



Program  
Management  
Services –Capacity,  
Management,  
Operations and  
Maintenance  
(CMOM)

RFP #30-2018

Prepared for:

Lexington-Fayette  
Urban County Government

September 20, 2018





Stantec Consulting Services Inc.  
3052 Beaumont Centre Circle, Lexington KY 40513-1703

September 20, 2018

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**Attention: Brian Marcum, Senior Buyer**  
Division of Central Purchasing  
Lexington-Fayette Urban County Government  
Room 338, Government Center  
200 East Main Street  
Lexington, Kentucky 40507

**Reference: RFP #30-2018 for Program Management Services – Capacity, Management, Operations and Maintenance (CMOM)**

Dear Mr. Marcum,

**Stantec Consulting Services Inc.** (Stantec) is pleased to submit our Statement of Qualifications for the referenced RFP. Joining our Team are **Blue Heron Engineering Services, Ltd. (BHES), Tilson & Associates, LLC** (Tilson) and **Leak Eliminators, LLC** (Leak). BHES is a certified woman-owned business enterprise (WBE), located in Columbus, Ohio, with specialized experience in CMOM programs. Tilson is a consulting firm specializing in wastewater collection system operations and on training. Leak is a certified Veteran-Owned Small Business (VOSB) with over 17 years providing sewer maintenance and repair services to LFUCG.

Work on your project will be executed from our **Lexington office**. We have a staff of approximately 200 professionals in Lexington and 22,000 corporate-wide should additional specialized expertise be needed.

To assist in your review, we have organized our proposal to match the selection criteria identified in your RFP and separated each section with tabs. A separate tab in the back of the proposal contains the required procurement forms.

Our Team offers several distinct advantages:

- **A Project Manager you know with a proven track record.** Our Project Manager successfully led your Sanitary Sewer Assessments (SSAs), Capacity Assurance Program (CAP) and assisted in the development of your Remedial Measures Plan (RMP).
- **An Integrated Team Approach.** Our integrated team approach combines a strong local team with national CMOM experts and specialized operations training expertise. This combination offers LFUCG the benefit of a Team with local responsiveness/familiarity, while not sacrificing the benefit of proven strategies and first-hand knowledge of lessons learned from other progressive communities.



September 20, 2018  
Brian Marcum, Senior Buyer  
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Reference: **RFP #30-2018 for Program Management Services – Capacity, Management, Operations and Maintenance (CMOM)**

- **Familiarity with your CMOM program and challenges.** In addition to our work on your SSAs, CAP and RMP programs, Stantec Team members prepared your CMOM Self-Assessment. We are familiar with your Consent Decree obligations and understand that current progress in advancing your CMOM program is not meeting expectations.
- **We understand your expectations for a Program Manager.** We understand that you want a Program Manager that not only accurately reports what happened last quarter, but takes ownership of the Program to positively impact the next quarter's results.
- **The right tool and the right approach.** Internal training programs for your operations and maintenance staff will be taught by former public-sector maintenance personnel, managers and operations-minded staff. They know first-hand the work and the equipment. Our approach focuses on effective education and empowerment of operations staff.
- **Demonstrated fiscal responsibility on your Consent Decree programs.** We competed the first 5 years of your System Capacity Assurance Program approximately 20% under the contract amount. On the Group 1 SSAs, we finished approximately \$114,000 under the contract budget and we routinely completed our RMP assignments below the budgets established by the Prime Consultant.
- **Personal Commitment.** We take pride in the partnership we have enjoyed with LFUCG and DWQ over the past two decades. We live in this community and have a personal stake in your CMOM Program's success.

If you have any questions regarding our submission, or would like to discuss our qualifications further, please do not hesitate to contact me.

**STANTEC CONSULTING SERVICES INC.**

Joe Herman, PE  
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1. Specialized Experience/Technical Competence

# 1. Specialized Experience and Technical Competence

## About Stantec

Stantec is a multi-disciplinary consulting firm with a proven track record for providing quality wastewater and stormwater services to LFUCG for over 30 years. Nationally, Stantec unites approximately 22,000 employees working in over 270 locations across six continents. Locally, we employ nearly 200 professionals in our office at 3052 Beaumont Centre Circle in Lexington.

With the acquisition of MWH Global in May 2016, we have bolstered our wastewater expertise and capabilities. This expertise includes specialized experience in other successful CMOM programs for large municipalities, including: Atlanta (Georgia), Houston (Texas), Baltimore (Maryland), and Miami-Dade County (Florida).

In Lexington, our local Water group has established strong working relationships the Division of Water Quality. Many of our recent assignments with LFUCG have been in a program management capacity associated with the Consent Decree, including: Sanitary Sewer Assessments (Groups 1, 2, 3 & Blue Sky Rural Service Area), Remedial Measures Plan (initial Plan development), and our ongoing work over the past six years on your System Capacity Assurance Program.

Our local strength, knowledge and world-class expertise, have allowed us to go anywhere to meet our client's needs in more creative and personalized ways. With a long-term commitment to the people and places we serve, Stantec has the unique ability to connect to projects on a personal level and advance the quality of life in communities across the globe. Stantec trades on the TSX and NYSE under the ticker symbol STN. Visit us at [stantec.com](http://stantec.com) or find us on social media.



*Many of our clients are under a federal Consent Decree or other wet weather enforcement action. Municipal collection system owners with enforcement actions select consultants with a proven track record of performance, on-time delivery and cost-effectiveness. Stantec is one of those consultants. This map highlights some of our wet weather enforcement clients.*

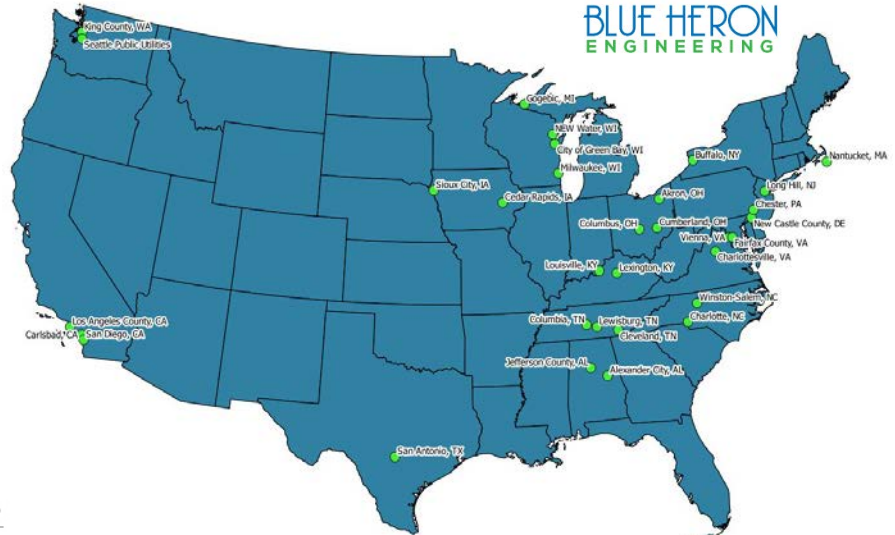
## Our Team

Joining the Stantec Team are **Blue Heron Engineering Service, Ltd. (BHES)**, **Tilson & Associates (Tilson)** and **Leak Eliminators, LLC (Leak)**.

**BHES** is a certified woman-owned business (WBE), located in Columbus, Ohio, with specialized experience in CMOM programs. The founder and president of BHES, Laurie Chase, is a Stantec alumnus, and completed your CMOM Self-Assessment while at Stantec. At BHES she has assisted over two dozen utilities in developing/implementing Standard Operating Procedures (SOPs) and training programs for sewer operations and maintenance personnel (see inset).



**BLUE HERON  
ENGINEERING**



**Tilson** is a consulting firm specializing in wastewater collection system operations.

Tilson is a national company with diversified and specialized services, focusing on educational and consulting programs for field operations and management. Operating under the belief that education is the single best investment any utility can make in its personnel, they provide field training on equipment and best practices for sewer operations and maintenance. Tilson and BHES have successfully teamed on many of the CMOM projects listed in the inset map on this page.

*BHES wastewater operations and maintenance staff training and CMOM program experience.*

**Leak** is a certified Veteran Owned Small Business (VOSB) and has been serving LFUCG for over 17 years.

Specializing in sewer cleaning, inspection and repair, Leak will provide a unique perspective to the project. We anticipate utilizing Leak to provide insight on Lexington's sewer system challenges, assistance on evaluating current Standard Operating Procedures (SOPs), and providing QA/QC feedback on proposed SOPs and training.

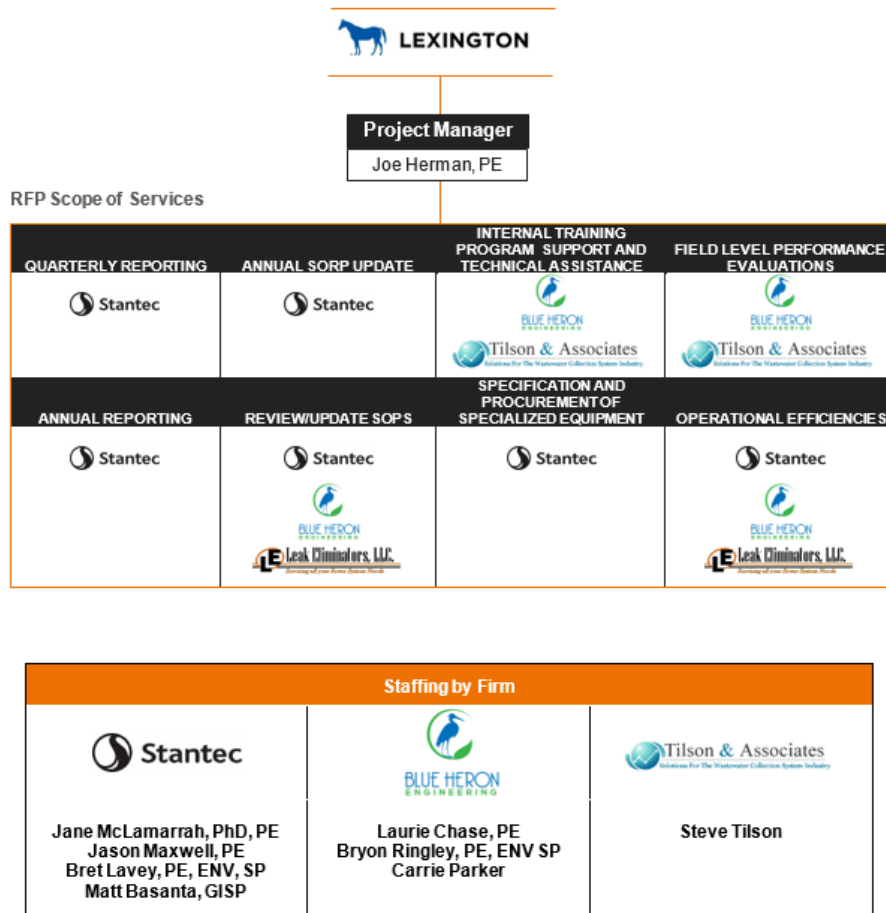


## Integrated Team Approach

Our Organization Chart (**Figure 1.1**) identifies key team members assigned to assist in the continuing implementation and evolution of your CMOM program. These individuals have been assigned to this project and will play key roles in project execution. The paragraphs that follow the Organization Chart offer highlights of each team member. Full resumes are provided in **Attachment A**.

Our **integrated team approach** combines a local team, with proven performance and knowledge of your program challenges, and national CMOM experts and specialized operations training expertise.

Our planned approach to your CMOM program is one of an integrated team between Stantec and BHES, with specialized support from Tilson and Leak. The design of our Organization Chart reflects the integrated team approach. The combination of our local team with national expertise offers LFUCG with the full complement of local responsiveness/familiarity while not sacrificing the benefit of proven strategies and first-hand knowledge of lessons learned from other progressive communities. Some work tasks will be led by the local team, while others (such as staff training) will rely on primary involvement by those with a recognized operations background. The logos in the Organization Chart denote the partner firm who has primary responsibility for each of the base scope tasks identified in your RFP. Those scope items that show multiple logos reflect a joint effort by the integrated team.



**Joe Herman, PE** will serve as your Project Manager. Located in Stantec's Lexington office, Joe has over 20 years' experience and strong familiarity and experience successfully implementing several of your other Consent Decree programs/initiatives. As Project Manager for your Sanitary Sewer Assessments, he led all three Sewershed Groups (and the Blue Sky Rural Service Area) without submission of a single consultant-initiated change order. In his role assisting in the development of your Remedial Measures Plan, all work assigned to Stantec was completed under the established budget amount. Joe completed development of your Capacity Assurance Program and the first 5-years of its implementation nearly 20% under the contract amount. As a consequence of this experience, Joe has a solid understanding of your Consent Decree obligations, existing challenges, and expectations for a program manager.

**Bret Lavey, PE** and **Jason Maxwell, PE**, also located in Lexington, will assist in day-to-day CMOM activities and take primary responsibility for the quarterly and annual report preparation. Like Joe, Bret and Jason have strong familiarity and experience assisting LFUCG in the Sanitary Sewer Assessments (SSAs), Capacity Assurance Program, and development of your Remedial Measures Plan. Both Bret and Jason are hands-on and were actively involved in the field data collection efforts during the SSA's. Unlike typical "design engineers" they have a better understanding of the operation and maintenance aspects of sewer systems, have worked with your Sewer Line Maintenance staff, and are very familiar with your sewer system. Both Jason and Bret are both certified in the Pipe, Manhole and Lateral Assessment Certification Program (PACP, MACP, LACP) administered by the National Association of Sewer Service Companies (NASSCO).

Rounding out the local team is **Matt Basanta, GISP**. Matt is a Geographic Information System (GIS) analyst and database programmer. He excels at data management and developing custom programming applications for engineering and utility management. Matt assisted in data collection and management efforts on your SSAs (the largest single sewer investigation undertaken by LFUCG) and developed the Capacity Tracking Information Management System (CTIMS) that is currently being used by the public and LFUCG in the implementation of your Capacity Assurance Program. Matt will lead data management efforts and interfacing with your Accela work order and asset management system.

**Jane McLamarrah, PE, PhD** is a nationally recognized expert in CMOM audits, program development and implementation. Jane has completed over 30 CMOM-related projects, including for several large utilities in EPA Region 4. For Atlanta's Clean Water Program, she performed their CMOM Self-Assessment and assisted collection system operations staff in implementing improvement recommendations. For Miami-Dade County Water and Sewer Department (WASD), Jane completed their CMOM Self-Assessment and assisted in the development of their Sewer Overflow Response Plan (SORP). For the City of Baltimore (Maryland) she provided technical guidance to the City's newly formed Asset Management Division that focused on a risk-based methodology for sewer inspection/rehabilitation and revamped their root control program. Jane will provide an experienced and fresh perspective on reviewing/updating SOPs, operational efficiencies and the annual SORP update.



**Laurie Chase, PE** has more than 30 years of experience in the water and wastewater industry in regulatory, municipal, consulting, and construction roles. While at Stantec, Laurie assisted in the completion of LFUCG's CMOM Self-Assessment. Upon leaving Stantec in 2010, she started BHES and specializes in assisting utilities in their CMOM programs. To date, Laurie has provided operations and maintenance training and CMOM program support to over two dozen wastewater utilities across the U.S.

Laurie and BHES will lead the internal training program and field level performance evaluations, as well as working collaboratively with Stantec to review/update SOPs and identify operation efficiency opportunities.

