study for leachate management, evaluating leachate treatment and disposal alternatives.
Salem County Improvement Authority, NJ	Permitted, designed, and provided construction administration services for a 50-acre exposed geomembrane cover expected to significantly reduce leachate collection at the County's landfill.
Riverview Land Preserve, Riverview, MI	Consulting engineering services for selection and procurement of a leachate pre-treatment system to comply with new limits for two poly- and perfluoroalkyl substances (PFAS) adopted by Michigan's EGLE.
Confidential Client, MI	Designing and assisting with the implementation of temporary/provisional leachate treatment systems to reduce the concentration of ben-

zene, toluene, ethylbenzene and xylene (BTEX) compounds at two Michigan landfills.

originally designed in the 1970s to serve several production facilities.

charge permit.

Conducted a feasibility study for treatment of leachate from a monofill to reduce concentrations for two PFAS compounds: PFOA and PFOS. Landfill discharges leachate to a publicly-owned WWTP and is expected to be subject to PFAS discharge limits upon re-issuance of its dis-

Wastewater treatment process evaluation of an activated sludge process for an industrial generator, which was operating a treatment facility

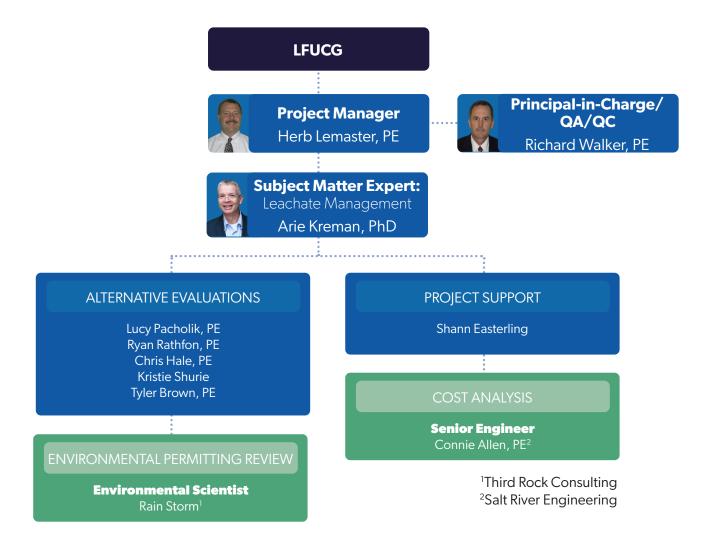
RESUMES AND LICENSE INFORMATION

LFUCG needs an expert team that will provide a superior technical solution.

Tetra Tech assembled a premier team with the demonstrated experience and understanding of current technologies to successfully deliver this project. Our team offers national-level expertise, committed to providing the resources necessary to meet LFUCG's needs and providing the high level of service that is required to complete the project on schedule. Majority of our staff working on this project will be located in our Lexington office. We have brought in Arie Kreman, Tetra Tech's Leachate Management expert.

We understand the importance of disadvantaged business enterprise/minorityowned business enterprise/women-owned business enterprise (DBE/MBE/WBE) goals and are committed to providing meaningful minority and veteran participation at levels desired by LFUCG. Our track record on similar efforts demonstrates our commitment to, and success in, achieving or exceeding project-specific goals. To achieve or exceed your 10 percent DBE/MBE/WBE and 3-percent veteran-owned small business (VOSB) participation goals, we have added Third Rock Consulting (DBE/SB/WBE) to provide environmental permitting and Salt River Engineering (VOSB) to provide cost analysis to the team.

The organizational chart outlines the key members proposed for this project.





YEAR COMPLETED

2000 - 2007

PROJECT VALUE

\$879,000 (engineering fee) \$9.4M (construction)

KEY STAFF

Herb Lemaster, PE Project Engineer

Chris Hale, PE Project Engineer

Shann Easterling Technician

CLIENT/OWNER'S REPRESENTATIVE

Richard Boone Lexington-Fayette Urban County Government (LFUCG) 200 East Main Street Lexington, KY 40507 859.425.2255 This innovative closure plan was for a 97-acre landfill, which is the largest landfill closure to-date in Kentucky. The closure design had to meet the newest and most stringent landfill regulations for municipal solid waste landfills. Although the landfill had operated historically as a municipal solid waste landfill, a portion of the area on top of the fill remained in use as a construction debris (CD/D) landfill.

Key features of the landfill closure are:

- Use of synthetic materials in the closure cap eliminates the need to purchase and transport large volumes of expensive gravel and clay and reduces cost by about 25 percent.
- Design of an equalization basin and man-made wetlands to treat large quantities of leachate during the post-closure life of the facility. This system replaces the practice of pumping leachate from 30 manholes and hauling it 20 miles to LFUCG's treatment plant, resulting in significant savings over the post-closure life of the facility.
- Development of an incremental closure approach, allowing the continued operation of the CD/D disposal cell for four additional years. The incremental closure spreads costs over a five-year period and

- provides a continuing revenue stream from the CD/D operation.
- Initial Tier I calculations indicated that the landfill would require an active methane collection system.
 Tetra Tech performed Tier II testing, which showed that gas generation had peaked and was at a level that allowed the use of a passive versus active methane collection system.

Tetra Tech prepared construction plans and bid documents for the various closure phases. In addition, Tetra Tech provided construction quality assurance and certification services for constructing nearly 69 acres of closure cap, as well as the leachate handling and treatment system. The closure cap will be applied to the remaining 28 acres when the CD/D landfill closes.



TETRA TECH

- Innovative and cost-effective Closure Plan
- Design of Closure Cap
- Largest landfill closure to-date in Kentucky

- Use of synthetic materials
- Equalization basin and man-made wetlands

Haley Pike Landfill Closure, Wetland Leachate Treatment, Fayette County, KY

YEAR COMPLETED

2005 - 2006

PROJECT VALUE

\$900,000

KEY STAFF

Herb Lemaster, PE Project Engineer

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Richard Boone Lexington-Fayette Urban County Government (LFUCG) 200 East Main Street Lexington, KY 40507 859.425.2255 Tetra Tech planned and is providing engineering and environmental science consulting services for the largest landfill closure to date in the Commonwealth of Kentucky. This project is the multi-phase closure of Lexington's 97-acre Haley Pike Solid Waste Landfill.

Tetra Tech prepared engineering plans and specifications suitable for bidding and In addition to managing the large size of the project, Tetra Tech's regulatory specialists guided the incremental closure concept through the state's regulatory program. The concept is to close the landfill in roughly equal increments over a five-year period, spreading the closure expense over time, while continuing to operate the construction/demolition debris (C/DD) landfill located on a portion of the closure site.

Closure planning and design addressed the various environmental requirements of the Kentucky Division of Waste Management and Air Quality, including:

- Leachate collection and treatment
- Tier 2 gas monitoring
- Methane gas collection system
- Groundwater assessment and monitoring plan

Because of the long term cost consequences of transporting and treating leachate, Tetra Tech conducted a further investigation into the use of constructed wetlands for wastewater treatment. Use of a natural system to treat landfill leachate reduces disposal and treatment costs and reduces conventional pollutants in the landfill property. The investigation concluded that this technique could be used and would result in significant savings for LFUCG.



- Multi-phase closure of Lexington's 97-acre Haley Pike Solid Waste Landfill
- Used natural system to treat landfill leachate to reduce disposal and treatment costs and reduce conventional pollutants in the landfill property



YEAR COMPLETED

2012

PROJECT VALUE

\$1.5M

KEY STAFF

Herb Lemaster, PE Project Manager

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Tim Rogers, PG 502.564.6716 Tammi Hudson, PE 502.564.6716 Kentucky Division of Waste Management 300 Sower Boulevard Frankfort, KY 40601 The Kentucky Division of Waste Management (KDWM) selected Tetra Tech for Phase II Site Characterization, remediation design, and construction oversight for closure of a construction/demolition debris disposal area and former waste oil pits. Because this area is located in a Nature Sanctuary, it was imperative to complete the project to blend in with the surroundings, ensure public safety, and minimize damage to the surrounding area.

To characterize the site and surrounding area, Tetra Tech performed a hydrogeologic investigation to locate springs within a ¼-mile radius of the site. Surface water samples were collected from specific springs to determine if landfill contaminants were impacting the local groundwater system. Other site studies conducted in karst regions have shown that monitoring springs directly connected to the karst system is more effective than installing a groundwater monitoring well network, and eliminates the cost and time for installing monitoring wells.

Before exploration activities commenced, a complete ecological survey was conducted to make certain no threatened or endangered species would be impacted. The study included an assessment of the bats, trees, and native plants within the future construction area.

An electromagnetic survey was conducted to map the lateral extent of the waste boundary, and a GPS unit with sub-meter accuracy was used to record features while traversing the site. A resistivity survey was used to determine the thickness of the waste, as well as other subsurface features. Both methods were successful in delineating the waste and creating a more accurate determination of the volume of waste located at the site. A limited geotechnical investigation was also conducted to confirm the depth to bedrock as determined from the geophysical investigation.

Information from these investigations methods were used to design a closure cap and leachate treatment system. The closure activities will include consolidating the waste material to reduce the cap area; grading the waste material for better drainage; minimizing the surface water drainage by diverting surface flow; using a phytoremediation technique to pull leachate from the landfill while minimizing the borrowed soil needed for the closure cap; selecting trees and grasses that will blend into the natural landscape of the site; designing a wetland area at the toe of the waste area to treat leachate; as well as other site activities to close the site. It is anticipated that the construction activities will begin in the near future.

- Conducted geophysical surveys to delineate waste boundary
- Conducted extensive spring survey

- Conducted ecological survey for rare and endangered species
- Developed closure plan

DDSI Construction / Demolition Debris Landfill

Fayette County, KY

YEAR COMPLETED

1993 - 2011

PROJECT VALUE

\$645,000

KEY STAFF

Herb Lemaster, PE Project Engineer

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Troy Thompson
Demolition Disposal Services
2393 Alumni Drive
Suite 100
Lexington, KY 40517
859.266.7300

This project involved permitting and design of a 23-acre construction/demolition debris (C/DD) landfill located on a 60-acre tract in eastern Fayette County, Kentucky. The 23-acre landfill footprint was to be developed in eight phases and would hold about 1.2 million cubic yards of waste. Tetra Tech completed financial pro-forma, after which the client authorized proceeding with the permit application.

Obtaining the environmental permit involved a three-phase permit process required by the state environmental regulatory agency. As a part of the permitting procedure, Tetra Tech developed base mapping from aerial photography, conducted biological and wetlands surveys, arranged for Phase I and II archaeological surveys, directed the completion of an extensive geotechnical investigation, and characterized groundwater and surface water.

Following collection of physical data, Tetra Tech developed a grading plan to maximize the available air space, optimize the traffic flow, handle surface drainage, retain surface flow to allow sediment to be captured, and collect leachate generated during operation.

Services also included design of construction haul roads, personnel/maintenance buildings, scale house, and 70' x 12', 200,000 lb. capacity electronic scale.

Following issuance of the construction permit, Tetra Tech provided both construction surveying and quality assurance. Tetra Tech compiled the construction certification report for submittal to the regulatory authority. In the following years, Tetra Tech provided quality assurance services for Phase 2 (1998), Phase 3 (2000), Phase 4 (2003), Phase 5 (2007), and Phase 6 (2011). In addition, Tetra Tech prepared construction plans and bid documents for Phase 6 (2010).

Tetra Tech also designed and provided construction quality assurance services for a 2,750,000-gallon leachate storage lagoon.



- Prepared permitting documents
- Developed optimal grading plan

- Provided construction surveying and quality assurance
- Leachate storage lagoon

Landfill Wetland Leachate Treatment Harlan County, KY

YEAR COMPLETED

2007

PROJECT VALUE

\$650,000

KEY STAFF

Herb Lemaster, PE Project Manager

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Danny Anderson, PE Kentucky Division of Waste Management Solid Waste Branch 300 Sower Boulevard Frankfort, KY 40601 502.564.6716 Harlan County owns and manages a closed, sanitary landfill in Harlan County, Kentucky. Though closed, there was still a need to collect and transport leachate from the landfill to a publicly owned treatment works (POTW). The Kentucky Division of Waste Management (KDWM) selected Shield Environmental, who in turn subcontracted to Tetra Tech the design and construction oversight of a leachate treatment system that would eliminate the need for transporting the leachate to the POTW. The KDWM desired a simple, low operating cost, and reliable treatment system. The use of constructed wetlands for leachate treatment was preferred by the KDWM.

Tetra Tech prepared engineering plans and specifications suitable for bidding and construction of an on-site leachate treatment system. The work effort also included construction administration, construction quality assurance plan and services, and preparation of a construction certification report.

A number of tasks were undertaken to accomplish the project objective, including obtaining data necessary for design; characterization of waste and leachate to be treated; determining property location and boundaries;

determining the condition of the cap; determining the structural features and confirming the integrity of the leachate collection system; site topography, soils, and geology.

Tetra Tech determined the treatment alternatives for the leachate, and recommended a subsurface flow constructed wetland, keeping in mind the direct discharge warm water aquatic habitat criteria that must be met.

- Characterized quality of leachate
- Designed equalization basin and wetland cells
- Developed construction cost estimates, plans, and specifications
- Provided construction quality assurance services

Landfill Wetland Leachate Treatment

City of Leitchfield, KY

YEAR COMPLETED

2006

PROJECT VALUE

\$564,000

KEY STAFF

Herb Lemaster, PE Project Manager

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Tim Rogers, PG Kentucky Division of Waste Management Solid Waste Branch 300 Sower Boulevard Frankfort, KY 40601 502.564.6716 The City of Leitchfield owns and manages a closed, sanitary landfill in Grayson County, Kentucky. Though closed, considerable resources were required to collect and transport leachate from the landfill to the publicly owned treatment works (POTW), Leitchfield Wastewater Treatment Plant. Based on historical data, it was estimated that over 37,000 gallons of leachate were hauled and treated each year. The Kentucky Division of Waste Management (KDWM) selected Tetra Tech to design and provide construction oversight of a leachate treatment system that would eliminate the need for transporting the leachate to the POTW. The KDWM desired a simple, low operating cost, and reliable treatment system. The use of constructed wetlands for leachate treatment was preferred by the KDWM.

Tetra Tech prepared engineering plans and specifications suitable for bidding and construction of an on-site leachate treatment system. The work effort also included construction administration, construction quality assurance plan, and preparation of a construction certification report.

A number of tasks were undertaken to accomplish the project objective, including obtaining data necessary for design; characterization of waste and leachate to be treated; determining property location and boundaries; determining the condition of the cap; determining the structural features and confirming the integrity of the leachate collection system; site topography, soils, and geology.

Tetra Tech determined the treatment alternatives for the leachate, and recommended a surface flow constructed wetland, keeping in mind the direct discharge warm water aquatic habitat criteria that must be met.

PROJECT RELEVANCY

- Characterized quality of leachate
- Designed equalization basin and wetland cells
- Designed pump station and force main

- Developed construction cost estimates, plans, and specifications
- Provided construction quality assurance services

TETRA TECH

Landfill Wetland Leachate Treatment Cynthiana, KY

YEAR COMPLETED

2006

PROJECT VALUE

\$1.2M

KEY STAFF

Herb Lemaster, PE Project Manager

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Tim Rogers, PG Kentucky Division of Waste Management Solid Waste Branch 300 Sower Boulevard Frankfort, KY 40601 502 564 6716 The City of Cynthiana owns and manages a closed, sanitary landfill in Harrison County, Kentucky. Though closed, considerable resources were required to collect and transport leachate from the landfill to the publicly owned treatment works (POTW), Cynthiana Wastewater Treatment Plant. Based on historical data, it was estimated that over 700,000 gallons of leachate were hauled and treated each year. The Kentucky Division of Waste Management (KDWM) selected Tetra Tech to design and provide construction oversight of a leachate treatment system that would eliminate the need for transporting the leachate to the POTW. The KDWM desired a simple, low operating cost, and reliable treatment system. The use of constructed wetlands for leachate treatment was preferred by the KDWM.

Tetra Tech prepared engineering plans and specifications suitable for bidding and construction of an on-site leachate treatment system. The work effort also included construction administration, construction quality assurance plan, and preparation of a construction certification report.

A number of tasks were undertaken to accomplish the project objective, including obtaining data necessary for design; characterization of waste and leachate to be treated; determining property location and boundaries; determining the condition of the cap; determining the structural features and confirming the integrity of the leachate collection system; site topography, soils, and geology.

Tetra Tech determined the treatment alternatives for the leachate, and recommended a surface flow constructed wetland, keeping in mind the direct discharge warm water aquatic habitat criteria that must be met.

- Provided design and construction services for a constructed wetland to treat leachate
- Design elements included pump station, force main, equalization basin, and wetland cells
- Developed construction cost estimates, plans, and specifications

Landfill Wetland Leachate Treatment

Johnson County, KY

YEAR COMPLETED

2007

PROJECT VALUE

\$521,000

KEY STAFF

Herb Lemaster, PE Project Manager

Chris Hale, PE Project Engineer

Shann Easterling *Technician*

CLIENT/OWNER'S REPRESENTATIVE

Tim Rogers, PG Kentucky Division of Waste Management Solid Waste Branch 14 Reilly Road Frankfort, KY 40601 502.564.6716 Johnson County owns and manages a closed, sanitary landfill in Johnson County, Kentucky. Though closed, the Owner was faced with the continued chore and expense of collecting and transporting leachate from the landfill to a publicly owned treatment works (POTW). The Kentucky Division of Waste Management (KDWM) selected Tetra Tech to design and provide construction oversight of a leachate treatment system that would eliminate the need for transporting the leachate to the POTW. The DWM desired a simple, low operating cost, and reliable treatment system. The use of constructed wetlands for leachate treatment was preferred by the DWM.

