STATEMENT OF QUALIFICATIONS

HENDERSON COUNTY

Etowah Sewer Wastewater Treatment Plant

WithersRavenel
Our People. Your Success.

February 12, 2025

Project Contact
Alison Alexander
Client Experience Manager
828-575-9758
aalexander@withersravenel.com

February 12, 2025

Marcus A. Jones, PE, County Engineer
Henderson County
1 Historic Courthouse Square
Hendersonville, NC 28792

SUBJECT: RFQ FOR ETOWAH SEWER WASTEWATER TREATMENT PLANT

Dear Mr. Jones and Members of the Selection Committee:

Henderson County is truly a wonderful place to live, work, and play. The County is known for providing exemplary infrastructure and services to its residents and businesses, as evidenced by its commitment to improve wastewater treatment in the Etowah area through the County's Request for Qualifications (RFQ) seeking professional engineering services.

WithersRavenel has the right team to provide the professional services sought by the County for this project. By choosing us, Henderson County will recognize the following benefits:

A deep bench of water and sewer experts. Our Utilities Department employs 60 engineers and professionals who specialize in community water and sewer design projects. We have the staff capacity to start work on this project immediately and the treatment experience to address your scope of services. We want to put our expertise to work for Henderson County.

Working with the County and understanding your needs. WithersRavenel has enjoyed working with the County on the quickly developing sports complex project, and we want to deepen our relationship with you on this wastewater treatment plant project. **Our team members have visited the site and connected with County officials to gain an understanding of the project's challenges.** We are confident that we can work with you to design a solution with an eye on the future.

Multidisciplinary in-house staff. In addition to wastewater treatment engineering, our professionals in surveying, subsurface utility engineering (SUE), construction administration, environmental, funding, and finance will provide valuable services for this project. For professional services that WithersRavenel does not provide, we will enlist trusted subconsultants: **Sturgill** for electrical engineering and SCADA; **Summit** for geotechnical and structural engineering; and **HRG** for BioWin assistance.

Unrivaled funding expertise. WithersRavenel has helped public government clients acquire more than $1 billion in grant and loan funding for a range of projects, including wastewater treatment and system improvement initiatives. We've worked with a host of state and federal funding agencies, always collaborating with our local government clients so that we can target grant applications to the most promising opportunities. We provide assistance with funding administration as well, ensuring project compliance and maximizing your funding dollars.

Dedicated to responsiveness and client experience. Our award-winning commitment to customer experience means that we put an emphasis on communication and addressing your needs and concerns. From our local office in Asheville and through quick replies to your questions and requests, we will be passionate about solving problems and improving results.

Thank you for considering our qualifications. If you have any questions or require further information, please reach out to us.

Sincerely,
WITHERSRAVENEL, INC.

Lindsay Mize, PE
Project Director, Authorized Official
919-535-5138
lmize@withersravenel.com

Alison Alexander
Client Experience Manager
828-575-9758
aalexander@withersravenel.com

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Introduction

OUR PEOPLE
YOUR SUCCESS.

WithersRavenel, headquartered in Cary, is an Employee Stock Ownership Plan (ESOP) company. Our more than 470 employee-owners excel at providing consulting services for our clients.

Founded in October 1983 as Withers & Ravenel, Inc., WithersRavenel is equipped with more than 41 years of serving an array of clients and projects through innovative and cost-effective engineering solutions across North Carolina.

WASTEWATER TREATMENT EXPERTISE

WithersRavenel understands the demands of utility management require progressive water resources planning and innovative management practices.

Our team has extensive and diversified experience in evaluation, engineering analysis, design, construction plans, and specifications related to wastewater projects.

We combine traditional field experience with state-of-the-art technology to provide needs analysis, master planning, computer modeling, and wastewater collection and treatment system design and evaluation. This background deeply informs our ability to assess systems, identify capital improvement needs, and prioritize projects.

Whether a client is looking for plant rehabilitation services, expansion, or even a new treatment facility, our engineers and professionals have the experience to tackle your project.

Additionally, we have a dedicated funding department that can help our municipal clients such as Henderson County target grant and loan opportunities. This funding can turn the prospect of expensive repairs or multimillion-dollar new facilities into affordable options to help communities thrive.

PROJECT CONTACT

Alison Alexander
Client Experience Manager
84 Coxe Avenue, Suite 260
Asheville, NC 28801
828-575-9758
aalexander@withersravenel.com

PROGRAM OF SERVICES

- Asset Management
- Construction Services
- Design & Planning
- Economic Development
- Environmental
- Funding & Finance
- Geographic Information Systems
- Land & Site Development
- Public Engagement
- Remote Sensing
- Stormwater
- Surveying & Geomatics
- Water & Sewer Utilities

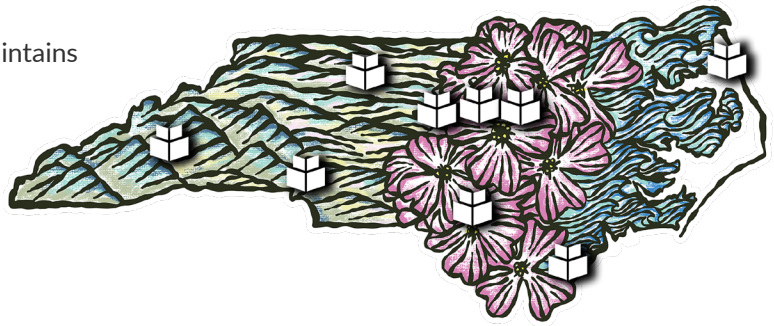
FINANCIAL VIABILITY

WithersRavenel has the financial stability to undertake this contract. Our employee-owned company has seen strong growth in recent years in both our municipal services and private land development business lines.

This project will be performed primarily from our Asheville office and Cary headquarters.

In addition to our Cary headquarters, WithersRavenel maintains nine branch locations across North Carolina.

- Asheville
- Cary (Downtown)
- Charlotte
- Greensboro
- Pittsboro
- Powells Point
- Raleigh
- Southern Pines
- Wilmington



SUBCONSULTANTS

TEAMING PARTNER: SUMMIT

Summit Design and Engineering Services (Summit) is a compact design and engineering firm structured to adapt quickly and efficiently to client needs. Based in Hillsborough, NC, with an office in Asheville, they offer innovative design solutions utilizing cutting-edge technology and comprehensive project management for full-service project delivery while also providing complementary engineering services to municipalities and architectural, engineering, and construction firms.

Summit will provide **geotechnical and structural engineering services** for this project. There is significant benefit to having these services delivered by a single subconsultant, as structural engineering and geotechnical evaluations typically go hand in hand, especially when designing foundations and slabs that might be needed for a WWTP.

TEAMING PARTNER: HRG

Originally founded in 1962, **Herbert, Rowland & Grubic, Inc. (HRG)** is an employee-owned, full-service civil engineering and related services firm that provides quality, cost-effective design solutions to public and private sector clients. They have a bounty of experience with government clients across the eastern United States, providing a range of conventional and specialty water and wastewater treatment design and modeling services.

Their professionals are at the forefront of incorporating state-of-the-art technologies, such as the wastewater treatment plant simulator BioWin. For this project, they will be our **BioWin expert. The technology will provide critical insights into overall project design for Henderson County.**

TEAMING PARTNER: STURGILL ENGINEERING

Established in 1995, **Sturgill Engineering (Sturgill)** has extensive experience involving water and wastewater treatment and pumping facilities of various magnitudes along with other projects at commercial, institutional, industrial, and municipal facilities. Their team consists of a group of individuals that have the knowledge, the expertise, and the experience in performing all levels of engineering services.

Sturgill has worked with us on numerous projects in Western North Carolina and across the state. The firm will provide **electrical engineering services** on this project, along with any **SCADA**-related needs that the County may want to incorporate into the design of the new WWTP.

KEY STAFF DESIGN EXPERIENCE

WithersRavenel's utility managers, engineers, and designers on the Henderson County project team have a bounty of experience working on treatment facility design projects. **In addition to the specific project details and information cited below, please refer to the resumes for these professionals and the entire project team on the following pages which chronicle our significant project experience.** Each of the identified projects on this page also appears with a description in our experience section.

Carolyn Hawkins, Project Manager

As a Project Engineer for the **Pine Swamp Wastewater Rehabilitation project** in Burnsville, Carolyn has been instrumental in helping the community move from a WWTP that was near the end of its life to a facility that is designed for the future. A blend of rehabilitation and replacement in the plant has created a facility design that efficiently solves existing problems by upgrading parts and processes while also building resiliency and staying power at the site.

Lindsay Mize, Project Director

Lindsay's work as a Project Engineer for our firm's **Helene Response WWTP Emergency Services** in Spruce Pine has been instrumental to project success. The project required a quick and comprehensive team response to a dire situation following the failure of the Town's WWTP. Lindsay's expertise with both coordination and his technical knowledge helped our firm get the Town back online quickly, and is continuing to allow us to help the Town rebuild this crucial service for residents and businesses.

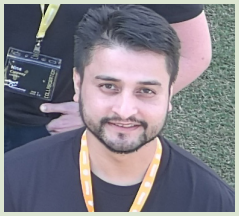
Michael Wicker, QA/QC Manager

A longtime WWTP engineer and project manager, Michael provides valuable insights through his more than 40 years as both a consultant and state regulator. He has been instrumental in helping the Town of Clayton achieve success through its multiphased **Neuse Water Reclamation Facility** project. Michael has spent countless hours on design and coordination working on multiple sites for this large-scale initiative that has garnered more than $100 million in state funds for the Town.

Kristy Green, Project Engineer

Kristy has played an important role in our project for the Town of Hertford to address the rehabilitation of their **WWTP and Sewer System**. This CDBG-I and SRF-funded project required an engineering report and design work to satisfy funding requirements, which Kristy helped the team to achieve while working closely with Project Manager Carolyn Hawkins. Their coordination is just one example of how this project team has worked closely on previous and current WWTP projects for municipal clients.

Sangram Lamichhane, Staff Professional



As another example of our team coordination, Sangram worked extensively with Carolyn, Lindsay, and other team members on the **Pine Swamp Wastewater Rehabilitation project** in Burnsville. His insightful perspective and diligence to solve problems and make deadlines are a credit to his industriousness and has helped our project team stay out in front of this critical rehabilitation.

