

**LEXINGTON-FAYETTE  
URBAN COUNTY  
GOVERNMENT**

Proposal for

# **Haley Pike Landfill Leachate Treatment System Improvements**

PROPOSAL | RFP #44-2023 | October 2023



OCTOBER 19, 2023

**Point of Contact**

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

**Subject: RFP # 44-2023 Haley Pike Landfill Leachate Treatment System Improvements**

Dear Mr. Slatin and Selection Committee:

The Haley Pike Landfill has received intermittent Notice of Violations (NOVs) from the Commonwealth of Kentucky for exceeding the limits for ammonia, iron, and total suspended solids at the discharge of the constructed wetlands. The constructed wetland treatment system was included in the Haley Pike Landfill Closure Plan, developed by Tetra Tech in 2004, that was approved by the Kentucky Division of Waste Management (KDWM) 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 per year.

LFUCG retained Tetra Tech in 2022 to evaluate alternatives to address the violations. Tetra Tech completed the study in 2023 and the report is included as an appendix to the RFP. The purpose of this RFP is to select a consultant to implement Option #1, Option #2, and Option #4 identified in Tetra Tech's report. As a result of our previous work, we have a detailed understanding of the Options' requirements and are ready to proceed with the implementation of the selected options in a time efficient/cost-effective manner. We have assembled a team of engineers and scientists with significant experience in the design, construction, and management of leachate treatment systems. Our team's knowledge and experience at Haley Pike Landfill is unmatched.

**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 20 years, 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 other Tetra Tech offices with these tasks across the United States. We have also 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. Our local office has designed wastewater treatment plants that incorporate aeration systems and we have designed leachate holding ponds with aeration systems within Kentucky. 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 and aeration systems for equalization basins or lagoons.

**EXTENSIVE EXPERIENCE AT HALEY PIKE LANDFILL**

Tetra Tech team members have 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 are the Engineer of Record for the Haley Pike Landfill Closure Plan. 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. Most recently in 2023, Tetra Tech completed the Haley Pike Landfill Leachate Management Alternatives Analysis and Engineering Study. This study was prepared to identify cost effective leachate treatment or management options for the closed landfill. As part of this study, analytical data was compiled and evaluated, and previous studies were reviewed to develop five (5) options that would meet the treatment needs of the facility. The five (5) options were further evaluated based on technical

feasibility, regulatory compliance, constructability, construction cost, and annual operational cost to provide LFUCG with recommendations. 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. Since Tetra Tech has no learning curve associated with understanding the needs for this facility and associated challenges, we can efficiently and effectively move forward with the design. 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 design documents and the operational and maintenance plans. 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, minimizing LFUCG staff time
- 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 reputation for providing the high level of service you expect
- Problem-solving approach – we identify a problem that requires input from your staff to bring you viable solutions to consider
- Staff and resources available to meet your schedule
- We will serve as an extension of your staff

Tetra Tech has included team members from Magna Engineers to assist with the electrical design and necessary modification, LOVO Systems to provide input on SCADA modifications and integration, and Salt River Engineering to provide cost analyses. 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  
Vice President



Herbert R. Lemaster, PE  
Senior Project Manager

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# 01 Qualifications

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# 01: Qualifications

**Tetra Tech** is a leading provider of consulting, engineering, program management, and construction management services with over 27,000 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 20 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. We are 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.

### TETRA TECH SNAPSHOT

WORKS IN  
**100+**  
COUNTRIES

**7**  
CONTINENTS

Publicly traded  
on NASDAQ as  
**TTEK**

**\$4.5 billion**  
ANNUAL REVENUE

WORKS ON  
**100,000**  
PROJECTS  
ANNUALLY

**550** OFFICES  
WORLDWIDE

ENR RANKINGS	
#1	Water
#1	Environmental Management
#1	Water Treatment/Desalination
#1	Wind Power
#1	Hydro Plants

**22,000** CLIENTS

**27,000**



## SUBCONSULTANTS

### Magna Engineers

861 Corporate Drive, Suite 210 | Lexington, KY 40503  
859.309.2990



Magna Engineers is a woman-owned consulting engineering company providing electrical, mechanical, and instrumentation/controls engineering services. While their primary service offering is design for construction, they also perform power system studies, including arc flash analysis, facility assessments, energy audits, life-cycle cost analysis, cost estimating, value engineering, and constructability reviews. Magna is a certified Economically Disadvantaged Woman-Owned Small Business in accordance with Small Business Administration (SBA) requirements, and is a certified Women Business Enterprise (WBE) with the Women's Business Enterprise National Council (WBENC). Magna Engineers is listed as an approved WBE with the Louisville-Jefferson County Metropolitan Sewer District, and as a certified DBE with the Kentucky Department of Transportation. Magna's professional and LEED accredited engineers and supporting staff has a combined experience of over 120 years, and have completed projects in a broad market range.

### Salt River Engineering

108 West Poplar Street | Harrodsburg, KY 40330  
859.734.2334



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.

### LoVo Systems, Inc.

5480 Swanton Drive | Lexington, KY 40509  
859.225.0113



LoVo Systems specializes in the design and installation of a complete range of low voltage technology systems. Whether your needs are simple or complex, we'll work with you to design a solution that is right for you. From comprehensive security systems with video surveillance, access control, fire alarms, voice and data networks, fiber cabling, phone, and audio/video solutions to a complete Industrial Division, you can trust LoVo to design and implement a turnkey solution that's affordable and done right the first time. LoVo's systems integration services include the design and installation of SCADA and PLC/DCS systems, web-based monitoring and control systems, instrumentation, environmental compliance monitoring, control panel fabrication, and database/plant intelligence. With a strong background in manufacturing automation and water/wastewater treatment, LoVo is experienced in both discrete automation systems and process automation systems. We will work with your staff to design the best possible solution for your application regardless of the product used. LoVo is proud to offer solutions from Rockwell Allen-Bradley and Wonderware – two of the premium manufacturers in industrial automation.



## PROJECT UNDERSTANDING/BACKGROUND

LFUCG owns and maintains the closed Haley Pike Landfill (Site, Landfill) situated on a 420-acre complex in eastern Fayette County, KY. The Landfill consists of two closed landfill cells: Unit 1, Phase 1 (45 acres) and Unit 1, Phase 2 (97 acres). Currently, leachate from the closed and capped landfill cells (Unit 1, Phase 1 and Unit 1, Phase 2) is treated in a Wetlands Treatment System (WTS) prior to discharge. An influent pump station conveys the leachate from the collection system surrounding the closed landfills via a 6-inch HDPE SDR 11 pipe to a double-lined equalization (EQ) basin with depths ranging from 6 to 10 feet. The EQ basin discharges into two approximately half-acre (each) subsurface constructed wetlands, that operate in parallel and are planted with native cattails. The constructed wetlands are double-lined, filled with gravel and range in depth from 2.5 to 3.5 feet.

The storage volume within the EQ Basin is controlled by a SCADA -controlled valve and flow meter located between the EQ Basin and two wetland cells. The SCADA system monitors, controls, and records discharges from the wetland treatment system. Additionally, there is a groundwater augmentation system that pumps groundwater from Well A-10 into the treatment system to supplement the water levels during periods of low flow that is currently out of service. Treated effluent is discharged to an unnamed tributary of the North Elkhorn Creek from Outfall 005 under Kentucky Pollutant Discharge Elimination System (KPDES) Permit No. KY0092100. The KPDES permit was issued on October 28, 2019, and the expiration date is November 30, 2024. LFUCG is currently under an Agreed Order due to permit exceedances related to the effluent from the WTS.