Tetra Tech prepared engineering plans and specifications suitable for bidding and construction of an on-site leachate treatment system. When construction commences, Tetra Tech will provide construction administration and quality assurance services and will prepare a construction certification report.

A number of tasks were undertaken to accomplish the project objective, including obtaining data necessary for design; characterization of waste and leachate to be treated; determining property location and boundaries; determining the condition of the cap; determining the

structural features and confirming the integrity of the leachate collection system; site topography, soils, and geology.

Tetra Tech determined the treatment alternatives for the leachate, and recommended a subsurface flow constructed wetland, keeping in mind the direct discharge warm water aquatic habitat criteria that must be met.

Due to point source discharge regulatory concerns, an alternative design was completed for this facility that did not utilize wetlands.

The alternative design completed by Tetra Tech included two pump stations, approximately 4 miles of gravity sewer, and approximately one mile of force main.



- Performed site characterization
- Provided design and construction services for a constructed wetland to treat leachate
- Design elements included pump station, force main, equalization basin, and wetland cells
- Developed construction cost estimates, plans, and specifications

Monmouth County Reclamation Center

Tinton Falls, New Jersey

Geoffrey Perselay, Deputy county Administrator

732.431.7305 | ⊠ geoff.perselay@co.monmouth.nj.us

Project Duration: 2015-Present Project Value: \$425,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech provided engineering, permitting, and construction administration services for upgrading and expanding treatment capabilities and capacities of the leachate treatment plant (LTP). Upgrades included the integration of denitrification into the treatment process and expanding treatment capacity from 150,000 gpd to 250,000 gpd in anticipation of the pending landfill expansion. The LTP primarily uses ultra-filtration (UF) for solid separation. After LTP construction, Tetra Tech provided commissioning assistance, supporting start-up of the denitrification treatment units and associated equipment. We also provided coordination and oversaw equipment integration into the process control software. Tetra Tech assisted with seed sourcing for the nitrification and denitrification reactors, coordination of ancillary equipment preventative maintenance, and replacement of the UF membranes. The operator was advised on promoting biomass growth to achieve process design parameters. Tetra Tech reviewed process control and laboratory data to monitor start-up progress and scheduling of resumption of discharge. The LTP then began discharging at an initial daily effluent discharge volume of 45,000 gpd, gradually increasing along with biomass build-up to the maximum permitted discharge rate.

This project
was a huge challenge for all of us
and you in particular. I thank you for your dedication to the project completion and overcoming the odds
caused by COVID-related delays and supply chain issues with the
pumps etc.; and your constant vigilance over the final couple of weeks
related to the strainers, filters, and other mechanical decisions that had
to be made to get to the point where we can process and discharge
without fouling the new membranes. It is a pleasure to work
with you and benefit from your continued advice and
knowledge.... I appreciate you very much!!

Confidential Client

New York

Project Duration: 2017 Project Value: \$25,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech conducted a fast-track review of the leachate collection, conveyance, and treatment system for a large industrial client that discharges leachate collected from several monofill landfills to a surface water body after pre-treatment. The leachate contains high concentrations of suspended matter, including colloids, and is extremely basic, with a pH greater than 12. As a result of the treatment system's deteriorating performance, and resultant non-compliant discharges, of, the client had been issued an administrative consent order, requiring performance restoration.

Tetra Tech reviewed the collection and conveyance system, and identified opportunities for reducing leachate generation through capping, cap maintenance, and construction of a slurry wall to reduce infiltration. After a review of the analytical data identified a change in leachate quality, Tetra Tech conducted interviews with operating staff, which determined that coagulant dosing and mixing times were not being adjusted, resulting in suboptimal leachate conditioning and deteriorated system performance. Tetra Tech recommended and evaluated jar testing to determine correct dosing and operating parameters. After the suggested remedy was implemented, effluent quality improved to meet permit requirements. Tetra Tech also made recommendations for equipment upgrades to enhance performance and reliability while reducing labor and operating cost. The entire issue identification and resolution process took less than four weeks.

Confidential Client

New York

Project Duration: 2016-2017 Project Value: \$54,500

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech provided procurement services for a concentrate management facility producing concentrate from a 100,000 gpd reverse osmosis (RO) landfill leachate treatment facility. Leachate is treated in a dual stage RO facility with effluent discharge to a local wastewater treatment plant via a sewer connection. Concentrate (rejects from the RO process) is either recirculated to the landfill or hauled to industrial wastewater treatment plants.

The two-step procurement process consisted of a Request for Expression of Interest (RFEI) and a Request for Proposals (RFP). The RFP allowed for a range of procurement models, including design/build, design/build/operate, and design/build/own/operate.

Tetra Tech reviewed risks and costs associated with the existing options, along with the potential impacts on leachate quality and landfill gas (LFG) collection. To facilitate proposal evaluation from among the vendors' varied technological approaches, Tetra Tech developed performance-based technical specifications and economic evaluation criteria based on total cost of ownership (TCO).

Tetra Tech administered the procurement process, including conducting a pre-bid meeting and site inspection, responding to vendor questions, and coordinating with prospective bidders. Tetra Tech then prepared technological, economic, and business evaluations of the received proposals. Prospective bidders were asked to provide proposal-specific supplementary information to facilitate comparison and evaluation of bids. To develop the TCO data, Tetra Tech evaluated opportunity cost, such as the use of LFG, disposal at the landfill, and increased effluent discharge.

Tetra Tech briefed the client on proposal details and evaluation results and provided a summary report, including recommendations for consideration.

Confidential Client

Pennsylvania

Project Duration: 2016 Project Value: \$27,500

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech evaluated the performance of a 20,000 gpd landfill leachate treatment system that was not meeting permit requirements. The system employed an anaerobic packed media reactor as part of the biological leachate treatment, in addition to aerated leachate storage and metal precipitation. Tetra Tech reviewed leachate and effluent quality data and inspected facility, identifying the packed media reactor as the cause of performance issues. The team observed that media had deteriorated and collapsed, allowing the bulk of the leachate flow to pass the reactor through preferential flow paths, thus rendering the unit ineffective.

Tetra Tech recommended replacing the media and rehabilitation of the reactor. Tetra Tech procured replacement media; contracted with a local firm to perform the work, including routine maintenance of the reactor and associated equipment; oversaw the work; and provided a field technician with confined-entry training. Upon return to service, the facility produced effluent compliant with permit conditions.

Anchorage Regional Landfill

Alaska

Mark Spafford, General Manager, Department of Soild Waste Services, Municipality of Anchorage

Project Duration: 2019-2020 Project Value: \$39,500

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech prepared a feasibility study for leachate management at the Anchorage Regional Landfill, evaluating leachate treatment and disposal alternatives. The feasibility study considered several on- and off-site options, including reverse osmosis with discharge to surface water; on-site pre-treatment and conveyance to a proximally located small wastewater treatment facility for co-treatment and disposal; and on-site deep well injection. Tetra Tech developed 20-year budgetary capital and operating cost estimates.

Tetra Tech also provided engineering design services to replace the existing leachate storage ponds. The pond modifications, which would significantly increase storage capacity, are incorporating features to facilitate biological pre-treatment.

Salem County Improvement Authority

New Jersey

Julie Acton, Executive Director/Land Preserve

≈ 856.935.7900 | ⊠ jacton@scianj.org

Project Duration: 2016-2021 Project Value: \$450,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech permitted, designed, and provided construction administration services for a 50-acre exposed geomembrane cover (EGC) expected to significantly reduce leachate collection at the County's landfill. The EGC was permitted as a phased final closure that postpones installation of the drainage and vegetative soil covers by up to 30 years. The geomembrane specified for the EGC was consistent with the permitted liner. The phased closure construction is anticipated to significantly reduce leachate collection over the first three years, reducing leachate management costs. Pay-back for the EGC is estimated to range between 6 and 7 years. Construction of the EGC was completed in June 2021.

Riverview Land Preserve

Riverview, Michigan

Project Duration: 2006-Present

Project Value: \$135,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech is providing consulting and engineering services to the Riverview Land Preserve (RLP) landfill in Riverview, MI for the selection and procurement of a leachate pre-treatment system that will comply with new limits for two poly- and perfluoroalkyl substances (PFAS) adopted by Michigan's Department of Environment, Great Lakes, and Energy (EGLE). The RLP had previously received approval for direct discharge of leachate to the collection and conveyance system of the Downriver Utility Wastewater Authority. With the adoption of PFAS limits, the Authority is developing limits for RLP's discharge for two PFAS substances:

- Perfluorooctanesulfonic acid (PFOS) 11 ng/l
- Perfluorooctanoic acid (PFOA) 420 ng/l

Tetra Tech evaluated upgrading the existing system using a granulated activated carbon (GAC) filtration system, which was originally designed to reduce concentrations of poly-chlorinated bi-phenyl (PCB). The existing system lowered the cost for leachate disposal by about two-thirds by eliminating surcharge fees for PCB. Tetra Tech successfully evaluated upgrading the system to provide filtration and additional adsorptive media filtration to provide the necessary PFAS removal. Based on the results, Tetra Tech prepared a Request for Proposals (RFP) to be issued by the City of Riverview for procuring construction and commissioning services of the proposed 40,000 gpd leachate pretreatment facility.





Confidential Client

Michigan

Project Duration: 2021 Project Value: \$35,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech is designing and assisting with the implementation of temporary/provisional leachate treatment systems to reduce the concentration of benzene, toluene, ethylbenzene and xylene (BTEX) compounds at two Michigan landfills until construction of the permanent leachate disposal solution serving both facilities has been completed.

Tetra Tech performed process calculations for treatment system designs to volatilize BTEX compounds. Results were used to develop the basis of the engineering design. Tetra Tech evaluated in-vessel and slip-stream design alternatives to provide continuity of leachate management operations and to account for site-specific constraints. Tetra Tech developed an engineering design for a slip-stream treatment system using off-the-shelf readily available equipment because existing access ports limit the size of equipment that can be installed within the tanks.

Tetra Tech and the client researched and evaluated alternative in-vessel systems to avoid liquid transfers. Tetra Tech evaluated a shortlisted system, compared its specifications to the process design, and specified the system and its components. Tetra Tech prepared recommendations for start-up and compliance testing and provided compliance assistance.

The work took less than six weeks from the initial request for assistance to the start of construction. Tetra Tech is currently providing guidance for compliance monitoring during start-up and compliance assistance.

Confidential Client

Wisconsin

Project Duration: 2022 Project Value: \$25,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech conducted a feasibility study for the treatment of leachate from a monofill to reduce concentrations for two PFAS compounds: PFOA and PFOS. The landfill is discharging leachate to a publicly-owned wastewater treatment facility and is expected to be subject to PFAS discharge limits upon re-issuance of its discharge permit.

The facility is generating annual volumes of leachate that are disproportionate to the amount of landfilled waste. The landfill's disposal history, projected tipping rates, and waste characteristics indicated the potential for generation of useful quantities of landfill gas (LFG). Tetra Tech evaluated the potential LFG generation and recovery for use in evaporating leachate.

Tetra Tech characterized leachate quality and quantity data to develop a preliminary basis of design and then evaluated several commercially operating treatment processes. The team then developed preliminary estimates of capital and operating expenses, including dedicated equipment, electricity and energy requirements, use of chemical additives, and treatment media. Tetra Tech eliminated several options based on the capital expenses and identified the potential for reducing leachate generation as an additional way to reduce capital expenses. Tetra Tech then recommended specific treatment process types, and suggested benchtop testing to determine ranges for operating parameters and associated site improvement requirements.

Confidential Client

Wisconsin

Project Duration: 2022 Project Value: \$40,000

Project Staff: Arie Kreman, PhD, Kristie Shurie, Tyler Brown, PE

Tetra Tech is performing a wastewater treatment process evaluation of an activated sludge process for an industrial generator, which was operating a treatment facility originally designed in the 1970s to serve several production facilities. There was only one remaining generator, and the treatment facility was judged to be oversized, operating inefficiently with respect to energy use, and producing fluctuating effluent quality. In addition, the effluent was not in compliance with temperature discharge requirements.

Tetra Tech evaluated raw wastewater characteristics and revised flow data and obtained design and operating parameters to support development of a treatment process model. Tetra Tech designed a field sampling event to obtain additional parameters not normally collected during routine treatment process operations; implemented the model; ran simulations on historic data to estimate certain parameters; and analyzed a number of predetermined scenarios. Tetra Tech then reviewed results to determine which existing facility components were underperforming and could be optimized by operational changes.



MS, Civil Engineering (Environmental), University of Kentucky, 1992 BS, Civil Engineering, University of Kentucky, 1990 AS, Prestonsburg Community College, 1988

REGISTRATIONS:

Professional Engineer: KY, No. 19309 OH, No. 77200 Land Surveyor-in-Training: Kentucky, No. 1232 Troxler Nuclear Gauge Certification, No. 093841 Permit-Required Confined Space Entry Training

Herbert Lemaster, PE

Project Manager

32 years of experience

Mr. Lemaster is the senior project manager on all design and construction projects in Tetra Tech's Lexington office. He is responsible for analysis and design, writing specifications, developing contract documents and cost estimates, preparation of construction drawings, construction administration, and construction engineering. He has managed many large-scale stormwater, solid waste landfill, water, wastewater, and environmental projects. His solid waste landfill

projects include design of sedimentation ponds, landfill liners and caps, leachate collection and storage facilities, gas removal and venting systems, modeling leachate production, and general site layout. Other projects include designing earth retaining structures, groundwater removal and remediation systems, stormwater retention basins, evaluations of stormwater facilities, stormwater modeling, and environmental compliance.

SELECT RELEVANT EXPERIENCE

Haley Pike Landfill Pump Station Improvements, LFUCG, KY. Senior Engineer. Design to replace a 25-gpm pump station with a 150-gpm pump station meeting owner requirements for a Class C pump station and about 1,200 feet of 6-inch HDPE force main to handle increased flows.

Billy Glover Waste Dump Characterization and Closure, Kentucky Division of Waste Management (KDWM), Jessamine County, KY. Project Manager/Senior Engineer. Extensive site characterization of impact to surface water, groundwater, stream sediment, and site soil for KDWM's Superfund Branch. Remedial measures designed included consolidating waste into the smallest area possible to reduce the size of the engineered cap and using a constructed wetland to treat leachate gravity-flows to the treatment unit.

Harlan County Landfill Leachate Treatment System, KDWM, Harlan County, KY. Senior Engineer. Design, bidding, and construction administration services to close old landfill and develop an effective on-site treatment system for leachate. Project elements included 400-feet of 8-inch perforated HDPE leachate collection pipe, a double-lined equalization basin, two subsurface flow wetland cells operating in parallel (4,000 sy of 60-mil HDPE liner and 2,000 sy of double-sided geocomposite), and a decanting/effluent facility.

Leitchfield Landfill Leachate Treatment System, KDWM, Grayson County, KY. Senior Engineer. Design, bidding, and construction administration services to close this old landfill and develop an effective on-site treatment system for leachate. Project included a double-lined equalization basin and two surface flow wetland cells operating in parallel (6,000 sy of 60-mil HDPE liner and 3,000 sy of double-sided geocomposite), a decanting facility, a pump station with dual 5-HP pumps, 1,200 feet of 2-inch force main, an irrigation line, and an emergency standby generator.

Cynthiana Landfill Leachate Treatment System, KDWM, Harrison County, KY. Senior Engineer. Design, bidding, and construction administration services to close this old landfill and develop an effective on-site treatment system for leachate. Project included 4,000 feet of 8-inch leachate collection pipe, a double-lined equalization basin and two surface flow wetland cells operating in series (27,000 sy of 60-mil HDPE liner and 13,500 sy of double-sided geocomposite), a decanting facility, a pump station with dual 5-HP pumps, 2,100 feet of 4-inch force main, and an emergency standby generator.



PhD, Civil and Environmental Engineering, Technicon – Israel Institute of Technology, Haifa, Israel, 2005 MSc, Civil Engineering (Water Resources and Hydrodynamics), Technicon – Israel Institute of Technology, 1999 BSc, Civil Engineering, Israel Technicon – Institute of Technology, 1993

REGISTRATIONS:

Solid Waste Association of North America (SWANA) New Jersey and New York Chapters National Groundwater Association OSHA 40-hr. HAZWOPER Training OSHA 8-hr. HAZWOPER Refresher

Arie Kreman, PhD

Subject Matter Expert

29 years of experience

Dr. Kremen is the Tetra Tech Subject Matter Expert for leachate treatment from municipal solid waste and industrial landfills. Arie has close to 30 years of experience in the environmental and solid waste industry with broad experience and expertise in wastewater and leachate treatment; landfill design and construction; beneficial reuse of reclaimed wastewaters; and federal and state environmental permitting. Dr. Kremen researches the role of landfills in the PFAS cycle; he is active within SWANA, helping to formulate the position of the organization with respect to PFAS; and, developing technical information and guidance for leachate treatment. Dr. Kremen serves public and provide solid waste clients and is the chair if the SWANA Landfill Liquids Technical Committee.

