CITY OF CHARLOTTESVILLE

"A World Class City"

PROPOSED UTILITY RATE REPORT FY2014

June 3, 2013

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Department of Finance

Department of Public Works

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SECTION I:
EXECUTIVE SUMMARY

A. *Background*

This report presents the proposed utility rates for water, wastewater, and gas service for the fiscal year 2014. The rates are based on the operating budget for the utilities, debt service costs, and the wholesale rates from Rivanna Water and Sewer Authority, and BP, our gas supplier.

All three utilities are designed to operate on a break-even basis over time, making no profit, although weather conditions and other factors can produce an economic gain or loss in any year.

The City's water and wastewater service supplier, Rivanna Water & Sewer Authority (RWSA) has developed a five-year Capital Improvement Plan (CIP) to ensure that they can provide quality service, satisfy regulatory requirements and meet the water supply and wastewater treatment requirements for their customers, the City of Charlottesville (City) and Albemarle County Service Authority (ACSA). These improvements for water and wastewater total approximately $155,000,000 over fiscal years 2013 – 2017. (For a detailed description of RWSA's Capital Improvement Plan, Fiscal Years 2013-2107, Adopted February 26th 2013, please see

http://www.rivanna.org/documents/agendas/agenda_feb26_2013_doc7d.pdf. RWSA's capital plan for urban water (the component of the CIP that relates to City expenditures) totals $59.5M with $7.3M previously spent on water projects. The urban wastewater totals $54.8M with $23.3M previously spent on wastewater projects.

During this Capital Improvement Plan revision period, several significant projects were identified by staff and/or the Board of Directors, and therefore included in this revision process. These include:

- Urban Water Wholesale Master Metering ($3,000,000)
- Moores Creek WWTP Digester Heating and Mixing Upgrade ($4.1M existing / $6.123M approved)
- The Urban Water Disinfection By-products Optimization ($6.9M existing / $17.1M proposed)

The single largest future expenditure, as reflected in the planning documents, is the Community Water Supply Plan. Currently, the adopted 5-year CIP has $35.5M allocated for this project, with $5.8M previously expended on this project.

The proposed plan also includes the addition of several smaller projects. Likewise there are requested increases in funding for projects where the scope of work has expanded or the project has progressed to include expenditures in FY2017. These include:

- Pantops Tank Roof Rafter Repairs ($110,000)
- Administration Building Repairs ($250,000)
- Route 29 Pump Station Site Acquisition ($1.7M existing / $1.9M proposed)

Finally, this plan has captured several proposed projects that have been identified by the Department Managers though recent needs assessments. These include:

- South Fork Water Treatment Plant Improvements ($4,140,000)
- North Fork Water Treatment Plant Improvements ($800,000)
- Moores Creek WWTP Odor Control Phase 2 ($2,000,000)

The proposed plan also includes a project where the requested funding has decreased due to the scope of work being less than originally anticipated, as follows:

- Mitigation Plan Implementation ($3.32M existing / $2.82M proposed)

In conclusion, the proposed Capital Improvement Program for FY 2013-2017 reflects projects that serve to meet the needs to the Charlottesville/Albemarle community. Many of these projects are included in the plan due to regulatory mandates, Board direction or policy decisions. There are several newly proposed projects that address infrastructure reliability and treatment efficiency at our water plants and wastewater facilities.

The City's water and sewer lines are also aging and are in need of major repairs. Engineering studies have been developed for upgrades, repairs and replacements to the City's water and wastewater system. Federal and state regulatory requirements are placing greater restraints, especially on our sewer system. During rain events substantial rainwater enters the sewer system through cracks in pipes and manholes. This problem is common in older systems, and causes manholes to surcharge and overflow and the sewer treatment plant to be over capacity. The new regulations will require the City to rehabilitate and install larger sewers to address these problems. Correcting these problems will require large increases in costs, which have been included in the City's Water and Wastewater Capital Improvements Plan.

B. *Water*

For fiscal year 2014, the proposed composite rate for 1,000 cubic feet of water is $44.09. The average single-family, using 454 CF of water per month will pay $24.02 based on this rate. The increase in the water rate is approximately 1.22% due to the following:

- The wholesale rate charged by RWSA accounts for 44.9% of the operating cost of the water utility. RWSA composite rate charged to the City declined from FY2013 to $17.510/mcf. The composite rate is comprised of an operating and a debt service component. The operating component is the portion needed to cover the City's share of RWSA's operating costs for supplying wholesale water to the region. The operating portion of the rate is increasing by 10.76%, from $9.874 to $10.936/mcf. The costs for operations have increased due to changes in general expenditures and personnel costs. General expenses have increased $263,200 and personnel costs have increased $150,300. Personnel costs reflect a 2.5% merit pool and a 6% increase in health care costs. In addition, FICA and life insurance have risen as well. (For a detailed description of the RWSA proposed budget please see Rivanna Water and Sewer Authority Fiscal Year 2013-2014 Budget Proposal February 28th, 2013. http://www.rivanna.org/documents/agendas/agenda_feb26_2013_doc7e.pdf).

- The debt component of RWSA's rate is declining from $8.400 to $6.575/mcf, or -21.73% due to the completion of several major projects. The resulting combined rate charged by RWSA for wholesale water is $18.274/mcf, unchanged from last fiscal year.

- The portion of RWSA's operating costs that the City pays is based on its relative share of RWSA's total flow. It should be noted that the City's share of water usage has fallen from 72% in 1983 to its current level. The City will be paying 53% of these costs, down from 54% last fiscal year. In addition, the total amount of water RWSA forecasts that it will supply to its urban customers (Charlottesville and Albemarle) remains unchanged from the FY2013 level, 458,826 mcf. However, as indicated by the decrease in the City's relative share, our consumption is projected to decline by -1.85% compared to an increase of 2.17% for ACSA.

- Rate stabilization is comprised of a revenue stream that has been amassed for the purpose of leveling rates over time. This is intended to mitigate any dramatic fluctuations that might occur in a given year, for example, by large increases in debt service expenses for capital projects, either by RWSA or by the City. Currently the primary components that comprise the

facility fee for water are cash from sale of property, unintended profits due to higher than projected sales, and facility fee revenue. This revenue stream is explained in detail in Section III-E. $647,000 is to be used in FY2014 to lower water rates to customers.

- Excluding the cost of water purchased from RWSA, the City's expenditures are projected to decrease $34,098. Reductions are attributable to operations and maintenance, payments in lieu of taxes, and small declines the Utility Billing and Meter Reading budgets. These are partially offset by increases in indirect costs, computer system support and a small increase in the water conservation budget.

- Debt service funding, used to pay for capital projects that have been financed, is expected to increase $50,000.

- Several assumptions need to be made to complete the rate calculation. Water volume is assumed to decrease 12,270 mcf. This is based on actual flows from prior years and is primarily driven by a reduction in water use, attributed to increased conservation efforts by all City water customers (the average single-family usage fell from 472 cf/month to 454 cf/month) but also by a larger than originally anticipated reduction by the University of Virginia (UVa). UVa is our single largest water customer, comprising approximately 30% of total water use. Also, the loss factor, the percentage of water that we purchase from RWSA but do not charge our customers has risen one percentage point. The loss factor is associated with meter errors, unmetered water use, and leak adjustments and has increased to 13%.

The actual increase each customer will see on their monthly utility bill is dependent on monthly water usage. For example:

- The average monthly wastewater bill for the single family household, who uses 454 cf of water, will rise from $23.73 to $24.02, an increase of $0.29 or 1.22%.

- The monthly bill for the retail customer who uses 1,000 cf per month will rise from $47.45 to $48.09, an increase of $0.64 or 1.35%.

The City adopted a seasonal rate structure in 2004 to encourage conservation by charging higher prices in summer months, when water supply is likely to be lower.

- The monthly bill for the average single-family residential customer, who uses 454 cf per month, will increase from $21.44 to $21.68, rising $0.24 or 1.12% in winter months. The same average

household will pay from $26.98 in summer months, up from $26.67 last year, an increase of $0.31 or 1.16% in summer months.

