COOK COGGIN ENGINEERS, INC.
CONSULTANTS

June 4, 2024

City of Tupelo
Purchasing Office, City Hall, 1st Floor
71 East Troy Street
Tupelo, MS 38804

PROPOSAL FOR ENGINEERING SERVICES

On behalf of Cook Coggin Engineers, Inc. (CCE), I am pleased to submit this proposal in response to the **City of Tupelo**'s request for proposals to provide engineering services for work related to an application for a Wastewater Improvements project with potential funding from: HUD - Community Development Block Grant Public Facilities, Appalachian Regional Commission, USDA and/or other federal funding agencies. CCE appreciates the opportunity to serve the **City of Tupelo** and has a sincere desire to work with local citizens and officials in this endeavour. CCE respectfully requests that the **City of Tupelo** consider our qualifications and experience as well as our dedication in current and past collaborations.

CCE has extensive experience working with municipalities in the funding procurement, design development, and construction of sewer and water improvements through funding agencies such as Community Development Block Grant, Appalachian Regional Commission, USDA & SRF—as well as other federal and state funding sources. Some current projects with similar scope and/or funding sources as the upcoming project for the **City of Tupelo** are:

- ***Tupelo Central Pump Station - 2022 SRF***
- ***Tupelo B&B Outfall Sewer - 2022 SRF***
- ***Tupelo TULIP Sewer Improvements - 2022 SRF***
- ***Tupelo Sewer Improvements - 2021 SRF***
- ***TWL Hwy 45 Sewer Outfall - ARPA***
- ***TWL PUL PLS Replacement - ARPA***
- ***TWL Colonial Estates LS Rehab - ARC***

Cook Coggin is delighted to share our expertise with the **City of Tupelo** as we continue to extend our professional engineering services as well as our diversified engineering staff and 78 years of engineering experience and is happy to submit seven (7) copies of our **PROPOSAL FOR ENGINEERING SERVICES** to the **City of Tupelo**.

If you have any questions or need any additional information, please call.

Mark Weeden, PE
Managing Principal

703 Crossover Road • Tupelo, MS 38801 • (662) 842-7381 • FAX (662) 844-4564

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tupelo

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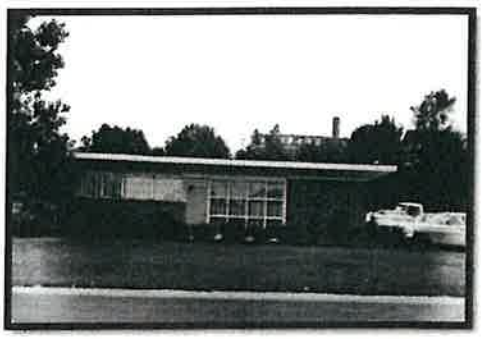


Cook Coggin Engineers, Inc. (CCE), founded in 1946, is one of the most well-respected Civil Engineering Firms in North Mississippi. Headquartered in Tupelo with regional offices in Iuka, Corinth, Booneville, Fulton, New Albany, Ripley, and Clarksdale — CCE has the capacity to multitask and utilize the resources readily available to pursue any civil engineering need encountered. Our resources provide engineering, emergency management, environmental, surveying, geotechnical, testing, funding procurement, strategic planning, and community development services.

CCE's regional structure enables us to maintain a strong commitment to local communities while simultaneously providing access to exceptional engineering expertise. We integrate accomplished professionals with modern, innovative thinkers and support this expertise with a technical staff equipped with the latest in computer design technology. This distinction has contributed significantly to Cook Coggin's history of success.

With our corporate office located in Tupelo, Cook Coggin Engineers, Inc. has an established history with the *City of Tupelo* and has first-hand knowledge of its infrastructure, planning, and implementation. Working together for a common cause has created a record of achievement and Cook Coggin would like to continue that successful relationship. Cook Coggin's affiliation with the *City of Tupelo* spans over the seventy-eight years since our inception and includes partnering with the City on a multitude of projects that have included grant or subsidy funding:

- **Tupelo 2022 SRF Central Pump Station**
- **Tupelo 2022 SRF B&B Outfall Sewer**
- **Tupelo 2022 SRF TULIP Sewer Improvements**
- **Tupelo 2021 Local HIVE Sewer**
- **Tupelo 2021 SRF Sewer Improvements**
- **Tupelo CDBG Garrison Rd Sanitary Sewer Rehabilitation**

Leadership

The leadership of any firm is indicative of the professionalism and work ethic of the entire organization. At Cook Coggin, we pride ourselves in our exceptional leadership team. This leadership is made up of six principal engineers who have dedicated their professional career to both the success of Cook Coggin and the individual success of its employees. These men bring their own unique set of skills and proficiency to CCE and will be available in whatever manner necessary to help promote the success of any project the *City of Tupelo* undertakes.

KENNETH P. GENO, JR., PE, PRESIDENT

KENT has 38 years of service to the firm. His experience includes two years working as a design engineer for NRCS State Design Unit prior to joining the Cook Coggin team. Kent serves as County Engineer for Alcorn, Prentiss, Tippah, and Tishomingo County. Serving in this capacity has ensured his participation in the development of virtually every public facility or economic development project in these areas. As the firm's president, Kent is primarily located in the Corporate Tupelo Office, but he also operates out of the Regional Booneville and Corinth Offices on a weekly basis to maintain a hands-on approach to leadership. In addition to his responsibilities at Cook Coggin, Kent currently serves on the Advisory Board for the Richard A. Rula School of Civil and Environmental Engineering at Mississippi State University, as an Executive Board Member of the American Consulting Engineering Council (ACEC) of Mississippi, on the Executive Committee of the Mississippi Association of County Engineers, and as a member of the National Society for Professional Engineers. Kent is a Registered Professional Engineer in the states of Mississippi and Tennessee.

JOHN MARK WEEDEN, PE, PRINCIPAL

MARK has been employed with Cook Coggin since 2007 and has been involved with numerous projects over the past 17 years. Mark's 30 years of experience includes working as an engineer for MS State Department of Health and Natchez Trace Parkway. He also has a background in Construction Engineering which includes owning and operating his own construction company. Mark works intimately with North Mississippi Communities and Water Associations and is very proficient in this area of expertise. Additionally, Mark serves as County Engineer for **Lee** and Itawamba Counties. This aligns Mark to be at the heartbeat of the economic development and public facility improvements within these counties. His experience also includes work with the Itawamba County Port & Railroad Commissions. Mark's expertise incorporates conceptual planning, field layout, project management, design, and construction oversight. Mark is a Registered Professional Engineer in the states of Mississippi and Alabama.

JAMES MATTHEW ESTES, PE, PRINCIPAL

MATTHEW has been employed with CCE since 2004 and has been involved with numerous projects over the past 20 years. While located primarily in the CCE Regional Corinth Office, he also operates out of the Tupelo main office to provide his clients a personal, hands-on approach. Matthew has worked closely with North Mississippi communities throughout his tenure with CCE and has an extensive background of working with clients to help them visualize their goals, identify the most advantageous funding options, and assist in funding applications. Matthew's work experience includes project management, planning design and construction oversight for recreational and industrial projects in addition to municipal water, wastewater, gas, roadway, and drainage projects. Matthew is a Registered Professional Engineer in the states of Mississippi and Tennessee, a Certified Floodplain Manager in the state of Mississippi, and has certification in the National Highway Institute Program for the Safety Inspection of In-service Bridges.

WILLIAM JESS WIYGUL, PE, PRINCIPAL

JESS has been employed with CCE since 2009 and has been involved with numerous projects over the past 15 years. Located in CCE Tupelo office, Jess has worked closely with North Mississippi communities throughout his tenure including project management, planning, design, and construction oversight for industrial site design and building improvements, municipal water, and wastewater systems, as well as a wide range of airport infrastructure projects. Jess has extensive knowledge of the processes and elements required to assist clients with the development and growth of local infrastructure. Jess holds bachelor's and master's degrees in Civil Engineering from Mississippi State University and is a Registered Professional Engineer in the states of Mississippi and Tennessee.

DAVID M. LONG, PE, PRINCIPAL

DAVID has been a part of the CCE team since 2008 and has been involved in numerous projects throughout the North Mississippi region. As a project engineer, he has planned and managed over $50 million of public infrastructure improvements for water and wastewater systems, drainage, site development, and inland port infrastructure. Located in the CCE Tupelo Office, David remains heavily involved with his projects: working closely with clients and providing technical assistance while ensuring the client's goals and needs are fulfilled. From project conception to construction completion, David has vast experience with all types of federal and state funding applications. David holds his bachelor's degree in Civil Engineering from Mississippi State University and is a Registered Professional Engineer in the states of Mississippi and Arkansas.

J. CLINTON HAWKINS, PE PRINCIPAL

CLINT, a former resident of Booneville and current resident of New Albany, has been a member of the CCE team since 2013. Currently, Clint serves as County Engineer for Benton County. He has been the Primary Design Engineer of CCE's Roadway and Bridge Design department located in Cook Coggin's Corporate Office since 2021. Clint's experience includes the planning and design of virtually all Mississippi Office of State Aid Administration infrastructure projects facilitated by Cook Coggin since 2016. Additionally, Clint has been involved with numerous infrastructure improvement projects including site development, sidewalk and lighting improvements, recreational facilities, roadway improvements, bridge replacements, drainage system improvements and industrial park building/access road improvements. Clint is a Registered Professional Engineer in the state of Mississippi.

Engineering Team

Including our principals, the engineering staff consists of fifteen (15) Registered Professional Engineers, six (6) Registered Engineer Interns, and one (1) staff civil engineer. Additionally, two (2) of our engineers hold master's degrees in civil engineering.

The team members were selected not only for their technical mastery, experience, and knowledge, but also for their availability to work on the project. CCE believes that our team's regional knowledge, experience, and ingenuity will provide an unmatched level of expertise.

Our team consists of an engineering and professional staff that is highly skilled in the areas central to the construction of a well-designed water and/or wastewater infrastructure project. These areas include planning and design, construction administration, construction engineering and inspection, material testing and product evaluation, and public relations. Each team member will report to and receive guidance from the project manager so their efforts will be technically sound and responsive to the needs of the client throughout the entire process.

Project Management

Project Management incorporates the management team of the Managing Principal and Project Manager assigned to the individual project. The Managing Principal and Project Manager are key individuals in the management process. These persons are responsible for overseeing all aspects of the project, and act as primary contact between the *City of Tupelo* and the project team. The Managing Principal acts as the head of the leadership team. He coordinates with the Project Manager and provides guidance and mentorship throughout the entirety of the project. The Project Manager

will review the work in progress and will see that the project team has sufficient resources to accomplish their assigned tasks within the budget and time constraints of each portion of the project. For this project, **JOHN MARK WEEDEN, PE** will serve as Managing Principal and as Project Manager.

MANAGING PRINCIPAL/PROJECT MANAGER

JOHN MARK WEEDEN, PE, PRINCIPAL, and 17-year veteran of CCE Coggin, will serve as Managing Principal for the prospective **Wastewater Improvements project**. A more detailed description of Mark's experience and expertise is outlined in his leadership capacity as Principal on page 2.

Below is a non-comprehensive listing of Mark's most relevant projects:

- **Tupelo SRF Water and Sewer Projects: Central Pump Station, B&B Outfall Sewer, & TULIP Sewer Improvements**
- **Tupelo Drainage Improvements Eason Bridge @ Town Creek**
- **Tupelo/Lee County HIVE Water/Sewer/Roadway Improvements**
- **TWL Hwy 45 Sewer Outfall ARPA**
- **TWL PUL PLS Replacement ARPA**
- **TWL Colonial Estates LS Rehab ARC**
- **New Albany Street Improvements**
- **New Albany LGW MDOT Utility Relocation – Gas Line MDOT**
- **Ingomar Water Association Hwy 15 Relocation MDOT**
- **Mooreville-Richmond Water Association USDA Water System Improvements**
- **Itawamba County ARC Fawn Grove Industrial Park Site Development**

Qualifications of Key Personnel

WILLIAM JESS WIYGUL, PE, PROJECT ENGINEER, serves as one of six Principals of the firm. Jess holds both a bachelor's and master's degree in civil engineering and is a Licensed Professional Engineer in the states of Mississippi and Tennessee. Jess has substantial experience in both water and wastewater treatment facilities and has worked with funding agencies such as the Mississippi Department of Environmental Quality (MDEQ), the Mississippi Development Authority (MDA), and the United States Department of Agriculture (USDA) Rural Development for many years.

CADE SCROGGINS, PE, PROJECT ENGINEER, joined the CCE Engineering Staff as an Engineering Intern in December 2019 after graduation from Mississippi State University (MSU); however, his tenure with CCE began in the summer of 2019, while working toward his Bachelor of Science in Civil Engineering. During his internship, he gained invaluable hands-on knowledge and experience in areas such as construction inspection, cost/quantity estimation, review of plans, specifications and contract documents, QA/QC lab technician, bridge inspector, and survey crew member. Cade's work experience includes a variety of infrastructure improvements: sewer, water, industrial, bridge, and roadway projects. Cade is now a Licensed Professional Engineer in the state of Mississippi.

JOSH GUNN, PE, PROJECT ENGINEER/LABORATORY MANAGER, has been a member of the CCE team since 2012. Josh, a Registered Professional Engineer in the state of Mississippi, began his career at Cook Coggin as a summer intern while attending college. Upon graduating from Mississippi State University with his Civil Engineering degree, Josh began full-time employment with Cook Coggin in 2017. Josh works closely with municipalities and counties throughout North Mississippi: primarily with roadway, bridge, drainage, water, sewer, and hydraulic design. His experience includes construction management, project development, and funding application assistance, project planning and design, geotechnical engineering, laboratory testing, and surveying. Recently, Josh has taken over the duties of Lab Manager: coordinating with laboratory technicians to maintain communication with field inspectors ensuring all material to be tested is received in the lab. He also supervises and conducts necessary testing on samples using MT, AASHTO, and ASTM, methods within a State Certified Laboratory.

CALEB FANCHER, EI, PROJECT ENGINEER, began working at Cook Coggin in August 2021 after graduating from Mississippi State University with a Bachelor of Science in Civil Engineering. Since his employment with CCE, Caleb has worked on a variety of projects, such as: Turner Industrial Park Water and Sewer Extension, Tupelo Hwy 45 Sewer Outfall, Blue Mountain MDOT Utilities Relocation, Marietta Wastewater Treatment Facility and Collection System Improvements, Corinth Arch Pipe Replacement, and Selmer North Industrial Park Site Improvements.

JIMMY SPENCER, RPG, ENVIRONMENTAL COORDINATOR, has over 41 years of experience with environmental impact assessments and coordination. In addition to his extensive environmental background, he has been responsible for project management on numerous environmental projects as well as being the supervisor of an AASHTO accredited materials testing laboratory. Jimmy has extensive experience in solid waste permitting, landfill expansion, landfill gas to energy, and leachate wastewater management. Services include solid waste facility siting, design, permitting, compliance, and certification for subtitle D landfills, rubbish sites, and transfer stations, as well development of closure/post closure plans. In addition, Jimmy

has extensive experience in the developing and updating regional solid waste management plans, oversight of geologic examinations for siting feasibility and annual certification reports submitted to the Mississippi Department of Environmental Quality and US Environmental Protection Agency. His experience in working with governing local, state, and federal entities in the form of permitting requirements is immeasurable.

DOUG LYTAL, PLS, CET, SENIOR DESIGNER, has 40 years of experience in Land Surveys, Drafting, and Design and will be the supervisor overseeing all the Right-of-way coordination, land surveys, property descriptions, and field work requirements. Doug has overseen all aspects of drafting, design, and surveying for CCE's projects since 1984 and has a supporting staff that is second to none. His responsibilities on this project will include oversight of all survey and field work.

WALTER "BUBBA" CARPENTER, ENGINEER'S REPRESENTATIVE/ CONSTRUCTION ADMINISTRATOR, has been employed with CCE since 2004. Bubba's experience includes field observation of a wide range of contractor activities, such as: water facility construction, sewer facility construction and rehabilitation, and roadway construction. Bubba's water project experience includes water production wells and distribution pipelines. His sewer project experience includes gravity sewer lines, sewage pumping stations, and pressure sewer lines.

ADAM OAKS, CET, ROW SERVICES, has been a member of the CCE team since 2013. In his tenure with CCE, Adam has been involved with planning and development, right-of-way acquisition, mapping, deeds, and other various project development functions of numerous infrastructure projects. Adam is a lead draftsman for State-Aid Road and Bridge Design right-of-way and land acquisition maps and descriptions for 9 counties in North Mississippi. Adam also assists with numerous municipal and private infrastructure projects throughout North Mississippi.

JAMES WOODALL, PROJECT MANAGEMENT/PUBLIC RELATIONS, joined CCE in February 2010 and has 14 years of service with the firm. James is responsible for procurement of potential business advancement contingencies while simultaneously serving in a business development capacity for Lee, Monroe, Chickasaw, Union, and Pontotoc Counties in Mississippi. James also serves several municipalities throughout North Mississippi. His responsibilities include–delivery and execution of legal and professional documents required for conducting business, collaborating with local officials and business professionals regarding adept matters imperative to the prosperity of the community, and serving as intermediary on a proficient level for those entities represented by CCE.

EXPERIENCE

CCE provides multi-disciplinary engineering services such as funding procurement, planning and design, geotechnical, environmental, surveying and construction on an array of projects, including:

- **Advanced Treatment Facilities**
- **Collection Systems & Pumping**
- **Collection System Rehabilitation**
- **Environmental Assessments**
- **Feasibility Studies**
- **Utility Relocations**
- **Drinking Water Infrastructure**
- **Water Supply & Treatment**
- **Water Storage & Distribution**
- **Wastewater Infrastructure**
- **Rate Studies**
- **Hydraulic Analysis**

CCE has the experience, expertise, and manpower to facilitate comprehensive engineering services related to any civil engineering project. The firm's regional structure enables it to maintain a strong commitment to local communities while simultaneously providing access to exceptional engineering expertise. This involves integrating our professional team with the latest technology in a partnership that incorporates the Client's sophistication with our professionalism in a manner where everyone prevails.

Cook Coggin Engineers, Inc., has extensive experience working with municipalities and other government entities on a multitude of civil engineering projects. The following pages contain examples of project experience relevant to municipal engineering services.

Relevant Experience

Wastewater/Sewer Systems

Essential to the advancement of a municipality is the wastewater collection and treatment system. CCE personnel have been involved with the design and construction of numerous wastewater collection systems and treatment facilities. CCE has designed ten (10) wastewater treatment facilities over the life of the firm, along with numerous incremental improvement upgrades and additions since each facility's initial construction. In addition to the design/construction of new systems, CCE has also been involved with the rehabilitation and relocation of existing sewer systems. CCE personnel have maintained good working relationships with the appropriate divisions of the Mississippi Department of Environmental Quality (MDEQ) to ensure that all the applicable state/federal regulations and requirements are met to the satisfaction of these governing agencies.

Potable Water System Projects

Potable water treatment/distribution systems are a basic requirement for every municipality and county unit of government. The system's integrity as to the provision of safe drinking water and adequate fire protection are equally important to the residents of the municipality and/or county. Typical projects involve an analysis of the existing distribution system and then recommendation of one or more of the following improvements to meet projected demands on the system: (1) upgrading distribution lines to provide additional flow and/or pressure (U S), (2) adding either an elevated or ground storage facility to provide additional capacity to the system (ES/GS), (3) adding a production well to provide additional capacity to the system (PW), or (4) adding some level of treatment for the water at the well source (WT). In most cases, these improvements are necessary for the water system to meet minimum system requirements of the Mississippi State Department of Health (MSDH).

Water Supply Planning Studies

In addition to designing and maintaining water distribution systems, CCE has also provided engineering services for the planning functions of water suppliers. One such study, which was recently completed for the Tombigbee River Valley Water Management District, involved the development of a water supply plan for Tishomingo, Prentiss, and Alcorn Counties. The study provided recommendations concerning a regional water supply and treatment system for the three-county study area.

Stormwater Drainage Systems/Hydraulics

Essential to the development of any infrastructure improvement is the transmission and/or containment of the surface runoff produced by storm events over the site. Cook Coggin recognizes the need for expertise concerning hydraulic structures of all types. Our engineers have had extensive experience in the planning, developing, remodeling, and designing of a variety of structures for water resource projects employing the disciplines of hydrology, hydraulics, civil, geotechnical, and structural engineering.

Over its entire history, CCE personnel have been involved with numerous drainage projects for all levels of city, county, and state government. These services have included analysis of existing drainage systems, culvert design and installation, rehabilitation of existing drainage systems, and design/construction of stormwater detention systems.

In addition to the layout and design of the storm drainage systems for four (4) major industrial parks (Turner Industrial Park, West Prentiss County Industrial Park, Tupelo CDF Foursome Industrial Development, and Pontotoc County Industrial Park), and drainage systems to accommodate the stormwater runoff for numerous street projects, CCE has provided the engineering and construction services for a great number of drainage projects in North Mississippi. These services have included analysis of existing drainage systems, culvert design and installation, rehabilitation of existing drainage systems, and design/construction of stormwater detention systems.

Cook Coggin Engineers, Inc. is proud of its ability to provide award winning, notable work to its clientele. The following pages provide examples of these accomplishments by describing recent infrastructure projects that received such recognition and projects similar in scope.

Honors & Awards

2022 ACEC Engineering Excellence Honor Award, ***NORTH BENTON COUNTY WATER ASSOCIATION ARSENIC REMOVAL TREATMENT SYSTEM,*** North Benton County Water Association, MS

2021 ACEC MS Engineering Excellence People's Choice & Excellence Honor

NEMCC BASEBALL/SOFTBALL COMPLEX, Northeast MS Community College

2020 ACEC MS Engineering Excellence Grand Conceptor Award, ***CORINTH EDA DRAINAGE,*** City of Corinth, MS

2017 NADO Innovation Award, ***AVECTUS PUBLIC BUILDING IMPROVEMENTS***, Alcorn County Board of Supervisors, MS

2016 Haywood "Bo" Phillips Design Award of Merit, ***RECREATIONAL COMPLEX FOR CROSSROADS REGIONAL PARK,*** Alcorn County Board of Supervisors & City of Corinth, MS

2016 NADO Innovation Award, ***HOLLY SPRINGS AIRPORT IMPROVEMENTS,*** City of Holly Springs & Marshall County Board of Supervisors, MS

2014 ACEC Engineering Excellence People's Choice Award, ***CLIFFORD G. WORSHAM SURFACE WATER SYSTEM,*** City of Corinth, MS

2014 ACEC Engineering Excellence Honor Award, ***CLIFFORD G. WORSHAM SURFACE WATER SYSTEM,*** City of Corinth, MS

2014 Mississippi Water Environment Association Wastewater Treatment Facility of the Year, ***TUPELO WASTEWATER TREATMENT FACILITY,*** City of Tupelo, MS

2014 NADO Innovation Award, ***ALCORN COUNTY NATURAL GAS SYSTEM IMPROVEMENTS,*** Alcorn County Board of Supervisors & Corinth Utility Commission, MS

2014 MML Excellence Award Population >10,000, ***CORINTH WASTEWATER TREATMENT FACILITY,*** City of Corinth & Corinth Utility Commission, MS

2013 MML Over All Winner Population >10,000, ***CLIFFORD G. WORSHAM SURFACE WATER SYSTEM,*** City of Corinth, MS

2022 ACEC Engineering Excellence Honor Award

NORTH BENTON COUNTY WATER ASSOCIATION ARSENIC REMOVAL TREATMENT SYSTEM (CDBG #1135-19-005-PF-01)

Role: *Primary Design Engineer*
Lead Engineer: *Jack Daniel Farmer, PE*
Owner: *North Benton County Water Association, MS*
Initiation Date: 2019
Completion Date: *2021*

The efforts to overcome levels of naturally occurring Arsenic exceeding the Maximum Contaminate Level (MCL) in the Benton County Water Association (NBCWA) was a lengthy process.

In September of 2017 the NBCWA received notice of violation of the Arsenic Rule requirement of the Safe Drinking Water Act. Cook Coggin Engineers, Inc. was selected by the NBCWA to develop the technical response to the first Arsenic Compliance Plan issued by the Mississippi State Department of Health. Treatment for removal of the Arsenic for the existing ground water source was determined to be the most cost-effective solution.

Although not previously applied in Mississippi for Arsenic removal, adsorptive media filters have been successfully used previously in areas outside of Mississippi. Adsorptive media systems are simple to operate and do not generate hazardous waste materials from the removal of Arsenic.

As a result of the limited financial capacity of the NBCWA's 150 users, substantial grants to aid construction of a treatment system were required to correct the MCL levels. The Benton County board of Supervisors contributed $90,000 of local funds and sponsored an application for a Community Development Block Grant that yielding $600,000 toward the capital improvement project.

Pilot testing of the recommended Arsenic Removal Treatment System was used to verify that the recommended adsorptive media treatment system was suitable. The notice to Proceed with construction was issued effective July 1, 2020. Substantial completion of the system was attained on September 17, 2021.

The system was placed in operation on September 29, 2021. An analysis of post construction effluent samples indicates the Arsenic Removal Treatment System produces a potable water meeting the MCL for Arsenic.

2020 MS ACEC GRAND CONCEPTOR AWARD WINNER

(ACEC – American Council of Engineering Companies)

2019 MML Municipal Excellence Award Public Works < 10,000

CITY OF CORINTH'S EDA DRAINAGE IMPROVEMENTS

ECONOMIC DEVELOPMENT AWARD (EDA) NUMBER 04-79-06708

Role: *Primary Design Engineer*
Lead Engineer: *James Matthew Estes, PE /Kyle Strong, PE*
Owner: *City of Corinth, Alcorn County, MS*
Initiation Date: 2013
Completion Date: *2019*

In the wake of devastation from the impact of a 500-year storm event, the City of Corinth endeavored to find a solution to the recurring flooding issues seen in two specific areas within the City—the Tishomingo Basin and the Oak Lane Basin.

Enlisting the assistance of Cook Coggin Engineers, Inc., they began devising a plan to alleviate the flooding by providing an outlet for water overflow during periods of heavy rain. Design of these improvements included improved channel sections, surface water detention, improvements to piping systems, and installation of box culverts to provide adequate opening for receipt of streams. Steel encasements across the Kansas City Southern Railway were designed to allow a 100-year flow across the railway and relieve upstream flow congesting which had been a source of the flooding.

Understanding that funding is critical to project implementation, Cook Coggin worked with the Economic Development Authority (EDA) to secure funding through the Economic Adjustment Program, EDA provided grant funding of over $4,000,000 to the City in April of 2013. In August of 2014, the Mississippi Development Authority (MDA) awarded the City $1,000,000 CAP loan.

With funding secured and a clear design path, the project was well underway. On September 17, 2017, bids were received for the project. By January of 2018, construction had begun. In May of 2019, Contracts 1 and 2 were complete—but not before the City was hit by a 100-year storm event in February 2019, near the conclusion of construction activities. The results were astounding. IT WORKED. The drainage improvements were tested and passed with flying colors, providing another testament to CCE's ability to perform beyond expectations.

2014 MS Water Association Wastewater Facility of the Year

CITY OF TUPELO WASTEWATER TREATMENT FACILITIES

Role: *Primary Design Engineer*
Lead Engineer: *Jack Daniel Farmer, PE*
Owner: *City of Tupelo, Lee County, MS*
Initiation Date: 2010
Completion Date: *2014*

Cook Coggin Engineers, Inc. (CCE) was selected by the City of Tupelo to provide professional engineering services for the Wastewater Treatment Facilities Improvements in Tupelo, Mississippi. The advanced wastewater treatment facility underwent extensive renovation and upgrading for future upgrading and anticipation of more stringent environmental restraints.

In anticipation of biological treatment units and the need for increased flows in the future, the advanced waste treatment biological components were replaced with an oxidation ditch facility adapted for nutrient removal capabilities. To provide for anticipated future needs the biological treatment components were designed as a multi-train system with a rated capacity of 14.0 million gallons per day (MGD). The initial constructed capacity was 10.5 MGD. The chlorination/de-chlorination disinfection system was also replaced by a system with a rated capacity of 14.0 MGD.

Construction cost for this project totaled $22.4 million.

Scope of services included:

- **Preliminary Treatment includes Screening and Grit Removal**
- **Three (3) 3.5 MG Aeration Basin**
- **Three (3) 130' Diameter Clarifiers**
- **Return Sludge Pumping Station with Centrifugal Pumps**
- **Disinfection by Chlorination**
- **Post Treatment Cascade Aerator**
- **Plant Influent and Effluent Flow Monitoring**
- **Storm Flow Equalization**
- **Sludge Disposal by Lagooning**

2014 ACEC People's Choice & Engineering Honor Award
2013 MML Excellence Award Overall Winner Population >10,000
CLIFFORD G. WORSHAM SURFACE WATER SYSTEM

Role: *Primary Design Engineer*
Lead Engineer: *Jack Daniel Farmer, PE*
Owner: *City of Corinth, Alcorn County, MS*
Initiation Date: *2005*
Completion Date: *2013*

Cook Coggin Engineers, Inc. joined the City of Corinth in achieving a 35-year goal upon completion of the Clifford G. Worsham Surface Water System in April 013—a vision that began in 1978 for City of Corinth.

The $49.1 million dollar project was a vision initiated when the City became aware that the City's public water supply was not a long-term reliable water source. The City of Corinth/CCE team worked closely with the Tennessee Valley Authority in what became a collaborative effort between the three entities to develop a long-term sustainable water source to serve the citizens and industries of the City of Corinth and Alcorn County.

In 2003, the Corinth Utility Commission adopted a resolution integrating a regional concept to the surface water system. This Regional Surface Water Concept was developed for the City and Alcorn County with regional capabilities to provide treated water for adjacent counties, water associations, municipalities, and communities for industrial prospects and residential use.

The Surface Water System was comprised of three projects beginning with the construction of the Water Treatment Plant. The second project, Finished Water Transmission Line, included the construction of 7.25 miles of 36" iron ductile pipe to Corinth and 4 miles of 36" and smaller distribution lines. This project placed distribution lines along US Highway 72 rights-of-way extending from the treatment plant to the City of Corinth. The third and final project was the Raw Water Pumping and Transport, which included an Intake Structure located on the Tennessee-Tombigbee Waterway, raw water pumping, and 8.25 miles of 36" raw water line to the treatment plant.