Tetra Tech completed an evaluation and alternatives analysis of the treatment system to identify potential upgrades and alternatives to the system that would more reliably meet the current permit limits. LFUCG selected options 1, 2, and 4 for implementation as described below.

### Option 1 – Maintenance and Rehabilitation of Current System

This option includes cleaning of leachate collection pipes and riser pipes to remove biological material, sedimentation, and iron scaling. Prior to cleaning, a video inspection of the pipe system to assess the overall condition of the piping system will be conducted. Sediment accumulated in the EQ basin will also be removed to restore storage capacity and reduce the potential for anaerobic processes within the sediments. The pump in Well A-10 will be repaired and placed back in service to restore the groundwater augmentation system.

### Option 2 – Wetland Substrate Rehabilitation

This option includes the replacement of the wetland media and wetland plants along with any necessary repairs to the influent piping, effluent piping, nonwoven geotextile, and HDPE liner.

### Option 4 – EQ Basin Aeration

This option includes the design and installation of a mechanical aeration system in combination with the creation of a quiescent zone to enhance pretreatment and solid separation and iron precipitation in the EQ Basin. The quiescent zone would be created using curtain-style baffles to create a plug-flow area, separate from the aerated portion of the basin.

Tetra Tech is aware of the complete components and design requirements of each option.

## RELEVANT EXPERIENCE

The maps on the following pages provide a summary of our experience with the Haley Pike Landfill facility and LFUCG funded projects. Three detailed project descriptions are also provided to demonstrate our experience and expertise in the completing similar projects on time and within budget.





# Past Performance Haley Pike Landfill Facility



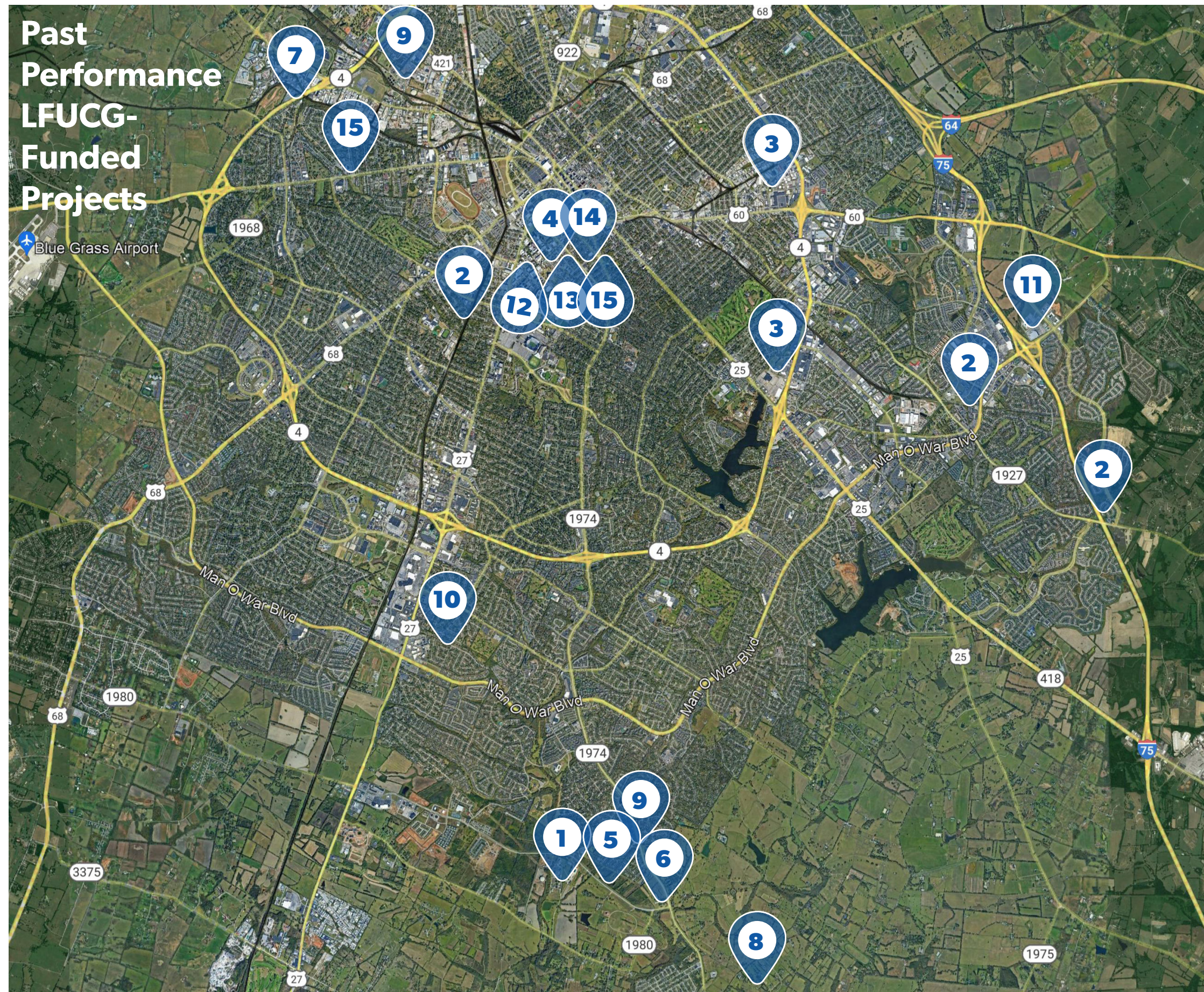
## Summary of Haley Pike Landfill Projects

- 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)
- 16. Haley Pike Landfill Leachate Management Alternative Analysis

\*Multiple sampling locations



**Past Performance LFUCG-Funded Projects**

**Summary of LFUCG-Funded Projects**

1. West Hickman Wet Weather Storage – Phase 2
2. Campbell, Barnard, Bob-O-Link Stormwater Analysis
3. Idle Hour and Industry Road Stormwater Analysis
4. County-wide MS4 Program Management
5. West Hickman WWTP Wet Weather Storage – Phase I
6. West Hickman WWTP 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

