

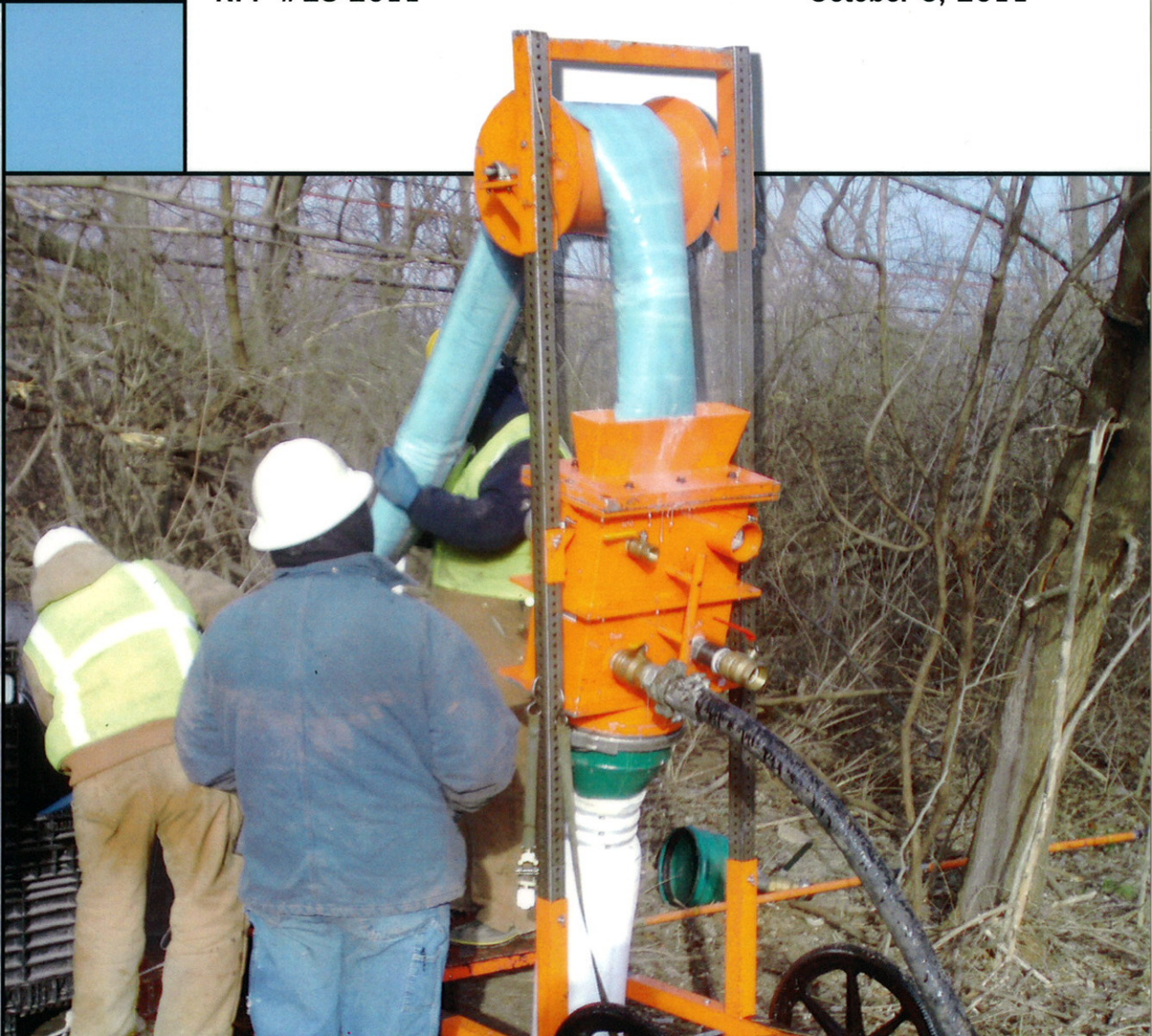


Presentation:

**Engineering Consultant –
Annual Sanitary Sewer Capacity, Management, Operations
and Maintenance (CMOM) Implementation Services
LFUCG Consent Decree Entered January 3, 2011**

RFP #28-2011

October 6, 2011





Responses to Questions



Annual Sanitary Sewer Capacity, Management, Operations and Maintenance (CMOM) Implementation Services

Hazen and Sawyer Responses to Selection Committee Questions

The following information is provided to supplement our proposal and presentation to the Selection Committee conducted on October 6, 2011.