WITHERSRAVENEL

Team Experience

CAROLYN HAWKINS, PE, PMP

PROJECT MANAGER

Carolyn is an experienced project engineer and manager who brings robust knowledge of chemical and environmental engineering to the design of water and wastewater treatment processes. She is experienced with BioWin, a vital wastewater treatment process simulator. Additionally, her expertise in plant performance evaluation along with her background designing and optimizing pre-treatment, primary treatment, secondary/ biological treatment, and tertiary treatment processes enables her to provide tailored solutions to a community's unique treatment challenges.

EDUCATION

- MS, Environmental Engineering, North Carolina State University
- BS, Chemical Engineering, Pennsylvania State University

LICENSURE

- Professional Engineer: NC, 054923

CERTIFICATIONS

- Project Management Professional (PMP)
- NASSCO-certified

PROJECT EXPERIENCE

- Pine Swamp Wastewater Rehabilitation, Yancey County, NC. Project Engineer
- WWTP Improvements, Troy, NC. Project Engineer
- WWTP Rehabilitation (CDBG-funded), Hertford, NC. Project Manager
- Site and Treatment Evaluation PER, ONWASA, Onslow County, NC. Project Engineer
- Helene Response, Burnsville, NC. Project Engineer
- WWTP Improvements, Mount Olive, NC. Project Engineer
- WWTP Rehabilitation (SRF-funded), Hertford, NC. Project Manager
- WWTP Upgrade Application, Newton Grove, NC. Project Engineer

Our Project Manager's Commitment to Henderson County

ATTENTION TO DETAIL
Carolyn not only sees the big picture, but is focused on the details which often help drive project success.

WEALTH OF KNOWLEDGE
From the latest technology to a thirst for education, Carolyn knows treatment trends and processes.

FOCUSED ON YOU
Design, deadlines, and budget stay front and center with Carolyn as your project manager.

EXPERIENCED LEADER
Carolyn has worked with these team members repeatedly, building bonds that will benefit the project.

Team Experience

LINDSAY MIZE, PE

Project Director

Lindsay is WithersRavenel's Director of Water and Wastewater Treatment. He has more than 35 years of experience as a professional engineer, working with both private consulting firms and North Carolina municipal agencies. Specifically, Lindsay spent more than a decade leading the South Granville Water and Sewer Authority. From its genesis, Lindsay managed an Authority that ultimately had more than 40 employees, an annual budget of $12 million, and served nearly 20,000 people. His experience will provide our clients with valuable insights and perspective as they solve challenging wastewater and compliance issues.

EDUCATION

- BS, Biological and Agricultural Engineering Technology, North Carolina State University

LICENSURE

- Professional Engineer: NC, 022526

PROJECT EXPERIENCE

- Pine Swamp Wastewater Rehabilitation, Yancey County, NC. Project Engineer
- Helene Response, Burnsville, NC. Director of Treatment
- Helene Response WWTP Emergency Services, Spruce Pine, NC. Director of Treatment
- WWTP Improvements, Garland, NC. Project Engineer
- WWTP Decommissioning and Pump Station, Lowell, NC. Project Engineer
- Water Treatment Plant Expansion, Franklin, NC. Project Engineer
- Site and Treatment Evaluation PER, ONWASA, Onslow County, NC. Utilities Engineer
- Helene Response, Maggie Valley, NC. Director of Treatment

ALISON ALEXANDER

Client Experience Manager

For nearly two decades, Alison has served in city and county management in the Carolinas, for communities ranging in size from 2,200 to 165,000 residents, giving her a keen awareness of the challenges that face North Carolina communities. Serving in Waynesville as Assistant Town Manager, she was appointed as Town Manager of Laurel Park. Before joining WithersRavenel, she was Assistant County Manager for Catawba County. With her unique background in local government, Alison understands the challenges community leaders face with financial constraints, staff capacity, and service demands.

EDUCATION

- MPA, Public Affairs, Western Carolina University
- BA, English, Western Carolina University

PROJECT EXPERIENCE

- Engineering Services for Sports Complex, Henderson County, NC. Client Experience Manager
- Pine Swamp Wastewater Rehabilitation, Yancey County, NC. Client Experience Manager
- Helene Response WWTP Emergency Services, Spruce Pine, NC. Client Experience Manager
- WWTP Decommissioning and Pump Staion, Lowell, NC. Client Experience Manager
- Interceptor Replacement (CDBG-funded), Burnsville, NC. Client Experience Manager
- Disaster Recovery Services, Maggie Valley, NC. Client Experience Manager
- Industrial Park Development, Yancey County, NC. Client Experience Manager

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Team Experience

MICHAEL WICKER, PE

QA/QC Manager

Michael specializes in water and wastewater systems planning, design, construction and operation. He has more than 40 years of experience in civil and environmental engineering. From 17 years of employment with NCDEQ, he is well-versed in regulatory permitting and financing opportunities for wastewater projects. For the past 23 years in the private sector, he has provided supervision and served as Engineer of Record for many municipal and county-wide sewer projects. Throughout his career, he has been involved in the design, permitting, and construction of more than 100 wastewater treatment plants throughout North Carolina.

EDUCATION

» MPA, MCE, and BS, Civil Engineering, North Carolina State University

LICENSURE

» Professional Engineer: NC, 011325

PROJECT EXPERIENCE

» Neuse River WRF: Little Creek Regional Pump Station, Clayton, NC. Senior Technical Consultant

» WWTP Resiliency Improvements, Clinton, NC. Senior Technical Consultant

» WWTP Improvements, Garland, NC. Senior Technical Consultant

» WWTP Evaluation, Burnsville, NC. Senior Technical Consultant

» WWTP Equalization Basin Repairs, Troy, NC. Senior Technical Consultant

» WWTP Review, Cleveland, NC. Senior Technical Consultant

» Site and Treatment Evaluation Preliminary Engineering Report (PER), ONWASA, Onslow County, NC. Senior Technical Consultant

KRISTY GREEN, PE

Project Engineer

Kristy is a project engineer who has specialized experience on water and wastewater treatment facility projects for small and mid-sized municipalities and counties. She assists project managers and other engineers with design, permitting, scheduling, bidding, and project management tasks. She is an excellent communicator and problem-solver.

EDUCATION

» BS, Biological and Agricultural Engineering, North Carolina State University

LICENSURE

» Professional Engineer: NC, 058416

PROJECT EXPERIENCE

» Pine Swamp Wastewater Rehabilitation, Yancey County, NC. Project Engineer

» WWTP and Sewer Rehabilitation (CDBG-funded), Hertford, NC. Project Engineer

» WWTP Assessment, Maiden, NC. Project Engineer

» Helene Response, Burnsville, NC. Project Engineer

» Site and Treatment Evaluation PER, ONWASA, Onslow County, NC. Project Engineer

» WWTP Improvements, Mount Olive, NC. Project Engineer

» WTP Rehabilitation (SRF-funded), Franklin, NC. Project Engineer

» Dixon WTP Upgrades, ONWASA, Onslow County, NC. Project Engineer

» WTP Expansion, Weaverville, NC. Project Engineer

» Collection System Improvements, Pilot Mountain, NC. Project Engineer

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Team Experience

SANGRAM LAMICHHANE

Staff Professional

Sangram is a dedicated and creative staff professional with a keen interest in environmental engineering who provides assistance with water and wastewater projects. A former educator, he possesses strong strategic planning, collaborative, technical, analytical, and communication skills to manage programs and secure results.

EDUCATION

- MS, Environmental Engineering, UNC Charlotte
- MA, Sociology and Anthropology, Tribhuvan University (Nepal)
- BS, Environmental Science, Tribhuvan University

PROJECT EXPERIENCE

- Pine Swamp Wastewater Rehabilitation, Yancey County, NC. Staff Professional
- WWTP Decommissioning and Pump Station, Lowell, NC. Staff Professional
- WWTP Rehabilitation, Rutherfordton, NC. Staff Professional
- Neuse River WRF: Little Creek Regional Pump Station, Clayton, NC. Staff Professional
- Wastewater Flow Redirect, Marshville, NC. Staff Professional
- Dye Creek Wastewater Interceptor, Mooresville, NC. Staff Professional
- Site and Treatment Evaluation PER, ONWASA, Onslow County, NC. Staff Professional
- Firestone Bypass Sewer, Gastonia, NC. Staff Professional
- WTP Rehabilitation (SRF-funded), Franklin, NC. Staff Professional
- Collection System Improvement (ASADRA funded), Liberty, NC. Staff Professional

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AMANDA WHITAKER

Director of Funding

Amanda is WithersRavenel's Director of Funding Services. Her experience is concentrated in grant writing, grant administration, and community and economic development projects. She has successfully written and administered grants for projects all over North Carolina for public infrastructure, economic development, neighborhood stabilization, housing rehabilitation, parks and recreation, and downtown revitalization.

EDUCATION

- MPA, Community and Economic Development, UNC Greensboro
- BA, Political Science, North Carolina State University

LICENSURE

- Community Development Academy, UNC School of Government

PROJECT EXPERIENCE

- WWTP Decommissioning and Pump Station, Lowell, NC. Funding Specialist
- CDBG-I Grant Administration, Sewer Rehabilitation, Selma, NC. Funding Specialist
- WTP Feasibility Study, Iredell Water Corporation, Statesville, NC. Funding Specialist
- CDBG-I Grant Administration, Sewer Rehabilitation, Goldston, NC. Funding Specialist
- CDBG-I Grant Administration, Sewer Rehabilitation, Benson, NC. Funding Specialist
- Firestone Bypass Sewer, Gastonia, NC. Director of Funding
- Grant Administration for Comprehensive Stormwater Master Plan, Waynesville, NC. Director of Funding
- Resiliency Consulting Services, New Bern, NC. Project Manager
- Grant Administration Services, Marion, NC. Project Manager

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Team Experience

MEGAN POWELL

Finance/Funding Specialist

Megan has a strong background working for local governments in North Carolina. She has worked on grant administration for ARRA Funds, sustainability projects that involved outreach to the community. As budget manager and internal auditor, she managed a team responsible for Henderson County's annual $166 million general fund. Her work involved developing best practices, policies and procedures, complying with Local Government Budget and Fiscal Control Act, and ensuring compliance with all local, state, and federal laws.