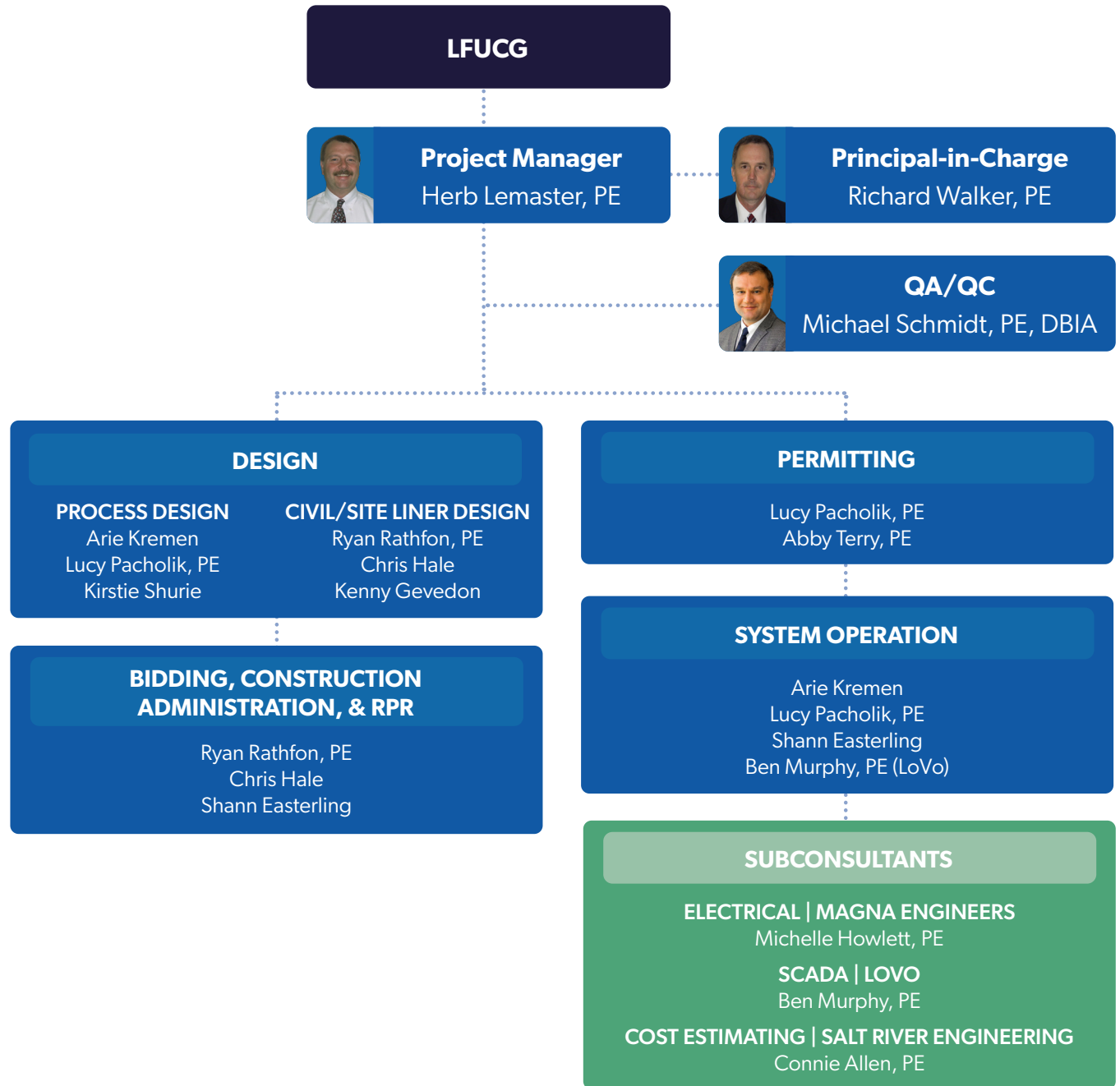
## TETRA TECH TEAM

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 Kremen, Tetra Tech’s Leachate Management expert.

We understand the importance of disadvantaged business enterprise/ minority-owned 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 Magna Engineers (DBE/SB/ WBE) to provide environmental permitting and Salt River Engineering (VOSB) to provide cost analysis to the team.

The organization chart outlines the key members proposed for this project. Resumes for key staff are provided at the end of this section.

## ORGANIZATION CHART



# Haley Pike Landfill Closure Design

Fayette County, KY



## 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 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.



## PROJECT RELEVANCY

- 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

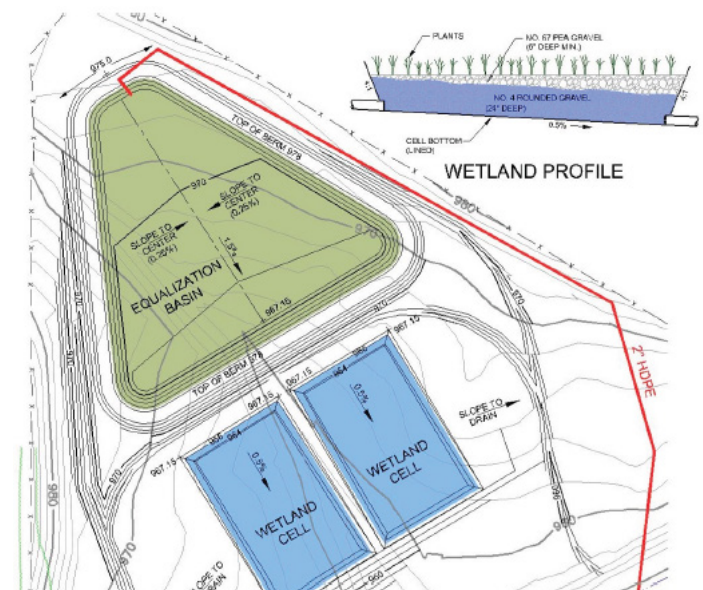
Tetra Tech planned and is providing engineering and environmental science consulting services for the largest landfill closure to date in the Commonwealth of Kentucky. This project is the multi-phase closure of Lexington's 97-acre Haley Pike Solid Waste Landfill.

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.



## PROJECT RELEVANCY

- 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

# Cellulose Mill Wastewater Treatment Facility Modifications, Perry, FL

## YEAR COMPLETED

2016 - 2019

## PROJECT VALUE

\$3,603,472 (engineering fee)  
\$51M (construction)

## KEY STAFF

Michael Schmidt, PE  
*Process Engineer*

## CLIENT/OWNER'S REPRESENTATIVE

Confidential Client

The project consisted of converting the aerated stabilization basin system to a modified activated sludge treatment system. The upgrades included the following: new flow distribution box; conversion of an existing concrete lined lagoon to a Wastewater Holding Basin with 35 MG surge storage; construction of a new 47 MGD influent pump station and four cell cooling tower; conversion of an existing concrete lined lagoon to an Activated Sludge Treatment Aeration Basin with 42 75-HP surface aerators; new 100 MGD clarifier influent pump station and splitter box; two new 250 feet diameter secondary clarifiers; new 50 MGD RAS pump station; new WAS pumps; new secondary solids handling facility with two gravity belt thickeners and two dewatering centrifuges; modifications to the foul condensate transfer pump and piping; new waste acid smoothing tank and pump system; caustic feed improvements; and supplemental nitrogen (UAN) feed improvements. These modifications were intended to achieve the water quality based effluent limits with EPA's Nutrient TMDL for the receiving waterbody.



## PROJECT RELEVANCY

- Existing lined lagoon converted to aeration basin with 42 75 HP surface aerators



# Herbert Lemaster, PE

**Project Manager**

**32** years of experience

### EDUCATION:

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

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 Leachate Management Alternative Analysis and Engineering Study, LFUCG, KY.** Project Manager/Senior Engineer. Evaluated alternatives and developed options for treatment of leachate, including modifications to the treatment process, to obtain regulatory compliance at the KPDES discharge point.

**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 effective on-site treatment system for leachate. 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. 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. Included 4,000 feet of 8-inch leachate collection pipe, a double-lined equalization basin and two surface flow wetland cells operating in series, a decanting facility, a pump station, 2,100 feet of force main, and emergency generator.



# Michael Schmidt, PE, DBIA

QA/QC

31 years of experience

## EDUCATION:

MS, Environmental Systems Engineering, Clemson University, 1992

BS, Chemical and Biomedical Engineering (Summa Cum Laude), Vanderbilt University, 1990

Advanced Pretreatment Training Course, WEF-EPA

## REGISTRATIONS:

Professional Engineer: Kentucky, No. 26622  
DBIA Design-Build Professional, No. D-3238

## AFFILIATIONS:

Water Environment Federation

Tau Beta Pi Engineering Honor Society, Vanderbilt University

Mr. Schmidt has extensive experience in planning, design, operations, and construction management on a wide variety of water, wastewater, residuals management, and stormwater projects. In addition to being a registered professional engineer in ten states, he is a certified wastewater operator in Tennessee and a DBIA Design-Build Professional™. During his 30 year career, Mr. Schmidt has successfully delivered piping, pumping, and treatment solutions to some of the largest municipal agencies in the Country.