SELECT RELEVANT EXPERIENCE

RO Reject Management, Confidential Client, NY.

Feasibility study of available technologies for reject volume reduction from an RO leachate treatment facility. Prepared performance specification-based bid documents for a 50,000 gpd facility, administered bid, performed technical and economic proposal evaluation, and owner coordination.

MBR Leachate Pre-treatment, Monmouth County,

NJ. Technical and engineering support in developing and implementing DBO contract for a 150,000-gpd leachate pre-treatment facility. Development of performance specifications, proposal evaluation, and contract negotiations. Facility has reduced leachate management operating cost by about 70 percent. Design, permitting, and construction of upgrades to leachate treatment facility that increase treatment capacity by 67 percent and provide denitrification. Engineering design and permitting of a final cover system for the south-facing sideslope of Phase III landfill. Design included a new permanent landfill access road, a sub-cover drainage system, and a use of a drainage composite in lieu of a sand drainage layer.

Packed Media Bioreactor Rehabilitation, Confidential Client, PA. Performed facility inspection, performance evaluation, and compliance record review of 50,000-gpd leachate treatment facility including media procurement,

SOP development for facility shut-down and start-up, subcontractor retainage, and project oversight. Facility now produces effluent compliant with permit conditions.

Expert Technical Services, Confidential Client, NJ.

Technical expert to a solid waste facility implicated is causing adverse conditions in a wastewater treatment plant receiving pretreated leachate. Preparation of analyses of leachate, effluent, and wastewater data; review of facility and plant operations; preparation of reports and memoranda, and, coordination client and outside counsel.

Leachate Treatment Procurement Services, Confidential Client, PA. Development of performance specifications and bid documents for the design, construction, permitting, and operation of a 100,000-gpd leachate treatment facility discharging to surface water. Administration of bid, evaluation, and negotiation, including recommendation to award letter.

Leachate Pretreatment, Riverview Land Preserve, Riverview, MI. Designed a 15,000-gpd leachate pretreatment system for the removal of organic contaminants to meet effluent discharge limitations. Commissioned in May 2015. Engineering design and procurement services for of upgrades to the leachate treatment system to remove PFAS compounds.



BS, Environmental Engineering, Rensselaer Polytechnic Institute, 2008

REGISTRATIONS:

Licensed Professional
Engineer in Maine
OSHA 40-hr. HAZWOPER
Training
OSHA 10-hr. Construction
Safety and Health
Sprott School of Business
Professional Programs
Business Writing II

Tyler Brown, PE

Alternative Evaluations

15 years of experience

Mr. Brown is an environmental engineer with 15 years of experience in remedial design, including groundwater pump and treat, sub-slab mitigation, and dual phase treatment systems. He has extensive experience with emerging contaminants including per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane. He was one of the lead engineers for the design and implementation of

multiple PFAS treatments systems at the Pease Air Force Base in Portsmouth, NH. He now uses his background in remedial process engineering and emerging contaminants to help solve complex problems for the solid waste industry, including leachate treatment.

SELECT RELEVANT EXPERIENCE

LEACHATE AND GROUNDWATER REMEDIATION

Design engineer for a landfill leachate collection and transfer system. Design duties included performing calculations, creating process and instrumentation diagrams (P&ID), civil and mechanical detail drawings, creating specifications, and reviewing other disciplines for design continuity.

Design engineer for a pair of groundwater pump and treat systems at a former Air Force Base for the treatment of PFAS using various treatment medias, including ion exchange resin. Responsibilities included managing the design teams across all required project disciplines from conceptual design through construction. Design duties included performing calculations, creating P&ID, mechanical and general arrangement drawings, creating specifications, and reviewing other disciplines for design continuity.

Conducted several pilot tests for the pretreatment of metals at existing groundwater pump and treat systems. Responsibilities included installing and operating the pilot equipment, data collection, and reporting.

Design engineer for a wide range of projects, including groundwater treatment, sub-slab mitigation, and dual phase treatment. Design duties included performing calculations; creating P&ID; drafting civil, mechanical, electrical, and instrumentation design drawings; and equipment specification.

Performed operations and maintenance duties for groundwater treatment and sub-slab mitigation systems. Duties included on-site scheduled inspections, repairing and replacing equipment, and sampling and reporting system performance.

Developed cost estimates to support clients in budget planning and design alternative selection. Cost estimating was performed using both RACER cost estimating software as well as RS Means Construction Cost data.

VAPOR REMEDIATION

Designing geosynthetic barriers beneath new construction in conjunction with sub-slab mitigation systems. Projects included selecting geomembranes such as spray-on liners, HDPE, and Stego Wrap barriers. Additional duties included drafting site-specific construction details and specifications for installation.

Client contact and lead engineer for the design, construction, and startup of several sub-slab mitigation systems for both volatile organic compounds and combustible gases. Duties included managing submittals, construction oversight and inspections, startup, lead client contact, and meeting with regulators.

Developed standardized design criteria for sub-slab mitigation designs to facilitate coordinated quality work and consistent design deliverables throughout the company.



BS, Chemical Engineering (minor in Sustainable Energy Systems Engineering and Business), Clarkson University, Potsdam, NY, 2016

REGISTRATIONS:

Society of Women Environmental Professionals OSHA 40-hr. HAZWOPER Training

Kirstie Shurie

Alternative Evaluations



Ms. Shurie is a project manager with 6 years of experience in the environmental field, including solid waste engineering and remediation, with a focus on leachate management and treatment design. Her experience includes design of leachate collection systems, and construction management. She studied chemical engineering design, energy systems, and process dynamics and controls. She is competent in the use of design and modeling software, including AutoCAD, Civil 3D, HydroCAD, and the Hydrologic Evaluation of Landfill Performance (HELP) Model.

SELECT RELEVANT EXPERIENCE

LEACHATE MANAGEMENT AND TREATMENT DESIGN AND ENGINEERING SUPPORT

Assisted in designing a leachate treatment plant upgrade for a municipal landfill in New Jersey, including site leachate flow analysis, hydraulic evaluation, analysis of existing equipment capacity for plant upgrade, equipment sizing, chemical dosing requirements for proper treatment, equipment and piping layout, and connections to existing plant. Prepared construction plans, process flow diagram, piping and instrumentation diagrams, and specifications for Treatment Works Approval and construction. Managed the construction and quality assurance for the upgrade.

Designed a leachate collection system for a private landfill in New Jersey, including site leachate flow analysis and calculations, gravity line and force main pipe sizing, pump selection and interconnect mechanisms, manhole sizing and configuration, connection and interface to the existing system, and evaluation of effect on downstream infrastructure. Prepared construction plans, technical specifications, and bid documents and responsible for submittal review.

Assisted in designing a leachate collection system for a municipal landfill in New Jersey, including existing flow analysis and HELP modeling to estimate total site leachate generation over time and determine peak site generation. Designed pumps for a leachate collection system for a municipal landfill in New York, responsible for pump selection and evaluation of downstream infrastructure.

STORMWATER DESIGN AND ENGINEERING SUPPORT

Assisted in designing a stormwater management plan for the final cover of a public landfill in New Jersey, including hydrological analysis and calculations through HydroCAD modeling, culvert and channel sizing, retention basins and erosion/sediment control plans.

Assisted in designing a stormwater conveyance system for a private landfill in New York, including hydrological analysis and calculations through HydroCAD modeling, culvert sizing, retention pond and forebay sizing.

Assisted in designing drainage control structures including swales and culverts in compliance with New York guidelines for soil erosion and sediment controls for numerous solar sites in New York. Prepared site construction plans and drainage area calculations for the SWPPP design for submittal to the Town Planning Board.



BS, Civil Engineering Technology, Western Kentucky University, 1990

REGISTRATIONS:

Professional Engineer: VA, No. 0402-03225

Land Surveyor-in-Training (LSIT), Kentucky, No. 1273

Landfill Manager, KY Division of Waste Management, 2009

Radiation Safety Office, 2013

Troxler Nuclear Gauge Certification, 2010

AutoCAD Certification, No. 3FADTT0477

Hazardous Waste Operations and Emergency Response Certification, CFR 1910.120

HAZMAT Certification, As Required by USDOT and IATA, 2022

RADWORKER Certification, 2015

Chris Hale, PE

Alternative Evaluations

34 years of experience

Mr. Hale has worked on several landfill projects that have included horizontal and vertical expansions, major and minor modifications, permit applications, new construction, and closures. He has developed grading plans, and designed access roads, drainage ditches, culverts, sediment ponds, and constructed wetlands. He has used SedCAD software for the hydraulic design of ditches, pipes, and sediment ponds. He has created cross-sections to calculate and maximize air space and performed take-off of quantities to develop bid schedules. He has answered contractors' technical questions; reviewed requests for payments; reviewed shop drawings and submittals; prepared technical specifications; observed construction; performed Construction Quality Assurance (CQA); prepared final construction certification documents; performed construction staking and layout; and prepared required reports. Using Hydrologic Evaluation of Landfill Performance (HELP) software, he has analyzed leachate production at landfills to design leachate storage facilities.

SELECT RELEVANT EXPERIENCE

Raven Run Landfill, LFUCG, KY. Project Engineer. Design services to close this old landfill and develop an effective treatment system for leachate. Facility located within a natural park maintained by local government. Used natural systems to accomplish leachate treatment through a bioswale and phytoremediation.

Billy Glover Dump Characterization and Closure, KDWM, Jessamine County, KY. Project Engineer.

Completed a site characterization and closure of an old landfill, referred to as the Billy Glover Dump Site. An extensive site characterization was completed of impact to surface water, groundwater, stream sediment, and site soil for the KDWM's Superfund Branch. Remedial measures designed included consolidating waste into the smallest area possible to reduce the size of the engineered cap, final cap, drainage features, access road, and cascading aeration system.

Leachate Treatment Systems at Various Kentucky
Locations, Commonwealth of Kentucky Finance and
Administration Cabinet, KY. Project Engineer. Design
and construction oversight of leachate treatment systems at
various sites in eastern and western Kentucky. Implemented
large holding lagoons and equalization basins into designs
for both passive and active treatment methods. Provided
construction administration and certification services.

Haley Pike Constructed Wetlands, Design of Haley Pike Landfill Closure, Fayette County, KY. Project Engineer. This innovative closure plan was for a 97-acre landfill, making it the largest landfill closure to-date in Kentucky. Key closure features included design of an equalization basin and manmade wetlands to treat large quantities of leachate during the post-closure life of the facility. This system replaced the practice of pumping leachate from 30 manholes and hauling it 20 miles to the client's treatment plant, resulting in significant savings over the post-closure life of the facility.



BS, Architectural Engineering, Drexel University, 2010

REGISTRATIONS:

Professional Engineer: KY, No. 38016

CDT – Construction Document Technologist

*denotes experience prior to Tetra Tech

Ryan Rathfon, PE

Alternative Evaluations

Mr. Rathfon's project experience includes site civil and structural designs for light manufacturing, power plants, and commercial and educational facilities; municipal utility design for potable water, sanitary sewer, and storm sewer systems; surveying for utility line construction, municipal stormwater program management, and landfill management; flood mitigation design analysis for municipal wastewater facilities.

SELECT RELEVANT EXPERIENCE

West Hickman Wet Weather Storage Facility, LFUCG, KY. Project Engineer/Construction Admin. Wet weather storage facility and improvements to headworks, including new screening and grit facilities, 70-MGD influent and wet weather pump stations, two 20-MGD storage tanks, recycle pump station, upgrades to the non-potable water system, and associated piping and electrical.

Rental Car Facility, Blue Grass Airport, KY. RPR. Daily site observations, inspections, documentations, and digitally archived photos of construction progress for three new rental car facilities and site preparation activities that involved 36.5 acres and 100,000 CY of earth work. Assured all site and building construction, and utility installation activities were in accordance with plans and specifications. Facilitated communication between owner, design team, and contractor.

Solar Field Site Plans, Florida Power and Light, FL.Design/Modeling of site plan for a three-square mile solar field, produced grading, site, basin drainage, erosion and sediment control plans and details for environmental permitting and bidding.

Coal Combustible Residuals Treatment Building, EW Brown Power Plant, Confidential Client, Harrodsburg, KY. Civil/Structural Designer. Design/Modeling of facility site features, including pumps, conveyors, filters, and electrical equipment for upgraded coal combustible residuals treatment process. Designed site grading, storm sewer,

sanitary sewer, domestic water, and underground process piping. Assisted in facility structural components modeling.

82,000 SF Warehouse and Office Space, Brenntag AG, Houston, TX. Civil Designer. Site design and modeling for an 82,000-SF warehouse, adjacent office space, and 10,000-SF open-air chemical storage warehouse. New stormwater detention pond, stormwater piping and structures, site grading, new loading dock and parking layout, truck scale traffic layout, and site utility routing, including sanitary sewer, domestic water, and fire protection water lines.

Raw Water Inlet Silo, Midwest Fertilizer, Inc, Mount Vernon, IN. Civil/Structural Designer. Design of a raw water intake silo and associated piping from the fertilizer plant to the silo situated on the Ohio River. 3D modeling and construction plans and details for intake silo, structural elements of electrical substation, and piping from the silo to the main plant utilizing Revit and Civil3D. Structural modeling of adjacent structure housing electrical equipment. Design for routing of raw water intake and effluent discharge piping. Permitting applications for river construction (USACE) and railroad pipeline occupancy (CSX).

*Evansville Christian High School, IN. Civil Designer. Design/Modeling of site features for new high school, including extension of sanitary main, stormwater detention pond design, storm sewer, site grading, new entrance drive design, and utility service. Submitted plans to local municipality for approval.



Associates Degree, Environmental Technology, Central Kentucky Technical College, 1999

REGISTRATIONS:

SPCC and Stormwater Compliance Workshop, EPA Alliance Training Group, February 25–27, 2015

Above-Ground Tank Inspector (AST) (Levels 1 and 2), Steel Tank Institute, 2011

Permit-Required Confined Space Entry Training

CFR 1910.120 Hazardous Waste Operations and Emergency Response

CPR and First Aid Training

Troxler Nuclear Gauge Safety Training Course, 2004

HAZMAT Certification as required by USDOT and IATA, 2022

Shann Easterling

Senior Technician

20 years of experience

Mr. Easterling reviews and processes reports of analytical data for analysis, assists in river and stream assessments and calibration, and O&M of field equipment. He is knowledgeable about the collection, preservation, and transportation of samples for analysis. He is proficient in the installation, calibration, operation, and monitoring of water and wastewater flow meters and sequential samplers. He has conducted numerous installations at industrial and commercial sites. He is a team member for tracer

sequential samplers. He has conducted numerous installations at industrial and commercial sites. He is a team member for tracer dilution studies conducted throughout the US. He has worked at numerous U.S. Air Force and Army bases and airports conducting sustainability, Phase I and II assessments, above-ground storage tank inspections, and stormwater compliance monitoring.

SELECT RELEVANT EXPERIENCE

Hardin County Landfill, Elizabethtown, KY. Technician. Produced quarterly surface water and ground water reports for submittal to regulatory agencies. In addition, conducted the quarterly groundwater, surface water, leachate, and methane monitoring. Regularly checked regulations and laboratory methods for proper procedures and testing requirements. Maintained a large database of statistical data.

Haley Pike Landfill, Lexington, KY. Technician. Assisted project teams with intra-well data analysis and manipulation. Assisted in the production of monthly and quarterly reports that are submitted to state regulators. In addition, compiled and reviewed monthly analytical results for exceedances or anomalies. Participated in well inspections and site visits with regulatory authorities. Conducted GPS on-site mapping of monitoring well locations and surface water sites. Converted this data using ArcView software, which was used for graphical representation of well and surface water data.

Winchester Municipal Landfill, KY. Technician. Produced quarterly surface water and ground water reports for submittal to regulatory agencies. Regularly checked regulations and laboratory methods for proper procedures and testing requirements. Assisted in the scheduling of sample collection and determined frequency of analysis. Maintained a large database for statistical data.

DDSI Landfill, Lexington, KY. Technician. Developed a database and control limits for the statistical analysis of groundwater for this landfill. Produced quarterly reports that were submitted to regulatory agencies and reviewed the statistical data for any errors or anomalies.

Characterize 34 South Central Landfill Sites, KDWM, Solid Waste Branch, Various Counties, KY. Technician. Team member on one of four field teams that gathered the necessary data to characterize the various sites covered by the project scope. Following completion of field work, assisted the reporting team in preparing the written reports and in developing the priority ratings for the sites.

Harlan County Landfill, KY. Technician. Assisted with the development of an intra-well monitoring program for the Harlan County Landfill. Created a database and reviewed regulations that allowed the client to reduce the frequency of monitoring. Maintained this database.

Characterize 30 East and South-Central Landfill Sites, KDWM, Solid Waste Branch, Various Counties, KY.

Technician. Team member on one of four field teams that gathered the necessary data to characterize the various sites covered by the project scope. Following completion of field work, assisted the reporting team in preparing the written reports and in developing the priority ratings for the sites.