The water conservation program also continues to assist City customers by permanently reducing their water consumption. The toilet rebate program remains at $40,000. Also, the City of Charlottesville continues to provide a $30 rebated for up to two rain barrels to qualifying City water customers.

Specific rate proposals for next year:

1. Increase in the consumption rate per mcf of all water used from $43.45 to $44.09.
2. Continue seasonal rates as outlined on page 14.
3. Maintain the City's connection (facility) fees for new customers adopted in FY2013 to more accurately reflect actual costs of adding to additional water and wastewater capacity. These fees represent the cost of the impact on the City's and RWSA's water facilities for providing new service and remain below those charged for new customers in Albemarle County.

The current monthly customer charge of $4.00 will remain unchanged. In summary, the monthly bill for 454 cf of water consumption will increase by $0.31 (1.16%) in the summer months and by $0.24 (1.12%) in the winter months.

Section VII, added in FY2009, remains in this report. This section presents the projected rates for future fiscal years 2014 through 2017 and presents the impact on the future rates of the additional revenue generated by the facility fees, general economic conditions, and the City's and RWSA's capital improvement plans. (For a complete list of capital projects for the Water Utility, please see Section III I.)

C. *Wastewater*

For fiscal year 2014, the proposed rate for 1,000 cf of wastewater is $54.00. This increase in the wastewater rate is approximately 7.5% due to the following:

- The wastewater treatment cost charged by RWSA accounts for 56.5% of the City's expenditures for the wastewater utility. RWSA has increased its composite rate charged to the City by 0.79% from $26.667 to $26.876/mcf. The composite rate is comprised of an operating component and a debt service component. The operating component is the portion needed to cover the City's share of RWSA's operating costs for wastewater treatment to the region. The operating portion of the rate is decreasing by 2.2%, from $13.980 to $13.666/mcf. (For a detailed description of the RWSA proposed budget please see Rivanna Water and Sewer

Authority Fiscal Year 2014-2015 Budget Proposal February 28, 2013 http://www.rivanna.org/documents/agendas/agenda_feb26_2013_doc7e.pdf.) The total amount of wastewater that RWSA forecasts will be treated remains unchanged from FY2013; however the City's share of the total has fallen by one percentage point. The City will pay 54% of the total urban wastewater treatment costs borne by RWSA, its share relative to Albemarle County (46%). The City's relative share continues to decline compared to the prior fiscal years and is based on historical flow figures. The debt component of the rate charged is increasing from $12.686 to $13.210/mcf, or 4.1%. The resulting combined rate charged by RWSA for wholesale water is $26.876/mcf, a $0.209/mcf increase, or 0.79%.

- $850,000 of the City's wastewater rate stabilization fund is to be used to offset a portion of the projected rate increase. Rate stabilization revenue will be utilized in future years' rate calculations to minimize any dramatic rate increases in a given year. (For a more thorough description of rate stabilization funds, see Section III C.)

- The Wastewater Utility budget, net of treatment costs, remains virtually unchanged from FY2013, decreasing by $8,295. Wastewater Operations and Maintenance costs are increasing $39,815, primarily the result of benefit costs associated with retirement contributions. Payment in lieu of taxes, the utility's payment to the general fund, is rising by elimination of the High Strength Sewer Surcharge, the pass-through payment to RWSA to treat Pepsi's waste from their bottling plant. The EPA altered the requirement and the payment no longer needs to be made.

- Debt service is increasing by $100,000, the result of increased capital projects resulting from an increase in bond funding of capital projects for the wastewater utility.

- The volume of wastewater treated in a given year can fluctuate dramatically, primarily due to rainwater flowing into the sewer lines that lead to the RWSA treatment plant. This is true for the City of Charlottesville's Wastewater Utility. Although the City's portion of wastewater treatment is declining from 55% in FY2013 to 54% in FY2014, the total amount of wastewater expected to be treated by RWSA is increasing 4.68%. The amount of wastewater billed to customers is expected to increase 6,680 mcf.

The actual percent increase for each customer is dependent on monthly usage. For example:

- The average monthly wastewater bill for the single family household, who uses 454 cf of water, will rise from $26.81 to $28.52, an increase of $1.71 or 6.38%.

- The monthly bill for the retail customer who uses 1,000 cf per month will rise from $54.25 to $58.00, an increase of $3.75 or 6.91%.

Specific rate proposals for next year are:

1. Increase the consumption rate per mcf from $50.25 to $54.00.

The current monthly customer charge of $4.00 will remain unchanged. Overall, the average single family City customer's combined water and sewer bill, based on 454 cf, will increase by $2.02 (3.78%) in the summer months and by $1.95 (4.04%) in the winter.

See Section VII for projected rates for future fiscal years 2015 through 2018. This section presents the impact of the additional revenue generated by the facility fees, general economic conditions, and the City's and RWSA's capital improvement plans on future rates. (For a complete list of capital projects for the Wastewater Utility, please see Section IV H.)

D. *Gas*

For fiscal year 2014, the rate decrease will average 3.45% to the firm customers and 5.14% to the interruptible customers based on March 1, 2013 rates. Firm customers include all types of customers (residential, commercial and industrial) for whom gas supplies are guaranteed to be available all year long without interruption. The actual percent decrease is dependent upon usage.

- For a representative residential monthly consumption of 4,460 cubic feet, the monthly bill will decrease from $58.48 to $56.46, a decrease of 3.45%.
- For a representative industrial interruptible monthly consumption of 1,000,000 cubic feet, the monthly bill will increase from $7,891.38 to $7,485.40, a decrease of 5.14%.
- The current monthly charge of $10.00 for firm customers and $60.00 for interruptible customers will remain unchanged.

The 3.45% overall decrease to firm customers is due to the following:

- The total non-gas operating budget decreased by $85,305 from FY2013 to FY2014, or 0.58%, resulting in a $0.54 decrease due to lower operating expenses.

- The sales volume increased in FY2014 by 314,971 Dth causing a 1.64% decrease in the gas rate producing a $1.53 decline.
- The contract price decreased by 0.70% causing a $0.65 decrease.
- A one-time refund from Columbia gas of $274,544 resulted in a $0.91 or 0.97% decrease for a rate of $89.69.

Natural gas wholesale prices were volatile during FY2013, reaching a low of $2.036 before rising to a high of $3.471. These wholesale cost fluctuations were passed on to the City's customers through the PGA rate adjustment. Gas continues to be popular and competitive with other heating sources. The City gas system continues to add new customers, both in the City and the County, at a steady rate.

The FY2014 budget includes continued funding for the Gas Assistance Program and for the customer heating conservation incentive program for the purchase of programmable thermostats. In addition, there is continued funding for technology, environmental administration and normal operating cost increases.

The adopted rates are based on current March 2013 wholesale rates. Gas prices have been lower but rose this fall with the March 2013 commodity prices $0.981/Dth higher than the March 2012 prices on which the base rates for the year are established. The rate changes reflect the decreases in contract prices, the increased sales volume, changes in the operating budget and a one- time refund.

The specific rate proposals for Fiscal Year 2014 are to adopt the rate schedules presented in Exhibit VI-C.

SECTION II:
IMPROVING INFRASTRUCTURE

There are multiple infrastructure projects, at various stages of completion, impacting one or more of the City's utilities and designed to provide better customer service, improved reliability and greater environmental stewardship. A brief description of each is provided here. Many of these projects are ongoing with stable funding that began in prior years.

A. Inflow and Infiltration Needs

Charlottesville's sanitary sewer system extends to most areas of the City and consists of about 160 miles of pipe and 5,400 manholes. Because the system was constructed over a period of many decades, the main lines consist of several different types of materials - terracotta (clay), PVC and concrete. The pipes vary in age from about 15 to 100 years old. The sizes of the pipes range from six inches to thirty inches. Manholes are either brick or pre-cast concrete. While the City operates and maintains the sanitary system within its boundaries, both the Albemarle County and City systems empty into the RWSA interceptors that carry the combined wastewater to RWSA's treatment plant at Moore's Creek.