The Raw Water Intake Structure is designed for an ultimate supply capacity of 16.5 million gallons per day (mgd) with an initial pumping capacity of 10 mgd. Twelve miles of 36" water transmission line delivers treated water from the Treatment Facility to the City of Corinth's Distribution System. This project, funded through Mississippi's State Revolving Loan Program, illustrates Corinth's continued vision to provide a long-term, dependable water supply vital to the economic growth of Northeast Mississippi.

Recent Wastewater Projects

(PARTIAL LISTING – NOT INCLUSIVE)

PROJECT TITLE	FUNDING
Durant Wastewater System Improvements	2023 CDBG Sewer
Tupelo Central Pump Station	**2022 SRF Sewer**
Tupelo B&B Outfall Sewer	**2022 SRF Sewer**
Tupelo TULIP Sewer Improvements	**2022 SRF Sewer**
Tupelo HIVE Sewer	**2021 Sewer (Local)**
Jumpertown Wastewater Collection Rehab	2021 SRF Sewer
Guntown Wastewater Collection Improvements	2021 SRF Sewer
Corinth Elam Creek Interceptor Sewer	2021 SRF Sewer
Shaw Wastewater Facilities Improvements	2021 CDBG Sewer
Vaiden Wastewater Collection Improvements	2021 CDBG Sewer
Burnsville Wastewater Collection Rehab	2021 SRF Sewer
Belmont Wastewater Treatment Facilities Improvements	2021 SRF Sewer
Durant Wastewater System Improvements	2021 CDBG Sewer
Alcorn County Project Bulldog Sewer Utilities	2020 CDBG-ED
Crenshaw WWTF Lagoon Levee	2020 CDBG Sewer
Friars Point Sewer System Improvements	2020 CDBG Sewer
Lambert Sewer System Improvements	2020 CDBG Sewer
Marks Wastewater Facilities Improvements	2020 CDBG Sewer
Marietta WWTF & Collection System Improvements	2020 CDBG Sewer
Ecru Industrial Rd WW Collection Ext	2020 CDBG Sewer
Guntown Wastewater Collection System Addition	2020 CDBG Sewer
Plantersville Wastewater System Improvements	2020 CDBG Sewer
Mound Bayou Sewer System Improvements	2020 CDBG Sewer
Como WWTF Improvements Contract 3	2020 USDA Sewer
Mantachie Wastewater Facilities Imp – Contract 1 Mantachie WWTF – Sewer System Imp – Contract 2	2019 ARC Sewer 2019 ARC Sewer
Ecru Ashley Water & Sewer Improvements	2019 ARC Sewer / DIP
Lee County/Tupelo Garrison Road Sewer Improvements	2018 CDBG Sewer
Myrtle Sewer System Improvements	2018 ARC Sewer
Tishomingo County Tri-State Ind. Park WWTF Modifications	2018 ARC Sewer
Tupelo Wastewater Collection System Improvements	**2017 SRF Sewer**

WASTEWATER TREATMENT FACILITIES (WWTF) DESIGNED BY CCE

WWTF OWNER	CAPACITY
City of Corinth	6.0 MGD
City of Booneville	2.0 MGD
City of Hamilton, AL	1.0 MGD
City of Houston	1.0 MGD
City of Meridian	15.0 MGD
City of New Albany	2.5 MGD
City of Pontotoc	1.5 MGD
City of Saltillo	1.0 MGD
City of Tupelo	**14.0 MGD**
Tishomingo County Sewer District	0.2MGD

THE FOLLOWING PAGES CONTAIN PROFILES ILLUSTRATING CCE'S WASTEWATER PROJECT EXPERIENCE.

PROJECT DATA SHEET

CCE PROJECT #: 09325
PROJECT NAME: Wastewater Collection System Improvements
OWNER: City of Tupelo, MS
PROJECT DESCRIPTION

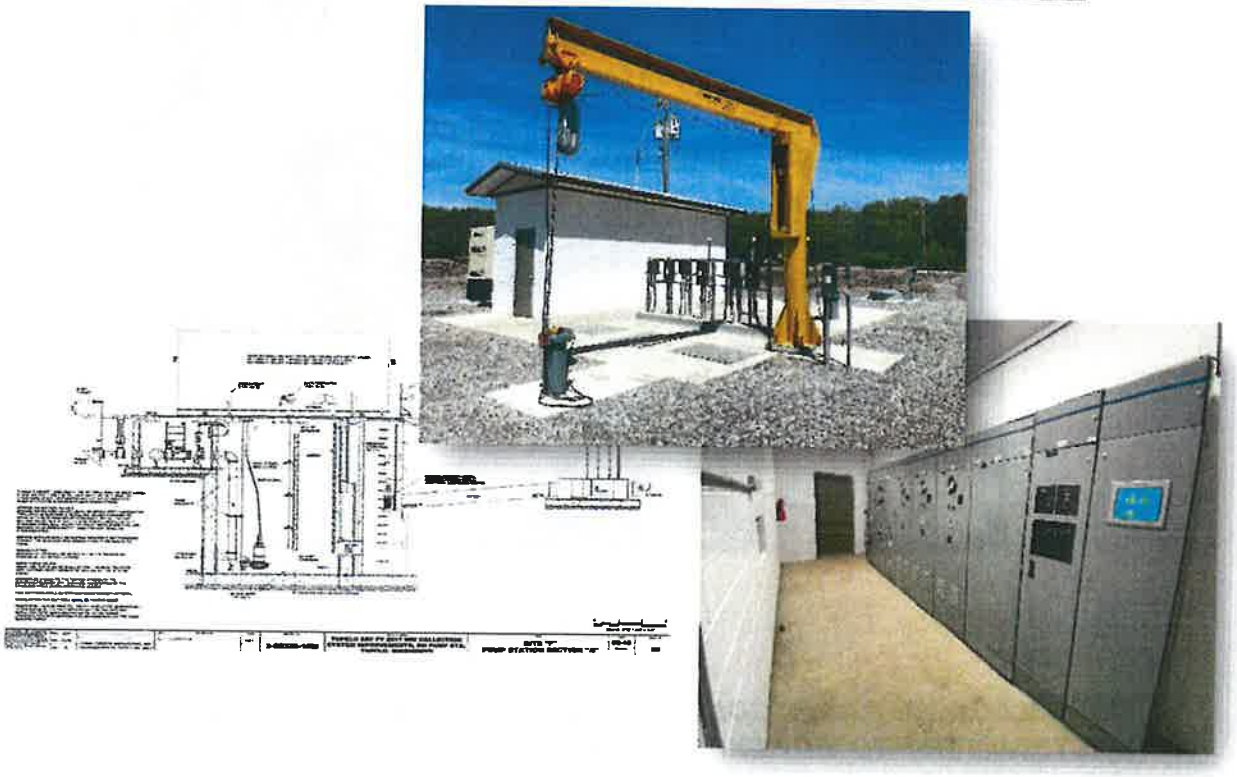
NEED: Six pumping/lift stations throughout the city were experiencing significant mechanical and/or capacity issues.

SOLUTION: Three lift stations are being abandoned and replaced with pre-packaged fiberglass lift stations, including new pumps and controls. Additionally, two lift stations will undergo significant repairs to alleviate mechanical problems and restore hydraulic capacity. Finally, one pumping station will be abandoned and replaced with a new triplex pumping station with state-of-the-art equipment and controls.

TYPE: **Pumping/Lift Stations**

CAPACITY: 45 GPM to 5.2 MGD

PROJECT ENGINEER: Jess Wiygul, P.E.
CONTRACTOR: KAJACS, Poplar Bluff, MO
DATE: November 2018
FUNDING: SRF Loan
CAPITAL COSTS: $2.5 Million
SCOPE OF SERVICES: Preliminary Planning & Reports, Design Engineering, Construction



PROJECT DATA SHEET

CCE PROJECT #: 9295
PROJECT NAME: City of Tupelo Garrison Rd Sanitary Sewer Rehabilitation
OWNER: Lee County Board of Supervisors

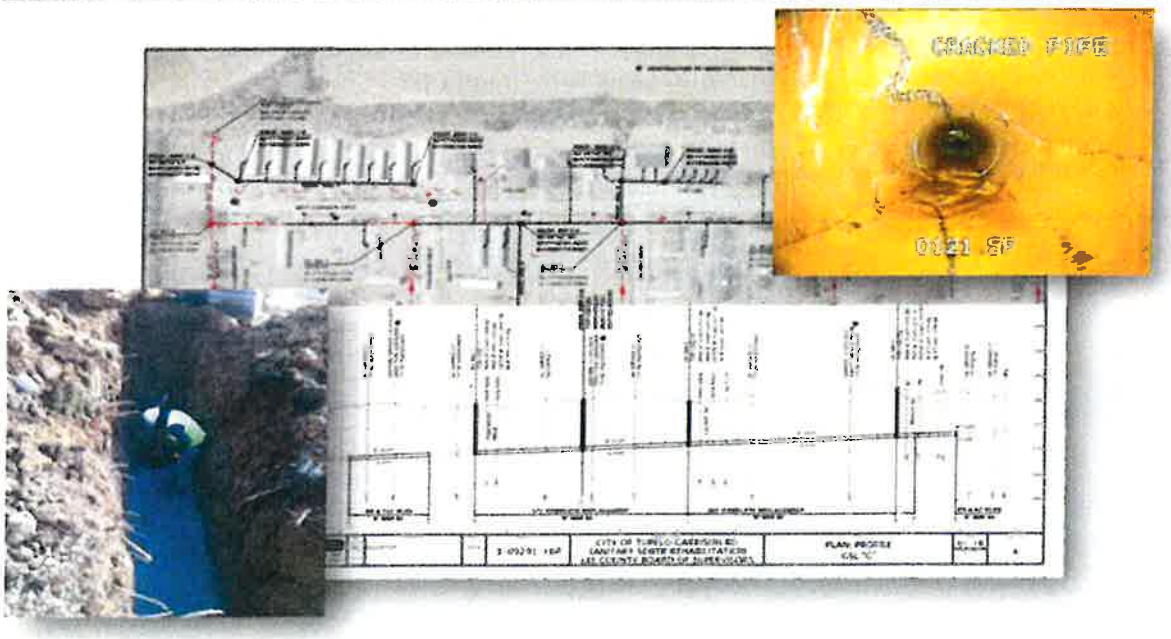
PROJECT DESCRIPTION

NEED: The City of Tupelo provides sanitary sewer service to the project area on Green Tee Rd and Garrison Rd in Verona. The collection system of the project area has deteriorated with multiple failures such as collapsed pipe, sagging pipe, root intrusions, and blockages. All resulting in backed up sewage in the residents' homes. Multiple connections to one service tap also exist.

SOLUTION The City of Tupelo hired Paul Smithey Construction to perform CCTV Inspection of the collection system and CCE reviewed the inspection videos. The problem areas were defined and selected for pipe replacement. All service taps with multiple connections were abandoned. The project resulted in every residence with its own service tap. Lee County sponsored the City of Tupelo for a CDBG Grant application.

TYPE: Wastewater Collection Rehabilitation

PROJECT ENGINEER: David M. Long, P.E.
CONTRACTOR: Argo Construction Corporation, Cordova, TN
DATE: May 2019
FUNDING: **CDBG Grant**, Local
CAPITAL COSTS: $886,400
SCOPE OF SERVICES: Preliminary Planning & Reports, Design Engineering, Construction Engineering, Misc. Special Services



PROJECT DATA SHEET

CCE PROJECT #: 09020, 09252, 09660
PROJECT NAME: Wastewater Treatment Facility Improvements
OWNER: Town of Como, MS
PROJECT DESCRIPTION

NEED: The original WWTF was constructed in 1993. All equipment in the plant is no longer operable including the brush rotor aerators, clarifier, return pump station and disinfection. The facility only has one (1) clarifier which does not provide the necessary mechanical redundancy needed to perform maintenance. The WWTF can no longer maintain compliance with its NPDES permit regulated by the MDEQ.

SOLUTION: The Town hired CCE to provide engineering services to completely restore and improve the operation of their WWTF. The Town executed an Agreed Order with MDEQ and applied for USDA/RD funding. The project is currently under construction. Improvements include replacing aerators of the oxditch, existing clarifier equipment, and post treatment aerator; construct a new influent pump station, preliminary treatment screening and grit removal, clarifier, chlorine contact basin, chemical building and equipment, return sludge pump station, and supernatant return pump station.

TYPE: Oxidation Ditch
CAPACITY: 0.25 MGD
FEATURES: Advanced Wastewater Treatment Limits Discharge, Preliminary Treatment Screening and Grit Removal
(1) 0.25 MG Oxidation Ditch, (2) Clarifiers
Return Sludge Pumping, Disinfection by Chlorination
Post Treatment Mechanical & Cascade Aerator, Influent, Process, Waste, & Effluent Flow Monitoring, Peak Flow Equalization & Lagoon Sludge Disposal

PROJECT ENGINEER: David M. Long, P.E.
CONTRACTOR: Contract 1& 2 (WW Treatment Facilities Imp) TL Wallace Construction, Inc.
Contract 2 (Elevated Storage Tank Repair & Repaint) Tank Pro, Inc.
DATE: Contract 1 & 3: June 2022; Contract 2: October 2021
FUNDING: USDA/RD Grant & Loan, DRA Grant, **CDBG Grant**
CAPITAL COSTS: $4,893,000
SCOPE OF SERVICES: Preliminary Planning & Reports, Design Engineering, Construction Engineering, Misc. Special Services

PROJECT DATA SHEET

CCE PROJECT #: 9523
PROJECT NAME: Wastewater Collection System Improvements
OWNER: Town of Hickory Flat

PROJECT DESCRIPTION

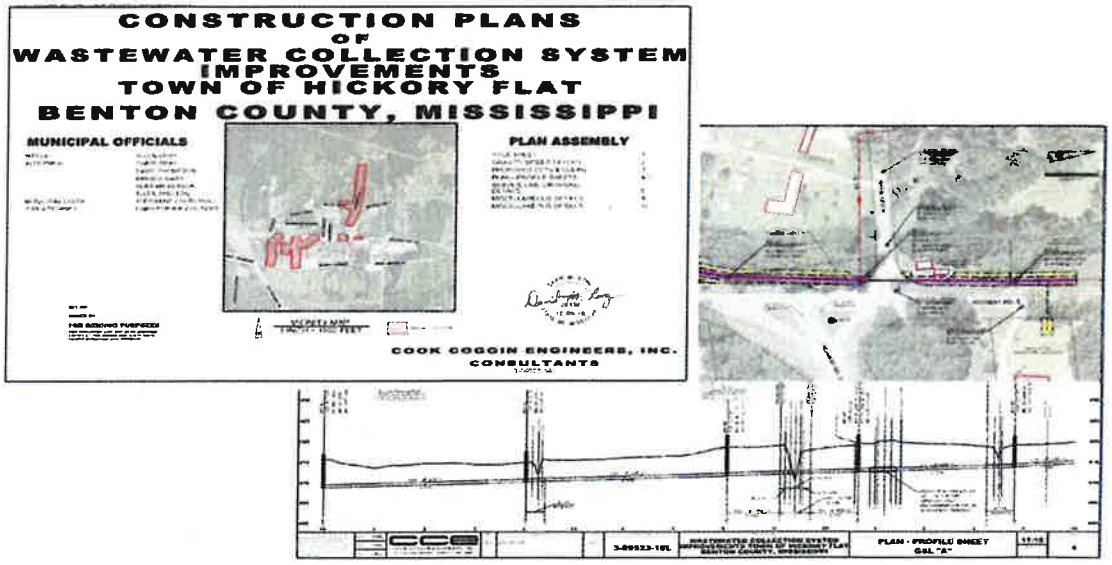
NEED :Approximately 15 Residences within the Town's serviceable area rely on private septic systems for wastewater disposal. Two gravity sewer line crossings at Hwy 178 have failed and causing sewer to surcharge upstream in the system.

SOLUTION :The Town of Hickory Flat engaged CCE to implement a plan to extend the Town's sanitary sewer service to the un-served customers and to replace the existing gravity sewers crossing Hwy 178.

TYPE :Wastewater Collection Extension & Rehabilitation.

FEATURES :3,800' of New 8" Gravity Sewer Line to Serve Approx. 15 New Customers 2,500 of New 4" Sewer Service Line
200' of Gravity Sewer Line Replacement
2,000 of CCTV Inspection

PROJECT ENGINEER: David M. Long, P.E.
CONTRACTOR: Double S, Grenada, MS
DATE: December 2019
FUNDING: **CDBG Grant** (100%)
CAPITAL COSTS: $450,000
SCOPE OF SERVICES: Preliminary Planning & Reports, Design Engineering, Construction Engineering, Misc. Special Services



Technical Expertise

STATE OF THE ART LABORATORY

Cook Coggin Engineers' Tupelo headquarters houses a modern MDOT approved materials testing laboratory with the latest testing and measurement equipment. The technical staff strives to provide quality, timely and accurate results that will ensure both the contractor and the project owner that they are receiving the quality of material that will meet the needs of their project.

CCE LABORATORY & TESTING AT A GLANCE

- MDOT Concrete & Soils Certified facility
- Only engineering firm in North Mississippi with an AMRL accredited laboratory
  - ***Accreditation required for MDOT funded projects***
  - ***Quality Management System Accreditation***
  - ***Emulsified Asphalt Accreditation***
  - ***Asphalt Mixture Accreditation***
- Quality Control/Quality Assurance certified by MDOT
- Supervised by a Registered Professional Geologist
- Laboratory Technicians with a combined 78 years of experience
- 3 Certified Mix Design Technicians in Hot Mix Asphalt
- Provides Quality Assurance Testing for Hot Mix Asphalt SuperPave design
- Full-service soil, granular material, concrete & pavement testing lab
- Modern facilities with the latest equipment

ENVIRONMENTAL SERVICES

From source to storage, treatment, pumping and conveyance systems, Cook Coggin provides solutions that work. We do this by employing scientific and engineering principles. We also keep abreast of ever-changing technology developments and regulatory requirements. Since our inception, Cook Coggin has worked closely with our utility clients to meet their needs, whether it involves water, wastewater, or solid waste. Our experienced environmental team has the knowledge, skills, tools, and relationships to help you accomplish your goals.

CCE has had the privilege of providing Environmental Engineering Services to several clients over the past 78 years. Provided below is a partial listing of the environmental services that CCE provides.

- ✓ Site Evaluation and Design
- ✓ Long-Term Planning for Financial Feasibility
- ✓ Operations Plan Development
- ✓ Solid Waste Management Permitting
- ✓ Regional Solid Waste Management Plan Development and Modifications
- ✓ Air Pollution Control Title V Permitting
- ✓ Water – NPDES Permitting
- ✓ Water – Pretreatment Permitting
- ✓ Construction Planning, Oversight and QA/QC
- ✓ Title V Annual Emissions Inventory Calculations and Fee Assessment Reporting
- ✓ Baseline Storm Water General Permitting for Industrial Activities
- ✓ Large Construction Storm Water General Permitting
- ✓ Storm Water Pollution Prevention Plans
- ✓ Spill Prevention, Control, and Counter Measure (SPCC) Plans
- ✓ Title V Semi-Annual Certification Reporting
- ✓ Title V Annual Certification Reporting
- ✓ Landfill Gas Emissions (LandGEM) Modeling
- ✓ Annual Greenhouse Gas Modeling & Reporting
- ✓ Particulate Matter (PM) Emissions Calculations
- ✓ Municipal Solid Waste Transfer Station General Permitting
- ✓ Class I Rubbish Site General Permitting
- ✓ Class II Rubbish Site General Permitting
- ✓ Landfill Capacity Calculations and Optimization Consultation
- ✓ Landfill Life Projecting Reporting
- ✓ Closure Cost Reports
- ✓ Closure/Post Closure Financial Modeling
- ✓ Rubbish Site Annual Reporting
- ✓ Regulatory Agency Coordination
- ✓ Stream and Wetland Identification & Mitigation
- ✓ Geologic Land Use & Evaluations
- ✓ Topographic Surveys and 3D Terrain Modeling

SURVEYING/MAPPING SERVICES

Field services and mapping are provided by two (2) survey crews equipped with the latest Topcon total station surveying equipment outfitted with RECON data collectors (handheld computers) using Tripod Data Systems (TDS) data collection software. If necessary, more conventional surveying instruments are available to the survey staff to perform any of the other surveying/field measurement tasks required by a project. All our fully staffed survey crews report to the Tupelo office and are readily available to provide a wide range of surveying, topographic, and mapping services.

CCE also operates the Topcon HiPer Pro GPS equipment, which is the industry leader in long-range wireless Real Time Kinetic (RTK) GPS surveying technology. This state-of-the-art surveying technology allows our surveying staff to collect enormous amounts of field topography data.

COMPUTER AIDED DESIGN/DRAFTING SERVICES

The Cook Coggin Computer-aided Drafting and Design (CADD) department is comprised of an eleven (11) person design team headed by a Professional Land Surveyor with 40 years of experience in design and lead by a staff of seven (7) Designers who have a combined 182 years of experience. CCE's CADD operators are a skilled assembly of trained staff who assist our design team in the development of construction plans, row/easement exhibits for construction plans, surveys, and land acquisition, and map renderings for counties, municipalities, and other entities.

Each CADD operator has a state-of-the-art computer and dual high-resolution monitors. The graphic software can support up to four (4) views per screen. Also, each of the views can be zoomed in or out as many as ten (10) times to make the drawing larger or smaller. This gives the operator great flexibility in the creation of the project drawings. Drawings can be converted to any one of several popular graphic formats if required.

All the computers at CCE are networked allowing any of the operators, designers and/or engineers access to all project-related drawings. The dedicated server has 12 gigabytes (GB) of storage. The network includes three (3) laser printers that will print half-scale prints at a rate of 20 pages per minute with a resolution of 600 dots per inch, and a color E-size plotter that can produce plots up to 48 x 36 inches. The dedicated server acts as both a file and print server, storing all drawings and queuing all printouts and plots.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

CCE's commitment to providing its clients with the best service possible is illustrated by the inclusion of a GIS Specialist on our Engineering Team. On the forefront of technological advances is the use of global navigation satellite systems, high resolution photography, and digital mapping applications as an information base for local governments, businesses, and private individuals. Geographic Information Systems allow municipalities to have comprehensive information regarding its utility systems, property boundaries, etc. at its fingertips. It allows access to information municipalities and businesses utilize in planning and design for expansion and/or improvements. Additionally, governments and individuals also use this technology for zoning uses and while planning campaign strategies for political races, tax parcels, etc. ArcGis can export files that are compatible to Google Earth. Once a GIS database is created, it can easily be exported and viewed by Google Earth's free download.

These examples are merely a glimpse of the various uses of GIS. With this technology, information is easily attainable and updatable so that the most pertinent information is available.

Available Applications

Utilities

The following lists some of the applicable uses for GIS with regards to a municipality's water, sewer, and gas systems.

1. Valves
   - X, Y Coordinates, Date Installed, Last Maintenance, etc.
2. Fire Hydrants
   - X, Y Coordinates, Flow Rates, Date Installed, Last Maintenance
3. Water Tanks
   - X, Y Coordinates, Date Installed, Height, Overflow Level, Inspection Date, etc.
4. Waterline
   - Length, Diameter, Material Used, Date Installed, etc.
5. Pump Stations
   - X, Y Coordinates, Date Installed, Road Name, etc.
6. Manholes
   - X, Y Coordinates, Invert, Flow Direction, Inspection Reports, TV/Cleaning, Material Used, Diameter, Type—Pressure/Gravity
7. Lift Station
   - X, Y Coordinates, Last Maintenance, Inspection Reports
8. Gas
   - X, Y Coordinates, Inspection Reports, Cathodic Protection, Pressure Types, Lengths, Diameter

Zoning Ordinance

The following lists some of the applicable uses for GIS within a municipality's zoning ordinances.

1. Zoning
   - Display the different building zones and codes
   - Know the boundaries of commercial and residential zones
2. Tax Parcels
   - Display County or City Tax information
   - Parcel Number, Name, Address, Acreage, Lot Number, Legal Description, Deed Book, Page Number

Additional Utilization

The following is a non-comprehensive listing of additional uses for Engineering Consultant GIS Mapping services.

- **Real-Time GIS**
- **911 Addresses**
- **Emergency Dispatch Calls**
- **Logistics**
- **Power Pole inventory**
- **Geodatabase Design**
- **Terrain Analysis**
- **Network Analysis**

Conclusion

Geographic Information Systems is a computer system for capturing, sorting, querying, analyzing, and displaying geographically referenced data. GIS allows us to utilize the technology available and provide our clients with invaluable information that have many useful applications for a municipality. As technology continues to evolve, CCE is committed to adapting its services offered, giving clients access to engineering science as it develops.

UNMANNED AERIAL SYSTEMS (UAS) PHOTOGRAPHY/TOPOGRAPHY

Unmanned aerial systems (UAS) and associated photogrammetric software deliver high-resolution and high-accuracy geospatial data products, such as orthoimages and digital surface models (DSM), especially for smaller project areas, in a timely and cost-effective manner.

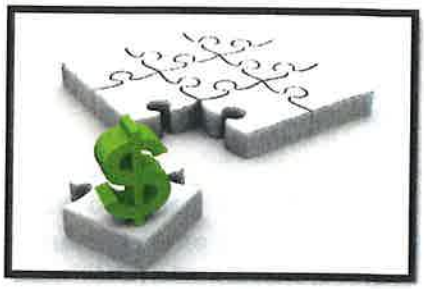
Civil engineering infrastructure development involves working with large amounts of detailed data gathered from various sources and encompasses a wide range of expertise and areas of interest, and data from different areas all needs to be managed and analyzed effectively. Aerial photography provides a means of capturing important data required for these projects. Aerial photographs have a unique, comprehensive perspective that is difficult to obtain by any other means. They also provide a quick and accurate method of providing vital information to assess the feasibility of a potential project or the progress of an existing project, whether it is a recreational facility, bridge, airstrip, large construction facility or any civil engineering undertaking.

Oblique aerial photos provide documentation for site selection and evaluation, as well as resource mapping, geological information and a visual identification of various conditions that may affect a civil engineering project.

Additionally, civil engineering projects require thorough, expert planning and continued monitoring to stand the test of time. Quality aerial photography provides an effective tool in the planning, building and ongoing inspection of civil engineering projects. They can provide detail that may not be available from other types of inspections and may help pinpoint potential problem areas as time and the elements take their toll on construction.

Funding Experience

Now in its eighth decade of service to state and county governments, municipalities, rural communities and industry, CCE has a reputation for excellence long established by principals dedicated to providing exemplary services. Over the past 78 years, CCE has developed a substantial amount of experience working with state and federal regulatory and funding agencies.



- ✓ **US Housing & Urban Development (HUD)**
- ✓ **Community Development Block Grant (CDBG)**
- ✓ **Appalachian Regional Commission (ARC)**
- ✓ **USDA-Rural Development (USDA-RD)**
- ✓ **State Revolving Fund (SRF)**
- ✓ **Mississippi State Department of Health (MDOH)**
- ✓ **Mississippi Department of Environmental Quality (MDEQ)**
- ✓ **Environmental Protection Agency (EPA)**
- ✓ **American Rescue Plan Act (ARPA)**
- ✓ **Planning and Development Districts (PDD) throughout the Region**
- ✓ **Mississippi Development Authority (MDA)**
- ✓ **Economic Development Authority (EDA)**
- ✓ **Mississippi Department of Transportation (MDOT)**
- ✓ **MDOT Transportation Alternative Program (TAP)**
- ✓ **Federal Highway Administration (FHWA)**
- ✓ **Surface Transportation Program (STP)**
- ✓ **Traffic Enhancement (TE)**
- ✓ **Office of State Aid Road Construction (OSARC)**
- ✓ **Mississippi Department of Archives & History (MDAH)**
- ✓ **Tennessee Valley Authority (TVA)**
- ✓ **Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP)**
- ✓ **Capital Improvements Revolving Loan Program (CAP)**
- ✓ **American Recovery & Reinvestment Act (ARRA)**
- ✓ **Economic Recovery Package (ERP)**
- ✓ **Federal Emergency Management Agency (FEMA)**
- ✓ **Mississippi Emergency Management Agency (MEMA)**
- ✓ **Mississippi Natural Gas Association (MNGA)**
- ✓ **US Army Corps of Engineers (USACE)**
- ✓ **Public Service Commission (PSC)**

CAPACITY FOR PERFORMANCE

Our Staff

Cook Coggin has a staff of approximately 68 professional and technical employees that includes an engineering team adept in civil, environmental, structural, hydraulic, geotechnical, transportation, and bridge design and geologists who are recognized experts in their field. The firm also employs highly trained designers, cost estimators, surveyors, and other professionals so that funding procurement, planning, surveying, design, testing, construction, and contract administration services can be provided for the complete scope of the project.

COOK COGGIN PROFESSIONAL TEAM	
6	Principals with a combined 117 years of service to the firm
9	Registered Professional Engineers
6	Engineer Interns
1	Civil Engineer Personnel
1	Registered Professional Geologist (RPG)
1	Geographic Information Specialist (GIS)
2	Registered Professional Surveyors (PLS/PS)
11	Designers/Computer-Aided Design & Drafting (CADD)
15	Construction Administration/Engineering Representatives
5	Laboratory/Environmental & Surveying
11	Support Staff Providing: IT, Accounting, Administrative, Marketing, and Customer Services

Timeliness/Team Member Availability

The successful completion of the various engineering tasks for any project will no doubt depend heavily upon the experience and qualifications of each team member, as well as the overall organization of the project team. Each member of the CCE team selected for any project understands the importance of providing responsive engineering services to the client, especially on short notice. This is particularly relevant for projects with heightened public awareness and scrutiny. To assure the Owner the most responsive engineering services, CCE's management is committed to providing priority contractual obligation to this project, which will enable completion of project tasks in a timely manner at minimum cost.

To accomplish engineering design on a compressed schedule, CCE feels that the project team must possess the following resources:

- Availability of an in-house resource of key personnel with both strong technical and experience background that must be dedicated full time to the project.
- Availability of experienced in-house support staff (CADD) operators/designers, construction overview personnel, field data collection personnel equipped with state-of-the art equipment and laboratory technicians that, again, must be dedicated to the project.
- Familiarity of the engineering firm and, in particular, the engineering staff with not only the project requirements but, more importantly, the existing systems in the area of the project that may have the greatest impact on the infrastructure.
- Ability to work directly with the client on a daily basis to keep them informed of the project.

The CCE project team understands that regardless of the size and expertise of the team members' firm, the success of any project depends on the availability of key team members. This is particularly true in this case where the assigned tasks must be completed in a timely fashion. Therefore, the CCE key individuals for this project stand ready to provide the client with prompt response.