## SELECT RELEVANT EXPERIENCE

### **Nansemond Treatment Plant Advanced Nutrient Reduction Improvements, Phase II Design-Build, Hampton Roads Sanitation District, Suffolk, VA.**

Design Team Lead/Engineer of Record. Design, permitting, and start-up to increase treatment plant capacity from 30.0 to 50.0 MGD. The expansion includes a new influent distribution box, primary clarifier, primary effluent equalization tanks, aeration basins and blowers, secondary clarifiers, return activated sludge and nitrate recycle pumping, chlorine contact tank, primary gravity thickeners with integrated fermentation, primary solids screening, dewatering centrifuges, and odor control systems. Design also included process improvements to implement Partial Denitrification Anammox for shortcut nitrogen removal.

### **West Hickman Biological Phosphorus Removal (BPR) Improvements and Return Activated Sludge (RAS) Equalization, Lexington-Fayette Urban County Government, Lexington, KY.**

Lead Process engineer for the BPR Improvements at the plant. The first phase included the replacement of the BPR Tank mixers, the replacement of the Chemsan online sampling system, and the replacement of the sodium aluminate feed system. The second phase included process modeling and evaluation of the existing BPR and biological treatment processes and recommendations of improvements to the process to optimize biological phosphorus removal and improve solids management during peak flow events.

### **Wastewater Treatment Facility Modifications, Confidential Client, Perry, FL.**

Modifications consisted of converting the aerated stabilization basin system to a modified activated sludge treatment system. Upgrades included new flow distribution box; conversion of an existing concrete lined lagoon to a Wastewater Holding Basin with 35 MG surge storage; construction of a new 47 MGD influent pump station and four cell cooling tower; conversion of an existing concrete lined lagoon to an Activated Sludge Treatment Aeration Basin with 42 75-HP surface aerators; new 100 MGD clarifier influent pump station and splitter box; two new 250 feet diameter secondary clarifiers; new 50 MGD RAS pump station; new WAS pumps; new secondary solids handling facility with two gravity belt thickeners and two dewatering centrifuges; modifications to the foul condensate transfer pump and piping; new waste acid smoothing tank and pump system; caustic feed improvements; and supplemental nitrogen (UAN) feed improvements.

### **WWTP Oxidation Ditch Rehabilitation, Cape Canaveral, FL.**

Lead Process Engineer. The project scope included equalization basin improvements to take the oxidation ditch out of service by providing aeration in the equalization basin. Key features include improvements to the equalization tank to provide aeration; drain, clean, and repair the oxidation ditch; and repair surface aerators with lower impellers and miscellaneous metals.





# Lucy Pacholik, PE, CDT

**Process Design; Permitting; System Operation**

**7** years of experience

### EDUCATION:

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: Kentucky, No. 37317  
Construction Documents Technology Certification  
USEPA Method 9 Opacity Certification  
Kentucky Erosion Prevention and Sediment Control (KEPSC) Certified Inspector  
CPR and First Aid Training

Ms. Pacholik is proficient in ArcGIS, AutoCAD Civil 3D, KYPipe, InfoSWMM, InfoWater, HydroCAD, 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

**Haley Pike Landfill Leachate Management Alternative Analysis and Engineering Study, LFUCG, KY.** Project Engineer. Evaluated alternatives and developed options for treatment of leachate, including modifications to the treatment process, to obtain regulatory compliance at the KPDES discharge point.

**Haley Pike Landfill Pump Station Improvements, LFUCG, KY.** Project 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.

**Wolf Run Wet Weather Storage Facility, Lexington-Fayette Urban County Government, KY.** Project Engineer. 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 InnoVizyze 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.



# Arie Kremen, PhD

**Process Design; System Operation**

**29** years of experience

### EDUCATION:

PhD, Civil and Environmental Engineering, Technion – Israel Institute of Technology, Haifa, Israel, 2005

MSc, Civil Engineering (Water Resources and Hydrodynamics), Technion – Israel Institute of Technology, 1999

BSc, Civil Engineering, Israel Technion – Institute of Technology, 1993

### REGISTRATIONS:

Solid Waste Association of North America, New Jersey and New York Chapters

National Groundwater Association

OSHA 40-hr. HAZWOPER Training

OSHA 8-hr. HAZWOPER Refresher

*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

**Haley Pike Landfill Leachate Management Alternative Analysis and Engineering Study, LFUCG, KY.** Technical Expert. Evaluated alternatives and developed options for treatment of leachate, including modifications to the treatment process, to obtain regulatory compliance at the KPDES discharge point.

**Haley Pike Landfill Pump Station Improvements, LFUCG, KY.** Technical Expert. 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.

**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.

**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 pre-treatment system for the removal of organic contaminants to meet effluent discharge limitations. Commissioned in May 2015. Engineering design and procurement services for upgrades to the leachate treatment system to remove PFAS compounds.



# Kirstie Shurie

## Process Design

6 years of experience

### EDUCATION:

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

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

**Haley Pike Landfill Leachate Management Alternative Analysis and Engineering Study, LFUCG, KY.** Project Engineer. Evaluated alternatives and developed options for treatment of leachate, including modifications to the treatment process, to obtain regulatory compliance at the KPDES discharge point.

**Haley Pike Landfill Pump Station Improvements, LFUCG, KY.** Project 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.

**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.



# Ryan Rathfon, PE

**Civil Site/Liner Design; Bidding, Construction, & RPR**

6 years of experience

### EDUCATION:

BS, Architectural Engineering, Drexel University, 2010

### REGISTRATIONS:

Professional Engineer: KY, No. 38016

CDT – Construction Document Technologist

*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 combustibles 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.

\*denotes experience prior to Tetra Tech



## Chris Hale, PE

**Civil Site/Liner Design; Bidding, Construction Administration, & RPR**

**34** years of experience

### EDUCATION:

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

*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

#### **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 man-made 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.

**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.



## Shann Easterling

*Bidding, Construction Administration, & RPR; System Operation*

20 years of experience

### EDUCATION:

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

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 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