The City has a number of challenges within the sewer system – sewer lines that are undersized, points in the system that restrict flow, and sewer lines that run near and under structures. Also, most of the existing system is the original pipe installed prior to 1970.

The goal of reducing inflow and infiltration ("I&I") to the sewer system continues. The terms "inflow" and "infiltration" apply to excess water that enters the sanitary sewer system. Inflow is surface water

that flows into the system from various sources, such as defects in manhole covers and improperly connected roof drains. Infiltration is ground water that seeps into the system through pipe cracks, broken joints and deteriorated manholes. Excess flows from rainfall often cause surplus water to enter the system. These events can result in overflows from manholes, which must be corrected for health and environmental reasons. The excess water also taxes the capacity of the treatment plant, which could lead to major investments to expand the treatment facilities. It also indicates that there are broken pipes and open joints where wastewater can get out of the system. The I&I rehabilitation program identifies needed repairs to restore the integrity of the system and these are necessary in order to reduce the amount of inflow & infiltration to the sewer system.

Sanitary Sewer Pipe rehabilitation programs in the past 10 years have resulted in 31 miles completed. In September of 2009, the City awarded a multi-million dollar contract for sewer repair and rehabilitation. The work encompasses the rehabilitation of sewer manholes and sewer lines, as well as completion of particularly difficult or time consuming sewer repairs. In addition, crews have been performing CCTV (closed circuit televising) and smoke testing throughout the City system, and any deficient pipes or structures are immediately added to the list for rehabilitation under the same contract. Initial work has centered on the Schenk's Branch area, which was identified as a high priority in previous studies, but has since continued into other basins in the City.

Other high priority projects have continued to progress:

- Stadium Road Sewer line upgrade has been completed
- The Valley Road/Rockcreek Road sewer line upgrade is scheduled for completion by the end of 2013
- The 14th/15th Street Sewer upgrade is in the beginning of the engineering design phase

To date, $31,699,195 has been spent on City wastewater projects as reported in the March, 2013, City Construction Report.

B. Water Distribution System Improvements

The City's water distribution system contains over 1,000 fire hydrants, 3,300 water valves and 180 miles of water main line ranging in size from 2" to 24" in diameter. About 21 miles of that pipe is three inches or less in diameter. Most of these mains are galvanized steel, several decades old, and serving multiple customers. Not only are they severely corroded, but the pressure is very low. These undersized lines are being replaced with adequately sized water lines. Three years previously, a Water Prioritization Study was completed, which identified 48 projects totaling $7 million to be completed. Work has been completed on 21 of those high priority projects, totaling more than 22,000 linear feet of pipe replaced. This work is continuing in 2013.

The water line replacement priorities continue to grow as more potential projects are identified and evaluated. These projects aim to improve fire protection, reduce main breaks, and improve overall water quality. The next phase of projects includes 6th Street, Franklin Street, 6 ½ Street, and 2nd Street NE.

Most of the City's service lines (the lines from the mains to the water meters) are galvanized steel and were installed when the residences were constructed. They are now severely corroded with a tendency to fail at the worst times – nights, weekends, and inclement weather. The City is continuing its service

line replacement program as part of the upgrading and replacement of water mains. Over 14,000 linear feet of water service lines have been replaced.

Renovations to the Lambeth Field Pump Station were completed in 2012. These improvements have resulted in greater pump efficiency and system redundancy, better monitoring capability and a more secure site.

An annual flushing program for the City's water distribution system is being developed in coordination with ACSA and RWSA. The periodic flushing of pipes, which removes the mineral deposits that contribute to corrosion and discolored water, is in keeping with industry practices for maintaining water quality. In order to minimize water waste possible in this program, City staff will determine minimum flushing needs and develop a system for crews to track water quantities used.

SECTION III:
WATER UTILITY

A. *Water Rate Structure*

The water rates recommended and proposed for FY2014 continue to include seasonal water rates as approved by City Council in February, 2004. The rates incorporate a 30% spread between the lower winter rates (October through April) and the higher summer rates (May through September), when water is more likely to be in scarce supply. The rates recommended in this report for FY2014 have been prepared on this same basis.

B. *Fiscal Year 2014 Budget and Rate Impact*

As shown in Exhibit III-A, the total water expenditures of approximately $9.363 million has decreased by -4%, or -$391,523. Significant portions of the budget are described below:

- A decrease in the cost of water purchased from RWSA. This decrease from last year's budget is the result of a net change of -4.18% in wholesale rates. Although the operating cost increased by 10.76%, this was offset by a reduction in the debt service cost of -21.73%. The rate being charged by RWSA is $17.51 per MCF.
- A decrease in the cost of operations and maintenance of $34,237 (1.5%). Although personnel costs are rising, primarily due to retirement costs, the department has been able to realize other savings in the areas.
- The Water Conservation Budget remains virtually unchanged in FY2014. For a list of the programs supported by Water Conservation please see pages 20 and 21 of this report.
- Payment in lieu of taxes (PILOT) is declining by -$9,481 (1.8%). The City's PILOT is based on 6% of water revenues from the prior year.
- The Water Utility's contribution to support services provided by City government is increasing $9,891 or 5.9%, resulting in an increase in indirect costs to the utility.
- The Utility Billing Office (UBO) and Meter Reading budget's (formerly called assessment and collection) have been broken out into two line items this year. The combined decline in both budgets is $42,625. One-sixth of each budget is assigned to the Water Utility. The remainder is assigned to Wastewater and Gas Utility budgets.
- An increase of approximately $2,248 for the Computer support systems (formerly called Integrated Information Systems), the Utilities transfer to support the City's computer systems.
- An increase of $50,000 (3.3%) for debt service funding to support capital projects associated with the Water Utility.

Based on the approved budget, the City's water rate per thousand cubic feet (mcf) will increase from $43.45 to $44.09, an increase of 1.49% on a composite basis. Under Council's direction for seasonal rates, the actual rates will be as follows:

- Months of May – September - $50.62/mcf
- Months of October – April - $38.94/mcf

This represents a 30% spread in summer vs. winter rates. These rates are designed to be "revenue neutral" over the course of a year. A seasonal rate structure is used by many localities as a way to promote water conservation during the peak usage months.

The rate for the UVa's central system, under a separate contract with the City, will decrease from $22.37 to $21.79 per mcf (-0.40%). UVa's rate is determined by a 1981 contract. The primary factor resulting in the rate reduction is the lower wholesale rate from RWSA.