If, by some chance, a project would require technical expertise not offered within the organization, CCE stands ready to gain that expertise by coordinating outside qualified support into the team structure. CCE's special consultants are highly experienced professionals, each bringing their own individual skill set to the benefit of our clientele.

Client Satisfaction

To Cook Coggin Engineers, Inc., client satisfaction is of utmost importance. Regardless of the task, CCE devotes all available resources and investigates all available options to deliver its clients the highest quality work. CCE believes that a true measure of the client satisfaction a firm has is seen in the repeat business the firm enjoys with the client. CCE prides itself in the volume of repeat business seen throughout its 78 years of service and would like to share some client comments regarding CCE's engineering service performance.

Cook Coggin Engineers, Inc. has shown an exceptional level of understanding for the Town's needs. They are dedicated professionals who have earned the respect of the leaders of our Town through hard work, integrity and the ability to provide the absolute best customer service possible.

Everett Hill, Mayor, Town of Como

As Mayor of the Town of Marietta, I have been privileged to work closely with Cook Coggin Engineers. For over 20 years, they have provided Marietta with any and all resources needed to deliver the very highest quality work. As a small, rural town, I can say that the size of our Town or the size of the project never influenced the quality work provided by Cook Coggin Engineers. We look forward to working with CCE on future projects.

Judy Ramey, Mayor, Town of Marietta

As manager of the City of Tupelo's Water & Light Department, I have personally been privileged to work closely with Cook Coggin Engineers, Inc. on numerous projects over the past 45 years and have full confidence in their abilities.

Johnny Timmons, Manager, Tupelo Water & Light Department

Cook Coggin Engineers has exceptionally served as professional engineering consultant for the City of Corinth Gas & Water Department for over 25 years. Cook Coggin adds value to the Department's capabilities in meeting the needs of customers. In 2013, Corinth Gas & Water Department began operation of the Clifford G. Worsham Surface Water Treatment Facility valued around $50 million. Cook Coggin was instrumental in every aspect of the project. The facility earned the MML "Best Overall" Excellence Award in 2013 and the ACEC MS Engineering Excellence "People's Choice" Award in 2014.

John M. Rhodes, Manager, City of Corinth Gas & Water Department

Northeast Mississippi Community College serves a five-county district in Northeast Mississippi. We have five campuses with one being in each county within our district. We have utilized the services of Cook Coggin Engineers for many years within each of our campuses. Every project in which they have been involved has been articulated with professionalism and expertise.

Northeast recently completed a state-of-the-art baseball/softball complex for approximately $8.4 million dollars. Cook Coggin Engineers were the lead architect and engineer on the very successful project. Cook Coggin Engineers have a sense of community which allows them to approach the project as if it was their very own. We are lucky to have Cook Coggin Engineers and their organization in our area. We look forward to many more years with our partnership!

Dr. Ricky G. Ford, President, Northeast Mississippi Community College

The Yellow Creek Port Board, represented by 4 NE MS counties selected Cook Coggin Engineers as our engineer in October of 2020. Since being represented by Cook Coggin Engineering Firm, our port has submitted projects totaling over $25,000,000 to the Federal Government and to our State Legislatures for funding. We have two substantial projects already in construction totaling $9.8 million.

Cook Coggin has proven their ability to perform with accuracy on the State and Federal level. We have been very pleased with Cook Coggin's professionalism and performance thus far.

I look forward to the continued growth this new relationship will bring to YCP and the communities we serve.

Robert J. Dexter, Executive Director
Yellow Creek State Inland Port Authority

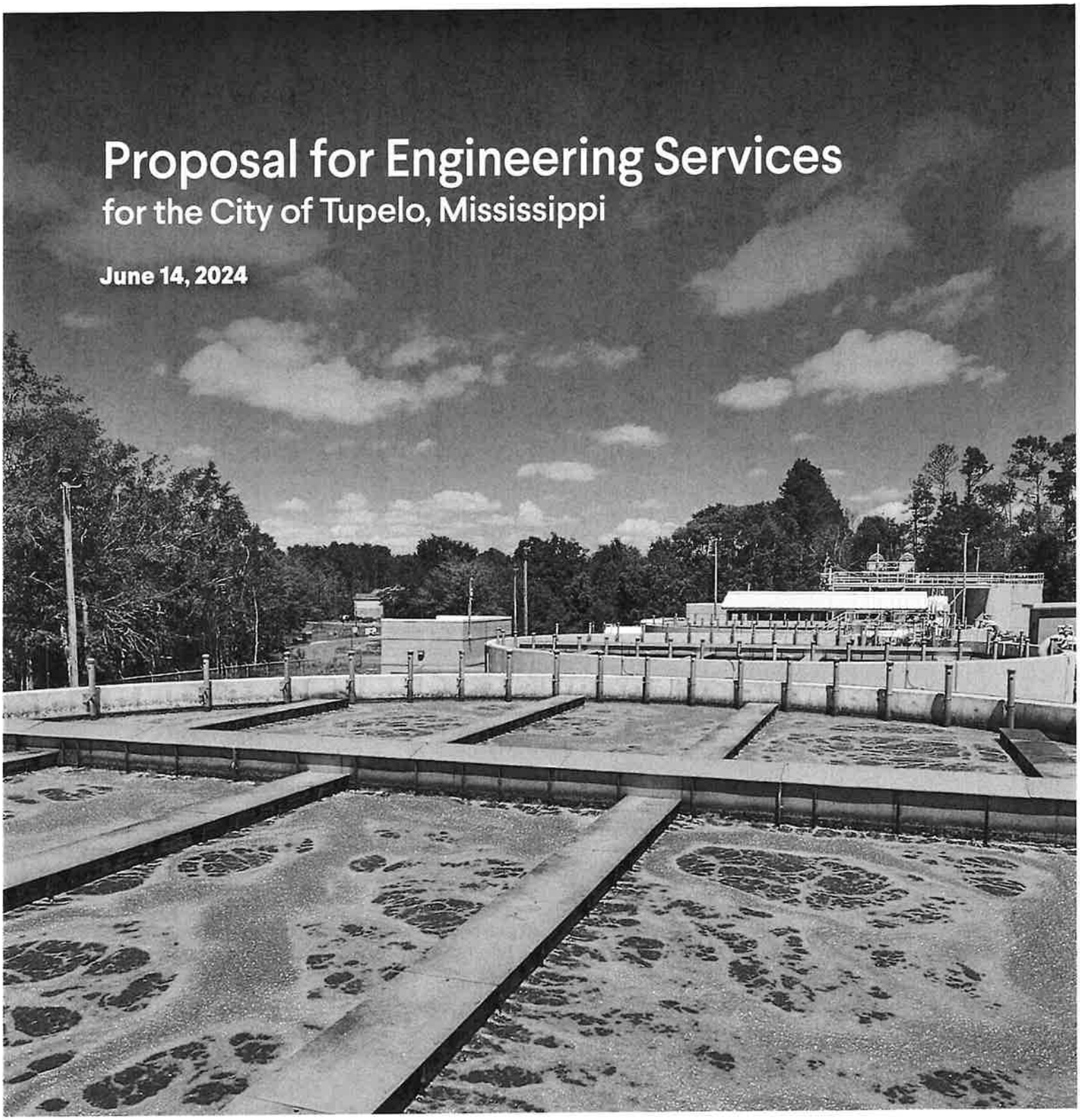
I want to tell you that from my perspective, I can't count how many startups I have done over the past twenty something years and that I have never started up such a large plant where everything went so smoothly.... everything works, everything is well designed, the plant is easy to operate....

*Clay Sikes, PE, Principal and Founder of ESG Operation, Inc.**

*ESG is responsible for the operations and maintenance of more than 150 municipal and industrial water and wastewater treatment facilities. **www.esginc.net**

Proposal for Engineering Services
for the City of Tupelo, Mississippi

June 14, 2024



GMC

Goodwyn Mills Cawood

Building Communities

www.gmcnetwork.com

GMC

Goodwyn Mills Cawood

2400 5th Avenue South
Suite 200
Birmingham, AL 35233

T: (205) 879-4462
www.gmcnetwork.com

June 14, 2024

City of Tupelo
Purchasing Office, City Hall, 1st Floor
71 E. Troy Street
Tupelo, MS 38804

Re: Proposal for Engineering Services

Dear Members of the Selection Committee:

We appreciate the opportunity to offer our proposal to provide engineering services for work related to an application for wastewater improvements projects with multiple potential funding agencies. We have thoroughly reviewed this solicitation and believe that our experience, staff, and qualifications are an excellent match for the City of Tupelo's needs.

GMC has an extensive experience, spanning more than 75 years, of assisting utilities across the southeast with a wide array of projects, including water and wastewater.

We are enthusiastic about the prospect of collaborating with the City team and aim for this to be the first successful project of many with the City of Tupelo. Here are some key points highlighting how we can contribute to your wastewater program's success:

1. **Responsive:**
   The mid-sized nature of our firm allows for a unique blend of expertise and responsiveness. Your projects, regardless of their size, will receive the attention they need for efficient and successful completion.

2. **Experienced:**
   The core of GMC's water and wastewater experience can be found in our numerous offices near Tupelo. The team members included in this response collectively bring several hundred years of experience in water-related projects. We have engineers, operators, contractors, and licensed plumbers that are a part of our engineering team.

3. **Collaborative:**
   We strongly believe in building strong collaborative relationships with our clients. Nobody knows your system better than you. When we work on your projects, we see ourselves as an extension of your team, as we all work together to improve the infrastructure in your city.

A relationship with City of Tupelo is of strategic importance to GMC and our growth in the Southeast. Due to this, we must ensure that your projects are a success and will go above and beyond to ensure this project is delivered on-time, in budget, and to the satisfaction of all stakeholders.

Please don't hesitate to reach out if you have any questions or need further information. We look forward to the possibility of collaborating on these important projects.

Sincerely,
Goodwyn Mills Cawood, LLC

Wheeler Crook, PE, BCEE
Vice President, Engineering
wheeler.crook@gmcnetwork.com

Bryan King, AICP
Planner, Client Liasion
bryan.king@gmcnetwork.com

▲ Horse Creek Pollution Control Facility

Contents

On the cover: Wolf Creek Wastewater Treatment Facility

Section 1
Qualifications

Goodwyn Mills Cawood

Architecture | Interior Design | Engineering | Environmental | Landscape Architecture | Disaster Recovery

GIS | Planning | Geotechnical | Electrical | Transportation | Surveying

GMC is one of the most comprehensive architecture and engineering firms in the Southeast. Our multi-disciplined in-house team of professionals is equipped to provide all of the services associated with architecture, electrical, engineering, environmental, geotechnical, interior design, landscape architecture, planning, surveying and transportation.

By having multiple disciplines under one roof, we are able to streamline communication, improve efficiency and enhance the quality of service to our clients. GMC's integrated team provides a depth of expertise that allows us to capture the "big picture" and understand the details a project entails. Utilizing our comprehensive approach, we look at each project from many vantage points to identify creative solutions.

While the company has evolved tremendously since its launch in 1947, our founding principles remain a vital part of our daily operations.

GMC is – and will continue to be – a collaborative organization driven by the power of building better, happier, healthier, thriving communities. Our multi-disciplined approach assures a broad base of knowledge on which to develop strategies for both short- and long-term growth that are not only efficient, but culturally appropriate and environmentally accountable. Every project, big or small, is guided by recognizing that great engineering and architecture helps make communities better, for everyone.

What We Do

Airport Planning

- Economic Feasibility Studies
- Grant and Funding Assistance
- Parking Apron Design & Construction
- Taxiway Design, Widening & Extension
- Taxiway Rehabilitation
- Runway Design & Construction
- Runway Rehabilitation
- Airfield Lighting, Navigational Aids & ILS
- Corporate & T-Hangars
- General Paving Rehab
- Entrance Roads & Parking Areas
- Utilities, Water & Sewer Systems

Architecture

- Architectural Design
- Interior Design
- Master Planning
- New Construction
- General Renovations
- Site Analysis
- Accessibility Reviews
- Program Review & Analysis
- Facility Programming
- Historic Renovations
- Building Additions
- Reroofing Projects
- Mechanical & Electrical System Renovations
- Construction Administration

Civil Engineering

- Design/Construction Administration:
  - Residential Developments
  - Commercial and Office Developments
  - Industrial Parks/Sites
  - Institutional and Educational Facilities
  - Street and Drainage Projects
  - Parks and Recreation Projects
  - Gas Distribution Systems
- Boundary & Topographic Surveys

Electrical Engineering

- Evaluation of Existing Systems
- Electrical & Communications Design
- Energy Efficiency Studies
- Third Party Equipment Evaluation (ACIL)
- ETAP Arc Flash/Short Circuit Study
- Breaker Coordination Study
- Exterior Overhead & Underground Power Design
- Generator Design, Selection & Testing
- LEED Design & Certification
- Power Distribution
- Interior and Exterior Lighting Design & Photometry
- Fire Alarm & Life Safety Design
- Lightning Protection Design
- Uninterruptable Power System Site Installation & Verification
- Water & Wastewater Power Design
- Architectural Lighting Design
- Construction Administration

What We Do (cont.)

Environmental

- Phase I & Phase II ESA Environmental Assessments
- Environmental Impact
- Documents and Statements
- Green Infrastructure Design
- Stormwater
  - Master Planning
  - Utilities
  - Permitting and Compliance
- Wetland Delineations
- Wetland Permitting
- Wetland Mitigation
- Mitigation Banking
- Stream Restoration Plans
- Endangered and Threatened Species Survey
- Flood Plain Studies
- Detention Pond Design
- Air Permitting
- Landfill Design and Permitting
- Source Water Protection Plans
- Hydrogeological Evaluations
- Brownfield Projects
- Underground Storage Tank Closure and Investigations
- Geographical Information System (GIS)

Geotechnical Engineering

- Construction Materials Testing
- Field Exploration
- Laboratory Testing Services
- Foundation Analysis and Design
- Slope/Embankment Stability
- Pavement Evaluation & Design
- Soil Stabilization
- Ground Improvement
- In-situ Moisture & Density
- Dynamic Cone Penetrometer Testing
- Subgrade Evaluation & Proof Rolling Observations
- Pile and Pier Observation
- Foundation Construction Monitoring
- Fill Testing & Control
- Concrete Placement Inspection
- Compressive Strength Testing
- Reinforcing Steel Inspection
- Grout Sampling & Masonry Block Testing
- Asphalt Placement Inspection & Coring
- Structural Steel Observations
- Facility Programming
- Historic Renovations
- Building Additions
- Reroofing Projects
- Mechanical & Electrical System Reno
- Construction Administration

Landscape Architecture

- Detailed Site Design
- Hardscape Design for Residential,
- Commercial and Retail Environments
- Planting and Irrigation Design
- Recreation Planning & Design
- Bike and Pedestrian Facility Planning
- Master Planning Residential DEV
- Master Planning Mixed-use DEV
- Downtown Redevelopment Strategies
- Streetscape Design
- Construction Documents
- Drawings & Specifications

Right Of Way

- Appraisals and Appraisal Review
- Condemnation Support Services
- Cost Estimates
- Due Diligence
- Easement Acquisition
- Environmental Assessments
- Fee Acquisitions
- Negotiations
- Partial or Whole Acquisitions
- Relocation Assistance
- Right of Entry Agreements
- Title Research

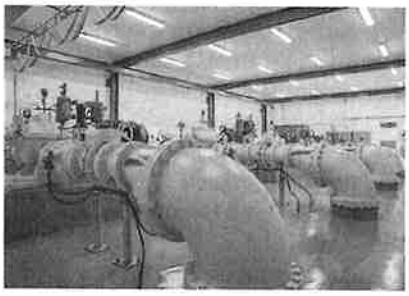
What We Do (cont.)

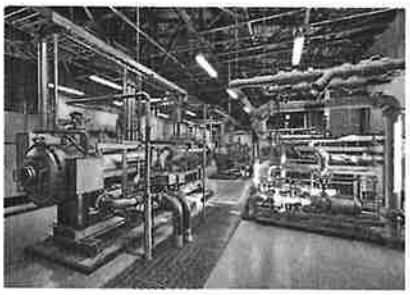
Surveying

- As-Built/Record Surveys
- Boundary Surveys
- Construction Surveying & QA/QC
- FEMA Surveys & Documentation
- Hydrographic Surveys
- Rights of Way/Easement Surveys
- Subdivision Platting
- Topographic Surveys
- Aerial Drone Surveys
- GIS Data Collection
- 3D Scanning & modeling
- ALTA/NSPS Land Title Surveys

Transportation Engineering

- Project Identification
- Concept Development and Planning
- Assist with Funding Opportunities
- Environmental Studies & Permitting
- Surveying
- Geotechnical Design
- Project Letting
- Airport Engineering & Planning
- Roadway Utility Improvements
- Stormwater Improvements
- Erosion Control Design
- Streetscape
- Local Maintenance Resurfacing Program Grant Applications
- Private Development Roadways
- Construction Engineering and Administration
- Land Planning





Water Engineering

- Water Treatment Plant Design
- Wastewater Treatment Plant Design
- Biological Modeling
- Water Modeling
- Water Transmission Mains
- Water Distribution Systems
- Evaluation of Existing Systems
- Computer Control Systems
- Collection System Modeling
- GIS
- Asset Management
- Well Systems
- Groundwells
- Well Rehabilitations
- Testwell Programs
- Master Planning
- Pumping Stations
- Storage Tanks
- Sewer Collection Systems
- Sanitary Sewer Rehabilitation
- Elevated Water Tanks
- Basis of Design
- Construction Engineering and Inspection

Engineering Services for Wastewater Improvements

What We Do (cont.)

Disaster Recovery

- **Debris Removal Monitoring**
  - Debris Hauling Certification
  - Debris Hauling Vehicle Certification (Volumetric)
  - Private Property Debris Removal
  - Data Management
  - Document Management
  - Disaster Recovery Monitoring with ADMS
  - Progress Reporting
- **Cost Recovery**
  - Preliminary Damage Assessment
  - Damage Site Surveys
  - Collection and Compilation of PDAs
  - FEMA Grant Applications
  - Small/Large Project Formulation and Scoping
  - Applicant Scoping Meeting Facilitation
  - Project Worksheet (PW) Development
  - Procurement Assistance
  - Expenditure Review/Approval and Reconciliation
  - Direct Administrative Cost (DAC) Support
  - Appeals Support
  - Closeout and Audit Assistance
- **FEMA Hazard Mitigation Assistance**
  - Application Development
  - Benefit Cost Analysis
  - Project Monitoring
  - Feasibility Studies
  - Program Reporting
  - Budget and Schedule Preparation
  - Mitigation Plan Development
  - Disaster Preparedness and Planning

Grant Funded
Project Experience

Our Team has worked on numerous projects to replace aging infrastructure, increase storage capacity, improve reliability, increase redundancy, and position utilities to better respond to emergency situations. In an effort to serve utilities for projects like this, GMC collectively tracks multiple funding agencies.

Federal funding is available to communities across the country to implement a variety of projects that improve their communities and impact the lives of the people that live there. GMC has considerable experience dealing with grant funding and grant-funded projects. There is often money available to help with community projects that clients are not even aware of. GMC has the staff that can help with the application process to obtain federal funding for your next project.

Kevin Laird, GMC's Executive Vice President of Engineering and a member of our Board of Directors, is seen here working with a client on Washington DC visit with Senator Lindsey Graham for the largest USDA funded project in the US in 2016.

THE AMERICAN RESCUE PLAN

$200M
Total grant funds

$500M
Total construction value

16
Total projects

EDA U.S. ECONOMIC DEVELOPMENT ADMINISTRATION

USDA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

THE AMERICAN RESCUE PLAN

ARC Appalachian Regional Commission

COMMUNITY DEVELOPMENT CDBG BLOCK GRANT

+$700M
Total government grant funding

FUNDED SRF PROJECTS	
CLIENT	**PROJECT TOTAL**
2022 PROJECTS	
AKRON CWSRF	$3,041,300
AKRON DWSRF	$1,393,925
BEULAH UTILITIES DISTRICT DWSRF	$1,245,500
BRILLIANT DWSRF	$1,541,150
BUTLER CWSRF	$1,991,050
CAMP HILL CWSRF	$6,772,410
GREENVILLE WWSB CWSRF	$2,242,000
LITTLEVILLE CWSRF	$200,000
NORTH CHOCTAW DWSRF	$1,790,222
THOMASVILLE DWSRF	$5,819,300
ADCNR CHEWACLA CWSRF	$500,000
ADCNR DESOTO CWSRF	$1,000,000
ADCNR GUNTERSVILLE CWSRF	$900,000
ADCNR GUNTERSVILLE DWSRF	$100,000
ADCNR MONTE SANO CWSRF	$350,000
ADCNR MONTE SANO DWSRF	$150,000
2023 PROJECTS	
FORT DEPOSIT DWSRF	$3,664,500
FORT DEPOSIT CWSRF	$2,060,250
WETUMPKA CWSRF	$5,551,875
ALTOONA CWSRF	$2,400,800
BCWA DWSRF	$1,933,800
BCWSD DWSRF	$12,974,375
THOMASVILLE CWSRF	$10,142,000
ADCNR CHEWACLA CWSRF	$380,120
ADCNR CHEWACLA DWSRF	$488,900
STEVENSON CWSRF	$1,465,000
GEORGIANA CWSRF	$2,169,250
STAR MINDINGALL DWSRF	$2,418,950
VERNON CWSRF	$3,437,720
BRILLIANT CWSRF	$2,436,475
HOBSON CITY DWSRF	$4,473,350
HOLLINS DWSRF	$1,160,250
FORKLAND DWSRF	$1,541,450
GARDEN CITY DWSRF	$657,860
HOBSON CITY CWSRF	$2,932,100
YORK DWSRF	$700,000
EUFAULA CWSRF	$3,236,900
LIVINGSTON CWSRF	$5,364,500
MILLBROOK CWSRF	$11,693,800
ELMORE CO. CWSRF	$7,538,040
HANCEVILLE CWSRF	$4,210,307
PCWA DWSRF	$1,600,000
DADEVILLE DWSRF	$809,750
DADEVILLE CWSRF	$2,477,000
ATTALLA CWSRF	$1,373,875
RCWA DWSRF	$7,343,491
JOPPA HULACO RYAN DWSRF	$455,000
RIVIERA UTIL. DWSRF	$6,364,500

Diversity + Inclusion **Strategic Plan**

GMC is committed to facilitating a company culture that builds and celebrates diversity in all its forms through education, advocacy and support of all employees. To support this mission, GMC's leadership and its Diversity & Inclusion Committee have developed a strategic plan.

Recruitment

Recruit, identify, attract and retain diverse candidates for full and part-time positions

Education and Training

Provide companywide D&I training and education for all employees

Culture and Office Environments

Provide work environments that are welcoming, accessible and comfortable for all employees

Strategies and Tactics

- Explore DE&I job boards (ex: Veterans-specific sites, NOMA, HBCUs, etc.)
- Target specific audience in DE&I groups on paid job sites, such as LinkedIn
- Utilize professional organizations/ networking/ conferences for exposure (ex: NOMA, NSBE, etc.)
- Update Culture and Careers sections of the website to include D&I; ensure info presented accurately represents GMC's D&I approach/culture
- Training for hiring managers on avoiding bias in the recruitment/ interview process

- Conduct at least two D&I-focused trainings for all employees - one focusing on inclusive design/D&I for design professionals
- Highlight D&I resources each month in GMC Digest (i.e., D&I courses available in Bridge/through Open Sesame, educational resources, etc.)
- Conduct D&I training/workshop with consultant for executive team, BOD, EVPs and D&I Committee
- Training for hiring managers on avoiding bias in the recruitment/ interview process

- Conduct assessments of all offices using "Welcoming Office Initiative" framework
  1. **Equitable use** - The design is useful and marketable to all, including all people with diverse abilities.
  2. **Flexibility and simplicity in use:** The design accommodates a wide range of individual preferences and abilities.
  3. **Meaningful moments at work –** 'Getting-to-know-you' spaces and activities, for clients and co-workers
  4. **Blending work and home –** The office as the cultural hub that serves as a 'home away from home" and a means to support and balance work/life activities
  5. **Wellness** – An emphasis on physical, mental and social well-being

Client Management

Bryan King, AICP
Client Liaison

Bea Forniss
Community Relations

Project Management

Wheeler Crook, PE, BCEE
Vice President, Engineering

Lawrence Hughes
Project Manager

Trey Hopper, PE
Assistant Project Manager

Scope & Funding Development

Russ Robinson
Grant Agent and Funding Specialist

Primary Services

Engineering

Tony Reid, PE, BCEE
VP, Water Resources Treatment Division

Jeremy Lipscomb, PE
Design Manager, Collections & Transmission

Liang Wang, PE, BCEE
Process Engineer

Andy Perry, PE
Hydraulic Modeling

Construction Observation/ Engineering & Start-up

Tim Mitchell
Construction & Operations, Water

Kerry Hannah
Construction Inspector

Secondary Services

Environmental

Melissa Mehaffey, PWS, CFM
Senior Ecologist/Wetland Scientist

Geotechnical

Kevin Wales, PE
Geotechnical Engineer

Electrical

John Averrett, PE, LEED AP
Electrical Engineer

Contract Administration / Grants

Lauren Gallo
Contract Administrator

GIS/Survey

Jim Barre, PE
GIS/Survey

J. Wheeler Crook, PE, BCEE

Vice President, Engineering

(334) 271-3200 wheeler.crook@gmcnetwork.com

Wheeler is a professional engineer with 19 years of experience in municipal engineering. In his tenure at GMC, Wheeler has worked on numerous community development and infrastructure projects, including water and sewer infrastructure and miscellaneous industrial development projects. His professional experience and abilities migrated him into a specialty group of the company, the Water Resources and Treatment Division (WRTD), providing engineering studies, development, design and construction engineering for large water and wastewater infrastructure projects specifically early on. In this position, Wheeler managed the engineers, designers and subconsultants on treatment projects, and was responsible for coordinating and providing treatment specific services to project managers throughout the Southeast for all of GMC's offices. In 2017, Wheeler was promoted to Vice President of Engineering for South Alabama. In this role, Wheeler managed business development efforts, economic development and community improvement projects, project managers, and the design of civil and municipal projects across central and south Alabama, in additional to projects throughout the Southeast. In 2020, Wheeler became Vice President of Engineering, concentrating on the states of Alabama, Tennessee, Mississippi, and Florida, with a focus on water and economic development.

Wastewater Experience

- Littleville Wastewater Treatment Plant - Littleville, AL
- Lower Valley Wastewater Treatment Plant Upgrade - Valley, AL
- Loxley Wastewater Treatment Plant Upgrade - Loxley, AL
- Sewer Improvements and Wastewater Treatment Plant - Coffeeville, AL
- East Alabama Wastewater Treatment Plant Improvements - Valley, AL
- Disaster Relief Force Main and Lift Stations - Atmore, AL
- Masland Outfall - Atmore, AL
- Pine Hill Wastewater Treatment Facility Improvements - Pine Hill, AL
- Atmore Wastewater Treatment Plant - Atmore, AL
- Littleville Wastewater Treatment Plant - Littleville, AL
- Cabin Creek Wastewater Treatment Plant Assessment - Griffin, GA
- Gadsden East and West Wastewater Treatment Plants - Gadsden, AL
- Horse Creek Pollution Control Facility - Aiken, SC
- Woodruff Wastewater Treatment Plant - Woodruff, SC
- Wastewater Treatment Plant Upgrade - Dadeville, AL
- Acordis Wastewater Treatment Facility - Creola, AL
- Camp Merrill Sewage Collection System - Dahlonega, GA
- Georgiana Wastewater Treatment Plant Upgrades - Georgiana, AL
- Walnut Creek Wastewater Treatment Plant Improvements - Troy, AL
- Riverbend Wastewater Treatment Plant Screen Replacement - Dalton, GA
- Woodstock Wastewater Treatment Plant - Woodstock, AL
- Pendleton-Clemson Wastewater Treatment Facility - Pendleton, SC
- Eufaula Wastewater Treatment Plant Expansion - Eufaula, AL
- Linden Wastewater Treatment USDA - Linden, AL
- Wolf Creek Wastewater Treatment Plant Budgetary Design Review - Foley, AL
- Wolf Creek Wastewater Treatment Plant Upgrade - Foley, AL
- Wright Smith Wastewater Treatment Plant Primary Digester Clean - Mobile, AL
- Decherd Wastewater Treatment Plant Expansion - Decherd, TN
- Daphne UV and Tertiary Filtration - Daphne, AL
- Wastewater Treatment Plant Upgrade - Dadeville, AL

Education:

- Bachelor of Civil Engineering, Auburn University, 2005
- Bachelor of Science, Birmingham-Southern College, 2005

Licenses and Registrations:

- Licensed Engineer in AL #30839, FL #87898, GA #035427, MS #25070, NC #037644, SC #28445, TN #118724
- Board Certified Environmental Engineer (BCEE) #21-20027

Affiliations:

- Leadership Montgomery
- Water Environment Federation (WEF)
- Alabama Water Environment Association - WEF Delegate, Past President
- American Water Works Association (AWWA)
- River Region United Way Impact Council, former Loaned Executive
- Auburn University's Government and Economic Development Institute
- AL/MS Water Joint Annual Conference Board
- Children's Hospital 2019 Committee for the Future

Awards and Honors:

- *ENR Southeast* 2021 Class of Top Young Professionals
- *Civil + Structural Engineer* 2020 Rising Stars in the AEC Industry (Multidiscipline Engineering)
- "Taste and Color: Assessing and Reducing MIB and Geosmin in Drinking Water," ADEM, 2018
- "Virtual Design and Construction," AWEA Annual Conference, 2017
- WEF Arthur Sidney Bedell Award, 2017
- "The CLO2 Advantage," ClearWater Solutions

Bryan King, AICP

Planner | Client Liaison

(205) 879-4462 bryan.king@gmcnetwork.com

Bryan is an urban planner specializing in urban design and community building with a background in planning and community advocacy. Bryan has experience working with public, private, and nonprofit sectors, which advances his understanding of how these entities work together to achieve a common goal. Bryan is instrumental in providing innovative strategies in community development and producing marketing quality visioning and planning documents.