1. Describe your team's approach to actively/continuously engage DWQ maintenance personnel with the obligations/requirements of the CMOM Program?

Hazen and Sawyer understands that it is imperative for the success of this project that both our team and the Division of Water Quality (DWQ) maintenance units **create a team environment** with mutual respect and open and honest communication regarding the project obligations, goals, and milestone achievements. In recent years Hazen and Sawyer has gained institutional knowledge of LFUCG's sanitary sewer system and developed relationships with DWQ maintenance and management personnel during the Capacity Assessment, Sanitary Sewer System Assessment, and Remedial Measures Plan projects. To build on this base, Hazen and Sawyer will **"listen first"** by soliciting input from the DWQ maintenance units regarding the existing maintenance programs and procedures that work effectively as well as those that will be a challenge to implement. We will work with the DWQ maintenance personnel to facilitate this team atmosphere by summarizing our common goals. We will strive to **lead by example in an effort to gain the respect** of the DWQ maintenance personnel and communicate to them that we are equally committed to the program's success.

Additionally, Hazen and Sawyer will **dedicate personnel who will work with and interact with the DWQ maintenance units on a daily basis**. To engage the DWQ maintenance personnel, we will break down each of the CMOM program components into **separate manageable tasks and then develop measureable goals and schedules for each task**.

Ultimately, Hazen and Sawyer will assist DWQ maintenance personnel to become more cognizant of the current status, obligations, and goals of the program, i.e.:

- Eliminate dry weather SSOs and basement backups
- Maintain hydraulic capacity of the sanitary sewers during dry weather
- Protect the public health and the environment
- Remain in regulatory compliance

- Develop proactive maintenance procedures to reduce reactive crisis' (i.e. make their jobs easier)

To further engage the DWQ maintenance personnel, Hazen and Sawyer is proposing to facilitate three workshops with the maintenance units. Workshop I will be a **listening workshop** from the DWQ maintenance personnel to Hazen and Sawyer. Workshop II will be a **planning workshop** from Hazen and Sawyer to the DWQ maintenance personnel laying out the CMOM program action plan and schedule. Workshop III will be a **leadership workshop** for the DWQ maintenance supervisors and foremen to enhance their abilities to motivate and supervise their staff.

2. Are there methods you would employ to promote "ownership" within the maintenance units?

LFUCG is obligated to implement the CMOM program and the current DWQ maintenance units are qualified to implement this program. Hazen and Sawyer's role is to facilitate, assist, document, and report on the implementation of the CMOM program. To promote ownership within the maintenance units, Hazen and Sawyer will:

- **Seek the input of the DWQ maintenance personnel** on what has worked in the past and what areas present challenges.
- Continuously communicate with the DWQ maintenance units to **keep them fully informed and therefore involved** in all pertinent aspects of the program.
- Seek creative ways to **remove any identified constraints** so the DWQ maintenance personnel can use their skill sets to focus on the successful implementation of all CMOM program components.
- Work with the DWQ maintenance units to **develop standard operating procedures** for the collection system lines and pump stations, as well as the wastewater treatment plants.
- **Develop collection system and pump station "pocket guides"** similar to those previously developed for the wastewater treatment plants.
- **Make known everyone's role in the "big picture"** and stress the importance of each of those roles.

