

RESOLUTION 22-70

A RESOLUTION TO SELECET RAFTELIS FOR UTILITY COST OF SERVICE AND RATE STUDY PROFESSIONAL SERVICES

WHEREAS, the City of Spring Hill's most recent independent review of its utility cost of service was completed in 2019 that recommended adjustments in utility rates; and

WHEREAS, the City of Spring Hill has experienced significant expansion of its utility services including water, sewer, sanitation, stormwater, and corresponding growth demands upon city services resulting from the continued expansion throughout the City; and

WHEREAS, a detailed utility cost of service study will provide justifiable and equitable methodologies for appropriate rates for utility services that are sufficient to fully fund the expense associated with the utility systems, equipment repair and replacement, and necessary future capital investments in the utility to meet future growth and development needs; and

WHEREAS, the City of Spring Hill advertised and received proposal from qualified consultants based upon qualifications, experience, approach, work plan and schedule to perform a utility cost of service and rate study for the City of Spring Hill; and

WHEREAS, the City of Spring Hill utilized a selection committee composed of the Assistant City Administrator of Utilities, Finance Director, Public Works Director, Public Works Administrative Assistant, City Engineer, and Utility Director have reviewed all responses and unanimously recommends Raftelis; and

NOW THEREFORE BE IT RESOLVED, by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee, that Raftelis be selected to provide Utilities Cost of Service and rate study professional services.

Passed and adopted by the Spring Hill Board of Mayor and Aldermen this 18th day of April, 2022.



Jim Hagaman, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney

City of Spring Hill

Utilities Cost of Service Analysis

PROPOSAL / FEBRUARY 24, 2022





February 24, 2022

Ms. April Goad, City Recorder, City of Spring Hill
199 Town Center Parkway, P.O. Box 789
Spring Hill, TN 37174

Subject: Proposal for Utilities Cost of Service Analysis

Dear Ms. Goad:

Raftelis is pleased to submit this proposal to assist the City of Spring Hill (City) with a water, sewer, stormwater, and sanitation utility rate study. We appreciate the opportunity to submit this proposal, which details our project approach to meet the City's objectives as well as our qualifications and experience within the utility industry.

Raftelis was established in 1993 to provide financial, rate, and management consulting services of the highest quality to local governments and the utility industry. Since that time, Raftelis has grown to have the largest public utility financial and management consulting practice in the country, with more than 130 consultants. Our staff has provided rate and/or financial planning assistance to over 1,000 utilities across the United States and have conducted thousands of studies. Our mission has always been focused on assisting our clients in meeting their goals of financial viability.

Raftelis is uniquely qualified to serve as your expert consultant based on our extensive experience successfully completing many similar studies for utilities in Tennessee and across the country. We strongly believe our team would successfully complete the study and provide significant value to the City of Spring Hill for several reasons, including:

- **Breadth of experience** – We have conducted thousands of financial projects for more than 1,000 utilities across the country, many of them similar to this study.
- **Knowledge of your water, sewer, stormwater, and sanitation systems** – Our team has worked with many utilities in Tennessee and the southeast and is knowledgeable of the challenges facing utilities in the area.
- **Depth of resources** – No firm that specializes in financial consulting for the utility industry has the staff resources we have.
- **Drive to succeed** – Our project team will be focused on not only meeting, but exceeding, the City's expectations.

To assist the City with this project, we have assembled a team with extensive experience and a reputation for quality service. I will serve as Project Director of the study, ensuring the City's objectives are fully met. I will work closely with our Project Manager, Mihaela Coopersmith, who will manage the day-to-day aspects of the project ensuring it is within budget and on schedule and who will serve as the City's main point of contact for the study. Thierry Boveri and Henrietta Locklear will serve as technical advisors, providing their expertise in sanitation and stormwater utilities respectively.

Sincerely,

A handwritten signature in black ink that reads "Melissa Lewis".

Vice President

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Diversity and inclusion are an integral part of Raftelis' core values.

We are committed to doing our part to fight prejudice, racism, and discrimination by becoming more informed, disengaging with business partners that do not share this commitment, and encouraging our employees to use their skills to work toward a more just society that has no barriers to opportunity.



Raftelis is registered with the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) as a Municipal Advisor.

Registration as a Municipal Advisor is a requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act. All firms that provide financial forecasts that include assumptions about the size, timing, and terms for possible future debt issues, as well as debt issuance support services for specific proposed bond issues, including bond feasibility studies and coverage forecasts, must be registered with the SEC and MSRB to legally provide financial opinions and advice. Raftelis' registration as a Municipal Advisor means our clients can be confident that Raftelis is fully qualified and capable of providing financial advice related to all aspects of financial planning in compliance with the applicable regulations of the SEC and the MSRB.

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Basic Information

Consultant Name: Raftelis Financial Consultants, Inc. (DBA Raftelis)

Contact Person: Melissa Levin, Vice President

Address: 227 W. Trade Street, Suite 1400, Charlotte, NC 28202

Email: mlevin@raftelis.com

Phone: 704.936.4441

Fax: 828.484.2442

Office Performing the Work: 227 W. Trade Street, Suite 1400, Charlotte, NC 28202

Subconsultant Information: Raftelis will not be using any subconsultants on our team for this engagement. Based on our extensive experience and current availability, we are fully confident in our ability to complete this project with in-house staff to the satisfaction of Spring Hill.

Website: www.raftelis.com

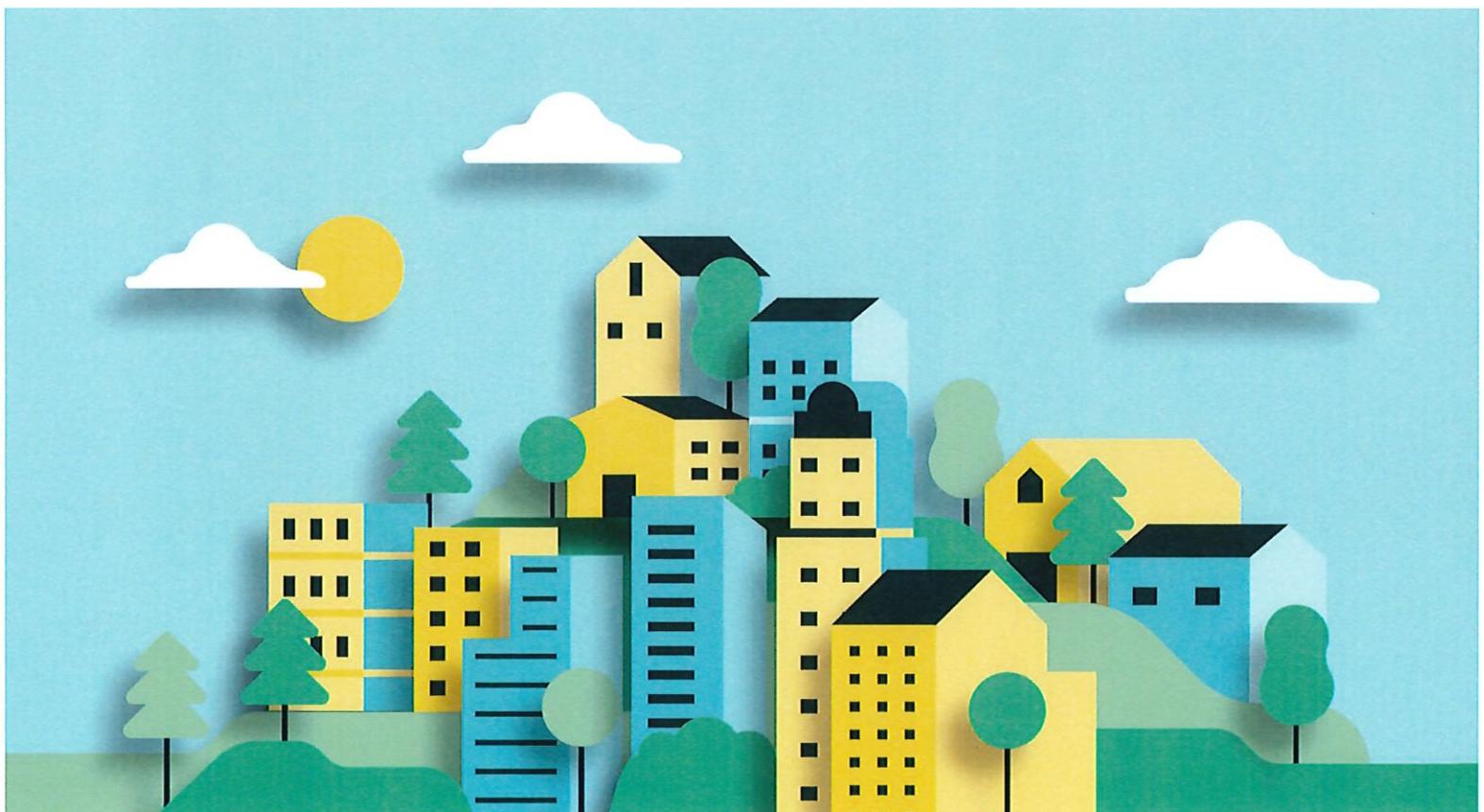
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WHO IS Raftelis

HELPING LOCAL GOVERNMENTS AND UTILITIES THRIVE

Local government and utility leaders partner with Raftelis to transform their organizations by enhancing performance, planning for the future, identifying top talent, improving their financial condition, and telling their story. We've helped more than 600 organizations in the last year alone. We provide trusted advice, and our experts include former municipal and utility leaders with decades of hands-on experience running successful organizations. People who lead local governments and utilities are innovators—constantly seeking ways to provide better service to the communities that rely on them. Raftelis provides management consulting expertise and insights that help bring about the change that our clients seek.

