



227 W. Trade Street
Suite 1400
Charlotte, NC 28202

Phone 704 . 373 . 1199
Fax 704 . 373 . 1113

www.raftelis.com

May 18, 2016

Mr. Michael L. Jones P.E.
City Administrator
2800 King Street
City of Smyrna, GA 30080

Via Email

Dear Mr. Jones:

Raftelis Financial Consultants, Inc. (RFC) is pleased to submit this scope of services to provide financial and rate consulting to the City of Smyrna, Georgia (City). The scope of services provided below is to conduct a water and sewer rate and financial planning study which will also include a high level review of the financial sufficiency of the City's stormwater and sanitation utilities. The study's principle objectives include the following:

- Creating a financial plan for each utility that establishes guidelines and policies to ensure long-term financial stability in the Enterprise Fund;
- Developing water and sewer rates and charges that are equitable and resilient to external pressures;
- Planning for, and helping the City manage, the future operational, capital, and service delivery needs of the utilities.

This letter documents our understanding of the project, our proposed work plan, and our proposed fees.

Project Understanding

The City provides water and sewer services to a population of approximately 54,500. Approximately 94% of water is purchased from the Cobb County Marietta Water Authority (CCMWA) with the remaining balance purchased from the Cobb County Water System (CWS). Water is distributed through 240 miles of water lines and related infrastructure. CCMWA currently charges the City a volumetric rate of \$2.79 per thousand gallons (kgal) based on water purchased. CWS charges the City inclining block volumetric rates based on consumption measured at 7 metering stations. City retail water customers are also charged based on an inclining block rate structure in addition to a base service assessed by meter size. Average water consumption is approximately 4 million gallons per day (MGD). Wastewater is collected through 130 miles of sewer lines and delivered to CWS for treatment. CWS currently charges the City a volumetric rate of \$4.22 per kgal based on purchased water volumes adjusted to reflect an estimate of water not returned to the wastewater system. City retail sewer customers are charged a uniform volume rate of \$7.25 per kgal.

The City also provides stormwater and sanitation services through its Department of Public Works. The stormwater utility provides maintenance and construction upgrades for stormwater infrastructure. The proposed stormwater fee (FY 2017) is \$2.45 per month, per 3,900 square feet of impervious area. Revenue collected from the stormwater fee is accounted for in the Water and Sewer Enterprise Fund (Enterprise Fund). The Residential Sanitation Division (Sanitation Division) provides for the removal of garbage and refuse. It does not appear that the City uses separate accounting for the Sanitation Division, and the primary funding for this service is provided through the General Fund.

The City is experiencing significant growth due in large part to the construction of professional baseball stadium which is attracting new residents and businesses. In addition to accommodating new development, existing water and sewer infrastructure repair and replacement (R&R) needs are significant with portions of the City's system more than 50 years old. Recent capital investments have been funded predominantly with equity (reserves & rate funded capital), which has limited leverage in the Enterprise Fund but reduced cash reserves. The City's water and sewer rates have not been reviewed in a number of years.

Scope of Services

Task 1 – Project Initiation, Management, and Data Collection

At the outset of a comprehensive water and sewer financial planning study, it is critical to assess the current financial status of the utility to ensure key priorities and areas of focus are understood by RFC and City staff. The first phase of the study will include a kick-off workshop which will provide a collaborative environment for City staff to engage with RFC staff and discuss the elements of the study. The workshop will also be a venue for RFC to present initial analyses using the data collected from the City that will provide perspective on the overall financial health of the utility relative to other utilities throughout the industry.

Task 1.1 – Data Collection and Review

The purpose of this task is to gather and review relevant information, documents, and analyses that will be required to conduct the study. A detailed data request list will be prepared and submitted to City staff so all appropriate data can be forwarded to RFC prior to the kick-off workshop. The data required will include, but not be limited to, operating and capital budgets, billing data, financial reports, fixed asset records, Master Bond Resolution (or related document), population forecasts, ordinances, and contractual agreements.