Hazen and Sawyer understands the importance of getting a "buy in" from the DWQ supervisors and foremen. This buy in is necessary for a sustainable long-term program. While the majority of the personnel within the DWQ maintenance units will understand and embrace the program, some personnel may take additional time to take full ownership in the CMOM program components. Therefore, we will work with DWQ management

personnel to identify the potential leaders within ranks of the DWQ maintenance units and challenge those staff members to take a leadership role in the program's implementation.

As stated earlier, our team will break down the CMOM program components into small manageable tasks and then develop measureable goals and schedules for each task. In an effort to further promote ownership by the DWQ maintenance personnel, these tasks will be assigned to the DWQ maintenance units who will in turn be held accountable for their completion. As implementation of the CMOM program progresses, we will **provide timely feedback to the DWQ maintenance personnel touting their goal achievements** and other accomplishments. Consideration will also be made to **recognize those individuals for their accomplishments in a public forum, i.e. newsletter, etc.**

3. *Who on your team is the most experienced on pump station O&M? Discuss in greater detail their experience level.*

Hazen and Sawyer has two team members who are uniquely qualified in pump station O&M. **Mr. Roy Burgher (Contract Employee) personally operated and maintained sewer pump stations as an employee of Winchester Municipal Utilities for 26 years.** This experience includes pump station evaluations, trouble shooting, cleaning, as well as mechanical and electrical repairs. Mr. Burgher oversaw numerous unique operational and maintenance challenges including overcoming the explosion and collapse of the preliminary treatment facilities at the wastewater treatment plant. Mr. Burgher has developed operating budgets and recommended capital improvements to eliminate pump stations through the construction of gravity sewers. Mr. Burgher has assisted with pump station designs and served as the resident inspector for the construction and startup of a 27 MGD influent pump station (Class A) at the wastewater treatment plant.

Mr. Dan Miklos will be assisting Mr. Burgher and serving as a technical resource regarding pump station O&M. **Mr. Miklos has over 35 years experience operating and providing operational assistance to wastewater utilities throughout the region.** Mr. Miklos served as the Utilities Manager for the City of Fairfield, Ohio and provided contract operation services at numerous facilities in Kentucky, West Virginia, Indiana, and Ohio as the owner of his own operations firm. He routinely provides engineering assistance, management, and technical expertise for in-plant troubleshooting, start-up of new facilities, operator training, operability reviews, and technical supervision of wastewater systems and facilities. **Mr. Miklos developed the "pocket guides" for the Town Branch and West Hickman Wastewater Treatment Plants, and will prepare similar O&M pocket guides for LFUCG's pump station and collection systems during this project.**

4. *Identify the three (3) team members who will contribute the most to the success of this project and discuss whatever unique qualifications they possess that will contribute to the project's success. It is recommended that the three team members discuss their role on the project.*

Hazen and Sawyer will use three uniquely qualified staff members for this program. **Jon Schubarth has 18 years of experience in both public sector utility management and private sector consulting. Prior to joining Hazen and Sawyer recently, Mr. Schubarth served as the Manager of Engineering and Construction for the Warren County Water District – Sewer Division for 7 years. As a utility manager, he managed and operated public wastewater systems including staffing, budgeting, rate making, policy making, and capital planning.** Mr. Schubarth also provided design and construction services for sanitary sewer lines, pump stations, and treatment plants. Mr. Schubarth will function as our project manager and will be responsible for:

- Managing the consultant team
- Business and strategic planning
- Breaking down the various CMOM program components into manageable tasks
- Developing performance measures for each CMOM component task
- Assigning and scheduling each CMOM component task
- Documenting and tracking progress of each CMOM component task
- Coordinating the information management system among CMOM stakeholders
- Overseeing the development of the O&M strategies for the collection system, pump stations, and wastewater treatment plants
- Assisting with the procurement of services and equipment
- Assisting with expense and capital budgeting
- Evaluating staffing and training needs
- Overseeing the revision, expansion, and implementation of the Sewer Overflow Response Plan (SORP) and the Fats, Oils, and Grease (FOG) programs
- Developing training modules for the various CMOM programs
- Developing an asset rehabilitation and capital improvement planning programs
- Developing annual reports as required by the Consent Decree
- Providing quality assurance for the program

