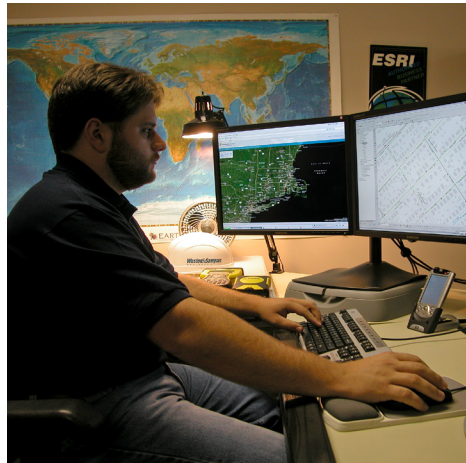


MUNICIPAL ASSOCIATION OF SOUTH CAROLINA

REQUEST FOR QUALIFICATIONS - ENGINEERING SERVICES FOR VARIOUS PROJECTS AND ON CALL SERVICES



WHERE GREAT
THINGS HAPPEN



SUBMITTED BY

Weston & SampsonSM

OCTOBER 2022

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October 17, 2022

Municipal Association of South Carolina
Attn: Jake Broom
jbroom@masc.sc

Re: **Request for Qualifications – Engineering Services for Various Projects and On Call Services**



Dear Members of the Selection Committee:

Weston & Sampson appreciates the opportunity to provide this qualifications package to you for the above-referenced project. In accordance with the requirements listed in the Request for Qualifications (RFQ) announcement, please find below a summary of our qualifications that make us the ideal candidate for this on-call contract.



Firm's Ability & Expertise: Weston & Sampson is a multi-disciplined engineering and architectural firm, with a total staff size of over 750, and is consistently ranked among the top design firms in the United States. The key to our long-term success, as an employee-owned firm that has stood the test of time, is to continue keeping our **primary focus on providing Clients value on projects like these.** With over 120 years of water and wastewater consulting experience, Weston & Sampson has the expertise and resources necessary to successfully provide quality municipal engineering services at a reasonable cost. **Weston & Sampson is primarily a municipal consultant and approximately 95% of our projects are for municipal entities.** Our team of over 100 professional water engineers and 125 wastewater engineers offer engineering expertise in the areas of water supply, treatment, storage, distribution system design, modeling; and waste water collection, treatment, pumping, and hydraulic modeling. **Weston & Sampson has offices located in Columbia, Greenville, and North Charleston, allowing us the ability to mobilize quickly anywhere across the state to meet the Association's needs.**



Team Member Experience: Weston & Sampson has a highly qualified team of professionals with the multidisciplinary experience needed for this water and wastewater engineering contract. Our **Principal-in-Charge, Kip Gearhart, PE,** has over 36 years of engineering design and leadership experience. Our **Technical Specialist, Bob Horner, PE,** has over 37 years of extensive water and wastewater experience, including an in-depth understanding of the public works industry having worked for the Charleston Commissioners of Public Works for 18 years. He is experienced in providing assistance to clients with capital planning, operational efficiency, and project management, and has extensive water and wastewater engineering experience. **Jason Gillespie, PE, Project Manager,** has over 23 years of engineering experience throughout the Upstate. Prior to joining Weston & Sampson, Jason spent 7 years at Renewable Water Resources (ReWa), where he managed numerous wastewater conveyance system projects, including the \$50 million Dig Greenville Tunnel project. On many of these projects, multiple stakeholders, neighboring utilities, and community groups were involved in the projects.



Timeliness: Members of the proposed project team are currently engaged in 3-4 projects (on average). These projects are currently in various stages. While members of our project team may be working on a number of projects concurrently, our project team has the capacity and availability to focus on this on call contract in order to meet time and budget requirements set forth by the Municipality. It is always our goal to exceed schedule requirements and provide the highest level of service for the established budget. **We are committed to supporting the Association and local Municipalities goal's and will work to ensure that your budgetary and schedule requirements are met.** With three offices across the state, our project team is qualified

and ready to devote the time and resources to meet the infrastructure needs of the Association's members.

Familiarity and Expertise with State Agencies: Weston & Sampson's team is experienced in assisting municipal clients with a range of environmental and regulatory permitting services to comply with federal and state-specific regulations. Our engineers have demonstrated experience working with SCDHEC, SCDOT, USEPA, Army Corps of Engineers, FEMA, Federal Highway Administration, and numerous other State and County Agencies across South Carolina. Most of our projects include a somewhat complicated effort to gain construction permits. In these types of projects, we always organize pre-design and pre-submittal meetings to inform all affected entities and regulatory authorities of a project's basis, alternatives and proposed activities such that they will develop a familiarity with the project Team and to enable input and collaboration with other regional efforts that may be in progress or forthcoming. This has resulted in a high level of confidence among the regulatory community which aides in expediting permitting efforts. Many of our professionals have also served with municipal entities and utilities which enables us to help support better public communication through our participation in board, council and commission meetings where presentations are required. We also routinely develop presentation content for our clients meetings and aid in presenting where beneficial.

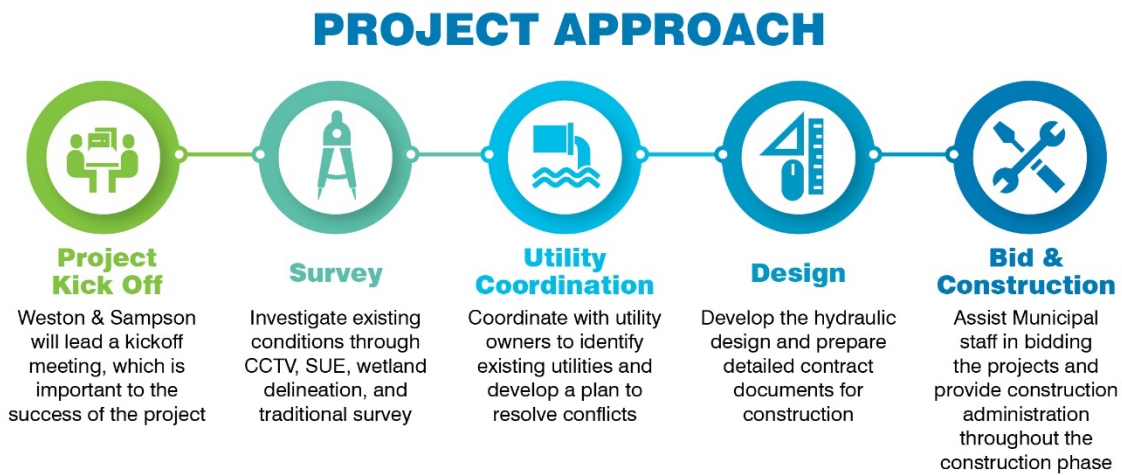


Weston & Sampson appreciates the opportunity to provide professional engineering services for the Municipal Association of South Carolina, and we look forward to supporting your infrastructure needs across the state. Our goal is to provide unsurpassed customer service so that you are fully satisfied and can rely on us for engineering assistance for many years to come. Please contact Kip Gearhart by phone or email for additional information. We look forward to your favorable evaluation of our qualifications package.