EDUCATION

- MPA, Public Management, Appalachian State University
- BS, Political Science, Appalachian State University

CERTIFICATION

- Certified Local Government Budget Officer

PROJECT EXPERIENCE

- Engineering Services for Sports Complex, Henderson County, NC. Finance/Funding Specialist
- Helene Response, Woodfin, NC. Disaster Recovery Consultant
- Disaster Recovery Services, Maggie Valley, NC. Disaster Recovery Consultant
- WWTP Decommissioning and Pump Station, Lowell, NC. Finance/Funding Specialist
- Water and Wastewater MRF Study, Old Fort, NC. Project Manager
- Water and Wastewater MRF Study, Broadway, NC. Project Manager
- Wastewater MRF Study, Hertford, NC. Finance/Funding Specialist
- Water & Sewer System Financial Viability Analysis, Taylorsville, NC. Project Manager

ALAN MACKEY

Senior Resident Project Representative

Alan has more than 30 years of experience in the construction services industry. He has served as a field representative, foreman, and inspector. He is very familiar with the complex regulatory issues concerning water and wastewater facility construction. His many years of experience in this region have given him a broad understanding of the topography, surface waters, and climate of Western North Carolina.

EDUCATION

- AAS, Building and Construction, Asheville-Buncombe Technical Community College

CERTIFICATIONS

- 40-Hour OSHA HAZWOPER with Annual 8-hour refresher

PROJECT EXPERIENCE

- WWTP Levee Repair, Maggie Valley, NC. Construction Services
- Engineering Services for Sports Complex, Henderson County NC. Construction Services
- Hickory Creek Sewer Outfall, Shelby, NC. Construction Services
- Church & King Streets Water & Sewer Improvements, Hendersonville, NC. Construction Services
- East Yancey Sewer Improvements, Yancey County, NC. Construction Services
- Black Hill Road Water & Sewer, Bryson City, NC. Construction Services
- Highway 19E Force Main Relocation, Spruce Pine, NC. Construction Services
- DWI Stream Restoration, Biltmore Forest, NC. Construction Services
- CDBG-I Interceptor Replacement, Burnsville, NC. Construction Services

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Team Experience

MARSHALL WIGHT, PLS

Survey Manager

Marshall is WithersRavenel's Director of Surveying for our Asheville office. He is a surveyor and survey manager with a background in conventional and GPS field procedures, research, and data processing. He performs boundary topographic surveys; bathymetric surveys; boundary resolution; as-built; monitoring; planimetric and topographic mapping, recombination, right-of-way dedication, and easement mapping. Marshall specializes in remote sensing technologies, including high definition 3D laser scanning, unmanned aerial systems (UAS) legality, flight planning, 3D modeling, orthophoto/surface model generation. He has expertise in mapping, designing, and analyzing stream projects from a variety of geographical areas. He also has experience in soil and concrete testing.

EDUCATION

- BS, Agriculture Environmental Technology, North Carolina State University

LICENSURE

- Professional Land Surveyor: NC, L-5034

PROJECT EXPERIENCE

- Neuse River Water Reclamation Facility (WRF), Clayton, NC. Survey Manager
- WWTP Levee Repair, Maggie Valley, NC. Survey Manager
- WTP Expansion, Weaverville, NC. Survey Manager
- WWTP Improvements, Mount Olive, NC. Survey Manager
- Church & King Streets Water & Sewer Improvements, Hendersonville, NC. Survey Manager
- Lower Mud Creek Floodplain and Flood Risk Reduction, Hendersonville, NC. Survey Manager

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WILLIAM ADGATE

SUE Manager

Will serves as the SUE Manager for our Asheville office and is responsible for overall SUE project management and personnel allocation. With nearly 10 years of experience, he has worked with a range of technologies to solve complex geophysical and utility mapping problems. He has performed and managed numerous SUE and geophysical investigations for a wide range of clients. He also has an extensive background coordinating with surveying professionals on a variety of projects for public and private clients.

EDUCATION

- BS, Geology, University of Georgia

CERTIFICATIONS

- NC 811 RTE Training
- Red Cross CPR & First Aid

PROJECT EXPERIENCE

- WTP Expansion, Weaverville, NC. SUE Manager
- WTP Clearwell and High Service Pump Stations, Franklin, NC. SUE Manager
- WWTP Resiliency Improvements, Clinton, NC. SUE Manager
- CDBG-I Interceptor Replacement, Burnsville, NC. SUE Manager
- Dixon WTP Upgrades, ONWASA, Onslow County, NC. SUE Manager
- Helene Response, Burnsville, NC. SUE Manager
- Collection System Engineering, Pilot Mountain, NC. SUE Manager
- Hickory Creek Sewer Outfall, Shelby, NC. SUE Manager

Team Experience

WARREN EADUS, PG

Environmental Scientist

Warren has more than 25 years of professional work experience in geology and environmental science. The last 20 years have been spent preparing CAMA Major Permits and SEPA and NEPA documents, conducting landfill assessments, Phase I ESAs, Brownfields, wetland and stream delineations, and working on restoration and enhancement projects. The early part of his career dealt chiefly with soil and groundwater contamination assessment and mining work in the Carolinas, and project and operations management.

Formerly with Quible & Associates, which was recently acquired by WithersRavenel, Warren now leads our firm's environmental services across Western North Carolina. He is committed to providing our clients with responsive and professional project work.

EDUCATION

- BS, Geology, East Carolina University

LICENSURE

- Professional Geologist: NC, 1954
- Certified Well Driller, NC

PROJECT EXPERIENCE

- Engineering Services for Sports Complex, Henderson County, NC. Environmental Scientist
- Helene Response/FEMA, Polk County, NC. Project Manager
- Rosman Greenhouse Economic Development, Transylvania County, NC. Environmental Scientist
- Country Club Dam Removal (WATAU-021), Blowing Rock, NC. Environmental Scientist
- Kims Cove Road Stream Delineation, Canton, NC. Project Manager

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RANDY STURGILL, PE, LEED AP

Electrical Engineer, Sturgill Engineering

STURGILL ENGINEERING. PA

Randy is a skilled engineer and owner of **Sturgill Engineering** with more than 30 years of electrical engineering experience in the water/wastewater industry. He also has extensive experience in power, instrumentation, and SCADA system design. He has done extensive work at treatment plants, and pump and lift stations. His experience includes power flow calculations and analysis, short circuit calculations, arc flash calculations, light level calculations, energy studies, voltage drop calculations, and equipment sizing.

EDUCATION

- BS, Electrical Engineering, Virginia Tech

LICENSURE

- Professional Engineer: NC, 016871
- LEED Accredited Professional

PROJECT EXPERIENCE *(ALL AS SUBCONSULTANT TO WITHERSRAVENEL)*

- WWTP Pine Swamp Wastewater Rehabilitation, Burnsville/Yancey County, NC. Electrical Engineer
- WWTP Decommissioning and Pump Station, Lowell, NC. Electrical Engineer
- WTP Improvements (SRF-funded), Hertford, NC. Electrical Engineer
- WTP Expansion, Weaverville, NC. Electrical Engineer
- WTP Rehabilitation, Clearwell and High Service Pump Stations, Franklin, NC. Electrical Engineer
- Project Butter (Collection System Improvements), Goldsboro, NC. Electrical Engineer

Team Experience

ANTHONY RENTZ, PE, SE

Structural Engineer, Summit Engineering

Anthony has over 27 years of experience in design engineering from plan production, design, documentation and calculations for structures, hydrology, hydraulics, site grading, utilities, subdivisions, and master land development projects. At **Summit**, he excels in the structural design and detailing for municipal and commercial buildings of a wide variety of materials and sizes. Anthony is adept at working with pre-existing structures, and strives to make as few impacts on building systems as possible while updating structural elements to modern standards, minimizing costs for owners.

EDUCATION

- BS, Civil Engineering, Georgia Institute of Technology

LICENSURE

- Professional Engineer: NC, 040192

PROJECT EXPERIENCE

- Eastside Pump Station, Dunn, NC. Structural Engineer *(With WithersRavenel)*
- Solar Farm Operations & Maintenance Facility Prototype Building, Wythe County, VA. Structural Engineer
- Huntsman New Chemical Storage Building, Rock Hill, SC. Project Manager Structural Engineer
- Brunswick Nuclear Power Plant Turbine Building, Brunswick, NC. Project Manager/ Structural Engineer
- I-25 Business Park, Mead, CO. Structural Engineer

ROBERT BOTZENMAYER, PE

Geotechnical Engineer, Summit Engineering

Robert has managed drilling and engineering services throughout the Mid-Atlantic region from Maryland to Georgia over the past 15 years. His geotechnical experience with **Summit** and other firms includes geotechnical instrumentation, mass grading projects, mixed-use, multifamily, mid-rise buildings, pavement rehabilitation, cast in place retaining wall design, segmental block retaining wall design and reinforced earth slope design.

Robert began his engineering career as a lab and field technician during college. Since then, he has held most of the technical positions in the industry from Driller helper and CMT technician to Geotechnical Department Manager.

EDUCATION

- BS, Civil Engineering, UNC Charlotte

LICENSURE

- Professional Engineer: NC, 044443

CERTIFICATIONS

- WACEL Concrete Level I
- USACE Contractor Quality Control

PROJECT EXPERIENCE

- Big Pine Solar Site, Sussex County, VA. Geotechnical Engineer
- Lumber Processing Facility Soil & Cement, Henderson, NC. Geotechnical Engineer
- Charlotte Douglas International Airport Bus/Car Loop Renovation, Charlotte, NC. Geotechnical Engineer
- Pureflow Inc. High Purity Water Systems Headquarters, Graham, NC. Geotechnical Engineer
- Oakwood Residential Subdivision, Mebane, NC. Geotechnical Engineer

Team Experience

DYLAN COWELL, EI

BioWin Modeler, HRG

Dylan specializes in wastewater treatment design at **HRG** and has vast experience in water and wastewater systems, leveraging his expertise to develop efficient, cost-effective, and operator-friendly solutions tailored to each client's needs. He is committed to finding the most effective approach by conducting thorough research while balancing financial considerations with the preferences of both the client and operational staff. A strong collaborator, Dylan values teamwork and works closely with his colleagues to ensure solutions align with all stakeholders' objectives. His diverse background allows him to evaluate challenges from multiple perspectives, particularly by applying a strong understanding of constructability to the design process.

EDUCATION

- MS, Environmental Engineering, Virginia Tech
- BS, Civil Engineering, Bucknell University

LICENSURE

- Engineer-in-Training

PROJECT EXPERIENCE

- Wastewater Treatment Plant Alternate Opinion, Bucks County, PA. Modeler & Alternative Analysis
- Wastewater Recovery Facility Project, Clearfield County, PA. Process Engineer
- Water Treatment Plant, Penn State University, State College, PA. Construction Management
- St. George Regional Water Reclamation Facility Expansion, St. George, UT. Process Engineer *(Previous Employer)*

WITHERSRAVENEL

Team Experience

FUNDING RECORD OF SUCCESS

Funding is one of the services our multidisciplinary firm provides. Below is a compilation of projects and programs for which we obtained funds. For many of the projects, we also provided engineering and program administration services.