As stated previously, **Roy Burgher has over 26 years of experience operating and maintaining a sanitary sewer system and treatment plant as the operations manager for a public utility.** He oversaw all field operations including preventative maintenance, emergency response/repairs, and I&I evaluations for the wastewater treatment plant, pump

stations, and sewer collection system. Mr. Burgher will function as Hazen and Sawyer's "dirt-under-the-nails" Contract Employee and will be responsible for:

- Assisting with field operations and work planning
- Assisting with implementation of the SORP and FOG programs
- Training and working with the DWQ maintenance units
- Assisting with services and equipment procurement
- Assisting with collection system evaluation and operations
- Providing quality control for the program

As stated previously, **Dan Miklos has over 35 years of experience operating and troubleshooting wastewater systems as a public utility manager and as the owner of his own operations firm.** Mr. Miklos will assist Mr. Burgher and function as a technical resource on the project and will be responsible for:

- Training and work with the DWQ maintenance units
- **Developing pocket guides for the collection system lines and pump stations, and updating the current wastewater treatment plant pocket guides (if requested by DWQ)**
- Assisting with collection system evaluation and operations
- Assisting with field operations as needed
- Providing quality control for the program

5. Managerial procedure and process changes are a significant component of the CMOM obligations. Many of those changes must occur outside the Division of Water Quality's organizational structure (i.e. Finance, Human Resources, etc.) What is your team's strategy to implement changes when those necessary to authorize the changes do not view themselves as part of the overall Consent Decree implementation?

Issues raised by this question are evident in many DWQ initiatives, including Hazen and Sawyer's current RMP project. **In recent months we have assisted DWQ management in coordinating with the Urban County Council (Council) and the Environmental Quality Committee (EQC) in the selection of a design storm for the potential system upgrades, and with the departments of Law and Engineering in initial efforts to streamline property acquisitions.** We have also participated in current initiatives with the Council on enhanced enforcement of private property I&I issues (i.e. sump pump disconnects). All of these recent and current efforts developed a partnership atmosphere and involved process changes which required the approval or action of different LFUCG divisions.

Obviously, all of the Consent Decree obligations, including the CMOM program, are not limited to DWQ; these obligations directly and indirectly affect several divisions within LFUCG. Hazen and Sawyer will work hand in hand with the DWQ management personnel to ensure that these obligations are communicated to each of the affected divisions outside DWQ's organizational structure. We are proposing to provide extensive communications with these outside divisions. Awareness-level training will present how the other divisions are indirectly affected by the Consent Decree and how they can assist DWQ to meet the various Consent Decree obligations. Also, the training will stress to all the outside divisions that the DWQ is required to address the Consent Decree obligations as well as the risks associated with the failure to do so. **The awareness-level training will be supplemented by a combination of these other methods of communications:**

- Personal meetings with elected officials and directors to explain the CMOM program needs and request their assistance. This type of communication would be appropriate for keeping the Mayor and Chief Administrative Officer informed, and for addressing Human Resource (i.e. staffing) issues.
- Workshops conducted with small groups such as Purchasing, Finance, Law, and Engineering to discuss specific procedural changes that would be appropriate to facilitate the implementation of the CMOM program.
- Presentations to the Council and/or the EQC, similar to those conducted earlier this year to gain acceptance of a design storm.
- Participation in focus groups or work groups, such as the Private Property Task Force.

According to the implementation plans for the SORP and the FOG control programs, the DWQ does not currently have adequate personnel to implement these CMOM programs. Therefore, coordination with the Division of Human Resources will be required if personnel **with the proper skill sets** are to be added to the DWQ staff. Additionally, involvement with the Divisions of Budgeting and Purchasing will be critical to the successful implementation of the program. For example, we may **propose alternative delivery systems for services and/or equipment** to DWQ management personnel. If interested, we will then research program applicability within LFUCG's framework and formalize the system(s).