Comprehensive Planning Experience

- City of Tupelo Comprehensive Plan - Tupelo, MS
- Leeds Comprehensive Plan - Leeds, AL
- Gadsden Comprehensive Plan - Gadsden, AL
- Fort Payne Comprehensive Plan - Fort Payne, AL
- Muscle Shoals Comprehensive Plan - Muscle Shoals, AL
- Montgomery Comprehensive Plan - Montgomery, AL
- Tuscaloosa Comprehensive Plan - Tuscaloosa, AL
- Tuscumbia Comprehensive Plan - Tuscumbia, AL
- Argo Comprehensive Plan - Argo, AL
- Henagar Comprehensive Plan - Henagar, AL
- Demopolis Comprehensive Plan - Demopolis, AL

Zoning and Design Regulation Experience

- City of Tupelo Zoning Update - Tupelo, MS
- Argo Zoning Ordinance - Argo, AL
- Southside Corridor Zoning Ordinance - Southside, AL
- Jekyll Island Zoning Ordinance - Jekyll Island
- Tuscumbia Zoning Ordinance - Tuscumbia, AL
- The Bray Design Guidelines - Vestavia Hills, AL
- Fort McClellan Design Guidelines Update - Anniston, AL
- Anniston Downtown Code Update - Anniston, AL
- Selma Zoning Ordinance Update - Selma, AL
- Gadsden Short-Term Rental Ordinance - Gadsden, AL

Strategic and Area Master Plan Experience

- The University of Alabama at Birmingham (UAB) Campus District Master Plan - Birmingham, AL
- Southside Strategic Master Plan - Southside, AL
- Ashville Strategic Master Plan - Ashville, AL
- Wetumpka Area Plan - Wetumpka, AL
- Downtown Wetumpka Master Plan - Wetumpka, AL
- Birmingham Sidewalks Master Plan - Birmingham, Alabama
- Dalton Corridor Improvement Plan - Dalton, GA
- River District Master Plan - Rome, GA
- The Bray Towncenter and Traditional Neighborhood - Vestavia Hills, AL
- The Pier Lakefront Town Center - Clemson, SC
- Town of Pendleton Small Area Plan - Pendleton, SC
- Madison Industrial Area Plan - Madison, AL

Education:

- Master of Community Planning, Urban Studio, Auburn University, 2013
- Bachelor of Liberal Arts, Psychology, Auburn University, 2008

Licenses and Certifications:

- American Institute of Certified Planners (AICP)
- Georgia Planning Association

Affiliations:

- Alabama Communities of Excellence, Team Captain
- The University of Alabama at Birmingham (UAB) Grand Challenge Team Member (N. Titusville, Kingston, Bush Hills)
- Birmingham Good Community Food Fellowship, Jones Valley Teaching Farm
- Community Advisory Board, Jones Valley Teaching Farm
- Trails for Recreation and Economic Development (TRED) Board of Directors
- Bush Hills Urban Farm Volunteer
- Alabama Communities of Excellence, Team Captain
- Alabama Planning Association
- Morris Place HOA Board
- Leadership Rome
- Inter-City Leadership Team
- Makervillage Board of Directors

Awards and Honors:

Birmingham Business Journal 40 under 40

Lawrence Hughes
Project Manager

(334) 318-5595 lawrence.hughes@gmcnetwork.com

Lawrence joined GMC in 2024 as a Project Manager, bolstering our Alabama engineering team. He adds value to the firm's water and wastewater division, bringing decades of experience in the management and operations of public and private water and wastewater systems.

Lawrence joins GMC following his 35-year-plus career managing water and wastewater facilities, collection and distribution systems and public works projects. In these roles, he has also gained extensive experience in managing relationships between key players including state and local officials, governing agencies, as well as members of the community. He brings his expert knowledge of operations and maintenance to his new role as project manager with GMC.

Lawrence has worked throughout the Southeast, assisting with the management and maintenance of hundreds of projects to better serve local communities. In addition to project management, has was also responsible for overseeing day-to-day operations, managing employees, logistics, inventory control and client services in the water industry.

Education:
Bachelor of Business Management, Auburn University, 1990

Affiliations:
- Mississippi Rural Water Association
- Mississippi League of Municipalities
- Alabama Rural Water Association

Wastewater Experience
- City of Hoover WWTF - Hoover, AL *
- City of Union Springs - Union Springs, AL *
- Tunica Utility District - Tunica, MS *
- Horn Lake Water Authority - Horn Lake, MS *
- City of Greenville - Greenville, MS *
- City of Gautier - Gautier, MS *
- City of Moss Point - Moss Point, MS *
- Town of Walls - Walls, MS *
- Great River Utility Operating Company (CSWR) - 76 sewer lagoons and WWTF in various locations in North, Central, and South Mississippi *

Water Experience
- South Dallas Water Authority - Selma, AL *
- West Dallas Water Authority - Selma, AL *
- Butler County Water Authority - Greenville, AL *
- Hale County Water Authority - Greensboro, AL *
- Perry County Water Authority - Marion, AL *
- City of Union Springs - Union Springs, AL *
- Horn Lake Water Authority - Horn Lake, MS *
- Tunica Utility District - Tunica, MS *
- City of Greenville - Greenville, MS *
- City of Gautier - Gautier, MS *
- City of Moss Point - Moss Point, MS *

Additional Project Experience
- City of Greenville - Public Works- Greenville, MS *
- City of Gautier - Public Works- Gautier, MS *
- City of Moss Point - Public Works- Moss Point, MS *

* Projects completed with previous firm.

Trey Hopper, EI
Assistant Project Manager

(205) 879-4462 trey.hopper@gmcnetwork.com

Trey is an Engineering Staff Professional specializing in engineering related to projects for various municipalities, government agencies, and private corporations. He assists in designing projects and in creating of bidding documents, permits, and construction administration. His background includes water and wastewater master plans, studies, and impact fee updates, modeling for pipeline design projects, on-call modeling services, and condition assessment programs.

Wastewater Experience

- Limestone County WRF - Athens, AL
- Stevenson Lagoon Improvements - Stevenson AL
- Millbrook WWTP Improvement - Millbrook, AL
- Wetumpka WWTP Improvements - Wetumpka, AL
- Elkmont Rural Village Wastewater Treatment Plant Capacity Analysis - Elkmont, AL
- Loxley Wastewater Treatment Plant Upgrades - Loxley, AL
- Daphne Utilities WRF UV Disinfection - Daphne, AL
- Daphne Utilities WRF Grit System Improvements - Daphne, AL
- Daphne Utilities WRF Capital Improvements Plan - Daphne AL
- West Limestone High School Recirculating Sand Filter Plant - Limestone County, AL
- Lower Valley Wastewater Treatment Plant Upgrade - Valley, AL
- Robertsdale Wastewater Treatment Plant Upgrades - Robertsdale, AL
- Garden City CDBG Wastewater Treatment Improvements - Garden City, GA
- Brier Fork Wastewater Treatment Plant Expansion - Huntsville, AL
- Elkmont Rural Village Wastewater Treatment Plant Capacity Analysis - Elkmont, AL
- North Limestone County Water Reclamation Facility - Limestone, AL
- Greenville WWSB Wastewater Treatment Facility Improvements - Greenville, AL
- Sulligent Wastewater Treatment Plant Consent Order Engineering - Lamar, AL

Water Experience

- Pickens Regional Water Joint Water System Lake Keowee Water Treatment Plant - Six Mile, SC
- Arab Water Treatment Plant Improvement - Arab, AL
- Chattahoochee Valley Water Supply District Raw Water Intake Upgrade - Lanett, AL
- Chattahoochee Valley Water Supply District Water Treatment Plant Filtration Upgrade - Lanett, AL
- Chattahoochee Valley Water Supply District Clearwell and Pump Station Improvements - Lanett, AL
- Riviera Utilities South Water Treatment Plant - Foley, AL
- Loxley Water Treatment Plant - Loxley, AL
- Belforest Water Treatment Facility at the Larry Street Tank Site - Loxley, AL
- New Water Treatment Facility #2 at Roscoe Road - Orange Beach, AL

Education:

Bachelor of Science, Civil Engineering, University of Mississippi, 2020

Licenses and Certifications:

- Certified Engineering Intern
- NASSCO LACP
- MACP
- PACP

Affiliations:

- Lead in Drinking Water and the Effectiveness of Point-of-Use Filtration (Hopper, 2020

Bea Forniss
Community Relations

(334) 868-9775 bea.forniss@gmcnetwork.com

Bea Forniss serves as a Community Specialist for GMC. Her previous experience as the Division Chief of the Community and Economic Development Division at the Department of Economic and Community Affairs for the State of Alabama makes her well suited for the responsibilities of assisting the clients with all aspects of a project from funding through construction. In her previous position, Bea supervised the Appalachian Regional Commission, Community Development Block Grant Programs, Community Services Block Grant Program, Delta Regional Authority, Minority Business Program, Recreation and Conservation, and provided technical assistance for Community and Economic Development projects in distressed areas. Her insight into the planning and funding of each project will be invaluable to both the client and the GMC team.

Bea is a native of Mobile, Alabama. She graduated in 1968 from Blount High School in Prichard, Alabama. Bea attended Mobile State Junior College (now Bishop State Community College) before transferring to Alabama State University (ASU). She graduated from ASU in 1972 with a bachelor's degree in elementary education and a minor in library science, in addition to graduating with a master's degree in counseling in 1974.

Bea taught public school for several years and also served as a school counselor in the Lowndes County and Montgomery Public School System before leaving to work for the Alabama Department of Economic and Community Affairs as the Special Projects Director.

Bea is a member of several professional and community organizations. Some of these include: Alabama State Employees Association, Civil Justice Foundation, the Volunteer and Information Board, Alpha Kappa Alpha Sorority, Inc., Leadership Montgomery, Alabama State University's Foundation, and the Montgomery Area United Way Board of Directors, just to name a few. She has won recognition with economic development components for the State of Alabama and has received numerous awards.
Bea spends the majority of her free time serving her alma mater as a past president of the Alabama State University National Alumni Association and current Parliamentarian for the Montgomery chapter; however, she still finds time to volunteer within her community. For these efforts, she has received numerous awards including the Bishop Barron State Employee Public Service Award; Dr. Martin Luther King, Jr. Legacy Community Service Award; Montgomery Advertiser Journal's Outstanding Women Award; Commerce Young Woman Leadership Award; 2013 Tullibody Award; and 2013 University of West Alabama Center for Business and Economic Service Director's Award. In 2018, Bea was award the George Goodwyn Community Service Award from GMC given annually to an employee exemplifying outstanding leadership and service to the community. Presently, she serves on Ingram State Technical College's Foundation Board, Auburn GEDI Board and Ivy Foundation Board of Montgomery. Bea takes pride in being a member of First Congretional Christian Church (UCC) where she serves as church moderator, delegate and member of the Women's Fellowship. She is married to Leon Forniss and is the "bonus mother" to Dana (Nathan Holmes) and Taryn (Ty Francis) with four lovely grandchildren.

Education:

- Master of Counseling, Alabama State University, 1974
- Bachelor of Science in Elementary Education (Minor in Library Science), Alabama State University, 1972

Affiliations:

- Alabama State Employees Association Civil Justice Foundation Volunteer and Information Board
- Alpha Kappa Alpha Sorority, Inc.
- Leadership Montgomery
- Alabama State University's Foundation
- Montgomery Area United Way Board of Directors

Awards and Honors:

- George Goodwyn Community Service Award
- The Bishop Barron State Employee Public Service Award
- The Dr. Martin Luther King, Jr. Legacy Community Service Award
- The Outstanding Women Award
- The Commerce Young Woman Leadership Award
- The 2013 Tullibody Award
- The 2013 University of West Alabama Center for Business and Economic Services Director's Award

Russ Robinson

Grant Agent and Funding Specialist

(334) 271-3200 russ.robinson@gmcnetwork.com

Russ has over 27 years of civil engineering experience working for municipalities, government agencies, and private corporations. Russ is a Project Engineer who handles planning, design, and construction management for various water, sewer, roadway and natural gas projects. His other responsibilities include project development and technical engineering support for USDA Rural Development, CDBG, SRF and other grant funding programs for our clients. Russ has experience with pump station and force main design, gravity sewer design, sewer rehabilitation, flow metering, inflow/infiltration analysis, roadway design, and natural gas pipeline design.

Education:
Bachelor of Science in Civil Engineering (Structural Emphasis), University of South Carolina, 1992

Licenses and Certifications:
Licensed Engineer in Training SC #11786

Highlighted Project Experience

USDA Rural Development Grants

- 19 Water and Wastewater Projects

Clean and Drinking Water State Revolving Fund Grants (SRF)

- Over 100 Water, Wastewater, and Drainage Projects

Community Development Block Grants (CDBG)

- Over 85 Water, Wastewater, Roadway Resurfacing, and Drainage Projects

U.S. Economic Development Authority Grants (EDA)

- Nine Water, Wastewater, Roadway, and Building Expansion Projects

Alabama Department of Transportation (ALDOT)

- Industrial Access Road Grants (IAR)
  - Six Industrial Access Road Projects
- Alabama Transportation Rehabilitation and Improvement Program-II Grants (ATRIP-II)
  - Eight Roadway Improvement Projects
- Rebuild Alabama Act Grants (RAA)
  - 12 Roadway Improvement Projects
- Transportation Alternatives Set-Aside Program Grants (TAP)
  - 10 Pedestrian Transit Improvement Projects
- Rebuilding American Infrastructure with Sustainability and Equity Grants (RAISE)
  - Three Pedestrian Transit Improvement Projects

Delta Regional Authority Grants (DRA)

- Eight Water, Wastewater, and Roadway Improvement Projects

* Projects completed with previous firm.

Tony Reid, PE, BCEE

Vice President, Water Resources Treatment Division

(864) 527-0460 tony.reid@gmcnetwork.com

Tony is a Project Manager for GMC in water and wastewater treatment. He has been involved in over 50 capital improvement projects and 20 engineering evaluations as a member the Water Resources Treatment Division. Tony specializes in biological and physiochemical treatment in engineered systems, and oversees evaluations, design, construction and commissioning of water and wastewater treatment infrastructure projects.

Wastewater Experience

- Hanceville Wastewater Treatment Facility Improvements – Hanceville, AL
- St. Clair Wastewater Treatment Facility Upgrades – Odenville, AL
- Bayou La Batre Wastewater Treatment Plant – Bayou La Batre, AL
- Phase I East and West River WWTF Improvements – Gadsden, AL
- Phase II East and West River WWTF Improvements – Gadsden, AL
- Dadeville WWTF Improvements – Dadeville, AL
- Horse Creek Pollution Control Facility Improvements – Beech Island, SC
- Cavins Road Pump Station – Woodruff, SC
- McEdco Pump Station – Woodruff, SC
- Enoree River Wastewater Treatment Plant Improvements - Woodruff, SC
- Wolf Creek Wastewater Treatment Plant Upgrade – Foley, AL
- Cullman Wastewater Treatment Plant Improvements – Cullman, AL
- Cullman Wastewater Treatment Plant Ultraviolet Disinfection System Replacement – City of Cullman – Cullman, AL
- Georgiana Wastewater Treatment Facility Rehabilitation – Georgiana, AL
- Eufaula Wastewater Treatment Plant Improvements – Eufaula, AL
- New Influent Lift Station & Headworks Improvements – Eufaula, AL
- East Alabama Lower Valley WWTP Upgrade – Valley, AL
- Walnut Creek WWTP Miscellaneous Improvements – Troy, AL
- Hackleburg Wastewater Treatment Facility – Hackleburg, AL
- Attalla Water Reclamation Facility – Attalla, AL
- Riverbend WWTP Bar Screen Replacement – Dalton, GA
- Aerobic Digester Improvements at the Diagnostic and Classification State Prison – Georgia Department of Corrections - Various Cities, GA
- Membrane Bioreactor Wastewater Treatment Facility – United States Army – Camp Merrill, GA
- Lynchburg WWTP Improvements – Metropolitan Lynchburg/Moore County, TN
- Renovations and Additions to the Fayette WWTP – Fayette, AL
- Decherd Wastewater Treatment Plant Expansion – Decherd, TN
- Cabin Creek WRRF Improvements – Griffin, GA
- Whitewater Creek Water Pollution Control Plant Upgrade – Fayetteville, GA
- Tanners Bridge Water Pollution Control Plant Expansion – Winder, GA
- Academy Creek WPCF Rehabilitation – Brunswick, GA
- RM Clayton Nutrient Harvesting Recovery System – Atlanta, GA
- JB Messerly WPCP Digester and Dewatering Improvements – Augusta, GA
- Hampton Belt Press Replacement – Hampton, GA
- Erin WWTP – Erin, TN
- Loxley WWTP Improvements – Loxley, AL
- Wright Smith WWTP Primary Digester Cover Replacement – Mobile, AL

Education:

- Master of Science in Environmental Engineering, Clemson University, 2010
- Bachelor of Science in Civil Engineering, University of South Alabama, 2008

Licenses and Certifications:

- Professional Engineer, SC #31953, AL#34035, TN #118738, GA #40389
- Board Certified Environmental Engineer (BCEE)

Affiliations:

- Alabama's Water Environment Association (AWEA)
- South Carolina American Water Works Association (SCAWWA)
- South Carolina Rural Water Association (SCRWA)
- Water Environment Federation (WEF)
- American Water Works Association (AWWA)
- International Ozone Association (IOA)

Publications:

Reid, A. T. 2010. Anaerobic Bio-Oxidation of Vinyl Chloride and Ethene. M.S. Thesis, Clemson University, Clemson, SC

Liang Wang, PE, BCEE

Technical Specialist, Treatment Division

(770) 952-2481 liang.wang@gmcnetwork.com

Liang is a Project Engineer for Goodwyn Mills Cawood with 21 years of experience in water and wastewater engineering. He has been responsible for all phases of project design and development, including contract documents, technical specifications, bidding, permitting, and construction management. Liang brings his knowledge of water and wastewater design to municipalities and private developers.

Wastewater Experience

- Lower Valley Wastewater Treatment Plant Upgrades – Valley, AL
- Whitewater Creek Water Pollution Control Plant Sludge Conveyor and Hopper Upgrades – Fayetteville, GA
- Northside WWTP UV Disinfection and Filter Rehabilitation - Commerce, GA
- Walnut Creek Aeration System Upgrades– McDonough, GA
- Pendleton-Clemson WWTP Expansion – Pendleton, SC
- Carey Station 1.0 MGD Expansion – Greensboro, GA
- The Homesteads Pollution Control Facility – Greene County, GA
- Eastside Advanced Water Reclamation Facility MBR Equipment Evaluations and Selection – Cumming GA*
- North Wastewater Treatment Plant - Dallas, GA*
- Barnesville Wastewater Treatment Facility - Barnesville, GA*
- Bear Creek WWTP - Hampton, GA*
- Stockbridge WWTP Improvement Project (Belt Press) – Stockbridge, GA*
- Davis House and Holiday Inn WPCPs Improvements – Commerce, GA*
- Cheatham Creek Sewer Pump Station - Cumming, GA*
- Bethelview Road Water Line & Gravity Sewer - Cumming, GA*
- Marina Bay Pump Station No. 2 – Hall County, GA*
- Stringer Road Sewer Pump Station – Cherokee County, GA*

Water Experience

- Shaw's Creek Raw Water Intake, Water Treatment Plant & Utility Building – Aiken, SC
- Bull Creek SWTP Expansion - Conway, SC
- Parks Creek Raw Water Intakes and Pipeline - Schnabel Engineering – Jefferson, GA
- Americus Fresh Well – Americus Fresh LLC – Americus, GA
- McCaysville Water Treatment Plant High-rate Modification - McCaysville, GA*
- Mountain Road Water Boost Pump Station and Ground Tank - Cumming, GA *
- Tower Road Water Boost Pump Station and Ground Tank - Cumming, GA*

Construction Administration Experience

- Bear Creek 1.75 MGD WWTP - Hampton, GA
- Whitewater Creek Water Pollution Control Plant Upgrade – Fayetteville, GA
- Tanners Bridge WPCP Expansion – Bethlehem, GA

Studies Experience

- Eastside Advanced Water Reclamation Facility MBR Equipment Evaluations & Selection – Cumming GA
- Ken's Foods Pre-Treatment – McDonough, GA
- Spout Springs WRF Zinc Removal – Flowery Branch, GA
- Daphne Utilities Capital Improvements Plan – Daphne, AL

Education:

- Master of Science in Environmental Engineering, Syracuse University, 2007
- Bachelor of Science in Water Supply and Sewerage Engineering, TongJi University (Shanghai, China), 1998

Licenses and Certifications:

- Professional Engineer: GA # 037638
- GSWCC, Level II Certified Design Professional #83427
- Board Certified Environmental Engineer (BCEE)

Affiliations:

- Georgia Association of Water Professionals (GAWP)

Jeremy D. Lipscomb, PE

Design Manager, Collections & Transmission

(205) 879-4462 jeremy.lipscomb@gmcnetwork.com

Jeremy Lipscomb has over five years of civil engineering experience with GMC. In that time, he has served as a summer intern and currently holds the role as a Project Engineer on a variety of utility infrastructure improvement projects. In addition to serving as a Design Manager, Jeremy serves as a Client Manager to numerous utilities. He is able to efficiently communicate and interact with multiple entities which has made him an integral asset to the firm. Jeremy also manages GMC's Alabama engineering internship and co-op program.

Wastewater Experience

- 60th Place and 61st Street Sanitary Sewer Improvements - Valley, AL
- Alabama Highway 91 Sanitary Sewer Improvements - Hanceville, AL
- Sewer Expansion and Lift Station to Serve Love's Truck Stop - Eutaw, AL
- Sanitary Sewer Rehab in the Grant City Area - York, AL
- Sanitary Sewer Rehab in Downtown Business District – York, AL
- US Highway 11 and Willow Apartments Area Sanitary Sewer Rehab - Livingston, AL
- Boligee Sanitary Sewer Rehab - Boligee, AL
- Sewer Infrastructure Improvements - Shorter, AL
- Combs Road Sanitary Sewer Improvements - Valley, AL
- Sanitary Sewer Improvements to Serve JS Foods - Valley, AL
- Northeast Alabama Regional Megasite Water and Sewer Infrastructure - Etowah County, AL
- Northeast Alabama Regional Megasite I-59 Utility Crossings - Etowah County, AL
- East Alabama Water, Sewer and Fire Protection Authority Cusseta Industrial Park Sewer Repair - Cusseta, AL
- Hanceville Water Works and Sewer Board Phase I, II, III, IV and V Sewer Rehabilitation - Hanceville, AL
- Baggett Street Lift Station Rehabilitation - Evergreen, AL
- 2023 CWSRF System Rehabilitation - Altoona, AL
- 2023 CWSRF System Wide Sewer Replacement - Hobson City, AL

Water Experience

- Perry County Water Authorit USDA Rural Development Water System Improvements - Perry County, AL
- Wilcox County Water and Sewer District USDA Rural Development Water System Improvements - Wilcox County, AL
- Sumter County Water Authority Panola to Epes Water System Improvements - Sumter County, AL
- Russell County Water Authority 2021 DWSRF Water System Improvements - Russell County, AL
- US Highway 84 Water and Sewer Utility Relocation - Evergreen, AL
- Huguley Water, Sewer, and Fire Protection Authority 2022 DWSRF Water System Improvements - Lanett, AL
- 2023 DWSRF System Wide Water Main Replacement - Hobson City, AL
- 2023 DWSRF Water Supply Production Well - Forkland, AL
- East Alabama Water, Sewer, and Fire Protection District 60th Place and 61st Street Water Improvements - Valley, AL
- Huguley WSFPA and Chambers County Commission Cusseta Industrial Park 250,000 Gallon Elevated Water Tank - Cusseta, AL
- Bibb Street Water Improvements - Tuskegee, AL

Education:

Bachelor of Science in Civil Engineering, Alabama Agricultural and Mechanical (A&M) University, 2020 (Summa Cum Laude)

Licenses and Certifications:

Registered Engineer AL #50559

Affiliations:

- American Society of Civil Engineers
- National Society of Black Engineers
- American Water Works Association
- AWWA Alabama/Mississippi Section

Andy Perry, PE
Hydraulic Modeling

(334) 271-3200 andy.perry@gmcnetwork.

Andy has over 30 years of civil engineering experience for public, private and government sectors. Andy is a Special Projects Engineer who handles design and planning for large, complicated projects. His other responsibilities include QA/QC, hydraulic modeling and analysis, pump station design and training.

Water and Wastewater Experience

- Partial Water Model - Gautier, MS
- York Water Model - York, AL
- Hayneville Sewer Model - Hayneville, AL
- Water and Sewer Model - Dadeville, AL
- Creola Water and Sewer Model - Creola, AL
- Partial Sewer Model - Eufaula, AL
- Water and Sewer Model - Gulf Shores, AL
- Water Main - Eclectic, AL
- Water Storage Tank - Jemison, AL
- Central Elmore Water Authority - Wetumpka, AL
- Water Storage Tank - Greensboro, AL
- CDBG Water Improvements - Wilcox County, AL
- CDBG Water Lines- Linden, AL
- CDBG Water Lines- Lanett, AL
- CDBG Water Lines and Tank- Huguley, AL
- Water Main Extensions- Prattville, AL
- Water System Improvements- Hale County, AL
- Water Treatment Plant Wells- Madison, AL
- Water Line Replacement- Cheaha State Park, AL
- Water System Improvements- Smiths, AL
- Five Star Water Distribution System- Elmore County, AL
- Prattville Water Works Board Well # 11 Electrical Improvements - Prattville, AL
- Prattville Water Works Board Alternative Water Source Evaluation - Prattville, AL
- Prattville Water Works Board Cook Well Water Treatment Plant - Prattville, AL
- Water Supply Well, Water Storage Tank and Transmission Main - Brilliant, AL
- Georgiana Water Works & Sewer Board Water System Improvements - Georgiana, AL
- Water System Capacity Improvements - Loxley, AL
- Source Water Plan Assessment Update - Orange Beach, AL
- Russian Road Groundwater Production Well - Orange Beach, AL
- Gulf Shores Utilities Well No. 8 Rehabilitation - Gulf Shores, AL
- ReWa Reuse Water Model - Greenville, SC
- Additions to First Assembly of God – Montgomery, AL
- LCWSC System-Wide Hydraulic Water Modeling - Laurens, SC
- Aiken Water System Modeling - Aiken, SC
- Five Star Water Model - Elmore, AL
- Loachapoka Water Model - Loachapoka, AL
- Orange Beach Water Model - Orange Beach, AL
- Partial Water Model - Lincoln, AL
- South West Alabama Water Authority Water Model - Monroe County, AL
- Perry County Water Model - Perry County, AL
- East Alabama Water and Sewer Authority Water Model - Valley, AL

Education:

- Master of Civil Engineering, Air Force Institute of Technology, 1987
- Bachelor of Civil Engineering, Auburn University, 1982

Licenses and Registrations:

- Licensed Engineer AL #19046

Tim Mitchell
Construction and Operations

(334) 271-3200 tim.mitchell@gmcnetwork.com

Tim recently joined GMC as a Construction Manager in the Water Resources and Treatment Division. He has worked with ClearWater Solutions for the last ten years as a Training Coordinator and Operations Specialist. As an Operations Specialist, Tim utilized expertise in the optimization of quality, chemicals, and equipment for water and wastewater systems. He was responsible for the successful start up of new company projects, oversight of plant upgrades and special projects, as well as established relationships with consulting engineers to ensure effective upgrades and rehab of facilities and equipment.

Relevant Project Experience

- Town of Camp Hill CWSRF Sewer System Improvements - Camp Hill, AL
- Russell County Water Authority ARPA Water Main Relocations - Phenix City, AL
- Russell County Water Authority DWSRF Water System Improvements - Phenix City, AL
- Chattahoochee Valley Water Supply District Clearwell and Pump Station Improvements - Valley, AL
- Huguley Water Authority Industrial Park 250,000 Gallon Elevated Water Tank - Cusseta, AL
- Five Star Water Supply District Place Settlers and Hoseless Sludge Collection - Prattville, AL
- Five Star Water Supply District Camp Grandview GST (2MG) Rehabilitation and Required Operational Improvements - Millbrook, AL
- Hale County Water Authority CDBG County Road 64 Water Rehabilitation - Greensboro, AL
- Smiths Water and Sewer Authority Holland Creek Basin Sanitary Sewer System Improvements - Smiths Station, AL
- Smiths Water and Sewer Authority Highway 280 and Summerville Road Gravity Sewer - Smiths Station, AL
- Smiths Water and Sewer Authority Lee Road 318 Water Transmission Main - Smiths Station, AL
- East Alabama Water Sewer and Fire Protection Authority Lower Valley Wastewater Treatment Plant Upgrades - Valley, AL
- City of York Radio Read Water Meter Improvements - York, AL
- Talladega County Water Improvements - Talladega, AL
- Thomasville Water Service Extensions - Thomasville, AL
- Butler County Water Authority USDA Water Improvements - Greenville, AL
- NEAR Mega Site Water and Sewer Utilities - Gadsden, AL
- U.S. Highway 84 West Water Line Relocation - Evergreen, AL
- U.S. Highway 84 West Utility Relocation - Evergreen, AL
- Dadeville Water Works and Sewer Board Water Replacement - Dadeville, AL
- Alabama Department of Corrections (ADOC) Elmore County Men's Prison Facility - Elmore County, AL

Education:

- Bachelor of Arts in Business Management, Troy University
- Associates of Arts in Business, Chattahoochee Valley State Community College

Licenses and Skils:

- Alabama Grade IV Water and Wastewater Licenses
- Georgia Grade 1 Water Treatment, Water Distribution, Wastewater Treatment and Collections Licenses
- Mississippi Grade A Water Treatment and Grade 4 Wastewater Licenses
- South Carolina Grade A Water Treatment, Water Distribution and Wastewater Treatment Licenses
- Backflow Preventor Testing
- Leak Detection Experience
- Master Plumber
- Leadership Training

Kerry Hannah
Construction Inspector

(251) 460-4006 kerry.hanna@gmcnetwork.com

Kerry serves as Project Coordinator and Construction Representative for GMC and maintains various construction projects including roadway, site development, water and sewer infrastructure and special projects. With over thirty-six (36) years of experience at Mobile Area Water and Sewer System (MAWSS), Kerry was the Water and Sewer Operations Manager. As the manager he handled the management of the departments responsible for the operation and maintenance of the water distribution system and sewer collection system. He also has managed +150 water and sewer related Capital Improvement Projects for MAWSS. His previous responsibilities included supervising the operations and maintenance of the C. C. Williams WWTP, the Bill Ziebach WWTP, and the Municipal Laboratory. He prepared and managed budgets that exceeded five million dollars annually. From there, he became Chief Treatment Plant Operator and managed the supervision of the C. C. Williams WWTP, the Wright Smith Jr. WWTP, the Bill Ziebach WWTP, the Municipal Laboratory and all Decentralized Treatment Plants.