Funding Program	# of Projects	Total Funded
Community Development Block Grant (Infrastructure, Housing, Catalyst, etc.)	44	$63,586,144
Economic Development (CDBG-ED, ARC,IDF, etc)	31	$22,815,130
Economic Development Administration (EDA Grants)	4	$5,204,945
Golden LEAF (GLF)	22	$13,998,878
Asset Inventory & Assessment Grants	90	$16,554,000
Merger & Regionalization Study Grants	22	$1,165,000
Clean Water Management Trust Fund (CWMTF) Non-Stormwater	23	$39,630,173
Clean Water Management Trust Fund (CWMTF) Stormwater	8	$671,744
Parks and Recreation Trust Fund	42	$16,199,441
SRF Grants & Loans-Water	61	$192,768,162
SRF Grants & Loans-Sewer	91	$397,743,205
Rural Center Bond Projects	75	$29,389,570
Economic Infrastructure (Rural Center)	6	$2,284,255
Economic Innovation (Rural Center)	2	$500,000
Clean Water Partners (Rural Center)	48	$15,926,001
Building Reuse & Renovation (Rural Center)	2	$876,000
Rural Center Misc. (Planning)	6	$273,500
USDA	26	$44,368,335
LASII Stormwater (Planning, Construction)	13	$17,699,360
Lead Service Line (LSL)	20	$26,320,504
Other	91	$92,810,451
TOTAL	**727**	**$1,000,784,798**

Other represents:

LWCF, STAG, ARC, DOT, GLF, Brownfields, High Unit Cost (Original and 2014 Programs), TAG, NCORR ARRA, and Flood Mitigation.

Rapidly growing our $1B+ funding total by assisting public clients such as Henderson County.

Team Experience: Professional Registration

NORTH CAROLINA BOARD OF EXAMINERS
FOR ENGINEERS AND SURVEYORS
4601 Six Forks Rd Suite 310
Raleigh, North Carolina 27609

WithersRavenel, Inc.
115 MacKenan Drive
Cary, NC 27511

This is to Certify that:

WithersRavenel, Inc. is licensed with the North Carolina Board of Examiners for Engineers and Surveyors, and is authorized to practice ***engineering and land surveying*** under the provisions of Chapter 89C and 55B of the General Statutes of North Carolina.

This authorization must be renewed annually, and **expires on June 30, 2025**

License No. : F-1479

THE NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERS AND SURVEYORS

Executive Director

POST IN PLACE OF BUSINESS

Issued 06/28/2024

WITHERSRAVENEL

Team Organization

ORGANIZATIONAL CHART

Our skill set and collaborative project approach will allow us to effectively meet project objectives and deadlines. WithersRavenel sees our team as an extension of your staff. We look forward to the opportunity to help Henderson County, and want to join you on this critical project for the Etowah community.

HENDERSON COUNTY
FOUNDED 1838

Will Cauthen
Client Officer

Alison Alexander
Client Experience Manager

Carolyn Hawkins, PE, PMP
Project Manager

Lindsay Mize, PE
Project Director

Wastewater Engineering

Michael Wicker, PE
QA/QC Manager

Kristy Green, PE
Project Engineer

Sangram Lamichhane
Staff Professional

Geomatics

Marshall Wight, PLS
Survey Manager

Will Adgate
SUE Manager

Funding/Finance

Amanda Whitaker
Director of Funding

Megan Powell
Finance/Funding Specialist

Construction

Alan Mackey
Construction Services

Environmental

Warren Eadus, PG
Environmental Scientist

Subconsultants

WithersRavenel strives to provide the appropriate partners for the scope of each project, should you require additional support, we are able to assist in selecting the appropriate subconsultant.

Randy Sturgill, PE, LEED AP
Electrical Engineer, Sturgill

Dylan Cowell, EI
BioWin Modeler, HRG

Robert Botzenmayer, PE
Geotechnical Engineer, Summit

Anthony Rentz, PE, SE
Structural Engineer, Summit

WILL CAUTHEN ▪ CLIENT OFFICER

"Our People, Your Success" are not mere words for us—we go above and beyond through value-added approaches that we bring to our clients and projects. One way we put this philosophy into practice is a Client Officer, which is a complimentary service and will give this contract the attention it deserves. As Client Officer, Will shall routinely check in with you to ensure all milestones for the project are being met and address any concerns or questions that Henderson County may have.

WITHERSRAVENEL

Team Organization

WHY THIS TEAM?

A successful project very often depends on the presence of a knowledgeable and focused project manager who can coordinate and guide the efforts of the project team from beginning to end. For your project, WithersRavenel selected **Carolyn Hawkins** as project manager based on her years of experience in the management of public projects and her expertise in treatment facility projects.

We aim to select project managers not only based on their individual expertise and availability, but also on their compatibility with the project and team as a whole. The same standards hold true for support staff, who are critical for quality control and numerous other responsibilities. For this project, WithersRavenel has identified the right team members who possess the relevant technical skills for specific tasks, communicate adeptly, and have the ability to master the unique demands associated with schedule, budget, and all other critical project elements.

The graphic below corresponds with projects included in our example section and other recent WithersRavenel projects, illustrating how the members of this team have collaborated frequently on wastewater treatment and collection projects for our government clients.

Project	Client	Team Members
Pine Swamp Wastewater Rehabilitation	Yancey County/Burnsville	Carolyn Hawkins, Lindsay Mize, Kristy Green, Sangram Lamichhane, Michael Wicker, Marshall Wight, Alison Alexander, Sturgill Engineering
Sewer and WWTP Rehabilitation	Town of Hertford	Carolyn Hawkins, Lindsay Mize, Kristy Green, Michael Wicker, Will Adgate, Sturgill Engineering
Helene Response	Town of Spruce Pine	Carolyn Hawkins, Lindsay Mize, Kristy Green, Alison Alexander
WWTP Resiliency Improvement	City of Clinton	Michael Wicker, Alan Mackey, Will Adgate
WWTP Improvements	Town of Garland	Lindsay Mize, Michael Wicker
Neuse River WRF: Little Creek Regional Pump Station	Town of Clayton	Michael Wicker, Sangram Lamichhane, Marshall Wight
WWTP Decommissioning and Pump Station	City of Lowell	Lindsay Mize, Sangram Lamichhane, Megan Powell, Amanda Whitaker, Sturgill Engineering
Site and Treatment Evaluation PER	ONWASA	Carolyn Hawkins, Kristy Green, Michael Wicker
WWTP Improvements	Town of Mount Olive	Carolyn Hawkins, Kristy Green, Michael Wicker, Alan Mackey, Marshall Wight

WORKING WITH SUBCONSULTANTS

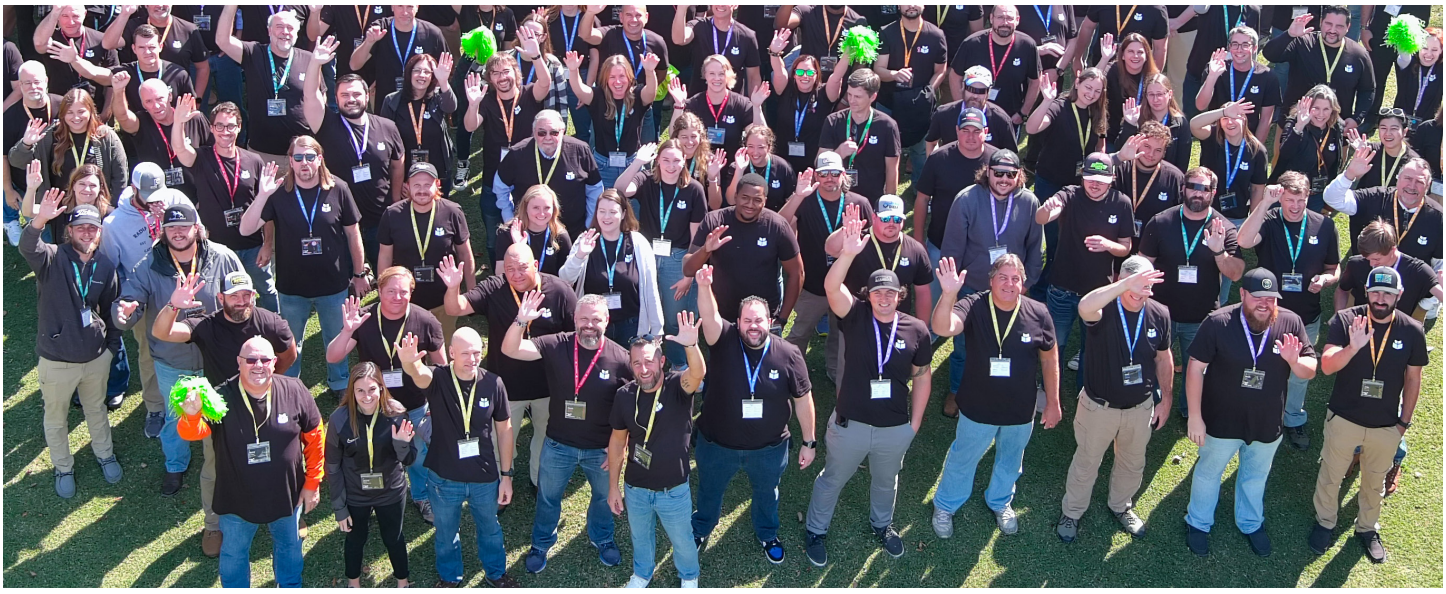
WithersRavenel has worked with these teaming partners on many WWTP projects. We've worked with **Sturgill Engineering** as an electrical engineering subconsultant on more than 15 projects, including the ones identified above. We have teamed with **Summit Engineering** on more than 10 projects as well, where they have provided either geotechnical or structural engineering, or both services. While our relationship with **HRG** is a newer one, the company is among the industry leaders working with BioWin, a valuable simulator that helps firms create better designs, upgrades, and expansion plans for a variety of wastewater treatment plants.

Team Organization

AVAILABILITY

WithersRavenel sees our team as an extension of your staff. Each staff member proposed for this project are available immediately and are committed to fulfilling their duties until the project is completed. Should you require additional personnel to complete emergency tasks not anticipated in the RFQ, we have ample staff to meet those needs.