**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.

**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.

**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.



# 02 Past Performance

PROPOSAL | RFP #44-2023 | October 19, 2023

## RELEVANT PROJECTS WITH URBAN COUNTY GOVERNMENT & GOVERNMENT AGENCIES

Project Name	Services Provided / Project Description
LFUCG Haley Pike Landfill Leachate Management Alternatives Analysis and Engineering Study	Evaluated alternatives and developed options for treatment of leachate at Haley Pike Landfill, including modifications to the existing treatment process, to obtain regulatory compliance at the KPDES discharge
LFUCG Haley Pike Landfill Wetlands Liner Evaluation	Conducted integrity testing by means of physical and dipole electrical methods to evaluate suspected liner leaks in the wetland cells.
LFUCG Haley Pike Landfill Permit Assessment	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.
LFUCG Haley Pike Compost Pad Replacement	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.
LFUCG Haley Pike Compost Pad Reconstruction	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.
LFUCG Phase 4 of the Haley Pike Landfill Closure	Design/Bidding Document development for the construction of Phase 4 the Haley Pike Landfill Closure.
LFUCG Haley Pike Annual Volume Survey	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.
LFUCG Haley Pike Compost Pad Treatability Study	Evaluation of facilities and options for management of discolored water running off compost pad area.
LFUCG Haley Pike Landfill Pump Station Upgrade	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.
LFUCG Haley Pike Wetlands Operation and Reporting	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.
LFUCG Phase 3 of the Haley Pike Landfill Closure	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.
LFUCG Phases 1 and 2 of the Haley Pike Landfill Closure	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.
LFUCG Haley Pike Compost Pad Addition	Design/Bidding Document development, bidding, construction administration, 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.
LFUCG Closure Plan for Haley Pike Landfill	Development of the necessary closure documents for submittal and approval by the Kentucky Division of Waste Management.
LFUCG Surface Water and Groundwater Monitoring	KPDES surface water monitoring and KDWM groundwater monitoring – sample collection, analytical testing, and preparation of DMRs and reports for submittal to regulatory agencies.
LFUCG Haley Pike Landfill Groundwater Assessment Plan	Sampling, Analytical testing, coordination with KDWM, and report preparation to address issues related to the observance of BTEX in monitoring well 4d.
LFUCG West Hickman Wet Weather Storage – Phase 2	Design and construction administration for an 18-MG wet weather storage tank and related facilities.

**\*\*\* All projects completed on time and within budget. \*\*\***



## RELEVANT PROJECTS WITH URBAN COUNTY GOVERNMENT & GOVERNMENT AGENCIES

Project Name	Services Provided / Project Description
LFUCG Campbell, Barnard, Bob-O-Link Stormwater Analysis	Hydraulic evaluation of stormwater conveyance systems, development of improvement alternatives, and development of design/construction documents.
LFUCG 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.
LFUCG 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.
LFUCG West Hickman WWTP 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.
LFUCG Wolf Run WWTP Wet Weather Storage	Design and construction administration of a 7-MGD pump station and a 1.8-MG storage tank.
LFUCG 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.
LFUCG 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.
LFUCG Walhampton Stormwater Improvements	Design of new storm sewers and a detention basin to improve subdivision drainage system.
LFUCG 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.
LFUCG 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.
LFUCG Vaughns Branch Flood Mitigation	Design and construction oversight of a seven-acre detention basin, channel widening, and enlargement of four culverts
KDWM Landfill Leachate Management Systems in Kentucky Counties (Johnson, Jessamine, Madison, Harrison, Harlan)	Design and Construction management for leachate management system from closed landfills.
Monmouth County Reclamation Center, 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.
Anchorage Regional Landfill, AK	Feasibility study for leachate management, evaluating leachate treatment and disposal alternatives.
Riverview Land Preserve, 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.

*\*\*\* All projects completed on time and within budget. \*\*\**



**03**

# **Proposal/Project Approach**

PROPOSAL | RFP #44-2023 | October 19, 2023

## 03: Proposal Project Approach

### APPROACH TO PROJECT

Tetra Tech understands the critical need to maintain the project within schedule and budget while delivering high quality design documents necessary for success of the project in addressing the issues that generated the Agreed Order. We have organized our approach to meet these critical needs of this project.

#### Project Management

At the beginning of the project, Tetra Tech's Project Manager Herb Lemaster will prepare a detailed Work Plan to be followed during the design and construction activities and a Site-Specific Health and Safety Plan that will be followed throughout the project by Tetra Tech staff. This will ensure all parties of the team are connected with the project scope and expectations. The Work Plan will set forth vital information such as project goals, lines of communications, schedule, budget, project controls, scope of work, and a plan for implementation and task completion. Project management responsibilities will include developing monthly progress reports, invoices for work performed, project schedule updates, and coordination with subconsultants. Mr. Lemaster will monitor budget status for the total project, as well as the budget status for the individual tasks.

#### Communications

We will confirm, in concert with LFUCG, the engineering standards to be followed throughout the project. The work plan will be communicated to all participants and continuously monitored to keep the project on course. Face-to-face meetings will be scheduled with LFUCG staff at significant project milestones. Our meeting plan will begin with a project kickoff meeting followed by three periodic progress meetings and a 75% design review workshop. All meetings will be documented in meeting minutes prepared by Tetra Tech.

#### Quality Control

Mr. Lemaster will be responsible for QA/QC of the project. He will ensure that his team members follow the QA/QC procedure specifically developed for the project, including proper checks, and that all deliverables have been reviewed and approved before they are delivered to LFUCG staff.

### WORK PLAN

The following work plan summarizes our approach using the phases and tasks listed the Request for Proposals.



#### Phase 1 – Design Services

**Task 1: Reviewing existing information** – Review of the existing information will serve as the foundation of the project. Tetra Tech has conducted the Haley Pike Landfill Leachate Management Alternative Analysis and Engineering Study that evaluated several treatment alternatives. Additionally, we have conducted more than 15 projects at the facility including development of the closure plan and design/construction administration for Phase 1, 2, and 3 of the Unit 1 Phase 2 landfill closure. Tetra Tech has a plethora of experience and knowledge of this facility. We will use this information to supplement information that is provided by LFUCG to ensure the design was current with relevant data. Communication is key to successful project execution. Tetra Tech will coordinate and conduct the project kick-off meeting, the first step in the process. This meeting will be used to further define LFUCG's needs and goals and to refine the lines of future communications.

**Task 2: Conducting additional investigations** – Tetra Tech will ensure that the proper information is available or gathered to fully develop the design documents. This task will be further defined based on the information gathered from Task 1 and the meetings with LFUCG. We anticipate additional survey data will be collected to verify existing locations of structures, edge of liners, exposed piping and surface contours in the proposed work area. Additional information may be collected based as needed.

**Task 3: Developing construction drawings** – The design package will include erosion and sediment control requirements, plan and profile views of the proposed EQ Basin and WTS modifications, contractor access locations, contractor equipment and materials staging areas, and site restoration requirements. Tetra Tech will coordinate with LFUCG on the selection of equipment to ensure concerns such as life-cycle costs and ease of maintenance are addressed. All required improvements necessary for construction access (and future maintenance operations) will be included in the design plans. As part of the development of the 30% preliminary design plans, Tetra Tech proposes an option to develop a Computational

Fluid Dynamics (CFD) model of the EQ Basin to simulate and evaluate the potential mixing and flow improvements resulting from the proposed pond modification. A total of three (3) model simulations will be performed for the project; one baseline condition and two baffling configuration scenarios. LFUCG standard details and specifications will be included where they are available and related to this project. Our subconsultants that will be engaged during the design include Magna Engineers for the electrical design, LOVO Systems for SCADA modifications and design, and Salt River Engineering to conduct cost analysis and develop the Engineers Opinion of Probable Cost. Tetra Tech will coordinate with LFUCG for a design review meeting at the 30% (Preliminary Design), 75%, and 90% complete stage. Prior to the meeting, we will provide LFUCG with electronic and hard copies of the design drawings for review.