Task 1.2 – Assess the Utilities' Current Financial State

Before developing a roadmap for how the City can meet its objectives, RFC will review the data collected to assess the current financial state of the Enterprise Fund. As part of this process, RFC will review the Enterprise Fund's historical financial performance including user charge and miscellaneous revenues, operating expenses, system leverage, debt service coverage, and liquidity. Various data points will be used to calculate ratios to provide an initial profile of the water, sewer, and stormwater utility's financial condition. RFC will also provide financial benchmarking information from our internal database as well as publically available information.

We will also review historical customer information related to the number of accounts and volumes of water sales. RFC works with many utilities that have been challenged with declining per capita water consumption. Our analysis will help identify how prevalent this trend is for the City, and we will suggest strategies that can mitigate the potential risk associated with declining sales.

Task 1.3 – Kick-off Workshop

RFC believes the execution of a successful kick-off workshop is instrumental in conducting an efficient and useful study. The goals of this meeting include providing a forum to finalize the work plan and schedule of the study; ensuring RFC has a clear understanding of the City's objectives; and providing an opportunity for any City staff to meet and become comfortable with RFC staff. RFC will prepare a kick-off workshop package that contains the meeting agenda, our assessment of the Enterprise Fund's current financial state, a broad list of questions related to the City's water, sewer, stormwater, and solid waste systems, and presentation material to guide the discussion and describe the project approach and deliverables.

As part of this workshop, we will also work with City staff to develop a set of water and sewer pricing objectives. In other studies, some of these objectives have included the following:

- Revenue sufficiency;
- Revenue and rate stability;
- Equity among customer classes;
- Minimizing rate impacts;
- Demand management and conservation;
- Simplicity and ease of implementation; and
- Affordability

It is important to note that several of these pricing objectives can conflict with each other. For example, a rate philosophy focused on objectives designed to improve revenue sufficiency and stability may be in conflict with conservation and low income customer affordability goals and objectives. RFC would discuss these concepts so that City representatives and/or stakeholders can make informed decisions.

Task 2 – Rate Design

Task 2.1 – Perform Bill Frequency Analysis

RFC will examine historical utility billing records to determine customer demands for water and sewer services. For water, RFC will examine water usage patterns as they relate to customer demands, population growth, and usage peaks during different periods of the year. Moreover, using a bill frequency analysis, we will study available historical water consumption of the City's different customer types in order to better understand the consumption patterns for each type of customer. This kind of analysis allows better decision making regarding consumption block cut offs when setting tiered rates and analyzing customer impacts. Based on this historical analysis, and planning data, RFC will develop projections of water consumption and estimated wastewater flows. RFC will also review the City's billing practices and make any recommendations for

improvements, including identifying information that should be tracked to enhance financial planning.

Task 2.2 – Develop Conceptual Design

Once the City’s pricing objectives have been prioritized, RFC will then work with City staff to develop conceptual designs, or approaches, for alternative rate and fee structures. The process will consider the current user charge structures and the financial impact on the various rate payers based on alternative structures. RFC will recommend options for rate design and customer classifications for water and sewer services. The rate structure alternatives will consider items such as City policies, pricing objectives, and practical limitations such as the billing system and customer impacts.

Through recent projects for other clients, we have had the opportunity to develop and evaluate many different basic and innovative rate structures including: uniform rates; increasing block rates; individual use rates; drought surcharge rates, water budget rates; and seasonal rates, among others. Any recommended rate structure alternatives will be consistent with industry standards and methodologies of the American Water Works Association (AWWA) and Water Environment Federation (WEF). The rate structures will be designed to be equitable and easy to administer and to be understood by the rate payers. The advantages and disadvantages of each rate structure evaluated will be reviewed with City staff in order to determine the most favorable rate structures to evaluate in the Rate Model, which is described in Task 3.

Task 3 – Develop Financial Plan

With a firm understanding of the utility’s overall financial condition, pricing objectives, and policy goals, RFC will develop a financial plan that becomes the roadmap for financial decision making in the future.