Sincerely,

Kip Gearhart, PE
Vice President, Regional Manager

Our process for planning, design, permitting and construction services associated with water and wastewater projects are very collaborative. We would initially gain a full understanding of planned or potential projects in the vicinity of water service area or wastewater basin. Taking full advantage of the topography to help optimize the service area would be done very early in the planning process. For pipeline projects, we would also review the area transportation plan to determine the risks associated with route selection alternatives. Future plans for widening, turn lanes, storm drainage improvements or traffic safety projects would be identified and accommodated. Our overall work plan for the project is outlined below.



Project Kickoff

Identify project goals, review the service area boundary, identify the parameters for siting proposed pump stations or other facilities, identify the force main tie in location, identify the downstream system components, identify the Owner's project team members including operations and engineering staff, identify projects for initial service, land use in the service area, develop flow and water demand projections, review available topographic information for the project area, discuss the Owner's standards for equipment selections, pumps, controls, communications, standard details and establish a frequency and schedule for recurring progress meetings.

Project Planning

We would confirm any previous site selection work completed or make recommendations for siting the facility or pipeline route based on efficiency and service area objectives. This would then be followed by identifying a conceptual alignment based on the presence of topographical features, utilities and future plans. A hydraulic model would be developed if necessary based on the anticipated hydraulic loading as well as the down stream assets. We would also use our GIS capabilities to help review and document various land use aspects within the facility basin or service area. This helps the planning process by creating graphical representations of features including topography and future land use. We would identify any recommended easements including permanent and temporary construction easements that would assist in staging or construction. We could also assist in easement acquisitions if necessary.

Basis of Design/Engineering Report/Environmental Report

This step would include the compilation of all available background, planning and design documents and established parameters to establish a clear understanding of exactly what the project would consist of and accomplish including operational aspects, equipment, site, alignments, capacity and permitting requirements. This Basis of Design Report would serve as the guiding document for the overall project. In addition, we would perform a regulatory review and conduct pre-submittal conferences with all jurisdictional authorities. This would

enable us to thoroughly cover all of our bases associated with requirements for wetlands, cultural resources, encroachments, stormwater and construction permits.

Wetlands Delineation/Subsurface Utilities/Survey

Our Team would review potential route alternatives and sites proposed for utilization as project components or construction staging and confirm the presence or absence of wetlands, cultural resources and threatened or endangered species. This would be followed by a field survey to locate all topographical features, utilities, easements and other project related aspects to enable the development of a base map for all the project areas. This would also include proposed staging areas. Conceptual alignments would be developed utilizing the base map for the project corridor. Alternatives will be developed for review including opinions of probable construction cost as well and to enable a constructability review.

30%, 60% & 90% Design Milestones

The W&S Team would present progress in the form of plans and specifications based on agreed upon milestones. Typically on most projects we would recommend 30%, 60% and 90% complete points in the plan development. We would submit documents to the county and set up a meeting to review comments. Continued progress would not commence at each stage until all comments were fully addressed.

Easement Acquisition / Public Communications

Ensuring a municipality's customers and citizens are treated fairly is important to many of our municipal clients. Should easements for the project need to be obtained, Weston & Sampson will communicate with the municipality of the need for easements. Once easement location is agreed upon, Weston & Sampson will prepare easement exhibits and documentation and coordinate with the property owner. Once the property owners have signed the easement documentation, all documents will be submitted to the municipality to be processed and recorded. Weston & Sampson has vast experience working with appraisers, real estate attorneys, and right of way agents to communicate and coordinate with property owners, as well as conducting public meetings to ensure that members of the community are aware of project impacts and that the messaging from the municipality is accurate and timely.



Final Plans/Bidding/Construction Administration

Final construction plans and specifications will be developed utilizing Owner's standard specifications and details with additional resources provided as necessary. Plans will show temporary and permanent easements, staging, required erosion control, tree protection, and required information for restoration if necessary. A suggested sequence of construction will be provided on the Construction Drawings. Plans will undergo a technical and constructability review by both internal Weston & Sampson experts and third-party Contractors. Final plans will be provided to the Owner's team for review and approval prior to initiation of permitting.

Weston & Sampson will develop a final cost estimate and develop permit applications. Permits Weston & Sampson has experience in obtaining include various City and County Land Development; U.S. Army Corps of Engineers Jurisdictional Delineation and Nationwide; SCDOT, City and County Road Encroachments; various Railroad encroachment Permits; SCDHEC Construction; and various electric and gas utility encroachment permits.

Following these tasks, we envision providing mostly traditional bidding, construction administration, inspection and close-out services as requested. Final steps may include certifications for record drawings along with electronic files so that projects may be incorporated into the GIS program along with all appropriate close out documentation.

Weston & Sampson will develop a final cost estimate and final compiled permit book for the project. This book will be used on the project site for monitoring compliance with all permit conditions as the project progresses.

Alternative Delivery

Weston & Sampson has experience with alternative delivery strategies associated with several types of construction projects such as design / build, construction manager at risk (CMAR), etc. These alternative delivery methods may provide cost savings, schedule savings, or greater project control by the Owner depending on the type and specific circumstances of the project. Depending on the type of project, we may also recommend requiring contractors be pre-qualified based on criteria appropriate for a specific project or group of projects in order to allow capable contractors of bidding who have an acceptable work history in regard to performance, compliance, safety, and change orders.

Operations Based Design

Our team will use an operations and field focused approach while developing preliminary alternatives to help accelerate the overall design process. The design engineer will participate in the field survey to gain a full and thorough understanding of the existing conditions, potential utility and topographic features, and drainage patterns to help accomplish a preliminary design that mitigate conflicts and constructability issues. This in-depth knowledge of site conditions and operational challenges will enable the project manager to conduct pre-design conferences with subconsultants and regulatory officials. We have found that



permit coordination and approvals are expedited when this approach is used. We will locate critical utility elevations using our SUE staff and electronic locating equipment or pothole other utilities where the impacts from a conflict are critical. Our project team's experience with utility work and as being utility employees helps provide a focus on operations as well. We also have a certified Grant Administrator on staff that is very experienced in all aspects of grant management and maintaining funding compliance associated with infrastructure grants. Weston & Sampson is very experienced in trenchless construction methods and will certainly consider using any construction method that saves time, mitigates construction impacts or protects existing assets in the project area.