**Task 4: Providing Value Engineering recommendations** – Tetra Tech has conducted a significant amount of value engineering analysis during the previously conducted study. However, there are several options we will explore with LFUCG to help reduce costs related to construction. For example, one of the significant costs that will be incurred with this project is the management of leachate while portions of the treatment system are out of service. This is a cost that can become very large if not correctly handled from the beginning. Strategic staging of the receipt of materials and scheduling of basin/wetland cell(s) construction activities can reduce these costs. We have the background and understanding of the necessary construction activities to develop construction sequencing activities that result in lower costs related to leachate management. We have proven this with our prior work at Jack’s Creek Pike Landfill that included similar concerns related to leachate management costs during construction. Additionally, to enhance the monitoring of the operational process, we suggest installing sampling locations at the midpoint and end of the EQ Basin along with sampling taps on the pipes in the valve vault. This would allow for process sampling and analysis to determine the effectiveness of the system and help with decisions related to operational adjustments. The sampling locations within the basin could be created by installing sampling tubing within a PVC casing along the baffle wall and effluent pipe. Accepted recommendations will be incorporated into the final design plans for bidding and construction.

**Task 5: Preparing contract/bidding documents** – Tetra Tech will coordinate with LFUCG Central Purchasing to ensure the correct front-end specifications and LFUCG bid number are incorporated into the design documents to create the bidding documents. The contract/bidding documents will include

the LFUCG’s contract information, bidding form, general conditions, and technical specifications of the materials to be incorporated into the project. The contact/bidding documents will include:

- Summary of work to be conducted by the contractor,
- Work restrictions placed on the contractor,
- Requirements for submitting documents for review,
- Minimum safety requirements to be maintained by the contractor,
- Quality control requirements to be conducted by the contractor and quality assurance items that will be conducted by the engineer to review the contractor’s work,
- Requirements for the contractor’s temporary construction facilities,
- Requirements for the contractor’s temporary environmental controls,
- Inclusion of stormwater pollution control measures to be conducted by the contractor including preparation by the contractor of a Stormwater Pollution Prevention Plan or Erosion and Sediment Control Plan, and
- Requirements for site restoration after construction is completed.

Prior to commencement of work, the successful bidding contractor will be required to submit a Work Plan describing their anticipated approach to the project and a Site-Specific Health and Safety Plan that will be used by their organization throughout the length of the construction project. The contractor will also be required to submit a project schedule for the entire length of the contact period and a Schedule of Values for use in partial payments if the project is bid lump sum.

**Task 6: Preparing Engineer’s Opinion of Probable Cost** – Tetra Tech will develop an Engineer’s Opinion of Probable Cost at the 30%, 75%, 90% stages of design and update this opinion based upon the final design documents. The opinion will be based on recent construction cost data on similar operations within Central Kentucky.



## Phase 2 – Bid Services

### Task 1: Providing bidding assistance including:

- a. Coordinating with LFUCG’s Division of Central Purchasing to obtain the appropriate LFUCG Bid Numbers; determine dates of Pre-Bid Meeting deadline for questions and bid opening; and distribute the Contract Documents to prospective bidders.
- b. Providing LFUCG Division of Environmental Services and Division of Engineering with two (2) complete sets of full-size drawing and two bound sets of project specifications. Additionally, an electronic copy of

the drawings and specifications will be provided.

- c. Conducting the Pre-Bid meeting; a summary of the Pre-Bid meeting will be developed by Tetra Tech and included in the first addendum
- d. Responding to questions submitted by Bidders and assist in the preparation of addendums as necessary
- e. Attend the bid opening
- f. Review of the submitted bids, prepare a bid tabulation, and prepare a recommendation of award



### Phase 3 – Construction Administration

**Task 1: Preparing conformed plans and specifications to include all addenda and signed contracts** – Anticipate providing five copies of the conformed documents for use by LFUCG and the contractor.

**Task 2: Conducting Pre-Construction meeting and monthly progress meetings** – Tetra Tech will coordinate with LFUCG and the successful bidding contractor to schedule a Pre-Construction meeting to serve as the kickoff for the construction project. The Pre-Construction meeting provide the opportunity to clarify communication channels, project requirements, and facility access limitations. All meetings will be documented in meeting minutes prepared by Tetra Tech.

**Task 3: Reviewing contractor submittals and shop drawings for conformance with the project documents** – Tetra Tech will review all submittals compiled by the contractor related to the project. This includes material shop drawings for items to be incorporated into the project, work plans, and stormwater pollution prevention plans. Tetra Tech will maintain a log of all submittals noting the date of receipt, date returned to contractor, and comments related to each submittal.

**Task 4: Responding to questions from the contractor** – Tetra Tech will review all questions submitted by the contractor related to the project and provide the necessary response. A log will be maintained to keep track of all requested questions and related responses.

**Task 5: Assisting with change order preparation and submittal to LFUCG** – Tetra Tech will coordinate with the contractor, as necessary, to assist in the preparation of change orders related to the project. A log will be maintained to keep track of all change order requests and their status.

**Task 6: Conducting monthly progress meetings** – Tetra Tech will coordinate (with LFUCG, contractor, and relevant subcontractors) and manage monthly progress meetings that will cover the current status of the project (schedule

and pay requests), anticipated work to be conducted, and update LFUCG of any issues related to upcoming activities. Construction progress meetings (minimum of 16) will be scheduled to occur a minimum of once a month unless additional meetings are required to address issues or concerns. All meetings will be documented in meeting minutes prepared by Tetra Tech.

**Task 7: Performing resident project representative (RPR) duties and project engineer site visits** – Tetra Tech will provide a full-time RPR on-site during all construction activities. The RPR will record daily activities at the site, monitor construction progress, verify material and deliveries comply with the approved shop drawings, and monitor installation activities with reference to project specifications and approved shop drawings, monitor compliance with stormwater pollution prevention plans. Site visits by the project engineer will be conducted weekly to review the project status and confirm installation is in accordance with the contract documents and approved shop drawings. Additional site visits by the project engineer will be conducted as needed.

**Task 8: Conducting all required testing** – Tetra Tech will perform any construction quality assurance required for the project. The contractor will be responsible for all quality control for the project.

**Task 9: Reviewing contractor’s pay requests** – Tetra Tech will review all partial pay requests submitted by the contractor to confirm the quantities requested for payment are installed or properly stored in accordance with the contract documents.

**Task 10: Develop a punch list once project reaches substantial completion** – Tetra Tech will conduct a site visit with the contractor and LFUCG to develop a punch list once notification of Substantial Completion is provided by the contractor. The site visit will review all items installed during the project for conformance with the contract documents and approved shop drawings. A detailed list of items to be completed or corrected will be compiled and sent to the contractor.

**Task 11: Assisting LFUCG Project Manager with final inspection** – Tetra Tech will conduct a site visit with the LFUCG Project Manager to review the completed project and confirm the punch list items have been completed in accordance with the contract documents and approved shop drawings.

**Task 12: Preparing as-built drawings and final construction documents** – Survey data will be collected during the construction period, as necessary, to be included in the final record drawing. This information along with red line mark ups provided by the contractor will be used to develop the final record documents (As-Built Drawings) for the project.

**Task 13: Providing LFUCG with organized PDF electronic files containing all items relative to the project, including drawings and final project documents**

– At the completion of the project, Tetra Tech will prepare all necessary closeout documents and coordinate with the contractor to obtain necessary warranty and closeout documentation. Tetra Tech will provide LFUCG with an electronic file that contains all construction-related documents. This includes shop drawings, contractor questions and responses, pay requests, change orders, site inspection reports, testing reports, closeout documents, and As-Built Drawings.

**Task 14: Preparing operations and maintenance (O&M) plan for use by LFUCG**

– Tetra Tech will prepare an O&M plan that incorporates all modifications included in the contract documents that includes frequency of site inspections, anticipated cleaning intervals, and other items.