Task 3.1 – Forecast Billable Units of Service and Revenues Under Existing Rates

One of the initial steps in the financial planning process is to forecast revenue over the planning period at the existing rates. To do this, RFC will incorporate the results of the customer demand analysis to develop a forecast that projects billable units of service while accounting for any anticipated decline in per capita consumption and an estimate for the impact of price elasticity on customer demand.

The analysis will seek to develop an understanding of baseline indoor (non-discretionary) water use for single and multi-family customers, and understanding of the differences in water consumption characteristics of non-residential customers, and various metrics such as per capita per day, average day, maximum day, summer season, and winter consumption for each customer type. Since stormwater revenues are accounted for in the Enterprise Fund, we will also review stormwater account and impervious area data to produce a consolidated forecast of revenue under existing rates. In addition to revenue generated from user charges, we will also forecast revenues from various ancillary fees, miscellaneous revenue, and interest income for the planning period.

Task 3.2 – Project Revenue Requirements

Offsetting the revenues will be a projection of the total revenue requirements (or expenditures) over the planning period. The revenue requirements will include all operating and maintenance (O&M) costs, capital costs, reserve requirements, and bond covenants. The revenue requirements will also recognize the City's current and future capital program and provide an estimate for future debt service requirements and revenue financed capital.

RFC will review the City's actual O&M costs for the past five years to identify trends that should be recognized in the forecast of future costs. We will review the current budget and discuss with staff any known and measurable changes to current cost levels, such as wages and benefits, utility costs and other significant cost categories. Also, we will discuss with City staff any contractual commitments for future wage and benefit increases and any expected changes in operations and staff that will impact future O&M costs, including the effects of the capital program. In order to project costs over the planning period, we will develop escalators based on historical trends and anticipated impacts of inflation on the various categories of costs. These escalation factors will be reviewed with City staff to obtain their perspectives and input.

A critical component when projecting revenue requirements will be working with the City's Capital Improvement Plan (CIP). RFC understands the City has a significant CIP, and we will work with City staff to ensure the projection of revenue requirements incorporates all of the regulatory, expansion of service, and repair and replacement (R&R) needs of the system. Based on an initial review of the City's 2015 Comprehensive Annual Finance Report (CAFR), it appears the Water and Sewer Enterprise Fund has very limited long-term debt outstanding. Depending on the City's level of future capital needs and policies on capital financing, it may be appropriate to consider the issuance of future debt in combination with revenue generated from rates to deliver the capital program while managing the impacts on customers.

As a Registered Municipal Advisor, RFV will be available to work with the City to develop a capital financing plan for the study period. This is now a requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act. As noted above, the financing sources for the CIP may include a combination of debt and current revenues, and will be influenced by the financial policies developed during Task 1. We will review the proposed CIP financing plan with staff and make appropriate recommendations reflecting their perspectives and comments. As part of this task, RFC will incorporate debt service on existing debt and calculate projected debt service payments related to future borrowings to finance the capital program. RFC is very familiar with typical public finance debt instruments as well as financing tools and programs available in the State of Georgia, such as the Georgia Environmental Finance Authority (GEFA). RFC will also review the City's Master Bond Resolution (or related document) securing any outstanding revenue bonds (if they exist), to ensure we have a comprehensive understanding of the flow of funds and all debt covenants that should be monitored.

Finally, the forecast of revenue requirements will consider all of the City's financial and debt policies. Policies and metrics, both existing and those developed in Task 1, will be identified, tracked, and incorporated into the forecast of revenue requirements. RFC will meet with City staff to review all components of the forecast of revenue requirements. We will solicit staff input to ensure the forecast is consistent with the expressed financial objectives.

Task 3.3 – Develop Financial Plan and Model

Combing the results from the previous work elements will result in a financial plan over both a 5-year and 10-year forecast periods. Projections beyond 10 years can also be included for planning purposes. The financial plan will summarize the projected revenues and revenue requirements and incorporate annual debt service coverage requirements, compliance with applicable additional bonds coverage tests, and reserve fund balances. The financial plan will project revenue shortfalls under the City's existing rates and provide an indication of the additional revenues necessary to support the projected revenue requirements and financial health of the utilities.