Water, Sewer, Stormwater and Commercial Development Experience

- Multiple Water and Sewer Expansion and Relocation Projects for Mobile Area Water and Sewer System – Mobile, AL
- Douglas Road Water Storage Facility and Booster Station – Daphne, AL
- Daphne Utilities Well No. 13 – Daphne, AL
- Daphne Utilities Olde Towne Water Treatment Plant – Daphne, AL
- Daphne Utilities, Miscellaneous Sewer – Daphne, AL
- City of Daphne, Daphne Sanitary Sewer Phase 1 Whispering Pines Area – Daphne, AL
- City of Daphne, Miscellaneous Sewer Projects – Daphne, AL
- City of Mobile - Moores Creek Storm Water Drainage – Mobile, AL
- Mobile Infirmary Health – Saraland Emergency Department – Saraland, AL
- Hampton Inn – Saraland, AL
- CarMax – Mobile, AL
- Hughes Funeral Home – Daphne, AL
- Marine Industrial Supply – Mobile, AL

Water and Sewer Operations Management Experience

- MAWSS Capital Improvement Project Manager – Mobile, AL
- MAWSS Water and Sewer Repair and Maintenance – Mobile, AL
- C.C. Williams Wastewater Treatment Plant – Mobile, AL
- Wright Smith Wastewater Treatment Plant – Mobile, AL
- Bill Ziebach Wastewater Treatment Plant – Mobile, AL
- The Municipal Laboratory – Mobile, AL
- All Decentralized Treatment Plants – Mobile, AL

Education:

A.S. Applied Science Water and Wastewater Management, Faulkner State Community College

Licenses and Certifications:

- ADEM Grade IV Wastewater Operator #C001014
- ADEM Qualified Credential Inspector #T4244
- ALDOT Roadway HMA Pavement Technician and Radiation Safety Technician #15906

Affiliations:

- AL Water Pollution Control Association
- Water Environmental Federation (WEF)

Jim Barre, PE, MBA

GIS/Survey

(256) 539-3431 jim.barre@gmcnetwork.com

Jim has a proven track record of facilitating project implementation on a variety of linear municipal infrastructure projects with varying degrees of complexity. He is prepared to ensure all elements of project development, design, construction and closeout are well coordinated between all affected utilities, project stakeholders, property owners, governing agencies and owner representatives, and that the entire project is a success.

Relevant Experience

- Highway 91 Sanitary Forcemain Installation - Hanceville, AL
- Canoe Creek Road Water Transmission Main - Etowah County, AL
- Etowah County Megasite Sanitary Forcemain - Etowah County, AL
- Alternative Sewer Evaluation and Planning - Millbrook, AL
- WalknBike Management (Metro WalknBike Management (Metro Public Works Comprehensive Sidewalk and Bikeways Program) - Nashville, TN*
- Metro Nashville Culvert Program - Nashville, TN*
- Fort Payne Sanitary Sewer Rehabilitation - Fort Payne, AL*
- Pisgah Water Supply Well Filtration System and Pump Replacement - Pisgah, AL*
- Langston Alabama Water Storage Facility and Linework - Langston, AL*
- Harco Metal Wastewater Pumping Facility - Fort Payne, AL*
- NEACC Elevated Water Tank Restoration - Rainsville, AL*
- Henagar Sanitary Pump Station Emergency Generator - Henagar, AL*
- Pennville Sanitary Sewer System - Pennville, GA*
- Water Line Extensions (CR 28, 32, 33, 264, & 552) - Jackson County, AL*
- Triana Sanitary Sewer Upgrades - Triana, AL*
- Wolf Creek Water Distribution Upgrades - Wolf Creek, AL*
- Wastewater Treatment Facility Leachate Collection Facility - Rainsville, AL*
- Summerville WAter Meter Replacement - Summerville, GA*
- Gale Lane Utility Relocation - Nashville, Tennessee*
- Willow Branch Drive Utility Relocation - Nashville, TN*
- Litton Avenue Sidewalk Improvements - Nashville, TN*
- Jones Circle Sidewalk Improvements - Nashville, TN*
- Branch Street Sidewalk Improvements - Nashville, TN*
- Harding Place Sidewalk Improvements - Nashville, TN*
- Fairway Drive Sidewalk Improvements - Nashville, TN*

Education:

- Bachelor of Science in Civil Engineering, Auburn University, 2012
- Masters of Business Administration, Cumberland University, 2021

Licenses and Certifications:

- Professional Engineer in AL #51345, TN #119386, FL #93128, TX #143299
- TN EPSC Level I and II
- TDOT Local Government Guidelines Manual Training 6-Hour
- OSHA 10-Hour

Areas of Expertise:

- Program Management
- Project Management
- Storm Drainage Design
- Water and Wastewater Design Multimodal
- Transportation Design

* Projects completed with previous firm.

John Averrett, PE, LEED AP

Electrical Engineer

(334) 271-3200 john.averrett@gmcnetwork.com

John launched GMC's Electrical Engineering division in 2008 and has more than 25 years of electrical engineering experience. He leads a variety of project types including electrical distribution systems, lightning protection systems, energy efficiency, arc flash, third-party machine evaluations and generator design. He is also the electrical engineer of record for GMC's NASA projects, including NASA Test Stands 4693 and 4697, which will be used to test the largest cryogenic fuel tanks ever used on a rocket for NASA's Space Launch System (SLS)—the most powerful rocket in history.

Water and Wastewater Treatment Plant/System Experience

- Butler County USDA Electrical Improvements - Butler County, AL
- Horse Creek Pollution Control Facility Improvements – Beech Island, SC
- Pendleton-Clemson WWTP Expansion – Pendleton, SC
- Wolf Creek Wastewater Treatment Plant Upgrades – Foley, AL
- Cabin Creek WRRF Improvements – Griffin, GA
- Whitewater Creek Water Pollution Control Plant Upgrade – Fayetteville, GA
- Enoree Wastewater Treatment Plant Improvements – Woodruff, SC
- J.B. Messerly WPCP Biosolids - Augusta, GA
- Tanners Bridge Water Pollution Control Plant Expansion – Winder, GA
- Decherd Wastewater Treatment Plant Expansion – Decherd, TN
- West Alexander WWTP Improvements - Greenwood, SC
- Wilson Creek WWTP Improvements - Greenwood, SC
- Eufaula WWTP Upgrades – Eufaula, AL
- Oakland Plantation WWTP Improvements – Sumter, SC
- Hwashin WWTP Improvements – Greenville, AL
- Phenix City Wastewater Treatment Plant Upgrades - Phenix City, AL
- Hanceville Treatment Plant - Hanceville, SC
- Satsuma Wastewater Treatment Plant - Satsuma, AL
- Gadsden East Side Wastewater Treatment Plant - Gadsden, AL
- Gadsden West Side Wastewater Treatment Plant - Gadsden, AL
- City of Greenville Lift Station Upgrades - Greenville, AL
- SJWD Water District Electrical Study - Lyman, SC
- Regatta Pump Station - Anderson, SC
- McEdco Lift Station - Woodruff, SC
- Santens Pump Station - Anderson, SC
- Pine Hill Waste Water Lagoon - Pine Hill, AL
- Satsuma Woodlands Lift Station - Satsuma, AL
- Lowndesboro SCADA Design - Lowndesboro, AL
- Mayesville Pump Station - Mayesville, AL
- Five Star WTP Improvements - Prattville, AL
- Dadeville Water Treatment Plant Improvements - Dadeville, AL
- Gadsden Water Treatment Plant Improvements - Gadsden, AL

Education:

- Master of Business Administration, Auburn University at Montgomery, 1997
- Bachelor of Science in Electrical Engineering, Auburn University, 1994

Licenses and Certifications:

- Professional Engineer AL #26967, GA #32362, FL #66636, TN #111824, MS #18177, LA #37562, SC #26294, NC #38177, KY#29288,. AR #16775, TX #108122
- U.S. LEED AP
- NCEES International Registry

Affiliations

- Montgomery Chamber of Commerce
- Leadership Montgomery
- National Society of Professional Engineers
- Construction Management Association of Alabama
- Economic Development Association of Alabama
- Electric Cities of Alabama

Kevin Wales, PE
Geotechnical Engineer

(205) 879-4462 kevin.wales@gmcnetwork.com

Kevin, a civil engineer with more than 36 years of experience, launched GMC's Geotechnical and Construction Services division in 2004. As executive vice president and senior geotechnical engineer, he oversees operations, administration and business development related to geotechnical and construction testing. Throughout his career, Kevin has developed key strengths in the design and installation of shallow and deep foundations, construction services and project management for education, commercial, governmental, distribution, industrial, manufacturing and transportation projects.

Water and Wastewater Experience

- Laurens County WTP – Laurens County, SC
- Purrysburg WTP Expansion – BJWSA – Beaufort, SC
- Milledgeville WTP Improvements - Milledgeville, GA
- Walhalla WTP and Intake – Walhalla, South Carolina
- Shaw's Creek WTP – Aiken, SC
- Fort Mill Lift Station Improvements - Fort Mill, SC
- Thomasville WTP - Thomasville, AL
- Tanners Bridge WPCP Expansion – Barrow County, GA
- Friarsgate Wastewater Treatment Facility Pump Station - Irmo, SC
- Anderson County 6 & 20 WWTP Decommissioning - Anderson, SC
- Anderson County Exit 14 Sewer - Anderson, SC
- Anderson County 5 Mile Interceptor Phase II - Anderson, SC
- Arab WTP and Water Intake - Arab, AL
- Atmore WWTP - Atmore, AL
- Attalla Water Reclamation Facility - Attalla, AL
- Bayou La Batre WWTP - Bayou La Batre, AL
- Bear Creek WTP Expansion - GA
- Chattahoochee Valley WTP Chemical Building - Lanett, AL
- City of Erin WWTP - Erin, TN
- Coosa Valley WTP and Intake - Ragland, AL
- Cullman WTP Improvements - Cullman, AL
- Hurricane Creek Pump Station Rehabilitation - Anderson, SC
- Gadsden West WWTP - Gadsden, AL
- Gadsden WTP - Gadsden, AL
- Hanceville WWTP - Hanceville, AL
- Cullman WWTP UV Disinfection System Replacement - Cullman, AL
- Dadeville WWTP - Dadeville, AL
- Daphne WWTP - Tertiary Filtration & Ultraviolet Disinfection - Daphne, AL
- Decherd Wastewater Treatment Plant Expansion - Decherd, TN
- East AL WWTP Improvements - Valley, AL
- Eufaula WWTP Expansion - Eufaula, AL
- Whitewater Creek Wastewater Plant - Fayetteville, GA

Commercial/Governmental Distribution

- Creek Indian Enterprises New Resort/Hotel – Atmore, AL
- Fayetteville City Hall – Fayetteville, GA
- Rivercane Development – Atmore, AL
- Metropolitan Industrial Park – Birmingham, AL

Education:
Bachelor of Science in Civil Engineering, Auburn University, 1988

Licenses and Certifications:
Professional Engineer: AL #20146, GA #046948, MS #12692

Affiliations:

- American Society of Civil Engineers, Birmingham Branch, Past President, Vice President, and Secretary/Treasurer
- Associated Builders and Contractors (ABC)
- American Concrete Institute (ACI)
- City of Homewood Alabama Industrial Development Board

Melissa Mehaffey, PWS, CFM, REM

Senior Ecologist/Wetland Scientist

(205) 879-4462 melissa.mehaffey@gmcnetwork.com

Melissa is an Ecologist and Environmental Manager with over 15 years of multi-disciplinary project management experience in the environmental sciences and related fields. Her background includes project coordination and compliance with state and federal agencies including Alabama Department of Environmental Management (ADEM), Alabama Department of Transportation (ALDOT), Alabama Historical Commission (AHS), Alabama Department of Conservation and Natural Resources (ADCNR), National Resources and Conservation Service (NRCS), United States Army Corps of Engineers (USACE), United States Fish and Wildlife Service (USFWS), Environmental Protection Agency (EPA). Her experience includes threatened and endangered species surveys, macroinvertebrate sampling, groundwater monitoring, wetland delineations and Section 404/Section 10 permitting, mitigation banking and land management, invasive species removal, stream restorations, watershed management plans, Phase I and Phase II Environmental Site Assessments, National Environmental Policy Act (NEPA) documents for federally funded projects, National Pollutant Discharge Elimination System (NPDES) construction stormwater and mining pit operations permitting and inspections, and solid waste and illegal dump remediation plans.

Wetlands Delineation/USACE Permitting Experience

- Interstate Industrial Park Delineation - Montgomery, AL
- IP Landfill Delineation - Camden, AL
- Ida Belle Young Park Stream Restoration - Montgomery, AL
- Hogan's Creek Restoration - Montgomery, AL
- Saugahatchee Stream Restoration - Auburn, AL
- Rivercane Industrial Park Mitigation Monitoring - Atmore, AL
- Golden Dragon Copper Tubing Facility Mitigation Monitoring - Sunny South, AL
- Wolf Run Mitigation Monitoring - Pearl River County, MS
- Brewer's Point Mine - Jackson County, AL
- Kash Creek Mine - Jackson County, AL
- Robert Trent Jones Trail – Opelika, AL
- Federal Emergency Management Agency Crossdrain Repairs – Baldwin County, AL
- Wolf Creek Stream Restoration – Foley, AL
- Mill Creek Stream Restoration – Phenix City, AL
- Project Beverly - Irvington, AL
- OBWA Ono Island Directional Bore - Orange Beach, AL
- PowerSouth Lines - Panama City, FL

NEPA Environmental Assessments

- Downtown Eufaula Streetscape Improvements (HUD) - Eufaula, AL
- Coffeeville Sewer Improvements (USDA) - Coffeeville, AL
- Dallas County Water and Sewer Authority (USDA) - Dallas County, AL
- Huntsville Northern Bypass (FHWA/ALDOT) - Huntsville, AL
- Clay County Proposed Water Expansion (USDA) - Clay County, AL
- Central Water Works Improvements (USDA) – Escambia County, AL/Escambia County, FL
- Belforest Water System (USDA) - Loxley, Baldwin County, AL

Construction Stormwater Experience

- Gadsden Wastewater Treatment Plant - Gadsden, AL
- Hanceville Wastewater Treatment Plant – Hanceville, AL

Education:

- Bachelor of Science in Ecology, University of Georgia, 2006
- Mobile United, Connect Mobile Leadership Development Program, 2017

Licenses and Certifications:

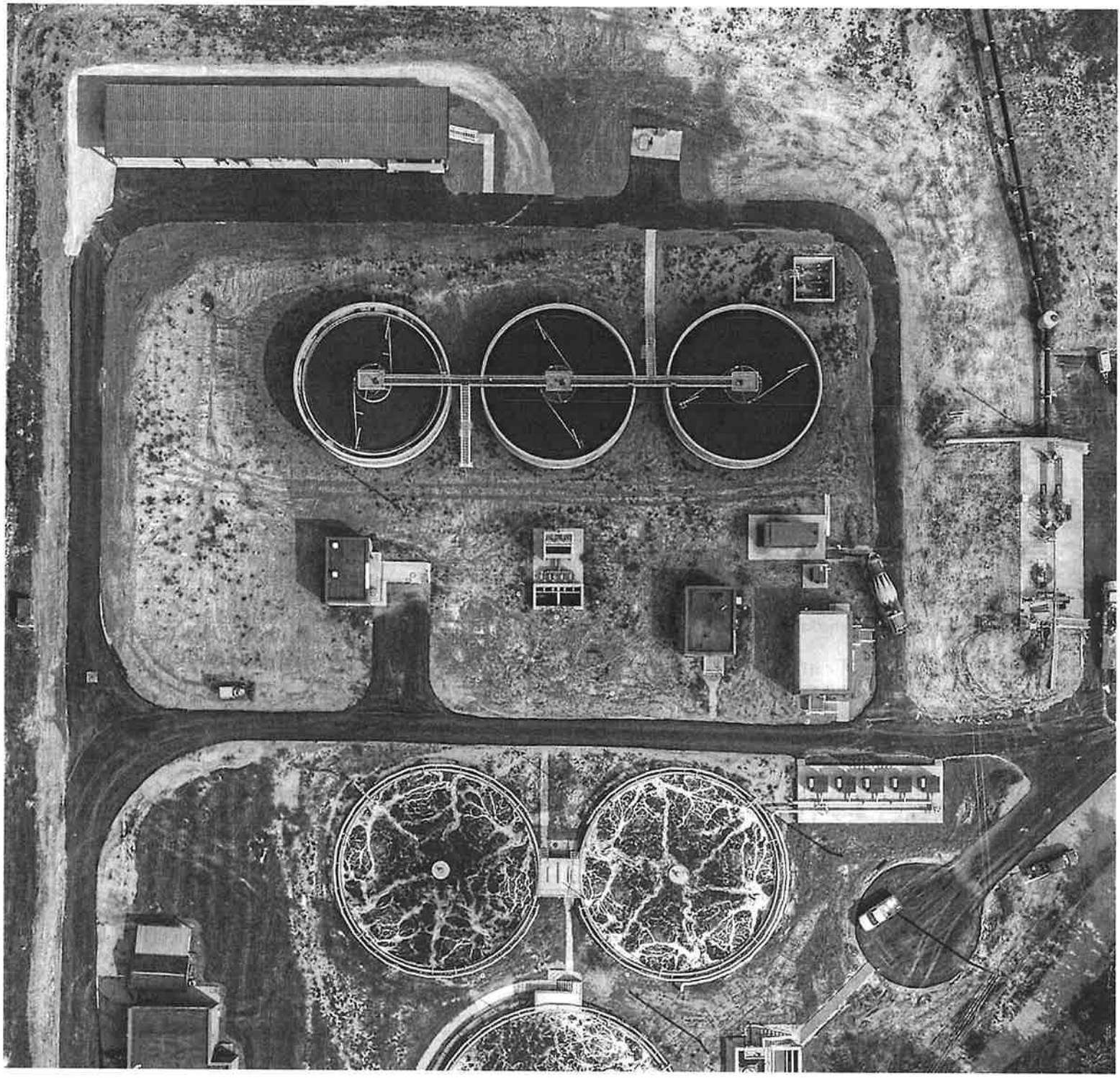
- Professional Wetland Scientist (PWS) #3016
- Certified Floodplain Manager (CFM)
- Registered Environmental Manager (REM)

Additional Training:

- USACE and Florida Statewide 62-340 FAC Wetland Delineation Training Program, 2020
- L-273 Managing Floodplain Development through the NFIP, 2020
- Gulf Coast Watershed Sustainability Workshop, 2019
- Current Topics in Wetland Soils and Application of Hydric Soil Indicators Workshop, 2018
- Wetland Rapid Assessment Procedure Workshop, 2017
- Qualified Credentialed Inspector, QCI #T1885, 2009-2015
- HAZWOPER 40-hr Training
- "Evolution of Municipal Separate Storm Sewer System (MS4) Permit and Program Requirements" Seminar, Auburn University, 2013
- Innovations in Urban Stream Restoration Workshop, Auburn University, 2012
- LEED Green Associate Exam Prep Training, 2012
- 38-hr USACE Wetland Delineation Training Program, Richard Chinn Environmental, 2011
- NEPA Quality Document Workshop, ALDOT, 2011
- Phase 1 Environmental Site Assessments, The Environmental Institute, 2011

Affiliations:

- Association of State Floodplain Managers (ASFPM)



Section 2
Experience

Wastewater Treatment Plant Experience

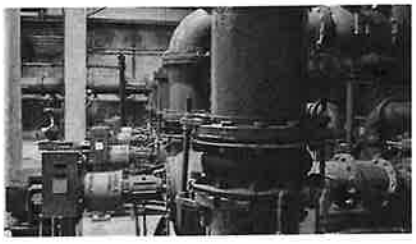
Wastewater treatment at GMC is not simply the process of treating wastewater, but the development of a comprehensive approach to return waters used for commercial, domestic or industrial services to the environment without impacting the ecosystem. Our wastewater business is based around the core values of integrity and quality. We seek to serve our clients with services that are unmatched by others in a variety of ways. Our goal in wastewater design and planning services is to communicate with the owner to determine the project objectives and expectations. We then compile a team of multi-disciplined professionals to perform the engineering and planning tasks required.

Our company has been providing wastewater treatment services for over fifty (50) years under the expertise and experience of our founder, Don Mills. From this origin, our engineering services have grown to include much more than the simple treatment facilities of the twentieth century. The value of water has increased dramatically over the course of the past twenty (20) years. Not only is water essential, it is invaluable; thus, developing plans for the re-introduction of wastewater into our ecosystem is critical to our daily lives.

With this in mind, and because of the increasing importance of such quality to our clients, GMC has developed a Water Resources and Treatment Division whose sole focus is on providing safe, effective, and efficient water and wastewater treatment systems throughout the Southeast. The specialized division assembles seasoned professionals who have expertise in a wide range of engineering skills including design, chemical optimization, process, equipment selection, operations and maintenance, electrical systems, etc. This focused division ensures clients a quality project completed on time and within budget.

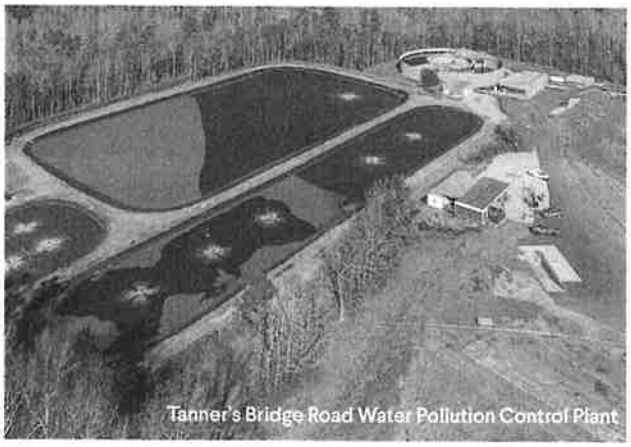
From simplistic wetland remediation areas, decentralized treatment to industrial pretreatment and reuse quality advanced treatment, GMC has experience meeting the needs of its clients. Innovative approaches with manufacturers, operators, engineers and utility management involvement have yielded remarkable results. Our communication and project management methods cater to utilities and municipalities who want to make a difference in the environment and make critical infrastructure decisions for the future.

Regulatory compliance remains at the forefront of many wastewater designs; however, long term operation and maintenance, as well as information systems that provide flexibility for operators are essential for the next generation treatment plant. Operators must be provided the redundancy, reliability and flexibility to handle the varying flows and loadings. GMC recognizes the needs of wastewater providers and desires to design and manage construction of plans that are modern, yet utilize existing infrastructure to reduce the capital expense and the burden on the users.



Wastewater Treatment Plant Experience

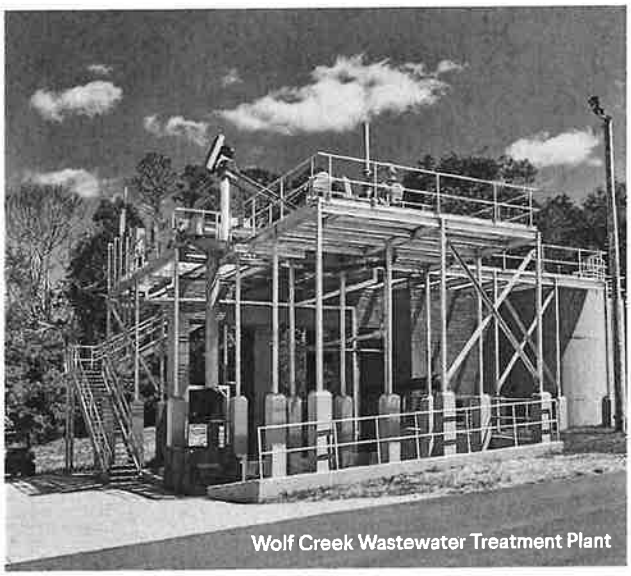
- Academy Creek Water Pollution Control Facility
- Acrodis Wastewater Treatment Plant
- Akron Lagoon
- Alabaster Wastewater Treatment Plant
- Alligator Farm Wastewater Treatment Plant
- Anderson County Wastewater Treatment Plant
- Arlington Wastewater Treatment Plant
- Attalla Water Reclamation Facility
- Atmore Wastewater Treatment Plant
- Baconton Wastewater Treatment Plant
- Barnesville Wastewater Treatment Plant
- Bayou La Batre Wastewater Treatment Plant
- Bear Creek Water Pollution Control Plant
- Butler Wastewater Treatment Plant
- Cabin Creek Water Resource Recovery Facility
- Camp Merrill MBR Wastewater Treatment Facility
- Canton Water Pollution Control Plant
- Centerville Wastewater Treatment Plant
- Commerce Wastewater Treatment Plant
- Cullman Wastewater Treatment Plant
- Dadeville Wastewater Treatment Plant
- Dallas County Wastewater Treatment Plant
- Daphne Wastewater Treatment Plant
- Dawson Water Pollution Control Plant
- Decherd Wastewater Treatment Plant
- East River Wastewater Treatment Plant
- Edison Wastewater Treatment Facility
- Effingham County Wastewater Treatment Facility
- Enoree River Wastewater Treatment Plant
- Epes Lagoon
- Erin Wastewater Treatment Plant
- Eufaula Wastewater Treatment Plant
- Evergreen Wastewater Treatment Plant
- Friarsgate Wastewater Treatment Facility
- Ft. Deposit Lagoon
- Garden City Wastewater Treatment Plant
- Georges Creek Water Resource Recovery Facility
- Georgiana Wastewater Treatment Plant
- Greenville Wastewater Treatment Plant
- Grove Creek Wastewater Treatment Plant
- Hahira Wastewater Treatment Plant
- Hanceville Wastewater Treatment Plant
- Hartwell Wastewater Treatment Plant
- Hayneville Lagoon
- Horse Creek Pollution Control Facility
- Hwashin Wastewater Treatment Plant
- Indian Creek Water Reclamation Facility
- Jack's Creek Wastewater Treatment Plant
- James B. Messerly Water Pollution Control Plant
- Leary Wastewater Treatment Plant
- Lenox Wastewater Treatment Plant
- Lincoln Wastewater Treatment Plant
- Linden Wastewater Treatment Facility
- Long Cane Creek Wastewater Treatment Plant
- Lower Valley Wastewater Treatment Plant
- Loxley Wastewater Treatment Plant
- Lynchburg Sewage Treatment Plant
- Mauldin Road Water Resource Recovery Facility
- Meigs Wastewater Treatment Plant
- Milley's Creek Water Pollution Control Plant
- Morgan Wastewater Treatment Plant



Tanner's Bridge Road Water Pollution Control Plant

- North Mobile County Wastewater Treatment Plant
- Oakland Plantation Wastewater Treatment Plant
- Oxford Wastewater Treatment Plant
- Pelham Wastewater Treatment Plant
- Pendleton/Clemson Wastewater Treatment Plant
- Pine Hill Lagoon
- Point Peter Water Pollution Control Plant
- Priceville Lagoon
- Pumpkinvine Creek Water Pollution Control Plant
- Red Eagle Honor Farm Lagoon
- Riverbend Wastewater Treatment Plant
- Robertsdale Wastewater Treatment Plant
- Rocky Creek Wastewater Treatment Plant
- Shellman Wastewater Treatment Plant
- Shenandoah Wastewater Treatment Plant
- Six & Twenty Creek Wastewater Treatment Plant
- Smithville Wastewater Treatment Plant
- South Dallas Treatment Facility
- Southside Lagoon
- Southside Water Pollution Control Plant
- Spout Springs Water Reclamation Facility
- Stockbridge Wastewater Treatment Plant
- Sulligent Wastewater Treatment Plant
- Tanner's Bridge Road Water Pollution Control Plant
- Towassa Wastewater Treatment Plant
- Troy Wastewater Treatment Plant
- Union Springs Wastewater Treatment Plant
- Valleybrook Wastewater Treatment Plant
- Vernon Yellow Creek Lagoon
- W. B. Casey Water Reclamation Facility
- Walnut Creek Water Reclamation Facility
- West Alexander Wastewater Treatment Plant
- West River Wastewater Treatment Plant
- Westmoreland Wastewater Treatment Plant
- Whitewater Creek Water Pollution Control Plant
- Wilson Creek Wastewater Treatment Plant
- Wolf Creek Wastewater Treatment Plant
- Wright Smith Wastewater Treatment Plant


Whitewater Creek Water Pollution Control Plant


Wolf Creek Wastewater Treatment Plant


Horse Creek Pollution Control Facility

Wastewater Collection and Transmission Systems Experience

Sewer Projects

- Water Supply Intake and Transmission Main for Tenaska, Inc.
- 24 inch D.I. Distribution Line for Five Star Water Authority
- 20 inch D.I. Line Extensions for the Prattville Water Board
- Water Main Extensions for Smiths Water Authority
- Water Main Extensions and Transmission Lines for the City of Thomasville
- 16 inch Transmission Main and Numerous Water Main Extensions for the Wetumpka Water and Sewer Board
- Transmission Lines for the City of Greenville
- Water Lines and Water Mains for the City of Millbrook
- Water Distribution System Improvements and Water Line Extensions for the Orange Beach Water Sewer and Fire Protection Authority
- County Road 88 and Ember Drive Water System Extension for the Winfield Water Works
- Water Main Extensions for the City of Monroeville
- Water Transmission Lines for the City of Lincoln
- Water Line Extensions for the Madison Water and Wastewater Board
- County Road 63 Water Main Extensions for the Dallas County Commission
- County Road 17 and 18 Water Main Improvements for the Hale County Commission
- Water Line Improvements for the City of Lanett
- Water Line Improvements for the Town of Mount Vernon
- Water Main Extensions for the Town of Coosada
- Water Main Extensions for the City of Greenville
- Groundwater Production Well #3 (Office Well) – Belforest Water System
- Water Main Extensions for the Butler County Water Authority
- Water Mains for the Town of Loxley
- Water Main Improvements and Water Line Extensions Hale County Commission
- Deep Water Supply Wells and Transmission Mains for the City of York
- Water Main Extensions and Transmission Lines for the City of Oxford
- Water Main Improvements for the North Dallas Water Authority
- Water Main Extensions City of Marion
- Raw Water Transmission Mains for Belforest Water System
- Water Mains for the South Bullock County Water Authority
- Transmission Lines for the City of Livingston
- New Transmission Mains – Gautier, MS
- Highway 43 Water Improvements for the City of Hamilton
- Lake Louise Dr. Water Line Relocation - Mobile County Water, Sewer and Fire Protection Authority
- Oak Grove Road Water Extension for the Fayette County Commission
- Elm Road Water Extension for the Town of Glen Allen
- Industrial Park Water Improvements for the Town of Vina
- Bedford Community Water Improvements for the Lamar County Water Authority
- Water Improvements to Serve the Fulton Bridge Industrial Park for the City of Hamilton
- County Roads 35 and 49 Water Lines and Water Tank for the Lamar County Water Authority
- 2015 Water Rate Study – Belforest Water System
- Highway 122 Water Improvements for the Marion County Public Water Authority
- Bee Mountain Water Improvements for the Marion County Public Water Authority
- Test Well Drilling and Groundwater Exploration – Mobile Area Water and Sewer System
- Weston Water Main and Water Storage Tank for the City of Hamilton