**Phase 4 – System Operation Assistance**

**Task 1: Providing 1 full year of system operation assistance that will include the items below**

– It is assumed that a staff member will be on-site twice a week to monitor and conduct the tasks. Additional staff will be engaged as needed for specific tasks certain items.

- a. Implementing the O&M Plan – Tetra Tech will develop a schedule of weekly and monthly activities that will be conducted to implement the O&M Plan. This schedule will be provided to LFUCG for their reference and concurrence and will be modified as necessary for successful implementation of the O&M plan.
- b. Troubleshooting of any post-construction issues – Tetra Tech will monitor all newly installed equipment during site visits conducted as part of implementing the O&M Plan. Tetra Tech will coordinate with the contractor for all items that are under warranty. Other issues that may occur will be evaluated for cause and reported to LFUCG.
- c. Balancing seasonal system operations through the SCADA system – Tetra Tech will monitor the flow rates and wetland cell water levels weekly and adjust as necessary to optimize the system based on seasonal needs.
- d. Monitoring plant growth progress in the wetland treatment system – Tetra Tech will monitor each wetland cell weekly and document the growth progress, and areas that are stressed or lacking growth will be identified and addressed.
- e. Providing assistance to LFUCG with identifying suppliers, coordinating and ordering any replacement parts – During the first year, Tetra Tech will coordinate with the contractor to address any defective items under

warranty. Tetra Tech will develop a list of suppliers for LFUCG who may be contacted.

- f. Coordinating with SCADA system consultant to identify any operation issues post-construction – Tetra Tech has teamed with LOVO Systems as a subconsultant to address any SCADA issues that may arise. With this team, we will be able to either address an issue or coordinate with any other SCADA integrator that LFUCG may have contracted with.
- g. Reviewing monthly KPDES monitoring results and evaluating for compliance – Tetra Tech will maintain a spreadsheet containing the monitoring results that will be used for analyzing trends and seasonal variations.
- h. Evaluating potential causes of exceedances – Tetra Tech will assist LFUCG with evaluating the full system to determine the potential causes of issues within the system should an exceedance of the KPDES permit limits occur.
- i. Performing additional process sampling (non KPDES) and analysis to monitor effectiveness of the system. Tetra Tech proposes and option to collect a raw leachate sample monthly which will be analyzed for the parameters that were evaluated during the previous study. Additionally, monthly samples will be collected from the proposed sampling locations at the midpoint and end of the EQ Basin, as well as two ports within each wetland cell, and analyzed for ammonia and iron. The sampling results will be compiled and analyzed for trends and seasonal variations.
- j. Updating the O&M plan, as necessary – Tetra Tech will use the lessons learned during the initial year of operation to update and enhance the O&M Plan to address any areas that may need adjustments or elaboration.

**SCHEDULE**

Tetra Tech has reviewed the schedule in the RFP. We understand the intent is to have the design completed by the end of June 2024, and the goal is to have construction occur in a weather-favorable window in the period from October 2024 through November 2025.





# 04 Degree of Local Employment

PROPOSAL | RFP #44-2023 | October 19, 2023

## 04: Degree of Local Employment

Tetra Tech’s work under this contract will be performed out of our Lexington office. Approximately 90 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 Kremen. Dr. Kremen has conducted many similar projects across the nation involving leachate treatment alternative evaluations and designing leachate treatment systems.

**Tetra Tech Louisville Office**  
2000 Warrington Way, Suite 245  
Louisville, KY 40222

**LoVo Systems**  
5480 Swanton Drive  
Lexington, KY 40509

**Magna Engineers**  
861 Corporate Drive, Suite 210  
Lexington, KY 40503

**Lexington-Fayette Urban County Government**  
200 E Main Street  
Lexington, KY 40507

**Tetra Tech Lexington Office**  
424 Lewis Hargett Circle, Suite 110  
Lexington, KY 40503

**Salt River Engineering**  
108 West Poplar Street  
Harrodsburg, KY 40330

**TETRA TECH**

**177 LOCAL STAFF**



Tetra Tech, Magna Engineers, and LoVo Systems are located in Lexington.

Salt River Engineering is located within an hours’ drive of Lexington.

### TETRA TECH LOCAL STAFF

STAFF	LOCATION
Herbert Lemaster, PE	Lexington, KY
Richard Walker, 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
Mike Schmidt, PE	Atlanta, GA
Arie Kremen, PhD	Metuchen, NJ
Kristie Shurie	Middletown, NY

### LOCAL SUBCONSULTANTS

STAFF	LOCATION
<b>Magna Engineers</b>	
Michelle Howlett, PE	Lexington, KY
<b>LoVo Systems</b>	
Ben Murphy, PE	Lexington, KY
<b>Salt River Engineering</b>	
Connie Allen, PE	Harrodsburg, KY





# 05 Cost

PROPOSAL | RFP #44-2023 | October 19, 2023

## 05: COST

Tetra Tech will provide the services for a lump sum fee of \$824,000 as shown below.

COST		
Phase	Description	Fee
1	Design Services	\$187,500.00
2	Bid Services	\$22,500.00
3	Construction Administration	\$498,000.00
4	System Operation Assistance	\$116,000.00
<b>TOTAL</b>		<b>\$824,000.00</b>

### OPTIONAL ADDITIONS

Tetra Tech will develop a Computational Fluid Dynamics (CFD) model of the EQ Basin to evaluate proposed mixing and flow improvements from proposed baffle locations for a fee of \$35,000. This model would be used to assist in placement of the proposed baffles for optimum efficiency.

Tetra Tech proposes to conduct additional process sampling and analysis for 1 year to monitor effectiveness of the system for a fee of \$39,000. For the 12-month period, Tetra Tech will collect a raw leachate sample and analyze it for the parameters that were evaluated during the study. Additionally, samples will be collected monthly from six points within the EQ Basin and wetland cells and analyzed for ammonia and iron. The sampling results will be compiled and evaluated for trends and seasonal variations.

### ASSUMPTIONS

- LFUCG will provide access to the site as necessary for survey, data gathering, and field reviews.
- LFUCG will provide timely review of all submittals.
- Construction period as defined in the RFP is September 30, 2024 to November 30, 2025 (14 months).
- Tetra Tech is to provide full time (40 hrs/wk) RPR services during the construction period. An adjustment to the contract will be provided for overtime hours (more than 40 hours/week) or an extension of the construction schedule.
- Tetra Tech anticipates utilizing a senior environmental technician as the RPR during construction. The same technician will be the primary lead on field activities during the operational period.
- The cost of any materials or equipment, if needed, has not been included in the fee for System Operation Assistance. It is assumed that LFUCG would be responsible for these costs.
- Fees associated with SCADA programming have been included in the project cost. The cost of any SCADA hardware, software, or equipment upgrades have not been included in the project. It is assumed that material costs for SCADA hardware or equipment upgrades, including installation, will be designed into the construction contract.



# 06 Required Forms

PROPOSAL | RFP #44-2023 | October 19, 2023

## 06: Required Forms

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

1. Affidavit
2. Employment Opportunity Agreement
3. Workforce Analysis Form
4. Notice of Requirement for Affirmative Action to Ensure EEO and DBE Contract Participation
5. Affirmative Action Plan
6. LFUCG MWDBE Participation Form
7. LFUCG MWDBE Substitution Form
8. LFUCG MWDBE Quote Summary Form
9. LFUCG Subcontractor Monthly Payment Report
10. LFUCG Statement of Good Faith Efforts
11. General Provisions
12. Amendment 1 - Certification of Compliance with American Rescue Plan Act

**AFFIDAVIT**

Comes the Affiant, Richard Walker, PE, CFM, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Richard Walker, PE, CFM and he/she is the individual submitting the proposal or is the authorized representative of Tetra Tech, Inc., the entity submitting the proposal (hereinafter referred to as "Proposer").