+ VISIT [RAFTELIS.COM](https://www.raftelis.com) TO LEARN MORE



We believe that Raftelis is the *right fit* for this project. We provide several key factors that will benefit Spring Hill and help to make this project a success.



RESOURCES & EXPERTISE: This project will require the resources necessary to effectively staff the project and the skillsets to complete all of the required components. With more than 130 consultants, Raftelis has the largest water-industry financial and management consulting practice in the nation. Our depth of resources will allow us to provide Spring Hill with the technical expertise necessary to meet your objectives. In addition to having many of the industry's leading rate consultants, we also have experts in key related areas, like stakeholder engagement and data analytics, to provide additional insights as needed.



DEFENSIBLE RECOMMENDATIONS: When your elected officials and customers are considering the validity and merit of recommended changes, they want to be confident that they were developed by experts using the latest industry standard methodology. Our senior staff is involved in shaping industry standards by chairing various committees within the American Water Works Association (AWWA) and the Water Environment Federation (WEF). Raftelis' staff members have also co-authored many industry-standard books regarding utility finance and rate setting. Being so actively involved in the industry will allow us to keep Spring Hill informed of emerging trends and issues and to be confident that our recommendations are insightful and founded on sound industry principles. In addition, with Raftelis' registration as a Municipal Advisor, you can be confident that we are fully qualified and capable of providing financial advice related to all aspects of utility financial planning in compliance with federal regulations.



HISTORY OF SIMILAR SUCCESSES: An extensive track record of past similar work will help to avoid potential pitfalls on this project and provide the know-how to bring it across the finish line. Raftelis staff has assisted 1,000+ utilities throughout the U.S. with financial and rate consulting services with wide-ranging needs and objectives. Our extensive experience will allow us to provide innovative and insightful recommendations to Spring Hill and will provide validation for our proposed methodology ensuring that industry best practices are incorporated.



USER-FRIENDLY MODELING: A modeling tool that your staff can use for scenario analysis and financial planning now and into the future will be key for Spring Hill going forward. Raftelis has developed some of the most sophisticated yet user-friendly financial/rate models available in the industry. Our models are tools that allow us to examine different policy options and cost allocations and their financial/customer impacts in real time. Our models are non-proprietary and are developed with the expectation that they will be used by the client as a financial planning tool long after the project is complete.



RATES THAT ARE ADOPTED: For the study to be a success, rates must be successfully approved and implemented. Even the most comprehensive rate study is of little use if the recommendations are not approved and implemented. Raftelis has assisted numerous agencies with getting proposed rates successfully adopted. We develop a message regarding the changes that is politically acceptable and convey that message in an easy-to-understand manner. We focus on effectively communicating with elected officials about the financial consequences and rationale behind recommendations to ensure stakeholder buy-in and successful rate adoption.

29 years
serving the
public sector

How we stack up

OUR TEAM INCLUDES

130+ consultants focused on
finance/management/communication/
technology for the public sector

5 chairs & **20** members of
AWWA and WEF utility finance and
management committees and subcommittees

& the
Immediate Past-President of AWWA

RAFTELIS HAS PROVIDED ASSISTANCE FOR

1,200+ public agencies
and utilities

that serve more than

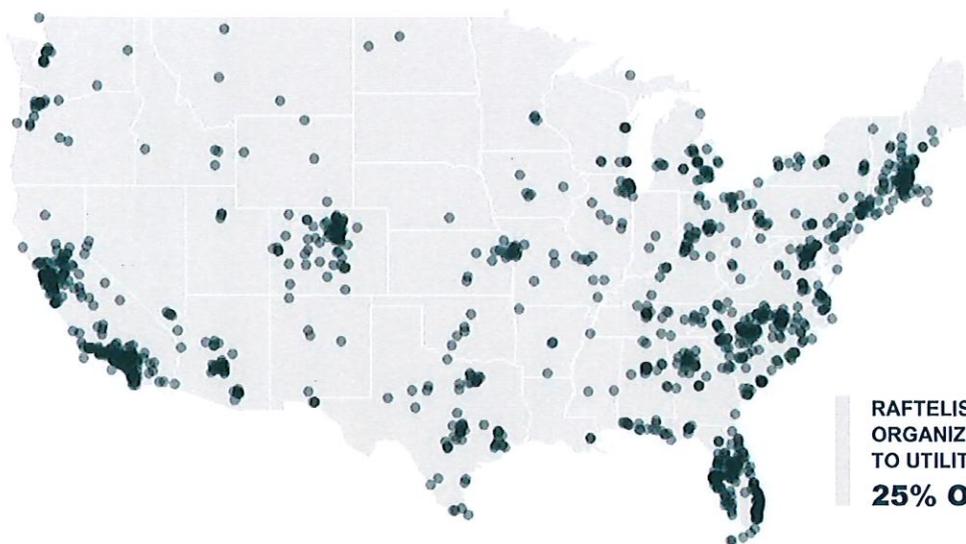
25% of the
U.S. population

including the agencies serving

38 of the nation's
50 largest cities

in the past year alone, we worked on

1,000+ projects for **600+** agencies in **46** states



RAFTELIS HAS PROVIDED FINANCIAL/
ORGANIZATIONAL/TECHNOLOGY ASSISTANCE
TO UTILITIES SERVING MORE THAN
25% OF THE U.S. POPULATION.

Specific Experience

RAFTELIS HAS THE MOST EXPERIENCED PUBLIC UTILITY FINANCIAL AND MANAGEMENT CONSULTING PRACTICE IN THE NATION.

Our staff has assisted more than 1,200 local government agencies and utilities across the U.S., including some of the largest and most complex agencies in the nation. In the past year alone, Raftelis worked on more than 1,200 financial, organizational, and/or technology consulting projects for over 600 agencies in 46 states, the District of Columbia, and Canada. Below, we have provided descriptions of projects that we have worked on that are similar in scope to Spring Hill’s project. We have included references for each of these clients and urge you to contact them to better understand our capabilities and the quality of service that we provide.

City of Raleigh NC

Reference: Stephen Balmer, CPA, Fiscal Manager
P: 919.996.3523 / E: stephen.balmer@raleighnc.gov

Financial and Rate Consulting

Raftelis has been providing financial consulting assistance to the City of Raleigh (City) Public Utilities Department (CORPUD) since 2008. Raftelis has helped CORPUD with regular rate updates by utilizing a comprehensive financial planning and rate study approach. In 2009, the City had a uniform volumetric rate structure for both water and wastewater and was interested in implementing a rate structure that would encourage conservation. Raftelis performed extensive analysis to determine the type of tiered rate structure that could be supported with the existing billing data, yet still accomplish CORPUD’s conservation goals. The new water and sewer rates and rate structure were designed to reflect cost of service and to ensure that each utility was independently self-supporting. As part of this project, Raftelis designed a model for a 10-year forecast period to be used for financial planning, as well as financial feasibility projections

for revenue bond issues. Since the initial engagement, Raftelis has continued to provide annual financial management and rate-setting support to the City. Raftelis has developed rates that are consistent with the City's long-term financial objectives and policy requirements. In addition, Raftelis also provides annual support for developing the City's capital financing plans. As part of this effort, Raftelis performed financial feasibility studies for four revenue bond issues with total proceeds of approximately \$420 million, helping the City maintain its AAA credit rating.