MS, Civil Engineering, University of Kentucky, 2019 BS, Civil Engineering, University of Kentucky, 2017 BA, Arts and Sciences, University of Kentucky, 2008

REGISTRATIONS:

Professional Engineer: KY, No. 37317 Construction Documents

Technology (CDT)
Certification

USEPA Method 9 Opacity Certification

Kentucky Erosion Prevention and Sediment Control (KEPSC) Certified Inspector CPR and First Aid Training

Lucy Pacholik, PE

Alternative Evaluations

years of experience

Ms. Pacholik is proficient in ArcGIS, AutoCAD Civil 3D, KYPipe, InfoSWMM, InfoWater, Hydro-CAD, PondPack, Microsoft Excel, Word, and PowerPoint. She provides engineering, technical, and clerical support for environmental compliance projects for private, commercial, industrial, and government clients. This work includes air, drinking water, and waste permitting; Spill Prevention, Control & Countermeasure (SPCC), Groundwater Protection Plans (GPP), and Best Management Practices (BMP) Plans; data analysis and emissions evaluations for multiple facilities under a major national environmental contract; and project report technical quality control reviews. She is knowledgeable about the collection, preservation, and transporting of samples for analysis, as well as experienced in the operation and calibration of water and wastewater parameter monitoring devices and sequential samplers. In addition, Ms. Pacholik oversees the annual renewal and continual compliance of Tetra Tech's Kentucky Wastewater Laboratory Certification Program.

SELECT RELEVANT EXPERIENCE

West Hickman Wet Weather Storage Facility, Lexington-Fayette Urban County Government, KY.

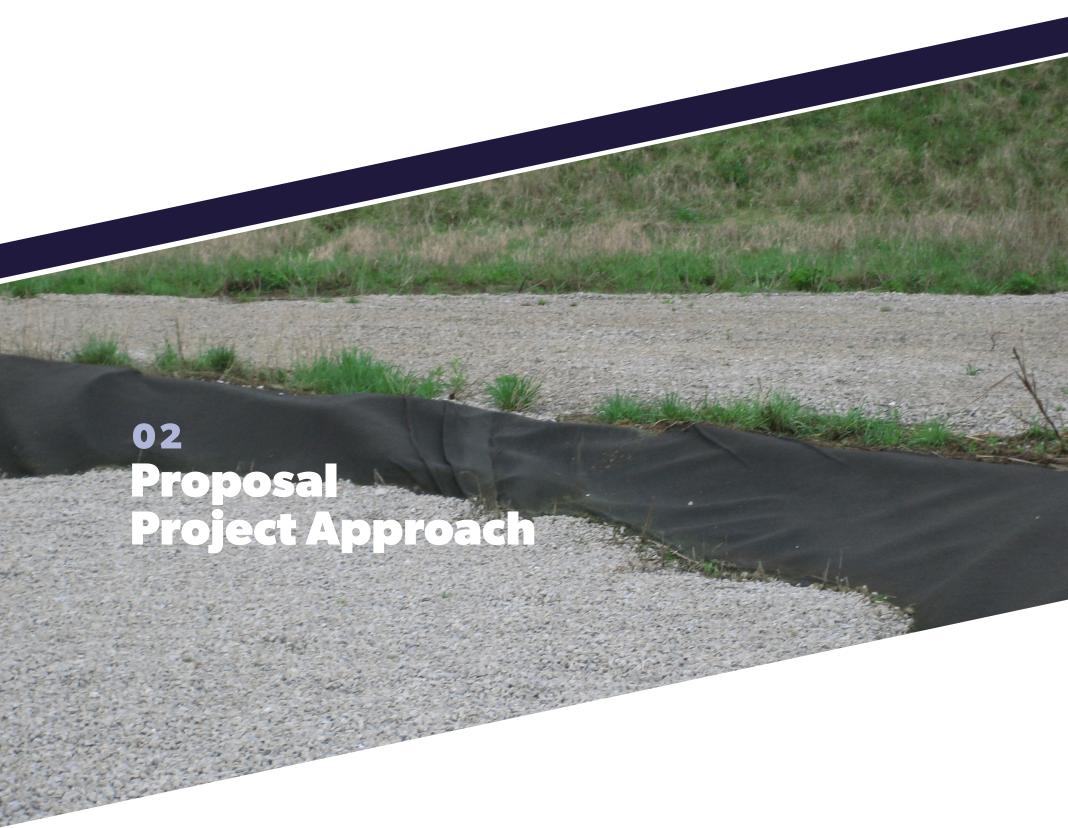
Project Engineer and Construction Administrator. Assisted in construction permitting process, specification review, and preparing submittals to LFUCG and KIA. Assisted in analyzing proposed stormwater management options for the development site including detention facilities and erosion control measures. The development includes two 22 MG storage tanks and a new headworks facility.

Environmental Monitoring and Regulatory Compliance, Hardin County Landfill, KY. Project Engineer. Produced quarterly surface water and groundwater reports for submittal to regulatory agencies. Conducted quarterly groundwater, surface water, leachate, and methane monitoring. Conducted statistical analysis of groundwater sampling results. Completed Title V semi-annual air monitoring reports for submittal, and annual air compliance certification and emissions inventory. Maintained air permitting records and submittal of air permit renewal documents.

Wolf Run Wet Weather Storage Facility, Lexington-Fayette Urban County Government, KY. Project Engineer and Construction Administrator. Assisted in specification and plan review as well as preparing submittals to LFUCG. Reviewed field reports and verified contractor and subcontractor compliance with project's U.S. Department of Housing and Urban Development wage determination. The development includes one 8 MG storage tank and a new pump station.

Campbell Lane, Bob-O-Link Drive, and Barnard Drive Stormwater Improvements, Lexington-Fayette Urban County Government, KY. Project Engineer. Performed hydraulic modeling using Innovyze InfoSWMM to analyze and resolve flooding issues at three separate locations in Lexington, KY. Developed initial cost estimates and designed selected alternatives in AutoCAD Civil 3D.

Industry Road Culvert, Lexington-Fayette Urban County Government, KY. Project Engineer. Performed hydraulic modeling for redesign of failing railroad culvert using HydroCAD Stormwater Modeling software. Surveyed contributing stormwater piping system and mapped system in ArcGIS and AutoCAD Civil 3D. Developed initial cost estimates, grading/topological design, and creation of project specifications.



02: Proposal Project Approach

INTRODUCTION

The Haley Pike Landfill consists of two closed landfill cells (phases): Unit 1 Phase 1 (45-acres) and Unit 1 Phase 2 (97-acres). They are situated on a 420-acre complex located in eastern Fayette County and owned by the Lexington-Fayette Urban County Government (LFUCG).

The Unit 1 Phase 1 landfill cell was closed in 1980, subsequently opened in 1989 to fill voids/depressions, regraded, and closed again. The Unit 1 Phase 2 landfill cell was closed in four construction phases under a Closure Plan approved by the Kentucky Division of Waste Management. During this closure period, the landfill was allowed to remain open for the acceptance of construction and demolition debris (C/DD) waste only.

Closure construction phase 1 and phase 2 were completed in 2006 and included the installation of leachate collection system, a pump station, a equalization basin, and the constructed wetland treatment system. Closure construction phase 3 was completed in 2008 and included installation of the remain leachate collection system around the Unit 1 Phase 2 landfill cell.



Haley Pike Landfill Equalization Basin

Additionally during the closure construction phase 2, a leachate collection system was installed around Unit 1 Phase 1 landfill cell and connected to the leachate collection system that discharges to the constructed wetland treatment system.

Discharges from the constructed wetland leachate treatment flow to the surface water at Outfall 005 under Kentucky Pollution Discharge Elimination System (KPDES) Permit No. KY0092100 (expiration date November 30, 2024). Following issuance of Notices of Violations (NOV) in 2020 and 2021, LFUCG entered into an Agreed Order (AO) with the Kentucky Energy and Environment Cabinet, Division of Enforcement in March 2022.

The AO requires the LFUCG to undertake steps towards implementing corrective actions to address exceedances in discharges from outfalls, including Outfall 005.

LFUCG is soliciting proposals from experienced and qualified firms to develop Leachate Management Alternative Analyses and Engineering Study, Request for Proposal (RFP) #42-2022.

The work subject to this RFP focuses on Outfall 005-1, i.e., effluent discharges from the leachate treatment system.

BACKGROUND

Tetra Tech has developed an understanding of the existing conditions at the Haley Pike Landfill based on its familiarity with the facility, a site visit conducted as part of this RFP, and review of the RFP and associated documents, including Addenda issued by LFUCG. Tetra Tech preferentially relied upon information provided by LFUCG than MACTEC's September 2010 report, as this document is dated, not reflective of current conditions, and provided in draft version.

Treatment System Description

Leachate from the closed and capped Haley Pike Landfill undergoes treatment in a constructed Wetlands Treatment System (WTS) prior to discharge. A pump station conveys leachate from the collection system to a double-lined 4.4-MG capacity Equalization (EQ) Basin with a maximum depth of 10 feet. Operating water elevation levels in the 2.2-acre basin range from 972 feet (winter) to 975 feet (summer). The EQ Basin discharges into two 0.57- acre subsurface constructed wetlands planted with native cattails operating in parallel. The constructed wetlands are double-lined, filled with gravel and range in depth from 2.5 feet to 3.5 feet. Treated leachate (i.e., effluent) is discharged to an unnamed tributary of the North Elkhorn Creek from a common outfall structure (Outfall 005).

Treatment Capacity and Hydraulic Loading

The WTS was designed for treating leachate originating from the Unit 1, Phase 2 landfill and has a design capacity of 5 million gallons per year (MGY). The design basis was developed from leachate collection data for the period 1993 through 2003. Subsequently, a leachate collection system was installed around the entire perimeter of Unit 1 Phase 2 and the Unit 1 Phase 1 landfill and connected to the treatment system increasing the flow to the WTS to 35 MGY based on monitoring data for the period 2013 through 2021. The practice of diverting stormwater from the mulching pad was discontinued and no other flows are discharged to the WTS.

A groundwater augmentation system from existing Well A10 was included in the original design to assist with controlling chloride concentrations in the WTS influent. The specific conductance of the influent leachate is monitored by real-time feedback system to introduce groundwater. The groundwater augmentation system form existing Well A10 was also used to maintain WTS water levels during drought or low flow conditions. The system ceased operating in 2015. MACTEC reports the well to be equipped with a 20 gallons per minute (gpm) pump and operating approximately 350 hours during

three separate events between August 2008 and April 2009 producing the equivalent of approximately 420,000 gallons.

Annual flows to the EQ Basin for the period 2007 through 2010 (partial) as provided by MACTEC are summarized in the following table:

Year	Flow to EQ Basin (MGY)
2007	13.1
2008	13.0
2009	33.8*
2010 (through June)	16.8

^{*} Attributed to construction and transient operational changes

Leachate Quality and Treatment Objectives

The KPDES permit specifies requirements for discharging from Outfall 005 that are – with the exception of ammonia and iron – identical to the Categorical Pretreatment Standards (40 CFR Subpart 445.20 et seq.) for landfills. The federal and state permit requirements are compared in the tables on the following page. Differences in the state requirements are highlighted.

Over the last **30** years, Tetra Tech has completed **100+** projects for LFUCG.

Comparison of Categorical Pretreatment Standards to Haley Pike Landfill KPDES Permit Requirements					
		Categorical Pretreat- ment Standards		Haley Pike Landfill, KPDES Permit*	
Regulated Parameter	Units	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average
BOD	mg/l	140	37	140	37
TSS	mg/l	88	27	88	27
Ammonia (as N)	mg/l	10	4.9	10	4.22
α-Terpineol	mg/l	0.033	0.016	0.033	0.016
Benzoic Acid	mg/l	0.12	0.071	0.12	0.071
p-Cresol	mg/l	0.025	0.014	0.025	0.014
Phenol	mg/l	0.026	0.015	0.026	0.015
Zinc	mg/l	0.20	0.11	0.20	0.11
Iron	mg/l	-	-	4.00	2.36
Hardness (as CaCO ₃)	mg/l	-	-	Report	Report
pH	SU	6-9	6-9	6-9	6-9

^{*} Highlighted cells indicate parameters for which KPDES permit requirements vary from the Categorical Pretreatment Standards

Only limited analytical data for raw (i.e., untreated) leachate was provided with the RFP. Specifically, MACTEC provided analytical results for two leachate samples while the more recent Wood report appeared not to include any. The MACTEC data describes a weak leachate, having concentrations that are generally one to two orders of magnitudes lower than those of typical raw leachate. That applies also to additionally analyzed parameters not part of the permit requirements. Based on the very limited and dated data, raw leachate analyzed in 2002 and 2010 exceeds the current KPDES Permit requirements for TSS, ammonia, and iron.



Haley Pike Landfill, KPDES Permit , Comparison of Haley Pike Leachate Quality Data to KPDES Permit Requirements				MACTEC (September 2010)*	
Regulated Parameter	Units	Daily Maximum	Monthly Average	April 25, 2002	April 20, 2010
BOD	mg/l	140	37	12	<5.0
TSS	mg/l	88	27	28	160
Ammonia (as N)	mg/l	10	4.22	58	30
α-Terpineol	mg/l	0.033	0.016		
Benzoic Acid	mg/l	0.12	0.071		
p-Cresol	mg/l	0.025	0.014		
Phenol	mg/l	0.026	0.015		
Zinc	mg/l	0.20	0.11	0.027	<0.030
Iron	mg/l	4.00	2.36	7.26	100
Hardness (as CaCO ₃)	mg/l	Report	Report	729	600
рН	SU	6-9	6-9	6.84	6.4

^{*}bolded figures indicate exceedances of the current KPDES permit

PROJECT MANAGEMENT

Our team has a dedicated local management team and core design group to provide timeliness, flexibility, and the technical expertise this project will require. Herb Lemaster, PE, will serve as our Senior Project Manager for the project. He has a tremendous amount of experience and knowledge related to the Haley Pike Landfill facility. Mr. Lemaster has led or assisted on all of Tetra Tech's projects listed as experience at the Haley Pike Landfill facility. He has also been the project manager or technical lead for many landfills leachate projects throughout the Commonwealth of Kentucky. Additionally, he has a long-standing relationship with LFUCG staff and direct experience with LFUCG treatment facilities. This hands-on experience will again translate into efficiency and cost savings for LFUCG.

At the beginning of the project, we will prepare a detailed work plan. This will ensure all parties on the team are dialed into the project scope and expectations. The Work Plan will set forth vital information such as project goals, lines of communication, schedule, budget, project controls, the scope of work, and a plan for implementation and task completion.

The plan is a summary of procedures and processes that will be used to make certain that consistency and quality are maintained throughout all phases of the project.

COMMUNICATIONS

It is critical to project such as this that the multiple participants stay engaged in the project delivery process and contribute in a timely fashion.

Tetra Tech understands the tight timeline for this project and the importance of meeting the June 30, 2023, deadline for submitting the final Alternative Analysis and Engineering Study Report. To make sure Tetra Tech's designated project team acts as an extension of LFUCG staff, Tetra Tech is proposing to conduct bi-weekly project progress calls for the duration of the project using MS Teams or Zoom as a virtual platform. Four meetings will be scheduled as hybrid meetings (in-person and virtual attendance):

- Project kick-off, tentatively scheduled for January 3, 2023
- Phase 1 progress meeting (review recommendations), TBD
- Phase 2 progress meeting (50% complete), TBD
- Project Close-out Meeting, week of June 19, 2023
- Dates will the two (2) progress meetings will be coordinated by the joint LFUCG/Tetra Tech project team.

APPROACH

Leachate management is a long-term obligation for landfill owners extending well past the active life of a facility and may exceed the statutory 30-year post-closure care period. Leachate generation and quality will change throughout the period as will regulatory requirements which are changing with advances in scientific methods, epidemiological knowledge, and public awareness.

As a leading provider of consulting and engineering services to the solid waste industry, Tetra Tech is attentive to the concerns of solid waste facility owners and operators for robust cost-effective solutions that balance capital expenses and operating costs for projects that may remain in service for prolonged periods, serve in unforgiving environments, and are subject to evolving regulatory frameworks. This applies specially to leachate treatment facilities that are required to remain operational after landfills cease generating revenue from tip fees. It is a well-established fact that leachate management represents the largest component of landfill operating cost after labor.

Leachate collected from the Haley Pike Landfill is dilute with relatively low concentrations of organic compounds, suspended solids, and elevated iron concentrations. Iron is a secondary drinking water standard and an esthetic nuisance. At approximately 35 MGY the landfill is generating comparatively large volumes of leachate, likely the result of runoff and groundwater

infiltrating the perimeter collectors.

CONTROLS TO MANAGE SCHEDULES



COMPUTER-BASED PROJECT MANAGEMENT

Our ability to meet the project schedule is enhanced by our computer-based project management systems. We are experienced with project scheduling software developed by companies such as Primavera Systems, Inc. and Microsoft, and we will use LFUCGs preferred scheduling software. Tetra Tech currently uses Microsoft™ Office Project® for preparation and management of detailed project schedules. This software program tracks progress for the established schedule, delineates deliverables, logs project milestones, and visibly reflects the relationship of various tasks.



OPEN COMMUNICATION

Tetra Tech believes in open communication during all phases of every project. By dedicating time in the schedule to meet with LFUCG to fully understand project requirements, Tetra Tech will minimize project re-design. Likewise, during permitting, Tetra Tech has an established philosophy of arranging pre-application meetings with all applicable permitting agencies as a means to facilitate a more streamlined permitting review process. We have permitted numerous projects without receiving any requests for additional information based on our commitment to working with the permitting agency and our ability to incorporate their comments into the design before it is finalized.