RFC understands the importance of developing a user-friendly, flexible Rate and Financial Planning Model (Model) the City can use on a year to year basis for financial planning and developing rates. Our models are non-proprietary and are custom-built on a client-by-client basis, ensuring that the model fits the specific needs and objectives of the client. Some of the features of the RFC Model include:

- Adherence to industry standard and rate-setting practices and procedures;
- Ability to model multiple rate structures simultaneously;
- Incorporation of financial planning over an appropriate planning horizon with ability to change certain standard assumptions by year;
- Ability to calculate rates for multiple years and easily update rates annually;
- Ability to flag errors and problematic results such as failure to meet debt coverage, reserves below target levels, etc.;
- Ability to perform sensitivity analyses and see the changes in real time on built-in screen graphics. This feature will be particularly useful in evaluating variable lost water scenarios;
- Compatibility with City's software systems, and
- Ease of input, report printing, update, understanding, administration, and defensibility and compliance.

In order to best design the Model, RFC proposes to begin the modeling process by developing models specifications. The specification process will identify precise functionality, techniques, and structures, and will serve as the blueprint for design of the Model. RFC will work closely with City staff to determine the appropriate specifications to ensure that all parties agree on the format and functionality of the Model. During the Model specification sub-task, City staff and RFC will agree upon such things as the proposed utility rate structure(s) to be modeled, the degree of model automation, and the structure of user interfaces. All RFC Models are developed in Microsoft Excel.

Task 3.4 – Review Financial Sufficiency of Solid Waste Utility

RFC will perform a high level review of the financial sufficiency of the City's solid waste utility. Since it appears solid waste services, which are provided through the Sanitation Division, are included in the General Fund budget, RFC will need to work with City staff to understand the Department's current and future operating capital needs and available sources of funding. The

Model will then be augmented to incorporate a projection of revenue requirements for the solid waste utility to assess the financial sufficiency of the Sanitation Department over both short and longer-term planning periods.

Task 4 – Cost of Service Analysis

Building on the results of Task 2, RFC will review existing utility customer classifications for appropriateness, review and analyze historical usage and demand characteristics of different customer classes, and develop an appropriate approach for developing cost allocations.

Task 4.1 – Determine Cost Allocation Approach

RFC will incorporate the review and analysis of the historical consumption patterns of water and wastewater customers to determine whether additional customer classifications or cost of service allocations are warranted. Depending on the results of Task 2, RFC will determine the most appropriate methodology for allocating costs, which may include detailed cost allocations to functional components of the utilities' systems, categories of service, and customer classes based on usage characteristics. However, it may be determined the costs need only be allocated to fixed and variable components for the purposes of calculating fixed and variable charges. In any case, RFC will develop an approach to allocating costs that is consistent with American Water Works Association (AWWA) and Water Environment Federation (WEF) standards.

Task 5 – Rate and Fee Recommendations and Customer Impact Analysis

Task 5.1 – Calculate Utility Rates

Following the cost of service allocations, RFC will calculate rates and charges for water and sewer based on the rate structure alternatives identified during the Conceptual Design. We will work within industry guidelines to meet the strategic financial objectives of the City. Rates under the proposed rate structure alternatives will be calculated for each year in the forecast period and adjusted, where possible, to provide for a smooth forecast of rate adjustments. For example, changes in the timing of capital expenditures and the use of reserve funds to mitigate short-term rate impacts are two ways that rate smoothing could be addressed. The objective is to minimize the magnitude of customer impacts based on annual rate smoothing while still achieving long-term revenue objectives.

Task 5.2 – Perform Customer Rate Impact Analysis

RFC will also determine the potential financial impact on customers that may result from the recommended rate structures. The Model will include a series of tables and figures that show projected rate and fee impacts on different types of customers at various levels of usage or demand for services. These types of schedules provide an invaluable tool for evaluating whether the rate recommendations are impacting targeted customer groups and/or levels of usage to ensure equitable recovery of costs from different customer types, and the other pricing objectives are being addressed effectively.