- 10" Water Main to the Bedford Industrial Park for the City of Hamilton
- Poplar Log - 5 miles of Water Main for the City of Hamilton
- 15 Miles of Water Line for the Guin South Water Project for the City of Guin
- 25 Miles of Water Main to Serve 200 Customers for the Marion County Commission
- 30 Miles of Water Main and a Water Storage Tank for the Pea Ridge Water System

Wastewater Collection Projects

- Betsy Tucker Industrial Park Sewer Main
- Lee State Prison Outfall and Screening
- Holland Creek Lift Station Replacement
- Wilako Sanitary Sewer and Force Main
- Fort Morgan Sewer Main Extensions
- Town of Fulton Eastside Wastewater Collection System
- City of Greenville Collection System Improvements
- Welpine Industrial Park Sewer Main
- Lee Arrendale Lift Station and Screening
- Mt. Vernon Sewer Collection System
- Infiltration and Inflow Study
- Holland Creek Inverted Siphon Replacement
- Mill Creek Sewer Outfall and Lift Station
- Northside Sewer Plant Interceptor and Outfall
- Coffeeville Utilities Board Sewer Improvements
- Anderson County Sewer/ Betsy Tucker Site
- Lincolnton / Lincoln County Airport Industrial Park Sewer
- Aiken Recreation Force Main

Lift Station Projects

- City of Lanett Highway 50 Lift Station
- City of Loxley Lift Station
- City of Marion Lift Station
- City of Thomasville Lift Station
- City of Eufaula Tanyard Lift Station Rehabilitation
- City of Eufaula Regional Lift Station
- City of Opelika Eastside Lift Station
- City of Greenville Open Flight Siren Lift Station
- Wetumpka / Russell Corporation Lift Station Upgrade
- City of Lincoln Lift Station to serve Honda Plant
- Town of Woodruff Cavins Road Lift Station
- Wetumpka Water and Sewer Board FY99 Sewer Improvement
- Wetumpka Water and Sewer Board Charles Avenue Lift Station
- City of Jemison Plierville CDBG
- WWSB of Greenville Water and Sewer for Hwashin/ Hysco
- Town of Hayneville Sewer for Industrial Park
- City of Phenix City Improvements to City's Largest Lift Station
- Dallas County Water and Sewer Improvements to 2 Major Lift Stations
- City of Atmore Utilities Board Lift Station Improvements
- Auburn Water and Sewer Board Auburn Southside Lift Station
- Chambers County 2 Lift Stations to serve the Chambers County Industrial Park
- Town of Spring Hill 3.0 MGD Lift Station
- Town of Smyrna 15.0 MGD Lift Station (Designed but not yet built due to lack of funding)
- Town of Centerville 1.0 MGD Lift Station Rehab
- Town of Decherd Two 0.5 MGD Lift Station Replacements
- City of Erin Rehab of a 2.0 MGD Lift Station
- East Alabama Water Sewer and Fire Protection Miscellaneous Lift Station Upgrades
- Dadeville Lift Station #1 Generator Improvements
- Wetumpka Water Works Board Boundary Street Lift Station Emergency Generator
- Wetumpka Water Works Board Hardee's Lift Station Emergency Generator
- Fort Mill Lift Station Improvements

Pump Station Projects

- Seneca Light & Water Ravenel Road Pump Stations
- Fulton County Atlanta Newnan Road Pump Station
- Anderson County Santens Pump Station
- Augusta Utilities Rocky Creek Trunk Sewer Pump Stations
- Laurens County South Durbin Road Pump Station, Force Main, and Gravity Sewer
- Anderson County Hurricane Creek Pump Station Rehabilitation


Fulton County Atlanta Newnan Road Pump Station

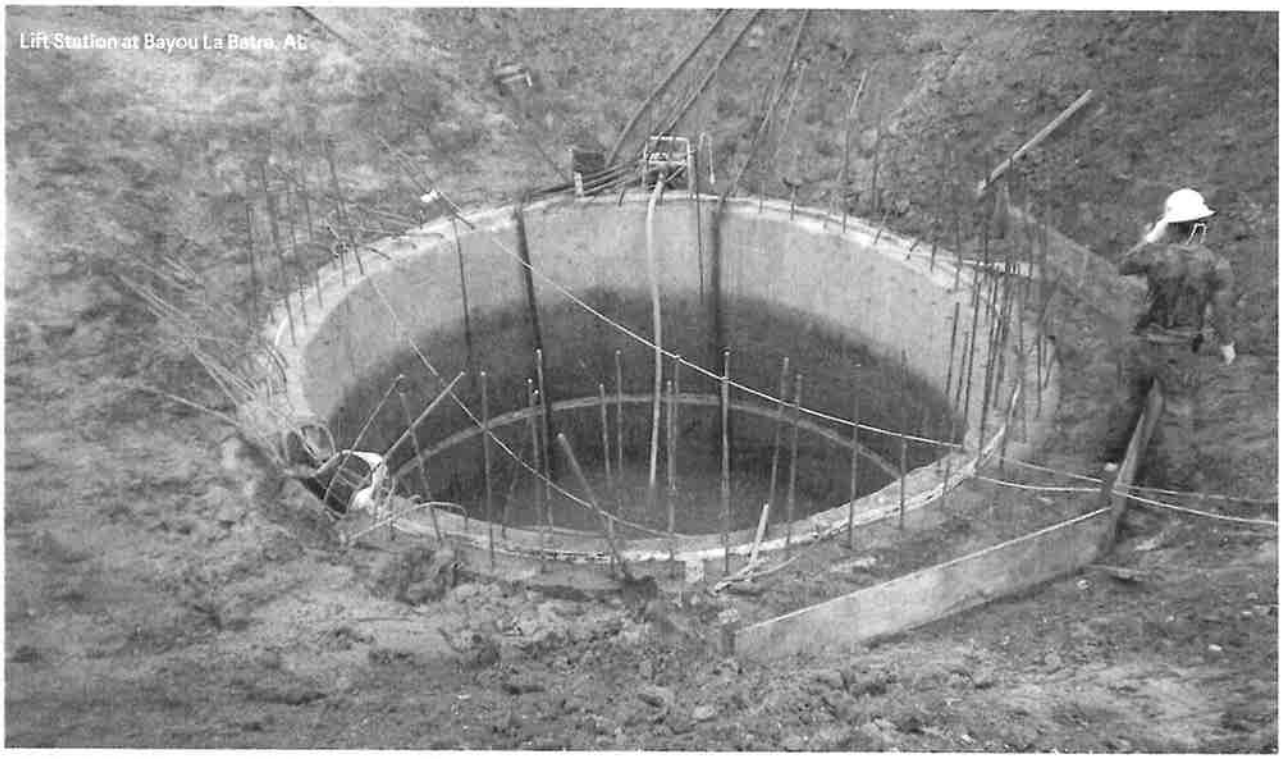
Wastewater Collection and Transmission Systems

Wastewater collection and transmission systems gather the used water from our homes, businesses and industries and convey it to a wastewater treatment plant. Population estimates, growth projections and comparison to similar areas are all used to determine the maximum expected volume to be contributed by a service area. In addition to the expected wastewater flows, allowances must be made for infiltration and inflow in aging sewer systems.

Goodwyn Mills Cawood (GMC) regularly assists our clients in the rehabilitation of their existing sanitary sewer system. GMC can help identify the location and extent of infiltration and inflow. We also have familiarity with numerous methods, including sewer replacement, slip lining, pipe bursting, and cured-in-place lining of the sewer mains, and repairing or replacing individual deteriorated manholes, raising manhole rings and covers in areas that flood, and repairing broken joints in the sanitary sewer manholes.

As new development and growth occurs, GMC is equipped to provide design and construction services for new sanitary sewer mains and lift stations. Our in-depth experience in large scale sewer projects and long-term sewer clients attests to our expertise in the field and commitment to serving our clients' needs.

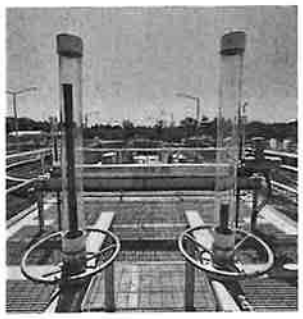
In addition to civil engineering, GMC has in-house expertise including geotechnical engineering, structural engineering, GIS/survey specialists, environmental engineering, geologists, construction administrators and inspectors, right-of-way specialists, and operations and maintenance professionals (ClearWater Solutions) for use in addressing sanitary sewer issues. The ability to enlist the services of so many disciplines in-house allows GMC to creatively solve sewer problems while remaining cost effective and timely in meeting our clients' needs.

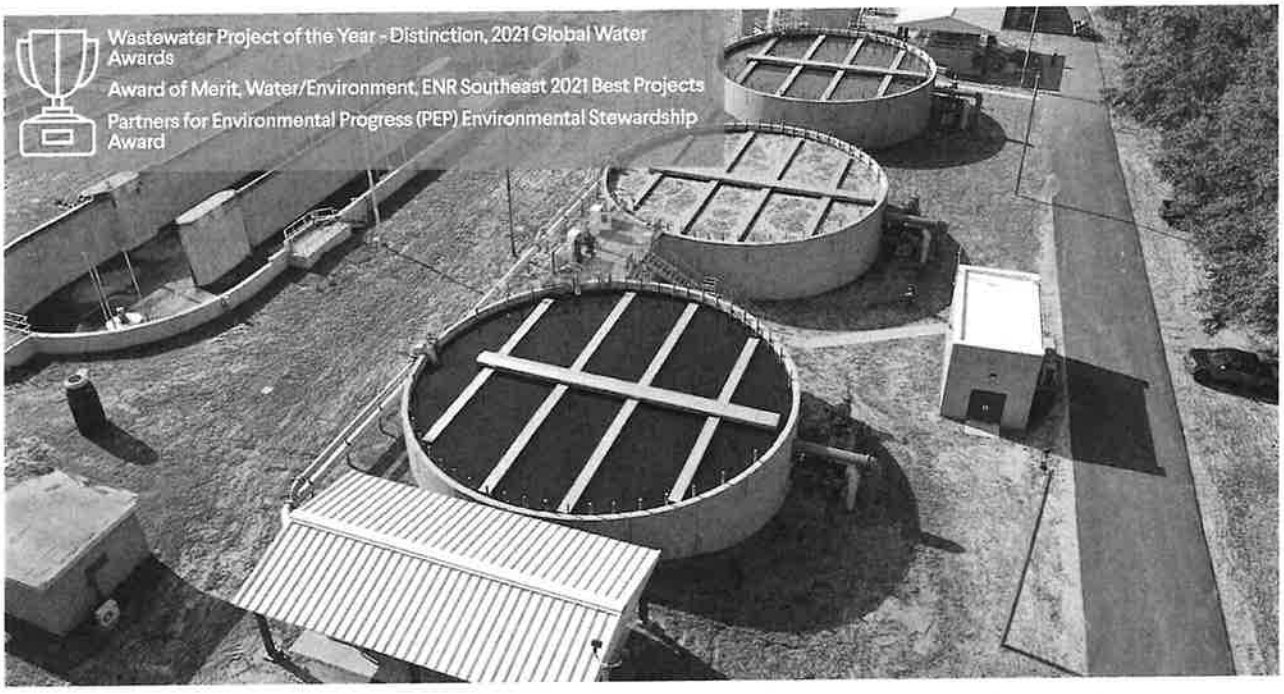

Lift Station at Bayou La Batre, AL

Wolf Creek Wastewater Treatment Facility Upgrade

Location: Foley, Alabama
Status: Completed June 2020
Cost: $18,393,829

Contact:
Tony Schacle, Chief Engineer
Riviera Utilities
(251) 943-5001
tschachle@rivierautilities.com





Riviera Utilities executed a contract with GMC to upgrade the Wolf Creek Wastewater Treatment Facility in Foley, AL due to future nutrient limits and increase capacity due to rapid economic growth in the service area and future anticipated growth. The major challenge with upgrading the biological process and increasing capacity was the limited amount of available space at the plant and having to keep the existing process in operation during construction. AquaNereda® Aerobic Granular Sludge technology was chosen as the basis of design due to its ability to produce the same effluent quality as a well-designed enhanced biological nutrient removal facility in a much smaller footprint and with significantly less energy usage. Use of aerobic granular sludge for biological treatment was the first full-scale installation of such technology in the United States. The AquaNereda® Aerobic Granular Sludge replaced the current extended aeration oxidation ditch process.

The project consisted of a new influent pump station and headworks with rotary drum screens and vortex grit removal, a three-basin AquaNereda® biological system, tertiary filtration, sludge thickening, a plant reuse water pump station with a 9,000 gallon hydro-pneumatic tank, and a septage receiving station. The facility now has a primary design capacity of 3.5 MGD with a peak of 10 MGD and a secondary/tertiary capacity of 3.5 MGD with a peak of 6 MGD, utilizing the existing large oxidation ditch and clarifier as an offline equalization basin. The two existing small clarifiers were converted into aerated sludge thickening tanks to provide additional sludge thickening prior to conveyance to the existing screw presses. In addition to the process equipment, three electrical buildings were constructed to house motor control centers and electrical equipment.

City of Tupelo Comprehensive Plan

GMC is in the process of guiding the City of Tupelo through a visionary and action-oriented comprehensive plan update. The plan will include primary elements, including new development, neighborhood revitalization, Infrastructure, housing, commercial corridor redevelopment, economic development, zoning updates, downtown, and parks and recreation improvements.

Location: Tupelo, Mississippi
Status: Ongoing

Contact:
Tanner Newman, Director of Development Services
City of Tupelo
(662) 687-4877

> *"This was an overwhelming success by all measures, and we are extremely appreciative of the community..."*
>
> - Development Services Director, Tanner Newman

Atlanta Newnan Road Pump Station and Force Main

This progressive design build project was delivered by a Reeves Young GMC, JV, a joint venture partnership. The water resources division of the Fulton County department of public works (Fulton County) needed two pump stations to provide sewer service to Southwest Fulton County including the cities of Chattahoochee Hills and Palmetto, in accordance with the County Sewer Master Plan. Existing sewer infrastructure within the project area includes; Fulton County's Ono Road Pump Station (ORPS) and Little Bear Water Reclamation Facility (LBWRF) and the privately owned and operated Serenbe Water Reclamation Facility. The design includes modifications to the Ono Road Pump Station including upgrading the existing odor control facility and a separate odor control facility at the force main discharge structure. Other improvements include a new self-cleaning composite force main discharge vault as the proposed force main outfall.

- The proposed force main between the LBPS and ORPS will consist of approximately 20,000 LF of 18-inch diameter HDPE pipe.
- The LBPS will consists of a triplex station expandable to quadplex on the site of the existing LBWRF. The proposed station will be two (2) feet above the 100-year floodplain.
- The proposed force main between the ANRPS and LBPS will consist of approximately 27,550 LF of 12-inch diameter HDPE pipe.
- The proposed ANRPS will consist of a triplex station expandable to quadplex.

The project, currently under construction, was performed in two phases the first through 80% design including plans, specifications and an 80% guaranteed maximum price (GMP). The second phase consisted of construction based upon a negotiated 100% GMP.

Location: Fulton County, Georgia
Schedule: 2021-2024
Status: Under Construction (estimated completion 8/24)
Cost: $21,989,835

Contact:
David Clark, PE, Director of Public Works
Fulton County Government
(404) 612-2804
david.clark@fultoncountyga.gov

HCWA Water & Wastewater Master Plan

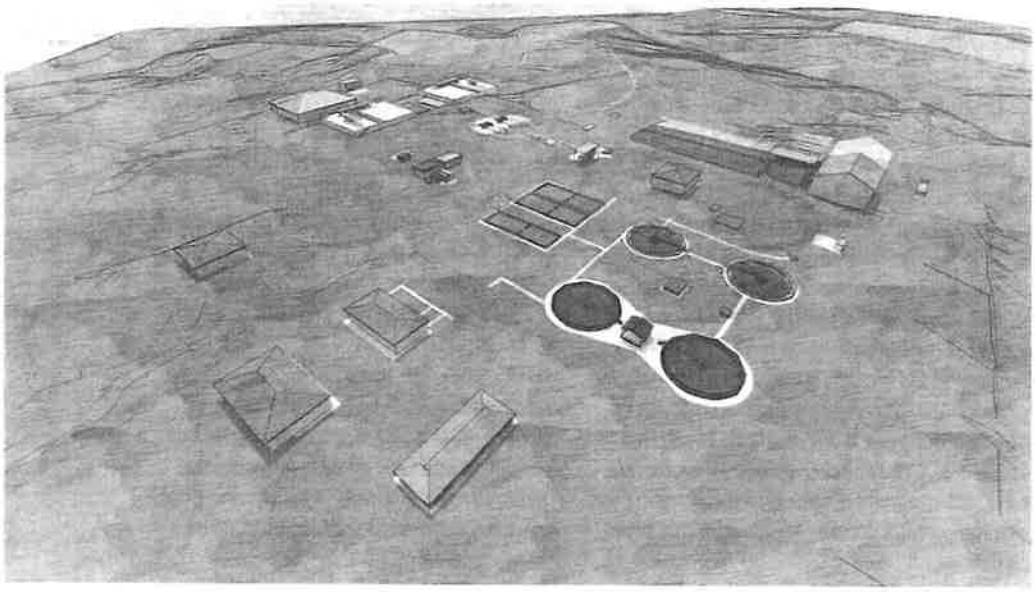
Location: Henry County, Georgia
Status: June 2021
Cost: $325,000

Contact:
Scott Sage, PE, Engineering Division Manager
Henry County Water Authority
(678) 583-3802
scott.sage@hcwa.com

GMC was selected by Henry County Water Authority to provide a long-range plan for the development of water and wastewater facilities in the Henry County Water Authority (HCWA) system over the next 30 years. This Master Plan covered, population and demand projections, resiliency, water supply, assessment of system and evaluation of treatment facilities, and capital improvements plan. Henry County will see an additional 124,000 people in the county needing water and wastewater services growing water supply and wastewater flow by 1.6 and 2.3 times, respectively. Currently HCWA has 5 water supply sources providing up to 42.8 MGD of withdrawal capacity while identifying 21 resiliency action items which 10 are already being accomplished by HCWA. Henry County will have 52 miles of water pipe with 6 MG of storage and their water plant capacity will need to be increased to 50 MGD from 40.1 MGD. Similarly with wastewater, 7 pump stations will need to be upgraded with 34 miles of pipe and their wastewater plant capacity will need to be increased to 27.2 MGD from 12.5 MGD. To accomplish this, HCWA will need to spend $934M on 67 capital improvement projects.

This overview along with the details to get to each number was provided to HCWA with a total of five (5) technical memorandums, each of which focused on specific tasks related to the update of the Master Plan. Fortunately, HCWA is poised to grow and fully prepared to address growth over the next 30 years.

From the master plan, GMC is currently in the design phase of upgrades to HCWA's 8 MGD Walnut Creek WRF as well as a greenfield Membrane Bioreactor WRF, Leguin Mill, identified in the master plan. Through use of population and growth projections developed in the master plan, GMC has been able to efficiently move through the early design stages of defining influent parameters for the new Leguin Mill WRF. The Leguin Mill WRF will discharge effluent into the Tussahaw Creek just upstream of the Tussahaw reservoir where HCWA withdraws raw water to treat at its Tussahaw WTP. The combination of discharge into a small creek and ultimately the reservoir made this facility a prime candidate for Membrane Bioreactor technology. Upgrades at the Walnut Creek WRF used growth projections and data from the master plan to determine future loadings for use in developing an aeration system upgrade. This upgrade includes an overhaul of the blower control system as well as a new 300 HP Aerzen Hybrid blower for increased efficiency and turndown ultimately leading to greater flexibility and control.



Lower Valley Wastewater Treatment Plant Process Improvements

Location: Valley, Alabama
Status: Under Construction (estimated completion 10/24)
Cost: $25,747,000

Contact:
Tony Segrest, General Manager
East Alabama Water Sewer and Fire Protection District
(334) 756-7163
t.segrest@eawsfd.com

A few years after the Lower Valley Wastewater Treatment Plant (WWTP) was downsized due to textile mill closures in the service area, a new large food processing industry decided to construct a facility in Valley, AL that would significantly increase flows and loadings to the wastewater treatment plant. The Lower Valley WWTP is permitted for 4 MGD but can only treat approximately 2 MGD with the existing facility configuration. GMC conducted a plant evaluation that determined the existing facility could not treat the additional flows and loads from the industry, so an upgrade to the plant was needed.

As the East Alabama WFSPD's consulting engineer, GMC was contracted to design the upgrades to the facility. Funding was obtained through USDA to construct the project. The construction cost of the upgrades is approximately $26,000,000.

Available space is limited at the plant so the utilization of existing structures was an important goal of the project. GMC evaluated different biological treatment options, narrowing it down to a sequencing batch reactor (SBR) or Modified Ludzack-Ettinger (MLE) process. A continuous flow SBR process was ultimately selected as the basis of design due to its footprint and the fact that no external secondary clarifiers are needed. A continuous flow SBR was chosen over a conventional SBR due to its capability to handle large fluctuations in influent loadings since the flow is continuously distributed evenly to each reactor. The SBR will be constructed within the footprint of an existing abandoned aerobic digester. Additional aspects of the project included a new headworks with two (2) in-channel perforated plate screens, two (2) vortex grit chambers, tertiary filtration, converting the existing aeration basin to an aerobic digester, renovating the sludge dewatering building, two (2) new belt presses and a new lab and office building. Based on the results of an extensive flow analysis, the new headworks was designed for a peak flow of 12 MGD while the biological process, tertiary filtration and disinfection were designed for a peak flow of 6 MGD, utilizing the existing equalization basin to capture excess storm flows downstream of the headworks. The upgrades will allow the EAWSFPD to accommodate the flows from the new industry as well as provide additional capacity for future growth.

Mauldin Road WRRF Improvements for ReWa

LOCATION: Greenville County, SC
CONTACT:
David Rankin, Program Services Manager
Renewable Water Resources (ReWa)
(864) 299-4000
davidra@re-wa.org

ReWa collects and treats approximately 40MGD of wastewater every day with nine water resource recovery facilities (WRRF) and over 350 miles of pipe. GMC has been working with Renewable Water Resources (ReWa) since 2013. ReWa's largest WRRF is Mauldin Road, treating approximately 20MGD with a maximum week of 39.8MGD, which consists of a headworks, primary clarifiers, BNR, secondary clarifiers, tertiary filters, UV and anaerobic digestion. Under our IDC with ReWa, GMC has been working a handful of studies and capital improvement projects at the Mauldin Road campus.

In addition to the work at the Mauldin Road campus, a few other notable ongoing projects are Georges Creek WRRF Sidestream Flow Measurement, Enoree River WWTP & Mitigation Bank Siting Study, Influent Pump Station Modifications, Lower Reedy and Pelham WRRF Gate Modifications, and Lower Reedy WRRF Operations Facility Improvements.

A list summarizing our efforts at the Mauldin Road facility is shown as follows:

Reuse Water Model. GMC developed a reuse water system model using water pumped from effluent from the UV system. The reuse system consisted of four 550 gpm pump at 252' of TDH. Pumps were operated off of discharge pressure where typically 2 to 3 pumps would run continuously. The problem – GMC was to minimize/eliminate line breaks within the reuse system and optimize the system. GMC developed a water model using WaterCAD, calibrated model, and provided recommendations for improvements.

Backflow Preventer Mods. ReWa has seven facilities that needed backflow preventer modifications, one of note was at the WRRF Maintenance Facility. All seven facilities needed the backflow preventers replaced with a DHEC approved device. During design, coordination occurred with multiple ReWa employees being that each BFP fell under a different ReWa manager therefore, all having nuances and details for construction coordination to ensure plant operations were not interrupted.

Operations Control Building Evaluation. ReWa currently has a central Operator Control Building at the WRRF in need of improvements. This project consists an evaluation and renovation of the current interior and exterior of the two-story Operator Control Building including an evaluation of future needs, interior reconfiguration with updated materials and systems to address any current deficiencies to include budgetary cost estimate for selected layout.

Juice Tank Evaluation. ReWa has repurposed a primary solids gravity thickener into a high-strength juice waste holding tank – yes, fruit juice. ReWa receives a waste product from three juice producers in the upstate where this is stored and beneficially added to the biological process for bio-P removal. The juice tank has an existing thickener mechanism and cover that are failing. This project consists of an evaluation of the structural integrity of the tank and a plan to address and correct any structural deficiencies discovered with updated materials.

Storm Pump Station Facility Evaluation. ReWa has a vintage effluent pump station from the original Mauldin Road Facility that was constructed in the 1940s that was to pump effluent out of the facility in the event the water level in the Reedy River reached an elevation disallowing effluent to gravity flow to the river. This pump station has been abandoned since the 1970s or partially used for other purposes in recent years. This project includes an evaluation of the current storm water pump station to determine deficiencies related to the building structure and envelope in hopes of saving a piece of history and repurposing for use in the community as it sits adjacent to the Swamp Rabbit Trail which is a beloved trail through the heart of Greenville.

Storm Pump Station. While evaluating the Storm Pump Station Facility above, the current use for this dry pit/wet well station is to capture stormwater from the site and send to a nearby pump station for treatment. Since this building is being repurposed, we are designing a pump station adjacent to the existing facility to redirect and capture stormwater to ultimately function in a similar manner as the current configuration. This task order shall provide professional engineering services to design and construct a new stormwater pump station at the WRRF. The scope of this task order includes: preliminary study/evaluation, detailed design, permitting, bidding, construction administration, resident project representative, and project closeout.

Anaerobic Digester Evaluation. Currently ReWa operates an anerobic digestion system which generally consists three floating cover anaerobic digesters, one overflow tank, one blend tank and a headhouse where multiple ancillary components are located. This project consists of an evaluation of the condition of the existing anaerobic digestion facility where GMC will evaluate the structural integrity, the electrical components, and the mechanical equipment of the facility. Mechanical components consist of gravity belt thickeners (GBTs), cannon gas mixing systems, heat exchangers, waste gas burners, gas dryers, boilers, primary loop hot water pumps, digested sludge feed pumps, primary sludge pumps, thickened primary sludge pumps, digested sludge transfer pumps, and digested sludge recirculation pumps. A plan will be produced at the end of evaluation to address deficiencies, improve performance, and replace aging equipment.

Waste Gas Burner Modifications. With the three anaerobic digesters comes three waste gas burners to burn excess methane associated with the digestion process. This project consists of designing modifications to the existing waste gas burner to incorporate new waste gas burners to minimize interruptions and downtime. The waste gas burners by Varec will receive new burners, flame arrestors, flame trap, relief valve, instrumentation, controls, and some civil modifications which include minor grading, concrete slab, and pre-engineered metal building.

Horse Creek PCF Improvements

Location: Beech Island, South Carolina
Status: Completed 2019
Cost: $41,143,455

Contact:
Dean Sjolie, Operations Supervisor
Aiken County Public Service Authority
(803) 341-2679
dsjolie@aikencountysc.gov

GMC completed a study (Phase I) for the Horse Creek Pollution Control Facility and a design (Phase II) based upon the findings of the study. This process provided a confident course of action for the utility. As a result of the project, the facility now has a primary treatment design capacity of 26 MGD with a peak of 65 MGD and a secondary, biological treatment capacity of 20 MGD with a peak of 40 MGD, utilizing a 20-MG offline equalization basin. GMC's multi-disciplined firm provided nearly all required disciplines for the design and construction of the facility including process, electrical, geotechnical, site-civil, architecture, and environmental permitting.

Preliminary engineering done on the facility revealed that the influent loading could be treated in a significantly smaller volume with significantly less energy than the existing plant through modification of the biological process. Detailed flow and loading projections were completed using existing Discharge Monitoring Report (DMR) data. Additional influent flow data and associated 24-hour composite sampling was done to ensure the projections for loading were accurate. Hydraulic analysis was performed on the facility as well to determine the optimal height of the new biological process to ensure the system could remain functional re-using the existing influent pumping station structure, headworks structure, primary clarifiers, and secondary clarifiers as well as chlorine disinfection chamber. A maximum high water level in the discharge river, the Savannah, was determined to work backwards through the facility, ensuring that even during maximum facility flow and discharge elevation, the facility would be able to pass the peak flows at maximum flood elevation. Through a detailed engineering analysis process where many alternatives were evaluated, a Modified Ludzack-Ettinger process was selected; however, after changes in client personnel, the facility was quickly changed during detailed design to an oxidation ditch design which met all of the needs of the facility. Cost analysis was done on each of the alternatives in conjunction with GMC's Construction Manager at-Risk partner, Brasfield and Gorrie. Ultimately, the project came in on-time and under budget through value engineering without sacrificing treatment capacity.

The facility was also modeled biologically using Hydromantis' GPS-X software to determine the optimal basin sizing. New permit limits prompted a higher level of treatment for both ammonia and 5-day Biochemical Oxygen Demand. By treating to a higher standard with less volume under aeration, confirmed through modeling and influent flow and loading projections, the facility was able to save on both construction cost as well as yearly energy costs. The system has a proven record of maintaining permit limits despite high fluctuations in influent flow and loading due in part to a robust industrial discharge and large pre-treatment program. All permitting requirements were handled by GMC.

The design included one (1) new 400-HP pump with a variable frequency drive in Pump Station #1, along with a new 42-inch force main in parallel with the existing one for increased pumping capacity. Modifications to the headworks included new coarse bubble diffusers, blowers, air flow meters and effluent weir in the existing aerated chamber followed by a new parallel Parshall flume. Primary clarifiers received new drive units and control panels. A junction box was reconfigured to allow for offline equalization.

Updates to the biological process consisted of three (3) new oxidation ditches with space for a future fourth ditch and designated areas for nutrient removal (nitrogen). At Pump Station #3, one (1) of the 200-HP vertical turbine aerated sewage pumps and five (5) of the return activated sludge (RAS) pumps were replaced. The hydraulic system and piping in the reuse water system were improved to increase efficiency and reduce problematic surges and water hammer. This was accomplished by installing premium efficiency motors, variable frequency drives and hydro-pneumatic systems.