The Haley Pike Landfill is in its twelfth post-closure year. The final cover appears to be effective in reducing infiltration into the waste body and the significant volumes of leachate collection are likely the result of infiltration into the collection system. Dilution and scarce analytical data for raw leachate are making it difficult to discern trends in leachate quality to inform the evaluation. To alleviate the lack of recent data and to provide sufficient data adequate for the Phase 2 (Leachate Management Alternatives Analysis and Engineering Study) assignment, Tetra Tech is proposing to conduct leachate sampling and analysis concurrent to performing

the Background Review and Final Option Recommendations (Phase 1) Task. Included in the proposal is Task 1.A, Leachate Sampling and Analysis. Tetra Tech recommends obtaining current data to inform and advise Phase 2 work. The Task 1.A scope includes four (4) rounds of bi-weekly leachate sampling and analysis. The analytical panel will include standard leachate parameters as well as constituents of emerging concern (CEC), specifically per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxin. The latter is under intense scrutiny and USEPA has outlined a schedule for federal regulations that are likely to be a factor during renewal of the Haley Pike Landfill KPDES permit by November 2024.

Scope of Work

In compliance with the AO and to inform the LFUCG about the preferred alternatives for managing leachate at the Haley Pike Landfill, Tetra Tech is proposing the following scope of services. The services are based on the requirements specified in the RFP.

Phase 1 - Background Review and Final Option Recommendations

Under Phase 1, Tetra Tech will review previously completed engineering studies and technical data related to current site conditions. As part of this phase, Tetra Tech will also provide project management for the entire assignment. Except for project management, Tetra Tech anticipates completing this Phase 1 of the assignment within two (2) months of the Notice-to-Proceed. The Task 1.A, Raw Leachate Sampling and Analysis, would be performed concurrent to Phase 1 work to provide current raw leachate data for the Phase 2 assignment. At the conclusion of Phase 1, Tetra Tech will provide a Technical Memorandum consisting of a critical review of previously completed engineering studies, a summary of relevant technical data, and recommendations.

A project kick-off meeting will be scheduled within two (2) weeks of the effective date of the Notice-to-Proceed. The objective of the meeting is to introduce project team members, review administrative requirements, schedule bi-weekly project status calls, discuss project and Phase 1 objectives, and confirm the contents of the project document repository. The meeting will be hybrid, in-person and virtual (preferably MS Teams but Tetra Tech can accommodate other platforms). Tetra Tech will provide an agenda for the call. The agenda will include a Request for Information (RFI) that may not have been provided with the RFP or in formats not conducive for the review (i.e., PDF vs AutoCAD, Work, or Excel), not provided in final form (i.e., MACTEC's September 2010 report), current or not available at the time of



the RFP (e.g., Operational Reports for Haley Pike Landfill WTS). The RFI will include an open-ended request for reports, data, or documents Tetra Tech may not be aware of.

Tetra Tech's review will encompass permits, engineering reports, technical data, and plans:

- Tetra Tech will review the Town Branch WWTP KPDES Permits for requirements that may affect discharges from the Haley Pike Landfill. Tetra Tech will access the US EPA Enforcement and Compliance History Online (ECHO) database to identify compliance issues that may affect discharges from Haley Pike Landfill. Tetra Tech will review proposed legislation or regulatory action that may affect future discharges, specifically with respect to CECs.
- Tetra Tech will review MACTEC's, Palmer's, and Wood's reports concerning the leachate collection system, EQ Basin, wetlands, and associated equipment and appurtenances for information and data that can be relevant for recommending final options or during Phase 2. As part of preparation of the RFP, Tetra Tech identified several instances of technically correct but not relevant recommendations.
- Tetra Tech will review plans for information that may be required for developing final recommendations for treatment options.

Tetra Tech will evaluate five treatment options for the Final Option Recommendations as specified in the RFP:

- Option #1 analysis of the current treatment system and recommendations for modifications;
- Options #2 through #4 evaluation of three (3) different options, that are not incorporating the existing WTS; and,
- Option #5 off-site disposal to the Branch Town wastewater treatment plant (WWTP). A study evaluating force main options was prepared by Palmer (2021).

As discussed above, leachate collected from the Haley Pike Landfill is relatively weak. Therefore, based on Tetra Tech's experience it is unlikely that intensive biological or physical treatment options, e.g. Membrane Biological Reactor (MBR) or Reverse Osmosis (RO), are indicated. Such processes are characterized by high capital and operating expenses. Process control and O&M requirements generally require a full-time staff to be on site during working hours and on call for holidays. Physico-chemical treatment processes (e.g., Granulated Activated Carbon (GAC), Ion Exchange (IX) Resins, or organoclays) are generally indicated for leachate treatment with elevated concentrations of volatile organic compounds. MBR, RO, and physicochemical treatments are generally preceded by pre- or post-treatment units to reduce constituent concentrations that can interfere with the treatment process. Pre-treatment processes may include media filtration, floatation or sedimentation following coagulation or flocculation. All of the abovementioned treatment processes produce by-products or varying quantities and consistencies requiring management and disposal:

- RO produces a reject concentration ranging between 10% and 20% of the influent flow. The concentrate disposal can be challenging due to high enrichment with leachate constituents.
- Biological treatment, including MBR, produce biosolids at about 2% to 3% solids. For effective disposal, solids generally require dewatering prior to disposal. Physico-chemical treatment processes adsorb leachate constituents, which accumulate on the media (e.g., GAC or IX Resin), requiring periodic replacement.

By-product disposal at the working face is a common option for operating landfills. However, the Haley Pike Landfill is a closed facility with no working face and a skeleton crew for routine maintenance and oversight of the scale house for the compost facility.

Tetra Tech anticipates a limited number of viable and economical treatment options to be relevant:

- Option #1 Polishing of WTS effluent to reduce TSS, iron, and ammonia, which can be accomplished by several physico-chemical processes, such as filtration and air stripping
- Option #2 Similar to Option #1, but pre-treating leachate prior to the WTS. Under this option, Tetra Tech would evaluate two alternatives:1)
 Pre-treatment, prior to discharge to the EQ Basin; and 2) Post-treatment, treatment immediately prior to the WTS
- Option #3 extended aeration in the existing EQ Basin
- Option #4 to be determined upon in-depth review of the available information and following discussions with LFUCG professional staff
- Option #5 discharge via force-main to Town Branch WWTP

It should be noted that discharging to a force main may also require pretreatment to reduce potential interference in the receiving WWTP and to be protective of the pump station, force main, and associated appurtenances, such as valves, air release and vacuum breaker valves, and clean-outs. Tetra Tech anticipates performing a headworks analysis based on raw leachate quality and Town Branch WWTP Local Limits for Industrial Discharges to estimate if any pretreatment requirements are indicated.

Identify constituents that may exceed Branch Town WWTP permit limits or cause interference in the WWTP's treatment process. For example, humic and fulvic acids present in leachate may degrade performance of the Town Branch's new ultra-violet (UV) disinfection system that is being designed. Tetra Tech would seek LFUCG approval prior to contacting Town Branch WWTP operators for input for the headworks analysis and conducting a benchtop UV transmittance test.

Tetra Tech will summarize pertinent information in the Phase 1 Technical Report. Issuance of the final draft is tentatively scheduled for the end of March 2023 and is expected to precede a regularly scheduled progress meeting to facilitate review and discussion. Tetra Tech will issue the finalized Phase 1 Report in electronic format within one week of receipt of a red-lined copy of the draft.

Task I.A - Leachate Sampling and Analysis

Based on Tetra Tech's review of the RFP documents, recent data characterizing raw leachate quality is scarce and dated. Leachate flow data is available for a sufficient period of time with adequate resolution, albeit in a format (tabulated data in PDF) that is not immediately conducive for analysis.

Tetra Tech is proposing to collect and analyze four raw leachate samples in two-week intervals during Phase 1. The number of samples and sampling frequencies are selected to ensure sample independence and representativeness. The proposed sampling plan is designed to provide meaningful data subject to time constraints for the Phase 2 deliverable. The sampling plan is not designed to provide statistically significant data or detect seasonal variability in raw leachate quality.

Tetra Tech has tentatively scheduled sample acquisition and analysis. Samples would be analyzed for typical leachate constituents, Wet Chemistry, Categorical Pretreatment Standards for Landfills, Town Branch WWTP Local Limits Parameters, and CECs. The analytical panel will be finalized as part of the kick-off meeting. Tetra Tech staff will collect the samples and submit to a duly certified laboratory for analysis. The first three samples will be analyzed on a normal turn-around time. Analysis of the fourth sample will be expedited for results to be available for the preparation of the Phase 1 Technical Report.

Task I.B - Evaluation/Investigation of Well A10 Pump

Tetra Tech proposes to evaluate Well A10 to determine its effectiveness for use as an augmentation source of water. Tetra Tech will work with a drilling crew to pull the pump from the well casing, and once retrieved, will be evaluated to determine if repairs or replacement are necessary. Additionally, groundwater samples will be collected from the well and analyzed for typical leachate constituents, wet chemistry, Categorical Pretreatment Standards for Landfills, and CECs. Samples will also be collected and analyzed for BTEX, as this was an issue in the late 90s with this well. Information collected from this investigation will be included in the Phase 2 report.

Phase 2 – Leachate Management Alternatives Analysis and Engineering Study

Upon delivery of the finalized Phase 1 Report, Tetra Tech will review the Phase 2 study of the five Treatment Options with respect to seven aspects specified in the RFP:

- 1. Technical
- Regulatory
- 3. Constructability
- 4. Construction Cost
- 5. Annual Operating Cost
- 6. Long-term management considerations
- **7.** Life of System and Replacement considerations

In addition to the categories provided for each aspect, Tetra Tech will address additional ones. Additional relevant aspects would be grouped with the specified in the RFP and may include:

- Staffing and operator certification requirements;
- Dosing ranges and cost estimates for chemical additives;
- Flexibility to meet more stringent future permit conditions;
- Ability to incorporate unit treatment processes for compliance with additional permit requirements; and,
- Additional factors identified by Tetra Tech and LFUCG.

With respect to Treatment Option numbers 1 and 5, Tetra Tech will address the additionally specified items. Note, that the analytical panel for the proposed Task 1.A, Leachate Sampling and Analysis, is inclusive of the parameters discussed in Nos 2(a) and 2(b) of Life of System and Replacement Considerations in Section 3.3 of the RFP.

Tetra Tech will implement a scoring matrix to facilitate evaluation and in support of selecting the appropriate approach for leachate management at the Haley Pike Landfill.

Tetra Tech will deliver the draft Alternative Analysis and Engineering Study report electronically by June 9, 2023 in WORD format and appendices in PDF format for redlining by LFUCG staff. The revised, finalized report will be provided by June 30, 2023 in PDF format. Jointly with report delivery, Tetra Tech will provide PowerPoint presentation for use by LFUCG.





O3: Schedule for Implementation

PROJECT SCHEDULE

Tetra Tech will provide the final project delivery to LFUGC in electronic format by Friday June 30, 2023. The final draft will be provided for review and comments two weeks prior, i.e., Friday June 16, 2023. These two dates together with the specified effective date of the Notice-to-Proceed, i.e., Friday December 30, 2022, represent the defining project milestones. A tabular summary of the anticipated project schedule is provided below.

PROJECT MANAGEMENT

Bi-weekly project status calls will be scheduled throughout the duration of the work. Project status calls will be conducted virtually using MS Teams (Tetra Tech preference), Zoom, or another platform. Tetra Tech staff local to the LFUGC may attend meetings in-person. Tetra Tech's Leachate Management team will attend the meetings remotely.

Tetra Tech will prepare meeting agendas and minutes for all regularly scheduled meetings. By the first Wednesday of each month, Tetra Tech will submit a Monthly Summary Update. Documents will be provided in electronic format, e.g., Word or PDF.

Recognizing that in-person meetings have intangible benefits, Tetra Tech has budgeted one optional in-person meeting for the week of June 19, 2023. The meeting would be attended by Tetra Tech's Subject Matter Expert Dr. Kremen. Additional in-person meetings can be scheduled upon request.

Project Task	Date(s)
Notice-to-Proceed	Friday December 30, 2022
Project Kick-off Meeting (hybrid)	January 3, 2023
Phase 1	January 1, 2023 through March 31, 2023
Phase 1 Recommendations Review (hybrid)	Week of March 27, 2023
Phase 2	April 1, 2023 through June 30, 2023
Phase 2 50% Progress Meeting (hybrid)	TBD
Final Draft Report	June 16, 2023
Final Draft Report Review	Week of June 19, 2023
Final Report Delivered to LFUCG	June 30, 2023
Task 1.A	
Sample 1	January 10, 2023
Sample 2	January 24, 2023
Sample 3	February 7, 2023
Sample 4	February 21, 2023



04: **COST**

Tetra Tech will provide the above services for a Lump Sum amount of \$77,700.

	COST	
Phase	Description	Task Total
I	Background Review and Final Options Recommendations	\$23,400
	Task 1.A - Leachate Sampling and Analysis (4 events)	\$7,200
	Task 1.B Well A-10 Pump Evaluation and Water Analysis	\$7,400
Ш	Alternatives Analysis and Engineering Study	\$39,700
	TOTAL	\$77,700

LIMITATIONS

The fee associated with the leachate analysis, A10 groundwater analysis, and Well A10 pump evaluation can vary based on anticipated approach methods. Following is the approached Tetra Tech has assumed for fee determination purposes.

Task 1A – Leachate Sampling and Analysis

This task would include the collection and analytical analysis of four (4) leachate sampling events. The leachate samples would be collected in a two-week intervals and analyzed for Categorical Pretreatment Standards for Landfills, Town Branch WWTP Local Limits, and PFAS.

Task 1.B - Evaluation/Investigation of Well A10 Pump

This task would involve the removal of the well pump from Well A10 by a local environmental drilling company and testing/inspection of the well pump by a local pump service company. The resulting report would indicate the necessary maintenance items of the pump or replacement of the pump. Additionally, one groundwater sample will be collected and analyzed for the parameters listed above. The fee is based on the assumption of a drilling rig/crew being on-site for one day for removal of the pump. Due to the age of the well there is some concerns that the well walls may have caved in on the pump. If additional days are required for the drilling rig/crew to be on-site, the additional fee would be \$3,700 per day.

ASSUMPTIONS

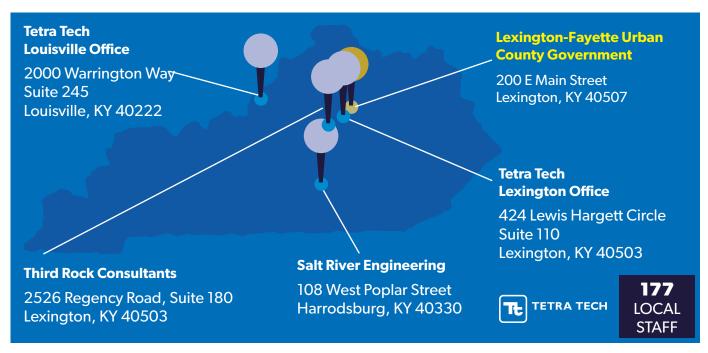
- No hydraulic modeling will be conducted as part of the alternative evaluation process.
- Four leachate samples will be collected and analyzed as discussed in the project approach.
- The permitting review will be a desktop review. No project permitting will be conducted as part of the evaluation.
- LFUCG will provide access to the site as necessary for facility reviews and evaluation of Well A10.
- LFUCG will provide timely reviews of all submittals.



O5: Degree of Local Employment

Tetra Tech's work under this contract will be performed out of our Lexington office. Approximately 62 percent of the proposed fee for execution of this project will be conducted by locally based personnel. The key personnel assigned to the project, including our subconsultant team members, have a strong local presence and good relationships with LFUCG and local regulatory agencies. We have assembled a robust team composed of longtime Kentuckians who are committed to enhancing the communities in which they live.

This team has been recognized for innovation and dedication over the years, and we strive to bring that perspective to this project as an extension of LFUCG. Tetra Tech will supplement our local staff with a leachate management expert, Dr. Arie Kreman. Dr. Kreman has conducted many similar projects across the nation involving leachate treatment alternative evaluations and designing leachate treatment systems.





Salt River Engineering is located within an hours' drive of LFUCG.

TETRA TECH LOCAL STAFF

STAFF	LOCATION
Herbert Lemaster, PE	Lexington, KY
Lucy Pacholik, PE	Lexington, KY
Ryan Rathfon, PE	Lexington, KY
Chris Hale, PE	Lexington, KY
Shann Easterling	Lexington, KY

TETRA TECH NATIONAL STAFF

STAFF	LOCATION
Dr. Arie Kreman, PhD	Metuchen, NJ
Tyler Brown, PE	Rochester, NY
Kristie Shurie	Middletown, NY

LOCAL SUBCONSULTANTS

LOCAL SUBCONSULIANTS				
STAFF	LOCATION			
Third Rock Consulting				
Rain Storm	Lexington, KY			
Salt River Engineering				
Connie Allen, PE	Harrodsburg, KY			



O6: Required Forms

The following forms are included in this section as per the RFP:

- Addendum 1
- American Rescue Plan Act
- Tetra Tech's Affirmative Action Plan
- Workforce Analysis Form
- Affidavit
- Equal Opportunity Agreement
- Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunities and DBE Contract Participation
- LFUCG MWDBE Participation Goals
- General Provisions



TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #1

RFP Number: #42-2022 Date: October 3, 2022

Subject: Leachate Management Alternatives Analysis and Engineering Study Address inquiries to:

Sondra Stone sstone@lexingtonky.gov

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced RFP:

- 1. See attached pre-proposal sign-in sheet and agenda.
- 2. As part of your RFP response, please provide the name, qualifications, and role of any subconsultants to be used on the project.
- 3. If solids are generated during treatment process can they be landfilled or spread on land? If any solids would be generated as part of any proposed treatment process being evaluated as an option, the feasibility level costs estimates are to include costs for disposal (and also to perform a concept level determination of potential disposal options). As stated on page 7 of the scope of work, under Long Term Management Considerations: Waste generation and waste disposal considerations, including feasibility for onsite disposal of any treatment system by product (as applicable).
- 4. Why do we want change the current wetland treatment system?