WORK MANAGEMENT PLAN

Beyond our team's demonstrated technical strengths and abilities to provide the requested services, we believe that **being responsive to the Association and other project stakeholders is mission-critical in delivering a successful project.** We will develop a Project Management Plan (PMP) specific to this project in order to provide "real time" service to the Association. Our PMP is outlined in the blue box below.

Your Project Manager, Jason Gillespie, has spent over 20 years of his Engineering career in a Project Manager role, working directly with county and state agency leadership and their staffs. During these assignments, Jason has developed a passion for exceeding the clients' expectations for service, responsiveness, innovation, and schedule and budget performance. He understands the importance of having knowledge regarding the current status, schedule, budget, and any action items for a project readily available to Association staff so they are able to answer questions from City and County Council members, senior leadership, and interested constituents. Jason has developed regular client reporting methodologies (monthly, or as otherwise defined by the client) to serve as a "living" record of project activities and successes. He will also conduct regularly-scheduled project team status meetings and maintain a log of all action items that have been completed and are pending to ensure that all project activities are monitored and accomplished by a team member who will act as a champion for each item. A regular program of communicating with the Municipality Project Manager, placing a high priority on Jason's accessibility and responsiveness, and having at least two team members aware of the status of any project element at all times will result in real time service to the Municipality. Jason has selected each member of this team because they have demonstrated that they share this passion and commitment for client service and responsiveness.

As will be included in the Project Management Plan, "real time" service requires that **each team member is dedicated to promptly communicating clear, accurate, and unambiguous information, as well as responding to calls and e-mails as quickly as possible.** The Project Manager will maintain an environment that ensures all parties receive this information and provide input as necessary. This constant active communication process will ensure the project is performed in a fully collaborative manner, where each discipline is expected to provide input and insight to the Municipality.

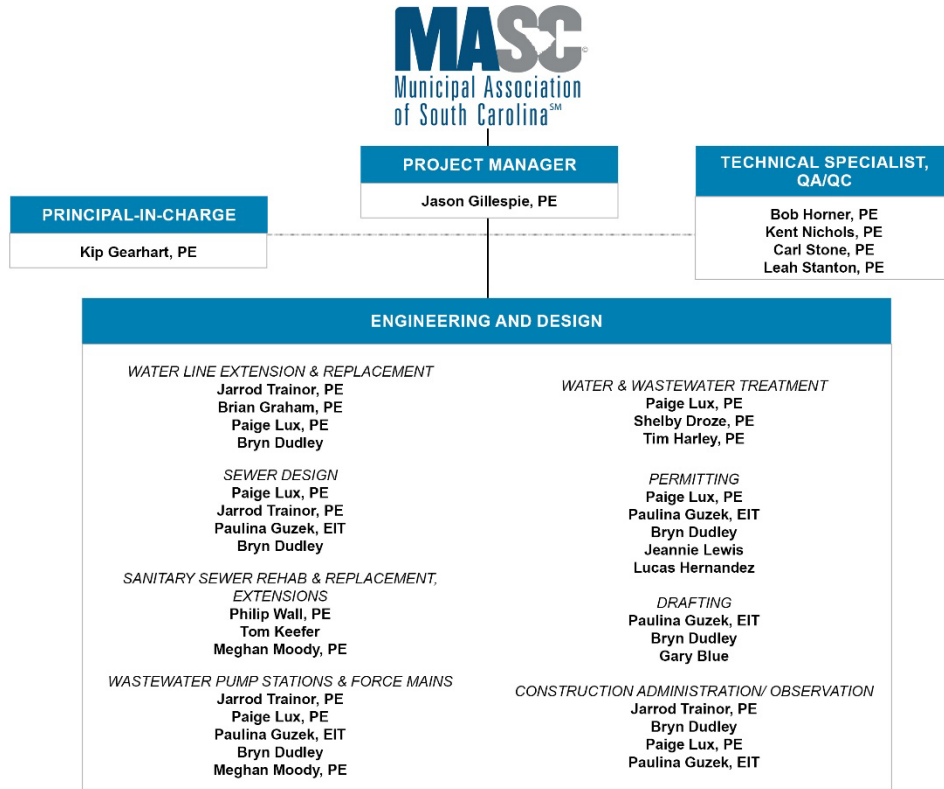


SUMMARY OF PROJECT MANAGEMENT PLAN (PMP)

- A summary of the project scope, schedule, and budget so all team members have a clear understanding of the project:
 - The scope will define all the activities that will be incorporated into the successful completion of the project
 - A base-line schedule will be prepared and monitored to ensure that all tasks are completed in a timely manner, and have been completed and reviewed prior to beginning subsequent tasks that depend on the data developed during these tasks,
 - The budget will be provided to all team members so that they accomplish their tasks within the allotted number of hours.
- A communication protocol that includes contact information of the team and the Municipality's Project Manger's desired methods and frequency of communicating on the project.
- A project-specific quality management program that will direct the quality expectations for the project, to include team members' daily responsibilities and the performance, recording, and auditing of milestone quality reviews,
- A Design Criteria Memorandum (DCM) that will clearly define the criteria, standards, and procedures that will be used by all disciplines in order to successfully complete this project.
- Regular meetings, to include a Project Kick-Off Meeting and regularly scheduled project status meetings (conducted monthly or bi-weekly to discuss and evaluate metrics on all of the above elements.
- A project close-out meeting at the completion of the project to ensure that all files, material data, inspection reports, and other documentation is fully completed and approved.

PROJECT TEAM QUALIFICATIONS

Weston & Sampson has assembled a project team with the qualifications and experience needed to successfully provide professional engineering services for this contract. These team members have been chosen to work on this contract due to their past experience with similar projects and their availability to provide services to the Association under this contract immediately. We have displayed our project team organization below. Brief resumes for each team member showing a sampling of their relevant experience can be found on the following pages.



KIP GEARHART, PE, PRINCIPAL-IN-CHARGE

Kip, Regional Manager based out of our N. Charleston office, will establish clear lines of responsibility and communication with the Association, our staff members, and subconsultants, and will be responsible for task budget monitoring and team assignments. Kip will be available to interact with staff daily to address project issues. Kip's 35+ years of public infrastructure experience includes the management of both small- and large-scale public works projects across the state – from master planning, design, and permitting, through construction.



JASON GILLESPIE, PE, PROJECT MANAGER

Jason is a water professional with 23 years of experience in the water industry in the southeastern United States, including 16 years in consulting and 7 years at a wastewater utility. In addition to technical expertise in water distribution and wastewater collection projects, Jason has developed strengths in easement acquisition and public communication and has a strong track record in project management and business development. **Jason is an ideal project manager for this contract, and is committed to providing extraordinary client service, being highly responsive, delivering innovation, and managing the team in a manner that heightens the degree of collaboration among all team members and disciplines** – in order to make the Association Project Manager's job more efficient.