6. *Describe the involvement and contribution the non-prime consultant team members are going to make towards the progress of the project, including WBE/MBE consultants.*

Hazen and Sawyer's subconsultant for this project is **Integrated Engineering**. Integrated has met all eligibility requirements to participate in LFUCG's Disadvantaged Business Enterprise Program. Their staff has significant experience in work related to this project.

Integrated has recently completed sanitary sewer work for DWQ's Lexington Mall Sanitary Sewer Relocation and preliminary designs for the Deep Springs Pump Station project.

Chris Crumpton has assisted numerous public utilities including Louisville MSD and Oldham County Sewer District with similar CMOM initiatives. Mr. Crumpton's operations and planning experience includes detailed interviews and self-evaluations of staff from facilities, maintenance, and engineering groups to help prioritize services and compliance performance of their CMOM program prior to a Consent Decree. **Mr. Crumpton will assist Mr. Schubarth with the management-related services for the project.** Among other tasks, Mr. Crumpton will assist with business and strategic planning, defining and scheduling the CMOM tasks, preparation of performance measures, and preparation of procurement documents for equipment and services.

Steve Garland has assisted numerous public utilities including LFUCG, Frankfort Sewer Department, and Georgetown Municipal Water & Sewer with sanitary sewer projects. In the past, Mr. Garland has worked closely with DWQ maintenance and management personnel while conducting system evaluations for DWQ. **Mr. Garland will assist Mr. Burgher** with on-site program services and preparation of training material and Mr. Miklos with operation and systems training services.

7. *Describe your team's approach to training of DWQ maintenance personnel; include presentations and O&M manuals.*

Hazen and Sawyer will develop different training sessions that are **tailored to specific CMOM program elements**. We are proposing separate comprehensive classroom and hands-on field training sessions for DWQ's sewer line and pump station maintenance personnel. At a minimum, training modules shall include:

- Public Interaction
- Pipe Repair
- Sewer Overflow Response Plan (SORP)
- Fats, Oils, and Grease (FOG) Control Program
- Gravity Line Preventative Maintenance Program (GLPMP) (Vactor, CCTV, etc.)
- Force main valve and ARV O&M program

We are also proposing awareness-level training sessions for select personnel in the divisions outside the DWQ and the other DWQ personnel who are not directly involved in the day to day implementation of the CMOM program. The goal of this awareness training is to ensure all ancillary personnel are aware of the obligations, goals, schedules, and compliance consequences of the Consent Decree and specifically the CMOM program.

As stated earlier, Hazen and Sawyer will work with the DWQ maintenance units on the development of **standard operating procedures** for the collection system lines, pump stations, and wastewater treatment plants. **We will develop collection system “pocket guides” similar to those previously developed for the wastewater treatment plants.**

Hazen and Sawyer will provide training using PowerPoint presentations and hands-on field training using pump station and WWTP O&M manuals and the developed standard operating procedures and pocket guides. Finally, **we will distill and document the institutional knowledge from the current DWQ maintenance personnel** to create reference documents to guide future DWQ maintenance units. We will document all training sessions for CMOM program compliance and recommend document management systems.

We hope the above information, combined with our proposal and presentation to the Selection Committee provides thorough responses to the questions posed by the Committee. If additional information is requested, please contact me at (859) 219-1126.

Very truly yours,
Hazen and Sawyer, P.S.C.