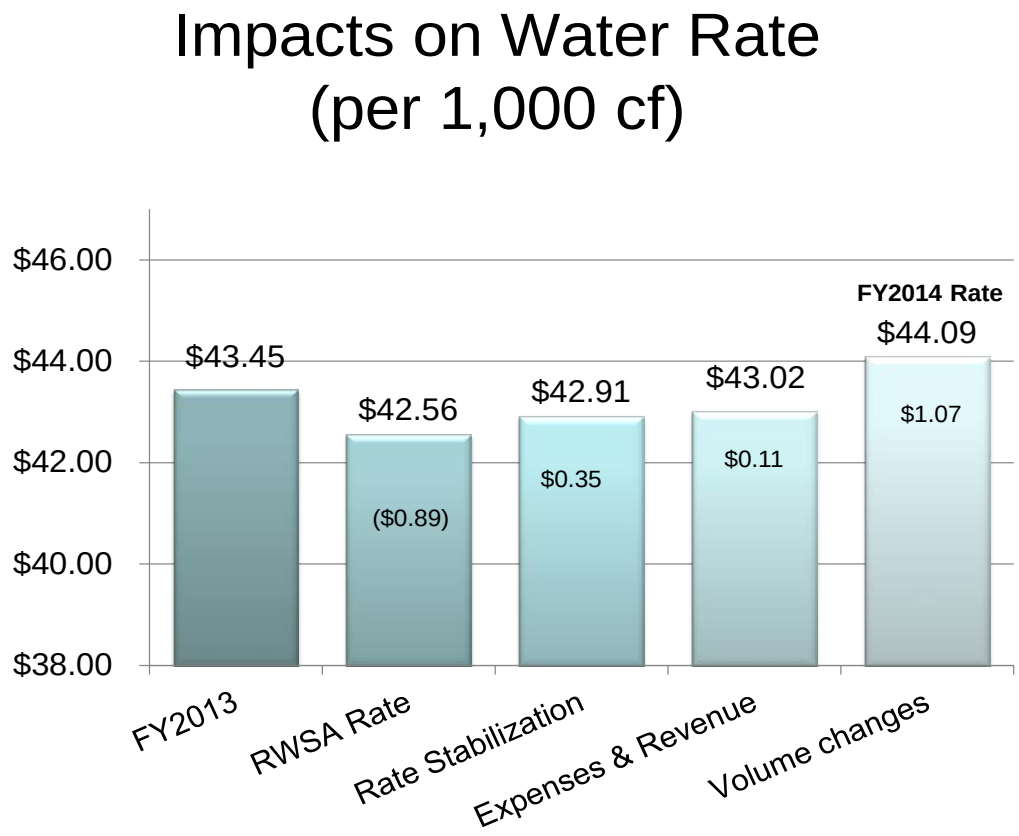
C. Rate Stabilization Funds

The purpose of rate stabilization revenue is to mitigate year-to-year fluctuations in utility rates to customers. In general, the rate stabilization revenues should not be used to artificially suppress rates (i.e., to sustain rates at levels below the costs of service), but to enable smooth or level annual increases to rates despite fluctuating changes in expenses (i.e. primarily caused by increases in debt service) or variations in annual revenue received. The City of Charlottesville's fund is comprised primarily of three sources of revenue; cash over and above the working capital requirement, funds received when water sales exceeds budgeted expectations in any given year, and facility fee revenue.

The funds will again be used to stabilize rates. The amount to be used will be $647,000 in FY2014. Since the use of funds is not a great as in FY2013 the result will be an increase in rate of $0.35/mcf higher than in FY2013. However, using the $647,000 produces a rate $4.38/mcf lower than that if the funds were not utilized. The remaining balance of rate stabilization fund plus the additional revenue to be collected in future years will be used to offset a portion of increases to our customers' water utility rates. In future years it is projected that debt service, both for the City and RWSA, will increase and put upward pressure on rates. (For a projection of future rates, see Section VII A.)

D. Factors Influencing Water Rates

There are several factors that influence the change in rate needed for the Water Utility to operate on a self-supporting basis. Changes in wholesale water rates from RWSA, City water operating expenses, revenue received from fees and other charges, changes in wholesale volumes purchased or retail volumes sold, or any funds carried over from prior fiscal years to offset current rates can each potentially impact the water rate calculation. In the current recommendation, the factors mentioned impact the magnitude of the rate change in some way. Declining wholesale rates from our supplier, resulting from reduced debt service costs, reduce the City's rate by $0.89. The reduction in the use of rate stabilization funds from FY2013 cause rates to increase by $0.35. A slight increase operating expenses and a small decline in revenue cause an $0.11 increase. And finally, declining volume, particularly which was purchased by our major customer, UVa, cause water rates to our customers to increase $1.07. The following chart illustrates the effects each component has on the rate that is proposed for FY2014.