Name	Project Role	Availability
Carolyn Hawkins	Project Manager: Overall project design lead, task manager, organization	55%
Will Cauthen	Client Officer: Liaison to Henderson County, client support services	As needed
Lindsay Mize	Project Director: Lead for scope/contract development, ensures project resources	30%
Alison Alexander	Client Experience Manager: Additional communication and coordination	30%
Michael Wicker	QA/QC Manager: Ensures reports and design drawings conform to standards	25%
Kristi Green	Project Engineer: Helps prepare design, construction, and bidding documents	50%
Sangram Lamichhane	Staff Professional: Helps prepare design, construction, and bidding documents	55%
Amanda Whitaker	Director of Funding: Leads grant application and administration services	30%
Megan Powell	Funding/Finance Specialist: Supports grant services, provides finance advisement	35%
Alan Mackey	Construction Services: Field observation and construction administration	40%
Marshall Wight	Survey Manager: Lead for survey field services and overall task management	20%
Will Adgate	SUE Manager: Lead for SUE field services and overall task management	20%
Warren Eadus	Environmental Scientist: Lead for environmental permitting and field services	30%
Randy Sturgill	Electrical Engineer: Provides electrical engineering and SCADA services	35%
Dylan Cowell	BioWin Modeler: Models WWTP designs for effectiveness and other factors	30%
Robert Botzenmayer	Geotechnical Engineer: Leads as-needed geotechnical engineering services	25%
Anthony Rentz	Structural Engineer: Leads as-needed structural engineering services	25%



Project Examples & References

Pine Swamp Wastewater Rehabilitation

YANCEY COUNTY, NC

The Town of Burnsville WWTP and 0.5 MGD contact stabilization process reached the end of useful life and required replacement to reliably maintain wastewater services for the Town and Yancey County.

WithersRavenel developed cost opinions for the County to complete rehabilitation/replacement for applicable parts of the plant, along with providing design and construction services.

The scope of work included headworks replacement, a new extended aeration process, chlorination and dechlorination equipment replacement, and tank refurbishment.

CLIENT CONTACT/REFERENCE

Lynn Austin
County Manager
Yancey County
828-682-3971
lynn.austin@yanceycountync.gov

The project is currently in the bidding process with construction to start in early 2025 and be completed by 2026.

Sewer System and WWTP Rehabilitation

HERTFORD, NC

WithersRavenel's team is working on the design and construction of the Meads Lift Station replacement, 8,200 LF of 8-inch gravity sewer rehabilitation, and the WWTP headworks.

The WWTP headworks includes replacement of the screens and grit removal system with electrical and SCADA upgrades.

WithersRavenel has completed an engineering report and design to satisfy funding requirements and is also providing bidding and construction services.

The project is currently in the bidding process with construction to start in early 2025 and be completed by December of 2026.

CLIENT CONTACT/REFERENCE

Doris Walton
Assistant Town Manager
Town of Hertford
252-426-1969
dwalton@townofhertfordnc.com

We are also working with the Town on a second active WWTP rehabilitation project, which is funded with SRF and CDBG-I monies. This project is currently in the Engineering Report phase, with design occurring later in 2025.

Helene Response WWTP Emergency Services

SPRUCE PINE, NC

Following the aftermath of Hurricane Helene, the Town of Spruce Pine reached out to WithersRavenel for assistance in restoring wastewater collection and treatment infrastructure. The Town's WWTP experienced significant flooding, resulting in:

- Power loss due to complete destruction of service to the site
- Electrical room filled with floodwaters, leaving 18 inches of silt and preventing operation of all parts of the plant, even after power was restored
- One of two clarifiers undermined on one side due to wash out under the structure
- Destruction of chlorine room and chlorine contact chamber
- Destruction of rotating screen at headworks and debris/ silt filling the headworks channel after flooding

WithersRavenel, in collaboration with multiple contractor partners, assessed the site within days of the storm event. Due to the extent of the damage, it was determined that a complete rehabilitation of plant infrastructure would require months of construction, thereby prolonging the restoration of plant operations for an unacceptable period of time.

CLIENT CONTACT

Richard Canipe
Interim Town Manager
Town of Spruce Pine
828-766-6915
manager@sprucepine-nc.gov

Instead, WithersRavenel formulated a plan for restoring temporary plant operations by rehabilitating key plant elements and reconstructing temporary improvements. The plan involves:

- Restoring use of Clarifier I for clarification via minor repairs
- Performing structural foundation improvements to Clarifier 2 and repurposing the tank to be used for chlorine contact/ dechlorination
- Replacing key electrical components required to power site
- Rehabbing the rotating screen by replacing key parts
- Building a temporary HDPE discharge out of Clarifier 2

The WWTP was back online within eight weeks of the storm event. In the interim, we located and helped the Town quickly procure two mobile WWTP units to place at key locations, allowing for the reopening of multiple schools and a state prison.

Project Examples & References

WWTP Resiliency Improvement

CLINTON, NC

The existing influent pump station that serves the City of Clinton's Norman Larkins WWTP is located within the mapped Special Flood Hazard Area (SFHA), and critical components are situated below Base Flood Elevation.

In October 2016, Hurricane Matthew inundated the WWTP as approximately 10 inches of rain fell over the area in a 24-hour period.

The event resulted in flooding of the pump station's below-grade dry pit and pumps, and the above-grade electrical control panels and vertical shaft drive pump motors. The resultant disruption in wastewater treatment services impacted the City's customer base for weeks and resulted in significant lost time for critical industrial customers such as Smithfield Foods.

In September 2018, Hurricane Florence again inundated the WWTP as approximately 34 inches of rain fell over the area in a 72-hour period. Similar flooding of the pump station, damage to critical components, and service interruptions were also noted as a result of this event.

In the Spring of 2020, WithersRavenel assisted the City in preparing an application for financial assistance under NCDWI's Additional Supplemental Appropriations for Disaster Relief Act of 2019 (ASADRA) and was instrumental in shepherding the application through the review and approvals process.

In February 2021, the City's application was rated as the highest scoring project in the State, and the City was awarded ASADRA funds totaling approximately $3,000,000 in the form of a 100% principal forgiveness loan. WithersRavenel is providing engineering design, permitting, SUE, bidding, and construction phase services for construction of a new influent pump station located outside of the SFHA and featuring triplex submersible pumps, enhanced electrical controls, and a dedicated permanent standby generator, as well as decommissioning and abandonment of the existing influent pump station.

The project is currently under construction with an anticipated early 2025 completion date.

CLIENT CONTACT/REFERENCE

Chris Medlin
Director of Public Works & Utilities
City of Clinton
910-299-4905, ext. 3059
cmedlin@cityofclintonnc.com

Project Examples & References

WWTP Improvements

GARLAND, NC

WithersRavenel is working with the Town of Garland to provide improvements to their Wastewater Treatment Plant utilizing funds acquired through the American Rescue Plan Act (ARPA).

The full design scope for the project involves the addition of an influent mechanical bar screen structure to the WWTP headworks, design of an on-site dual train chlorine contact chamber and dechlorination chamber with added chlorination and dechlorination flow paced effluent sampling to replace the existing chlorination/dechlorination outfall system.

The design also includes lagoon structural repairs (approximately 16,000 cubic yards), new lagoon floating baffle curtains (approximately 2,200 LF), and dredging and disposal of wastewater sludge from the three lagoons (approximately 1,180 dry tons).

WithersRavenel also provided wetland delineation, survey, SUE, NCDEQ permitting, and bidding services.

Based on prices received for construction, the completed project was value-engineered to focus funds toward the most crucial elements of the project, as determined by collaboration between the Town and WithersRavenel. These elements being the installation of an influent mechanical bar screen structure, a portion of the lagoon structural repairs (approximately 3,000 CY), a portion of the new lagoon baffles (approximately 1400 LF), and dredging of wastewater sludge from the first lagoon (approximately 160 dry tons).

WithersRavenel will also provide construction administration and observation services. The project is projected to begin in the spring of 2025 with an anticipated construction timeline of one year.

CLIENT CONTACT/REFERENCE

Samantha Wullenwaber
Deputy Executive Director
Mid-Carolina Regional Council of Governments
919-632-5397
swullenwaber@mccog.org

Project Examples & References

Neuse River WRF: Little Creek Regional Pump Station

CLAYTON, NC

The Town of Clayton is constructing the new Sam's Branch Water Reclamation Facility (SBWRF) on the banks of the Neuse River. Upon completion, the Town's existing Little Creek Wastewater Treatment Plant (LCWWTP) will be decommissioned. A new regional pump station located at the site will convey the current WWTP flow to the new SBWRF.

WithersRavenel provided engineering design, project management, permitting, and construction phase services for the new Little Creek Regional Pump Station, force main, and gravity sewer to transfer wastewater to the new WRF. The Little Creek Regional Pump Station design is phased to match the future build-out capacity of the Town sewer flow south of US 70 in similar phases as planned for the new WRF.

The design includes three duty pumps and one standby pump. In the first phase, two 200 HP pumps and two 100 HP pumps were installed. With 200 HP pumps running, the resulting initial phase design point will be 6,300 GPM at 146 FT TDH. The 100 HP pumps running together have the same capacity as one full-size pump and will meet anticipated low-flow conditions in the initial years of the pump station operation.

Prior to reaching build-out design conditions estimated in Phase II, the 100 HP pumps will be replaced with 200 HP pumps to increase flow to 8,000 GPM. The pump station structure was constructed above both 100-year and 500-year base flood elevations for reliability and to meet funding agency requirements. A headworks with a single mechanical 12.5 MGD bar screen and manual bypass screen will proceed to the pump station wet well to remove debris prior to the pumps. Dual standby dri-prime diesel-fueled pumps provide backup pumping capability during power outages. The pump station discharges through approximately 5,100 LF of 24-inch force main and approximately 11,000 LF of 24, 30, 36, 42, and 48-inch gravity sewer.

Following the decommissioning of the existing LCWRF, the existing LCWRF gravity effluent outfall will also be converted to a gravity sewer outfall since it parallels the new gravity sewer outfall installed in this project. Valved interconnections were installed to facilitate this conversion at such time to accommodate the additional build-out flows of Phase II and additional Industrial Park sewer from the Town's concurrent ECIA Pump Station, Force Main and Gravity Sewer project.

The $18 million portion of the overall project is funded by SRF loans and ARPA earmark money. WithersRavenel helped the Town apply for some of the funding for the more than $200 million overall project. We are also providing grant/loan administration services. Little Creek Regional Pump Station held a ribbon cutting ceremony and opened in October 2024. Transmission line work was substantially completed in October 2023.