John B. Steinmetz, P.E.
Senior Associate



Presentation Slides



Presentation for

Annual Sanitary Sewer Capacity, Management, Operations and Maintenance (CMOM) Implementation Services

Lexington-Fayette Urban
County Government



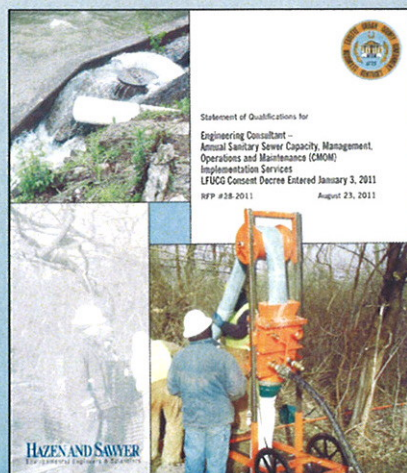
HAZEN AND SAWYER
Environmental Engineers & Scientists

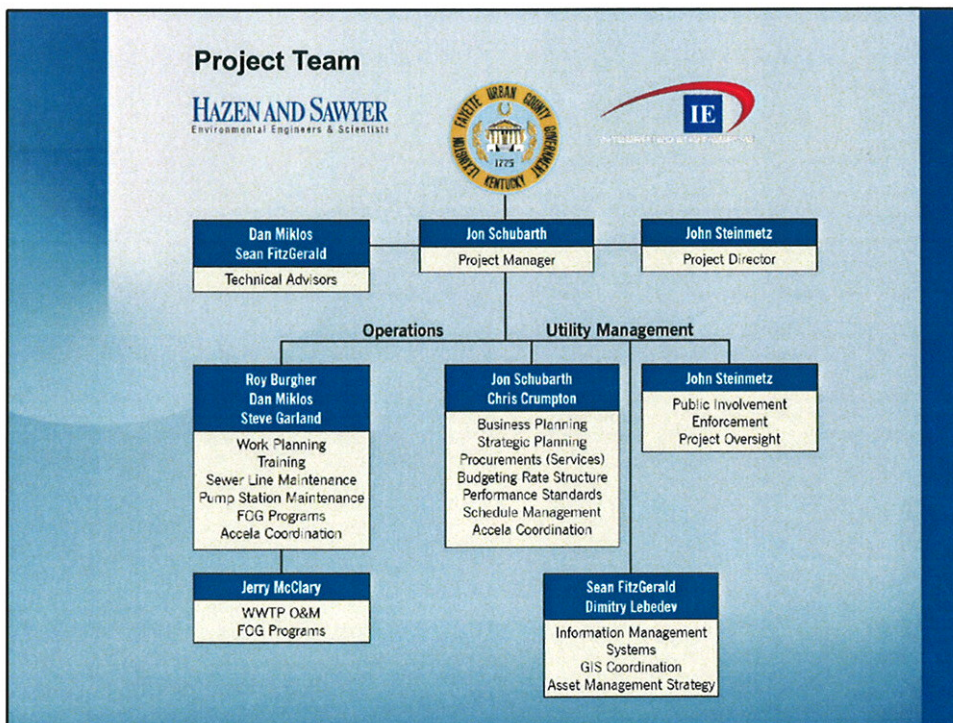


October 6, 2011

Agenda

- Introductions
- Summary of Proposal
- Responses to Submitted Questions
- Additional Q&A





Team Members



- Jon Schubarth – Project Manager
- Roy Burgher – Contract Employee, Field Operations and Training (D.U.N.G.)
- Dan Miklos – Operations and Training
- Steve Garland – Assist Roy with operations and procurement
- Chris Crumpton – Assist Jon with utility management
- Sean FitzGerald – Asset and Data Management
- John Steinmetz – Team Liaison with other LFUCG divisions

Project Approach



- Scope: Implement CMOM programs
 - CMOM Self-Assessment Implementation Plan
 - Sewer Overflow Response Plan (SORP)
 - Fats, Oils, and Grease (FOG) Plan
 - Pump Station Backup Power Plan
 - Gravity Line Preventative Maintenance Plan
- Required utility management tasks facilitated by our public sector experience
- IMS / Data Management critical (Accela) – extensive experience with CMMS programs
- SSO Response – could use system models as predictive tools for specific storm events
- Asset management, O&M strategies, standard procedures are critical elements