 The current wetland treatment system was not designed for treatment of iron because iron was not a parameter in the original KPDES permit granted for the discharge. Because LFUCG is now under an agreed order for intermittent exceedances of iron in the system's discharge, the current system is not adequate to reliably meet the discharge limits in our permit.
- 5. Which option is our preference?

 LFUCG has no preferred option. The purpose of this study is to more fully evaluate potential treatment options to make the determination of what makes the most sense from a cost, feasibility and long term management and treatment standpoint.



- 6. Would investigation of the augmentation well be part of this scope of work?

 Evaluating whether there are feasible improvements that can be made to the current wetland treatment system to more reliably meet the discharge limits is part of the scope of work. Because the augmentation well was part of the original design, and because the 2022 wetland treatment system evaluation did recommend providing augmentation water as a potential system improvement, LFUCG does wish to determine (1) if the source of water in the augmentation well is still a feasible source of groundwater for the system and if so (2) is the well operational or can it be made to be operational to be included in any future system improvements.
- 7. Has sediment in the EQ basin been considered?

 The May 2022 Wetland Evaluation report prepared by Wood summarizes the most recent evaluation completed of the wetland system. This study did include a sediment survey in the EQ basin. Please refer to this report for a summary of the results of the evaluation.
- 8. Is color an issue with the leachate?

 Iron staining is present on the rock lined ditch downgradient of the wetland discharge.

Todd Slatin, Director
Division of Central Purchasing

Todd Sta

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME: Tetra Tech, Inc.	
ADDRESS: 424 Lewis Hargett Circle, Ste. 110, Lexington, KY 40503	
	_
SIGNATURE OF BIDDER: Dichard W. Walker	



SIGN-IN SHEET

Pre-RFP Conference #42-2022 – Haley Pike Landfill Leachate Management Alternatives
Analysis and Engineering Study
September 29, 2022 @ 9:00 AM

Representative Company Name Phone# Email Addition Sondra Stone LFUCG 859-258-3320 sstone@lexingtonk Sherita Miller LFUCG 859-258-3323 smiller@lexingtonk Sarah Donaldson LFUCG 859-425-2518 sdonaldson@lexing Richard Basne LFUCG 859-425-2518 sdonaldson@lexing Richard Basne LFUCG 859-48-3054 sdonaldson@lexing Mathan Duvall HDR Engine cring 859-948-3054 sdonaldson@lexing Plany Duncard WSP 502/931-2378 denn. do now ewn Mine Considerate LFUCG 859/883-4777 sccnayson@coxing Mathan Levica LFUCG 859/883-4777 sccnayson@coxing Mathan Duvall LFUCG 859/883-4777 sccnayson@coxing Mathan Duvall Horizon WSP 502/931-2378 denn. do now ewn Mine Considerate LFUCG 859/883-9207 sccnayson@coxing Mathan Duvall LFUCG 859/883-9207 sccnayson@coxing Mathan Duvall Horizon WSP 502/931-2378 denn. do now ewn Mine Considerate LFUCG 859/883-9707 sccnayson@coxing Mathan Duvall Horizon WSP 502/931-2378 denn. do now ewn Mathan Duvall Horizon WSP 502/931-2378 denn. do now	ess
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LEXINGTON FAYETTE URBAN COUNTY GOVERNMENT

HALEY PIKE LANDFILL LEACHATE MANAGEMENT ALTERNATIVES ANALYSIS AND ENGINEERING STUDY

PREBID MEETING

SEPTEMBER 29, 2022

AGENDA

- 1) Introduction Sarah Donaldson Division of Environmental Services
- 2) Commercial and Bid Instructions— Sondra Stone, Senior Buyer, Central Purchasing and Sherita Miller, Minority Business Liaison.
 - a. Important Proposal Dates
 - i. Closing Date for Questions and Clarifications Monday October 10, 2022 at 12 PM EST
 - ii. Bid Due Date Tuesday October 18, 2022 at 2 PM EST
 - b. Bid Submittal General Information
- 3) Review Scope of Work Sarah Donaldson Division of Environmental Services
 - a. Key Anticipated Project Dates
 - i. Assumed NTP Date December 30, 2022
 - ii. Discussion Meeting and Completion of Phase 1 Deliverable (Final Option Recommendations Report) – Date to be provided by bidders in their proposed scheduled
 - iii. Draft of Phase 2 Deliverable (Alternatives Analysis and Engineering Study) June 9, 2023
 - iv. Meeting to discuss the Phase 2 Report Week of June 19, 2023
 - v. Final Phase 2 Deliverable June 30, 2023
- 4) Miscellaneous Q&A
- 5) Optional Site Walk For Interested Parties

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(1) AKGWA		Attach W	
(2) OWNER/FACILITY INFORMATION	1 5		
Well Owner's Name: Lex-Fayette Urban Co. Gat	MI I		
Mailing Address: 200 East Main St	V2127	Note: water werra	
City: Lexing for State: Ky Zip: Well Address (if different) City: State: Zip:	(5)) WELL RECORD LABEL LO N) well casing () pres	CATION: sure tank () water pipe
Phone: 606) 258 3410	. () well cap () elec) pump () othe	r
WELL LOCATION USGS Quadrangle Name Count Factor Section 1.116 Latitude 38-03-37" Longitude 6	yette	(X) Blue Grass () E. Coal Field	PHIC OR HYDROLOGIC REGION () Ohio River Alluvium () W. Coal Field
(6) DRILLER INFORMATION		() Miss. Plateau (check all that apply)	() Jackson Purchase (18) ELEVATION
Who Constructed Well? Paul Kher () unknown Address:	() domestic (() public (() industrial () livestock () not used) irrigation () abandor monitoring	95% ft. AMSL
City: State: Zip: Date Well Completed: / /977 () unknown Month Day Year	() other PWSID#		By () map () survey
(7) GENERAL (9) WELLHEAD	Water Withdrawal		() report GPS
(x) drilled/augered () yes (x) no () unknown	(14) WELL SERVI Number of People		(19) TREATMENT SYSTEM
() excavate & backfill () hand dug/blasted () well cap () capitany coal	Number of Service		(X) none
Depth of Well: 160 ft. () flush mount () locking cap () measured () open () unknown	Any Quality Proble	ems? ()yes ()r	o () ultraviolet
(×) reported Casing Above Ground Level?		COMMENTS section, below.	() chlorination () aeration
() unknown Static Water Level. (2 ())	Companyation in C	Compliance with KY Standar	ds? () charcoal filter
Static Water Level, g + Z inches above ground the below surface: Discharge Pipe Below Surface?	'()yes ()no	o (XX) unknown (XX) pre-la	() iron treatment
() reported () yes () no () unknown		COMMENTS section, below.	() fluoridation () other
() not measured () can't be measured () yes () no () unknown	(16) RELATIVE LO	() sidegradient () unkno	own Treatment Bypass Avail-
Well Yield: (10) PUMP DETAILS	(X) downgradient		able? () yes () no
() gpm () gph () gpd Date Installed:	(17) INSPECTION Date of Inspection	1: 8 / Z7 / 96	(20) OPTIONAL USE Will Owner Allow State
() estimated Pump Type:		Month Day Year nple Taken: () yes () no	Access?
() unknown () submersible () bailer () turbine () jet () hand pum	Reason for Inspec	ction:	(X) yes () no () unknown Extent of Monitoring Allowed:
MATERIAL: (X) none () other () unknown	() specific compl	aint investigation	(X) collect sample
() clay () drill cuttings Intake () cement (X) unknown Level: ft. below surface	() spill or inciden (x) contamination	it response site investigation	(X) measure SWL (X) pump well
() open () sand () gravel Electric Connection:	() enforcement	_	(
() concrete pad	() general water () ambient groun	quality analysis idwater monitoring	(X) notification required () other (describe below)
Feet Below Surface Casing Casing Wall	() other Program Name and	d Facility ID#:	Monitoring Feasibility:
From To Inside Dia. (in.) Type Thickness (in.) 5 개부 (VC. 기부	Program Name and	a racinty 10#.	excellent
	Alternate Weil ID#		
	(21) COMMENTS		
			manuscriptum manus
(12) SKETCH MAP OF VICINITY	Former	- water well	

8	and the control of th	There has an an analysis and the control of the con	
1 = 2	The second secon	the described southern the order to the continues and an annual management of the continues and an annual continues to the co	
1 Ce 11	(22) INSPECTOR	IDENTIFICATION	
Pind Hell		rawski Chester	
	Agency N 1 DOW	First / () DWM () CHR () K	MI inspector ID# GS () other
	Signature of	1 10.	
7 = WOII	Inspector:	ester Bozarion	phi Date: 8/27/96
Distribution: White copy to DOW, pink copy to Inspecting Agency, yellow copy to Owner.		Printed with State Funds.	DEP 4051 Revised 3/1/1993

Augmentation Well Information

This well, sometimes referred to as well A-10 or as Augmentation Well, was part of the original wetland design. This well is reported to be a 6" diameter well, 160' deep (see figure called "leachate Treatment site plan and liner details"). The well was installed in 1977.

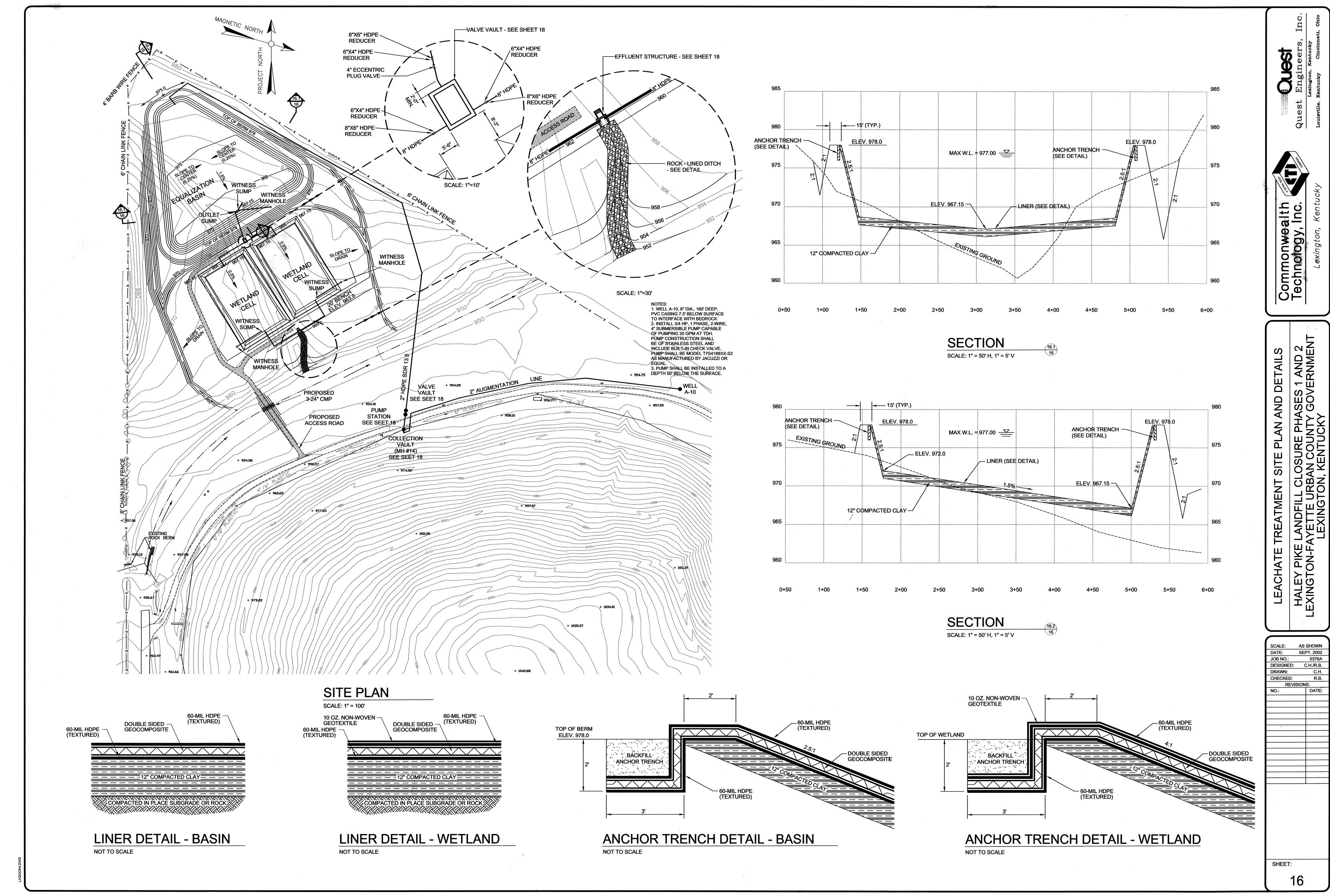
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Ground surface view of augmentation well with electronic controls and water valve type access point.

View inside the leachate manhole. The well piping is presumed to be the piping at the top (approximately 2-3 feet down in the manhole). This piping turns 90 degrees to discharge in the bottom of the leachate manhole.



View inside the water valve access point at the top of the well head. This piping is approximately 2-3 feet below ground surface and is not easily accessible in this tight space.



Contractor acknowledges that the LFUCG is a governmental entity, and the contract validity is based upon the availability of public funding under the authority of its statutory mandate.

In the event that public funds are unavailable and not appropriated for the performance of the LFUCG's obligations under this contract, then this contract shall automatically expire without penalty to the LFUCG thirty (30) days after written notice to Contractor of the unavailability and non-appropriation of public funds. It is expressly agreed that the LFUCG shall not activate this non-appropriation provision for its convenience or to circumvent the requirements of this contract, but only as an emergency fiscal measure during a substantial fiscal crisis, which affects generally its governmental operations.

In the event of a change in the LFUCG's statutory authority, mandate and mandated functions, by state and federal legislative or regulatory action, which adversely affects the LFUCG's authority to continue its obligations under this contract, then this contract shall automatically terminate without penalty to the LFUCG upon written notice to Contractor of such limitation or change in the LFUCG's legal authority.

Contention Process

Vendors who respond to this invitation have the right to file a notice of contention associated with the RFP process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.

Notice of contention with the RFP process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the RFP process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with RFP processes. If, based on this review, a RFP process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a RFP recommendation must be filed within 3 business days of the RFP recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

AMERICAN RESCUE PLAN ACT

AMENDMENT 1 — CERTIFICATION OF COMPLIANCE FOR EXPENDITURES USING FEDERAL FUNDS, INCLUDING THE AMERICAN RESCUE PLAN ACT

The Lexington-Fayette Urban County Government ("LFUCG") <u>may</u> use Federal funding to pay for the goods and/or services that are the subject matter of this bid. That Federal funding may include funds received by LFUCG

under the American Rescue Plan Act of 2021. Expenditures using Federal funds require evidence of the contractor's compliance with Federal law. Therefore, by the signature below of an authorized company representative, you certify that the information below is understood, agreed, and correct. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

The bidder (hereafter "bidder," or "contractor") agrees and understands that in addition to all conditions stated within the attached bid documents, the following conditions will also apply to any Agreement entered between bidder and LFUCG, if LFUCG uses Federal funds, including but not limited to funding received by LFUCG under the American Rescue Plan Act ("ARPA"), toward payment of goods and/or services referenced in this bid. The bidder also agrees and understands that if there is a conflict between the terms included elsewhere in this Request for Proposal and the terms of this Amendment 1, then the terms of Amendment 1 shall control. The bidder further certifies that it can and will comply with these conditions, if this bid is accepted and an Agreement is executed:

- 1. Any Agreement executed as a result of acceptance of this bid may be governed in accordance with 2 CFR Part 200 and all other applicable Federal law and regulations and guidance issued by the U.S. Department of the Treasury.
- 2. Pursuant to 24 CFR § 85.43, any Agreement executed as a result of acceptance of this bid can be terminated if the contractor fails to comply with any term of the award. This Agreement may be terminated for convenience in accordance with 24 CFR § 85.44 upon written notice by LFUCG. Either party may terminate this Agreement with thirty (30) days written notice to the other party, in which case the Agreement shall terminate on the thirtieth day. In the event of termination, the contractor shall be entitled to that portion of total compensation due under this Agreement as the services rendered bears to the services required. However, if LFUCG suspects a breach of the terms of the Agreement and/or that the contractor is violating the terms of any applicable law governing the use of Federal funds, LFUCG may suspend the contractor's ability to receive payment by giving thirty (30) days' advance written notice. Further, either party may terminate this Agreement for cause shown with thirty (30) days written notice, which shall explain the party's cause for the termination. If the parties do not reach a settlement before the end of the 30 days, then the Agreement shall terminate on the thirtieth day. In the event of a breach, LFUCG reserves the right to pursue any and all applicable legal, equitable, and/or administrative remedies against the contractor.
- 3. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
 - (1) Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 - (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation

- of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- (4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part, and the contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Provided, however, that in the event a contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

- 4. If fulfillment of the contract requires the contractor to employ mechanic's or laborers, the contractor further agrees that it can and will comply with the following:
 - (1) Overtime requirements: No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such a workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such a workweek.
 - (2) Violation: liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
 - (3) Withholding for unpaid wages and liquidated damages. LFUCG shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be

- withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower-tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.
- 5. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- 6. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
- 7. The contractor shall include these requirements in numerical paragraphs 5 and 6 in each subcontract exceeding \$100,000 financed in whole or in part with Federal funding.
- 8. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.
- 9. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency Regional Office.
- 10. The contractor shall include these requirements in numerical paragraphs 8 and 9 in each subcontract exceeding \$100,000 financed in whole or in part with Federal funds.
- 11. The contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.
- 12. The contractor shall report each violation to LFUCG and understands and agrees that LFUCG will, in turn, report each violation as required to assure notification to the Treasury Department and the appropriate Environmental Protection Agency regional office.
- 13. The contractor shall include these requirements in numerical paragraphs 11 and 12 in each subcontract exceeding \$100,000 financed in whole or in part with American Rescue Plan Act funds.
- 14. The contractor shall include this language in any subcontract it executes to fulfill the terms of this bid: "the sub-grantee, contractor, subcontractor, successor, transferee, and assignee shall comply with Title VI of the Civil Rights Act of 1964, which prohibits recipients of federal financial assistance from excluding from a program or activity, denying benefits of, or otherwise discriminating against a person on the basis of race, color, or national origin (42 U.S.C. § 2000d et seq.), as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, which are herein incorporated by reference and made a part of this contract (or agreement). Title VI also includes protection to persons with 'Limited English Proficiency' in any program or activity receiving federal financial assistance, 42 U.S.C. § 2000d et seq., as implemented by the Department of the Treasury's Title VI regulations, 31 CFR Part 22, and herein incorporated by reference and made a part of this contract or agreement."