CLIENT CONTACT/REFERENCE

Richard Cappola, PE
Town Manager
Town of Clayton
919-463-6200
rcappola@townofclaytonnc.org

Little Creek Regional Pump Station

Project Examples & References

ADDITIONAL WWTP EXPERIENCE

WithersRavenel has worked on scores of wastewater treatment plant projects across North Carolina. The matrices on the following pages provide more examples of our successful WWTP work, with many projects receiving state or federal funds.

Project Information	Project Description/Performance	Services Provided
WWTP Improvements *Maggie Valley, NC*	Preliminary and final design of chemical feed improvements to discern the cause and potential solutions related to low pH at the plant.	» Design Services » Permitting » Construction Administration & Inspection Services
WWTP Improvements *Mount Olive, NC*	Major improvements include replacing the existing reclaimed water drip irrigation system and hybrid sycamore tree crop with a spray system and coastal Bermuda grass crop, expanding the existing influent pump station capacity, improvements to the plant headworks and influent pump stations, and a complete rebuild of two of the four existing tertiary filters.	» Design Services » Permitting » Surveying » Environmental Services » Construction Administration & Inspection Services » Grant Application and Administration
The Cape WWTP Upgrades *Wilmington, NC*	Preliminary engineering analysis, permitting and design of existing 0.260 MGD public utility package Wastewater Treatment Plant expansion to 0.400 MGD with tertiary treatment, flow equalization, new influent pump station, screening, filtration, ultra-violet disinfection.	» Design Services » Permitting » Environmental Services » Erosion Control » Stormwater Design
WWTP Upgrade & Sewer Line Extension *Clarkton, NC*	Upgrade to the existing 0.240 MGD WWTP; upgrade design for and influent pump station; and design of a standby generator.	» Design Services » Permitting » Grant Application and Administration
WWTP Upgrade & Sewer Line Rehabilitation *Maysville, NC*	Upgrades to the existing 0.180 MGD WWTP include improvements to the aeration system, clarifiers, sludge return system, grit chamber, influent screening, chlorine feed system and the addition of mixers, filtration, and ultraviolet disinfection.	» Design Services » Permitting » Grant Application and Administration
Terrible Creek WWTP Bar Screen *Fuquay-Varina, NC*	Evaluation of the expansion of the existing 1 MGD WWTP and design and permitting to relocate existing bar screen from abandoned plant to Terrible Creek WWTP.	» Design Services » Permitting » CIP
Brighton Forest WWTP *Fuquay-Varina, NC*	Engineering alternatives analysis for four private NPDES WWTP dischargers to regionalize systems, go to Fuquay-Varina, or develop reclaim water facilities. Selected alternative involved the design, permitting, and construction of 0.120 MGD package WWTP.	» Design Services » Permitting » Construction Administration & Inspection Services

WITHERSRAVENEL

Project Examples & References

Project Information	Project Description/Performance	Services Provided
WWTP Review *Cleveland, NC*	Prepared a conceptual expansion design to convert the Town's existing wastewater treatment plant WWTP from 0.27 MGD to either 0.40 or 0.50 MGD. Options include installation of sludge thickening processes to reduce sludge volume, and the installation of a new aeration basin and secondary clarifier.	» Design Services » Sewer Basin Flow Study
WWTP Supernatant Pump Station *Brevard, NC*	Design required WWTP coordination to bypass pump station. Prepared project drawings and specifications for a complete pump station renovation including new pumps, new mounts, rails and hardware and new pump controls	» Design Services » Bidding » Construction Administration & Observation
WWTP Value Study *Ocean Isle, NC*	WithersRavenel provided the original design of the plant, and was asked to assess the value and capacity of the facility as a merger was being considered. We used the original construction pricing, RSmeans, and Engineering News-Record construction cost indexing, and solicited new contractor quotes to determine the depreciation and current replacement value of the equipment and facilities at the plant. The Town was able to use this as a basis of negotiation for the transfer of ownership and operations of the wastewater treatment plant to Brunswick County.	» Design Services » Evaluation
WWTP Evaluation *Wallace, NC*	Evaluated the existing 40-year-old 1.0 MGD WWTP for their NPDES Permit Renewal. The evaluation considered each treatment unit, impacts of new NDPES limits, recommendations and cost estimates for improvements necessary to maintain compliance. In addition the evaluation considered elimination of the WWTP through the construction of a new pump station and force main to the proposed regional WWTP in the area.	» Design Services » Evaluation
Bynum WWTP Evaluation *Chatham County, NC*	Evaluation of 25,000 GPD package facility included improvements to the existing lime feed system, addition of an equalization basin, more stringent grease trap inspections, renovations to the existing blower and aeration piping, and improvements to the disinfection system to either UV disinfection or liquid chlorination/dechlorination.	» Design Services » Evaluation

Project Understanding and Approach

PROJECT UNDERSTANDING

Henderson County recently purchased the Etowah Sewer Company WWTP in September 2024. The facility is rated for 0.125 million gallons per day (MGD), has a permitted discharge of 500,000 gallons per day (GPD), and consists of two treatment trains.

The older treatment train was installed in 1988 and the newer treatment train was installed in 1995. The facility is composed of the following treatment units:

- Influent pump station
- Bar screen
- Flow equalization chamber with flow control box
- Dual train aeration basins
- Dual train clarifiers
- Tablet feed chlorinators
- Chlorine contact chamber
- Effluent flow meters
- Sludge holding chamber

The County is facing challenges with aging infrastructure at the WWTP, which has led the County to consider either expanding the facility at the existing site or constructing a new WWTP at a new location. Additionally, the WWTP has been receiving flows above the permitted capacity, further expediting the need for expansion.

Any consideration of a WWTP expansion and/or relocation project should begin with a detailed review of all available information and the completion of a Preliminary Engineering Report (PER) to determine the design/construction alternatives, funding alternatives, and a proposed plan and schedule of action.

PROJECT APPROACH

WithersRavenel is familiar with the tasks necessary to tackle the County's need for an expanded and/or relocated WWTP. The following steps describe WithersRavenel's approach to undertaking the County's WWTP expansion and relocation. Our approach will also include an explanation of our grant and loan funding services, which can be vital to help communities pay for expensive infrastructure rehabilitation and replacement.

Please note that items listed within this scope of services may be tailored to better suit the funding options obtained, as well as the descision to replace/expand the facility on the existing site vs. relocating to a new site.

Kickoff meeting

We believe that establishing a clear understanding of project requirements at the outset is essential to minimizing omissions, oversights, and delays. Open, frequent communication and close, consistent coordination with the County is paramount, and the project kickoff meeting is the keystone of our proven process detailed below. This process has been developed based on our team's seasoned experiences of performing similar projects throughout the state. We will work with you every step of the way, ensuring that every project milestone is met with the highest level of quality and service.

This meeting will help the project team gain an overview of the County's plans and resources in the area of the Etowah WWTP, and also identify a list of key needs and/or resources associated with wastewater treatment in the area.

We will also discuss any potential issues or concerns to be reviewed and investigated, including but not limited to the following considerations:

- Expansion on the existing site could encroach on the existing regulated setbacks.
- Relocation would require land adequate for required setbacks.
- Relocation could possibly trigger revisions to the NPDES Permit, which could result in the need for public hearings.

Project Understanding and Approach

Alternatives Analysis and Engineering Report (ER)

WithersRavenel will develop a preliminary engineering alternatives analysis and complete a short technical memorandum detailing the alternatives and providing associated preliminary opinions of likely costs. The alternatives will consider replacing the existing system and expanding at the existing site and relocating and expanding on a new site. Evaluation of treatment technologies will also be performed during the alternatives analysis. WithersRavenel will schedule and host a review meeting with County Staff following their review of the technical memorandum to select a preferred/recommended alternative to focus on for the ER.

Our secondary goal for the ER, as is the WithersRavenel standard, is to compose an ER that is also suitable for a funding application to any of the multiple sources of funding, such as the Community Development Block Grant, the Clean Water State Revolving Fund, Golden LEAF, etc. WithersRavenel will complete a draft report of the ER for County staff review. The ER will:

- Assess and describe existing system conditions
- Evaluate current and future wastewater demands
- Provide recommendations on level of expansion
- Establish the purpose and need for the project
- Evaluate alternatives for correcting the needs, including the consequences of doing nothing

Our project team will then perform a present worth analysis of alternatives and recommend a course of action for the proposed project. Then, as needed, we will prepare prepare Environmental Information Documentation (EID) in accordance with the possible funding units' guidance for wastewater treatment plant rehabilitation. We will utilize our in-house environmental experts during this step, which will include:

- Determination of Level of Exemption, Categorical Exclusion subject to or not to Section 58.5 of federal restrictions or if a FONSI-EA is required
- Desktop environmental evaluation of project using EID tables from North Carolina Division of Water Infrastructure (NCDWI) as necessary
- As needed, field reconnaissance, wetland delineation, and Jurisdictional Determination Requests

Project Understanding and Approach

During the ER process, a full evaluation of the WWTP will address the current and future design of each treatment unit in the current process train, identifying where replacement or optimization is required for current and future flow and treatment conditions. Potential sites for the relocation will be identified and evaluated during the ER process. BioWin modeling of the activated sludge processes identified in the alternatives for improvements will assist the County in making a technology selection. The ER will also outline potential challenges and identify solutions, including but not limited to the examples below:

Challenge	Path Forward
Expansion on the existing site could encroach on the existing regulated setbacks	During the alternatives analysis, treatment technologies that have smaller footprints will be evaluated to maintain existing regulated setbacks.
Relocation would require land adequate for required setbacks	During the ER evaluation the following steps will occur: 1. Evaluate and recommend expansion size needed 2. Determine space needed for the treatment technologies in the preferred alternative 3. Identify the size needed for the new site, accounting for the WWTP and the required setbacks
Relocation could possibly trigger opening the NPDES Permit which could call for public hearings	If relocation is selected, WithersRavenel would coordinate with the Asheville Regional Office to review and confirm steps to obtain a permit modification. This would include extending the project schedule to account for the necessary public hearings.