Financial Analysis of Volume Based Solid Waste Collection

Raftelis assisted the City of Raleigh (City) in evaluating volume-based systems (VBS) for collecting residential waste and increasing recycling for the City's Solid Waste Services Department (Department). The project involved developing a financial planning model for the Department to be used for future planning, budgeting, and rate setting. In addition, the model was used to model various VBS options. An integral part of the study was the assumptions regarding customer behaviour for solid waste and recycling under various VBS options. To develop a range of assumptions, the Raftelis team gathered case study information from various communities throughout the country that implemented a VBS option. In addition, Raftelis mapped garbage and recycling data by route with census tract data within the City to further refine its assumptions, and more importantly, to identify any social equity impacts on various customer demographics.

Financial Planning for Stormwater Program

Raftelis and our subcontractor, WK Dickson, are currently working with the City of Raleigh Stormwater Program to evaluate the level of service provided to the community and assist with financial planning for long-term funding of the capital program. Raftelis developed a sophisticated financial model to consider a variety of scenarios including differing future capital needs, operational program enhancements (adjustments to level of service), rate structure alternatives, sensitivity to changes in units of service, and consideration of debt funding some capital needs. Raftelis is also conducting a benchmarking study, interviewing comparable cities about their stormwater programs including, staffing, operations and maintenance spending, stormwater fee credits, and capital improvement programs. As part of the capital funding recommendations, Raftelis is advising Raleigh Stormwater on the issuance of their first revenue bond to help fund the City's growing backlog of capital projects. Raftelis is working with the City to provide recommendations for total bond amount, financial metrics that influence ratings, and necessary rate increases to plan for debt coverage.

Metropolitan Government of Nashville and Davidson County TN

Reference: Amanda Deaton-Moyer, Assistant Director, Business and Finance

P: 615.862.6539 / E: amanda.deaton-moyer@nashville.gov

Water and Wastewater Financial and Rate Consulting

The Metropolitan Government of Nashville and Davidson County – Metro Water Services (MWS) provides water, wastewater, and stormwater services to more than 650,000 people in the Nashville area. MWS has contracted with Raftelis for five five-year financial and rate consulting contracts in 2001, 2006, 2011, 2017 and 2022 with additional contract amendments throughout the last 20 years. During these engagements, Raftelis has provided financial consulting services and expertise and has conducted many studies for MWS.

Most recently, in 2019, Raftelis provided consulting services to complete a full water and sewer cost of service study for MWS. One of the objectives of the study was to determine the cost to serve MWS water and sewer retail customers, segregated between specific customer classes. The analyses evaluated whether the current rate structure, which included separate water and sewer rates and charges for residential and small, medium, and large customer classes, provided for equitable cost recovery from each customer class. The results of the study indicated that a new rate structure would provide for more equitable recovery. Rates were restructured to address new customer classes, conservation efforts and affordability.

Over the last 20 years, Raftelis has provided assistance with the following types of analyses:

- **High-strength Surcharges:** MWS surcharges industries discharging wastewater with higher concentrations of biochemical oxygen demand, total suspended solids and nitrogen (as measured by ammonia) than normal domestic wastewater.
- **Annual Budget Reviews:** Raftelis performs an annual budget review which involves reviewing the adequacy of budgeted revenues to cover projected operating expenses and debt service requirements, particularly with regard to compliance with the rate covenant test defined by their Water and Sewer Revenue Bond Resolution.
- **Financial Feasibility Studies:** Included as part of MWS' 2002, 2010, and 2017 Revenue Bond offerings. The studies were included as part of the official statements to demonstrate the financial sufficiency of the utility system and its ability to support the associated debt service.
- **Additional Cost-of-service, Financial Planning, and Wholesale Studies.**

Raftelis is currently working with MWS to restructure financial policies and targets including debt service coverage targets, reserve fund balances, and percentages of debt versus cash capital projects financing.

City of Memphis TN

Reference: Philip Davis, Deputy Director
P: 901.576.6872 / E: philip.davis@memphistn.gov

Raftelis completed a solid waste rate study and service delivery model examination for the City of Memphis (City) Solid Waste Management Department (Department). The Solid Waste Management Department provides services to more than 200,000 customers within the City for garbage, recycling, and outside trash collections. The Department was experiencing increased costs and was facing a revenue shortage and depletion of reserves as a result. Due to customer demand and the presence of blight throughout the City, the Department explored increasing the level of services provided to customers, particularly for outside trash collection. Raftelis worked with City staff to examine costs and develop rates to increase revenue while also providing options for an increase in service level.

This project included completing a benchmarking study, analyzing the Department's operational costs and revenue, and developing a rate model and supporting documentation for the Department. Development of the rate model included updating the program's baseline costs, developing and refining alternatives to that baseline cost, and developing full cost recovery rates in support of those alternatives.

Currituck County NC

Reference: Eric T. Weatherly, P.E., County Engineer
P: 252.232.6035 / E: eric.weatherly@currituckcountync.gov

Currituck County (County) provides water, sewer and solid waste services to residents along the coast, both to island and mainland customers. The County engaged Raftelis to conduct a water, sewer and solid waste study across all of its water, sewer and solid waste funds. Our team worked with County staff to understand the key revenue requirements for each of the utility funds, project customer demand and growth expectations, and look at the revenue increase recommendations for each fund. Raftelis developed two financial planning and rate models (Models) for the County that calculated individual rates for each service area within water and sewer, and for the solid waste utility. Based on the study, the County implemented rate recommendations across all funds.

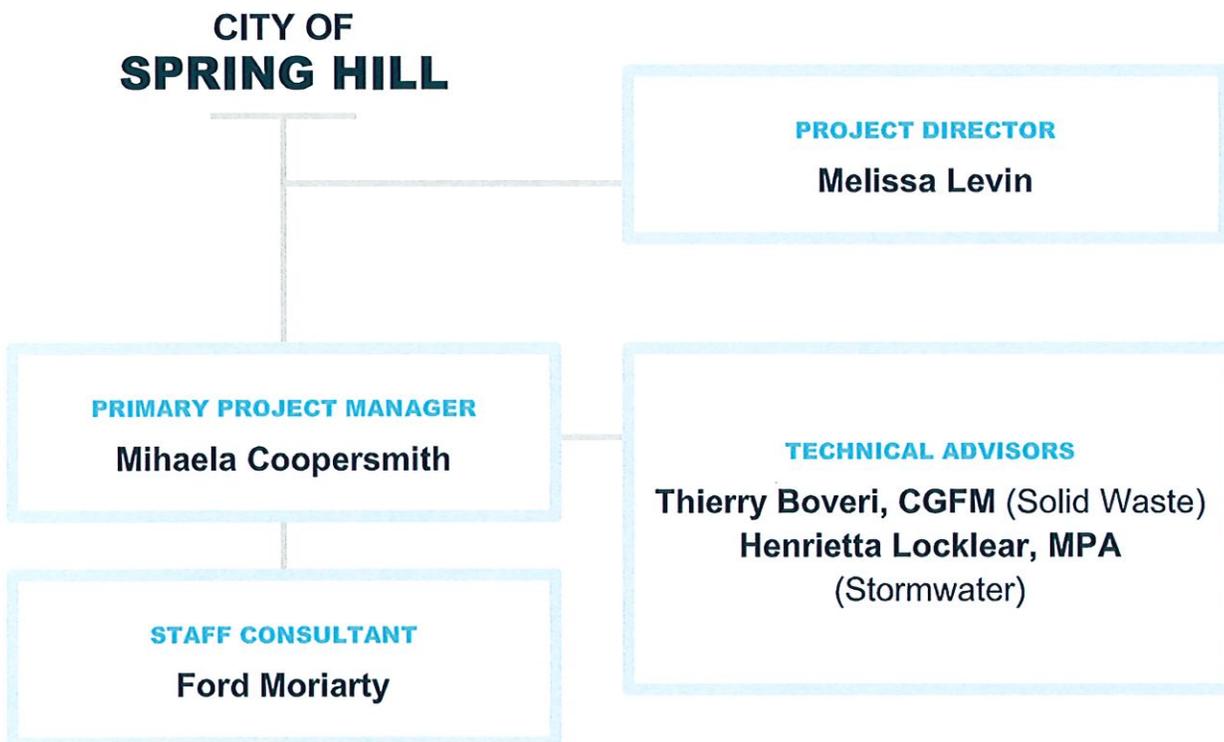
Client	Finance					Organization					Technology					
	Affordability Analysis & Program Development	Capital Improvements Planning/Prioritization	Debt Issuance Support	Economic & Financial Evaluations	Financial Planning & Modeling	Rate, Charge, & Fee Studies	Stormwater Utility Development & Support	Organizational, Governance, & Operations Optimization	Performance Measurement & Benchmarking	Program Planning & Support	Stakeholder Engagement & Communication	Strategic Planning	Billing, Permitting, & Customer Information Audits	Business Process Development	Data Management, Analytics, & Visualization	Software Solutions
MI Saginaw, City of		●			●	●										
MO Metropolitan St. Louis Sewer District		●	●		●	●	●	●								
MS Jackson, City of	●	●			●	●		●							●	
NC Asheville, City of		●	●		●	●		●			●					
NC Charlotte Water	●	●			●	●										
NC Durham, City of		●	●		●	●										
NC Fayetteville, City of		●	●		●	●	●									
NC Raleigh, City of		●	●		●	●	●	●		●						
NH Concord, City of		●			●	●										
NJ Brick Township Municipal Utilities Authority					●	●										
NJ Jersey City Municipal Utilities Authority		●			●	●										
NV Henderson, City of		●			●	●										
NY Erie County Water Authority					●	●										
NY New York City Water Board		●			●	●									●	
OH Akron, City of		●			●	●					●					
OH Franklin County		●			●	●		●								
OH Montgomery County Environmental Services		●			●	●		●	●		●		●	●	●	
OH Northeast Ohio Regional Sewer District	●	●			●	●	●	●						●	●	●
OK Chickasha, City of					●	●	●	●		●				●	●	●
OK Stillwater Utilities Authority					●	●								●	●	●
OR Portland Bureau of Water, City of		●	●		●	●									●	
PA Capital Region Water	●	●	●		●	●	●			●	●					
PA Philadelphia Water Department	●	●	●		●	●		●	●	●				●	●	●
PA Pittsburgh Water and Sewer Authority	●	●	●	●	●	●		●	●	●	●			●	●	●
RI Newport, City of		●	●		●	●										
RI Providence Water Supply Board		●			●	●		●	●							
SC Greenville Water					●	●		●								
SC Mount Pleasant Waterworks		●			●	●					●					
TN Johnson City, City of	●	●	●		●	●										
TN Metro Water Services of Nashville and Davidson County		●	●		●	●	●		●	●						
TX Austin, City of		●	●		●	●			●							
TX Dallas, City of		●			●	●	●			●				●	●	
TX El Paso Water Utilities		●	●		●	●				●				●	●	●
TX North Texas Municipal Water District		●		●				●	●	●	●		●	●	●	
TX Round Rock, City of						●										
TX San Antonio Water System	●	●			●	●				●						
UT Salt Lake City					●	●				●						
VA Newport News Department of Public Utilities, City of		●	●		●	●					●				●	
VA Richmond Department of Public Utilities	●	●			●	●	●			●					●	
VA Suffolk, City of		●	●		●	●										
VT Burlington, City of		●	●		●	●										
WA Tacoma, City of				●		●					●				●	
WI Milwaukee Metropolitan Sewerage District		●			●	●										
WI Milwaukee Water Works		●			●	●										
WV Charleston Sanitary Board						●										
Can Calgary, City of		●			●			●							●	
PR Puerto Rico Aqueduct and Sewer Authority		●	●		●			●	●	●						