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 Procurement 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

STATE OF Kentucky

COUNTY OF Fayette

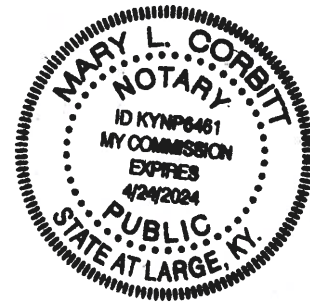
The foregoing instrument was subscribed, sworn to and acknowledged before me

by Richard W. Walker, Vice President on this the 13th day

of October, 2023.

My Commission expires: April 24, 2024

Mary L. Corbett  
NOTARY PUBLIC, STATE AT LARGE



# 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.

Bidders

*I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.*

*Richard W. Walker*

*Signature*

Tetra Tech, Inc.

*Name of Business*



**WORKFORCE ANALYSIS FORM**

Name of Organization: Tetra Tech, Inc.

Categories	Total	White (Not Hispanic or Latino)		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)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<b>Administrators</b>	50	13	0	2	0	0	0	0	0	5	0	0	0	0	0	20	0
<b>Professionals</b>	5337	2414	1470	251	206	157	123	5	2	260	188	25	24	121	91	3233	2104
<b>Superintendents</b>	355	264	60	3	1	4	2	0	0	15	5	0	0	0	1	286	69
<b>Supervisors</b>	1385	718	382	45	40	29	29	2	2	55	42	3	2	17	19	869	516
<b>Foremen</b>	50	30	0	12	0	3	0	1	0	0	0	0	0	4	0	50	0
<b>Technicians</b>	1639	817	271	186	65	92	17	8	2	67	30	13	2	51	18	1234	405
<b>Protective</b>	218	98	6	54	3	17	0	1	0	27	4	4	0	3	1	204	14
<b>Para-</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Office/Clerical</b>	506	41	215	28	80	18	71	1	1	1	40	0	3	8	29	117	439
<b>Skilled Craft</b>	49	29	0	11	0	4	0	0	0	2	0	2	0	1	0	29	0
<b>Service/Maintena</b>	1535	364	219	92	66	314	231	5	1	15	8	47	23	94	56	931	604
<b>Total:</b>	11124	4781	2623	684	461	638	473	23	8	447	317	94	54	299	215	6973	4151

Prepared by: Richard Walker, Vice President Date: 10 / 16 / 2023

*(Name and Title)*

*Revised 2015-Dec-15*

**DIRECTOR, DIVISION OF PROCUREMENT  
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 Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street, 3rd Floor, Room 338  
Lexington, Kentucky 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)

Firm Submitting Proposal: Tetra Tech, Inc.

Complete Address: 424 Lewis Hargett Circle, Suite 110, Lexington, KY 40503  
Street City Zip

Contact Name: Richard Walker Title: Vice President

Telephone Number: 859.223.8000 Fax Number: 859.224.1025

Email address: Richard.Walker@tetrattech.com

**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, pre-employment 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 separately the percentage of minorities and the percentage of women 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 ACTIVITY**  
**41 CFR Section 60-2.17(b)(2)**

Tetra Tech, Inc. evaluates personnel activity to determine whether there are selection disparities.

## **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 #           RFP # 44-2023**

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 Procurement 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 Corporate Drive, Suite 210 Lexington, KY 40503 859.309.2990 mhowlett@magnaengineers.com	DBE/ WBE/ SBA	Electrical	TBD	10%
2. Salt River Engineering 108 W Poplar Street Harrodsburg, KY 40330 859.734.2334 connie@saltriver.com	VOSB	Cost Estimating	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.  
**Company**

10/16/2023  
**Date**

*Richard W. Walker*  
**Company Representative**

Vice President  
**Title**



**LFUCG MWDBE SUBSTITUTION FORM**

**Bid/RFP/Quote Reference #**           RFP # 44-2023          

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 Procurement 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.  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.  
Company

10/16/2023  
Date

Richard W. Walker  
Company Representative

Vice President  
Title



**MWDBE QUOTE SUMMARY FORM**

Bid/RFP/Quote Reference # RFP # 44-2023

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.

<b>Company Name</b> Tetra Tech, Inc.	<b>Contact Person</b> Richard Walker, PE
<b>Address/Phone/Email</b> 424 Lewis Hargett Circle, Ste. 110 Lexington, KY 40503 859.514.8749   richard.walker@tetrattech.com	<b>Bid Package / Bid Date</b> RFP # 44-2023 Haley Pike Landfill Leachate Treatment System Improvements   October 19, 2023

MWDBE Company Address	Contact Person	Contact Information (work phone, Email, cell)	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 NA Female	Veteran
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.

Tetra Tech, Inc.  
\_\_\_\_\_  
Company

*Richard W. Walker*  
\_\_\_\_\_  
Company Representative

10/16/2023  
\_\_\_\_\_  
Date

Vice President  
\_\_\_\_\_  
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 Procurement/ 200 East Main Street / Room 338 / Lexington, KY 40507.

**Bid/RFP/Quote #**           RFP # 44-2023          

**Total Contract Amount Awarded to Prime Contractor for this Project**   N/A  

<b>Project Name/ Contract #</b>	<b>Work Period/ From:</b> _____ <b>To:</b> _____
<b>Company Name:</b>	<b>Address:</b>
<b>Federal Tax ID:</b>	<b>Contact Person:</b>

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date
N/A							

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 misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

  Tetra Tech, Inc.    
**Company**

*Richard W. Walker*  
\_\_\_\_\_  
**Company Representative**

  10/16/2023    
**Date**

\_\_\_\_\_  
**Vice President**  
**Title**

## LFUCG STATEMENT OF GOOD FAITH EFFORTS

Bid/RFP/Quote #           RFP #44-2023          

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 Procurement 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 MWDBE 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.

  X   Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

           Provided the interested MWDBE 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

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

\_\_\_\_\_ 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.

\_\_\_\_\_ 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.

\_\_\_\_\_ 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.

\_\_\_\_\_ 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

\_\_\_\_\_ Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

\_\_\_\_\_ 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.

**NOTE: 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 approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.**

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

\_\_\_\_\_  
Tetra Tech, Inc.  
**Company**  
\_\_\_\_\_  
10/16/2023  
**Date**

\_\_\_\_\_  
*Richard W. Walker*  
**Company Representative**  
\_\_\_\_\_  
Vice President  
**Title**

## **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, safety 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.

*Richard W. Walker*

Signature

10/16/2023

Date

## 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”) may 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 all applicable goods, products or materials produced in the United States, in

conformity with 2 CFR 200.322 and/or section 70914 of Public Law No. 117-58, §§ 70901-52, also known as the Infrastructure Investment and Jobs Act, whichever is applicable.

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.

Richard W. Walker

Signature

10/16/2023

Date

**LEXINGTON-FAYETTE  
URBAN COUNTY  
GOVERNMENT**

Proposal for  
**Haley Pike Landfill Leachate  
Treatment System Improvements**

PROPOSAL | RFP #44-2023 | October 19, 2023



424 Lewis Hargett Circle, Suite 110, Lexington, KY 40503  
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