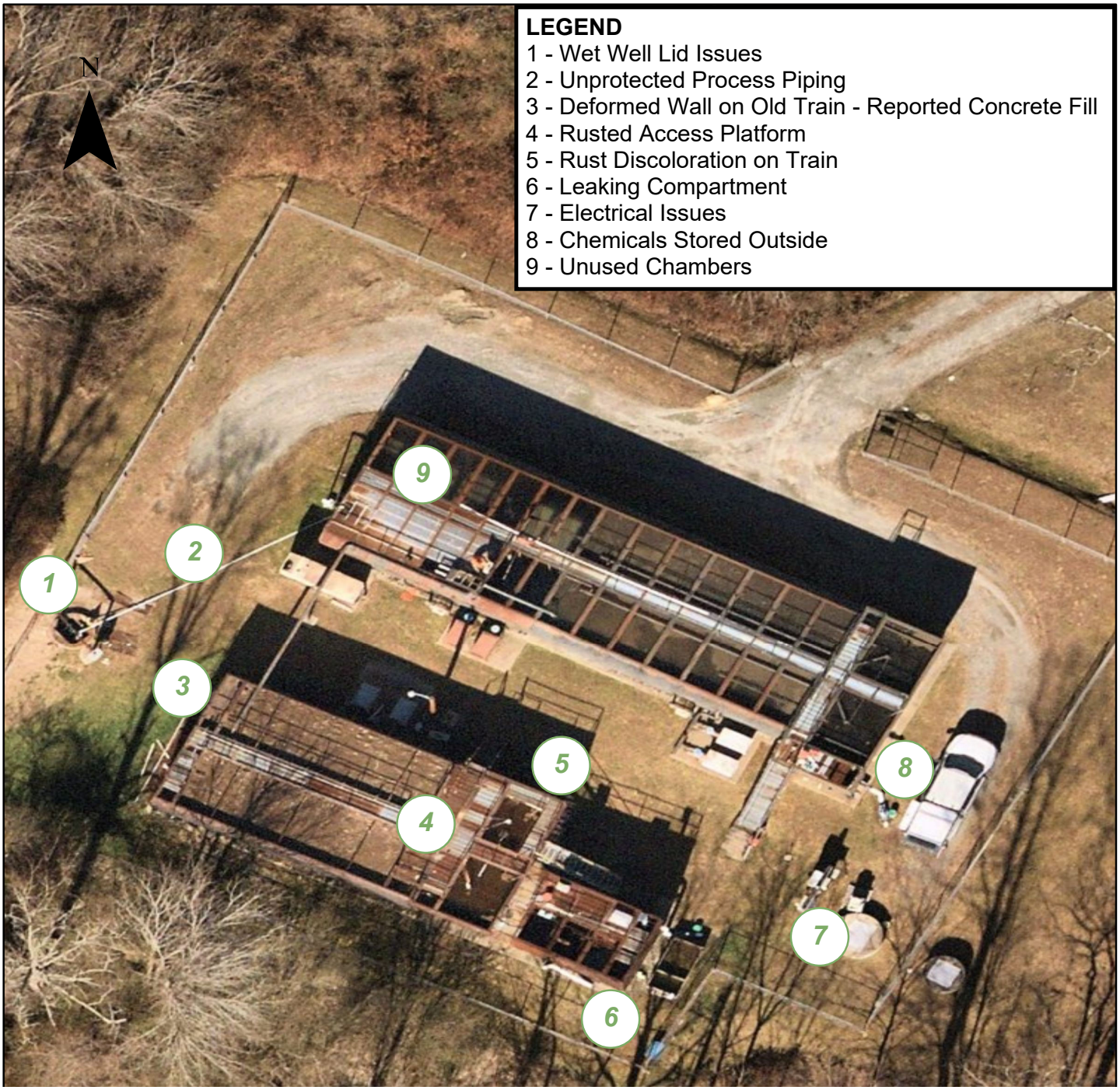
Our goal with the ER will be to develop solutions for both the expansion/replacement on the existing site and the potential relocation/expansion that create the least amount of impact on current and future operations, the smallest footprint, and utilize as much of the existing infrastructure as possible in an effort to reduce total project costs.

Following the completion of an ER review meeting with County Staff, WithersRavenel will finalize the ER. At the ER review meeting, the County and WithersRavenel will also determine which alternative will be selected for the WWTP expansion and which funding sources will be pursued for the proposed project.

Additional issues with the current WWTP identified at a recent site visit by WithersRavenel team members are chronicled in a graphic on the next page.

Project Understanding and Approach

ISSUES AT CURRENT WWTP SITE



WithersRavenel
Our People. Your Success.

Henderson County
Etowah Sewer Plant

0 12.5 25 50 Feet

Project Understanding and Approach

Funding Application

WithersRavenel's funding team is focused on assisting clients with funding identification; application and administration services; and general oversight and management. Our expertise ensures your project is in compliance with the specific funding agency requirements.

Our team includes staff who have managed projects with complex funding requirements, including navigating the various compliance requirements for each program, managing multiple deadlines, and coordinating with multiple individuals at the agency level.

We are familiar with many state and federal initiatives, such as USDA, Golden LEAF, CWMTF, SRF, CDBG, and AIA. We have worked closely with North Carolina's Department of Environmental Quality, and understand what helps an application succeed and, later, what stumbling blocks can emerge during the project process to potentially jeopardize funding.

For more details on the more than $1 billion that we have secured for our local government clients, see Page 16.

Following approval of the ER/EID and other funding condition requirements, the County will receive funding approval, and the engineering design services may begin.

Data Collection and Surveying

WithersRavenel's in-house data collection and surveying professionals will first review any owner'provided inventories, maps, GIS data, reports, and studies. We will then provide the appropriate level of surveying to complement the existing data on the site or new surveying of a new proposed site for relocation. Our team will then build an existing conditions base file for use in design and permitting efforts.

Subsurface Utility Engineering (SUE)

Using electromagnetic (EM) equipment and active or passive methods, WithersRavenel can designate conductive utilities such as copper telephone wire, coaxial cable, fiber optic cable, metallic water, and sewer line, and gas line.

Active methods are used for known utilities; passive methods are used for unknown utilities. Using Ground Penetrating Radar (GPR) equipment, WithersRavenel can designate non-conductive utilities and structures such as asbestos concrete, PVC, RCP, and USTs.

Our professional SUE team members use the latest equipment to help our clients locate and designate subsurface utilities. We also prepare regulatory permit/certification applications to secure all necessary permits and encroachments. We can also meet with regulators as needed.

SPOTLIGHT ON GEOMATICS

Every engineering design project is built upon a foundation of geomatics, including land surveying, Geographic Information Systems (GIS), remote sensing, and subsurface utility engineering. WithersRavenel provides fast, accurate, and reliable geomatics services. Automated digital data collection in the field combined with fully integrated workstations in the office ensures both speed and accuracy in every project we deliver.

We pride ourselves on our ability to tailor our methodologies to fit the necessary accuracy and resolution of every project. The tools in our toolbox include unmanned aircraft systems (UAS) or drones, LiDAR, 3D scanning, GPS, Robotic Total Stations, and Digital Levels, all of which are used, as needed, to improve productivity and accuracy. While using these high-tech tools, we remain grounded in land surveying fundamentals and forestry skills.

By integrating our geomatics services with all of the other planning and engineering disciplines that we offer, we provide the most efficient solutions for the real-world challenges that you face.

Project Understanding and Approach

Design Phase: Conceptual Design Development

WithersRavenel will meet with County representatives to determine the preferred design alternative, based on recommendations outlined in the ER. We will perform any further data collection required to supplement the previous analysis, and develop a preliminary design for the proposed replacement onsite or relocation based on these decisions.

We will then develop preliminary construction drawings based on our designs and review comments received from the County. Finally, we will continuously update the preliminary engineer's opinion of probable costs developed during the alternatives analysis and ER.

All of our work products and deliverables go through a thorough Quality Assessment/Quality Control (QA/QC) process, outlined in the box below. **Your Project Manager Carolyn Hawkins and QA/QC Manager Michael Wicker will ensure that design documents and other materials meet the highest quality standards.**

QA/QC Manager

Checklists appropriate for each type of project are used to verify content and ensure standardization of documents.

A general review of the overall design philosophy and approach is also completed at multiple project phases to ensure the design effort progresses in accordance with the appropriate project approach and good engineering practices.

All technical documents, plans, specifications, opinions of cost, and reports are reviewed and checked in detail by qualified personnel prior to submittal.

Project Manager

Every deliverable:

1. Ensure it satisfies scope of work
2. Meets quality standards
3. Client preferences are adhered to
4. Ready for bidding and construction

Project Understanding and Approach

Design Phase: Final Design Development

During this phase, our engineers will develop the final design plans and specifications for the project. Steps taken will include:

- Verify compliance with current County ordinances and standards and funding contract requirements
- Prepare contract documents for bidding for funding agency submittal of design and bid documents per any Grant Milestone Schedule established
- Final Environmental Permitting
- Prepare any necessary permit applications
- Develop on-site mitigation plan, if appropriate
- Secure permits

Bidding Phase, Construction Administration, and Observation Phase

Upon approval of the Design and Bid Package, WithersRavenel will assist the County in providing electronic copies of construction documents for advertisement and bidding. WithersRavenel will also schedule and conduct a pre-bid conference while addressing any clarification to the construction documents by Addendum and will also conduct the bid opening. Once bids are received, we will tabulate and review bids while checking contractor references. Based on those findings, we will provide a recommendation of award to the County.

Once the County awards the work, the project then proceeds to the Construction Contract Administration Phase. The construction process includes many responsibilities that our team will undertake. First, we will lead the pre-construction conference to outline action items, expectations, and compliance throughout project implementation.

Critically, we will provide **oversight of the project** as the County's representative. This covers a variety of tasks, including:

- Coordination with the County Project Manager throughout project
- Review of shop drawings for general compliance with the current County standard specifications and general compliance with the intent of the plans and specifications
- Attendance at regular construction meetings with the Contractor to ascertain project status and construction schedule and report findings to the County
- Addressing emails, phone correspondence, and letters to communicate with the contractor, client, and/or County

Project Understanding and Approach

WithersRavenel will also provide **periodic site visits,** either by the construction representative or together with members of the project team. Services provided will include observation and documentation concerning the construction of the project which includes photos and field reports, monitoring operations and progress of contractor, monitoring the quality of work, and general compliance with the County's and funding requirements.

We will provide **weekly reports** to obtain real-time information including pictures. This service is complemented by on-site Meetings with County staff and/or Contractor to discuss schedule, contractor issues, County issues, etc. This information will be passed to the County for action.

Our staff will **identify non-conforming work** observed on the date of the observation and provide field-engineered corrective action solutions, communicate solutions, and monitor repairs. We will also review and approve all changes to the design by our Professional Engineers and the County. We will provide quick, on-site solutions using our field staff and Smart Level/Laser Level equipment, and provide sketches for review by our Professional Engineering staff.

As needed, we will offer value-engineered solutions in partnership with the contractor. We can provide a field-dedicated professional during periods of significant construction and when work is being done to help with situations that need immediate attention.