*Individuals on our Team who will have primary involvement in internal staff training and field level performance evaluations have extensive operations and public-sector management experience.*

**Bryon Ringley, PE** and **Carrie Parker** will assist Laurie. Bryon (also formerly with Stantec) worked 8 years for the City of Richmond (Indiana) and understands the various aspects of public works. While at BHES, he has assisted in staff training of best practices for sewer maintenance and equipment use for Charlotte Water (North Carolina) and the development of their SORP and rapid response SOPs. In Winston-Salem, he is developing best practices for their Root Management Program and "Success Kits" that provide detailed information to O&M personnel on job descriptions, core competency expectations, typical duties, and recurrent training requirements. Ms. Parker has over 30 years' experience in the water and wastewater industry, mostly in operations and maintenance. From 2006 to 2018, Carrie worked for Seattle Public Utilities (Washington) where she managed 30-45 employees responsible for inspection, maintenance and operations of Seattle's wastewater and drainage systems. Carrie knows sewer operations challenges and how to successfully implement changes that improve public service performance.

Assisting BHES will be **Steve Tilson**. Steve founded Tilson & Associates in 2002. He has over 29 years' experience working with sewer utilities to improve system and staff performance. Prior to starting his own firm, Steve worked as a collection system operator and with sewer cleaning equipment manufacturers. Tilson and BHES have successfully partnered on numerous CMOM projects. Steve will work directly under BHES to assist in evaluating field level performance, reviewing SOPs and internal staff training.

**Leak Eliminators** rounds out the team. Leak has been supporting LFUCG by providing sewer maintenance and repair/rehabilitation services for over 17 years. Their experience and staff provide an excellent resource and different perspective to our Team. We will call upon their experience to assist in reviewing SOPs, as well as share their insight/perception into specific operations and maintenance challenges facing LFUCG. We understand that Leak may be considered a competitor by some LFUCG Sewer Line Maintenance staff. To avoid any potential conflict, we anticipate that their involvement may need to be reserved as an internal advisor to the Stantec Team.

## Relevant Project Experience

Ten (10) project summaries are provided in the remainder of this section. These project profiles highlight our Team's relevant project experience assisting LFUCG on your other Consent Decree programs, as well as supporting other progressive utilities in their CMOM programs.

*All of the projects provided in this section were completed by one or more of the individuals identified in the Organization Chart. Specific individuals associated with each project are provided in **Section 2** (Capacity to Perform). Client contact information for each of the projects is provided in **Section 3** (Past Record and Performance).*



*Carrie Parker providing Chainsaw Use Safety classroom training to Construction, Survey, and Inspection personnel – JCESD*

# Lexington-Fayette Urban County Government Sanitary Sewer Assessments



Lexington, Kentucky

Stantec was selected by Lexington-Fayette Urban County Government (LFUCG) to lead Sanitary Sewer Evaluation Study (SSES) field activities and perform an Engineering Assessment on their approximately 1,400-mile wastewater collection sewer system.

Stantec served as the prime Engineering Consultant responsible for overall project management, investigation/assessment strategy, field coordination, data management, and QA/QC of all SSES investigation activities. Specific SSES field services include: rainfall and flow monitoring (139 rain gages and 223 flow meters), groundwater monitoring (167 sites), dye water flooding/testing (129 flooding locations), night flow isolation (425 isolations), visual manhole inspections (24,250 manholes), smoke testing (5,041,850 linear feet), and sewer cleaning and television inspection (1,260,520 linear feet) on sanitary sewer pipes ranging in size from 6 inches to 54 inches in diameter.

Stantec developed field protocols and tools to effectively manage and track inspection contractor's progress and efficiency. These protocols/tools included: calculating and comparing defect efficacy (see inset graphic), providing on-site inspection to verify compliance with established field protocols and notification requirements, development of a web-based management tool (Virtual PM), rectifying discrepancies identified between GIS mapping and field observations, and implementation of a Deliverable Tracking Sheet to aid in efficient tracking of project progress and verification of subcontractor invoices.

SSES information collected in the field was used by Stantec to identify I/I sources and assess the structural condition of the sewer system. Our condition assessment supported development of LFUCG's \$600M Remedial Measures Plan and is used to guide and prioritize their ongoing annual collection system rehabilitation program.



## **CCTV Defect Efficacy - Lexington, KY**

Total CCTV Inspection = 674,960 LF  
Total CCTV Inspection = 3,434 pipes

Total # of Defects Identified = **21,560**  
Defect frequency = **1 defect every 31.3 feet**  
*(does not include observations or Grade 0 defects)*

% of Pipes Inspected with..  
... a Grade 4 Defect = **31%**  
... a Grade 5 Defect = **20%**  
... a Grade 4 or 5 Defect = **41%**



# Lexington-Fayette Urban County Government Wastewater Capacity Assurance Program



Lexington, Kentucky

Stantec developed Lexington's Wastewater Capacity Assurance Program and is responsible for its' ongoing implementation.

The Lexington-Fayette Urban County Government (LFUCG) entered a federal Consent Decree on March 14, 2008. As part of the Decree, LFUCG was required to develop and implement a Capacity Assurance Program for its waster conveyance, transmission and treatment system.

We served as Lexington's Capacity Assurance Program (CAP) Manager from 2012 to 2017. In this role, we were responsible for:

- Development and preparation of a CAP Plan, documenting LFUCG's program, for submission to EPA. (Plan was approved in 2014.)
- Leading CAP Task Force meetings with Council Members and community stakeholders to review and evaluate proposed CAP recommendations.
- Maintaining/updating their system-wide hydraulic model and providing modeling support during design of their \$600M Remedial Measures capital improvement program.
- Development of a web-based Information Management System to promote transparency with public and manage/track/archive capacity determinations.
- Technical support in the development of CAP enabling ordinances and public outreach materials.
- Program implementation (i.e. technical review of capacity requests and adequate capacity certifications).
- Use of Stantec's Rehabilitation Costing Tool to assist in planning and programming rehabilitation activities.
- Technical support and analysis to assist in prioritizing the City's I/I removal efforts (public and private property).
- Annual flow monitoring analysis and quantification of the effectiveness of completed public and private I/I removal activities.
- Annual verification and re-calibration of the hydraulic model.



Under our 5-year contract, Stantec completed all task orders approximately 19% below budget. In 2017 the contract was re-advertised, and we were again selected to be LFUCG's CAP Manager.

# Lexington-Fayette Urban County Government Remedial Measures Plan Development



Lexington, Kentucky

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Stantec was part of the three firm consultant team that developed a \$600M+ capital improvement plan for the Lexington-Fayette Urban County Government (LFUCG). The resulting Remedial Measures Plan outlines their wastewater capital improvement program for the next 10–13 years and positions them to successfully achieve their federal Consent Decree obligations.

Stantec was part of a three-consultant team responsible for evaluating sewer condition information and hydraulic modeling/capacity analyses to develop a capital improvement program to eliminate the approximately 110 chronic sanitary sewer overflows (SSOs) identified in LFUCG's federal Consent Decree.

Our role included engineering evaluation, hydraulic modeling, and conceptual design of various mitigation alternatives aimed at eliminating SSOs. Alternatives evaluated included: storage tanks, relief sewers, inflow/infiltration (I/I) removal, and traditional treat and transport solutions. Each alternative was conceptually designed/sized to successfully mitigate SSOs. Cost options were developed for each solution and used to aid LFUCG decision makers in finalizing the Plan.

Remedial Measures Plan reports were developed for each of the three sewershed Groups identified in LFUCG's Consent Decree. In addition, three predecessor reports (Sanitary Sewer Assessment Report for each Group) were prepared that summarized the condition and capacity and condition of LFUCG's existing wastewater system. Stantec's involvement on Remedial Measures Team included development of the Plan and the six Consent Decree reports. During our tenure on the Team, all Consent Decree deliverables were submitted within the mandatory deadlines established in the Consent Decree and successfully received regulatory approval. Moreover, each of Stantec's tasks were completed under the budget assigned by the Prime Consultant.



# Wastewater Collection System Program Overview

Austin, Texas



Stantec was selected by the City of Austin to evaluate three focus areas within their Capacity, Management, Operations and Maintenance (CMOM) program.

The City of Austin selected Stantec to review and provide recommendations for improvement in the three of their existing collection system maintenance programs:

- Closed-Circuit Television (CCTV) Inspection Program
- Root Control Program
- Chemical and Odor Control Program

For the CCTV Program, the City's goal is to complete cleaning and internal inspection of their approximately 2,700-mile gravity collection system every 8 years. Per state law, the cycle is reduced to 5 years for sewers located within the Edwards Aquifer Recharge Zone (EARZ). Stantec is verifying compliance with the two cycles. Additionally, we are reviewing dry weather overflow history and calculating a Weighted Cleaning Parameter (WCP). The WCP will be used to identify opportunities to reduce dry weather overflows by targeted increases in cleaning frequency in problem areas.

For the Root Control Program, Stantec is reviewing dry weather SSO history and making recommendations to improve the City's existing chemical root control program. We are also: providing recommendations on locations for mechanical root cutting, identifying capital project opportunities to reduce root control efforts, reviewing the City's current root control specification and available vendors, and providing a framework for a comprehensive root control program that includes estimated annual budget needs and length goal per year.

For the Chemical and Odor Control Program, the City's current odor control approach is being reviewed and evaluated. Recommendations for alternative and/or optimized approaches including chemical and vapor phase options are being provided.



In 1998 and 1999, prior to formation of the formal Clean Water Atlanta (CWA) Program, Stantec assisted the City in negotiating two consent decrees with EPA Region 4 and the State of Georgia: one for combined sewer overflow (CSO) compliance and one for sanitary sewer overflow (SSO) compliance. In 2001, following issuance of the consent decrees, Stantec, along with a Joint Venture partner (the JV), was selected as Program Manager. The JV was re-selected under all subsequent contract extensions until 2016 when Stantec formed a new JV with SG Contracting, which was selected for the next 3-year program management contract.

As the CWA is one of the highest profile wet weather programs of its kind in the nation, gaining public acceptance and managing the financial impact to the community are critical to program success.

Consequently, the program's initial emphasis focused on engaging local stakeholder support base, which included businesses, labor unions, environmental groups and the general Atlanta public. Stantec focused on developing a strategic financial plan, gaining active support of political leaders to help secure funding and re-engineering a "water resources utility." Leading the JV teams, Stantec provided management consulting, operations support, performance management, project controls, developed a Web-based management information system, and transitioned a number of activities to the City over the course of the program.

In 2006, Stantec completed an internal CMOM self-audit to evaluate compliance with the consent decree requirements and assisted operations and maintenance (O&M) staff in implementing recommended improvements. Additional CMOM-related activities included developing (and updating as needed with the latest updates completed in 2016/2017) CMOM Plans for the Contingency and Emergency Response Plan

(CERP), the Maintenance Management System Plan (MMSP), the Grease Management Program (GMP), and the Safety and Training Programs (STP). Additionally, Stantec developed the Sewer Mapping Program and the Capacity Certification Program under the initial consent decree. Stantec is currently converting the Short-Term Operations Plans (STOPs) for the collection system and for the pump stations into a consolidated Long-Term Operations Plan (LTOP).

In addition to the consent decree-related services, the Stantec team provides as needed operational assistance to DWM for such things as Stormwater Pollution Prevention Plan (SW3P) updates, water reclamation center (WRC) and water quality control facility (WQCF) design and operations evaluation and improvement projects, and green infrastructure evaluations.

The program is on schedule and has been complimented in writing by both Federal Court (Judge Thrash) and US EPA. As Program Manager, the Stantec team has brought the City a number of innovative, cost-saving approaches including using many of the financial and project prioritization arguments that were ultimately incorporated in the EPA's innovative 2013 Integrated Planning Framework guidance memorandum to extend the original 2014 consent decree deadline to 2027.

# Miami-Dade CMOM Self-Assessment

Miami, Florida



In the 1990s, EPA Region 4 issued two consent decrees to Miami-Dade County that were among the first regulatory actions to address sanitary sewer overflows (SSOs) through implementation of capacity, management, operations and maintenance (CMOM) activities. Stantec served as the Program Manager under these initial EPA consent decrees and has had an on-going role in the Miami-Dade Water and Sewer Department (WASD) Pump Station Improvement Program (PSIP). By 2010 the Miami-Dade WASD had been able to significantly reduce SSOs in compliance with these two EPA consent decrees and petitioned for closure of these consent decrees as well as two additional Florida Department of Environmental Protection (FDEP) settlement agreements.

As a first step in closing the regulatory orders, Miami-Dade WASD was required to conduct a CMOM self-assessment. Upon recognizing that Miami-Dade WASD staff would not be able to meet the self-assessment deadline, Stantec was retained to perform the assessment within the limited remaining time. The CMOM Self-Assessment included documenting the goals, purpose, program description and elements, program performance measures, and current status of each of the CMOM Program elements in accordance with EPA Region 4 guidance documents. The resulting CMOM Self-Assessment report formed the basis for issuance of a 2013 CMOM-focused consent decree along with closure of all previous regulatory orders.

The self-assessment determined that Miami-Dade had complied with the consent decrees and settlement agreements and reduced the SSO benchmark measure to an annual overflow rate of 3.2 SSOs per 100 miles of gravity sewer and force main. In fact, there had been no capacity related overflows in the collection system since 2002 despite an increase in service area population and

Hurricanes Wilma and Katrina. The system had expanded and optimized treatment plants, upgraded pump stations and force mains to meet nominal average pump operating time (NAPOT) criteria, completed renewal and replacement of multiple sewer mains and appurtenance, reduced infiltration and inflow (I/I) entry, and improved customer service and system operations. These improvements had been accomplished despite a significant reduction in operations and maintenance (O&M) staff.

Subsequent to completion of the CMOM Self-Assessment, Stantec was part of a project team to implement the new CMOM-focused consent decree. Stantec prepared the Sanitary Overflow Response Plan (SORP) under the new consent decree, served as Technical Expert for the Pump Station Operations and Preventive Maintenance Plan (PSOPMP), and provided Quality Assurance/Quality Control (QA/QC) reviews of all other subcontractor plan submittals as a subcontractor to Woolpert.

In addition, Stantec continues to support Miami-Dade WASD's PSIP to continue to maintain compliance with Nominal Average Pump Operating Time (NAPOT) criteria. This support includes reviewing all pump stations and associated force mains that exceed minimum NAPOT regulatory requirements and recommending needed capacity expansions or corrective operational activities.



# Baltimore Wet Weather Compliance Program

Baltimore, Maryland



The City of Baltimore (City) selected MWH (now Stantec) as part of a joint venture with Louis Berger Water Services (LBWS) to provide program management services for its Wet Weather Compliance Program under a Consent Decree (CD) enacted with the Maryland Department of Environment, US Environmental Protection Agency (EPA) and US Department of Justice. Committed to partnering with the EPA, the City of Baltimore is anticipated to spend approximately \$1.5B to eliminate over 62 constructed sanitary sewer overflow structures and address multiple dry and wet weather sanitary sewer overflows (SSOs).

CD-mandated improvements also included improvements to pump stations, sewer system assessments and development of hydraulic models of the collection system. The MWH-LBWS JV was responsible for consolidating micro models for each of the eight sewersheds into a macro model of the collection system. Upon development of the macro model, it was determined that a significant hydraulic restriction at the headworks of the Back River WWTP required headworks modifications in addition to capacity improvements throughout the collection system.

As part of the program, the City reorganized operations and maintenance staff to create a new Office of Asset Management focused on a Capacity, Management, Operations and Maintenance (CMOM) type approach to proactive rather than reactive operation and maintenance. The MWH-LBWS JV assisted with development of the new division and initially provided supplemental staff that were gradually converted to City

staff positions. As part of implementation of the new division, various pilot programs were developed for risk-based sewer inspection and rehabilitation, risk-based lateral inspection and rehabilitation, root control and root cause analyses programs. The MWH-LBWS JV supported the pilot programs, evaluations and recommended on-going program activities as appropriate based on the results of the pilot programs.