Team

WE HAVE DEVELOPED A TEAM OF CONSULTANTS WHO SPECIALIZE IN THE SPECIFIC ELEMENTS THAT WILL BE CRITICAL TO THE SUCCESS OF SPRING HILL'S PROJECT.

Our team includes senior-level professionals to provide experienced project leadership with support from talented consultant staff. This close-knit group has frequently collaborated on similar successful projects, providing Spring Hill with confidence in our capabilities.

Here, we have included an organizational chart showing the structure of our project team. On the following pages, we have included resumes for each of our team members as well as a description of their role on the project.



Melissa Levin

PROJECT DIRECTOR

Vice President



ROLE

Melissa will be responsible for overall project accountability and will be available to provide quality assurance and control, industry perspective, and insights into the project.

PROFILE

Melissa has been with Raftelis since 1999 and has worked on a variety of projects to assist water and wastewater utilities in addressing economic and financial issues. These projects include: cost-of-service and rate structure studies; financial valuation and economic impact studies; litigation support; bond forecast and feasibility studies; privatization assessment and implementation; and financial forecasting and modeling. Melissa authored the chapter entitled, "Valuation of Water and Wastewater Utility Assets," for the Fourth Edition of the industry guidebook, *Water and Wastewater Finance and Pricing: The Changing Landscape*.

KEY PROJECT EXPERIENCE

Metro Water Services of Nashville and Davidson County (TN)

Raftelis engaged in a five-year contract with the Metro Water Services of Nashville and Davidson County (MWS) in March of 2001. In 2006, 2011, 2017 and again in 2022, Raftelis was retained for additional five-year contracts with MWS. Melissa has served as the project manager on various analyses and studies performed for Metro Water Services over the past twenty years including cost-of-service and rate studies where Raftelis determined the cost to serve MWS water retail customers, segregated between specific customer classes, as well as determined the cost to serve wholesale customers. As part of the cost-of-service studies, Raftelis reviewed the methodology used to develop miscellaneous fees such as tap fees, meter inspection fees, and flow test, and provided recommendations for revising fee calculations.

City of Raleigh (NC)

Melissa has served as the project manager for Raftelis' engagement(s) with the City of Raleigh (City) since 2008. The City engaged Raftelis to develop conservation-based rates that would enable the City to meet its capital planning needs while minimizing the impact to customers. A rate model was developed under the direction of Melissa that was able to test the effects of implementing a conservation-based water rate structure and analyze the impacts of a new rate structure on customers of the system. Since that time, Raftelis has performed several studies for the City of Raleigh including a cost-of-service study, capital recovery fee studies, and financial feasibility evaluations for the City's proposed issuance of \$110 million of revenue bonds in 2011, \$75 million in 2013 and \$99 million in 2016. The City was seeking capital market funds for various capital improvements to its water and wastewater system. Raftelis' analysis included a forecast of revenues, expenses, and debt service over a five-year period, to ensure compliance with all bond covenants and debt service coverage requirements, and a comprehensive report.

Specialties

- Utility cost-of-service & rate structure studies
- Development fee studies
- Privatization procurement
- Wholesale rate analysis
- High-strength surcharge studies
- Bond feasibility studies
- Financial valuation & economic impact studies
- Public works organization
- Survey research of water & wastewater utility characteristics & rates

Professional History

- Raftelis: Vice President (2020-present); Senior Manager (2017-2019); Manager (2005-2016); Senior Consultant (1999-2004)
- BASF Corporation: Chemist (1994-1999); Research Lab Leader (1991-1994)

Education

- Masters in Business Administration - Wake Forest University (1998)
- Bachelor of Science in Chemistry - Georgia Institute of Technology (1991)

Professional Memberships

- AWWA: North Carolina Section
- Georgia Association of Water Professionals

Mihaela Coopersmith

PRIMARY PROJECT MANAGER

Manager



ROLE

Mihaela will manage the day-to-day aspects of the project ensuring it is within budget, on schedule, and effectively meets Spring Hill's objectives. She will also lead the consulting staff in conducting analyses and preparing deliverables for the project. Mihaela will serve as Spring Hill's main point of contact for the project.

PROFILE

Mihaela is a Manager with Raftelis. She has over 15 years of experience working with local government utilities. She has been involved in several financial planning projects for different water, sewer, stormwater, gas, and electric utilities throughout the United States, and particularly in the southeast.

KEY PROJECT EXPERIENCE

City of Johnson City (TN)

Mihaela currently assisted the City of Johnson City (City) and its Water and Sewer Department with a comprehensive water and sewer cost-of-service, financial planning and rate study. Mihaela worked on updating the existing water and sewer model for the current fiscal year. The project has outlined a 10-year forecast and rate plan and has provided the City with a tailored financial planning model for use going forward. Mihaela is also working with the City on several other projects, including calculating impact fees, connection fees, and assisting with the annual water audit letter.

Currituck County (NC)

Mihaela was project manager for the water, sewer and solid waste rate study for Currituck County. As part of the study, she worked with the project team to develop a financial projection and rate recommendations for the water, sewer and solid waste utility for the County.

Dare County (NC)

Mihaela was project manager for the water and solid waste rate study for Dare County. Our project team has worked with Dare County on the water rate study and assists the County with annual updates. Recently, the County engaged our project team to complete a similar study for the solid waste fund, to focus on ensuring the current revenues will continue to meet the revenue requirements, and plan for all the necessary reserves, including the liability closure for the landfill.

Birmingham Water Works Board (AL)

Mihaela supports the Birmingham Water Works Board (Board) with multiple financial consulting needs. These include cost-of-service analysis, rate stabilization and equalization analysis, bond feasibility analysis, monthly bill frequency and consumption analyses, demand forecasting, development of debt reduction strategies, and additional projects as needed. Mihaela worked with the Board to update their rate stabilization and equalization (RSE) model, analyzing multiple forecasted revenue requirement and consumption scenarios and develop rate and budget projections.