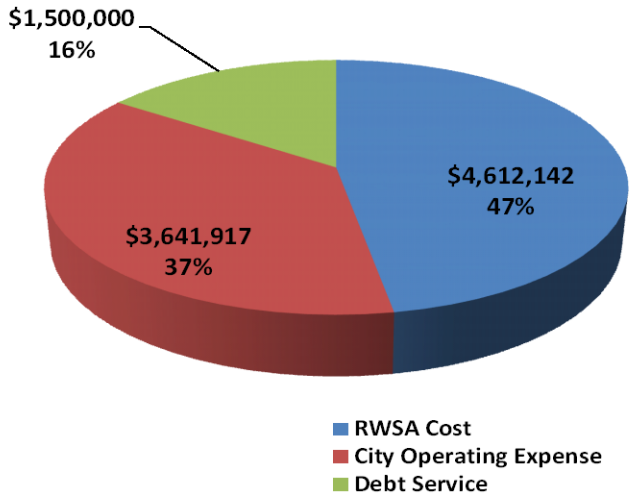


Changes in Water Rate Expenses – Biennial Comparison

Water Expenses

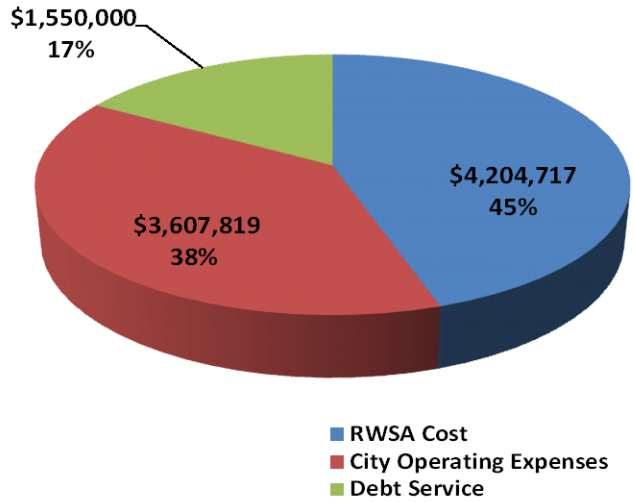
FY2013

$9,754,059



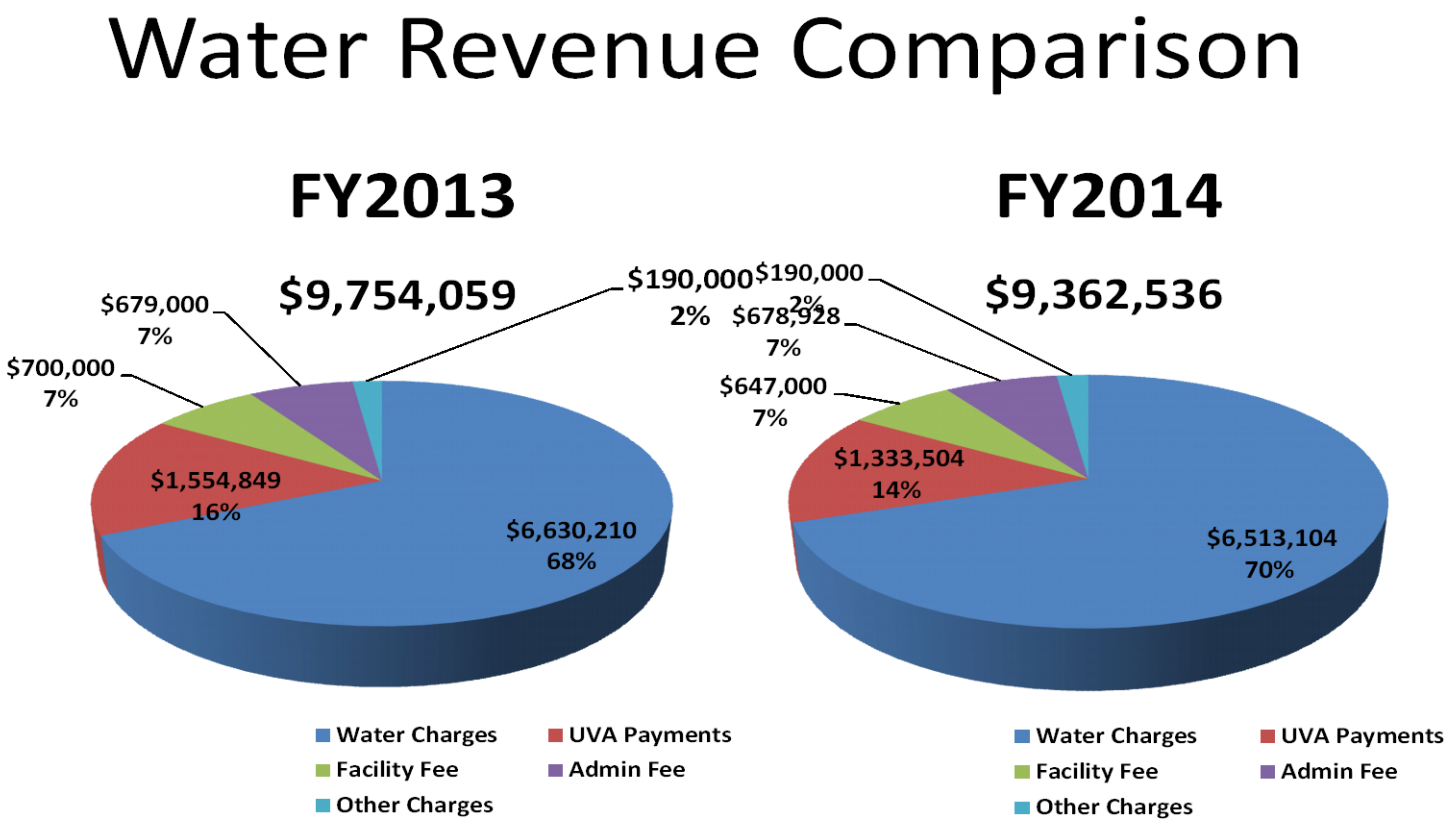
FY2014

$9,362,536



The City's water wholesale rate from RWSA slightly decreased from the FY2013 rate of $18.274/mcf to the FY2014 rate of $17.51/mcf and as volume used by the City is anticipated to decrease, the cost of water purchased is decreasing by $407,425 (-8.8%). Operating expenses are forecast to decrease only slightly although costs associated with personnel and health care costs are increasing. These costs are largely being offset by reductions in other areas. The City's debt service is increasing slightly to support capital projects associated with improvement to the City's water delivery system.

Changes in Water Rate Revenue – Biennial Comparison



A decrease of $391,53 or (-4.0%) in water revenue is projected from FY2013 to FY2014. There are four major factors affecting this decrease, which include water charges collected by all City customers, UVa payments, facility fee revenue used to stabilize rates, and administrative fees. Water charges are projected to decrease $117,106 (-1.7%). Although rates are increasing the decline is water sales due to conservation efforts that will offset this. There is a slight decrease in projected revenue from UVa attributed to an anticipated decline in volume. The facility fee revenue is projected to decrease $53,000. While administrative fees have decreased slightly.

E. Facility Fee Recommendations

In FY2009, the City Council adopted an increase in the connection fee for new water and sewer connections for all water meter sizes. City staff recommended replacing the $800 connection fee established in FY2008 with the new Water Facility Fees and Sewer Facility Fees. A facility fee or "system development charge" is levied to support existing or planned future capital costs necessary to meet the service needs of the City of Charlottesville's customers. City Council has again approved that the fee be increased to more accurately reflect the cost of adding additional water and wastewater lines. The increase in the charge now more closely represents the actual cost to provide new service as well as the cost of the impact of new connections on the City's and RWSA's water and sewer facilities and their ability to supply the increased demand. It is also designed to recover the capital costs that the City and RWSA will bear in the near future to maintain, rehabilitate, and expand their facilities in order to continue to meet future supply demands for existing and new customers.

Strong support exists for facility fees as they are intended to provide funding to finance all or part of capital improvements required to meet system demands necessary to serve new customers. Existing users, through service charges and other charges, have developed a valuable public capital facility, and the facility charge to new users is designed to recognize the "current cost" or "anticipated future cost" of providing the capacity necessary to serve additional users. Existing customers benefit greatly from these "system development" charges because much of the cost of system expansion is shifted to the new development. Therefore, system expansion is supported through the service charge rather than being built into the rate structure, which would impact existing customers as well.

The fee setting methodology typically involves new users paying a proportionate share of the total "system value" or a share of the total available capacity in the system. The charge is computed by establishing a fixed asset value under a historical or replacement cost basis, and allocating this cost over the total number of units of service. An equivalent residential connection (ERC) is a means of relating large-use customers to a base customer, typically a single-family unit served by a 5/8" water meter. An ERC is expressed as a ratio of the base customer unit. It should be recognized that large-use customers use a higher share of system capacity and should equitably pay a higher proportionate share of facility fees.

The facility fees allow for new customers to "buy in" to the current system and contribute toward the City's adopted capital improvements plan for needed rehabilitation. The facility fee also provides support for the City's share of RWSA's facilities.

City Council adopted a fee increase in FY2013, the first since FY2009, to more accurately reflect the cost of connections to the water system. No increase in the City's fees is proposed this year. The structure along with a comparison of ACSA's proposed fees is provided below. Factors influencing the facility fee are the City's use of RWSA's capacity, its capital projects as well as RWSA's capital projects relating to urban water provision.

COMPARISON OF FY2014 WATER FACILITY FEES WITH THE ALBEMARLE COUNTY SERVICE AUTHORITY

Meter Size	ERC	City Water Facilities Fee	ACSA Water Facilities Fee	Albemarle's Fee is higher by
5/8"	1	$3,100	$6,560	$3,460
1"	2.5	$7,750	$16,400	$8,650
1.5"	5	$15,500	$32,800	$17,300
2"	8	$24,800	$52,480	$27,680
3"	15	$46,500	$98,400	$51,900
4"	25	$77,500	$164,000	$86,500
6"	50	$155,000	$328,000	$173,000

Note: Charlottesville provides an $800 connection fee for projects certified for low income housing.

F. Water Conservation Program

The City's water conservation program has multiple initiatives in place. Some highlights of our program include the distribution of over 12,000 free indoor water conservation kits, the development and dissemination of Water-Wise landscaping information, and a toilet rebate program, which has replaced over 4,500 high consumption toilets over the past ten years. Water-Wise Landscaping was advanced with a three year print ad campaign running in three local publications, as well as posters and literature delivered to local nurseries. The City's water conservation message has also been conveyed via the internet, print, radio and TV as well as in person at numerous community events. We have

continued as an active participant in the Alliance for Water Efficiency (AWE) and the Environmental Protection Agency's (EPA) WaterSense program.

Rehabilitating and replacing water distribution mains and service lines is an important component in water conservation. Aging pipes are often a primary cause of lost water in a system. Since fiscal year 2007, the City has been replacing aged water lines and service lines, which reduces leaks and supports the infrastructure improvements outlined in Section II-A. Service lines are the small diameter pipes connecting customer meters to distribution mains. The City has also performed multiple, system wide leak detection surveys, most recently in October of 2012. In the utility industry, it is expected that the average water system will find one leak per every mile of water lines. The City appears to be below average in leaks; with 180 miles of water lines, only 21 leaks were found in 2012, compared with 36 the year before and 35 in 2010. Leak surveys were completed in seven of the past nine years and will continue annually. The next survey is scheduled for summer 2013, and will again cover 100% of the distribution system.

The American Water Works Association (AWWA) recommends that all utilities perform a basic water audit every year. This audit is intended to capture lost revenue and reduce water lost to leaks and misuse. Initial audits in FY2011 and FY2012 have resulted in improved recordkeeping of water use by City contractors and more detailed procedures for annual fire hydrant testing.

The table below outlines current water conservation efforts implemented by the City.