As part of negotiations with EPA Region 3 to extend CD milestone completion dates, the MWH-LBWS JV partnered with City managers to develop an Integrated Planning Framework (IPF) to prioritize proposed Capital Improvement Program (CIP) projects based on earlier or greater benefit before CD-mandated projects. To ensure sustainable utility operations, the Baltimore IPF evaluated water, wastewater and storm water projects based a social, environmental, economic and project delivery "Quadruple" Bottom Line (QBL) approach. Specific evaluation criteria were developed to score the City's 554 CIP projects totaling \$6.4B. The IPF team engaged stakeholder communication, community-wide planning and coordination with the QBL approach allowed the City to clearly state why projects were being completed and how each project would benefit its residents.

The Baltimore IPF was the first IPF to be accepted by EPA Region 3 for informing CD modifications. Through the IPF and subsequent prioritization of utility capital as well as the CMOM-focused O&M, City projected a \$300 million CD compliance savings under the modified CD lodged in Federal Court in May 2016.



## ***Charlotte Water – Charlotte, North Carolina***

***(2014 - Present)***

Scott Clark – Chief of Operations  
5730 General Commerce Drive  
Charlotte, NC  
980-250-9702

TA/BHES was contracted in 2014 to provide by Charlotte Water to perform an evaluation of the utility's O&M program, equipment, and personnel, including to:

- Perform an evaluation of the utility's O&M work management, scheduling, and field data management
- Assess equipment, tools, and technologies used by operations management field personnel
- Provide a skill assessment of personnel in the field operations group
- Compare field operations and management functions to current industry best practices
- Based on evaluation findings, make recommendations to the Utility focused on increasing crew safety, productivity, and training needs

Following the evaluation, TA/BHES was contracted by the Utility to develop a training program, which was designed to reduce sanitary sewer overflows and increase productivity. This included:

- Facilitate development of a comprehensive training plan for new and seasoned field O&M staff
- Assist with developing SOPs for inspecting and maintaining collection system assets
- Create and deliver a comprehensive classroom and field training program
- Assist with standardization of field operations protocols for pipe and structure cleaning to reduce sanitary sewer overflows (dry weather), relative to both short and long frequency cleaning of pipes
- Develop a QA/QC Program to measure effectiveness and continued improvement of performance after training implementation
- Facilitate the development of an Operations Committee to engage operations staff and oversee change management process
- Introduce new technologies and methodologies for evaluation and implementation into daily use

Through the evaluation process, TA/BHES was able to help the Utility create a full training program and Operations Committee that successfully aligned equipment, field protocols, and skills with best practice methodologies. The program resulted in increased productivity and effectiveness improvements, resulting in overall better system performance.



**Jefferson County, Environmental Service Departments, Birmingham, AL (2012 – Present)**

Brian Champion – Sewer Maintenance Operations Manager  
Jefferson County Environmental Services Department (ESD), Sewer Line Maintenance Administration  
1289 Oak Grove Road  
Birmingham, AL 35209  
205 238 3785

TA/BHES was contracted by Jefferson County ESD to perform the following:

- Provide a full field operations evaluation (Line Maintenance, Television Inspection (TVI) and Construction) on resource and personnel knowledge, skills and abilities gaps
- Recommend improvements to improve crew safety, efficiency, and effectiveness and reduce SSO occurrences
- Standardize and document field operations protocols for pipe and structure cleaning, TVI inspection, and in-house repairs
- Introduce new technologies and procedures for evaluation and implementation into daily operations
- Create and deliver a collection systems O&M best practice training program for field personnel and management, including mainline pipe cleaning, quantifying cleaning findings, CCTV inspection, and repair and construction processes; experienced operators provides front line equipment use and safety, best practice process, and SSO response classroom and field (proficiency) training and professional engineer provides classroom training on management, math, SSO notification and reporting, and other engineering-related topics
- Develop a Quality Control/Quality Assurance Program to measure effectiveness and improvements to various field processes and evaluate ESD performance after training implementation
- Create and update all 23 CMOM Program Plans (2016 and 2018)
- Assist with establishing process to track system defects and prioritize pipeline and manhole rehabilitation, repair, and replacement efforts
- Assist with identifying improvements to the County's Fats, Oils, and Grease Program initiatives
- Develop a one-year roadmap and onboarding training program new personnel (Construction, Survey, Inspection, Line Maintenance and TVI) that includes a comprehensive training matrix, training presentations and quizzes

TA/BHES began working with ESD in April 2012. In 2016, TA/BHES' work to increase the professionalism of JCESD's personnel was recognized by JCESD as one of the key factors in improving the quality of the operation and maintenance of its collection system.<sup>1</sup> BHES is currently assisting with the 2018 CMOM Program Update and developing a comprehensive onboarding training program for sewer maintenance, television inspection, in-house construction, inspection, and survey personnel.

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<sup>1</sup> Alpaugh, M., Chase, L., Davidson, J. "Realizing Collection System Quality of Service Improvement by Fostering Workforce Professionalism," The Wave, Alabama Water Environment Federation, Volume 27, Number 2, Summer 2016.



**City of San Diego Public Utilities – California**

**(April 2007 – August 2017)**

Michael Rosenberg – Assistant Deputy Director (Project Manager)  
9150 Topaz Way  
San Diego, CA 92123  
858-654-4132

TA/BHES was contracted to create and manage an Operations Training Program and to standardize protocols for the WWCD in 2007, and BHES joined the TA team in 2010. Through the “Operator Academy,” we provided classroom and field instruction for all operators of collection system cleaning equipment, including: rodding, hand rodding, flushing, vacuum, and bucketing processes.

As part of this effort, TA/BHES was responsible for the following:

- Develop a field management training program to improve decision making and examination skills
- Facilitate the development of SOPs and field manuals for various operational elements including cleaning and construction equipment use and preventive maintenance; coordination with other city departments and outside agencies; and internal record keeping for compliance with local, state, and federal regulations
- Build a centralized, accessible resource library that contains critical and relevant information for all phases of work
- Provide hands-on training and coaching of new and senior operations personnel
- Conduct mathematics review classes for operator certification preparation

San Diego’s “Operator Academy” classes and field training has been conducted biannually. Additionally, several real-time projects were completed during the time spent with the Utility, which were necessary to continue the improvement process.

The utility reported a decrease in SSOs from a high of approximately 380 spills to a low of 28 spills during the 2010 calendar year. This was accomplished despite a workforce layoff of approximately 50 people in 2007. These results are credited in large part to the standardization of cleaning methodology and adaptation of new technology to computer management systems and field equipment. TA/BHES was subsequently engaged to work with the Construction Division to improve and document processes, as well as expand their capabilities to include manhole to manhole replacement.

TA/BHES served a critical role in professionalizing the operator corps, ensuring a continual reduction in spills, and keeping the Utility on target to meet its spill reduction goals. Our continued involvement with the City of San Diego provided opportunity for training reinforcement and performance improvement. The Utility continues to report low spill counts, reduced injury reports, and improved sewer cleaning effectiveness.



## 2. Capacity to Perform Work

## 2. Capacity to Perform Work

Capacity is more than having a large roster of employees. It is about having professionals with the right technical qualifications and the availability to get the work done within the established schedule. The professionals identified in our Organization Chart ([Section 1](#)) were specifically selected for this assignment based on their specialized expertise, experience successfully completing similar projects/tasks, and availability to meet your Program needs. All of the example projects featured in Section 1 were completed by one or more of the individuals in the Organization Chart (see *inset table*).

Project Name / Location	Client	Key Personnel/Role
Capacity Assurance Program (2012 – present)	Lexington-Fayette Urban County Government (LFUCG) Lexington, Kentucky	Joe Herman – Project Manager Bret Lavey – Engineer Jason Maxwell - Engineer Matt Basanta – Data Management
Sanitary Sewer Assessments	Lexington-Fayette Urban County Government (LFUCG) Lexington, Kentucky	Joe Herman – Project Manager Bret Lavey – Engineer Jason Maxwell - Engineer Matt Basanta – Data Management
Remedial Measures Plan Development	Lexington-Fayette Urban County Government (LFUCG) Lexington, Kentucky	Joe Herman – Project Manager Bret Lavey – Engineer Jason Maxwell - Engineer
Wastewater Collection System Program Overview	Austin Water Austin, Texas	Joe Herman – Technical Lead Bret Lavey – QA/QC Review Jason Maxwell – Engineer Matt Basanta – Data Management
Wet Weather Compliance Program (2010 – 2016)	Department of Public Works Baltimore, Maryland	Jane McLamarrah – Technical Lead
Clean Water Atlanta (2001 – present)	Department of Watershed Management City of Atlanta, Georgia	Jane McLamarrah – Technical Lead
CMOM Self-Assessment	Water and Sewer Department (WASD) Miami-Dade, Florida	Jane McLamarrah – Technical Lead
Wastewater O&M Evaluation and Training Program	Charlotte Water Charlotte, North Carolina	Laurie Chase Steve Tilson Bryon Ringley Carrie Parker

Project Name / Location	Client	Key Personnel/Role
CMOM Program Services	Jefferson County Environmental Service Department Birmingham, Alabama	Laurie Chase Steve Tilson Bryon Ringley Carrie Parker
Operations Training Program	Public Utilities City of San Diego, California	Laurie Chase Steve Tilson

Our staff is available to meet your scheduling requirements. Individuals shown in the Organization Chart have confirmed their availability/capacity to work on this assignment. Moreover, Stantec’s Project Manager (Joe Herman) has the authority to assign additional staff and resources should the need arise.

Lastly, Stantec incorporates succession planning into our annual employee performance reviews. During the review, a successor is identified for the employee in the event of their retirement, relocation or possession of the winning lottery ticket. With approximately 200 professionals in our Lexington office, and over 22,000 world-wide, we have sufficient resources to backstop the loss of any key individual identified in our Organizational Chart.

*Steve Tilson providing best practice field training on hydraulic cleaner to City of San Diego*





### 3. Past Record and Performance on Similar Contracts



### 3. Past Record and Performance

#### With You

Past performance is where the proverbial rubber meets the road. Fancy adjectives and unverified tales of successes in other communities cannot replace first-hand experience with a prospective consultant. First-hand experience provides a filter with which to truly evaluate the consultant's performance after the courtship was over and the work began.



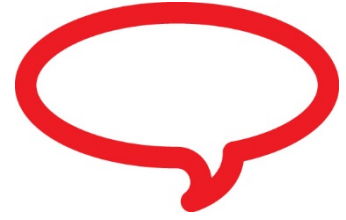
Fortunately, our Team provides you with an unequivocal measure of our past performance through our work on three of your major Consent Decree programs: The System Capacity Assurance Program, Sanitary Sewer Assessments (Groups 1, 2 & 3), and development of the Remedial Measures Plan. Additionally, Team members completed your initial CMOM Self-Assessment. Our performance on those projects can be readily used to forecast our anticipated performance on the continued implementation of your CMOM Program. **Table 3.1** provides an overview of our past performance on your other Consent Decree projects to aid in your evaluation. Think of it as a walk down memory lane.

**Table 3.1. Past Performance on LFUCG Consent Decree Projects**

Name	Budget Performance	Schedule Performance
System Capacity Assurance Program	Completed 5-year contract approximately 20% under budget.	No late delivery on any Consent Decree deliverable.
Sanitary Sewer Assessments (Groups 1, 2, & 3)	Completed Group 1 SSA approximately \$114,000 under budget.  One change order for rework associated with termination of LFUCG's initial field investigation contractor.	No late delivery on any Consent Decree deliverable.  Successfully implemented an aggressive corrective action plan to meet Group 2 & 3 Sewershed deliverables after termination of LFUCG initial field investigation contractor.
Remedial Measures Plan Development	Completed work assigned from the Prime Consultant under budgeted amounts.  Lowest total billings to LFUCG of the three primary RMP consultants.  No change orders for Stantec work.	No late delivery on any Consent Decree deliverable for which Stantec was responsible.

## With Others

We take great pride in the value and level of service we provide our clients and the communities we serve. But don't take our word for it. We encourage you to reach out to our clients. They will give you a first-hand assessment of our performance and quality of work from an owner's perspective. Client references for the non-LFUCG projects identified in Section 1 are provided in Table 3.2 for convenience.



**Table 3.2. Client Reference Information**

Project Name	Client Information	Team Member(s)
Wastewater Collection System Program Overview	<b>Kevin Koeller</b> Manager, Collections Division Austin Water, Austin, TX (512) 972-2055 <a href="mailto:Kevin.koeller@austintexas.gov">Kevin.koeller@austintexas.gov</a>	Stantec
Wet Weather Compliance Program (2010 – 2016)	<b>Rudy Chow</b> Director, Department of Public Works Baltimore, Maryland (410) 396-3310 <a href="mailto:Rudy.chow@baltimorecity.gov">Rudy.chow@baltimorecity.gov</a>	Stantec
Clean Water Atlanta (2001 – present)	<b>Rob Bocarro</b> Deputy Commissioner, Department of Watershed Management Atlanta, Georgia (404) 546-3229 <a href="mailto:rbocarro@atlantaga.gov">rbocarro@atlantaga.gov</a>	Stantec
CMOM Self-Assessment	<b>Douglas Yoder</b> Deputy Director, Miami-Dade Water and Sewer Department (WASD), Miami, Florida (786) 552-8979 <a href="mailto:Douglas.yoder@miamidade.gov">Douglas.yoder@miamidade.gov</a>	Stantec
Wastewater O&M Evaluation and Training Program	<b>Scott Clark</b> Chief of Operations Charlotte Water Charlotte, North Carolina (980) 250-9702 <a href="mailto:sclark@ci.charlotte.nc.us">sclark@ci.charlotte.nc.us</a>	Blue Heron Engineering Services / Tilson & Associates

Project Name	Client Information	Team Member(s)
CMOM Program Services	<b>Brian Champion</b> Sewer Maintenance Operations Manager Jefferson County Environmental Service Department, Birmingham, Alabama (205) 238-3785 <a href="mailto:championb@jccal.org">championb@jccal.org</a>	Blue Heron Engineering Services / Tilson & Associates
Operations Training Program	<b>Michael Rosenberg</b> Assistant Deputy Director Department of Public Utilities, San Diego, California (858) 654-4132 <a href="mailto:mrosenberg@sandiego.gov">mrosenberg@sandiego.gov</a>	Blue Heron Engineering Services / Tilson & Associates



4. Familiarity with Project Details

## 4. Familiarity with Project Details

### Yesterday's Accomplishments

The Lexington-Fayette Urban County Government (LFUCG) entered a federal Consent Decree with the U.S. Environmental Protection Agency (EPA) and Commonwealth of Kentucky Environmental and Public Protection Cabinet (EPPC) on March 14, 2008. Section 16 of the Consent Decree obligate LFUCG to develop and implement a Capacity, Management, Operations and Maintenance (CMOM) Program. The program is mandated to ensure LFUCG has programs in place that are effective at preventing and minimizing the risk from sanitary sewer overflows (SSOs).

The Division of Water Quality (DWQ) conducted a CMOM Self-Assessment and submitted to the EPA in August 2008.

*Our Team members assisted LFUCG in the preparation and finalization of your **CMOM Self-Assessment.***

Comments from the EPA/EPPC were addressed and the final version of the CMOM Self-Assessment was submitted in June 2011. Written approval of the CMOM Self-Assessment was issued on August 17, 2012. Recommendations for LFUCG's CMOM Program are summarized in Chapter 23.7 of the Self-Assessment Report.