Specialties

- Financial modeling
- Bond feasibility studies
- Cost-of-service studies
- System development fee studies
- Debt and equity financing
- Financial statements and ratio analysis

Professional History

- Raftelis: Manager (2022-present); Senior Consultant (2020-2021)
- Stantec: Managing Consultant (2017-2020)
- Black & Veatch: Consultant (2012-2017)
- Jacobs: Municipal Financial Consultant (2006-2012)

Education

- International Master of Business Administration, Finance – University of South Carolina (2006)
- Bachelor of Business Administration, Management – Brenau University (2003)

Professional Memberships

- AWWA & South Carolina AWWA

Thierry Boveri CGFM

TECHNICAL ADVISOR – SOLID WASTE
Vice President



ROLE

Thierry will insights for the solid waste component of the project.

PROFILE

Thierry brings a client-focused approach with a strong desire to provide value and client satisfaction. He has performed numerous utility revenue sufficiency and cost-of-service studies for more than 55 local governments throughout the United States, prepared financial feasibility and disclosure reports totaling over \$1.5 billion in debt proceeds issued through the traditional bond market, state revolving loans, and rural development loans; and assisted in a variety of economic and miscellaneous fee studies. He has also been involved in the formulation of financial policies regarding liquidity and financial position related to industry best management practices. He has supported contract negotiations and provided other related utility and management advisory services. He specializes in the performance of solid waste cost of service and financial planning evaluations with the following areas of concentrations:

Solid waste collection cost of service and rate studies;

- Disposal cost of service and rate studies;
- Assistance in formation of Solid Waste Enterprise Fund and development of residential assessments;
- Long-Range Financial Modeling / Master Plans planning support
- Financial/economic evaluations of solid waste system operations;
- Landfill capacity utilization and valuations;
- Review of contractual arrangements (e.g., evaluation of collection hauler bids / contracts);
- Assistance in development of municipal interlocal agreements;
- Assistance in feasibility studies in the issuance of debt (i.e., Bond Feasibility studies) and assistance in development of Bond Resolution / Trust Indenture agreements.

Thierry is an active member of AWWA, WEF, GFOA and SWANA through his participation on several committees, periodic conference presentations on subject matters ranging from effective utility management (EUM) to the Circular Economy and as a principal author to WEF's *Manual of Practice No. 27, Financing and Charges for Wastewater Systems* and the WEF Water Reuse Road Map. Most recently, he presented on the “*Top 5 Keys to Successful Financial Planning for Solid Waste Mangers*” at the 2021 SWANA Wastecon held in Orlando.

RECENT SOLID WASTE PROJECT EXPERIENCE

- Municipality of Anchorage, AK
- City of Chandler, AZ
- Hillsborough County, FL
- Lee County, FL
- City of Long Beach, CA
- City of Oklahoma City, OK
- City of Oxnard, CA
- City of Wichita, KS

Specialties

- Solid waste fees, Water & sewer rate fees
- Parks & recreation fees, Wholesale fees, Impact fees
- Feasibility study
- Utility acquisition/valuations
- Capital planning tools
- Business/strategic plans/negotiations
- Desktop financial asset evaluation/ reinvestment

Professional History

- Raftelis: Vice President (2022-present); Senior Manager (2019-2021); Associate, PRMG (2005-2019)

Education

- Bachelor of Arts in Economics and International Business - Rollins College (2005)

Certifications

- Certified Government Financial Manager, No. 15483

Professional Memberships

- Solid Waste Association of North America: Finance & Planning Committee
- AWWA: Florida Section - Finance & Rates Committee
- WEF: Utility Management Committee
- Government Finance Officers Association

Henrietta Locklear MPA

TECHNICAL ADVISOR – STORMWATER

Vice President & Director of Stormwater Management Consulting



ROLE

Henrietta will provide insights for the stormwater component of the project.

PROFILE

Henrietta has 16 years of experience in local government finance and stormwater management. Henrietta is experienced in governmental financial analysis and planning, particularly in stormwater utility implementation and rate studies. She is also experienced in all aspects of utility implementation, with particular focus on policy analysis and development, and data and billing system implementation. Henrietta has worked with more than 50 local governments on stormwater funding analyses, fee feasibility, or implementation projects and has served as project manager for more than 20 stormwater utility fee implementation projects. She is a Municipal Advisor Representative, having passed the Series 50 exam.

KEY PROJECT EXPERIENCE

Metro Water Services of Nashville & Davidson County (TN)

Henrietta has led several analyses for Metro, including billing data analyses related to a sewer rate structure change and, most recently, stormwater rate structure alternatives analysis in 2020.

City of Wilmington (NC)

As project manager for a rate study of a 10-year old stormwater utility in eastern North Carolina, Henrietta developed a program cost-of-service for the seven-year analysis period as well as a rate model, and performed rate modeling. Issues considered in the cost-of-service projections and rate model included uncertainties in costs related to regulatory compliance and landfill fee. The utility funds an aggressive capital improvements program and all modeling was performed in compliance with the City of Wilmington's conservative cash management principals and with existing revenue bond covenants. Henrietta drafted the cost-of-service report and rate study report.

Granville-Person Cooperative Stormwater Services (NC)

Henrietta served as project manager for implementation of an innovative multi-jurisdictional utility in a group of jurisdictions affected by nutrient-sensitive waters rules. The three municipalities and two counties that make up the collaborative group differ in population, population density, land use/land cover, and current and planned level of service provision. The project thus involved complex policy development around rate structure, organizational structure, and other issues. In addition, Henrietta served as the Stormwater Utility Services Manager for the group of jurisdictions to assist with coordination and regulatory compliance. Here duties included assisting the local governments with compliance for the Falls Watershed nutrient management strategy rules. She has served as the manager from 2013 to 2016. She now manages the staff that serve in that role and provides senior oversight of the project.

Specialties

- Stormwater program planning & development
- Stormwater finance & utility development
- Stormwater rate structure analysis & cost allocation

Professional History

- Raftelis: Vice President (2019-present) and Director of Stormwater Management Consulting (2021-present); Senior Manager (2015-2018); Manager (2013-2014); Senior Consultant (2011-2012)
- AMEC Morrisville, NC: Team Leader/Project manager (2009-2011)
- AMEC Raleigh, NC: Supervisor/Project manager (2008-2009); project manager (2006-2008)
- AMEC Nashville, TN: Public Affairs Coordinator (2004-2006)
- Wake County Government: Planning Technician (2003-2004); Intern (2003)
- School of Government, University of North Carolina at Chapel Hill: Research Assistant (2004)

Education

- Master of Public Administration - University of North Carolina at Chapel Hill (2004); Deil S. Wright Award for Outstanding Capstone Paper
- Bachelor of Arts in Political Science - University of North Carolina at Chapel Hill (2002); Phi Beta Kappa; Order of the Golden Fleece

Certifications

- Series 50 Municipal Advisor Representative

Professional Memberships

- WEF

Ford Moriarty

STAFF CONSULTANT Consultant

ROLE

Ford will work at the direction of Mihaela in conducting analyses and preparing deliverables for the project.

PROFILE

Ford has a background in economics and a strong interest in environmental studies. He began his career with Raftelis after graduating from Sewanee: The University of the South in 2017. His expertise lay in financial planning and rate setting for water and wastewater providers. Since joining with Raftelis, Ford has worked on numerous rate, financial planning, bond feasibility, affordability, solid waste, and impact fee studies. He has also assisted with updating by the American Water Works Association and Association of Metropolitan Water Agencies' rate surveys over the last several years.

KEY PROJECT EXPERIENCE

Metro Water Services of Nashville and Davidson County (TN)

Ford has served as staff consultant on various analyses and studies performed for Metro Water Services of Nashville and Davidson County (MWS) since 2019.

Ford has worked on several financial planning and rate model updates, completing a full rebuild of the rate model in 2020, as well as assisting with building the stormwater financial planning and rate model. Ford has also assisted with a consumption analysis performed to closer predict revenues. In 2021, Ford served as consultant updating the rate model as MWS looked to apply for a WIFIA loan, and assisted with the application.