BOB HORNER, PE, TECHNICAL SPECIALIST, QA/QC

Bob has more than 30 years of engineering design and leadership experience. He has an in-depth understanding of the public works industry, having worked for 18 years as Engineer, Engineering Manager, and Director of Design and Construction for the Charleston Commissioners of Public Works. Bob has extensive experience with the conceptual development and detailed designs for large public works projects, including public relations, easement acquisitions, community impact mitigation, and public acceptance. His project experience includes facility master planning and expansion, stormwater management, water transmission and distribution, wastewater collection and pumping, water and wastewater system rehabilitation.



JARROD TRAINOR, PE, WATER AND WASTEWATER ENGINEER

Jarrod has over 12 years of experience in design, evaluation, site planning and construction management of pressure and gravity pipelines, wastewater pump stations, stormwater systems, and drinking water and wastewater treatment facilities. Experience includes design work as well as significant on-site field work. His recent relevant experience has included **ReWa Coachman Estates Pump Station replacement; City of Columbia Mill Creek Pump Station improvements; BCWS PS001 Force Main replacement; CWS Fort Johnson Rd Water Line Relocations; BCWS Cane Bay Water Tower; Oak Street Water Treatment Facility; Warwick Wastewater Treatment.**



BRIAN GRAHAM, PE, WATER ENGINEER

Brian has over seven years of experience designing and building water systems, including designing and building water systems in rural areas of developing countries, such as: pump selection, treatment process selection, water distribution modeling, and solar-array/generator sizing. **Brian served as the lead engineer for the Asset Class Engineer for Water Distribution System projects for MPW from 2017 – 2020, and has been the Project Manager for the Pump Station and Force Main Asset Class Engineering contract since 2021.**



PAIGE LUX, PE, WATER AND WASTEWATER ENGINEER

Paige provides design experience associated with various aspects of municipal infrastructure including **hydraulics, wastewater, water treatment, environmental, stormwater and permitting**. She is very efficient in the use and applications of AutoCAD, ASIM, HECHMS, Wepp, and Win TR-55. As a design engineer, **Paige has provided support for the development of methodologies associated with data management as may be found in the evaluation of municipal infrastructure asset evaluations.** Paige is an enthusiastic and dedicated engineer with a wealth of major pump station and force main proficiencies, that will be a major asset to this project team.



BRYN DUDLEY, WATER AND WASTEWATER ENGINEER

Bryn's experience includes feasibility studies, **water line improvements, wastewater pump station upgrades, and force main improvements, sanitary sewer rehabilitation**, as well as bidding and construction administration. Bryn has special expertise with environmental compliance and regulatory requirements. She is also proficient in AutoCAD, GIS, MATLAB, and Automation Anywhere.



PAULINA GUZEK, EIT, WASTEWATER ENGINEER

Paulina is an engineer specializing in environmental engineering and water resources. She is an experience hydraulic modeler and has also worked with wastewater treatment processes. Her focus is on various types of municipal infrastructure design and permitting. Paulina has experience with **significant pump station and force main replacements, as well as manhole inspections for sanitary sewer rehabilitation.**



PHILIP WALL, PE, SEWER REHAB ENGINEER

Philip's experience includes the design of water and wastewater conveyance systems, utility coordination, permitting and construction administration and inspections. **Philip's career has been heavily in Sanitary Sewer Evaluations Studies (SSES), which included reviewing sewer manhole and mainline CCTV inspections, making rehabilitation recommendations based on inspection findings and performing construction inspections during the rehabilitation construction phase.** During construction, Philip was responsible for coordination with other utility companies, permitting agencies, as well as working with contractors and property owners to make sure projects were completed as smoothly as possible.



TOM KEEFER, SEWER REHAB ENGINEER

Tom has over 20 years of project development, rehabilitation, and construction management experience. He has worked with various clients to assure projects are being designed and constructed to meet the needs of the community and exceed owner expectations. **Tom has extensive knowledge in sewer rehabilitation projects** and has recently worked on the design and construction of the City of Columbia's Rocky Branch RB01 project which included the rehabilitation of over 78,000 LF of sewer main and Smith Branch SB01 project which includes over 60,000 linear feet of sewer main rehabilitation



MEGHAN MOODY, PE, WASTEWATER ENGINEER

Meghan is a results-oriented engineering and management professional with experience leading engineering and construction teams; analyzing construction projects, master plans and engineering surveys; and providing design, cost estimates, scopes of work, and technical recommendations for both large and small projects. **Meghan brings extensive experience on large wastewater projects to the Team, including leading several high-profile projects.**



SHELBY DROZE, PE, WASTEWATER TREATMENT ENGINEER

Shelby is an ambitious and personable engineering professional with experience in wastewater design, developing cost estimates and scopes of work, construction oversight and inspections, leading design teams, interdisciplinary coordination, and providing technical recommendations for both large and small projects. **She is passionate about developing strong client relationships and producing the highest quality deliverables.**



TIM HARLEY, PE, WASTEWATER TREATMENT ENGINEER

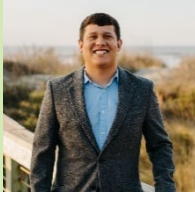
Tim is a registered professional engineer with over 25 years of progressive and diverse professional experience, including engineering consulting, and positions with federal, state, and municipal agencies. He has extensive experience ranging from the initial planning stages through the design, permitting, construction management and operation of **various treatment facilities, and collection and distribution systems.**



JEANNIE LEWIS, PERMITTING & FUNDING SPECIALIST

Jeannie is a coastal resources expert and innovator with more than 30 years of government experience in the Southeast and Mid-Atlantic. **She has in-depth knowledge of and practice in regulatory permitting and compliance,** sustainable and resilient design, environmental policy, community development, green infrastructure, wildlife and water quality protection strategies, stormwater management, habitat restoration, estuarine and freshwater wetlands, cultural and historic resources, and associated legal and regulatory frameworks. **She is a seasoned and effective leader and also has extensive experience with public outreach, community engagement, grant writing and management and working with diverse stakeholders.**

LUCAS HERNANDEZ, PERMITTING SPECIALIST



Lucas is a Climate Adaptation and Resilience Specialist with over five years of experience in resilience planning. His expertise includes raster-based flood modeling, sustainable and resilient design, environmental monitoring, community development, green infrastructure, wildlife and water quality protection strategies, stormwater management, cultural and historic resources, and associated legal and regulatory frameworks. In addition, he has experience with public outreach, community engagement, and grant administration. **Lucas has worked with diverse stakeholders across numerous projects throughout the Southeast.**

KENT NICHOLS, PE, TECHNICAL SPECIALIST, QA/QC



As vice president and practice leader, Kent is responsible for Weston & Sampson's efforts on wastewater treatment and stormwater projects, both of which are governed by the National Pollutant Discharge Elimination System (NPDES) permit program. Based on his broad background with drinking water, wastewater, and stormwater planning and management and his focus on regulatory compliance issues, Kent also has led most of our water resource planning and management efforts, as well as our OPM services contracts.