The CMOM Self-Assessment formed the foundation for development of the Sewer Overflow Response Plan (SORP); Fats, Oils, and Grease (FOG) Control Program; Pump Station Operation Plan for Power Outages (PSOPPO) and Gravity Line Preventative Maintenance Program (GLPMP). Written approval of LFUCG's SORP, FOG, PSOPPO, and GLPMP were also issued on August 17, 2012.

- The SORP outlines LFUCG's plan for responding, cleaning up, and minimizing the impact of SSOs. Under the SORP, LFUCG must report the estimated volume, duration, cause and impact of all SSOs to the EPPC, as well as take measures to notify the public and minimize the potential for human exposure/risk.
- The FOG Control Program is LFUCG's strategy for minimizing the potential for SSOs caused by fat, oil and grease accumulation in the sewer system. A good FOG program will also reduce the loading to the wastewater treatment plant and minimize sewer operation and maintenance needs. Key components of LFUCG's FOG Control Program are routine inspection of food service establishment grease interceptors and the Enforcement Response Program, which gives LFUCG the ability to enact fines to encourage compliance.
- The approved PSOPPO report provided a detailed inventory for each of LFUCG's 82 pump stations and included details regarding provisions for emergency power and pumping capabilities. The PSOPPO report includes recommendations for improving pump station reliability and emergency response to reduce the potential for SSOs caused by loss of power at LFUCG's pump stations.

- The GLPMP is aimed at improving the operation and maintenance of LFUCG's gravity wastewater sewage collection system. The GLPMP provides a framework for LFUCG's sewer cleaning and root control programs. LFUCG has established an annual sewer cleaning and inspection goal of 650,000 linear feet in the GLPMP. LFUCG's Preventative Maintenance cleaning activities are also included in the GLPMP. Implementable actions from the GLPMP include documentation of dry weather overflows and conducting a root cause analysis.

## Today's Challenges

The aforementioned documents have all been written and approved by the regulators. They set the framework for your CMOM program. They outline your commitments, responsibilities and the proverbial rules of the game.

You've already started down the path of implementing these programs. Some areas, such as the PSOPPO, have resulted in successful retrofit of your pump stations and your system is now much more resilient to power outages. Other program areas require continuous vigilance (such as routine cleaning and inspection) to make sure each year you meet the established goal. And there are undoubtedly areas where the degree of progress has not yet been achieved that you had hoped for.

One of these reasons for sluggish results in some program areas may be lack of time. Since 2008, the DWQ has undergone incredible changes from the way you're organized, to the new programs and commitment and even the radical changes to your capital improvement program that are literally changing the landscape of your sewer system. Not everything is the highest priority and can get done on the first day.

Other reasons for lack of CMOM progress may be failure to recognize inefficiencies or institutional obstacles that are preventing your program from meeting its potential. Additionally, change is hard, and it may not be a lack of proper training. Not everyone may be on board that the new way is better than the way they have been doing it for years. It's an understandable opinion and one that requires working closely with staff to show them why change is necessary and how the evolution benefits both the organization and themselves.

*Root cause analysis of dry weather SSOs is a CMOM area where LFUCG has traditionally struggled to make progress but is critical to move from simply reporting overflows to reducing their frequency.*

We understand that since 2011 your CMOM Program Manager has helped you make significant strides in preparing and implementing your CMOM program elements. You are better positioned now than you were 7 years ago. We also recognize that your program has stalled in some areas and that you aren't satisfied that the program has evolved to where it needs to be.

## Our Approach

We can certainly support your Base Scope of Services to ensure accurate Quarterly and Annual Reporting, perform annual updates of the SORP, review and offer suggestions on SOPs and assist in internal staff training programs. But will it evolve your program and result in measurable improvement in your sewer operations and maintenance or tangible reductions in your dry weather overflows?

Our approach as your CMOM Program Manager isn't simply to dutifully document each quarter where program shortcomings occurred. Our challenge as your Program Manager is to offer ideas and assistance to help you effect change, so that the results improve over time.

Our Team is comprised of critical thinkers, who know you and your challenges, have the benefit of other progressive utilities'

experience/strategies, and proven training programs taught by operations-minded folks for operations staff. Our **integrated team approach** ensures you get the benefit of local responsiveness and commitment with access and benefit of national expertise. We're not offering a silver bullet or pill you can take, but rather a promise that we know where you want to go and offer a lot of smart people that will help you figure it out. We successfully shepherded you through the challenges of your Capacity Assurance Program and we stand ready to partner again to improve performance on your CMOM Program.

*We understand that LFUCG wants a Program Manager that not only accurately reports what happened last quarter, but also takes ownership of the program to help improve next quarter's results.*



*Laurie Chase conducting a math review class for Heavy Equipment Operators for Jefferson County Environmental Service Department (Alabama)*





## 5. Degree of Local Employment

Work on this contract will be executed out of Stantec’s office in **Lexington, Kentucky**. Our local office has a staff of approximately 200 professionals and we have maintained an office in Lexington since the mid 1960’s.

**Table 5.1** summarizes the location of each individual in the Organization Chart presented in Section 1. Our Team is designed such that our Project Manager and other key individuals responsible for day-to-day activities are local. Complimenting the Lexington-based team are national CMOM experts. They will periodically provide their specialized expertise and experience garnered from other progressive utilities across the U.S. to promote the successful evolution of your CMOM program.



*Stantec’s Lexington office is located at 3052 Beaumont Centre Circle and employs approximately 200 professionals.*

**Table 5.1. Location of Project Team Members**

Name	Firm	Office Location
Joe Herman	Stantec	Lexington, Kentucky
Bret Lavey	Stantec	Lexington, Kentucky
Jason Maxwell	Stantec	Lexington, Kentucky
Matt Basanta	Stantec	Lexington, Kentucky
Jane McLamarrah	Stantec	Clemson, South Carolina
Laurie Chase	BHES	Columbus, Ohio
Bryon Ringley	BHES	Columbus, Ohio
Carrie Parker	BHES	Seattle, Washington
Steve Tilson	Tilson & Associates	Torrington, Connecticut
Bruce Whitaker	Leak Eliminators	Lexington, Kentucky



## 6. Schedule of Hourly Rates

**Table 6.1** summarizes the hourly rates for all staff categories that are reasonably expected to contribute to the project. It is acknowledged that these hourly rates will be in effect for the duration of the one-year contract and not subject to escalation during that time.

Rates and staff categories provided in the table are organized by Team Member. Tilson will subcontract directly with BHES, so the rates provided for BHES apply to Tilson's staff.

No mark-up will be applied by Stantec to the services provided by named Team Members (i.e. BHES, Tilson, or Leak). A **10% mark-up** will be applied to any specialized services or equipment procured from third party vendors at the request of LFUCG. The mark-up will be used to offset Stantec's increased administrative costs associated with the procurement.

Travel expenses will be billed at FY2019 U.S. Government Per Diem rates.

**Table 6.1. Schedule of Hourly Rates**

<b>Stantec</b>	<b>Unit Rate</b>
Project Manager	\$190.00 / hour
Senior Engineer	\$180.00 / hour
Principal Engineer	\$180.00 / hour
Senior Project Engineer	\$140.00 / hour
Project Engineer	\$120.00 / hour
Senior GIS/Programmer	\$135.00 / hour
CAD/GIS Specialist	\$105.00 / hour
Administrative Assistant	\$80.00 / hour
<b>BHES / Tilson</b>	
Project Manager	\$180.00 / hour
Principal Engineer/Consultant	\$180.00 / hour
Senior Operations Trainer	\$165.00 / hour
Environmental Specialist/Biologist	\$110.00 / hour
Technical Writer/Editor	\$110.00 / hour
Intern	\$45.00 / hour
<b>Leak Eliminators</b>	
Super / Superintendent	\$125.00 / hour
Crew Foreman	\$100.00 / hour
Laborer	\$90.00 / hour



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Joe has 21 years of experience (19 with Stantec) in the assessment, evaluation, design, and management of municipal infrastructure. He is one of Stantec's subject matter experts in wet weather programs with relevant project experience in inflow/infiltration (I/I) studies, sanitary sewer evaluation surveys (SSES), engineering assessments, master planning, rehabilitation planning, capacity assurance programs, hydraulic modeling, and engineering design. Joe is currently a member of NASSCO's Infrastructure Assessment Committee.

### EDUCATION

MS, Civil Engineering, University of Kentucky, Lexington, Kentucky, 1995

BS, Civil Engineering, University of Kentucky, Lexington, Kentucky, 1994

### CERTIFICATIONS & TRAINING

Pipe Assessment Certification (PACP), National Association of Sewer Service Companies (NASSCO), 2009, 2013, &, 2016

Manhole Assessment Certification (MACP), National Association of Sewer Service Companies (NASSCO), 2009, 2013, & 2016

Lateral Assessment Certification (LACP), National Association of Sewer Service Companies (NASSCO), 2013 & 2016

Inspector Training and Certification for Manhole Rehabilitation, National Association of Sewer Service Companies, (NASSCO), 2014

### REGISTRATIONS

Professional Engineer – Kentucky (#21254), Texas (#125471)

### PROJECT EXPERIENCE

Wastewater Collection System Program Overview, Austin, Texas

Stantec was selected by the City of Austin to evaluate three focus areas within their existing Capacity, Management, Operations and Maintenance (CMOM) program.

Technical Lead to evaluate the City's Closed-Circuit Television (CCTV) Inspection Program and Root Control Program. As part of this effort, reviewing the City's cleaning and CCTV efforts, dry weather overflow history, and root control records to verify compliance with their goals, make recommendations for improvements, and provide a framework for a program planning/budgeting.

Sanitary Sewer Assessments (SSA), Lexington, Kentucky

Project Manager for a \$6+ million sanitary sewer assessments mandated by federal Consent Decree (EPA Region 4). Oversaw Sanitary Sewer Evaluation Study (SSES) field data collection efforts that included: rainfall and flow monitoring, groundwater monitoring, dye water flooding/testing, night flow isolation, visual manhole inspections, smoke testing, and sewer cleaning and television inspection on sanitary sewer pipes ranging in size from 6 inches to 54 inches in diameter. Led the development of field protocols/tools to effectively manage and track inspection contractor's progress and efficiency. Engineering review of SSES data was performed to assess sewer condition and identify inflow/infiltration sources. Engineering assessment was performed to assist in the development of the City's \$600M Remedial Measures Plan.

## Joe J. Herman PE

Project Manager

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### **Remedial Measures Plan (RMP) Development, Lexington, Kentucky**

Project Manager for the development of an approximately \$600 million capital wastewater improvement program for LFUCG to eliminate sanitary sewer overflows. The project was mandated by federal Consent Decree. Stantec was part of a three-consultant firm team tasked with completing the work within the aggressive schedule established by the EPA. Stantec's responsibilities included: providing rehabilitation recommendations and prioritizations for collection system improvements, hydraulic modeling, capital plan development and solution alternatives analysis, and preliminary planning-level cost opinions for long-term programming.

### **Capacity Assurance Program Manager (2012 - 2017), Lexington, Kentucky**

Project Manager in the development of a Capacity Assurance Program (CAP) for the Lexington-Fayette Urban County Government (LFUCG). The CAP is mandated by federal Consent Decree and requires that LFUCG certify adequate capacity in their wastewater system prior to authorizing new connections or flow increases. In addition to initial program development and its' ongoing implementation, Stantec was responsible for maintaining / recalibrating the hydraulic model of the sewer system, determining annual flow monitoring needs, analysis of flow data, technical assistance in establishing rehabilitation priorities, and using the hydraulic model to verify adequate capacity to support design efforts on LFUCG's \$600M wastewater capital improvement program. Under this 5-year contract, Stantec completed the work approximately 19% percent below budget.

### **Capacity Assurance Program Manager (2017 – present), Lexington, Kentucky**

Project Manager for LFUCG's Capacity Assurance Program (CAP). Previously served as LFUCG's CAP Manager from 2012 – 2017 and was responsible for leading its' initial development and approval by the EPA and Commonwealth of Kentucky. In our continuing role as CAP Manager, we are responsible for performing technical reviews of capacity requests, maintaining/updating their hydraulic model of the sewer system, identifying annual flow monitoring needs, analysis of flow data to verify effectiveness of I&I reduction measures, providing as-needed support to other areas of their Capacity, Management, Operation & Maintenance (CMOM) program, and applying the model to verify adequate capacity to support design efforts on LFUCG's \$600M wastewater capital improvement program.

### **I/I Program and Strategy Development, Region of Peel (Greater Toronto Area) Ontario, Canada.**

The Region of Peel is responsible for wastewater collection and treatment for its approximately 1 million residents located in the Greater Toronto Area. Technical Lead to assist in the development of a strategy to identify and reduce I&I in the Region's wastewater collection system. Led the development of the strategy for Program Area #1, which focused on identification and quantification I/I contributions, SSES field activities, as well as measurement of the effectiveness of completed removal activities. The strategy is being used as the "blue print" to guide the Region's internal I/I Program.

*\* denotes projects completed with other firms*

Dr. McLamarrah is a nationally recognized expert in Capacity, Management, Operations & Maintenance (CMOM) audits, program development and implementation, having completed over 30 CMOM-related projects, including nearly 20% of EPA Region 4's Cycle 1 MOM Self-Audits, and is affectionately known as "Dr. MOM" to her many repeat clients.

She currently serves on the WEF Collection System Committee, where she is a founding member and past Chair of the Private Property Virtual Library (PPVL) task group and served as task chair and chapter author for WEF's 2016 special publication, *Private Property Infiltration and Inflow Control*.

Throughout her 40-year career, Dr. McLamarrah has been on the cutting edge of technology and innovation, with her diverse, multi-disciplinary background bringing a unique perspective that effectively integrates complex technical factors into successful, implementable projects. On the Dallas collection system master plan project, she led one of the first efforts in the US to develop a risk based methodology for collection system asset renewal. In 2013, she developed the Baltimore Integrated Planning Framework (IPF), which was the nation to receive approval to be used to inform consent decree negotiations with EPA Region 3 under the EPA's 2012 guidance memorandum.

#### EDUCATION

PhD Civil Engineering, Clemson University  
BS/BSc, Civil & Environmental Engineering, University of Rhode Island  
MA History, University of Wisconsin – Madison  
BS/BSc Secondary Education, University of Wisconsin – Platteville

#### CERTIFICATIONS & TRAINING

Envision Sustainability Professional, Institute for Sustainable Infrastructure, February 2017

#### REGISTRATIONS

Professional Engineer in the States of Florida, Georgia, South Carolina, Texas & Wisconsin and the Commonwealth of Virginia

#### CMOM/MASTER PLAN EXPERIENCE

Clean Water Atlanta Program, Atlanta, Georgia (Technical Manager)

Jane has served the Clean Water Atlanta Program in numerous capacities starting with conducting an internal CMOM Self-Assessment evaluating compliance with EPA Region 4's First Amended Consent Decree (FACD) CMOM requirements. Upon completion of the self-assessment, she assisted collection system operations staff in implementing improvement recommendations. She has continued to assist operations in updating CMOM Plans as needed. The most recent updates were in 2016/2017 and included the Contingency and Emergency Response Plan (CERP), the Maintenance

Management System Plan (MMSP), the Grease Management Program (GMP), and the Safety and Training Programs. She is currently developing a Long-Term Operations Plan (LTOP) to consolidate two Short Term Operations Plans for the gravity system and for the pump stations.

In addition to CMOM operational support, Jane developed the planning -level Remedial Measures master plans for three of the City's combined sewer basins based on hydraulic model results and technical analyses.