Critical Success Factors

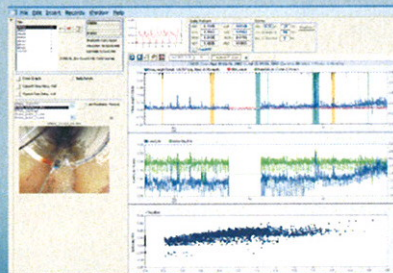


- Providing requested qualifications
 - Dirt under the nails operations experience
- Understanding of overall CMOM goals
- Experience in O&M operations
- O&M standard operating procedures
- Training
- Staff buy-in
- Data Management (integrate with Accela)
- Develop sustainable long-term program

Data Management Tools (to be provided to LFUCG)



- Accela – Primary data management tool
 - SQL Reports using Accela data document key metrics
- U-Hound
 - Universal data viewing/managing platform available to all stakeholders, ArcView license NOT needed
 - CCTV, Model, Overflows, Smoke testing
 - Accela data integration
- HazenQ
 - Critical tool to manage and analyze flow monitoring data



Related Experience

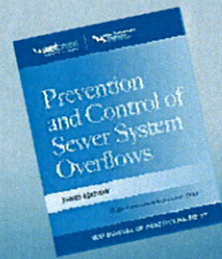
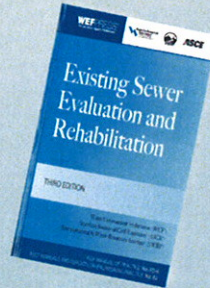


- SD 1 – SOPs, preventative maintenance programs (gravity sewers, pump stations, force mains / ARVs)
- LFUCG – Capacity assessments and remedial measures plans
- Clarksville, TN – Emergency response and corrective actions
- Municipal Utility Operations (ATS) – Dan Miklos' previous operations firm and Fairfield U.D.
- WMU and WCWD – Management, operations, and maintenance (Schubarth, Burgher)

Summary of Qualifications



- Unique Specialized Experience (Schubarth, Burgher, Miklos, FitzGerald)
 - Public sector experience
 - Operations and maintenance experience
 - "Dirt under the nails" – will attain respect of staff
- Capacity of the Firm
 - Jon Schubarth, Roy Burgher dedicated to this project
- Past Performance / Reliable Service
- Familiarity with CMOM Implementation
- Familiarity with LFUCG Wastewater Systems
- Familiarity with how LFUCG operates

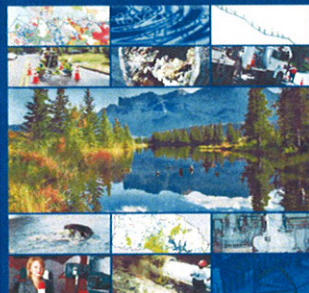


GUIDE FOR EVALUATING CAPACITY, MANAGEMENT, OPERATION, AND MAINTENANCE (CMOM) PROGRAMS AT SANITARY SEWER COLLECTION SYSTEMS



Core Attributes of Effectively Managed Wastewater Collection Systems

July 2010



ADAM

ASCE

NACWA

WQA

Question 1: Approach to engage staff with CMOM program



- Create a team environment:
 - Open/honest communication
 - Common goals
- Listen first
- Lead by example – gain respect
- Dedicate personnel – daily interaction
- Breakdown program into manageable tasks
- Develop measureable goals and schedules
- Conduct training workshops:
 - I. DWQ to Hazen and Sawyer (listening workshop)
 - II. Hazen and Sawyer to DWQ (planning workshop)
 - III. Hazen and Sawyer to DWQ (leadership workshop)

Question 2: Methods to promote ownership in maintenance units



- Continuously communicate with DWQ staff
- Seek input from DWQ staff
- Seek creative ways to remove constraints
- Develop SOPs and pocket guides
- Stress everyone's role in the "big picture"
- Make staff accountable by assigning tasks
- Identify and encourage leaders
- Acknowledge accomplishments