Current Water Conservation Activities - City of Charlottesville	
Program Initiatives	**Description**
Water Conservation Posters Inside City Buses	Promoting the Top 5 Ways to Save in a home, per the Environmental Protection Agency
Low Flow Toilet Rebate Program	Number of rebates issued in FY2012 was 540, the third highest ever; revised program to rebate only WaterSense labeled toilets began July 2012
Public Awareness Campaign for Free Indoor Conservation Kits	Multiple giveaway events held during 2012 and additional events are planned for calendar 2013
Water-Wise Landscaping Literature Distribution	Distributed plant lists and brochures to local nurseries in 2012
Online Residential Water Use Calculator	This online tool is designed specifically for Charlottesville residents
Rain Barrel Program Expansion	One large workshop to accommodate more people is planned for June 2013 using barrels donated by local Pepsi Plant

Current Water Conservation Activities - City of Charlottesville	
Program Initiatives	**Description**
Blue Team	Plan to expand program that uses local youth to reach out to the community in a door to door campaign that distributes indoor conservation kits, rebate information and UBO payment options
Carwash Certification	Two businesses certified in summer 2012 as meeting low water use standards
Regular Ad Campaign, Year Round	In addition to year round print and television campaign, radio ads scheduled for summer 2013
Drought Public Notification Plan	Insure that the community is informed of future drought conditions in a timely, thorough and consistent manner by maintaining updated plan
Multi-Family Homes Toilet Retrofits	Approved 4th apartment complex for mass rebate eligibility; the completed retrofit reduced water bill by more than 1/3
System Leak Detection	Annual System Wide Survey continues in summer 2013, with all leaks repaired immediately by City crews
Aging Infrastructure Replacement	Continue Water Department program to replace aging distribution lines and public side of service laterals, preventing wasteful water loss
System Water Audit	Continue to perform AWWA audit each fiscal year
Fix a Leak Family 5k	Inaugural event to highlight WaterSense's nationwide Fix a Leak Week attracted 58 registered runners and coverage on two local news stations
Community Survey	Survey questions to quantify outreach results were developed with the UVA Weldon Cooper Center for Public Service and included in the 2012 Jefferson Area Community Survey
Never Waste Campaign	Participating in the Nationwide Never Waste Campaign by the Alliance for Water Efficiency with print ads, event posters and specially designed water bottle giveaways

G. Water Assistance Program

A Water Assistance Program (WAP) was adopted in FY2012 by City Council to assist City water customers experiencing hardship making timely or full payments of their water utility bill. UBO has experienced numerous occasions when customers, unable to pay their bills due to financial hardship, had their services discontinued. The WAP program is intended only for residential customers, whether owners or renters of property. It is not intended for landlords or commercial property accounts and will be administered in a fashion similar to the Gas Assistance Program (GAP) that has been in place since 2002. 26 customers benefited from the WAP in FY2012. 43 customers have received assistance through March 2013. The maximum allotment per household per year is $150 or three times the

customer's normal monthly average bill, whichever is less. $25,000 was initially dedicated for this purpose. It is recommended that $25,000 be included in the water budget in FY2014. Comparable assistance is proposed in the wastewater fund through the Wastewater Assistance Program (WWAP).

H. Toilet Rebate Program

In support of water conservation efforts, the City adopted a Toilet Replacement Rebate Program in 2003. The toilet replacement rebate program provides a rebate of up to $100 to any City water customer who purchases and installs a low-flow toilet to replace older high flow models. These low-flow models use significantly less water, saving anywhere from 7,000 to 20,000 gallons (g) of water a year per household. Residential customers may replace up to three toilets at a given residence. In addition, a new program, which allows owners of multi-unit apartment complexes to participate in the program, was instituted in FY2011. Of the 363 customers participating in the program, 12 apartment owners replaced 158 high consumption toilets for a total of $15,800. This program is designed to be independent of the resident toilet replacement program so as not to restrict funding available for residential customers. The following chart shows the program participation since adoption of the program. It is recommended that the funding for this program remain at the FY2012 level of $40,000.

Toilet Rebate				
Granted in Fiscal Year [1]	Total # of Customers	Total # of Toilets rebated	Total $ rebate	Average Rebate / customer (calculated)
2012	254	540	$ 53,785.67	$ 212
2011	363	599	$ 61,864.86	$ 170
2010	286	367	$ 36,401.41	$ 127
2009	219	310	$ 31,085.77	$ 142
2008	180	302	$ 30,372.22	$ 169
2007	194	232	$ 23,844.95	$ 123
2006	224	256	$ 25,513.55	$ 114
2005	240	285	$ 28,328.74	$ 118
2004	361	403	$ 39,939.33	$ 111
2003	1,195	1,274	$ 125,316.54	$ 105
Total	3,516	4,568	$ 456,453.04	

[1] In FY2011 the toilet rebate program was expanded to include owners of multi-unit apartment buildings.

I. Water Utility Capital Projects

The current capital projects in each entity's five-year capital plan are listed below. The City updates its capital plan annually with the 5 year capital plan being FY2014 – FY2018. RWSA updated its Capital Improvement Plan February 26, 2013 (FY2013-FY2017).

City Capital Projects – Water System — **Projected Five Year Capital Cost**

Water Line replacement (Annual Service Contract) ..... $ 3,500,000
Replacements of Valves & Hydrants ..... $ 500,000

Total City Capital Water **$ 4,000,000**

RWSA Urban Water Projects — **Projected Five Year Capital Cost**

Ragged Mtn. Dam Construction..... $ 22,054,473
Mitigation Plan Implementation..... $ 2,001,095
South Fork Reservoir to Ragged Mtn. Pipeline..... $ 2,270,141

South Fork Reservoir Dredging	$	3,381,361
Observatory WTP Improvements	$	150,000
Route 29 Pump Station	$	1,485,130
Stillhouse System Pump Station/Replace Canterbury PS	$	1,763,663
Alderman Road Pump Station Improvement	$	645,069
Valve Repair – Replacement	$	983,858
Urban Water Disinfection Optimization	$	16,427,062
South Fork Rivanna Water System	$	4,390,000
Stillhouse Tank Modification Study	$	60,000
Pantops Tank Roof Rafter Repair	$	110,000
Urban Water Meter Wholesale Master Metering	$	3,000,000
North Fork Water System	$	800,000
Total RWSA Urban Water	**$**	**59,521,852**

EXHIBIT III-A
WATER UTILITY
TWO YEAR BUDGET COMPARISON

Revenue Required	FY2013 BUDGET	FY2014 BUDGET	PERCENT CHANGE
Water purchases	$ 4,612,142	$ 4,204,717	(8.8) %
Operations & maintenance	2,248,376	2,214,139	(1.5)
Water conservation budget	188,349	188,455	0.1
Toilet Rebate Program	40,000	40,000	-
Payment in lieu of taxes	541,325	531,844	(1.8)
Indirect costs	167,223	177,114	5.9
Utility billing office budget	271,642	270,125	(0.6)
Meter reading budget	47,175	46,067	(2.4)
Water assistance program	25,000	25,000	
Vehicle replacement budget	73,029	73,029	-
Computer system support	24,798	27,046	9.1
Bad debts	10,000	10,000	-
Interest on deposits	5,000	5,000	-
Debt service funding	$ 1,500,000	$ 1,550,000	3.3 %
Total revenue required	$ 9,754,059	$ 9,362,536	(4.0) %
Less revenues not related to water use:			
Connection service charges	$ 125,000	$ 125,000	- %
Rate stabilization	700,000	647,000	(7.6)
Other fees and charges	65,000	65,000	- %
Total	$ 890,000	$ 837,000	(6.0) %
Revenue required from water charges	$ 8,864,059	$ 8,525,536	(3.8) %
LESS UVa central charges	1,554,849	1,333,504	(14.2)
Balance to be recovered by City Water Sales	$ 7,309,210	$ 7,192,032	(1.6) %
Required Percent Increase in Overall City Rates	-0.52%	12.07%	
Minimum Monthly Charge	4.00	4.00	
Minimum charges	$ 679,000	$ 678,928	(0.0)
Balance to be recovered through rate above minimum	$ 6,630,210	$ 6,513,104	(1.8) %
Volume (MCF) above minimum	152,600	147,709	(3.2)
Rate per MCF	**$ 43.45**	**$ 44.09**	1.5 %

EXHIBIT III-B
WATER RATE CALCULATION
FY2014

		MCF	Amount
Water purchases		240,123	$ 4,204,717
Operations & maintenance			2,214,139
Water conservation budget			188,455
Toilet Rebate Program			40,000
Payment in lieu of taxes			531,844
Indirect costs			177,114
Utility billing office budget			270,125
Meter reading budget			46,067
Water assistance program			25,000
Vehicle replacement budget			73,029
Computer system support			27,046
Bad debts			10,000
Interest on deposits			5,000
Debt service funding			$ 1,550,000
Total revenue required			$ 9,362,536
Less revenues not related to water use:			
Connection service charges			$ 125,000
Rate stabilization			647,000
Other fees and charges			$ 65,000
Total other revenues			$ 837,000
Revenue required from water charges			$ 8,525,536
Less fixed water charges and uses:			
Anticipated water loss	13.0 %	31,216	$ -
UVa central charges @[1]	$ 21.79	61,198	1,333,504
Monthly customer charges @	$ 4.00	0	$ 678,928
Total fixed water charges		92,414	$ 2,012,432
Balance to recover through rate above minimum		147,709	$ 6,513,103
Rate required per MCF above minimum			**$ 44.09**

ALTERNATE RATE WITH NEUTRAL WINTER / SUMMER DIFFERENTIAL (30%)

Rate required per MCF above minimum - Winter	**$ 38.94**
Rate required per MCF above minimum - Summer	**$ 50.62**

1 According to the 1981 agreement, UVa is charged 100% of the wholesale rate the City pays to RWSA plus 25% of the general operation, administrative overhead, and assessment and collection cost of the City's retail rate.