Task 5.3 – Rates and Fees Comparison with Regional and Competing Municipalities

RFC will compare the City's current and recommended rates and fees with other comparable communities providing water and sewer services. The survey can be incorporated in the study report and presentations developed in Task 6. RFC will also consider the City's Enterprise Fund balances and other financial performance measures and evaluate the utility finances with other similar agencies and various industry benchmarks. RFC has conducted regional and national surveys with the AWWA, providing us extensive access to and knowledge of key utility benchmarks.

Task 6 – Reports and Presentations

The Draft Report will describe the study process along with preliminary rate recommendations. A section on rate design assumptions and methodologies used to develop the rate calculations will be included. An executive summary highlighting the major issues, decisions, and recommendations will be provided to aid in sharing the results with non-technical stakeholders. The Draft Report will be submitted to City staff for review and comment. Comments and revisions will be incorporated before finalizing the report. The final Model will also be delivered to the City and training provided for its continued use by City staff.

RFC will be able to assist the City as necessary in presenting the results of the study and supporting study recommendations. We will work with the City to determine the most appropriate level of stakeholder interaction. For the purpose of this scope of services, we have included one presentation.

Project Fees

We propose to complete the scope of work as detailed in this engagement letter for fees and expenses not-to-exceed \$75,800. Estimated fees assume approximately 350 professional hours. Attachment A provides a work plan, detailing the anticipated level of effort required to complete each of the analyses and their associated tasks. The project fees are based on our standard hourly billing rates for professional and administrative personnel assigned to the project, plus direct expenses. Expenses would relate to travel costs, computers, postage, supplies, etc.

It is our practice to bill monthly for fees and expenses as they are incurred during a project. The attached work plan provides an estimate of the time required to complete each task, and we reserve the right to shift hours among tasks and personnel as circumstances may change during the project. Total fees and expenses will be limited to the not-to-exceed amount unless specific approval for an adjustment in scope is approved by the City of Smyrna.

Should you have any questions or concerns, please do not hesitate to contact me at (704) 373-1199. We are delighted to have this opportunity to provide assistance to the City of Smyrna.

Very truly yours,
RAFTELIS FINANCIAL CONSULTANTS, INC.



Bart Kreps
Senior Manager

City of Smyrna, GA
Utility Rate Study & Evaluation
Proposed Level of Effort

Task 1 - Project Initiation, Management, and Data Collection

- 1 Data Collection and Review
- 2 Assess the Utilities' Current Financial State
- 3 Kick Off Workshop

Task 2 - Rate Design

- 1 Perform Bill Frequency
- 2 Develop Conceptual Design

Task 3 - Develop Financial Plan

- 1 Develop Revenue Projections
- 2 Project Revenue Requirements
- 3 Develop Financial Plan and Model
- 4 Review Financial Sufficiency of Solid Waste

Task 4 - Cost of Service Analysis

- 1 Determine Cost Allocation Approach

Task 5 - Rate and Fee Recommendations and Customer Impacts

- 1 Calculate Utility Rates
- 2 Perform Customer Rate Impact Analysis
- 3 Rates and Fees Comparison

Task 6 - Reports and Presentations

Team Members				
BK	WK	ML	Total (Hrs)	Total (\$)
12	16	2	30	\$ 6,220
8	16		24	\$ 4,720
50	100	4	154	\$ 30,500
12	28	2	42	\$ 8,260
16	32	2	50	\$ 9,940
20	28	2	50	\$ 10,260
118	220	12	350	

Project Total

Professional Rate	\$ 250	\$ 170	\$ 250	
Professional Fees	\$ 29,500	\$ 37,400	\$ 3,000	\$ 69,900
Estimated Expenses*				\$ 5,900
				\$ 75,800

BK: Bart Kreps, Project Manager
WK: Will Kerr, Lead Consultant
ML: Melissa Levin, Technical Advisor

*Includes technology/communications charge to recover the cost of telephone, fax, computer, postage/overnight delivery, conference calls, electronic/computer webinars, photocopies, etc.

DRAFT