North Charleston Sewer District (SC)

Ford served as consultant on an engagement with the North Charleston Sewer District (NCSD). Raftelis was engaged by North Charleston Sewer District (NCSD) to perform a rate and cost of service study (Study) for a five-year forecast period beginning in fiscal year (FY) 2021. First Raftelis developed a financial plan that summarized revenue requirements and projected revenues for a five-year planning period while monitoring annual debt service coverage requirements and reserve fund balances. The next step in the study process was conducting a cost of service study in accordance with generally accepted industry practices for cost allocation and ratemaking. This approach is based on the methodologies described in the Water Environment Federation's (WEF) Manual of Practice No. 27, *Financing and Charges for Wastewater Systems*. Raftelis used historical operating and financial data, as well as input from NCSD staff, to develop cost allocations and cost drivers. After the financial plan and cost of service model was developed, NCSD and Raftelis began the process of evaluating rate structure adjustments and changes (as needed) to generate sufficient revenues. Raftelis developed a comprehensive rate and financial planning model which included an alternative rates dashboard to efficiently measure customer impacts related to rate structure modifications. In addition to retail rates and charges, Raftelis also calculated cost-justified system development fees and miscellaneous charges for ancillary services. The results were combined to develop a comprehensive rate and financial plan which was documented in a final report and submitted to NCSD on May 7, 2020.



Specialties

- Financial forecasting & rate modeling
- Affordability studies
- Impact fee studies
- Rate surveys
- Statistical analysis

Professional History

- Raftelis: Consultant (2020-present); Associate Consultant (2017-2019)
- TTG, Inc.: Database Intern (2016)
- StreamSweepers: Intern (2015)

Education

- Bachelor of Arts in Economics, Minors in Business & History - Sewanee: The University of the South (2017)

Project Understanding

The City of Spring Hill (City) is responsible for providing water, sewer, stormwater, and solid waste services to residents and businesses in Spring Hill. The city is located just south of Nashville, TN and has a population of more than 50,000 people. The City has been experiencing significant growth over the last couple of years and wishes to have an updated study. We have developed the following project approach based on our extensive experience in completing similar studies for other utilities while taking into account the considerations identified by the City in its Request for Qualifications (RFQ). Our approach has been tailored to address the specific objectives and concerns identified in the RFQ while maintaining those elements that we believe are essential for a successful project.

Project Approach

Task 1: Project Initiation and Management

We believe that the execution of a productive kick-off meeting (web-based or on-site) is the most effective way to begin a project of this nature. The goals for this meeting include:

- Providing a forum to finalize the work plan and schedule with City staff
- An in-depth understanding of the community values (on the part of the Raftelis team), which should inform rate development
- An in-depth understanding (on the part of the Raftelis team) of the operations of each utility and the receipt and review of the relevant data needed for the study
- Quality and accurate deliverables provided on time and on budget
- Discuss and review the data needs for the project
- Discuss any areas of concerns or issues that may impact financial projections or rate recommendations

Task 1.1: Project Kick-Off

The project team will conduct a kick-off meeting with City staff to confirm the project approach, work plan, schedule, and priorities. A successful kick-off meeting ensures that City staff and the project team agree on the project's goals and expectations. We will develop a kick-off meeting package that contains a meeting agenda and presentation materials to guide the discussion. In addition to reviewing the necessary data for the study, we will conduct interviews with City staff to obtain a thorough understanding of the current financial, operational, regulatory, and political environment for each



OPTIMIZING CAPITAL SPENDING

Revenue requirements are only as good as the operating and capital spending needs and assumptions that go into them. If there is uncertainty in operating or capital spending needs, then revenue requirements, cost of service, and the associated rates being requested may be too high or too low. If your utility is concerned with capital spending needs and would like a third-party review of your needs and/or assumptions, Raftelis' subject matter experts in capital project development and delivery are here to help. Likewise, if your utility is interested in opportunities to take advantage of the new Integrated Planning Law added to the Clean Water Act in 2019, Raftelis can help. Contact us to discuss these value-added services, which can be provided under an optional task or a separate scope of work.

utility. These interviews will provide us with the context necessary to tailor the industry standard approach to utility ratemaking to the challenges facing the City specifically.

Task 1.2: Review and Evaluate Data

We will provide a data request list upon receipt of notice to proceed from the City. Prior to the kick-off meeting, we will thoroughly review the data provided by the City. This review is critical for two reasons: first, it is critical to appropriately use the most accurate data possible. This means clearly communicating the types of data we need from the City, ensuring we received what we asked for, and ensuring we are using it for the appropriate purpose. A miscommunication regarding the data can cause significant deviations between expectations and actual results. Raftelis staff will work closely with the City's point person in each area (e.g., finance, operations, and customer service) to ensure that we all agree on the intended use of what is being provided. Second, we have found that beginning to work with the data provided by our clients in advance makes for a much more productive kick-off meeting as it allows us to begin framing preliminary analyses, formulating any questions, and arriving fully prepared to discuss any issues. Even though we may request additional data or clarification as the study progresses, we will minimize the additional data requests and will strive to balance the time and effort required to provide the data with the relative impact it has on the analysis.

In addition to reviewing the quantitative data needed for the study, our project team will also review any City documents or policies that may be relevant to the study including, but not limited to:

- Administrative allocations
- The City's strategic plan as it relates to the utilities
- The City's existing cash reserve policy

This will help the project team understand the "current state" of the City's management of the utilities and will inform any proposed modifications to these policies that may be recommended.

Task 2: Utility Financial Plans

The financial plans will identify the overall level of revenue necessary to fund operations and maintenance (O&M) expense, routine repair and replacement capital expenditures, and repayment of debt service (current and future) while achieving the City's financial management objectives. Determining the revenue requirement will involve a detailed cash flow forecast, which compares projected baseline revenues to projected expenditures and identifies any adjustments to revenues that may be necessary to fund utility operations in a financially sustainable manner. This task will be completed for each of the four funds: water, wastewater, stormwater, and solid waste.

Typically, financial plans are established for a multi-year forecast period of five to 10 years. The projections we develop for the City will include the balance of the City's current fiscal year, plus the following five to 10 fiscal years. To the extent that the City has identified major capital improvements or incremental increases in O&M that lie outside of the 10-year window, we can extend the plans to include the additional years at no additional cost.

Task 2.1: Projection of Revenue Under Existing Rates

Raftelis will develop revenue projections under existing rates and projected customer usage. This will serve as a baseline for revenues if no adjustments to rate levels or structures are made. In Task 2.4, we will compare these baseline revenue projections to projected expenditures to determine the overall level of revenue necessary (including revenue increases) to fund these projected expenditures and achieve the City's financial performance objectives.

Accurately forecasting revenues is one of the biggest financial planning challenges faced by utilities because there are several factors that can affect usage. The biggest risk involved in such projections is overstating the amount of billed usage, which results in unit rates that are too low to recover the revenue requirement. Using historical customer billing

data, we will evaluate trends in customer accounts and usage per account. In each case, we will review historical climate information as it relates to historical billed usage, focusing, in particular, on the most weather sensitive classes (typically residential, small commercial, and larger commercial accounts whose usage is primarily for irrigation). For the stormwater utility, we will focus on the single family residential, other developed property, undeveloped property, agriculture property, and exempt property classifications and historic development and growth rates for these property classes that may impact total units of service. For the solid waste utility, we will evaluate and analyze historical customer statistics including billing data, recycling statistics, and waste deliveries by customer class, type, and quantity (weight or volume). For water and sewer, we will examine rainfall and temperature. Using this data, we will seek to establish a normalized usage per account, which avoids assigning undue weight to historical periods where unusual weather patterns have resulted in higher or lower than normal usage.

Finally, we will work with City staff to understand any potential changes in the local economy that might impact the City's demand. We will then calculate revenues under existing rates at projected usage levels and compare them to the operating and capital expenses forecast in Task 2.2 to understand the sufficiency of existing revenues to fund projected expenditures.

Task 2.2: Projection of O&M Expense

The City's budgets (for the current year and any available future years) will serve as the starting point for the projection of O&M expense. To project O&M expenses for the forecast period, we typically make three adjustments: budget performance adjustments, incremental expense adjustments, and inflationary adjustments.

- **Budget performance adjustments** will be made based on a detailed review of budgeted O&M expense compared to actual performance. To the extent that the utility tends to outperform in certain areas (i.e., spend less than budgeted), we will discuss potential adjustments so that the projection of baseline O&M (i.e., before any incremental expenses and inflationary adjustments) is a reasonable reflection of what is likely to occur.
- **Incremental expense adjustments** account for expected future changes in O&M expense that exceed inflation. There are two reasons such adjustments are typically made: first, the City anticipates adding new personnel or programs that are not currently captured in the existing budgets; and second, the current budgets include one-time expenses, which are not expected to be incurred in the future. In the first case, an adjustment will be made to include the costs of those additional personnel or programs. In the second case, the one-time expense will either be removed or, if it occurs periodically, normalized in future years. To the extent that the current year budget represents a snapshot plan for the year in question, the incremental expense adjustments ensure future years carry forward the appropriate level of O&M expense.