Jane also supports the City in conducting Multi-Sector General Permit compliance evaluations and Storm Water Pollution Prevention Plan (SW3P) updates for the City's wastewater treatment plant and combined sewer treatment facility sites.

**Miami-Dade Consent Decree CMOM Implementation, Miami, Florida (Task Manager and Technical Expert)**

In 2011, Jane completed a CMOM Self-Assessment for the Miami-Dade Water and Sewer Department (WASD) under a short 3-month deadline to facilitate closure of two existing EPA Region 4 consent decrees. The Self-Assessment formed the basis for issuance of a new CMOM-focused consent decree.

## Jane A. McLamarrah PhD, PE, ENV SP

CMOM Technical Expert

Upon issuance of the new consent decree, Jane provided subconsultant services as Technical Expert to develop the Sewer Overflow Response Plan (SORP) and to coordinate development of the Pump Station Operation and Preventive Maintenance Program (PSOPMP).

### **Baltimore Wet Weather Compliance Program, Baltimore, MD (QA/QC and Technical Expert)**

Jane was part of the team developing the Integrated Planning Framework (IPF) under EPA's innovative 2012 guidance memorandum designed to provide communities the flexibility to prioritize projects of greater or earlier benefit above consent decree or permit mandated projects. The Baltimore IPF was the first such project to be approved by EPA Region 3 for use informing consent decree negotiations.

In addition to developing the IPF, Jane provided QA/QC reviews of multiple collection system operations programs being developed as part of the City's newly formed Asset Management Division. These programs included risk-based assessments for sewer inspection/rehabilitation; risk-based assessments for lateral inspection/rehabilitation, root control application programs and innovative sewer inspection technique evaluations. She also provided QA/QC on various Asset Management Division Roadmap iterations to guide creation and on-going implementation of the Division's organizational structure.

### **Peel I/I Remediation Strategy, Ontario, Canada (Task Manager)**

Jane led strategy development for the Program Area #3, which evaluated downspout disconnection options for I/I removal and use of backwater valves for flood prevention, under the Region's Resident Program to control sewer system I/I entry. The Resident Program was part of Stantec's development of a comprehensive I/I Strategy to guide implementation of I/I control measures for the Region.

### **Houston Neighborhood Oriented Sewer Improvement (NOSI) Program, City of Houston, Texas (Technical Manager)**

Jane led Stantec's efforts to redirect development of a proactive CMOM management plan for the City's extensive 5,700-mile and roughly 400 lift station wastewater collection system. She provided specialized knowledge of how various regulatory agencies were

interpreting sanitary sewer overflow (SSO) control requirements and applying CMOM self-audits and developing CMOM program components such as condition assessment, information management practices, SSO trending and cause analysis, emergency response and capacity assurance. The resulting Continuous Improvement for Collection Systems (CICS) Plan included all aspects of the EPA's proposed (but never implemented) SSO Rule components except for a System Evaluation and Capacity Assurance Plan (SECAP). As part of CICS implementation, Jane created Houston's logo for their Corral the Grease educational program initially targeted to multi-family apartment and condominium complexes.

The CICS Plan also served as the foundation for negotiating an Agreed Order (AO) Plan with the Texas Commission on Environmental Quality (TCEQ) to reduce an unacceptably high number of SSOs within the City's collection system.



Jason is a Senior Water Resources Engineer with more than 12 years' experience in municipal infrastructure assessment, analysis, planning, and design. Specific project experience includes: sanitary sewer evaluation surveys (SSES), condition assessment, inflow/infiltrations studies, sanitary sewer rehabilitation, hydrologic and hydraulic modeling, inflow/infiltration studies, flow monitoring analysis, and engineering design for municipal sanitary sewer and stormwater systems, EPA Consent Decree program management, and municipal infrastructure and facilities capital improvement planning. Jason is also experienced in the evaluation of critical pipeline infrastructure and is certified in the industry standard Lateral, Manhole, and Pipeline Assessment Certification Programs (LACP/MACP/PACP) through the National Association of Sewer Service Companies (NASSCO).

## EDUCATION

BS, Bioenvironmental Engineering, University of Kentucky, Lexington, Kentucky, 2006

MS Bioenvironmental Engineering, University of Kentucky, Lexington, Kentucky, 2008

## CERTIFICATIONS & TRAINING

Pipe, Manhole, and Lateral Assessment Certification Program (PACP, MACP, LACP), National Association of Sewer Service Companies (NASSCO), 2009, 2013 & 2016.

Manhole Rehabilitation Inspector Training and Certification Program (ITCP), NASSCO, 2014

## REGISTRATIONS

Professional Engineer, Kentucky #28686; Ohio #E-79806; Indiana #PE11500103 and Texas #126335.

## PROJECT EXPERIENCE

**Sanitary Sewer Assessments (SSAs), Lexington, Kentucky**

Jason was one of the Lead Project Engineers who worked on the city-wide sanitary sewer assessment in for Lexington-Fayette Urban County Government (LFUCG). The project involved performing field data collection activities and completing an engineering condition assessment of the City's sanitary sewer system to identify the cause of recurring Sanitary Sewer Overflows. Jason was responsible for the field oversight and management for closed circuit television, manhole inspection, smoke testing, night-flow isolation, bypass pumping, and dye testing field activities. Jason was responsible for the data and deliverables tracking, Quality Assurance/Quality Control (QA/QC) for more than 1 million linear feet (LF) of closed circuit television,

18,000 manhole inspections, 5 million linear feet of smoke testing, and data analysis for more than 220 flow monitors. Jason also assisted in the development of the condition assessment and recommendations provided in the sanitary sewer assessment reports.

**Capacity Assurance Program (CAP), Lexington, Kentucky**

Jason is a Senior Water Resources Engineer currently working on the development and implementation of an Environmental Protection Agency (EPA) Consent Decree Capacity Assurance Program for the Lexington-Fayette Urban County Government (LFUCG). Major tasks include: hydraulic model updates to LFUCG's system-wide sanitary sewer model by incorporating completed sewer system improvements and performing model recalibration based on annual flow monitoring data. Stantec is also using the model to support the design of LFUCG's \$540M wastewater capital improvement program.

**Remedial Measures Plan (RMP) Development, Lexington, Kentucky**

Jason was a Senior Project Engineer who assisted in the evaluation of capital improvements alternatives during development of a \$540M wastewater capital improvement program for the Lexington Fayette Urban County Government (LFUCG). Jason was responsible for performing hydraulic modeling to determine sizing for proposed sewers, force mains, and wet weather storage facilities. Jason also helped to prepare components of the RMP reports and other tasks associated with RMP development.

# Jason Maxwell PE

Senior Water Resources Engineer

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## **Wastewater Collection System Program Overview, Austin, Texas**

Stantec was selected by the City of Austin to evaluate various components in the City's existing Capacity, Management, Operations and Maintenance (CMOM) program. Jason is one of the Technical Advisors evaluating the Austin's Closed-Circuit Television (CCTV) Inspection and Root Control Program. Jason is reviewing the City's cleaning and CCTV inspection work flow methods and program cycle, dry weather overflow history, and root control records to verify compliance with the City of Austin's goals, provide recommendations for improvements, and develop a framework for program planning/prioritization/budgeting.

## **Louisville and Southern Indiana Ohio River Bridges (LSIORB), Louisville, Kentucky and Jeffersonville, Indiana**

Lead Project Engineer who reviewed and assessed the structural condition of sewers within the Ohio River Bridges project footprint, which included approximately 100,000 linear feet (LF) of existing storm, wastewater, and combined sewers owned by the Louisville and Jefferson County Metropolitan Sewer District (MSD) and Jeffersonville, Indiana. The assessment was performed in advance of replacing a major interstate (I-65) bridge crossing the Ohio River. The assessment was used to help understand the condition of the existing sewers and identify sewers needing to be improved and/or relocated to facilitate construction of the new highway bridge replacement. CCTV inspection videos were coded to the Pipeline Assessment Certification Program (PACP), administered by the National Association of Sewer Service Companies (NASSCO), inspection reports prepared, and a condition assessment of the sewer performed.

## **Camp Taylor Sewer System Evaluation Survey (SSES), Louisville, Kentucky**

Jason assisted on a SSES and rehabilitation project which included a collection system totaling approximately 150,000 linear feet for the Louisville and Jefferson County Metropolitan Sewer District (MSD). Jason was responsible for directing and overseeing SSES field activities (smoke testing, CCTV inspection, flow monitoring, manhole inspections, private property/basement inspections, wet weather observations, and dye flooding), preparing and providing QA/QC of manhole inspection and smoke testing field reports, and assisting in the development of sanitary sewer rehabilitation and capital improvement recommendations. Stantec also provided design services to MSD for those sewers that open-trench replacement is necessary.

## **CCTV and Inspection of Storm Sewers, Regional Municipality of York (Technical Lead),**

Senior Project Engineer currently working on the inspection and condition assessment of storm sewer system, the storm system, maintained by the Regional Municipality of York, contains approximately 27.6km of storm sewer pipe and 950 structures (maintenance holes, catch basins and ditch inlets). Jason is providing data management oversight and assisting with the development of a condition assessment report to include condition grading, renewal recommendations and associated planning level cost information. The purpose of this information is to assist the Region of York with infrastructure renewal planning efforts setting of prioritizations for future storm sewer system rehabilitation.

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With more than 14 years of experience, Bret is a proven leader in the assessment, planning, hydraulic modeling, and design of municipal wastewater, water and stormwater infrastructure. His project experience includes: capacity assurance programs, sewer system evaluation surveys, sewer condition assessments, inflow/infiltration studies, rehabilitation prioritization, master planning, hydrologic and hydraulic modeling, and engineering design. He is certified by NASSCO in pipeline, manhole and lateral assessments. Bret is also a certified Envision Sustainability Professional and understands the triple-bottom line approach to solving complex water resources problems – weighing the often competing environmental, social, and economic objectives of a project.

### EDUCATION

BS Civil Engineering, University of Kentucky,  
Lexington, Kentucky, 2005

### CERTIFICATIONS & TRAINING

Pipe, Manhole, and Lateral Assessment  
Certification Programs (PACP, MACP, and LACP),  
National Association of Sewer Service  
Companies, 2009, 2013 & 2016.

Envision™ Sustainability Professional (ENV SP),  
Institute for Sustainable Infrastructure

### REGISTRATIONS

Professional Engineer – Kentucky (#27348)

### PROJECT EXPERIENCE

**Camp Taylor Sanitary Sewer Evaluation Surveys (SSES), Louisville, Kentucky**

Senior Project Engineer assisting on a SSES and rehabilitation project for the Louisville MSD. Bret was responsible for directing and overseeing field efforts, preparing and providing QA/QC of manhole inspection and smoke testing field reports, and assisting in the development of sanitary sewer evaluations and remediation recommendations. Bret also participated in the selection of rehabilitation efforts to mitigate problems identified during the field activities.

**Capacity Assurance Program (CAP), Lexington, Kentucky**

Lead Senior Project Engineer on Lexington's Sanitary Sewer Capacity Assurance Program which is mandated by a Consent Decree with the EPA to certify adequate capacity prior to authorizing new flow connections into the sewer system, or offsetting proposed flow addition with capacity credits earned through rehabilitation activities. Bret was responsible for outreach coordination among elected officials, local government departments, the development community and other stakeholders. He was also responsible for oversight of the custom web application to track application and allocation of sanitary sewer capacity and credits, maintaining the citywide hydraulic models using a commercial version of SWMM, preparing the CAP plan for submittal to the EPA, and prioritizing and tracking of rehabilitation areas and activities.

**Sanitary Sewer Assessments ((SA), Lexington, Kentucky**

Mr. Lavey was a Technical Lead for a sanitary sewer assessment on the 1,200 mile wastewater collection system operated by the Lexington-Fayette Urban County Government (LFUCG). Project involved performing field data collection activities and completing an engineering assessment of the City's sanitary sewer system to assess the structural condition of their sewer system and identify inflow and infiltration sources. Specific field activities performed included: flow monitoring (224 meters), rainfall monitoring (39 gages), manhole inspections (23,300 manholes), smoke testing (5.1M linear feet), groundwater monitoring (113 meters), dye water flooding/testing (114 tests), night flow isolation (485 locations), sewer cleaning and televising (1.3M linear feet), raising buried manholes, and bypass pumping.

**Remedial Measures Plan Consultant, Lexington, Kentucky**

Bret was Stantec's Technical Lead for the development of an approximately \$600 million capital wastewater improvement program to eliminate Sanitary Sewer Overflows for the Lexington-Fayette Urban County Government (LFUCG). Project was mandated by Consent Decree. Stantec was part of a three-consultant firm team tasked with completing the work within the aggressive schedule established by the EPA. Stantec's responsibilities included: providing rehabilitation recommendations and prioritizations to reduce I&I, hydraulic modeling, capital plan development and solution alternatives analysis, and preparing planning-level cost opinions for long-term capital programming. Stantec completed all assignments below the budget established for each task order.

**Annual Condition Assessment and Rehabilitation Design, Aurora, Colorado**

Bret served as the Lead Engineer to develop recommendations to support development of a \$5M sewer rehabilitation project for the City of Aurora, Colorado. Bret was responsible for performing the condition assessment of existing sewers, prioritization and development of preliminary rehabilitation recommendations, and preparation of capital construction cost opinions. Rehabilitation recommendations were made from review of 2.4M linear feet of CCTV inspections for pipe ranging in size from 6-inch to 18-inch diameter.

**Inflow/Infiltration (I/I) Removal Study, Clayton County, Georgia (Senior Project Engineer)**

**Client: Clayton County Water Authority**  
Senior Project Engineer on a sanitary sewer evaluation study (SSES) to identify sources of I/I in the Clayton County Water Authority's (CCWA's) separate wastewater collection system. The CCWA is exploring I/I removal to determine its effectiveness to postpone wastewater treatment upgrades. Bret was responsible for identifying and developing tools and reporting software to support the required deliverables for manhole inspections and smoke testing efforts. He is also responsible for developing assessment and rehabilitation recommendations, database management, and QA/QC of field activity deliverables.

Matt specializes in the areas of Application Development and Geographic Information Systems (GIS). He serves to ensure teams maintain high standards and software quality by confirming use of best practices and quality guidelines. In addition, he helps to ensure blockages are quickly solved and teams are working in parallel to streamline the development process. He is knowledgeable of agile development practices including both Scrum and Kanban.

With more than 10 years' experience, Matt's project experience includes design and development of numerous web and desktop based applications. In addition to these projects his responsibilities include data mining, spatial analysis, image analysis, geocoding, cartographic interpretation, map production and other facets of high-level geographic research. He is proficient in numerous GIS applications including the ArcGIS suite of applications. His experience also includes desktop and web-based application development in multiple development environments, utilizing Python, C#, VB.NET, JavaScript. In addition, he has extensive database experience in Microsoft SQL, Oracle, and PostgreSQL

## EDUCATION

BA, Geography, University of Kentucky, Lexington, Kentucky, 2008  
Certificate (Verification # TVE14Q122MBOC320), ESRI / ArcGIS Desktop Associate 10, 2010, Lexington, Kentucky, 2010

## REGISTRATIONS

Certified Geographic Information Systems Professional #7820, GIS Certification Institute

## PROJECT EXPERIENCE

### LFUCG Sanitary Sewer Assessments (SSA), Lexington, Kentucky (GIS Analyst)

Mr. Basanta was a field crew leader for data collection and analysis of sewer smoke testing assessment for a sewer basin comprising of over one million linear feet. Mr. Basanta leads field crews identifying defects that cause numerous sanitary sewer overflows (SSOs) during high rain events in Lexington. His work led to the identification of major defects ensuring Lexington is in compliance with the US Environmental Protection Agency consent decree.