- 15. Contractors who apply or bid for an award of \$100,000 or more shall file the required certification that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier, up to the recipient. The required certification is included here:
 - a. The undersigned certifies, to the best of his or her knowledge and belief, that:
 - (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
 - (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
 - b. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 16. The contractor acknowledges and certifies that it has not been debarred or suspended and further acknowledges and agrees that it must comply with regulations regarding debarred or suspended entities in accordance with 24 CFR § 570.489(1). Funds may not be provided to excluded or disqualified persons.
- 17. The contractor agrees and certifies that to the greatest extent practicable, it will prefer the purchase, acquisition, and use of goods, products or materials produced in the United States, in conformity with 2 C.F.R. § 200.322.
- 18. The contractor agrees and certifies that all activities performed pursuant to any Agreement entered as a result of the contractor's bid, and all goods and services procured under that Agreement, shall comply with 2 C.F.R. § 200.216 (Prohibition on certain telecommunications and video surveillance services and equipment) and 2 C.F.R. 200 § 200..323 (Procurement of recovered materials), to the extent either section is applicable.
- 19. If this bid involves construction work for a project totaling \$10 million or more, then the contractor further agrees that all laborers and mechanics, etc., employed in the construction of the public facility project assisted with funds provided under this Agreement, whether employed by contractor, or contractor's contractors, or subcontractors, shall be paid wages complying with the Davis-Bacon Act (40 U.S.C. 3141-3144). Contractor agrees that all of contractor's contractors and subcontractors will pay laborers and mechanics the prevailing wage

as determined by the Secretary of Labor and that said laborers and mechanics will be paid not less than once a week. The contractor agrees to comply with the Copeland Anti- Kick Back Act (18 U.S.C. § 874) and its implementing regulations of the U.S. Department of Labor at 29 CFR part 3 and part 5. The contractor further agrees to comply with the applicable provisions of the Contract Work Hours and Safety Standards Act (40 U.S.C. Section 327-333), and the applicable provisions of the Fair Labor Standards Act of 1938, as amended (29 U.S.C. et seq.). Contractor further agrees that it will report all suspected or reported violations of any of the laws identified in this paragraph to LFUCG.

Pichard W. Walker	10/14/2022
Signature	Date

PRIVILEGED AND CONFIDENTIAL

AFFIRMATIVE ACTION PROGRAM FOR WOMEN & MINORITIES

Tetra Tech, Inc



AFFIRMATIVE ACTION PROGRAM FOR WOMEN & MINORITIES

Contractor: Tetra Tech, Inc.

EEO Manager: Janet Brunner

CONFIDENTIAL TRADE SECRET MATERIALS

(Not for distribution except on a need-to-know basis.)

This affirmative action program contains confidential information that is subject to the provision of 18 U.S.C. 1905, Chrysler Corp. v. Brown. 441 U.S. 281, 19 FEP 475 (1979). Furthermore, release of any trade secret, confidential statistical or commercial information is considered arbitrary and capricious and is in violation of the Administrative Procedure Act. See CNA Financial Corp. v. Donovan 830 F.2nd 1132, 1144 and n. 73 (D.C. Cir.) certiorari denied, 485 U.S. 977 (1988). Copies of this affirmative action program and all related appendices, documents, and support data are made available on loan to the U.S. Government upon the request of said Government on the condition that the Government holds them totally confidential and does not release copies to any persons whatsoever. This affirmative action program and its appendices and other supporting documents contain much confidential information that may reveal, directly or indirectly, plans for business or geographical expansion or contraction. Pursuant to the Freedom of Information Act, this affirmative action program is exempt from disclosure, reproduction and distribution upon the grounds, among others, that such material constitutes 1) personnel files, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, and that are exempt from disclosure under 5 U.S.C. 552(b) (6); 2) confidential, commercial or financial information, which is exempt from disclosure under 5 U.S.C. 552(b) (4); 3) investigatory records compiled for law enforcement purposes, the production of which would constitute an unwarranted invasion of personal privacy, and that are exempt from disclosure under 5 U.S.C. 552(b) (7) (C); and 4) matters specifically exempted from disclosure by statute, which are exempt from disclosure under 5 U.S.C. 552(b) (3). Notice is hereby given of a request that this Program be kept confidential.

Tetra Tech, Inc wishes to make it clear that it does not consent to the release of any information whatsoever contained in this affirmative action program under the Freedom of Information Act or otherwise. If the U.S. Government, or any agency or subdivision thereof, is considering breaching the conditions under which this affirmative action program was loaned to such government, or is considering a request of this Program under the Freedom of Information Act, request is hereby made that the Government immediately notify Tetra Tech, Inc and its counsel of any and all Freedom of Information Act requests by the government or any other contemplated release of this Program by the Government that relates to information obtained by the Government. Tetra Tech, Inc further requests that everyone who has any contact with this affirmative action program and its supporting appendices, documents and other data treats such information as totally confidential and that such information not be released to any person whatsoever. Retention or disclosure of information relating to identifiable individuals may also violate the Privacy Act of 1974.

INTRODUCTION

Tetra Tech, Inc develops an annual affirmative action program as one of several tools to implement the affirmative action policies effectively. The form, language and analysis of the program necessarily complies with the requirements of 41 CFR 60-2, et seq. (affirmative action programs) and other regulations established pursuant to the provisions of Executive Order 11246 and all other civil rights related laws and regulations that have or may be enacted, as amended. Accordingly, terminology such as "problem areas" and "utilization analysis" appearing in this affirmative action program is that which the organization is required to use by these regulations. The criteria used in relation to these terms are those specified by the Government. These terms have no independent legal or factual significance whatsoever. Although Tetra Tech, Inc uses this terminology and methodology in connection with this affirmative action program and the affirmative action policies, such usage does not necessarily signify that the organization agrees that these terms properly apply to any particular factual situation.

Information regarding identifiable individuals is private and confidentially maintained. Everyone who has official access to confidential data will exercise every precaution to protect this information.

DESIGNATION OF RESPONSIBILITY

41 CFR Section 60-2.17(a), 60-2.10(b)(2)(i)

Dan Batrack, CEO, has overall responsibility for implementation of the Equal Employment Opportunity Policy. Janet Brunner, Equal Employment Opportunity Manager, assumes the responsibility for the development, implementation and monitoring of the affirmative action program, which includes all those positions located in subordinate and/or lower-level establishments for which the selection decisions are made at the corporate level.

Responsibility for the implementation and monitoring of the affirmative action program rests with the EEO Manager, whose responsibilities include but are not limited to the following:

- 1. Developing policy statements and affirmative action programs.
- 2. Developing internal and external communication procedures when appropriate.
- 3. Developing an internal audit and reporting system that:
 - a. Identifies areas that require remedial action, and develops programs to correct those problem areas.
 - b. Determines the degree to which the goals and objectives are reached.
- 4. Monitoring the following internal practices:
 - a. Proper display of EEO posters and policies.
 - b. Full participation of minority, female, and disabled employees in all Tetra Tech, Inc sponsored educational, training, recreational, and social activities.
- 5. Assisting management in solving any identified problems. It is the responsibility of department heads, managers, and supervisors to provide the EEO Manager with such information and/or statistical data as is necessary to measure progress toward the attainment of goals and to assure good faith efforts to implement the affirmative action program. Such information and/or statistical data are used to set reasonable placement goals.
- 6. Keeping management informed of the latest developments in the equal employment opportunity area.
- 7. Assisting employees in solving problems and resolving EEO complaints.
- 8. Serving as a liaison between Tetra Tech, Inc and appropriate women and minority groups.
- 9. Serving as a liaison between Tetra Tech, Inc and appropriate EEO enforcement agencies.

IDENTIFICATION OF PROBLEM AREAS 41 CFR Section 60-2.17(b)

As part of the monitoring practice, an analysis of personnel matters is conducted. The following items are considered:

- 1. Composition of the workforce by minority group and sex. Good faith placement goals are established where necessary.
- 2. Composition of applicant flow by minority group and sex. Corrective action is taken when appropriate whenever the referral ratio of women and minorities indicates a significantly higher percentage is being rejected as compared to non-minority and male applicants.
- 3. Compensation system. Tetra Tech, Inc evaluates its compensation system to determine whether there are gender, race or ethnicity-based disparities. The purpose of the analysis is to identify potential areas where impediments to equal employment opportunity may exist. Disparities alone do not necessarily indicate a problem area; there may be many non-discriminatory reasons for a disparity.
- 4. Selection process. The selection process includes: position descriptions, titles, application forms, preemployment forms, interview procedures, test validity and administration, referral procedures, final selection process and similar factors. The application and related pre-employment forms are in compliance with federal guidelines, and position descriptions accurately reflect actual duties and responsibilities.

The following areas are reviewed annually to ensure the success of this affirmative action program:

- · Transfer and promotion practices,
- · Facility and Tetra Tech, Inc sponsored recreational, social and educational events,
- · EEO posters,
- · Policy statements,
- · Training Programs, and
- · Suitable housing and transportation does not inhibit recruitment efforts and employment of minorities.

ORGANIZATIONAL PROFILE 41 CFR Section 60-2.11

Organizational Display

The Organizational Display is a detailed presentation of the Tetra Tech, Inc. organizational structure. It identifies each organizational unit and shows the relationship to other organizational units.

An organizational unit is any component part of the Tetra Tech, Inc. corporate structure. It might be a department, division, section, branch, group, project team, job family, or similar component. This includes an umbrella unit (such as a department) that contains a number of subordinate units, and it separately includes each of the subordinate units (such as sections or branches).

For each organizational unit, the organizational display includes the following:

- 1. The name of the unit;
- 2. The job title, gender, race, and ethnicity of the unit supervisor(s) (if the unit has a supervisor);
- 3. The total number of male and female incumbents; and
- 4. The total number of male and female incumbents in each of the separate minority groups.

The total number of incumbents in each minority classification is given for each job title. All job titles, including all managerial job titles, are listed.

WORKFORCE BY JOB GROUP 41 CFR Sections 60-2.12, 60-2.17(b)(1)

The Job Group Analysis groups jobs with similar content, wage rates, and opportunities into job groups. This analysis includes a list of the job titles that constitute each job group.

PLACEMENT OF INCUMBENTS IN JOB GROUPS 41 CFR Section 60-2.13

Tetra Tech, Inc states separ	rately the percentage	of minorities	and the perce	entage of womer	n it employs in
each job group established	pursuant to Sec. 60-	2.12.			

WORKFORCE BY JOB GROUP - ANNOTATIONS 41 CFR Section 60-2.1e

Tetra Tech, Inc. prepares a separate Job Group Annotations report, which lists employees who are included in an affirmative action program for an establishment other than the one in which the employees are located, and identifies the actual location of such employees.

EVALUATION OF PERSONNEL ACTIVITY41 CFR Section 60-2.17(b)(2)

Tetra Tech, Inc. evaluates personnel activity to determine wheth	mer mere are	selection (nsparines.
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DETERMINING AVAILABILITY 41 CFR Section 60-2.14

Availability is an estimate of the number of qualified minorities or women available for employment in a given job group, expressed as a percentage of all qualified persons available for employment in the job group. The purpose of the availability determination is to establish a benchmark against which the demographic composition of the incumbent workforce can be compared in order to determine whether barriers to equal employment opportunity may exist within particular job groups.

Tetra Tech, Inc. separately determines the availability of women and minorities for each job group. To determine availability, Tetra Tech, Inc. considers the following factors:

- 1. The percentage of minorities or women with requisite skills in the reasonable recruitment area. The reasonable recruitment area is defined as the geographical area from which the contractor usually seeks or reasonably could seek workers to fill the positions in question. 41 C.F.R. 60-2.14(c)(1).
 - Factor 1a considers the percent of women and minorities with requisite skills in a local recruitment area. The most current U.S. Census data is used to derive the availability of women and minorities. If this factor is used, it is because Tetra Tech, Inc. recruits, and many of its applicants live within the local recruitment area, or because we plan on recruiting in this region in the future. Any recruitment practices unique to a job group are noted on the Availability Analysis.
- 2. The percentage of minorities or women among those promotable, transferable, and trainable within the contractor's organization. Trainable refers to those employees within the contractor's organization who could, with appropriate training that the contractor is reasonably able to provide, become promotable or transferable during the AAP year. 41 C.F.R. 60-2.14(c)(2).

Factor 2a considers the percentage of women and minorities promotable and transferable within the contractor's organization. If this factor is chosen, it is because we fill positions by recruiting from within the workforce either through promotions or transfers. Internal applicants normally apply for these positions. Any recruitment practices unique to a job group are noted on the Availability Analysis.

PLACEMENT GOALS - COMPARING INCUMBENCY TO AVAILABILITY 41 CFR Section 60-2.15

Tetra Tech, Inc compares the percentage of women and minorities in each job group determined pursuant to Sec. 60-2.13 with the availability for those job groups determined pursuant to Sec. 60-2.14. When the percentage of minorities or women employed in a particular job group is less than would reasonably be expected given their availability percentage in that particular job group, a placement goal is established in accordance with Sec. 60-2.16.

PLACEMENT GOALS 41 CFR Section 60-2.16

Placement goals serve as objectives or targets reasonably attainable by means of applying every good faith effort to make all aspects of the entire affirmative action program work. Placement goals are also used to measure progress toward achieving equal employment opportunity.

The establishment of a goal under Sec. 60-2.15 is neither a finding nor an admission of discrimination.

Where, pursuant to Sec. 60-2.15, a placement goal for a particular job group is established, a percentage goal is equal to the availability figure derived for women or minorities, as appropriate, for that job group.

In establishing placement goals, the following principles from Sec 60-2.16(e) also apply:

- 1. Placement goals are neither rigid or inflexible quotas, nor are they considered to be either a ceiling or a floor for the employment of particular groups.
- 2. All employment decisions are made in a nondiscriminatory manner. Placement goals are not used to extend a preference to any individual, select an individual, or adversely affect an individual's employment status on the basis of that person's race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 3. Placement goals do not create set-asides for specific groups, nor are they intended to achieve proportional representation or equal results.
- 4. Placement goals are not used to supersede merit selection principles.

ACTION ORIENTED PROGRAMS

41 CFR Section 60-2.17(c)

Tetra Tech, Inc develops these action-oriented programs to correct any problem areas identified in the Identification of Problem Areas 41 C.F.R. Section 60-2.17(b) and to attain established goals and objectives.

THE SELECTION PROCESS

- 1. At least annually, a detailed analysis of position descriptions is conducted to ensure that they accurately reflect position functions.
- 2. Job requirements are validated by division, department, location or other appropriate organizational units. Special attention is given to academic, experience, physical, and skill requirements to ensure that the requirements themselves do not constitute inadvertent discrimination. Job specifications are free from bias in regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disabled or veteran status, except where there is a bona fide occupational qualification. Job requirements are validated when the number of individuals from a particular race or gender group is disproportionately selected as determined by Impact Ratio studies.
- 3. Position descriptions and specifications are distributed to recruiting sources and members of management involved in the recruiting, screening, selection, and promotion processes.
- 4. Selection processes are evaluated at least annually to ensure that they are nondiscriminatory.
- 5. Individuals who have a role in the selection process are chosen with special care given to their qualifications for such roles and are provided any necessary ongoing training to ensure that the selection processes remain nondiscriminatory.