EXHIBIT III-C
WATER UTILITY
PROJECTED REVENUE REQUIREMENTS

Funds Required	**FY2013**	**FY2014**
Water purchases	$ 4,612,142	$ 4,204,717
Operations & maintenance	2,248,376	2,214,139
Water conservation budget	188,349	188,455
Toilet Rebate Program	40,000	40,000
Payment in lieu of taxes	541,325	531,844
Indirect costs	167,223	177,114
Utility billing office budget	271,642	270,125
Meter reading budget	47,175	46,067
Water assistance program	25,000	25,000
Vehicle replacement budget	73,029	73,029
Computer system support	24,798	27,046
Bad debts	10,000	10,000
Interest on deposits	5,000	5,000
Debt service funding	$ 1,500,000	$ 1,550,000
Total Funds Required	$ 9,754,059	$ 9,362,536
Funds Provided		
Water Charges	$ 8,864,059	$ 8,525,536
Other Revenue	890,000	837,000
Total Funds Provided	$ 9,754,059	$ 9,362,536
Gain (Loss)	$ -	$ -

EXHIBIT III-D
WATER RATE COMPARISON

MONTHLY USAGE (CUBIC FEET)	$ 4.00 / $ 43.45 FY2013	$ 4.00 / $ 44.09 FY2014	DOLLAR CHANGE	PERCENT CHANGE
0	$ 4.00	$ 4.00	$ -	0.00 %
200	12.69	12.82	0.13	1.02
300	17.04	17.23	0.19	1.12
454	23.73	24.02	0.29	1.22
750	36.59	37.07	0.48	1.31
1,000	47.45	48.09	0.64	1.35
2,000	90.90	92.18	1.28	1.41
3,000	134.35	136.27	1.92	1.43
5,000	221.25	224.45	3.20	1.45
10,000	438.50	444.90	6.40	1.46
100,000	$ 4,349.00	$ 4,413.00	$ 64.00	1.47 %

Note: Average single-family customer uses 454 CF per month.

EXHIBIT III-E
WATER RATE COMPARISON
FY2013 VS. FY2014 SEASONAL RATES

SUMMER RATES

MONTHLY USAGE (CUBIC FEET)	$ 4.00 / $ 49.93 FY2013	$ 4.00 / $ 50.62 FY2014	DOLLAR CHANGE	PERCENT CHANGE
0	$ 4.00	$ 4.00	$ -	0.00 %
200	13.99	14.12	0.13	0.93
300	18.98	19.19	0.21	1.11
454	26.67	26.98	0.31	1.16
750	41.45	41.97	0.52	1.25
1,000	53.93	54.62	0.69	1.28
2,000	103.86	105.24	1.38	1.33
3,000	153.79	155.86	2.07	1.35
5,000	253.65	257.10	3.45	1.36
10,000	503.30	510.20	6.90	1.37
100,000	$ 4,997.00	$ 5,066.00	$ 69.00	1.38 %

Note: Average single-family customer uses 454 CF per month.

WINTER RATES

MONTHLY USAGE (CUBIC FEET)	$ 4.00 / $ 38.41 FY2013	$ 4.00 / $ 38.94 FY2014	DOLLAR CHANGE	PERCENT CHANGE
0	$ 4.00	$ 4.00	$ -	0.00 %
200	11.68	11.79	0.11	0.94
300	15.52	15.68	0.16	1.03
454	21.44	21.68	0.24	1.12
750	32.81	33.20	0.39	1.19
1,000	42.41	42.94	0.53	1.25
2,000	80.82	81.87	1.05	1.30
3,000	119.23	120.81	1.58	1.33
5,000	196.05	198.69	2.64	1.35
10,000	388.10	393.37	5.27	1.36
100,000	$ 3,845.00	$ 3,897.75	$ 52.75	1.37 %

Note: Average single-family customer uses 454 CF per month.

SECTION IV:
WASTEWATER UTILITY

A. Fiscal Year 2014 Budget and Rate Impact

The wastewater rate is projected to increase from $50.25 to $54.00/mcf in FY2014. As shown on Exhibit IV-A, the wastewater operating budget of approximately $11.766 million has increased by 2.81%, or $321,624. This net increase is due to factors described below:

- An increase of $229,919 (3.58%) in the cost of treatment from RWSA. The wastewater treatment cost charged by RWSA accounts for 56.5% of the City's operating cost of the wastewater utility. RWSA has increased its composite rate charged to the City by 0.79%, from $26.667to $26.876/mcf. The composite rate is comprised of an operating component and a debt service component. The operating component is the portion needed to cover the City's share of RWSA's operating costs for wastewater treatment to the region. The operating portion of the rate is decreasing by 2.2%, from $13.980 to $13.666/mcf. Operating expenses are increasing in FY2014, primarily due to personnel costs associated a 2.5% salary increase proposed for staff. However, revenue is increasing by a greater amount due to a projected increase in treatment resulting in a lower rate to the City. The City will to pay 54% of the total urban wastewater treatment costs borne by RWSA, its share relative to Albemarle County (46%). The City's relative share is decreasing from 55% in FY2013 and is based on historical flow figures. The amount of wastewater that RWSA forecasts will be treated is increasing by 4.68%. However, since the City's projected share has declined, its relative share is only increasing from 240,553 mcf to 247,233 mcf. The debt component of the rate charged is increasing from $12.686 to $13.210/mcf, or 4.1%. The resulting combined rate charged by RWSA for wholesale water is $26.876/mcf, a $0.209 /mcf increase.

- An increase in the cost of operations and maintenance of $39,815 (2.15%) is primarily attributable to a net increase in personal service costs associated with an increase in retirement costs.

- An increase in the payment in lieu of taxes of $35,103 (6.04%). This is due to an increase in the wastewater revenues from the prior year.

- Indirect costs are those costs associated with services provided by internal agencies that support the wastewater utility. The City's indirect costs are increasing $18,572.

- The Utility Billing Office and Meter Reading budgets are actually falling slightly based on cost savings within the divisions. One-sixth of each budget is assigned to the Wastewater Utility. The remainder is assigned to Water and Gas Utility budgets.

- The high strength sewer surcharge is being eliminated in FY2014. Previously RWSA charged the City (and passed this charge onto our customer) for the strong waste discharge produced by one of our customers. Upgrades to the Moores Creek treatment plant have made this charge unnecessary.

- An increase of $100,000 (5.26%) for debt service funding. A description of the projects that are planned to be funded can be found in Section II: Improving Infrastructure.