CARL STONE, PE, TECHNICAL SPECIALIST, QA/QC



Carl, a senior technical leader and senior process design engineer, has more than 30 years of experience in the planning and design of wastewater treatment facilities ranging in size from 10,000 gpd to 370 mgd. His experience includes facility planning, process design, process optimization studies, and wastewater process modeling using the GPS-X and BioWin process models, as well as construction administration and coordination. Carl's work has included the evaluation and design of numerous wastewater treatment systems and processes, as well as process troubleshooting, value engineering reviews and expert testimony for various facilities.

LEAH STANTON, PE, TECHNICAL SPECIALIST, QA/QC



Leah has more than 20 years of experience in the study, design, and construction of water treatment facilities for surface and groundwater supplies and distribution systems. She is an expert in water supply, storage, distribution, and treatment systems, as well as water system hydraulics and water quality modeling. She is the Discipline Leader of our Water Program where she oversees the work of more than 80 engineers, planners and scientists. She assists with long-term capital and fiscal planning and developing municipal rate studies.



SUMMARY OF WATER ENGINEERING EXPERTISE

Water Infrastructure

Weston & Sampson is a leader in water system planning and improvement projects. Our team of over 100 professional water engineers offer engineering expertise in the areas of water supply, treatment, storage, distribution system design, permitting and construction administration. Weston & Sampson has a long history of providing engineering design and construction administration for water mains and water main cleaning. Our contracts are diverse, ranging from installations of 2-inch up to 72-inch water pipe. Our installations have included bridge crossings, directional drilling beneath wetlands, pipe bursting and jack and boring below railroad beds. We have provided engineering design in both rural and congested urban areas.



One of the most important elements for the economic stability and future growth of any municipality is the ability to provide safe and reliable water to its customers. Over the years, Weston & Sampson has been involved in the development of comprehensive planning studies for numerous municipal water distribution systems. We have helped many small communities extend service to their customers, specifically those in low-to-moderate income areas. In the past 5 years alone, our staff has designed more than 500,000 feet of new water transmission and distribution mains totaling over \$50 million in construction costs.

Drinking Water Treatment

Weston & Sampson’s engineers have planned, designed, provided construction administration and placed numerous water treatment plants in operation. These plants treat water from a wide variety of surface supplies, groundwater supplies, and combinations of both. Utilizing our many years of experience, we have the proven capability to successfully recommend solutions for a wide range of water qualities, and our experience includes the design and operation of various types of plants, including conventional rapid sand and dual media filtration, high-rate filtration using mixed media and tube settlers, automatic backwash filters, granular activated carbon filters, direct filtration, pressure filters for the removal of iron and manganese from groundwater, and package treatment systems. Our staff also designs controls and instrumentation for automation of treatment units and data collection and processing.

Water Pumping Systems

Weston & Sampson has extensive experience with water booster stations. Our full-service, multi-discipline team has completed booster station evaluations and/or designs, including field survey, geotechnical, mechanical and process engineering, architecture, electrical and controls for more than 45 water pumping facilities within the past decade. Our pump stations are also designed to address the siting and architectural issues unique to each facility—with particular attention given to the facility’s impact on its surroundings.

OVER 120 YEARS IN BUSINESS	OVER 750 EMPLOYEES COMPANY-WIDE
RANKED 142 OF TOP 500 DESIGN FIRMS	RANKED 113 OF TOP 200 ENVIRONMENTAL DESIGN FIRMS
RANKED 20 OF TOP 50 TRENCHLESS DESIGN FIRMS	100 WATER PROJECT SPECIALISTS
3 OFFICES IN SOUTH CAROLINA	50+ EMPLOYEES IN SOUTH CAROLINA
MULTI-DISCIPLINED ONE-STOP SHOP	CLIENT-CENTRIC APPROACH
IT ALL ADDS UP TO...	



SUMMARY OF WASTEWATER ENGINEERING EXPERTISE

Weston & Sampson's experience, resources, and services extend to all aspects of wastewater projects, including:

- Facilities planning, including Comprehensive Wastewater Management Plans (CWMPs)
- Gravity and pumped collection systems
- Advanced wastewater treatment facilities
- Innovative/alternative wastewater management
- Pump station siting studies, design, and rehabilitation
- Septic system management programs and Title 5 compliance
- Permitting
- Infiltration/inflow (I/I) analysis and sewer system evaluation surveys (SSES)
- System start-up and operation and maintenance (O&M)
- Sewer construction coordinated with other utility improvements
- Supervisory Control and Data Acquisition (SCADA)
- Sewer betterment assessments and sewer user charge regulations
- Regulatory and funding assistance
- Effluent disposal and re-use

Wastewater Infrastructure

Gravity Collection Systems

A leader in the design and implementation of innovative/alternative wastewater collection system projects, pressure sewer applications, and small diameter gravity sewers, our experience varies from small rural and private wastewater collection systems to large urban municipal projects. We also have extensive experience working in communities where there are essentially no municipal sewers or where significant time has elapsed since the last sewer extension project.

Our Wastewater Department has provided innovative engineering designs for projects of all sizes, including the design and expansion of wastewater treatment facilities, regional wastewater pump stations, small to large diameter force mains, gravity collection systems, and hydraulic modeling associated with flow projections and the development of Capital Improvement Plans. CIPP Project experience by Team members includes the development of multiple Annual Contract RFP packages which resulted in the CIPP Repair of several thousand feet of 8-inch thru 36-inch gravity sewers by various CIPP Contractors. Projects have been completed in Charleston, Berkeley, Dorchester, Beaufort, Hampton, Orangeburg, Columbia, Greenville, and many other locations throughout the state and the Eastern United States.

Force Mains

Weston & Sampson has the capability to provide evaluation and design services for all types of force main projects. We routinely provide evaluation services to many utilities for critical sections of DIP force mains to determine wall thickness and susceptibility to failure as well as to predict life expectancy. We also provide services to determine the presence of trapped air and sediment deposition in existing force mains. We can provide locating services to enable the development of as-built drawings using various types of locating equipment. We provide hydraulic modeling services for simple and complex systems including Manifolded force mains ranging in size from <4" up to >60", and for systems containing up to 10,000 pipes.