Three Mile Creek Wet Weather Conveyance and Storage Facility

Location: Mobile, Alabama
Size: Two miles
Status: Completed 2021
Cost: $18,300,339

Contact:
Bud McCrory, General Manager
Mobile Area Water and Sewer System (MAWSS)
(251) 694-3100
bmccrory@mawss.com

The Three Mile Creek Wet Weather Conveyance Storage Facility for the Mobile Area Water and Sewer System (MAWSS) includes the replacement of approximately two miles of existing 48" trunk sewer with a new 60" gravity sewer main and the increase of side stream storage at the severe weather attenuation (SWAT) location from eight million gallons to 30 million gallons and pumping capacity up to 50 million gallons along Three Mile Creek in Mobile, Alabama.

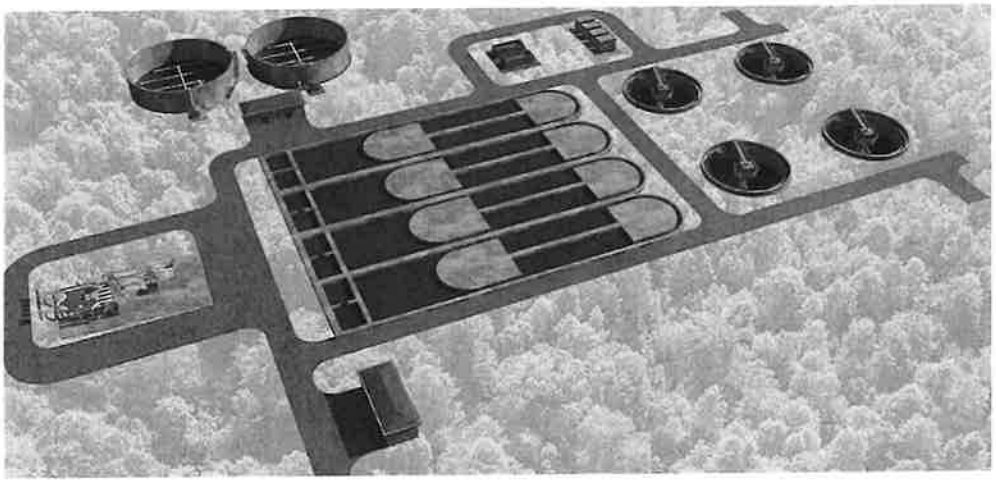
The Wet Weather Conveyance portion of the project was completed by GMC in an effort to increase capacity within the existing trunk sewer to alleviate wet weather sanitary sewer overflows (SSOs) along Three Mile Creek. The construction project is especially complex given the multiple double barrel depressed sewers (siphons), a 63" high density polyethylene (HDPE) directional bore under Three Mile Creek, multiple 72" jack and bores under City of Mobile roadways, and the protection of the sensitive environment along the Creek. For this project, GMC provided engineering design and construction phase services. In addition, GMC also provided survey, easement preparation/acquisition and environmental permitting, public engagement/education and grant administration and compliance services for MAWSS.

The project required intense coordination with federal and state regulatory agencies (USACE, ADCNR, ADEM CWSRF Division, etc.) as well as local municipal leaders. Specifically, the project was locally coordinated with the City of Mobile to minimize disturbance to its multiple parks, roadways, public properties, and the first phase of its highly anticipated Three Mile Creek Greenway Trail along the project route. Public engagement was critically important to ensure residents understood the need for the project and were in agreement with the approach. For these reasons, the project is very high profile with the public, the City of Mobile and all local environmental agencies.

Grove Creek WWTF

Location: Commerce, Georgia
Status: In Design
Cost: TBD

Contact:
Matt Hailey, City Manager
City of Commerce
(706) 335-3164
mhailey@commercega.gov



GMC has been contracted by the City of Commerce, Georgia to provide design, inspection, and construction administration services. The scope of the project includes site selection, permitting including all steps necessary for a new NPDES discharge permit through GA EPD, preliminary and detailed design, adherence to funding requirements set forth by ARPA and GEFA (Georgia's State Revolving Fund-Loan System), bidding/contractor procurement, contract administration, construction administration, construction inspection, start-up and training, and project close-out. The Grove Creek WPCP is a green-field wastewater treatment facility designed with an initial Maximum Monthly Average Daily Flow capacity of 2.0 MGD expandable to 4.0 MGD. The Wasteload Allocation on Grove Creek sets forth fairly strict effluent limits as noted in the Table Below (note, the original phases have been changed since the WLA was obtained, instead going directly to 2.0 MGD and then 4.0 MGD):

With a 5-day biochemical oxygen demand requirement of 5.0 mg/L, eventual total phosphorus requirement of 0.3 mg/L, and expected future total nitrogen limits of 10.0 mg/L with ultimately tighter limits, the design is required to be robust and forward thinking with very high-quality effluent. The influent wastewater is a mixture of industrial, large commercial, and residential wastewater. The proposed service area is the area immediately surrounding the intersection of I-85 and US-441 where the existing collection system currently feeds to a common pump station and transfers flow to their existing Northside WPCP. Plans for the facility include upgrades to the pump station, Beck Road PS, to include coarse screening and a diversion or flow split option to the existing Northside WPCP for periods of heavy loading.

This pump station serves residential customers; the Tanger Outlets; a busy commercial corridor with restaurants, gas stations, and other commercial businesses; and industrial customers including SK Battery – a large industrial battery making facility with existing pre-treatment permit. Challenges included selection of a site in close proximity to the Beck Road PS, with a proposed outfall approximately 1.5 miles away with a busy commercial corridor in between and a required crossing at US-441 in another county. GMC is also contracted for design and easement acquisition for the required effluent force main that will carry treated water to the outfall. By selecting a route through a busy commercial corridor, the hope is that the City will be able to find additional water reuse customers and limit the amount of flow that is ultimately discharged into Grove Creek. GMC worked closely with the City to evaluate different properties and ultimately helped the City select and purchase a property including due diligence assistance. This property best fit all of the City's goals and has been successfully purchased ahead of schedule.

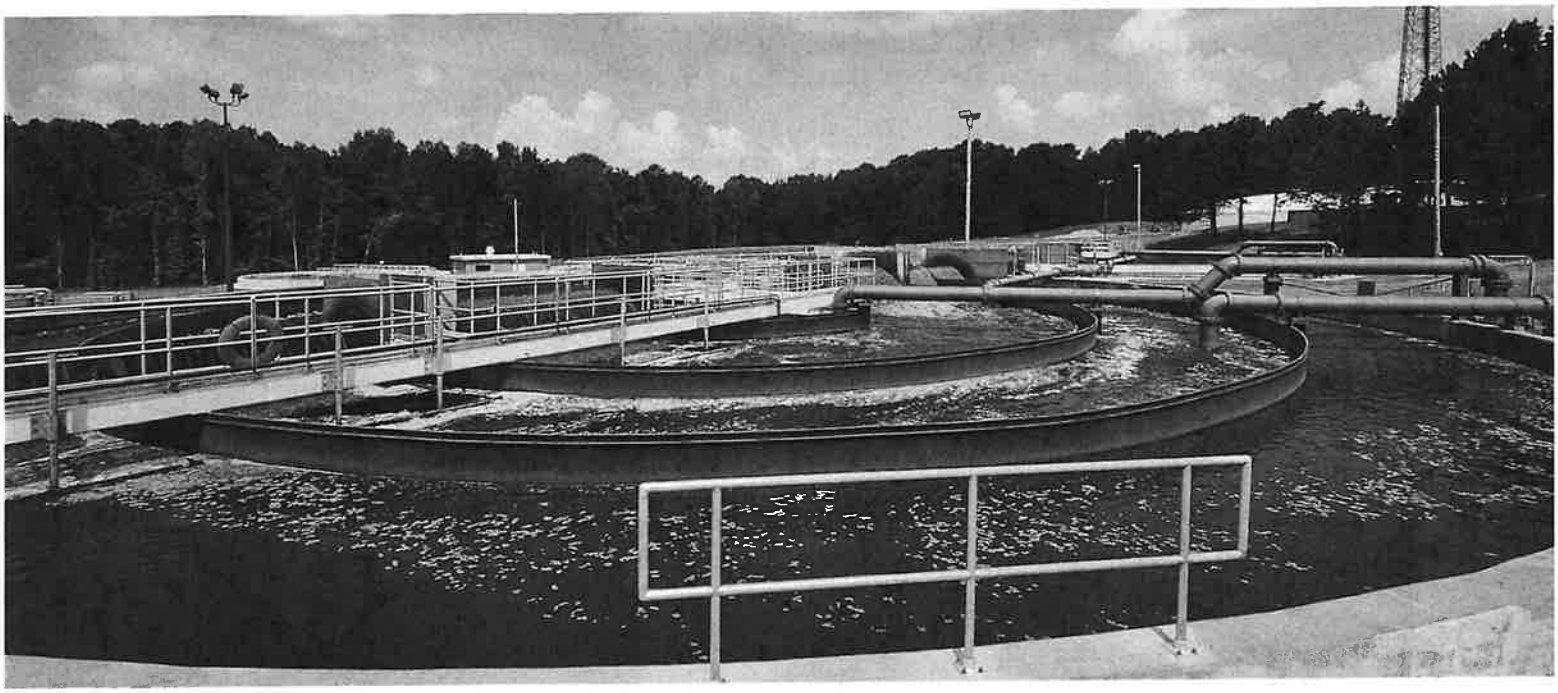
A technologies workshop was held with the City where applicable technologies were presented that would achieve the City's goals and consistently meet the requirements set forth in the WLA and anticipated future limits. Considering the level of treatment required by the WLA, the City has elected to explore permitting as an Urban Water Reuse facility through GA EPD. This would allow the City to sell water to nearby industrial clients including SK Battery, offsetting their required water demand and relieving pressure on their existing water treatment plant and associated distribution system. From the influent parameters, the City's goals, and the requirements set forth by GA EPD the proposed system was narrowed down to oxidation ditches with dedicated anoxic zones, chemical phosphorus removal and pH adjustment, secondary clarification, a RAS/WAS pump station, effluent disk filters, and UV disinfection and a membrane bioreactor facility with a Modified Ludzack-Ettinger process. GMC and the City are currently evaluating which system best fits their needs and goals, including the project budget and required schedule. The design is currently ahead of original schedule and projections show it is also on-budget. GMC is currently assisting the City with deciding if Construction Manager at-Risk or Design-Bid-Build is right for them considering their goals.

Ravenel Road Pump Station

Location: Seneca, South Carolina
Status: Completed 2019
Cost: $1,684,825

Contact:
Chris Eleazer
Oconee Joint Regional Sewer Authority
(864) 972-3900
Chris.eleazer@ojrsa.org

The Oconee Joint Regional Sewer Authority (OJRSA) provides treatment and to its member city Collection System. OJRSA secured Goodwyn Mills Cawood (GMC) to improve the capacity of three existing OJRSA pump stations that are in series and serve multiple commercial and residential developments on the shore of Lake Hartwell. GMC completed design, geotechnical investigations, permitting, bidding, and construction administration services on the project. The project increased the capacity of the downstream sewer, provided attenuation storage for emergency response, relocated one of the three existing pump stations out of a blind curve to make egress safer, eliminated one station with gravity sewer, and replaced the third pump station. The first station was an existing Smith and Loveless vacuum primed suction lift style station that was replaced in kind using the same wetwell within the existing footprint of a USACE Easement with the addition of attenuation storage. The second station was relocated with a new 500 gpm Gorman-Rupp self-priming suction lift style station. A portion of the existing forcemains were re-used between the stations reducing the overall project cost. H2S resistance was an important consideration and was addressed by using polymer concrete for new structures and lining the re-used wetwell. Care was also taken to minimize bypass pumping and work around Clemson University football games, which results in increased traffic and wastewater loading. GMC provided design, geotechnical investigation, easement acquisition assistance, bidding, and construction administration and inspection services.



Whitewater Creek Water Pollution Control Plant Expansion

The Whitewater Creek Water Pollution Control Plant (WPCP) was owned and operated by the City of Fayetteville before the upgrades. The Facility was originally constructed in 1978-1979 and has been expanded and upgraded twice. One portion of the plant utilized a sequencing batch reactor treatment process, and the other portion of the plant utilized a conventional activated sludge (CAS) process. In June of 2016, the City retained the service of GMC to assess the current operating condition of the WPCP along with providing recommendation for improvements. After the inspection, upgrades for this Facility were recommended by GMC to improve the treatment process efficiency and operating efficiency, reduce the life-cycle energy cost and meet the future permit limits.

The recommended improvements to the Whitewater Creek WPCP were: construction of an influent flow equalization basin splitter box, conversion of the two existing SBRs to oxidation ditches utilizing a Simultaneous Nitrification-Denitrification (SND) treatment process, construction of two new secondary clarifiers, new RAS/WAS pump station, tertiary filtration, restore plant reuse pump station capacity, improvements to existing aerobic digester, improvements to chemical feed systems, installation of new supervisory control and data acquisition (SCADA) system, and abandoning the existing activated sludge plant. The improvements under design for the WPCP will provide for biological nutrient removal of phosphorous to 0.7 mg/L and ammonia, as nitrogen, to less than 0.5 mg/L. The Whitewater Creek WPCP has a permitted discharge flow capacity of 5.0 MGD, and the typical 30-day average flow ranges from 1.8 to 2.4 MGD. The Master Plan recommended improvements to approximately half of the City's pump stations. The Plan also studied different options of providing gravity sewer in order to serve existing pump stations with gravity sewer.

GMC provided engineering design, biological modeling, electrical engineering, geotechnical engineering, permitting, construction administration, construction inspection, and construction materials testing for this project. The challenge of this project is to retrofit existing basins (such as filter and SBR), at the same time to keep the existing facility operational and maintain the quality of effluent to meet the permit. With careful planning of sequencing of demolishing and piping/ equipment installation, the project successful achieved this goal. By the time of substantial completion, the effluent monthly average BOD is less than 5 mg/L, TSS less than 1 mg/L and NH3 less than 0.2 mg/L, all of them were much lower than the effluent limits set by NPDES.

Location: Fayetteville, Georgia
Status: Completed 2021
Cost: $11,300,000M (+ $4,830,000 Owner Purchased Equipment)

Contact:
Ray Gibson, City Manager
City of Fayetteville
(770) 461-6029
rgibson@fayetteville-ga.gov

City of Orange Beach North Sewer Force Main Upgrade

Location: Orange Beach, Alabama
Date Completed: 2022

Contact:
Nicole Woerner, Deputy Director Coastal Resources
City of Orange Beach
(251) 981-1180

GMC recently completed a project with Orange Beach to increase capacity in the existing sewer system. The project consists of the engineering and design and construction of approximately 8 miles of sewer force main from a point on Highway 180 in Orange Beach to an existing lift station on County Road 12. The project also included a large diameter 20-inch, +2,000 lf bore of the Intercoastal Waterway. The area benefited by this upgrade will include areas north and east of Wolf Bay to Josephine as well as areas directly served by the force main. Implementation of this project will prevent failures in the existing main decrease the use of on-site septic systems and provide increased capacity for future development and growth.

The project was funded through RESTORE which is administered by Alabama Department of Conservation and Natural Resources (ADCNR). GMC is providing survey, design, permitting (FWS, COE, DOT, County Municipal), grant administration, contract administration, and construction oversight.

Tanner's Bridge Road Water Pollution Control Plant

GMC teamed with Reeves Young on Barrow County's progressive design-build services for the design and construction of the Tanner's Bridge Wastewater Treatment Facility expansion to 1.5 MGD.

The Tanner's Bridge Water Pollution Control Plant (WPCP) is located in Bethlehem, Georgia and is in the Oconee River Basin. The existing facility is a 0.50 MGD spray irrigation land application system (LAS). The County has a 5.0 MGD NPDES Permit for the facility. Due to expected growth in the area, Barrow County has commissioned GMC and a design-build partner to design and construct a 1.5 MGD wastewater treatment facility.

One of the critical components of the facility design was the screening and grit removal system, followed by the hydraulic flow splitting structure. Providing redundancy for the flow through the headworks is imperative in achieving the expectations of the operator and in protecting the remainder of the treatment process. Originally, a three (3) channel screening headworks was designed with two mechanical, in-channel, perforated plate screens and a bypass followed by mechanical grit removal. Engineers and staff selected mechanical grit removal based upon the subgrade potential for rock and associated cost. The design was reduced to a two (2) channel screening headworks followed by the grit system to protect the integrity of the downstream fine bubble diffusers and reduce maintenance time associated with inorganics and grit. The value-engineering allowed the budget expectations of the client to be achieved, while also providing a high level of treatment and a plan for future growth. Additional flow over 5 MGD will now require a mirror headworks design adjacent to the existing.

The biological process consists of a sequencing batch reactor (SBR) capable of an influent wastewater characteristic of 350 mg/L of BOD, 350 mg/L of TSS with and 30 mg/L of ammonia. The SBR will be designed to meet current permit requirements with consideration to future nitrogen and phosphorus limits. Other components of the facility include screening, grit removal, hydraulic splitting structure to divert flow to the LAS or SBR, hydraulic head for tertiary filtration and chlorine contact for disinfection. Effluent will be pumped to the receiving stream where it will be re-aerated through a cascade aerator before discharge.

Location: Barrow County, Georgia
Status: Completed 2021
Cost: $15,565,406

Contact:
Chris Yancey, Public Works Director
Barrow County
(770) 867-7640
cyancey@barrowga.org

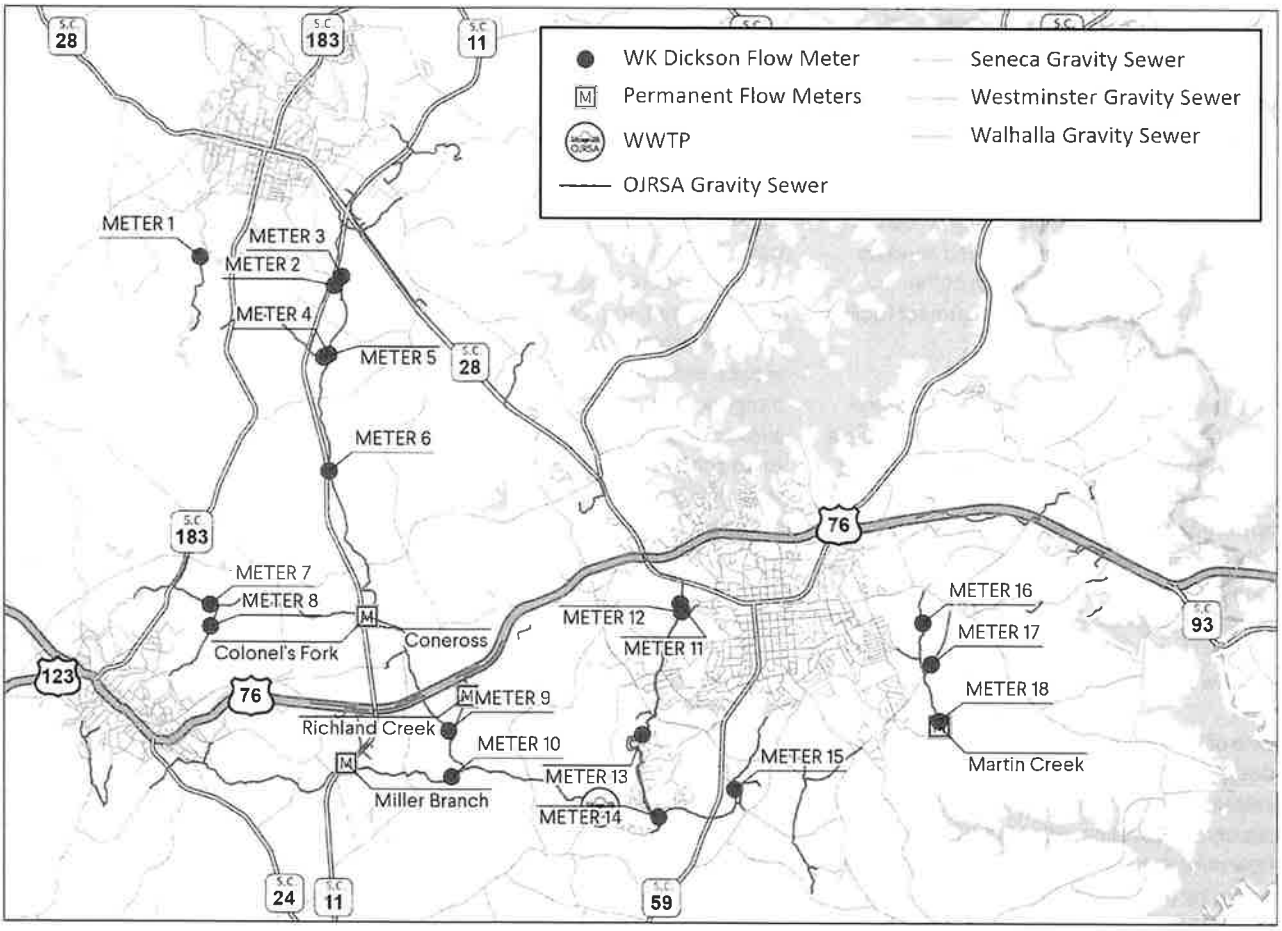
2022 Wastewater Model Update

In 2021, OJRSA performed extensive flow monitoring across their cross entire collection system. After this work was completed, OJRSA requested that GMC use this data to update the existing wastewater collection system model. Eighteen (18) flow meters with three (3) months of data were evaluated along with three (3) permanent metering stations and seventeen (17) lift stations. GMC visited many of the pump stations for in person evaluations.

Per the request, the model was updated to the new flows and will serve as the basis for many analyses moving forward. This includes service requests, proposed improvements, and areas for focusing rehabilitation. This model was constructed for extended period hydraulic simulation and utilities the EPA SWMM computation method to integrate RTK parameters into extreme weather simulations.

Location: Oconee County, South Carolina
Status: Ongoing
Cost: $45,000

Contact:
Chris Eleazer, Executive Director
Oconee Joint Regional Sewer Authority
(864) 972-3900
chris.eleazer@ojrsa.org



Decherd Wastewater Treatment Plant Expansion

Location: Decherd, Tennessee
Status: Completed 2020
Cost: $10,189,258

Contact:
Catherine Edwards CEO
Clearwater Solutions
(334) 532-3201
catherine.edwards@clearwatersolutions.com

The Decherd Wastewater Treatment Plant was constructed in 1983 and consisted of circular aeration basins with internal secondary clarifiers capable of treating 1.0 MGD with internal secondary clarifiers capable of treating 1.0 MGD. As permit limits tightened and as growth occurred, process improvements and additional hydraulic capacity were required. GMC has worked closely with the Client to develop supplemental funding from Nissan and state agencies to support the need for the project.

The treatment facility was expanded to treat a 2.65 MGD with a peak of 6.875 MGD while removing nitrogen phosphorus biologically and then further removing phosphorus physiochemically to support the state wide nutrient reduction strategy implemented.

The biological treatment process consists of a time-managed activated sludge process which incorporates some of the benefits of a batch reactor into a continuous flow activated sludge process. This process employs time-based aerobic, anoxic and anaerobic phasing for nutrient removal. Unlike sequencing batch reactors where a settling phase occurs, the biological process utilized will be followed by secondary clarifiers to support the continuous flow process.

Other features consist of a new outfall line, headworks with screening and grit removal, utilization of existing tankage to accommodate the proposed biological process, three new secondary clarifiers, tertiary filtration, new ultraviolet disinfection, post aeration and a new effluent discharge line to the receiving stream. A significant challenge that this project presents is the construction staging required to occur to keep the existing process online while maintaining effluent permit requirements. This construction sequencing was separated into three phases to accomplish the construction to prevent interruptions in treatment.

City of Aiken Sewer Distribution Modeling

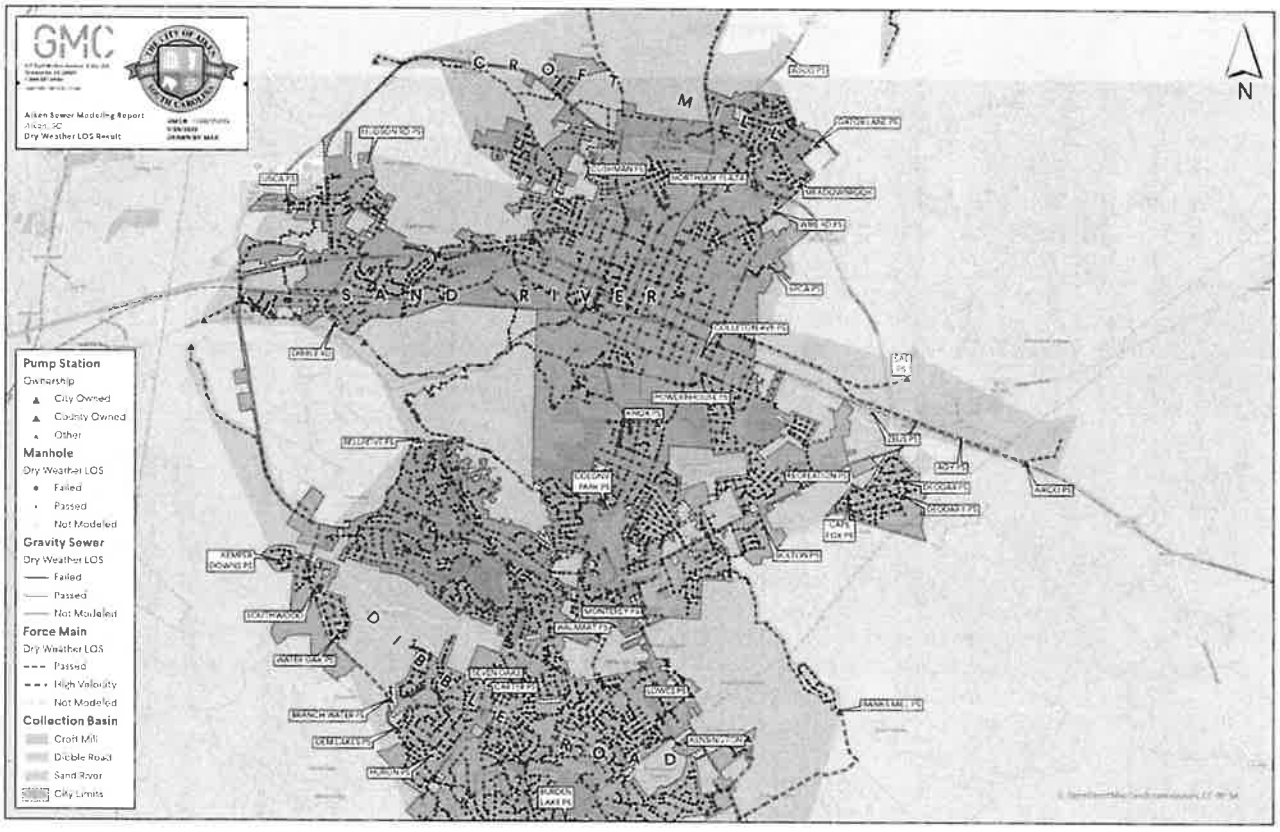
Location: Aiken, South Carolina
Status: Completed 2018

Contact:
John Poole, PE, City Engineer
City of Aiken, Public Works
(803) 643-2125
jpoole@cityofaikensc.gov

The City of Aiken, SC maintains and operates a wastewater collection system serving an area that stretches approximately 15 miles from north to south and 8 miles from east to west. City records include just over 284 miles of sanitary sewer lines up to 36-inches in diameter. There are approximately 40 lift stations and 6,750 manholes and pipe segments. Sewage is collected and transported via 3 separate collection systems to 3 metered discharge points where the Aiken County Public Service Authority receives the effluent into their sewer system for transportation to treatment.

Goodwyn, Mills and Cawood, Inc. (GMC) was selected to model and assess the wastewater collection system for the City with an end goal of providing City staff and elected officials essential information relating to the operational condition of their system, prioritized improvements necessary to mitigate risk of failure, future improvements to accommodate growth, and associated schedules, costs and life cycle cost analysis.

Following the initial modeling, calibration, and assessment of the City's system, GMC worked with City staff to incorporate the data into the City's Asset Management software, identify system operating characteristics and deficiencies, develop appropriate system improvements/modifications, and recommend options for implementing improvements. The assessment integrates existing City of Aiken standards, with GMC developing additional standards as needed, to accomplish the scope of the project. GMC submitted details of the system evaluation along with supplemental drawings and schematics necessary to describe proposed system improvements. An estimate of the construction cost and logical construction phasing was also be included.



Pendleton- Clemson WWTP Expansion

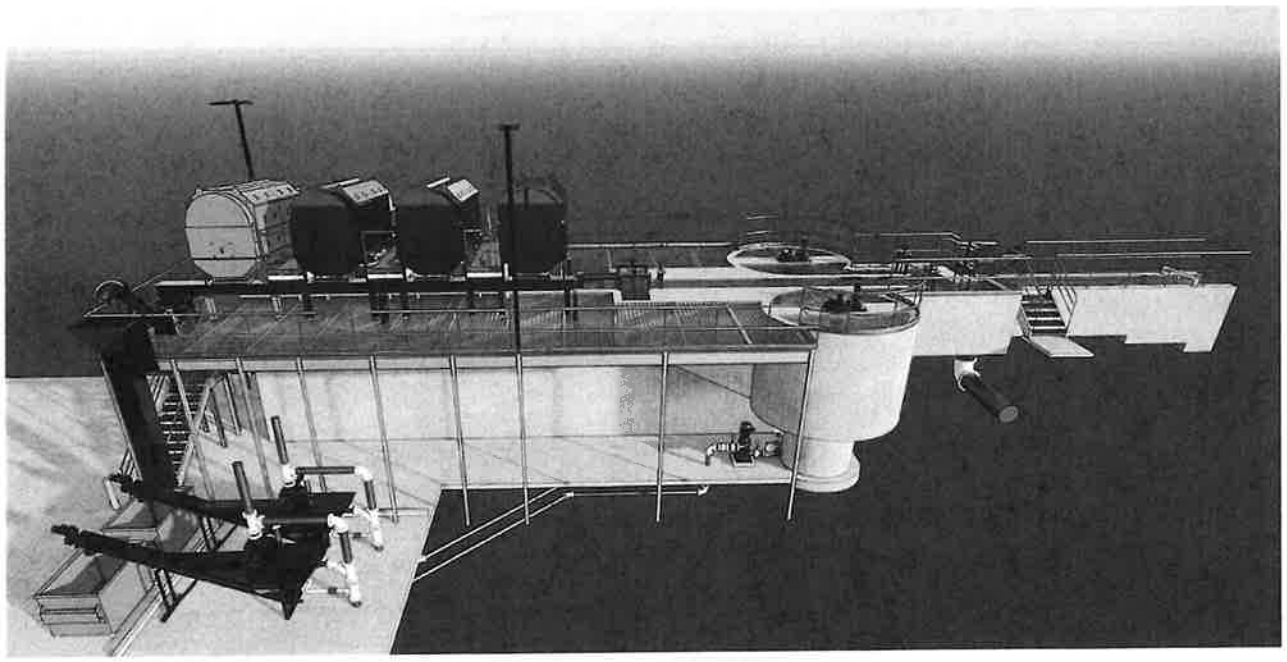
Location: Pendleton, South Carolina
Status: In Design (90%)
Cost: TBD

Contact:
Steve Miller, Town Administrator
Town of Pendleton
(864) 646-9409
stevem@townofpendleton.org

GMC was contracted to perform the preliminary engineering services and complete design for the Pendleton-Clemson Regional Wastewater Treatment Plant which has a current design capacity of 2.0 MGD. This facility serves Town of Pendleton (Pendleton), City of Clemson (Clemson) and Anderson County (Anderson), with all of them having partial ownerships in the facility.