### LFUCG Virtual Project Manager, Lexington, Kentucky (GIS Analyst/Application Developer)

Mr. Basanta worked on the development team responsible for creating and maintaining an interactive, GIS based project website (Virtual PM) for a \$5M+ sanitary sewer assessment in Lexington, Kentucky. The website is being utilized on the project to report project progress and illustrate areas of planned field activities. The website is updated weekly, does not require the user to have GIS software or training, and is available to LFUCG and their other Consent Decree Consultants.

### Capacity Assurance Program Information Management System, Lexington, Kentucky (Application Developer)

Mr. Basanta served as the assistant lead developer in the creation of this information management system. This web-based system is used to track rehabilitation projects and allocate development permits based on forecasted sewer system capacity. In addition, the public facing portion of this website allows both the public, and stakeholders, to track the status of various projects associated with the program. The capacity assurance program was implemented to fulfill the requirements of the consent decree for the rehabilitation of Lexington's sanitary sewer system. This system was developed with

## Matthew Basanta GISP

Senior GIS and Software Application Specialist

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ASP.NET and uses SQL Server as its underlying database. All spatial data is stored in SQL Server's spatial data formats, eliminating the need for an additional GIS server.

### **USACE Levee Periodic Inspections, Various Locations (GIS Analyst/Application Developer)**

Mr. Basanta served as GIS lead on multiple levee inspection teams collecting and reviewing data collection efforts for three different USACE districts, equating to approximately 500 miles of levee. Teams collected deficiencies using a tablet PC and ESRI ArcGIS, while walking each levee system. Mr. Basanta developed customized software to improve the data collection efforts and ensure data collected accurately reflected ground conditions. In addition, he served in an advisory role for all levee inspection activities within the company. He trained and advised eight levee inspection teams and performed QA/QC on resulting data. Mr. Basanta also reviewed deliverables for multiple inspections to ensure accurate products were submitted to client.

### **City of Athens, Ohio Detailed Floodplain Development, Athens, Ohio (GIS Analyst)**

Mr. Basanta developed detailed 2% and 5% annual chance flood hazard areas and base flood elevations for the section of the Hocking River within the city of Athens. Utilizing engineering data, aerial imagery, and flood photos provided by the client Mr. Basanta analyzed topography in the area to create very detailed areas of flooding. This effort combined with existing Flood Insurance Rate Maps will allow the city to plan for and mitigate crippling flood hazards.

### **City of Frankfort, Kentucky Flood Mitigation Plan, Frankfort, Kentucky (GIS Analyst)**

Mr. Basanta worked closely with the local government to develop a Flood Mitigation Plan for the City of Frankfort. His responsibilities included data mining, spatial analysis, map production, questionnaire development, hazard identification, profiling and risk assessment. Mr. Basanta used locally developed techniques that allowed risk determination at the building level. This risk determination, when combined with FEMA Benefit-Cost Analysis allowed for a very accurate study of flood risk in the community.

### **FEMA Countywide DFIRM Development for Regions V and VII, Various Locations, FEMA Regions V and VII (GIS Analyst)**

Mr. Basanta served a technical role in the creation and production for several Region V and VII counties. His responsibilities included data mining, spatial analysis, geodatabase maintenance, and map production while adhering to guidelines and specifications set forth by Federal Emergency Management Agency (FEMA). Mr. Basanta used three-dimensional models to create water surface elevations for studied streams. He then determined the extent of the floodplains and performed quality control procedures with updated topographic mapping. Mr. Basanta was also responsible for the creation of data and hard-copy deliverables meeting FEMA standards. He has seen these counties through several rounds of cartographic review and maintains extensive quality assurance/quality control procedures.

# Matthew Basanta GISP

Senior GIS and Software Application Specialist

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## **Phase II Hazard Mitigation Grant Program Application for Rockford, Illinois, Rockford, Illinois (GIS Analyst)**

Mr. Basanta worked with the project team to format and analyze multiple datasets in support of the flood hazard mitigation analysis project for the City of Rockford, IL. Through the use of local GIS datasets, along with state and federal information, Mr. Basanta was able to compile all relevant records necessary for the hazard mitigation grant program (HMGP) application.

## **TVA Fossil Fuel Plant Site Assessments, Various Locations, Kentucky, Tennessee, and Alabama (GIS Analyst)**

Mr. Basanta created maps for work performed on TVA Fossil Fuel Plants. He collected data from multiple sources, then combined and converted the data into the necessary format. Mr. Basanta's maps utilized sound cartographic methods to convey assessment data to the client. Quite often Mr. Basanta was required to create these maps quickly and on short notice.

## **Decision Support System, Environmental Protection and Historic Preservation (Development Lead)**

Mr. Basanta serves as the development lead for the updates and maintenance phase for this application. This web-based system is used to track environmental assessments and assist in the assessment process for all DHS components worldwide. Mr. Basanta leads the team by managing and prioritizing updates to this system as needed by DHS and coordinating the development efforts among the team members. Most recently, he led a major overhaul of the system to bring it into compliance with Section 508 accessibility requirements. This system was developed with ASP.NET MVC 3.0 utilizing an Oracle 11g database.

## **Plains Pipeline, Team Portal, Long Beach, California (Application Developer)**

Mr. Basanta worked on the development team to create an online portal that served to manage the consent decree efforts by Plains Pipeline. The portal collected information about areas of concern and investigation, relevant reports and documents, and displayed geospatial information online. The application focused on making the large amounts of client data quickly available through searches and visual reports. Developed with ASP.Net and SQL Server and utilizing HTML5 and AJAX techniques, the portal was used to by multiple groups for various purposes, including fiscal year budgeting, contracting change management, and mobile field surveys and support. Mr. Basanta's responsibilities included programming for both frontend and backend development.

## **Commonwealth Hazard and Mitigation Planning System (CHAMPS), Statewide, Kentucky (Application Developer)**

Mr. Basanta served as the assistant lead developer in the creation and production for CHAMPS. This custom web portal consists of several modules, each of which complement one another to help KyEM better route specific dollars to mitigation projects, as well as helping to bridge the gap between project management and local community outreach. CHAMPS links, tracks, and stores all project elements from the time a disaster occurs all the way through the successful completion of a mitigation project. Mr. Basanta's responsibilities included web layout and database infrastructure design in addition to development programming for both the frontend and backend development.

## Matthew Basanta GISP

Senior GIS and Software Application Specialist

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### FEMA Mitigation Action Tracker Web Portal (Application Developer)

Mr. Basanta served as the assistant lead developer for the Mitigation Action Tracker developed for FEMA. This custom web portal is a nationwide system utilized to record and track hazard mitigation actions planned and/or performed at the community level. From the collected data, the Mitigation Action Tracker reports to FEMA, live metrics about program status and effectiveness throughout the nation. This project had an extremely short timeline (<2 months). Based on user feedback and refinements to the reporting process by FEMA, Mr. Basanta quickly incorporated changes to ensure the team met the development deadline.

### PUBLICATIONS

"Utilizing GIS in the Location of Telemedicine Facilities". American Telemedicine Association International Meeting and Exposition, 2009.





## Laurie Chase, President

### EDUCATION/TRAINING

- Master of Science, Civil Engineering, The Ohio State University, Columbus, Ohio, 1988
- Bachelor of Science, Civil Engineering, The Ohio State University, Columbus, Ohio, 1986
- OSHA 30 Hour Outreach Training for the Construction Industry, 2013
- Confined Space Entry (recertification), 2016

### REGISTRATIONS

- Professional Engineer #56859, State of Ohio
- Professional Engineer, #33922-E, State of Alabama
- Civil Engineer, #65546, State of Arizona
- Professional Engineer, #21813, State of Delaware
- Professional Engineer #25385, Commonwealth of Kentucky
- Professional Engineer #6201063748, State of Michigan
- Professional Engineer #099320-1, State of New York
- Professional Engineer #045911, State of North Carolina
- Professional Engineer #PE087938, Commonwealth of Pennsylvania
- Professional Engineer, #50196, State of Washington
- Professional Engineer, #43879-6, State of Wisconsin

### PROFESSIONAL ASSOCIATIONS

- Water Environment Federation (WEF)** 1995 - present
  - Collection System Committee: Private Property Virtual Library (PPVL) Project Co-Founder, Field Operations Subcommittee Member
  - Collection System Symposia: Past Chair and current Member
  - Program Committee: Member since 1996

**Chi Epsilon** National Civil Engineering Honor Society

#### Golden Manhole Award:

- 2001 WEF Collection Systems Committee
- 2008 Ohio Water Environment Association (OWEA)

### PROFESSIONAL EXPERIENCE

Ms. Chase has more than 30 years of experience in the water and wastewater industry in regulatory, municipal, consulting, and construction roles. She has provided planning, design, and construction services in a variety of one-time and ongoing projects, including:

### Sewer System Capacity, Management, Operations and Maintenance (CMOM)

#### Sewer Maintenance Program Evaluation and Best Practice Implementation

Conducts sewer maintenance and construction program evaluations in accordance with U.S. EPA CMOM Program guidance and industry best practices

- Assesses equipment, tooling, and operator skills, knowledge, and abilities
- Facilitates the implementation of best practice standard operating procedures (SOPs)
- Provides supervisory coaching and management mentoring services
- Conducts field observations and front line training

Develops recommendations on optimizing existing O&M resources, increasing effectiveness and efficiency, and reducing dry weather SSOs for the following utilities:

- City of Atlanta (GA) Watershed Management Bureau
- Buffalo Sewer Authority (NY)
- City of Carlsbad (CA) Utilities Department
- Charlotte Water (NC)
- Central Contra Costa Sanitary District (CA)
- City of Charlottesville (VA) Public Utilities Division
- Clark County (NV) Water Reclamation District
- City of Green Bay (WI) Public Works Department
- City and County of Honolulu (HI) Environmental Services Department
- Jefferson County (AL) Environmental Services Department
- Lexington-Fayette (KY) Urban County Governments Division of Water Quality
- Los Angeles County (CA) Department of Public Works
- Milwaukee Metropolitan Sewer District (WI)
- Town and County of Nantucket (MA)
- New Castle County (DE)
- NEW Water, Green Bay (WI)
- City of Pacifica (CA) Collection Systems Maintenance Division
- City of Sacramento (CA) Department of Utilities
- San Antonio Water System (TX) Water System
- City of San Diego (CA) Metropolitan Wastewater Collection Division
- San Francisco (CA) Public Utility Commission
- City of Santa Barbara (CA) Water Resources Division
- Seattle (WA) Public Utilities
- City of Sioux City (IA) Field Services/Utilities Division
- Town of Vienna (VA) Department of Public Works
- Winston-Salem/Forsyth County (NC) Utilities

## **Laurie Chase, Blue Heron Engineering Services**

### **Charlotte Water (NC) Field Operations Training Program**

Currently in the third year of best practice sewer maintenance protocol, equipment use, and preventive maintenance integration and training program.

Recently completed development of comprehensive Sanitary Sewer Overflow Response and Reporting Plan, including Rapid Response SOPs.

Starting to develop Siphon Management Plan and helping to facilitate strategy for protecting sewer lines in streambanks experiencing erosion issues. (Subconsultant (sub) to Tilson & Associates (TA))

### **New Castle County (NCC, DE) Field Operations Evaluation and Training Program**

Conducted an evaluation of NCC's Sewer Maintenance Division and identified improvements to standard practices, protocols, equipment, tools, work scheduling and crew deployment.

Assisting with basic best practice operator training (safety and equipment use). Facilitating the development of a county-wide Cross Bore Strategy and other important policies. (sub to JMT)

### **Winston-Salem City/County Utility Commission Collection System Improvement Project**

Starting third year of facilitating best practice integration and providing training for sewer maintenance personnel. Assisted in developing comprehensive Root Management Program strategy.

Currently developing "Success Kits" for various job classifications that provide detailed information to personnel on position descriptions, core competency expectations, typical duties, onboarding and recurrent training requirements, and Knowledge, Skills, and Abilities (KSA) checklists for personnel evaluations to eventually be performed in-house. Developing a "Core Competency Gap Analysis" to identify potential improvements in hiring practices, staffing plans, onboarding/KSA training requirements, and supervision/personnel expectation/change management.

In addition, performing an evaluation of the effectiveness of in-house water and sewer construction and inspection personnel. Based on the findings, a comprehensive best practice integration and training plan will be developed and implemented. (sub to HDR)

### **Jefferson County (AL) Environmental Services Department Asset Management Program**

Currently updating the County's CMOM Program Plans in accordance with EPA Region 4 guidelines.

Developing onboarding and first year training matrices and materials for construction, inspection and surveying groups. Providing continued operator training services and certification review courses since 2012.

Facilitated the development of bypass pump operating policies and procedures, and other safety-related policies for Department-wide implementation. (sub to Hazen and TA)

### **Buffalo Sewer Authority (BSA, NY) Sewer Maintenance SOP Development**

Conducted an evaluation of BSA's Sewer Department and recommended best practice improvements to increase crew safety, efficiency, and effectiveness. Currently assisting in the development of a 3-year operator training program plan that will be based on the development of recommended best practice SOP. (sub to JM Davidson Engineering)

### **San Diego (CA) Operator Training Program**

Assisted with the creation and delivery of the City's Sewer Maintenance and Construction Operator Training Academy from 2010 – 2017.

Facilitated the development of heavy vehicle field manuals, administrative SOPs (e.g., DigAlert markouts, monument perpetuation, invoicing, etc.). Helped create centralized resource library.

Provided collection system math review and tutoring for certification exam preparation. (sub to TA)

### **NEW Water (Green Bay Metropolitan Sewerage District, WI) CMOM Framework Development**

Assisted with reviewing NEW Water's existing CMOM-related program elements and prepared a gap closure plan to bring the utility into compliance with the Wisconsin Department of Natural Resources 2013 SSO Rule. (sub to Superior Engineering)

### **Seattle Public Utilities (SPU, WA) Stormwater Facilities Maintenance Procedures**

Assisted with the creation and delivery of the City's Sewer Maintenance and Construction Operator Training Academy from 2011 – 2014.

Assisted SPU's Field O&M Division with preparing work plans for creek sites that require state and federal permits. Prepared a stormwater best management practices (BMP) manual, and incorporated the BMPs into sewer cleaning, rodding, and inspection standard operating procedures. (sub to TA)

## **Laurie Chase, Blue Heron Engineering Services**

Provided training to SPU's Field O&M and Pump Station Crews on SSO response best practices. Created and conducted inter-departmental SSO and emergency response table-top exercises. Assisted with performing a gap analysis and development of an SSO Response Equipment and Tool Use Plan accordance to Seattle's 2013 Consent Decree. (sub to HDR)

### **Lexington-Fayette Urban County Government (LFUCG, KY) CMOM Program Assessment Project**

Reviewed operation and performance records, interviewed key utility staff, and evaluated LFUCG's management approach, capital improvements and O&M programs to prepare (2008) and update (2011) CMOM Program documents submitted to U.S. EPA.

### **LFUCG (KY) CMOM Capacity Assurance Program**

Assisted the Division of Water Quality to develop the sewer credits program to ensure adequate capacity is provided in development and redevelopment areas within the sewer utility service area. (sub to Stantec)

## **Regulatory Support**

### **City of Akron (OH), Intergrated Plan Regulatory Support**

Providing support to the City during negotiations with USEPA and implementation of its CMOM Program and various private property-related program initiatives. (sub to Stantec-MWH)

## **Private Property Programs**

### **King County (WA) Evaluation of I/I Reduction Concepts**

Providing assistance in reviewing King County and local existing sewer and side sewer standards, assessing the extent to which the standards meet industry best management practices, and developing an approach to create a side sewer inspection and certification program and achieve common sewer and side sewer standards for the regional wastewater service area. (sub to Brown and Caldwell)

### **City of Winston-Salem (NC) Private Sewer Line Management Policy**

Assisting with the review of current operating practices and legal authorities related to private sewer line management within the Winston-Salem service area. (sub to HDR and TA)

### **LFUCG (KY) Private Property Task Force**

Provided guidance and resources for the task force that developed recommendations for incorporating preventive and reactive programs, policies, and procedures to address sanitary sewer-related private property issues.