From a longer-term perspective, we will **review monthly contractor payment requests** and provide recommendations to the County for financial processing and funding agency approval. We will also provide assistance, documentation, and recommendations concerning change orders, and discuss and provide answers to RFI's received by contractor.

Our staff will also keep a **running punch list** as the project progresses for items that are outstanding. We will work with the contractor and utility companies to relocate utilities if needed, and send all information cited above as needed to the County for their use and action item needs.

WithersRavenel has its own Field Operations Manual to supplement the requirements from the County to ensure proper construction practices are being utilized and checks are intentionally incorporated into the process. Once the project is substantially complete, we will produce a punch list and provide it to the contractor for their action. We would also obtain a schedule to complete the work. We would attend punch list inspections with the contractor until completed.

Once completed to our satisfaction, we will coordinate and attend an acceptance inspection of the improvements with the County. Upon completion, we will also provide as-built drawings to the County in the format identified in the RFQ.

Project Understanding and Approach

PROJECT SCHEDULE

Henderson County is considering the replacement of the existing 0.125 MGD Etowah WWTP with an expanded facility potentially located at the existing site or to a new location while maintaining the existing NPDES Discharge point (Permitted for 0.500 MGD). The proposed schedule is based on WithersRavenel's experience, highlighting major project engineering milestones, and is to be refined upon review of the potential funding agency and coordination with the County. The schedule assumes that a Finding of No Significant Impact (FONSI) would need to be completed for the Environmental Report, as funding will require the FONSI for plant expansion. Please note that items listed within this scope of services may be reduced based on the funding options obtained (if any) and if the decision is made to replace/expand the facility on the existing site or relocated to a new site.

Project Task/Milestone	Estimated Target Completion Time
Submit Engineering Report to the County	4 months after Contract Notice to Proceed (NTP)
Submit Funding Application	Fall 2025
Receive Funding Approval	Spring 2025
Submit Environmental Report and Request for Release of Funds to Funding Agency	2-6 Months, Dependent on Funding Milestones
Obtain Approval of Engineering Report and Environmental Report from Funding Agency	6 months after ER Submittal to Funding Agency
Complete Engineering Field Survey	2 months after ER Approval
Complete Preliminary Engineering Design and Review	4 months after ER Approval
Complete Engineering Design and Review	6 months after ER Approval
Submit Bid and Design Package to Permit Review Agencies and Funding Agency	6 months after ER Approval
Obtain Applicable Permits	3 months after Permit Submittal
Obtain Approval from Funding Agency of Final Bid and Design Package	6 months after Submittal
Advertise for Bids	1 month after Bid & Design Approval
Receive and Submit Bids to Funding Agency (if applicable)	2 months after Bid & Design Approval
Award Construction Contracts	1 month after Bid
Execute Construction Contracts	1 month after Award
Start Construction	2 months after Contract Execution
Construction Completion	24 months
Submit Final Funding Agency Financial Reimbursement	1 month after Construction Completion
Funding Agency Closeout (as applicable)	3 months after Construction Completion

Insurance Requirements

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/31/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Edgewood Partners Insurance Agency 3780 Mansell Rd. Suite 370 Alpharetta GA 30022	**CONTACT NAME:** Greyling COI Specialist **PHONE (A/C, No. Ext):** 770.756.6599 **FAX (A/C, No):** 770.756.6599 **E-MAIL ADDRESS:** greylingcerts@greyling.com
INSURED WITHINC WithersRavenel, Inc. 115 MacKenan Drive Cary, NC 27511	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** **INSURER A :** Hartford Casualty Insurance Company 29424 **INSURER B :** Allied World Surplus Lines Insurance Co 24319 **INSURER C :** Hartford Fire Insurance Company 19682 **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1314761407 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:			20UUGKL0345	10/30/2024	10/30/2025	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY X HIRED AUTOS ONLY SCHEDULED AUTOS X NON-OWNED AUTOS ONLY			20UEGKL0814	10/30/2024	10/30/2025	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X **UMBRELLA LIAB** X OCCUR **EXCESS LIAB** CLAIMS-MADE DED X RETENTION $ 10,000			20RHGXU6057	10/30/2024	10/30/2025	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		20WBGAQ2751	10/30/2024	10/30/2025	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
B	Professional Liability incl. Pollution Liability			03140472	10/30/2024	10/30/2025	Per Claim Aggregate	2,000,000 4,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

WITHERSRAVENEL

Fee Schedule

Fee & Expense Schedule

WithersRavenel, Inc.

Effective January 1, 2025

Schedule is subject to change which typically occurs on an annual basis.

Description	Rate
Engineering & Planning	
Construction Project Professional	$165
Construction Manager I	$170
Construction Manager II	$185
Senior Construction Manager	$210
CAD Technician I	$115
CAD Technician II	$130
Senior CAD Technician	$160
Designer I	$145
Designer II	$170
Senior Designer	$190
Landscape Architect I	$170
Landscape Architect II	$195
Landscape Architect III	$215
Senior Landscape Architect	$235
Landscape Designer I	$145
Landscape Designer II	$160
Planning Technician	$125
Planner I	$135
Planner II	$160
Planner III	$185
Senior Planner	$195
Project Engineer I	$185
Project Engineer II	$195
Project Engineer III	$215
Senior Project Engineer	$235
Assistant Project Manager	$195
Project Manager	$215
Senior Project Manager	$235
Resident Project Representative I	$110
Resident Project Representative II	$130
Resident Project Representative III	$145
Senior Resident Project Representative	$160
Staff Professional I	$100
Staff Professional II	$160
Staff Professional III	$170
Staff Professional IV	$210
Senior Staff Professional	$220
Senior Technical Consultant	$275
Client Experience Manager	$250
Director	$255
Principal	$285
Zoning Specialist	$370
Project Coordinators	
Project Coordinator I	$105
Project Coordinator II	$125
Project Coordinator III	$135
Senior Project Coordinator	$145
Lead Project Coordinator	$160

Description	Rate
Funding & Asset Management	
GIS Senior Specialist	$185
GIS Specialist	$165
GIS Survey Technician I	$85
GIS Survey Technician II	$110
GIS Survey Technician III	$130
GIS Survey Lead	$145
GIS Technician	$105
GIS Analyst I	$130
GIS Analyst II	$145
GIS Project Manager	$185
F&AM Assistant Project Manager	$180
Intern I	$75
Intern II	$95
F&AM Implementation Specialist	$165
F&AM Project Consultant I	$130
F&AM Project Consultant II	$140
F&AM Project Consultant III	$145
F&AM Project Consultant IV	$150
F&AM Senior Project Consultant I	$165
F&AM Senior Project Consultant II	$170
F&AM Project Manager	$185
F&AM Principal	$285
F&AM Director	$255
F&AM Staff Professional I	$80
F&AM Staff Professional II	$125
F&AM Staff Professional III	$170
F&AM Staff Professional IV	$210
F&AM Senior Project Manager	$235
F&AM Senior Technical Consultant	$270
Geomatics	
Geomatics CAD I	$110
Geomatics CAD II	$130
Geomatics CAD III	$145
Geomatics Project Manager I	$185
Geomatics Project Manager II	$195
Geomatics Project Manager III	$225
Geomatics Project Professional I	$165
Geomatics Project Professional II	$190
Geomatics Principal	$265
Geomatics Remote Sensing Crew I	$235
Geomatics Remote Sensing Crew II	$330
Geomatics Survey Crew I	$170
Geomatics Survey Crew II (2 Man)	$205
Geomatics Survey Crew III (3 Man)	$250
Geomatics Senior Manager	$235
Geomatics Survey Tech I	$70
Geomatics Survey Tech II	$100
Geomatics Survey Tech III	$130
Geomatics Survey Tech IV	$140
Geomatics Sr. Technical Consultant	$235
Geomatics SUE Crew 1	$205
Geomatics SUE Crew 2	$280

Description	Rate
Environmental	
Environmental Technician I	$90
Environmental Technician II	$105
Environmental Technician III	$110
Environmental Senior Technician	$125
Environmental Project Geologist I	$165
Environmental Project Geologist II	$180
Environmental Project Geologist III	$205
Environmental Senior Project Geologist	$225
Environmental Asst. Project Manager	$180
Environmental Project Manager	$205
Environmental Senior Project Manager	$225
Environmental Director	$255
Environmental Project Engineer I	$165
Environmental Project Engineer II	$180
Environmental Project Engineer III	$205
Environmental Senior Project Engineer	$225
Environmental Principal	$285
Environmental Project Scientist I	$165
Environmental Project Scientist II	$180
Environmental Project Scientist III	$205
Senior Environmental Project Scientist	$225
Environmental Scientist I	$115
Environmental Scientist II	$140
Environmental Scientist III	$150
Environmental Geologist I	$115
Environmental Geologist II	$140
Environmental Geologist III	$150
Environmental Professional I	$115
Environmental Professional II	$140
Environmental Professional III	$150
Environmental Senior Tech. Consultant	$250
Administrative	
Administrative Assistant	$75
Administrative Assistant I	$90
Administrative Assistant II	$100
Administrative Assistant III	$110
Marketing Administration I	$100
Marketing Administration II	$130
Director of Marketing	$165
Office Administration	$80
Office Administrator I	$130
Office Administrator II	$135
Office Administrator III	$140
Expenses	
Bond Prints (Per Sheet)	$1.75
Mylar Prints (Per Sheet)	$11.00
Mileage	Per IRS
Delivery – Project Specific (Distance & Priority)	
Subcontractor Fees (Markup)	1.15
Expenses / Reprod. / Permits (Markup)	1.15
Other	
Expert Witness	$400

Vendor Form

Attachment I: Vendor Information Form

Company/Firm Name			
WithersRavenel			
Mailing Address			
Local office: 84 Coxe Avenue, Suite 260, Asheville, NC 28801 Headquarters: 115 MacKenan Drive, Cary, NC 27511			
Contact Name		Contact Title	
Alison Alexander		Client Experience Manager	
Phone Number	Fax	Email	Website
828-255-0313	919-467-6008	aalexander@withersravenel.com	www.withersravenel.com
Federal Tax ID Number		Unique Entity Identification Number (SAM.gov)	
56-1740520		SK8ECFTPUEH7	
Required Documentation		Internal Routing	
Completed IRS W-9 form dated within calendar year and signed by authorized personnel.		W9 Received	☐ YES
Minority and Women Owned Business (MWBE) certification, if applicable.		MWBE Certification Received	☐ YES ☐ N/A
		Unique Entity Identification Number confirmed in SAM.gov	☐ YES

THANK YOU!

WithersRavenel

Our People. Your Success.