GMC completed preliminary engineering in 2020 and began design of WWTP expansion in 2022. The new facility will include new influent pump station, rotary drum screens, vortex grit chambers, flow control vault, biological nutrient removal (BNR) basins, tertiary filters, reuse water system, and aerobic digester. Due to the proposed limits on water quality parameters, GMC recommended that aerobic granular sludge (AGS) be selected as the main treatment process. The AGS process will eliminate the need for secondary clarifiers, and will allow the existing clarifiers to be utilized as the accessory tanks for AGS. In addition to facility design, GMC will also handle all permitting related to the project, including NPDES permit modification for expanded facility, construction permit, and stormwater, etc.

The existing reuse water system includes a single vertical turbine pump. The pump is sized to operate water cannons surrounding the two (2) equalization basins. However, consideration was not taken to serve other water needs around the facility. As a result, operators have difficulty effectively using the system for other tasks around the WWTP. GMC has designed a new distribution system around the WWTP and a new reuse water system utilizing a submersible pump and pneumatic tank to consistently and reliably supply non potable water to unit processes around the facility. Hydraulic modelling software was utilized for analysis and to assist the design process.



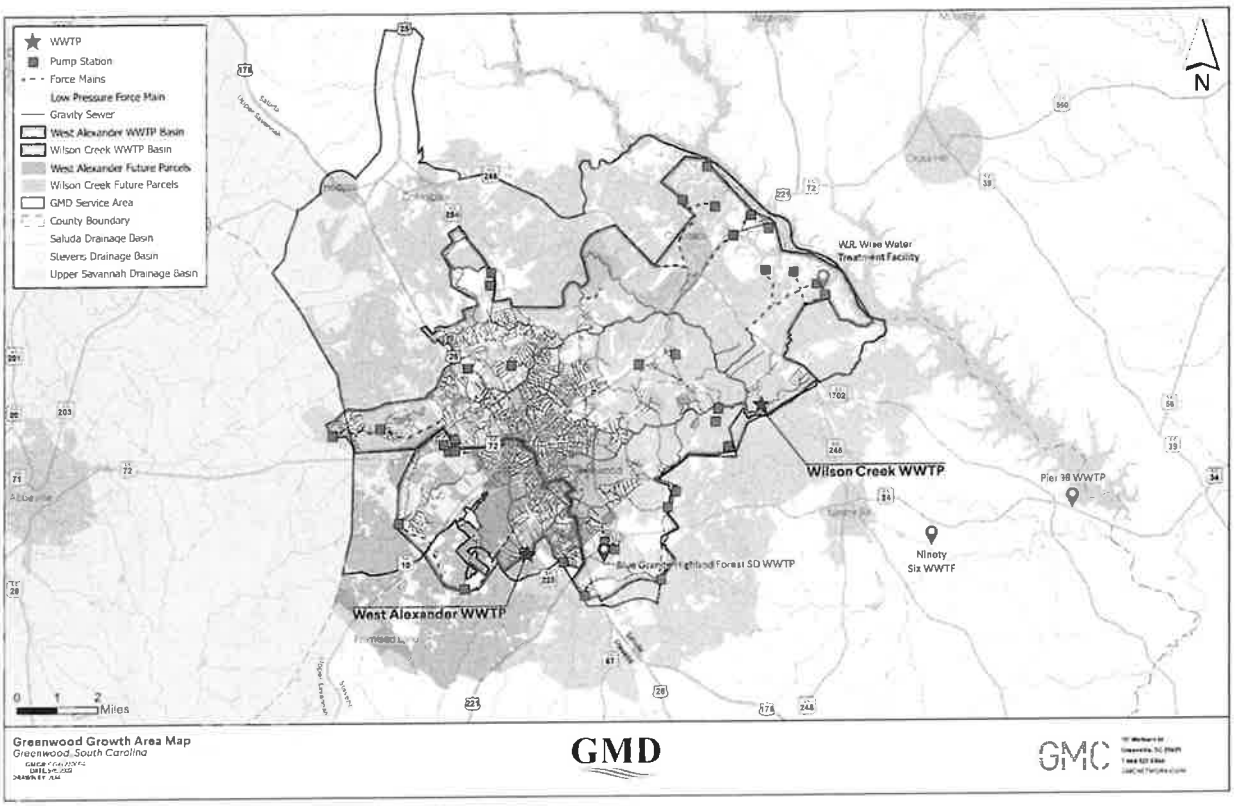
Rocky Creek Trunk Sewer Pumping Stations

Location: Augusta, Georgia
Status: Completed 2021
Cost: $4,555,444

Contact:
Allen Saxon, Assistant Director of Utilities
Augusta Utilities Department
(706) 312-4154
asaxon@augustaga.gov

GMC worked with the City of Augusta Utilities Department on the Rocky Creek Trunk Sewer Pumping Stations project, which includes 3 pumping stations. GMC's services include engineering design, geotechnical engineering, structural engineering, permitting, and construction administration.

PS-01 is equipped with a channel-mounted wastewater grinder with immersion duty motors and a trash rack overflow. The wetwell is a self-cleaning trench style designed in accordance with ANSI/HI 9.8 and includes 3 large pumps (2 running and 1 standby each 200 HP) for the peak day and maximum hourly flows (15.65 MGD) and two smaller pumps (1 to run and 1 standby each 10 HP) for the minimum daily flows (1.47 MGD). All pumps are equipped with variable frequency drives (VFD) and a level control system. PS-01 is equipped with fixed standby power equipment and automatic transfer power switching equipment (ATS). Controls and motor control equipment are housed in a prefabricated power room. The station was placed online in February 2021.



Greenwood Metropolitan District Wastewater 30 Year Master Plan

GMC was selected by Greenwood Metropolitan District (GMD) to provide a long-range plan for the development of wastewater facilities in the GMD system over the next 30 years. This Master Plan included the development and calibration of a new collection system hydraulic model, population and flow projections, assessment of the system, evaluation of treatment facilities, and a capital improvements plan.

GMD serves the majority of the population of Greenwood County, South Carolina. The utility operates two wastewater treatment plants (WWTPs) permitted to treat approximately 15 million gallons per day of sewer, 35 lift stations, and approximately 392 miles of pipeline. Prior to this project, the utility did not have an operational hydraulic model or comprehensive capacity assessment of the sewer collection system. The county is interested in continuing to attract industrial and residential development to the area and GMC was tasked with assessing existing capacity, planning for service area expansions, and projecting future demand on the system. GMC constructed a new hydraulic model of the sewer collection system using GIS data provided by GMD. GMC calibrated the model with flow monitoring data from GMD's robust flow monitoring program. Population projections for a 30 year period were developed using US Census data and county comprehensive plan data.

The model output along with 30-year population projections were used to assess the capacity of pump stations and linear infrastructure at present and future conditions. GMC provided a final deliverable to GMD that included and assessment of the existing system, population projections, flow monitoring summary, flow projections, system capacity analysis in dry and wet weather, system expansion options, and a capital improvement plan.

Location: Greenwood, South Carolina
Status: Completed 2022
Cost: N/A

Contact:
Jeff Chapman, General Manager
Greenwood Metropolitan District
(864) 943-8001
jchapman@greenwoodmetro.com

Cane Creek Sewer Evaulation and Rehabilitation

GMC assisted the City of Walhalla in completing GIS mapping, sanitary sewer evaluation survey (SSES), and rehabilitation of its Cane Creek sewer basin. The basin serves approximately 2,000 acres on the north side of the City of Walhalla in Oconee County South Carolina. The City system conveys flow along cane creek to the Oconee Joint Regional Sewer Authority (OJRSA) Cane Creek Pump Station and eventually to the Coneross Creek WWTP. The system has known problems with inflow and infiltration (I/I). Prior to GMC's involvement with the city, no GIS mapping of the system existed.

GMC provided engineering support to the City by coordinating manhole surveys and creating the first GIS map of the sewer collection system; completing a capacity assessment of the existing Cane Creek trunk sewer; completing comprehensive SSES of approximately 4 miles of the Cane Creek trunk sewer. The SSES evaluation included flow monitoring and cleaning and CCTV of the gravity sewer system. Due to available funding, the project was divided into multiple phases, with rehabilitation split into two phases. After completing the evaluation, GMC developed design, bidding, and construction administration for rehabilitation of just over 1 mile of 15-inch to 18-inch gravity sewer and brick manholes within the system. GMC worked with the City and Rural Infrastructure Authority (RIA) to develop a preliminary engineering report (PER) and RIA application. The project received funding through RIA and was completed in 2021. Total project value was approximately $1,000,000. GMC has assisted the City with a SCIIP grant application to fund rehabilitation of the remaining trunk sewer in 2023.

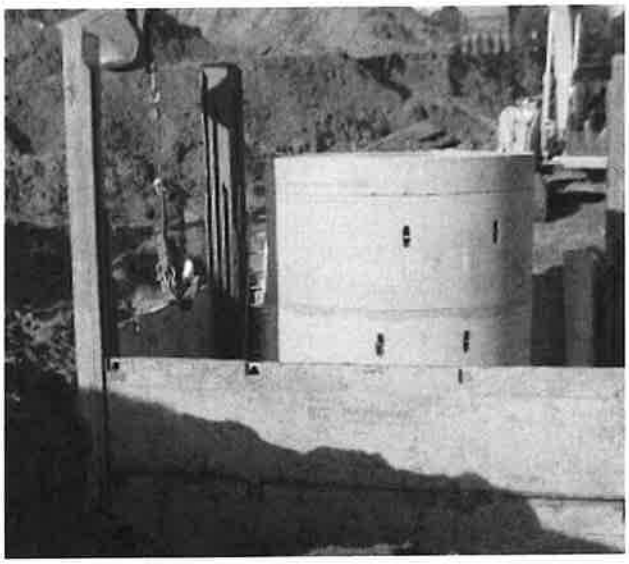
Location: Walhalla, South Carolina
Status: Completed 2021

Contact:
Scott Parris, Public Utilities Director
City of Walhalla
(864) 638-4343
Walhallawaterdep@bellsouth.net

Sanitary Sewer and Lift Station Improvements

Location: Greenville, Alabama
Status: Completed 2018

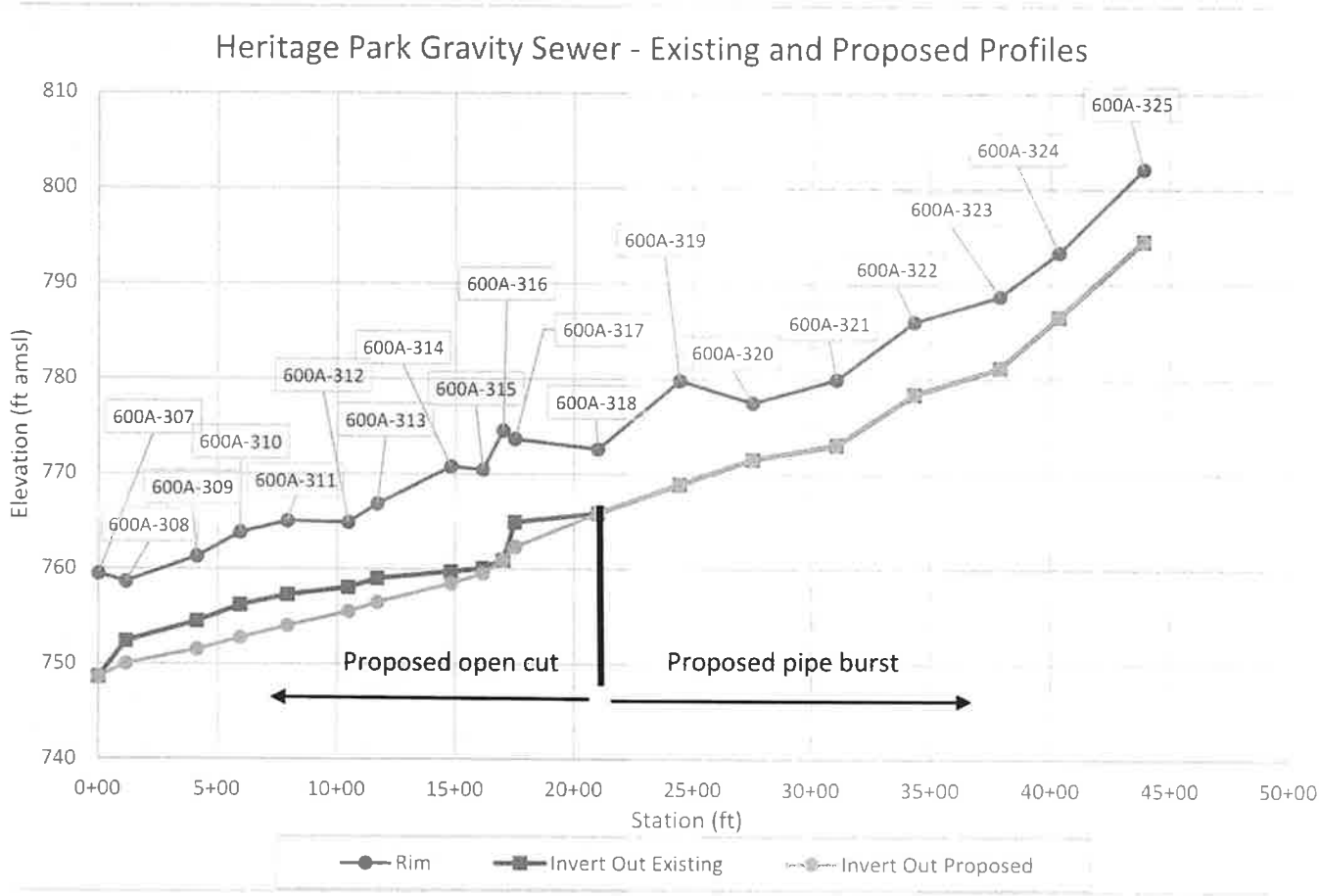
Contact:
Water Works and Sewer Board of the City of Greenville, Alabama
Chairman Joby Norman
(334) 371-5000
jnorman@fcbl.com



The Water Works and Sewer Board of the City of Greenville (AL) utilize GMC for its water and wastewater design and construction administration services. GMC worked with the utility to develop a sanitary sewer improvements project to improve a service area along Persimmon Creek in Butler County. The project for a new lift station, force main and the rehabilitation of an existing lift station in the Montezuma area along Persimmon Creek. The project included 12-16" PVC and Ductile Iron gravity sewer and force main. The force main was constructed of 16" DR 21 Fusible PVC pipe. Over 2,000 linear foot of gravity sewer pipe was installed to collect the sewer and approximately 7,000 LF of force main.

The Montezuma Pump Station and Chaudron pump station were both constructed as a part of the project. Chaudron pump station included a 10 ft. diameter wetwell and 185 HP submersible self-priming pumps. The approximately 30 ft. deep wetwell was coated with a 100% Solids Epoxy liner and included significant site grading and electrical engineering. A 230 KW generator connected with an automatic transfer switch to accommodate power outages. The Montezuma Pump Station required bypass pumping in the replacement of the old lift station. The approximate 25 ft deep lift station was designed with 35 HP submersible pumps and accommodated with a 60 KW generator. The SCADA system was improved for proper remote monitoring of the lift stations.

GMC surveying, geotechnical, materials testing, design, and construction engineering services were utilized in this successful project.



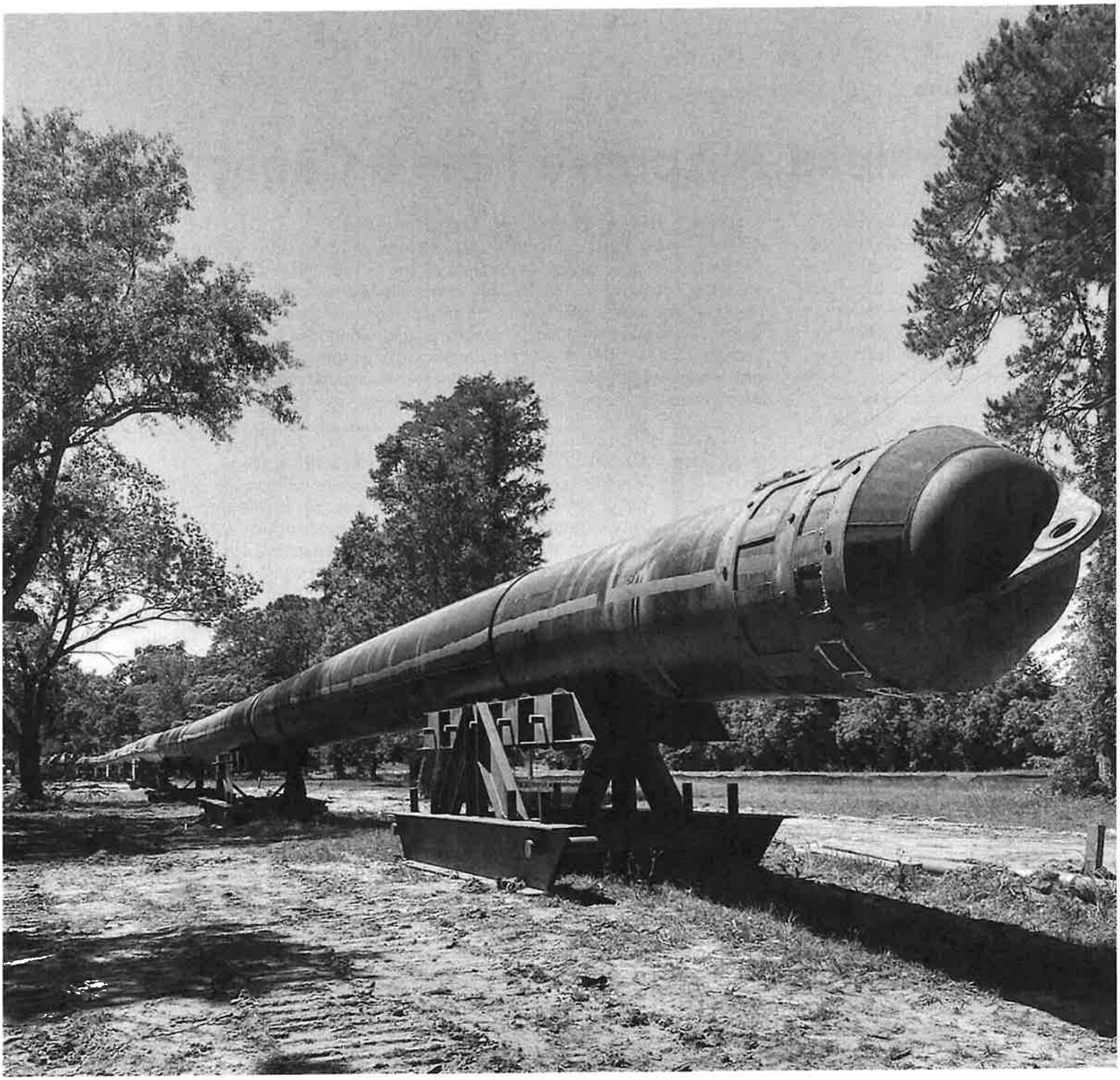
Heritage Park Gravity Sewer Replacement

Renewable Water Resources (ReWa) contracted GMC to evaluate an existing 8-inch and 10-inch gravity sewer located within Simpsonville, SC to determine the capacity and needed improvements to safely convey wastewater from multiple new residential developments.

GMC coordinated the survey of the existing gravity sewer to analyze current and future wastewater loadings on the gravity sewer. Multiple alternatives were evaluated, including pipe bursting of the existing sewer, replacing in the same trench, and building a parallel sewer. Alternatives were summarized in a Technical Memorandum and provided to ReWa for review. ReWa selected pipe bursting as the desired approach. The final project scope includes the replacement of approximately 4,400 linear feet of the existing 8-inch and 10-inch gravity sewer by pipe bursting to follow the alignment of the existing gravity sewer. This sewer is located near a residential area for approximately 2,100 feet and then crosses a delineated wetland. Pipe bursting will be utilized behind the residences where the existing sewer was installed on the property lines and is under decorative fences of 17 homes. A traditional open-cut will be utilized downstream of the residential area to allow the new sewer to have steeper slope, increasing capacity.

Location: Simpsonville, South Carolina
Status: Under Construction
Cost: TBD

Contact:
Brianna Wallace, Engineering Department
Renewable Water Resources
(864) 299-4000
briannaw@re-wa.org



Section 3

Capacity for Performance

Workload, Response Time & Capacities

Workload

GMC has the depth of staff and resources necessary to handle projects of any size or complexity. Our firm is staffed with seasoned professionals who have experience in all types of project requirements from planning and design to construction administration and closeout.

Our team is fully capable of acquiring new projects without posing a hardship to our staff or neglecting our existing clients. We remain committed to providing quality designs and exceptional customer service that our clients have valued for years.

Capacity To Meet Schedule Requirements

After the award of this contract, the project team will meet with the City of Tupelo or its representative to discuss the vision of the project, the goals to be achieved, the project schedule and the budget constraints. We will outline our proposed work plan and meet regularly with the project team members, as well as the City, to make sure that the successful track continues. Though many factors can affect the timely completion of a project, our past problem-solving experience gives us insight to ensure the deadlines are met and that the project is completed on time.

Capability To Meet Budget Requirements

The GMC team understands the importance of completing all projects within budget. In the initial meeting with the City of Tupelo, we will determine the budget for the project and will continue to monitor this figure throughout the project duration. Our experience with similar projects allows us to establish a realistic budget from which we will work.

In the most successful stories of budgeting, our firm was engaged early in the design stage of the project. This early involvement in the City's project allows us to provide assistance with planning, obtaining grant funding, design layouts, equipment and process selection and many other value-added options which can help the City of Tupelo achieve their desired system with a lower total cost.

Response Time

Frequent communication with the City of Tupelo staff will allow our team to anticipate possible needs, proactively identify key GMC staff, and begin developing a scope, schedule and fee for the project prior to the City's formal request. When we receive a specific work request, we will immediately meet with the City to ensure our preliminary approach meets the City's goals and objectives. Once confirmed, we will finalize our proposal and submit to the City for approval within 24 hours of your request.

Design Team Role

Our approach on all projects is to play the role that we are being asked to play, to support the goals and aspirations of our clients and the needs of each project. In some cases, high engineering is called for, but in most instances, we are asked to provide practical solutions to complex problems.

GMC will offer an unparalleled level of client service through superior technical expertise and our ability to respond in a timely manner. Wheeler Crook, PE will be your direct point of contact and his top priority will be to serve the City of Tupelo and feel like an extension of their staff.

Ability to Respond and Minimize Impact on County Staff

Wheeler Crook, PE is a highly experienced project principal, having managed numerous water and sewer projects from start to finish. His managing style is very simple and very effective – communicate often with the client, coordinate well with the design team, and maintain a sense of urgency amongst both by example. Communicating with the client ensures several things, but most importantly it keeps the client informed and their vision present in the development of the project.

Maintaining a sense of urgency is absolutely critical and goes hand-in-hand with both client communication and team coordination. Wheeler will work tirelessly to coordinate and respond to all questions within a timely manner, as well as adequately respond to all request to commence work on a new project. Being responsive to both the client and the consulting team is contagious, which keeps all parties engaged and informed. This can bolster a sense of excitement in the quality and the timely delivery of a project. This management style and these leadership traits, coupled with his previous experience on similar projects, make Wheeler the ideal project principal for this scope of work.

Ability of Team to Devote Time and Resources Necessary to Successfully Complete the Project in a Timely Manner

Our team has the depth of staff and resources necessary to handle any sized project of any complexity. We are staffed with seasoned professionals who have experience in all types of water and sewer projects. We are currently completing several major projects and are ideally positioned to take on more work without affecting our other on-going projects. Your City of Tupelo projects will be our team's priority project and all schedules will be provided to county staff when needed. We have committed local staff for this commission and are available and eager to focus on YOU!

Accessibility of Project Manager and Key Personnel

Accessibility of personnel can often be a critical factor in meeting schedules. Our local team strives to be accessible to our clients and will have no problem being on-site when called upon when requested throughout all stages of the project. City of Tupelo will have direct access to our project team which will truly operate as an extension of your staff to exceed all expectations.

Workload/Availability

All design professionals involved in the project were selected based on demonstrated competence and qualification, not based on fee. Each person has extensive experience in providing professional services for water/sewer utilities and water resources, as shown on his/her resume. Furthermore, these individuals have a demonstrated history of successfully delivering similar scoped projects.

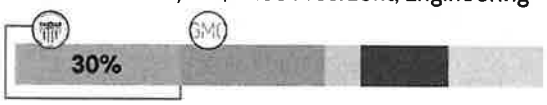
Firm Workload

Our team has the necessary availability to assist the City of Tupelo in your wastewater improvements projects. To depict our team's current workload, each individual is shown below with the percentage of time they are able to commit to this project. But at the end of the day, GMC commits to making your City of Tupelo a TOP priority for our firm!

KEY

Availability to Tupelo | Other Projects | Grants/Development | Internal Operations

Wheeler Crook, PE | Vice President, Engineering

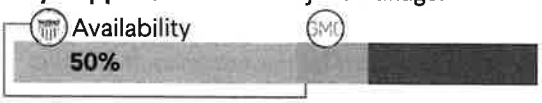


Bryan King, AICP | Client Manager

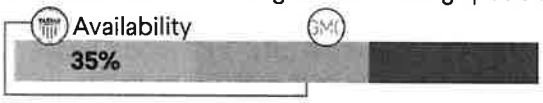
Bea Forniss | Community Relations

Lawrence Hughes | Project Manager

Trey Hopper | Assistant Project Manager



Russ Robinson | Grant Agent and Funding Specialist



Tony Reid, PE, BCEE | VP, Water Resources Treatment Division

Jeremy Lipscomb, PE | Design Manager, Collections & Transmission

Tim Mitchell | Construction & Operations, Water

Additional Personnel	Availability
Liang Wang, PE, BCEE	35%
Andy Perry, PE	30%
Kerry Hannah	30%
Melissa Mehaffey, PWS, CFM	20%
Kevin Wales, PE	15%
John Averrett, PE, LEED AP	20%
Lauren Gallo	30%
Jim Barre, PE	35%

Capability to meet the project timeline and budget requirements

Our team has experience providing real-time project cost estimates during planning and can identify projected costs for future construction.

By checking the cost estimates at different phases, we can make adjustments as needed to keep the project on track and within budget. These reports provide early warning for potential problems, prevent surprises, and increase confidence in the accuracy of forecast program costs.

MBE/WBE Participation

GMC understands the challenges faced by Disadvantaged, Minority and/or Woman-Owned Business Enterprises. We have department and office leaders who had their own DBE before joining GMC and we value their input in engaging other DBEs on projects. We have developed strong working relationships with various DBE firms who are knowledgeable in the engineering and architecture professions and have built reputations for quality, timely service. We are fully committed to incorporating disadvantage firms and regularly seek the assistance of local MBE/WBE/DBE firms within our communities whenever possible to ensure the design team reflects the community in which we are working.

80+

DBE Partners across GMC

Last 10 years

$1.9m

Paid to our DBE partners since 2021

Our history of partnering with DBE/MBE/WBE firms include:

- A.G. Gaston (DBE/MBE)
- Analytical Environmental Services, Inc. (DBE/MBE)
- Bloc Global (DBE/MBE)
- Bostic Trucking & Excavating, Inc. (DBE/MBE)
- Bulls Construction Group, LLC (DBE)
- CE Associates (DBE/WBE)
- Charles Williams & Associates (DBE/MBE)
- Chao & Associates, Inc. (DBE/MBE)
- Christy Cobb Engineers (DBE/WBE)
- Clarus ConsultingConnico, Inc. (DBE/WBE)
- Copasetic Engineering & Design Services (DBE/MBE)
- Dynamic Civil Solutions (DBE/MBE)
- Greenview Studios (WBE)
- HHB Engineers (DBE/WBE)
- Hillsman Interiors (MBE)
- Hyde Engineering (DBE/WBE)
- Khafra Engineers (DBE/MBE)
- MaesAwyr, LLC (DBE/WBE)
- MBA Structural Engineering (DBE/MBE)
- MMSA Structural Engineers, Inc. (DBE/MBE)
- NHB Group (DBE/WBE)
- Rebecca Looney & Associates (DBE/WBE)
- Sajjadieh Engineering Group (DBE/MBE)
- Studio 2H Design (DBE/MBE)
- SARCOR, LLC (DBE/MBE)
- Slade, LLC (DBE/WBE)
- SL King & Associates (DBE/MBE)
- Sykes Consulting, Inc. (DBE/MBE)
- Taffy Pippin Consulting, LLC (DBE/WBE)
- TerraXplorations, Inc. (DBE/WBE)
- Thorton & Associates (DBE/MBE)
- Timely Engineering Soil Tests, LLC (DBE)
- Weatherford & Associates (DBE/MBE)

20+

Services provided by our DBE partners

Services Provided by DBE/MBE/WBE firms we have worked with:

- Acoustical Consultant
- Archaeological Consulting
- Architecture
- Civil Engineering
- Construction
- Construction Management
- Construction Materials Testing
- Disaster Recovery
- Drilling/Testing
- Environmental Services
- Geotechnical Engineering
- Geologist
- GIS
- Grant Writing
- Inspections
- Interior Design
- Landscape Architecture
- Planning
- Project Management
- Structural Engineering
- Surveying
- Transportation Data

Building Communities.

J. Wheeler Crook, PE, BCEE
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