### **Metropolitan Louisville Study/Southwest Louisville Flood Reduction Interim Feasibility Study (KY), U.S. Army Corps of Engineers (USACE)**

Technical lead for this project that addresses the benefit-cost analysis, design, and implementation of a \$1 million backflow prevention device installation and clean-water redirection program funded through the USACE Section 206 Grants Program. (sub to Stantec)

## **System Investigation and Remediation**

### **SPU (WA) Expanded Rehabilitation Program**

In 2014, assisted with the development of an expanded in-house and contracted sewer system rehabilitation program (from \$5 to \$25 million/year). (sub to HDR)

### **NEW Water (WI) Interceptor System Master Plan**

Performed a preliminary condition assessment of NEW Water's three Fox River siphon crossings. (sub to Donohue & Associates)

### **Gogebic (MI) Wastewater Treatment Facility Asset Management Program**

Assisted with the development of the Condition Assessment Report, Repair and Replacement Budget and overall Asset Management Plan. (sub to Superior Engineering)

### **Milwaukee Metropolitan Sewerage District (WI)**

#### **Influent Sampling Procedures Assessment**

Assisted with the assessment of influent sampling procedures at the South Shore Water Reclamation Facility to identify and address causes of unexpectedly high total suspended solids and biochemical oxygen demand concentrations. (sub to Superior Engineering)

## **Environmental Management**

### **Section 208 Areawide Water Quality Management Plan (AWQMP) Update, Miami Valley Regional Planning Commission (MVRPC), Dayton, OH**

Updated the comprehensive Section 208 Water Quality Management Plan for 5 watershed basins in the 5-county area overseen by MVRPC Provided stakeholder facilitation, Ohio EPA coordination, project management, and technical assistance in developing the MVRPC's AWQMP, including prescriptive actions and qualified Designated Management Agencies (sub to Stantec).



## Bryon Ringley, Principal Engineer

### EDUCATION/TRAINING

- Master of Science, Hazardous and Waste Materials Management, Southern Methodist University, Dallas Texas, 1995
- Bachelor of Science, Civil Engineering, University of Evansville, Evansville, Indiana, 1990
- Leadership Training for Managers, Dale Carnegie, Columbus, Ohio, 2005
- Facilitating the Whole System in the Room, Future Search Network, Philadelphia, Pennsylvania, 2004
- Watershed Restoration Institute, Center for Watershed Protection, Baltimore, Maryland, 2003
- Leadership PE Class, Kentucky Society of Professional Engineers., Frankfort, Kentucky, 2000

### REGISTRATIONS

- Professional Engineer #E-66459, State of Ohio
- Professional Engineer, #9600472, State of Indiana
- Professional Engineer #20170, Commonwealth of Kentucky
- Envision™ Sustainability Professional (ENV SP), Institute for Sustainable Infrastructure

### PROFESSIONAL ASSOCIATIONS & AWARDS

- Engineers Club of Columbus, President 2009-10
- ASCE Central Ohio Section Outstanding Civil Engineer 2015

### PROFESSIONAL EXPERIENCE

Mr. Ringley has more than 28 years of experience in design for public works projects. He has detailed expertise in water quality sampling, watershed management and modeling, lowhead dam removal and ecosystem restoration, permitting, sanitary and storm sewer design, and sewer rehabilitation. The first 8 years of his career were spent at a wastewater treatment plant and in a City Engineer's Office, so he knows and understands the various aspects of public works.

#### Wastewater

##### Charlotte Water (NC) Field Operations Training Program

Currently in the third year of best practice sewer maintenance protocol, equipment use, and preventive maintenance integration and training program.

Mr. Ringley recently assisted in the development of comprehensive Sanitary Sewer Overflow Response and Reporting Plan, including Rapid Response Standard Operating Procedures (SOPs). He is also managing the project for BHES as a Subconsultant (sub) to Tilson & Associates (TA).

##### New Castle County (NCC, DE) Field Operations Evaluation and Training Program

Mr. Ringley is managing this multi-year project to conduct an evaluation of NCC's Sewer Maintenance Division and identify improvements to standard practices, protocols, equipment, tools, work scheduling and crew deployment.

The project also includes augmenting basic best practice operator training (safety and equipment use); facilitating the development of a county-wide Cross Bore Strategy; and other important policies. (sub to JMT)

##### Winston-Salem City/County Utility Commission Collection System Improvement Project

Mr. Ringley is assisting with this multi-year project, which has begun its third year of facilitating best practice integration and providing training for sewer maintenance personnel. He assisted in developing a comprehensive Root Management Program strategy.

Currently assisting with the development of "Success Kits" for various job classifications that provide detailed information to personnel on position descriptions, core competency expectations, typical duties, onboarding and recurrent training requirements, and Knowledge, Skills, and Abilities (KSA) checklists for personnel evaluations to eventually be performed in-house. Assisting with the development of a "Core Competency Gap Analysis" to identify potential improvements in hiring practices, staffing plans, onboarding/KSA training requirements, and supervision/personnel expectation/change management.

In addition, Mr. Ringley is assisting with an evaluation of the effectiveness of Winston-Salem's in-house water and sewer construction and inspection personnel. Based on the findings, a comprehensive best practice integration and training plan will be developed and implemented. (sub to HDR)

## **Bryon Ringley, Blue Heron Engineering Services**

### **Jefferson County (AL) Environmental Services Department Asset Management Program**

Mr. Ringley is assisting in updating the County's CMOM Program Plans in accordance with EPA Region 4 guidelines.

Mr. Ringley is also helping to manage this multi-year project for BHES that includes developing onboarding and first year training matrices and materials for construction, inspection, and surveying groups and providing continued operator training services and certification review courses. (sub to Hazen & Sawyer and TA)

### **Buffalo Sewer Authority (BSA, NY) Sewer Maintenance SOP Development**

Mr. Ringley assisted in the development of the Sewer Maintenance Department Evaluation Report, which documented the evaluation of BSA's Sewer Department and recommended best practice improvements to increase crew safety, efficiency, and effectiveness. The team is currently assisting in the development of a 3-year operator training program plan that will be based on the development of recommended best practice SOP. (sub to JM Davidson Engineering)

### **Pond Creek Watershed Planning and Management, Louisville, Kentucky**

As the management consultant for this approximately 100 square mile urban watershed, Mr. Ringley was responsible for all aspects of the capital sanitary and stormwater program, including the management of sanitary sewer and drainage improvement designs, easement acquisitions, and construction inspection for projects within the Pond Creek Watershed. The projects included initiation and scoping, in-house and contracted designs, utility coordination and relocations, easement acquisitions and condemnations, bidding and contract administration. The capital projects range in size from \$10 thousand to \$5 million.\*

### **Skyline Drive Storm and Sanitary Sewer Improvements, Columbus, Ohio**

Mr. Ringley managed this project to address local flooding issues and provide sanitary sewer service to the residents. The sanitary sewer assessment project was scheduled for construction first because of existing, on-site treatment facilities being connected to the stormwater system. The assessment project consisted of approximately 5,000 LF of 8- and 10-inch gravity sewer. The stormwater improvements project consisted of approximately 12,000 LF of 12- to 42-inch storm sewer. Also included in the project was the relocation of 3,200 LF of water line and resurfacing of Skyline Drive. The sanitary project was

constructed in 2013, and the stormwater project was constructed in 2017.\*

### **Downtown Combined System Renovations, Phase 4, Columbus, Ohio**

Mr. Ringley managed a project to verify and design weir raises in six CSO regulators. The proposed weir raises were indicated by modeling runs and stated in the 2005 Wet Weather Management Plan. Stantec checked the recommended raise height by researching record drawings, complaint data, tap records, and field measurements of the structures. Design of weir raises were produced for four of the structures. The structural design of the weir raises consisted of adjustable, redwood stop-logs held in place by fiberglass and stainless steel members. The plan set was coordinated with four other similar projects.\*

## **Safety Reviews / Audits**

### **ODNR Statewide Dam Safety Services (Dam Evaluations), Various Locations, Ohio**

Mr. Ringley was responsible for conducting field reconnaissance and evaluating the public safety at the following dams in Ohio State Parks: Hargus Lake, Knox Lake, Lake Logan, Forked Run Lake, and Guilford Lake. A report was drafted and recommendations made to improve public safety at and around the dams and spillway structures. The recommendations included operational, structural, and signage improvements.\*

### **Hoover and Griggs Dam Evaluations, Columbus, Ohio**

Mr. Ringley was responsible for conducting field reconnaissance and evaluating the public safety at Hoover Dam and Griggs Dams for the City of Columbus. A report was drafted and recommendations made to improve public safety at and around the dams and spillway structures. The recommendations included operational, structural, and signage improvements.\*



# Carrie Parker, Senior Operations Trainer

## EDUCATION/TRAINING

PREP Graduate, South Seattle Community College, 1995  
General Studies, University of Oregon, 1980-1981  
National Incident Management System (NIMS)  
Introduction, IS 700, Federal Emergency Management Agency  
National Response Framework Introduction, IS 800,  
Federal Emergency Management Agency  
40 Hour Hazardous Materials Training  
Certified Pipeline Assessment Certification Program (PACP)  
Certified Lateral Assessment Certification Program (LACP)  
Cured-in-Place (CIPP) Good Practices Course, North American Society for Trenchless Technology, 2017  
Shoring and Trenching  
Flagging  
First Aid and CPR  
Confined Space Entry  
Fork Lift Operation  
Change Management Training - ADKAR model, 2017  
Difficult Conversations Training  
Effective Performance Management Training, Evans School of Public Policy  
Coaching for Peak Performance  
Decision Making and Problem Solving

## CERTIFICATIONS

Washington Wastewater Collection Personnel Association  
Wastewater Collection Certification 2

## AWARDS

**World Class Field Achievement Award** for substantially increasing sewer spot repair teams productivity by improving work processes, 2016, City of Seattle  
**World Class One Team Award** for Maximo Reimplementation Project 2013, Seattle Public Utilities

## PROFESSIONAL EXPERIENCE

Ms. Parker has over 30 years of experience in the water and wastewater industry as well as in emergency response management. She has acquired diverse knowledge and skills by working up from the field in the City of Seattle's water and wastewater utilities to high level management, and has recently expanded her services nationally.

Throughout her career, Ms. Parker has served roles in construction operation and safety, management in a multi-union municipality, and consulting for water, wastewater, and drainage systems. Special roles for various projects, both completed and ongoing, have involved providing training, planning, supervising, and coordination services for the following:

### **Jefferson County, AL, Sewer Maintenance Program Evaluation and Best Practice Implementation**

Assists with construction crew work process observations and assessments, and recommends work process modifications to enhance efficiency, quality, and safety of construction crew operations. Provides classroom and field training to personnel. Thus far in the project, serves as lead for training module development in the following areas: shooting grade, spot sewer repair, chainsaw safety and use, pipe saw safety and use, core tap machine safety, and gas monitor use.

### **Winston-Salem, NC Collection System Improvement Program Best Practice Implementation and Training**

Assists with delivery of the City's collection system operations and maintenance (O&M) training and improvement program. Currently assisting with the development of "Success Kits" for various job classifications that provide detailed information to personnel on position descriptions, core competency expectations, typical duties, onboarding and recurrent training requirements, and Knowledge, Skills, and Abilities (KSA) checklists for personnel evaluations to eventually be performed in-house.

In addition, performing an evaluation of the effectiveness of in-house water and sewer construction and inspection personnel. Based on the findings, a comprehensive best practice integration and training plan will be developed and implemented. (sub to HDR)

## Carrie Parker, Blue Heron Engineering Services

### Los Angeles County Department of Public Works, CA Sewer Maintenance Evaluation

Conducted a training assessment and a knowledge, skills, and abilities (KSA) gap analysis of the County's sewer operation and maintenance personnel. Then, based on the findings, assisted with developing recommendations for improvements to the County's sewer maintenance processes, equipment, and personnel KSAs and other methods to enhance and improve the consistency, performance, and safety of its maintenance delivery.

Prior to joining Blue Heron, Ms. Parker gained the following experience:

### City of Seattle, WA

#### Drainage and Wastewater Operations Management

From 2006 to 2018, Ms. Parker managed 30-45 employees responsible for inspection, maintenance, and operations of the wastewater and drainage system. In addition to increasing the level of cleaning crews' work quality with training, she has focused on implementing initiatives and acquiring tools and resources to improve field operational efficiency, including:

- Establishing requirements to support effective emergency response and maintenance operations management to meet permit regulations, and working with IT staff to develop a Field Operations Mapping System.
- Implementing new procedures to meet NPDES permit requirements through development of a map-based catch basin inspection program with IT staff.
- Supporting Consent Decree overflow reduction, she has collaborated with a consultant to develop dynamic scheduling parameters for mainline cleaning and created routes for CSO site inspections.
- Designing and implementing new processes for storm response and daily maintenance, including leading development of a field response mapping system integrated with GIS mapping, work management, and vehicle tracking systems.

#### Emergency Management Coordination

Served as primary liaison between Seattle Public Utilities and the City of Seattle Emergency Operations Center, 2004-2007, an active member of the City Disaster Management Committee, and a state liaison for support during Hurricane Katrina recovery. Provided recommendations to executive team regarding emergency preparedness strategies and operational plans. Managed daily operations in a 24/7 Operations Response Center, and coordinated activities for a staff of 8 for emergency response and security monitoring. Developed and implemented new operator training program. Led the review, design, organization and led development of diverse projects including:

- Citywide tabletop exercise to test Seattle Disaster Readiness and Response Plan, including Mayor Greg Nickels, all critical agency chiefs, and department heads.
- Organized NIMS training for Senior Management.

- Designed, implemented, and led drills for utility field crew and departmental earthquake response.
- Developed Urban Flood Response emergency response plan and All Asset Response Plan.
- Reviewed and revised reservoir Emergency Action Plans and other protocols.
- Designed scenarios and provided staff training for activation of out-dialer emergency notification system.
- Established requirements and developed a Maximo Management Interface for dispatch of work orders.
- Designed new Operations Response Center.

#### Regulatory Support, Consent Decree Adherence

Implemented training and process enhancements to meet consent decree among the EPA, Department of Justice, and Washington State Department of Ecology to reduce sanitary sewer overflows and combined sewer overflows into Seattle's receiving water bodies.

#### Water Pipe District Supervision

Planned, organized, supervised, and inspected the installation, maintenance, and repairs done by 30-40 crews for the water distribution system between 1999 and 2004. Revised water main plans and coordinated strategies for large projects involving multiple utilities. Developed and supervised the Kingdome Implosion Water operations response and preparation plan, as well as the World Trade Organization Water Operations plan. Prepared and reviewed job productivity reports, counseled subordinates, and recommended disciplinary action when needed. Made field work improvements that reduced installation time for large and small taps, as well as created and coordinated standardized customer service notification letters.

For emergencies, Ms. Parker utilized the Incident Command System, developed emergency repair plans and water main replacement programs during freeze responses, and established repair priorities and action plans. Following the Nisqually earthquake, Ms. Parker managed tactical operations and coordinated response with ICS methodology.