For stormwater, we will work closely with the City to catalog and understand the current state of the stormwater management program. The Raftelis team will partner with City staff to gather information on the City's operations and maintenance requirements, any other operational and/or capital components of the program, any the existing and anticipated regulatory requirements, as well as the program's current administrative needs. Once understood, the existing program elements will be used to define the existing Level of Service and Extent of Service, which in turn will serve as the foundation for the future planned program will work with City staff to evaluate the existing capital needs and forecast future costs for the level(s) of service.

- **Inflationary adjustments** account for expected future inflation in O&M expense after accounting for budget performance and any incremental expenses. Inflationary adjustments will be based on the best and most relevant data possible. Expenses driven by customer growth and usage will be adjusted based on the projections in Task 2.1. Personnel costs will be adjusted based on planned compensation adjustments from the City. For expenses where less detailed data is available, we will rely on historical trends, discussions with City staff, and our experience working with similar utilities throughout the United States.

Task 2.3: Projection of Routine and Major Capital Expenditures

Task 2.3 involves developing a capital improvement financing plan that identifies the City's capital projects (routine and major) and the mix of cash and debt used to finance them. The cash flow impact of the capital financing plan is incorporated into the cash flow analysis in Task 2.4 as annual cash outlays (i.e., PAYGO or revenue funded capital) and new debt service.

To develop the capital financing plan, we will review the City's capital improvement plan (CIP). If the CIP is in current year dollars, we will include adjustments for future construction cost inflation based on an analysis of trends for the appropriate cost indices (e.g., Engineering News Record). We will also incorporate any projects that the City already has in progress from prior approved CIPs that will be completed in the first few years of the forecast period. Based on these projections, we will develop a projected mix of cash and debt¹ financing to meet the City's financial management objectives (including the recommended cash reserve policy discussed in Task 2.4). For stormwater, we will work with the City to understand the appropriate level of capital investment and the City's tolerance for debt financing for stormwater related projects, either through revenue bonds or general obligation bonds. If desired, we will work with the City to evaluate the stormwater credit program to determine any impacts on the City's capital needs and whether any potential adjustments to the credit program could reduce future capital needs.

The projected capital costs, including PAYGO, and existing and new debt service will be incorporated into the cash flow projections in Task 2.4.

For the solid waste fund, we may perform a desktop evaluation of the fixed asset records to assist in forecasting potential capital needs such as cart, vehicle, equipment, or infrastructure replacement that may not specifically be identified by the City. The identified capital needs will be functionalized and allocated by customer class and service type for purposes of identifying the underlying cost-of-service. This task will also include an analysis of incremental costs to serve new growth to aid in identifying customer and rate impacts as part of later tasks.

Task 2.4: Utility Cash Flow Forecasts and Revenue Adjustments

We will develop an independent cash flow forecast for each utility for the multi-year planning horizon. This will identify the extent to which each utility is truly self-sufficient and, if not, allow the project team to develop a plan for achieving self-sufficiency over time. We will model each system individually and show the self-sufficiency of each system, as well as the overall combined enterprise fund. These cash flow forecasts will compare existing revenues (Task 2.1) to forecast expenditures (Tasks 2.2 and 2.3), identifying any deficiencies in funding under existing revenues. Throughout this task, we will discuss the City's existing financial policies and objectives (formal and informal). This will include a review of the performance of the utility relative to key financial ratios (e.g., days cash, capital structure, and debt service coverage) both in terms of industry benchmarks and peer utilities. Throughout these discussions, we will provide recommendations to ensure the City's financial management strategies align with industry best practices. We will structure rate adjustments to achieve the City's strategic financial management objectives and maintain alignment with best financial management practices regarding debt service coverage ratios, and cash reserve balances (including any recommended changes based on Task 2.5). Where possible, revenue adjustments will be smoothed, mitigating the impact on customers in any given year.

The ultimate outcome of Task 2.4 will be the identification of the overall level of revenue required (including any adjustments to revenue) to fund the provision of safe and reliable utility service in a financially sustainable manner. This

¹ Under the Dodd-Frank Wall Street Reform and Consumer Protection Act, all firms that provide debt issuance support services, including financial feasibility studies, must be registered with the U.S. Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) to legally provide official opinions and related services. Raftelis' registration allows our clients to be confident that Raftelis is fully qualified and capable of providing financial advice related to debt issuances in compliance with the applicable regulations of the SEC and the MSRB.

revenue requirement will be attributed to the City's customer classes based on their use in Task 3. As part of Task 2, the project team will develop individual utility financial plans around achieving the strategic management objectives that the City has for each utility, including appropriate cash reserve policies. Raftelis will focus on recommending the appropriate types and levels of cash reserves for each utility, including those that cover day-to-day operations, emergencies, and capital improvements. The project team will work with City staff to understand the operational risk of each utility in order to tailor our cash reserve policy recommendations.

Task 2.5: Calculate System Development Charges, Meter Charge, Wheeling Charges

System development fees serve as the mechanism by which growth can “pay its own way” and minimize the extent to which existing customers must bear the cost of facilities that will be used to serve new customers. Appropriate capacity fees must comply with the Rational Nexus test established in court cases. The Rational Nexus test requires that: 1) the need for capacity fees is a result of new growth; 2) the amount of the fee does not exceed the reasonable cost to provide capacity to accommodate growth; and, 3) the funds collected must be adequately earmarked for the sufficient benefit of new customers required to pay the fee.

There are three generally approved methodologies for calculating the capacity fees. We will work with City staff to review existing data and City needs, and determine which methodology is best to calculate the capacity fees.

The Buy-In Approach is most appropriate in cases where the existing system assets provide adequate capacity to serve new customers. This approach calculates a fee based upon the proportional cost of each user's share of existing plant capacity. The cost of the facilities is based on fixed assets records and usually includes escalation of the depreciated value of those assets to current dollars. Typically, assets that provide benefit to the general transmission/collection and treatment systems are included, such as water and wastewater treatment plants, storage, major water transmission mains and wastewater interceptors, and pump/lift stations. Also included are raw water pumping and source of supply assets. Assets contributed by or paid for by developers, or assets that were grant funded, are excluded from the calculation since these costs were not “paid” by the existing customers. Also, the outstanding principal on funds borrowed to construct the core assets may be deducted in order to ensure that new customers are not being double charged for these costs.

The Marginal Incremental Approach focuses on the cost of adding additional facilities to serve new customers. It is most appropriate in a situation where existing facilities do not have available capacity to provide service to new customers. In these cases, the new capacity can be tied to an approved capital improvement plan (CIP), or where additional capacity is currently being added and costs can be tied to an on-going construction program.

The Combined Approach focuses on a hybrid approach between the two approaches described above. The combined/hybrid approach is typically used when there is existing capacity available in the system, however, the utility is in the process of planning expansions to the systems to provide additional capacity over a longer-term planning horizon. In utilizing this methodology, it is important that system capacity costs are not double counted when combining costs of the existing system with future costs from the CIP. In addition to the impact fees, we will work with the City closely to calculate updated tap fees for the water and sewer system. Raftelis will develop a model which will provide the functionality to determine the cost basis for the water and sewer impact fees, determine the capacity supported by the cost basis, and ultimately determine a cost per gallon per day for capacity in assets. This cost of capacity per gallon per day will be multiplied by the amount of capacity needed to serve each customer, which becomes the basis for the utility's impact fees.

In addition to the impact fees, Raftelis will meet with City staff to fully understand the process and cost elements associated with marking a physical connection to the water and sewer system. Since these types of services solely benefit the individual customer connecting to the system, our process is to calculate these fees on a full-cost basis. For example, water service connections may include excavation to access the water main in the street, a connection to the water main,

installation of pipe from the connection to the meter box, provision of the water meter, and restoration to the curb, gutter, sidewalk and utility strip. To determine the cost for providing these services, we will use a “bottom-up” approach (or activity-based costing), meaning costs for each service will be developed based on labor, equipment, and material costs to provide each service. We will work closely with the City to understand and obtain information on hourly labor rates by personnel type, material costs, and equipment hourly rates.

Lastly, we will work with the City staff to review the wheeling charges, and recommend adjustments as needed.

Task 3: Cost of Service and Rate Calculation

The project team will utilize our experience combined with industry best practices to assign the revenue requirement determined in Task 2 to the City’s customer classes. The driving principle behind the cost-of-service analysis is cost causation. The cost of designing, constructing, operating, and maintaining the City’s solid waste, stormwater, water, and sewer systems is directly attributable to meeting customer demands. That said, not all customers place the same level of demand on City’s utility systems. By extension, this also means that not all customers cause the City to incur the same level of cost. Customers that place greater demands on each utility system cause the City to incur greater costs and vice versa. A cost-of-service analysis applies the principle of cost causation by aligning utility costs with the customers that cause them to be incurred, based on their demand characteristics.