Our installations have included bridge crossings, directional drilling beneath wetlands, and pipe-jacking below railroad beds. We have provided engineering design in both rural and congested urban areas.



Weston & Sampson™



Wastewater Pump Station Improvements

Weston & Sampson brings to your project some of the most extensive experience with wastewater pumping stations. Our full-service team of engineers includes all disciplines required to conduct a pumping station evaluation and/or design project, including field survey, geotechnical, mechanical and process engineering, architecture, and electrical / controls. We have recently completed pumping station projects on nearly 70 facilities, which include configurations ranging from duplex submersible pumps to complex multi-pump custom designed wet-well / dry-pit type stations.



MUNICIPAL AND RELATED CLIENTS

Weston & Sampson is primarily a municipal consultant and approximately 95% of our projects are for municipal entities. This majority of work is for counties, cities, state agencies, municipalities and utilities. **Weston & Sampson has provided professional services for the following local municipalities and agencies:**

- Beaufort County
- Beaufort Jasper Water & Sewer Authority
- Berkeley County
- Berkeley County Water & Sanitation
- Berkeley-Charleston-Dorchester Council of Governments
- Charleston County
- Charleston Water System
- City of Bishopville
- City of Charleston
- City of Columbia
- City of Folly Beach
- City of Georgetown
- City of Hanahan
- City of Myrtle Beach
- College of Charleston
- Dillon County
- Dominion Energy
- Dorchester County Public Works
- Dorchester County Water & Sewer
- Georgetown County Water & Sewer District
- James Island Public Service District
- Joint Municipal Water & Sewer Commission
- Kiawah Island Community Association
- MetroConnects
- Mount Pleasant Water Works
- North Charleston Sewer District
- Oconee Joint Regional Sewer Authority
- PeeDee Council of Governments
- Richland County
- Renewable Water Resources
- Santee-Lynches Council of Governments
- SCANA/SCE&G
- SCDOT
- SC State Ports Authority
- Spartanburg Water (SSSD)
- Summerville CPW
- Town of James Island
- Town of McColl
- Town of Ridgeland
- Town of Ridgeville
- Town of Summerville

SELECTION OF RELEVANT PROJECTS

Due to space constraints, we have hand-picked relevant projects that we feel were most relevant to the Association, but is certainly not an all-inclusive showing of our relevant experience.

Water Engineering

Project	Shandon Area Water System Improvements
Location	Columbia, SC
Reference	Jason Shaw, City of Columbia, 803- 545-3287
<ul style="list-style-type: none"> ✓ Replacement of over 87,000 LF of water lines in Shandon Area of Columbia ✓ 53,500 LF of 6-in pipe ✓ 22,800 LF of 8-in pipe ✓ 9,300 LF of 12-in pipe ✓ 1,700 LF of 16-in pipe 	

Project	Kaminski St. and Heyward St. CDBG Water Improvements
Location	Georgetown, SC
Reference	Orlando Arteaga, City of Georgetown, 843-545-4500
<ul style="list-style-type: none"> ✓ Detailed design, contract manual prep, permitting, bidding, construction administration ✓ Replacement of approx. 2,100 LF of 6-in water distribution mains, water service lines, valves, hydrants and appurtenances ✓ J/B installation under Black River Road ✓ Included tree protection, sediment and erosion control, repair and replacement of driveways, sidewalks and roadways along and adjacent to the alignment of the route of the replacement water mains, and traffic control planning 	

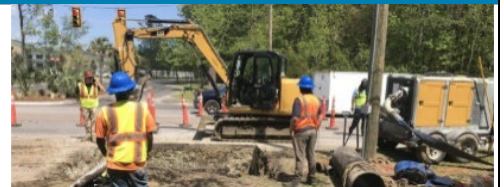
Project	Hollywood/Ravenel Ph II Water Main Extension
Location	Ravenel, SC
Reference	Russell Huggins, Charleston Water System, 843-727-6879
<ul style="list-style-type: none"> ✓ New water main along Old Jacksonboro Road, New Road, and Savannah Highway (Hwy 17) ✓ 13,000 LF of 12-in and 16-in water main ✓ Surveying, design, permitting, construction administration and inspection 	



Project	Water Distribution Asset Class Engineer: MPW FY '17-'18
Location	Mt Pleasant, SC
Reference	Dan Darby, Mt Pleasant Waterworks, 843-719-2312
<p>Weston & Sampson was chosen through a competitive RFQ process as the Water Distribution Asset Class Engineer for Mt Pleasant Waterworks in 2017. We were assigned the following task orders during the MPW fiscal year '17-'18:</p> <ul style="list-style-type: none"> ■ Task Order 01: Village Creek Water Service Replacement - Replacement of 132 existing water service laterals, meter boxes, meters and appurtenances, to service existing units ■ Task Order 02: Ventura Villas Water Service Replacement - Replacement of 130 existing water service laterals, meter boxes, meters and appurtenances, to serve existing units ■ Task Order 03: Water Main Improvements - 600 LF of 6-in water main on Barrier Island Ct; 400 LF of 6-in on Tabacco Rd to Longmarsh Rd; 75 LF of 8-in on Faith St; 8-in between Zacoma Dr and Macoma Rd; 6-in on Center St 	



Project	Water Distribution Asset Class Engineer: MPW FY '18-'19
Location	Mt Pleasant, SC
Reference	Dan Darby, Mt Pleasant Waterworks, 843-719-2312
<p>We were assigned the following tasks during the MPW fiscal year 2018-2019:</p> <ul style="list-style-type: none"> ■ Task Order 04: Improve Water Quality Program, Butterfly Valve Replacements - 13 in-line Butterfly valve replacements, ranging in size from 16-30 inches, along US Highway 41; design of up to 3 pig launching/retrieving facilities. ■ Task Order 05: Large Diameter Line Cleaning - First phase of large diameter line, ranging from 18-30 inches, cleaning along US Highway 41. ■ Task Order 06: Creekside Water Service Replacement - Replacement of 4,550 linear feet of 1-inch service line bolts, saddles and service laterals; replacement of 1,900 linear feet of 3-inch and 4-inch water mains. ■ Task Order 07: McGrath Darby Blvd Water Main Improvements - Replacements of 1,215 linear feet of 10-inch AC water main with 12-inch C-900 PVC water main; installation of valves and multiple tie-in connections to existing services. 	