Question 3: Team member(s) with most pump station O&M experience



- Roy Burgher (Contract Employee):
 - Over 26 years pump station O&M experience
 - Winchester Municipal Utilities
 - Performed and directed PS maintenance
 - Pump station experience includes:
 - Evaluating
 - Cleaning
 - Troubleshooting
 - Repairs (electrical / mechanical)
 - Developed operation budgets
 - Recommended capital projects

Question 3: Team member(s) with most pump station O&M experience



- Dan Miklos:
 - Over 35 years O&M experience
 - Utility operation and management for Fairfield, OH and numerous other utilities
 - Provide program management and staff training for Veolia Water North America
 - Pump station experience includes:
 - Start-ups
 - Troubleshooting
 - Operator training
 - Operability evaluations
 - Developed “pocket guides” for Town Branch and West Hickman WWTPs

Question 4: Qualifications and roles of three most critical team members



- **Jon Schubarth – Project Manager**

- **Qualifications:**

- 18 years engineering experience (11 years of public sector engineering / management experience)
 - Winchester Municipal Utilities
 - Warren County Water District
 - Dedicated to this project

- **Roles:**

- Define, schedule, and assign CMOM tasks
 - Develop performance measures
 - Business and strategic planning
 - Overseeing development of O&M strategies
 - Quality assurance and reporting

Question 4: Qualifications and roles of three most critical team members



- **Roy Burgher – Operations and Maintenance**

- **Qualifications:**

- 26 years public sector O&M experience
 - Winchester Municipal Utilities
 - Operated and specified equipment
 - Dedicated to this project

- **Roles:**

- Contract Employee
 - Assisting with field operations and work planning
 - Implementation of the SORP and FOG programs
 - Assisting with services and equipment procurement
 - Assisting with operation and maintenance

Question 4: Qualifications and roles of three most critical team members



- Dan Miklos – Operations and Training
 - Qualifications:
 - 35 years of operations experience
 - Owner of operations firm for 23 years
 - Wastewater system operations and troubleshooting
 - Training of wastewater system operators
 - Roles:
 - Operation and maintenance training
 - Assisting with field operations
 - Assisting with operation and maintenance
 - Development of pocket guides

Question 5: Strategy to implement procedure and process changes



- CD affects LFUCG – NOT limited to DWQ
- Develop partnership atmosphere
- Communication Methods:
 - Awareness-level training (i.e. Human Resources)
 - Personal meetings (i.e. Mayor, CAO)
 - Workshops (Purchasing, Finance, Law, Engr.)
 - Presentations (i.e. Council, EQC)
 - Focus Groups (i.e. Council subcommittees)
- Identify risks of implementation failure
- Evaluate alternative procurement systems

Question 6: Subconsultant involvement and contribution



- Integrated Engineering – LFUCG projects:
 - Lexington Mall Sanitary Sewer Relocation Project
 - Deep Springs Pump Station Preliminary Design
- Steve Garland – Operations Assistant
 - Over 13 years of consulting experience
 - Assisted with system evaluations for DWQ
- Chris Crumpton – Management Assistant
 - Over 15 years of consulting experience
 - Assisted with Louisville MSD's CMOM self-evaluation

Question 7: Approach to training DWQ maintenance personnel



- Tailored to specific program elements:
 - Public Interaction
 - Pipe Repair
 - SORP
 - FOG Control
 - GLPMP (Vactor, CCTV, etc.)
 - Force main valve/ARV O&M
- Standard Operating Procedures (SOPs)
- Pocket guides, O&M manuals, PowerPoint
- Capitalize on institutional knowledge
- Document all training sessions

Summary



- Operations and maintenance experience unique to Central Kentucky
- Experience with public sector sewer system oversight, management, and supervision
- Training experience
- Development of SOPs and pocket guides
- Familiarity with LFUCG systems and programs
- Team members to be dedicated to LFUCG CMOM program on day one

Questions?