Task 3.1: Cost of Service and Rate Calculation

Following the development of the financial plan, the project team will follow the basic premise of cost-of-service (COS) allocations set forth by state and local laws, industry standards, and other authoritative bodies. The water and sewer cost-of-service allocation will include ensuring costs are allocated appropriately among each utility and for each customer class. The cost allocation will also identify the costs to be recovered from a fixed charge versus those to be recovered from variable charges, as well as inside and outside customers. The cost allocation will also involve determining the appropriate number of tiers and differentials between tiers.

For stormwater, the team will review the cost allocation methodology used to develop the City’s current rate structure and compare the methodology to industry best practices. We will review each cost as it relates to program components such as water quality and flood control services and identify the main drivers behind each item to ensure a fair basis for cost recovery. Once costs are categorized, they can then be appropriately allocated to the unique customer classes the City has already identified based on their individual costs of service.

For the solid waste utility, we will functionalize the projected costs using industry-accepted practices to assign costs by service levels and types (i.e., residential and commercial collection, collection frequency, collection service type). The allocated costs will serve as the basis in determining the cost of service. We will work with City staff to review all the services identified, including residential and commercial pickup, cleaning city corridors, recycling, yard waste services, and bus stop services among others, understand the services required for each, and allocate costs accordingly.

Upon completion of this task, we will conduct a meeting with City staff to review the entire cost-of-service and rate-setting process and present preliminary rates. Prior to the meeting, the City will be provided with the draft rate model and preliminary rates so that staff will be able to review the methodology and suggest changes. We will discuss all suggested changes and then work with City staff to come up with final rate recommendations.

Finally, based on the rate structures identified in Task 3, we will develop a comparison of the cost of service to rate recovery under the new rates as well as existing rates. This will allow the City to understand any inequities in the existing rate structure as well as how any proposed changes to the rate structure addresses those inequities.

Task 3.2: Calculate Rates in Accordance with Community Values

The project team will design rate recommendations that will recover the revenue requirement, are equitable, and align with the City's community values, and take into account the revenue responsibility indicated in the cost-of-service analysis. All rate recommendations will be, at a minimum, defensible, implementable, and sustainable. *Defensible* rates comport with all applicable laws and court decisions. *Implementable* rates are those that are feasible given the City's existing billing system capabilities. The project team will work with City staff to balance the desire for any rate structure changes with the feasibility of implementing them without significant disruption. *Sustainable* rates are those that will generate sufficient revenues to remain financially sustainable operations, as compared to industry best practices and peer utilities. This will include funding for ongoing O&M as well as the capital improvements necessary to support the ongoing provision of safe and reliable service to the City's customers.

Task 3.3: Assess Impacts on Customer Bills

Raftelis will prepare comparisons of typical customer bills under existing rates, and under proposed rates, for the City's review. This comparison will use billable usage, impervious area, or tonnage representative of each respective customer class. In addition, Raftelis will prepare a typical bill comparison with neighboring communities. The project team will work with City staff to determine the most appropriate and meaningful comparators. One challenge with such comparisons is that there are many factors that influence a utility's ranking in these comparisons. For example, low rates—sometimes seen as a measure of success—may instead be indicative of deferred capital investment. The project team will, where possible, ensure that these comparisons include sufficient context to ensure that they are appropriately interpreted by City stakeholders.

Task 4: Rate Study Report and Strategic Plan

Raftelis will prepare a preliminary report that overviews the process, significant assumptions, conclusions, and recommendations regarding the study. Included in this draft will be the cash reserve recommendations and strategic plan guidelines to ensure self-sufficiency for each fund. Raftelis will conduct a meeting with City staff to review any comments they have regarding the draft report. Raftelis will make revisions to the report based on City staff's comments and will recirculate a draft final report to City staff for additional comment and revision if needed. Once the review of the report is completed and all comments are addressed, a final report will be prepared. Fourteen hard copies of the report and policy and one electronic copy will be delivered to the City.

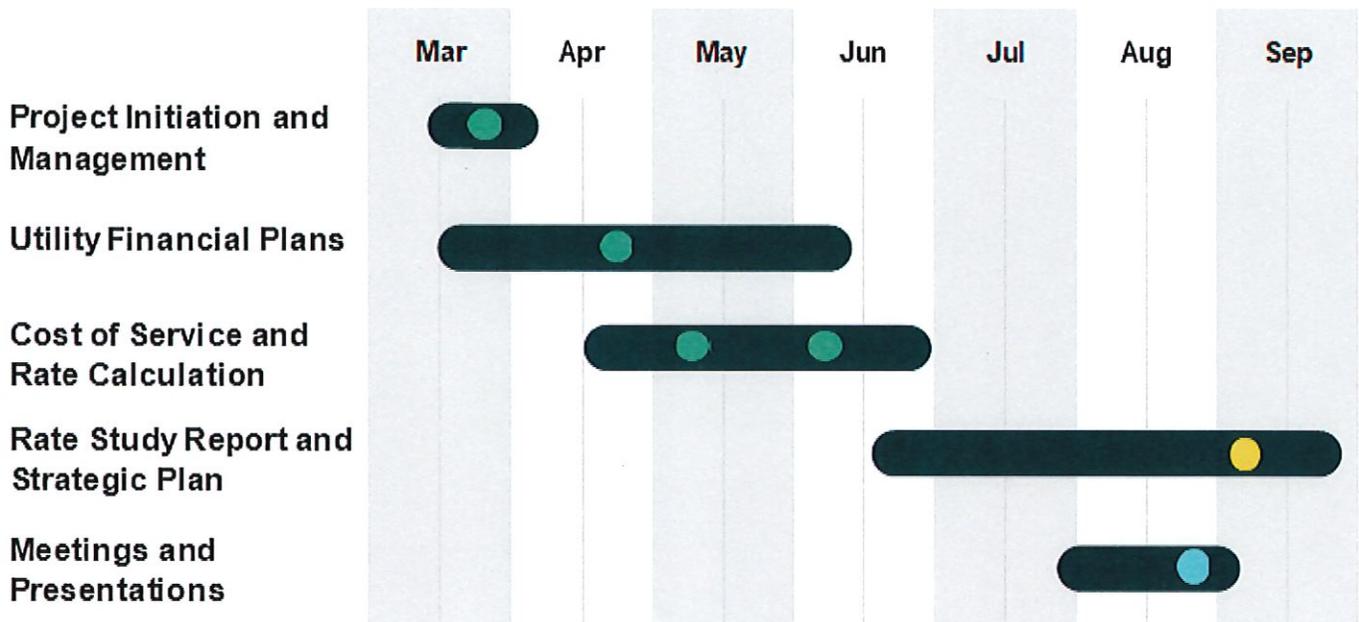
Task 5: Meetings and Presentations

The project team will meet virtually with City staff as needed throughout the engagement. Given the issues posed by the COVID-19 pandemic, we understand that each client's comfort with on-site meetings and presentations is different. Accordingly, we have structured our fee proposal to provide the City the flexibility of having on-site or virtual meetings as needed. Our fee proposal assumes that all meetings will be conducted virtually except the final City Council presentation.. Regardless of the form of the meeting or presentation, Raftelis will provide drafts of any formal presentation materials to City staff in advance for their review and comment.

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Work Plan and Project Schedule

Raftelis will complete the scope of services within the timeframe shown in the schedule below. The proposed schedule assumes a notice-to-proceed by mid-March 2022 and that Raftelis will receive the needed data in a timely manner and be able to schedule meetings as necessary. Project completion is estimated for September/October 2022.



- *In-Person Meetings*
- *Web Meetings*
- *Deliverables*

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References

We have included references for each of these clients and urge you to contact them to better understand our capabilities and the quality of service that we provide. A separate attachment in our submittal package provides examples of a recently completed cost of service and rate study.

City of Raleigh

NORTH CAROLINA

Reference: Stephen Balmer, Fiscal Manager
P: 919.996.3523 / E: stephen.balmer@raleighnc.gov

Metropolitan Government of Nashville and Davidson County

TENNESSEE

Reference: Amanda Deaton-Moyer, Assistant Director, Business and Finance
P: 615.862.6539 / E: amanda.deaton-moyer@nashville.gov

City of Memphis

TENNESSEE

Reference: Philip Davis, Deputy Director
P: 901.576.6872 / E: philip.davis@memphistn.gov

Currituck County

NORTH CAROLINA

Reference: Eric T. Weatherly, P.E., County Engineer
P: 252.232.6035 / E: eric.weatherly@currituckcountync.gov