SECTION 3 – EXPERIENCE OF FIRM

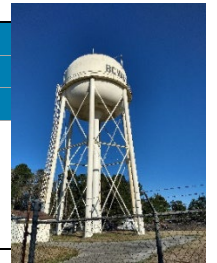
Project	Water Distribution Asset Class Engineer: MPW FY '19-'20
Location	Mt Pleasant, SC
Reference	Dan Darby, Mt Pleasant Waterworks, 843-719-2312
<p>We were assigned the following task orders during the MPW fiscal year 2019-2020:</p> <ul style="list-style-type: none"> ■ Task Order 08: Eden Road (Paradise Island) Water Main Extension - Installation of approximately 560 linear feet of 8-inch PVC water main within road right-of-way, including several new service laterals installed along with a new fire hydrant at the end for flushing. ■ Task Order 09: Fixed Base Meter Reading Phase 2 (Ventura Villas) - Final design and re-bid of a 2018 project cancelled due to budget constraints. ■ Task Order 11: Hwy 41 Corrosion Repair/Replacement - Emergency repair to an existing water main based on results from a sea snake inspection. 	



Project	Old Charleston Road CDBG Water Main Extension
Location	Pelion, SC
Reference	Guy Schmolitze, JMWSC, 803-785-3234
<ul style="list-style-type: none"> ✓ 5,000 LF of 10-in water main ✓ Surveying, planning, design, specs, bidding, construction administration ✓ Coordination with council of governments for grant allocation 	



Project	Cane Bay 16-in Water Transmission Main and 1 MG Elevated Storage Tank
Location	Moncks Corner, SC
Reference	Logan Brown, BCWS, (843) 719-2310
<ul style="list-style-type: none"> ✓ 7,800 LF of 16-in water main ✓ New 1 MG water storage tank, demolition of existing tank ✓ New master meter 	



Project	Future Drive Water Main Extension, Phases 1 and 2
Location	N. Charleston, SC
Reference	Russell Huggins, CWS, (843) 727-6879
<ul style="list-style-type: none"> ✓ 20,000 LF of 24-in water main Ph 1 ✓ Performed in close coordination with local economic development efforts and to strengthen the CWS transmission system north of Charleston International Airport ✓ 6,400 feet of 24-inch water main Ph 2 ✓ Two 42-in steel casing jack and bores under railroad ROW 	



Project	Palmetto Commerce Parkway Water Main Extension
Location	N. Charleston, SC
Reference	Russell Huggins, CWS, (843) 727-6879
<ul style="list-style-type: none"> ✓ 21,000 LF of 24-in DIP ✓ 16,400 LF of 8-in to 24-in water main ✓ Wetland crossings ✓ Multiple HDDs totaling 2,834 LF of 24-30 in pipe ✓ Hydraulic Modeling 	

Project	Comprehensive Water System Evaluation and Capital Planning
Location	Hopkinton, MA
Reference	John Westerling, Hopkinton Public Works, (508) 497-9740
	<ul style="list-style-type: none"> ✓ Master Plan of Town's water system ✓ Develop 20-year water demand and population projections ✓ Evaluate existing distribution system and storage ✓ Prepare capital improvement program with estimated construction costs

Project	Water Distribution System Planning and Update
Location	Reading, MA
Reference	Ryan Percival, Town of Reading, (781) 942-6690
	<ul style="list-style-type: none"> ✓ Help identify areas within their water system that were ready for capital improvement considerations ✓ GIS updates ✓ Deliverables for this project included a 5-year CIP, updated UDF sequences, and an updated water system GIS.

Project	Winona Water Treatment Plant Upgrades
Location	Peabody, MA
Reference	Robert Labossiere, City of Peabody, (978) 536-7116
	<ul style="list-style-type: none"> ✓ SRF loan application assistance ✓ Complete upgrade of 3 MGD surface water treatment plant ✓ Design included all process, mechanical, electrical, architectural and site equipment



Wastewater Engineering

Project	PS001 Renovation
Location	Berkeley County, SC
Reference	Ashley Yeh, Berkeley County Water & Sanitation, (843) 719-2316
	<ul style="list-style-type: none"> ✓ Largest pump station in BCWS system, delivering over half the flow to the Lower Berkeley WWTP ✓ 28 MGD pump station replacement ✓ Studied and evaluated pump failures, recommendations for improvements ✓ Physical and Hydraulic Modeling ✓ Design, permitting, bidding, construction administration, resident project representative services ✓ Thoughtfully designed for maintenance, ease of operation and flexibility ✓ <i>ACEC-SC Award Winner</i>



Project	PS002 Upgrades and Force Main Replacement
Location	Berkeley County, SC
Reference	Mark Waters, Berkeley County Water & Sanitation, (843) 719-2312
	<ul style="list-style-type: none"> ✓ 2nd largest pump station in BCWS system, delivering 35% of flow to Lower Berkeley WWTP ✓ 17 MGD pump station replacement ✓ 36-in force main replacement ✓ Extensive Hydraulic Modeling, key to pump selection and location of force main interconnections ✓ 2 dry weather pumps, 4 wet weather pumps installed ✓ Construction 80% complete, Ahead of schedule and under budget



SECTION 3 – EXPERIENCE OF FIRM

Project	PS001 Force Main Replacement Phase 1
Location	Berkeley County, SC
Reference	Ashley Yeh, Berkeley County Water & Sanitation, (843) 719-2316
	<ul style="list-style-type: none"> ✓ Replacement of 11,700 LF of existing 30-in DIP with new 42-in PVC FM ✓ HDD installation ✓ Open-Cut installation ✓ Study, design, permitting, bidding, construction admin



Project	PS004 Force Main Replacement
Location	Berkeley County, SC
Reference	Mark Waters, Berkeley County Water & Sanitation, (843) 719-2312
	<ul style="list-style-type: none"> ✓ Replacement of 5,500 LF of 10-in PVC ✓ HDD installation ✓ Open-Cut installation ✓ Jack & Bore installation ✓ Evaluation, design, permitting, bidding, construction admin



Project	BCWS FY '17 Pump Station Rehab and Replacement
Location	Berkeley County, SC
Reference	Mark Waters, PE, Berkeley County Water & Sanitation, (843) 719-2312
	<ul style="list-style-type: none"> ✓ Evaluation, recommendations, design, permitting, bidding, construction admin ✓ Resident construction representative services ✓ Rehab of 5 pump stations - PS053, PS111, PS202, PS114 and PS138



Project	BJWSA FY '17 Pump Station Rehab and Replacement
Location	Beaufort County, SC
Reference	Dennis Holland, Beaufort Jasper Water & Sewer Authority, (843) 987-9208
	<ul style="list-style-type: none"> ✓ Evaluation, recommendations, design, permitting, bidding, construction admin ✓ Resident construction representative services ✓ Rehab of 3 pump stations – PS SP01, PS SS26, and PS SS7