RECRUITMENT

Any one or all of the following techniques are used to improve recruitment and increase the flow of minority or female applicants:

- 1. Linkage with recruiting sources, which may include briefing sessions, plant tours, presentations by minority and female employees, and full descriptions of appropriate job openings and the selection process;
- 2. Encouragement of minority and female employees to refer qualified applicants;
- 3. Inclusion of women and minorities on the personnel staff;
- 4. Minority and female participation in career days, youth motivation programs and other similar programs in the community;
- 5. Minority and female participation in "job fairs;"
- 6. Active recruiting at various training institutions, especially those that have high minority and female enrollments; and
- 7. Expansion of help-wanted advertising to include the minority news media and women's interest media.

PROMOTIONS

Any one or all of the following techniques are used to improve promotional opportunities for minority and female employees:

- 1. Posting or general announcement of all appropriate job openings;
- 2. Assessment of current female and minority employees' academic, skill and experience levels;
- 3. Provision of job training and work-study programs;
- 4. Completion of performance appraisals;
- 5. Validation of job specifications;
- 6. Justification by supervisors when apparently qualified minority or female employees are passed over;
- 7. Establishment of career counseling programs, which may include attitude development, education aid, job rotations, buddy systems and similar programs;
- 8. Ongoing review of seniority practices in clauses and contracts to ensure that they are nondiscriminatory; and
- 9. Review of all company-sponsored recreational and social activities to ensure that they are desegregated.

INTERNAL AUDIT AND REPORTING SYSTEMS 41 CFR Section 60-2.17(d)

Monitoring and reporting procedures are developed to evaluate the extent to which the goals of the affirmative action program are being met. Tetra Tech, Inc takes the following measures:

- 1. Information on race and sex is obtained when an application for a position is submitted.
- 2. An Adverse Impact (Impact Ratio) Analysis is performed when sufficient data exists on applicants, hires, promotions, and terminations to ensure compliance with the Uniform Employment Selection Guidelines.
- 3. Any training programs are analyzed regularly to eliminate potential discrimination in participation rates.
- 4. Any tests administered are routinely analyzed to uncover potential discrimination in grading scores or test results.
- 5. Compensation practices are reviewed at least annually for wage discrepancies.
- 6. The Availability Analysis for women and minorities is reviewed and good faith placement goals are established when necessary.
- 7. Progress toward established goals is reviewed at least annually for possible adjustments to employment practices.
- 8. Internal reporting is prepared as needed to determine why goals were not met.
- 9. Results of the affirmative action program are reviewed with all levels of management.
- 10. Top management is informed on a regular basis of the effectiveness of these policies and any recommendations for improvement.

GOALS PROGRESS 41 CFR Section 60-2.16, 60-2.17(d)

Tetra Tech, Inc. monitors progress toward goals.

RELIGION AND NATIONAL ORIGIN DISCRIMINATION GUIDELINES 41 CFR Section 60-50

Tetra Tech, Inc reaffirms its policy to afford equal employment opportunity to all individuals. Neither national origin nor religion is a factor in recruitment, selection, promotion, transfer, termination, or participation in training. The following activities are undertaken to ensure that religion and national origin are not used as a basis for employment decisions:

- 1. Employment practices are reviewed to ensure that members of particular religious and/or ethnic groups are given equal employment opportunities.
- 2. All employees, including supervisors, managers, and executives are informed of our commitment to provide equal employment opportunity without regard to religion or national origin.
- 3. Recruitment sources are informed of our commitment to provide equal employment opportunity without regard to religion or national origin.
- 4. Internal procedures exist to implement equal employment opportunity without regard to national origin or religion.

ACCOMMODATION FOR RELIGIOUS OBSERVANCE AND PRACTICE 41 CFR Section 60-50.3

The religious observances and practices of employees are accommodated by Tetra Tech, Inc, except where such accommodation would cause undue hardship on the conduct of business. The accommodation offered is determined by considering business necessity, financial expense and any personnel coverage problems that may result.

NONDISCRIMINATION 41 CFR Section 60-50.5

Tetra Tech, Inc does not discriminate against any qualified employee or applicant because of race, color, sex, sexual orientation, gender identity, age, disabled, or veteran status in implementing the policy concerning nondiscrimination based on religion or national origin



LFUCG MWDBE PARTICIPATION FORM Bid/RFP/Quote Reference #____42-2022

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Magna Engineers 861 Coporate Drive, Suite 210 Lexington, KY 40503 mforee@thirdrockconsultants.com	DBE/SB/WBE		TBD	10%
2. Salt River Engineering 108 W Poplar Street Harrodsburg, KY 40330 859.734.2334 connie@saltriver.com	VOSB		TBD	3%
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Tetra Tech, Inc.	Lichard W. Walker
Company	Company Representative
October 14, 2022	Vice President
Date	Title



LFUCG MWDBE SUBSTITUTION FORM Bid/RFP/Quote Reference #___ 42-2022

The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project.

			7	7	
SUBSTITUTED	MWDBE Formally	Work to Be	Reason for the	Total Dollar	% Value of Total
MWDBE Company	Contracted/ Name,	Performed	Substitution	Value of the	Contract
Name, Address, Phone,	Address, Phone,			Work	
Email	Email				
1.					
N/A					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Tetra Tech, Inc.	Richard W. Walker
Company	Company Representative
October 14, 2022	Vice President
Date	Title



MWDBE QUOTE SUMMARY FORM Bid/RFP/Quote Reference #____42-2022

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.

Company Name Tetra Tech, Inc.	Contact Person Richard Walker, PE, CFM
Address/Phone/Email	Bid Package / Bid Date
424 Lewis Hargett Circle, Ste. 110, Lexington, KY 40503 p: 859.514.8749 E: richard.walker@tetratech.com	RFP # 42-2022 Leachate Management Alternatives Analysis and Engineering Study Due:October 18, 2022

MWDBE	Contact	Contact	Date	Services	Method of	Total dollars \$\$	MBE *	Veteran
Company Addres	Person	Information	Contacted	to be	Communication	Do Not Leave	AA	
		(work phone,		performed	(email, phone	Blank	HA	
		Email, cell)		_	meeting, ad,	(Attach	AS	
		,			event etc)	Documentation)	NA	
					ŕ	,	Female	
N/A								

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/NA= Native American)

The undersigned acknowledges that all information is accurate.	Any misrepresentation may result in termination of the
contract and/or be subject to applicable Federal and State laws	concerning false statements and claims
Totro Took Inc	12/1/2/1/2/1

Tetra Tech, Inc.	/ Walker
Company	Company Representative
October 14, 2022	Vice President
Date	Title



LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran contractors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Project Name/ (Contract #			Wo	rk Period/	From:		To:
,								
Company Name	:			Ado	dress:			
Federal Tax ID:				Coı	ntact Person	1:		
Subcontractor	Description	Total	% of	· 	Total	Purchase	Scheduled	Scheduled
Vendor ID (name, address, phone, email	of Work	Subcontract Amount	Total Contract Awarde to Prim for this Project	ed ne	Amount Paid for this Period	Order number for subcontractor work (please attach PO)	Project Start Date	Project End Date
N/A								
By the signature be of the representation under a	ons set forth belo	ow is true. Any:	misrepres	sentai	tions may res	ult in the termina	ition of the co	
		ai aiiu state iaws	, concern					
Tetra Tech, Inc.				Company Representative				

AFFIDAVIT

Comes the Affia	ant,Ricr	iard vvai	ker, ₽E,	CFIVI	, and afte	r being first duly
sworn, states under per	nalty of perjury a	as follows	3:			
1. His/her name is __	Richard Walke	er, PE, CF	M		and he/she	is the individual
submitting the	proposal	or	is	the	authorized	representative
of Tetra Tech, Inc.					, the	entity submitting
the proposal (hereinafte	er referred to as	"Propos	er").			

- 2. Proposer will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
- 3. Proposer will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
- 4. Proposer has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
- 5. Proposer has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Proposer will not violate any provision of the campaign finance laws of the Commonwealth.
- 6. Proposer has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

Continued on next page

7. Proposer acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

	Richard W. Walker		
STA	ATE OF Kentucky		
СО	UNTY OF Fayette		
	The foregoing instrument was subscribed	d, sworn to and acknowledged befo	ore me
by .	Richard Walker, PE, CFM	on this the 14th	day
of _	October , 20 <u>22</u> .		
	My Commission expires: May 15, 2024	ID KYNP6687	

NOTARY PUBLIC, STATE

EQUAL OPPORTUNITY AGREEMENT

Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Schard	W. I	Nalke	Tetra Te	ch, Inc.			
gnature			Nam	ne of Busines	SS		

DIRECTOR, DIVISION OF CENTRAL PURCHASING LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT 200 EAST MAIN STREET LEXINGTON, KENTUCKY 40507

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) Contract participation. Disadvantaged Business Enterprises (DBE) consists of Minority-Owned Business Enterprises (MBE) and Woman-Owned Business Enterprises (WBE).

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this Contract be subcontracted to Disadvantaged Business Enterprises, which is made up of MBEs and WBEs. The Lexington Fayette Urban County Government also has set a goal that not less than three percent (3%) of the total value of this Contract be subcontracted to Veteran-owned Small Businesses. The goal for the utilization of Disadvantaged Business Enterprises as well Veteran –owned Small Businesses as subcontractors is a recommended goal. Contractor(s) who fail to meet such goal will be expected to provide written explanations to the Director of the Division of Purchasing of efforts they have made to accomplish the recommended goal, and the extent to which they are successful in accomplishing the recommended goal will be a consideration in the procurement process. Depending on the funding source, other DBE goals may apply.

For assistance in locating Disadvantaged Business Enterprises Subcontractors contact:

Sherita Miller, MPA, Division of Central Purchasing Lexington-Fayette Urban County Government 200 East Main Street, 3rd Floor, Room 338

Lexington, Kentucky 40507

smiller@lexingtonky.gov

Firm Submitting Pro	posal:Tet	ra Tech, Inc		
Complete Address:	424 Lewis Harge Street	ett Circle, Ste. 110 City		
Contact Name: Richard Walker, PE, CFM Title: Vice President				
Telephone Number:	859.514.8749	_Fax Number:	859.224.1025	
Email address: richa	ard.walker@tetrat	ech.com		

LFUCG STATEMENT OF GOOD FAITH EFFORTS Bid/RFP/Quote #___ 42-2022

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation. _____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate. Included documentation of advertising in the above publications with the bidders good faith efforts package _____ Attended LFUCG Central Purchasing Economic Inclusion Outreach event X Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s). Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation. Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively. _ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest. Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract. X Selected portions of the work to be performed by MWDBE firms and/or

Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items

-	facilitate MWDBE and Veteran participation, ay otherwise perform these work items with its
businesses not rejecting them as u thorough investigation of their cap	interested MWDBE firms and Veteran-Owned inqualified without sound reasons based on a abilities. Any rejection should be so noted in an agreement could not be reached.
firms and Veteran-Owned business	quotations received from interested MWDBE ses which were not used due to uncompetitive eptable and/or copies of responses from firms abmitting a bid.
unacceptable. The fact that the bid contract work with its own force rejecting a MWDBE and/or Veter	I reasons why the quotations were considered der has the ability and/or desire to perform the s will not be considered a sound reason for ran-Owned business's quote. Nothing in this aire the bidder to accept unreasonable quotes in ran goals.
Veteran-Owned businesses to obtain	tance to or refer interested MWDBE firms and n the necessary equipment, supplies, materials, the work requirements of the bid proposal
Made efforts to expand the businesses beyond the usual geogra	search for MWBE firms and Veteran-Owned phic boundaries.
	nat the bidder submits which may show that the faith efforts to include MWDBE and Veteran
cause for rejection of bid. Bidders relevant to this requirement which	documentation requested in this section may be may include any other documentation deemed is subject to approval by the MBE Liaison. forts must be submitted with the Bid, if the
The undersigned acknowledges that all information in termination of the contract and/or be subject to a false statements and claims.	
Tetra Tech, Inc. Company	Company Representative
October 14, 2022	Vice President Title

Date

GENERAL PROVISIONS

1. Each Respondent shall comply with all Federal, State & Local regulations concerning this type of service or good.

The Respondent agrees to comply with all statutes, rules, and regulations governing safe and healthful working conditions, including the Occupational Health and Safety Act of 1970, 29 U.S.C. 650 et. seq., as amended, and KRS Chapter 338. The Respondent also agrees to notify the LFUCG in writing immediately upon detection of any unsafe and/or unhealthful working conditions at the job site. The Respondent agrees to indemnify, defend and hold the LFUCG harmless from all penalties, fines or other expenses arising out of the alleged violation of said laws.

- 2. Failure to submit ALL forms and information required in this RFP may be grounds for disqualification.
- 3. Addenda: All addenda and IonWave Q&A, if any, shall be considered in making the proposal, and such addenda shall be made a part of this RFP. Before submitting a proposal, it is incumbent upon each proposer to be informed as to whether any addenda have been issued, and the failure to cover in the bid any such addenda may result in disqualification of that proposal.
- 4. Proposal Reservations: LFUCG reserves the right to reject any or all proposals, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
- 5. Liability: LFUCG is not responsible for any cost incurred by a Respondent in the preparation of proposals.
- 6. Changes/Alterations: Respondent may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the proposal, and received by LFUCG prior to the scheduled closing time for receipt of proposals, will be accepted. The proposal, when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of proposal".
- 7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from a Respondent.
- 8. Bribery Clause: By his/her signature on the bid, Respondent certifies that no employee of his/hers, any affiliate or Subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.

- 9. Additional Information: While not necessary, the Respondent may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the Respondent's response. Additional documentation shall not serve as a substitute for other documentation which is required by this RFP to be submitted with the proposal,
- 10. Ambiguity, Conflict or other Errors in RFP: If a Respondent discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
- 11. Agreement to Bid Terms: In submitting this proposal, the Respondent agrees that it has carefully examined the specifications and all provisions relating to the work to be done attached hereto and made part of this proposal. By acceptance of a Contract under this RFP, proposer states that it understands the meaning, intent and requirements of the RFP and agrees to the same. The successful Respondent shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to Respondent shall be authorized for services or expenses reasonably covered under these provisions that the proposer omits from its Proposal.
- 12. Cancellation: If the services to be performed hereunder by the Respondent are not performed in an acceptable manner to the LFUCG, the LFUCG may cancel this contract for cause by providing written notice to the proposer, giving at least thirty (30) days notice of the proposed cancellation and the reasons for same. During that time period, the proposer may seek to bring the performance of services hereunder to a level that is acceptable to the LFUCG, and the LFUCG may rescind the cancellation if such action is in its best interest.

A. Termination for Cause

- (1) LFUCG may terminate a contract because of the contractor's failure to perform its contractual duties
- (2) If a contractor is determined to be in default, LFUCG shall notify the contractor of the determination in writing, and may include a specified date by which the contractor shall cure the identified deficiencies. LFUCG may proceed with termination if the contractor fails to cure the deficiencies within the specified time.
- (3) A default in performance by a contractor for which a contract may be terminated shall include, but shall not necessarily be limited to:
 - (a) Failure to perform the contract according to its terms, conditions and specifications;
 - (b) Failure to make delivery within the time specified or according

- to a delivery schedule fixed by the contract;
- (c) Late payment or nonpayment of bills for labor, materials, supplies, or equipment furnished in connection with a contract for construction services as evidenced by mechanics' liens filed pursuant to the provisions of KRS Chapter 376, or letters of indebtedness received from creditors by the purchasing agency;
- (d) Failure to diligently advance the work under a contract for construction services:
- (e) The filing of a bankruptcy petition by or against the contractor; or
- (f) Actions that endanger the health, safely or welfare of the LFUCG or its citizens.

B. At Will Termination

Notwithstanding the above provisions, the LFUCG may terminate this contract at will in accordance with the law upon providing thirty (30) days written notice of that intent, Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

- 13. Assignment of Contract: The contractor shall not assign or subcontract any portion of the Contract without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
- 14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this Contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
- 15. Authority to do Business: The Respondent must be a duly organized and authorized to do business under the laws of Kentucky. Respondent must be in good standing and have full legal capacity to provide the services specified under this Contract. The Respondent must have all necessary right and lawful authority to enter into this Contract for the full term hereof and that proper corporate or other action has been duly taken authorizing the Respondent to enter into this Contract. The Respondent will provide LFUCG with a copy of a corporate resolution authorizing this action and a letter from an attorney confirming that the proposer is authorized to do business in the State of Kentucky if requested. All proposals must

be signed by a duly authorized officer, agent or employee of the Respondent.

- 16. Governing Law: This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this Contract, the Parties agree that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division. All parties expressly consent to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to this Contract or any rights or obligations arising thereunder. Service of process may be accomplished by following the procedures prescribed by law.
- 17. Ability to Meet Obligations: Respondent affirmatively states that there are no actions, suits or proceedings of any kind pending against Respondent or, to the knowledge of the Respondent, threatened against the Respondent before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of Respondent to perform its obligations under this Contract, or which question the legality, validity or enforceability hereof or thereof.
- 18. Contractor understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Contractor is an independent contractor at all times during the performance of the services specified.
- 19. If any term or provision of this Contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.
- 20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.

Pichard W. Walker	October 14, 2022
Signature	Date