#### Water Distribution Supervising and Training

As Crew Chief, 1993-1999, Ms. Parker was responsible for the supervision and training of 23 employees, which consisted of 24-hour first response, locators, and 24 hour dispatchers. Training involved watermain installation, tap installation, leak repairs, and 24 hour dispatch.

#### Hands On Field Work

Gained experience with all aspects of installation and repair of the City of Seattle water distribution, through positions as helper, worker, and senior crew member, 1985-1993.



*Mr. Tilson founded Tilson & Associates in 2002 in response to a growing need for professional field training in the collection system industry. These training services are designed to provide field operators with both background and best practices information, which can be applied to their specific operational circumstance. Mr. Tilson has 29 years of experience working with sewer collection system utilities across the U.S. to improve system and personnel performance in a variety of ways, including:*

- *Operator training for more effective and efficient line cleaning program development*
- *Management training*
- *Standard Operating Procedures (SOP) development*
- *Parts and Inventory standardization and tracking systems*
- *Asset management programs and Sanitary Sewer Overflow (SSO) prevention and mitigation programs*
- *Capacity, Management, Operations and Maintenance (CMOM) audits and program development*

*Prior to starting his own firm, Mr. Tilson worked as a collection system operator and with sewer cleaning equipment manufacturers.*

#### *RELEVANT PROJECTS*

*Seattle Public Utilities, Seattle, WA*

Assisted SPU with developing Consent Decree-required SOP and work practice documentation for inspecting and maintaining Drainage and Wastewater assets. Developed a comprehensive training plan for Drainage & Field operation and management (O&M) staff. Developed and delivered a comprehensive classroom and field training program. Standardized field operations protocols for pipe and structure cleaning to reduce combined sewer overflows and dry weather SSO. Introduced new technologies for evaluation and implementation into daily use. Developed a Sewer Cleaning Quality Control Program. Prepared performance-based testing documents for new hires. Evaluated alternatives for combination cleaner decant facilities. Assisted crews in adopting and implementing stormwater best management practices unique to various field activities performed in areas served by separated and partially separated sanitary sewers.

*Jefferson County Department of Environmental Services (ESD)  
Birmingham, AL*

Provided a full field operations evaluation on resource and personnel gaps and recommend improvements to reduce SSO occurrences. Standardized and documented field operations protocols for pipe and structure cleaning. Introduced new technologies and procedures for evaluation and implementation into daily operations. Create and deliver a collection systems O&M best practice training program for field personnel and management, including mainline pipe cleaning, quantifying cleaning findings, CCTV inspection, and repair and construction processes. Developed a Quality Control/Quality Assurance Program to measure effectiveness and



#### *REGISTRATIONS*

Grade IV Collection System Operator (798-C), New England Water Environment Association

Class IV Operator (C-2043), Washington Wastewater Collection System Personnel Association

#### *INSTRUCTION*

Adjunct Instructor, University of Wisconsin – Madison

Assist with continuing education and professional development courses, including University of Colorado – Boulder, Washington State University, and The Ohio State University

#### *PUBLICATIONS*

Contributing author, California State University - Sacramento course, "Operation and Maintenance of Wastewater Collection Systems"

Contributing author, Water Environment Federation Manual of Practice 7, *Management of Wastewater Collection Systems*





improvements to various field processes and evaluate ESD performance after training implementation. Assisted with establishing process to track system defects and prioritize pipeline and manhole rehabilitation, repair, and replacement efforts. Assisted with identifying improvements to the County's Fats, Oils, and Grease Program initiatives

*City of San Diego Waste Water Collection Division, San Diego, CA*

Assembled a utility-specific training program for all operators of all maintenance equipment. Provide hands-on training and coaching of new and senior operations personnel. Developed SOPs for various operational elements. Developed nozzle and tool standardization list for operational equipment. Developed field management training program to improve decision making and examination skills. Developed criteria to quantify findings during cleaning operations of cleaning results. Assisted in development GPS driven internal benchmarking for line maintenance efforts. Provided field overview feedback to middle, senior, and executive management.

- ⇒ *In a collection system of 3017 miles, the utility has reported a decrease in SSOs of 92%, from a high of approximately 365 in 2001 spills to a low of 28 spills in 2014. This was accomplished despite a workforce layoff of approximately 50 people in 2007. The pass/fail rate of cleaning effectiveness through a CCTV based QA/QC program has increased from a 40% pass rate and exceeds a 90% pass rate today. These results are credited in large part on the standardization of cleaning methodology and adaptation of new technology in computer management systems and field equipment.*

*City of Santa Barbara, Santa Barbara, CA*

Provided a full collection system O&M evaluation and developed an O&M training plan in the spring of 2010 and engaged to provide training and consulting services through the close of the project in fall of 2014.

- ⇒ *System O&M productivity increased by approximately 20% leading to an SSO event decrease of approximately 50% as a result of the program.*

*Clark County Water Reclamation District, Las Vegas, NV*

Developed and delivered an initial operator training program designed to assess skill gaps and essential practices. Reviewed and/or re-created operational procedures documents. Evaluated field personnel, including operators, crew leaders, and field foremen. Provided summary of findings with recommendations based on priority of concern. Established a continual semi-annual program for training and operations overview.

- ⇒ *Directives were to reduce preventable SSO events that showed grease, roots, or other maintenance related causes. The occurrences of SSOs in Clark County's system were increasing prior to the commencement of work with the Utility. The number of SSOs occurring annually is now approximately 0.8 per mile.*

*San Antonio Water System (SAWS), San Antonio, TX*

Provided a field operations evaluation of the maintenance, CCTV inspection, and management systems used by SAWS. After the evaluation, responsible for developing an equipment training program and introducing best practice elements to the cleaning protocols. SOPs were developed for all facets of pipe maintenance, including flushing machines, combination flushing/vacuum machines, hand rodding, power rodding, and CCTV operation. As part of the SOP development process, protocols and tools used in field operations were standardized. Also introduced the use of CCTV inspection and mobile GPS analysis for QA/QC purposes. The SOPs serve as the Utility's training platform.

- ⇒ *Productivity increases between 18% to 30% were realized through standardization of tooling, operation protocols, and field crew time management. A QA/QC program was developed to monitor cleaning effectiveness that started at a 60% passing rate increased to an 80% passing rate. SSO rates were reduced approximately 30% through program efforts.*



Firm Submitting Proposal: Stantec Consulting Services Inc.

Complete Address: 3052 Beaumont Centre Circle, Lexington, KY 40513-1703  
Street City Zip

Contact Name: Joe Herman, PE Title: Principal

Telephone Number: (859) 422-3043 Fax Number: (859) 422-3100

Email address: joe.herman@stantec.com

## AFFIDAVIT

Comes the Affiant, Joe Herman, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Joe Herman and he/she is the individual submitting the proposal or is the authorized representative of Stantec Consulting Services 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 Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Proposer has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Proposer will not violate any provision of the campaign finance laws of the Commonwealth.
6. Proposer has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

**Continued on next page**

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

Further, Affiant sayeth naught.

Joe Herman

STATE OF KENTUCKY

COUNTY OF FAYETTE

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

by Joe Herman on this the 19th day  
of September 2018

My Commission expires: 7/29/19

Christine M. Workman  
NOTARY PUBLIC, STATE AT LARGE



## EQUAL OPPORTUNITY AGREEMENT

### 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.*

  
Signature

Stantec Consulting Services Inc.

Name of Business

**WORKFORCE ANALYSIS FORM**

Name of Organization: Stantec Consulting Services 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
Executive/Sr. Level	9	8	1													8	1
Professionals	116	86	19	5		2				1	1			2		96	20
Superintendents																	
Supervisors/Managers	3	3														3	
Foremen/Laborers	10															10	
Technicians	29	23	5	1												24	5
Protective Service																	
Para-Professionals																	
Administrative/Clerical	14	2	12													2	12
Skilled Craft	2	2														2	
Service/Operatives	3															3	
<b>Total:</b>	<b>186</b>	<b>137</b>	<b>37</b>	<b>6</b>		<b>2</b>				<b>1</b>	<b>1</b>			<b>2</b>		<b>148</b>	<b>38</b>

Prepared by: Joe Herman, PE, Principal Date: 9 / 20 / 18

*(Name and Title)*

*Revised 2015-Dec-15*



January 11, 2016

## **Notice to Employees: US EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION POLICIES**

Stantec Consulting Services Inc. has implemented the following policies and procedures as part of its longstanding commitment to compliance with all applicable equal opportunity and affirmative action requirements.

### Equal Opportunity Policy

Stantec is committed to maintaining a work environment that is free from any and all forms of unlawful discrimination and harassment. It is therefore the company's policy to prohibit discrimination and harassment against any applicant, employee, vendor, contractor, customer or client on the basis of race, color, religion, sex, national origin, age, disability, pregnancy, veteran status, genetic information, sexual orientation, gender identity, citizenship status, or any other basis prohibited by law. It is also the company's policy to prohibit any and all forms of retaliation against any individual who has complained of harassing or discriminatory conduct, or participated in a company or agency investigation into such complaints.

### Affirmative Action Policy

Stantec is also a federal contractor subject to Executive Order 11246, Section 4212 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974, as amended ("Section 4212") and Section 503 of the Rehabilitation Act of 1973, as amended ("Section 503"). As such Stantec is committed to take positive steps to implement the employment related aspects of the company's equal opportunity policy. Accordingly, it is Stantec's policy to take affirmative action to employ, advance in employment, and otherwise treat qualified minorities, women, protected veterans and individuals with disabilities without regard to their race/ethnicity, sex, veteran status, or physical or mental disability. Under this policy, Stantec also will provide reasonable accommodation to the known physical or mental limitations of an otherwise qualified employee or applicant for employment, unless the accommodation would impose undue hardship on the operation of the company's business.

The company's affirmative action policy also prohibits employees and applicants from being subjected to harassment, intimidation, threats, coercion, or discrimination because they have engaged in or may engage in (1) filing a complaint; (2) assisting or participating in an investigation, compliance review, hearing, or any other activity related to the administration of Section 503, Section 4212, or any other Federal, state or local law requiring equal opportunity for disabled persons or covered veterans; (3) opposing any act or practice made unlawful by Section 503 or Section 4212 and their implementing regulations, or any other Federal, state or local law requiring equal opportunity for disabled persons or covered veterans; or (4) exercising any other right protected by Section 503 or Section 4212 or their implementing regulations.

The non-confidential portions of the affirmative action program for women/minorities, individuals with disabilities and protected veterans shall be available for inspection upon request by any employee or applicant for employment during regular business hours.

### Application of Equal Opportunity and Affirmative Action Policies

These policies apply whenever and wherever a company employee is performing a function of his or her job, including all Stantec locations, client worksites, and company-sponsored or client-sponsored business and social functions. The company's equal opportunity and affirmative action policies require that employment decisions be based only on valid job requirements, and extend to all terms, conditions, and privileges of employment including, but not limited to, recruitment, selection, compensation, benefit, training, promotion, and disciplinary actions.

### Workplace Harassment, Including Sexual Harassment

A key component of the company's commitment to equal opportunity is zero tolerance for workplace harassment based on, or because of, an individual's race, color, religion, creed, sex, national origin, age, disability, pregnancy, veteran status, sexual orientation, gender identification, citizenship status, or any other reason prohibited by law. Such harassment, whether committed by company personnel or by clients, customers, vendors, or other individuals doing business with Stantec, will not be tolerated.





Prohibited harassment occurs when a supervisor, co-worker, or even a non-employee behaves or acts in such a way that creates a hostile work environment for another employee based on an individual's race, color, religion, creed, sex, national origin, age, disability, pregnancy, veteran status, sexual orientation, gender identity, citizenship status, or other protected characteristic. Stantec management is responsible for ensuring compliance with all aspects of this equal employment opportunity policy and for developing implementation strategies that promote its intent.

#### Zero Tolerance for Retaliation

Every employee is encouraged to come forward without fear of reprisal, as Stantec's equal opportunity and affirmative action policies prohibit any and all forms of retaliation against anyone who in good faith complains that these policies are not being followed, or who otherwise participates in a company or agency investigation into such complaints, even if sufficient evidence is not found to substantiate the complaint. If you believe that you have been subjected to retaliation, your complaint should be directed to one of the individuals identified below.

After receiving a complaint involving a violation of the company's equal opportunity or affirmative action policy, the company will investigate and take corrective action, as appropriate. Complaints and investigations will be kept strictly confidential to the maximum extent possible. No one, regardless of position or length of service, is exempt from these policies.

#### Obligations of Company Personnel

Stantec personnel have an obligation to contribute to a harassment and discrimination free workplace. Any employee who suffers or observes harassment or any other violation of this policy is strongly encouraged to notify one of the individuals identified below. Stantec will promptly and thoroughly investigate the alleged misconduct and, if a violation of this policy is found, will take immediate and appropriate corrective action.

#### Pay Transparency

Stantec will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. Employees, however, who have access to the compensation information of other employees or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or (c) consistent with the contractor's legal duty to furnish information.

#### Responsibility for Implementation

As CEO, I fully support our affirmative action program and the policy of Pay Transparency. I am committed to the implementation of the Stantec's equal opportunity and affirmative action policies. Stantec's affirmative action programs for minorities, women, people with disabilities, and protected veterans are available for review during regular business hours. The US EEO/AAP Compliance Manager and Human Resources are responsible for administering the affirmative action programs in the United States. These people are also responsible for conducting an analysis of all personnel actions to ensure equal opportunity and for submitting reports on the progress of our equal opportunity efforts. Employees or applicants who feel they have been discriminated against should contact them.

We request the support of all employees in accomplishing equal employment opportunity.

A handwritten signature in blue ink, appearing to read "Bob Gomes", written over a horizontal line.

Bob Gomes, CEO, Stantec



**LFUCG MWDBE PARTICIPATION FORM**

**Bid/RFP/Quote Reference #** RFP #30-2018 Program Management Services –Capacity, Management, Operations and Maintenance (CMOM)

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

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1. Blue Herron Engineering Services (BHES)	WBE	CMOM	TBD	40%
2. Leak Eliminators, LLC	VOSB	Technical Assistance Training support, QA/QC	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.

Stantec Consulting Services Inc.  
Company

September 20, 2018  
Date

Joe Herman, PE  
Company Representative

Principal  
Title



**MWDBE QUOTE SUMMARY FORM**

**Bid/RFP/Quote Reference #** RFP#30-2018 Program Management Services - Capacity, Management, Operations and Maintenance (CMOM)

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> Stantec Consulting Services Inc.	<b>Contact Person</b> Joe Herman, PE
<b>Address/Phone/Email</b> 3052 Beaumont Centre Circle Lexington, KY 40513 (859) 422-3043 joe.herman@stantec.com	<b>Bid Package / Bid Date</b>  RFP#20-2018 / 9-20-2018

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
Blue Heron Engineering Services PO Box 1508 Dublin, OH 43017	Laurie Chase, PE - President	(614) 425-7462	9/10/2018	Engineering & training (refer to proposal)	Email and phone	40% of Contract (after VOSB deduction)	WBE	No
Leak Eliminators, LLC 330 Industrial Ave Lexington, KY 40511	Bruce Whitaker	(502) 352-3921	9/24/2018	Consulting / QAQC (refer to proposal)	Phone	3% of Contract Amount	VOSB	Yes

(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.

\_\_\_\_\_  
Stantec Consulting Services Inc.  
**Company** September 19, 2018  
\_\_\_\_\_  
**Date**

  
\_\_\_\_\_  
**Company Representative**  
Principal  
\_\_\_\_\_  
**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, 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.

  
\_\_\_\_\_  
Signature

September 20, 2018  
\_\_\_\_\_  
Date