Project	Burger King Pump Station Replacement
Location	Powdersville, SC
Reference	Angela Allen, Renewable Water Resources, (864) 299-4000
	<ul style="list-style-type: none"> ✓ 2.0 MGD pump station replacement ✓ Evaluation, recommendations, design, permitting, bidding, construction admin ✓ Designed elevated wetwell to protect against known flooding ✓ Construction 50% complete, est. end of Sept. 2021



Project	Summerville Pump Station Rehabilitations
Location	Summerville SC
Reference	Chris Kahler, Summerville CPW, (843) 875-8750
	<ul style="list-style-type: none"> ✓ Rehab/Replacement of PS19, PS23, PS25 and PS26 ✓ Highly manifolded system, hydraulic modeling ✓ Evaluation, BOD, design, permitting, bidding, construction admin

SECTION 3 – EXPERIENCE OF FIRM

Project	McEntire Joint National Guard Base Wastewater Treatment Plant Upgrades
Location	Richland County, SC
Reference	Chris Cook, ADC, (843) 566-0161
<ul style="list-style-type: none"> ✓ Necessary upgrades and improvements to the existing SBR process and sludge drying beds to address both the condition and capacity ✓ A total of six additional drying beds of the same size as the exiting beds were recommended ✓ Existing SBR system was installed in 1992 and designed to treat an average daily flow of 20,000 gallons per day with a peak flow capacity of 70,000 gallons per day 	

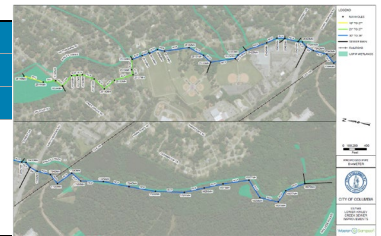
Project	Guantanamo Bay WWTP Upgrades
Location	Guantanamo Bay, Cuba
Reference	Chris Cook, ADC, (843) 566-0161
<ul style="list-style-type: none"> ✓ Designed upgrades to the existing Leeward Wastewater Treatment Plant at Guantanamo Bay Naval Station in Cuba ✓ Expand the capacity and reliability of the existing treatment facility ✓ Expansion added 200,000 gpd capacity to the existing extended aeration activated sludge treatment system to bring total capacity to 500,000 gpd ✓ New duplex submersible influent pump station, in-kind expansion of the existing extended aeration treatment system, and aerobic sludge digestion capacity and associated electrical power and controls upgrades 	



Project	Old Barnwell and Red Bank Creek Gravity Trunk Main Upgrade
Location	Lexington County, SC
Reference	Guy Schmoltze, JMWSC, 803-785-3234
<ul style="list-style-type: none"> ✓ 9,000 LF of 12-in to 24-in gravity sewer main ✓ Pipe bursting, jack and bore, open cut to upsize strategic gravity sewer trunk mains ✓ Easements, rights-of-way, wetlands and aerial crossings 	



Project	Lower Kinley Creek Gravity Sewer Improvements
Location	Columbia, SC
Reference	John Riggs, City of Columbia, (803) 528-4238
<ul style="list-style-type: none"> ✓ 11,000 LF replacement and upsizing ✓ 36-in and 27-in gravity sewer ✓ Environmentally sensitive wetland areas 	



Project	Wastewater Collection Line Replacements
Location	Columbia, SC
Reference	John Riggs, City of Columbia, (803) 528-4238
<ul style="list-style-type: none"> ✓ Vine Street – rehab 15-in RCP sewer pipe ✓ Ansel Street – reversing slope of line ✓ Woodlake Drive – replacing manhole, evaluating 8-in CIPP sewer pipe ✓ Catawba Street – CIPP and Pipe bursting 520 LF of 10-in VCP and 12-in VCP 	



SECTION 4 – FEDERAL FUNDING EXPERIENCE

The Weston & Sampson Team has significant experience with state and federally funded projects. **Dating back to 1985 members of the project team have written grant applications for, acquired funding, designed, and inspected construction for numerous municipal water and wastewater system expansion, extension and replacement projects.** Many projects expanding municipal systems have also been successfully completed using revenue bond funding, line-item appropriations, Community Development Block Grant Funds, Economic Development Administration Funding, American Rescue Act Funding, State Revolving Fund Loans, SC Infrastructure Investment Program funds, and more.



Weston & Sampson has consistently remained at the forefront of obtaining available funding from federal, state, and local sources to expand the scope of projects for our municipal clients. We provide the necessary technical expertise to help with various granting sources and cross-disciplinary projects. Our services include assistance with project funding and financing strategies, and grant/loan application preparation. We assist clients in preparing, securing, and administering federal, state, and local loans and grants, including projects that involve a combination of funding sources. Our professionals also work with our clients to develop and advise on the implementation and management of capital improvement plans and hazard mitigation plans (with funding sources identified for implementation of the proposed project lists). **Weston & Sampson’s personnel are accustomed to the specialized reporting requirements inherent with state and federally funded projects, as well as restrictions or limitations that may accompany specific funds, and we have a successful track record of assisting clients in procuring funding for utility/roadway and other infrastructure improvements.**



In preparing applications and submissions in support of grants/loans, permits, and any number of other deliverables, Weston & Sampson communicates with regulators frequently, both verbally and in writing; our staff maintains excellent working relationships with EPA, DEP/SRF, EDA, EEA, FEMA, CZM and other regulatory agencies, having consulted with government agencies and municipalities on various environmental and infrastructure improvement projects.

Weston & Sampson has completed the following local grant-funded projects, over the past five years:		
Burntwood Drive CDBG Water Main Extension, BCWS	Red Water Downtown CDBG Water Main Extension, BJWSA	PS002 Replacement and Hydraulic Model, SRF Funding, BCWS
Charleston Farms Community Sidewalk and Drainage Improvements, City of Hanahan	Mohawk Neighborhood Village Renaissance Phase II, City of Bishopville	Metro WWTP Flood Protection and Climate Resiliency, FEMA Grant, City of Columbia
Dale CDBG Water Main Extension, BJWSA	Folly Beach Redundant Water Main, FEMA	Town of McColl CDBG Force Main Upgrade
Old Barnwell CDBG, SRF Gravity Replacement, JMWSC	Old Charleston CDBG Water Main Extension, JMWSC	Treeland Drive CDBG Water Main Upgrade, Town of Ridgeway
Harbor Freight Tools Expansion Ph 2, RIA Funding, Dillon County	Project Toolshed Water Line Relocation and Roadway Improvements, RIA Funding, Dillon	West 1st North Street Sidewalk and Drainage Improvements, Town of Summerville
Horseshoe Neighborhood CDBG Water Main Extension, BCWS	PS001 Force Main Replacement Ph 1 & 2, SRF Funding, BCWS	PS001 Force Main Replacement Ph 3, SRF Funding, BCWS
Cane Bay Water Tower and Water Main, BCWS, SRF Funding		