B. RWSA's Fiscal Year 2014 Wholesale Rate

The primary reason for the increase in wholesale treatment from RWSA is the Schenks Branch Interceptor Replacement. Without the project the City's wholesale rate would have declined from RWSA. Inclusion of the project among RWSA's capital projects adds an additional $0.086 to our rate. The project lies completely within the City of Charlottesville's boundaries and is solely dedicated to the movement and treatment of City's wastewater. An update of RWSA's capital projects contained within their Proposed Capital Improvement Plan follows:

- Schenks Branch Interceptor Replacement: The Schenks Branch Interceptor is located in the eastern part of the City of Charlottesville and ties into the Meadow Creek Interceptor. The interceptor was constructed in the mid-1950s of 21-inch clay and concrete pipe. The existing interceptor is undersized to serve present and future peak flows as determined by the City. The entire interceptor is to be upgraded to 30-inch pipe in order to accommodate the peak wet weather flows from the City of Charlottesville. The first portion of this sewer was constructed as part of the Meadow Creek Interceptor project. The second portion was constructed as part of the VDOT McIntire Road Extended Project in 2012. The third portion was advertised for bid in November 2012 as part of the McIntire/250 Interchange project. The rest of the upstream Interceptor in McIntire Road is currently in design and will be upgraded by RWSA in

coordination with the City of Charlottesville's sewer upgrades. Project costs include betterment cost for the portions that are being replaced by VDOT and the design, permitting, easement acquisition, construction, construction observation/administration by the engineering consultant, and project contingencies for the rest of the interceptor.

- New Rivanna Pump Station and Tunnel: Pumping capacity between the Rivanna Interceptor in Riverview Park and the Moores Creek Wastewater Treatment Plant needs to be expanded for wet weather peak flow from a current capacity of 24.5 mgd to a firm capacity of 53 mgd. Following the study of alternatives to provide additional pumping capacity, the RWSA Board selected Concept E for final design by Hazen and Sawyer at the December 28, 2011 Board of Directors Meeting. Concept E includes the construction of approximately 1,620 linear feet of an 8-foot diameter tunnel with a tunnel-boring machine. The new pump station will be located on the RWSA property and the design includes pumps capable of delivering a peak pumping rate equivalent to 53 mgd, electrical gear, influent grinders, self-cleaning wet well, odor control, back-up power generation, SCADA control and integration, tie-ins to the existing systems, site and permitting work, storage building demolition and electrical relocation work, as well as architectural, structural and mechanical systems. The existing pump station at the entrance to Riverview Park will be demolished once the new pump station and tunnel are complete and in service. Hazen and Sawyer began the preliminary design of the new Rivanna Pump Station and tunnel in January 2012 and has completed the geotechnical and survey work and Preliminary Engineering Report.

- Moores Creek Wastewater Treatment Plant - Digester Heating and Mixing Upgrade: Biosolids at the MCWWTP are designed to be digested through an anaerobic (oxygen deficient) process using three heated digesters with a combined volume of 3.4 million gallons. For optimal results the temperature during digestion should be between 95 and 98 degrees Fahrenheit. This allows for optimum biosolids volume degradation, as well as optimum bio-gas production which is then used for electricity generation and heating of the digesters. Currently the heat exchange and mixing systems within the digesters are old and have significant deficiencies that were confirmed following the completion of boiler facilities in the ENR project. Additionally, the aging gas compressors, concrete roofs and scrubbing system are failing. This project will update and improve the digester process and structural stability through improvements to heating, mixing and gas compression and roof replacement. The project was bid in August 2012

and the Board of Directors approved the contract award to MEB Contractors at the November 2012 meeting. The total project cost includes design, permitting, construction, contingency and construction administration/inspection. It is anticipated that this project will result in significant annual operational cost savings for the plant. In November 2012, the RWSA Board of Directors authorized the transfer of $2,023,000 from the ENR Projects.

- Moores Creek Wastewater Treatment Plant Odor Control – Phase 2: In 2007, RWSA prepared an Odor Control Master Plan for the Moores Creek Wastewater Treatment Plant. The Plan outlined sources of odor within the facility, and highlighted the areas where odor was most likely to migrate off-site to the surrounding neighborhoods. In an effort to address these issues, the Board of Directors authorized the design and construction of Phase 1 odor control measures, which were incorporated into the Enhanced Nutrient Removal Project. By mid-2012, the majority of the construction work at the facility was complete. This work included relocating septage receiving away from the front gate; enclosing septage receiving; covering the influent channels of the Moores Creek Pump Station and gravity thickeners and providing wet chemical odor scrubbing; providing high pressure water cannons for basin wash down, and switching from aerators to mixers in the equalization basins. Although the Phase 1 improvements have significantly enhanced odor control, recent outreach by RWSA to neighboring constituents has confirmed that the next phase of work is now required to achieve the community's goal. In an effort to continue to address odor migration from the site, the Phase 2 project proposes to cover the launderers and effluent weirs at the primary and in-plant clarifiers. Air from these enclosed areas will be moved by vacuum to two new wet chemical scrubbers. The scrubber on the north side of the plant will serve the in-plant clarifiers as well as the new Rivanna Pump Station.

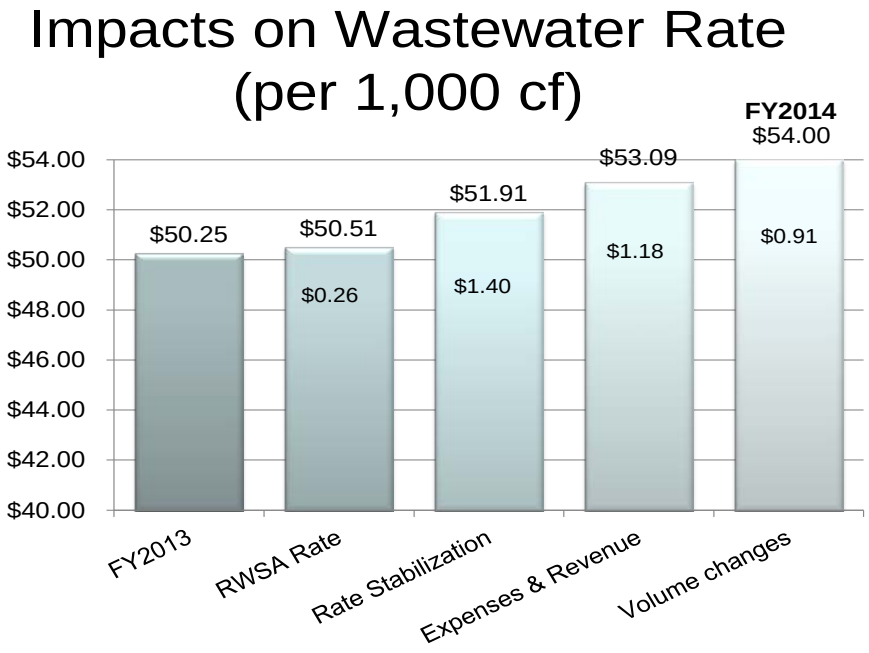
- Meadow Creek Interceptor Improvements: This project included the design and construction of approximately 22,000 linear feet of new sewer to replace the existing interceptor sewer built in the 1950s. The Contractor completed installation of the mainline sewer, however, defective work, incomplete punch list work and several third party claims are still outstanding and the Contracts are not complete. RWSA has declared the Contractor in default and litigation is pending. Completion of the landscaping plan is anticipated in the winter of 2012/2013.

C. Rate Stabilization Funds

Rate stabilization funds, in the amount of $850,000, will be used in FY2014 to reduce wastewater treatment costs to our customers. The use of rate stabilization funds reduces the rate to customers. By using $850,000 the rate is $9.49 lower than it would be without its use. However, proposed use in FY2014 is lower than was used in FY2013, therefore the rate is $1.40 higher than in the previous fiscal year.

D. Factors Influencing Wastewater Rates

As with the Water Utility, there are several factors that influence the change in rates needed for the Wastewater Utility to operate on a self-supporting basis. Changes in wastewater treatment rates from RWSA, City wastewater operating expenses and revenue from other sources, changes in volumes treated by RWSA or expected to be billed to our City customers and the number of customers billed, can all potentially impact the wastewater rate calculation. In the current recommendation the factors mentioned all impact the magnitude of the rate change in some way. Changes in rate stabilization funds lower the wastewater rate. The following chart illustrates the effects each component has on the proposed rate for FY2014.



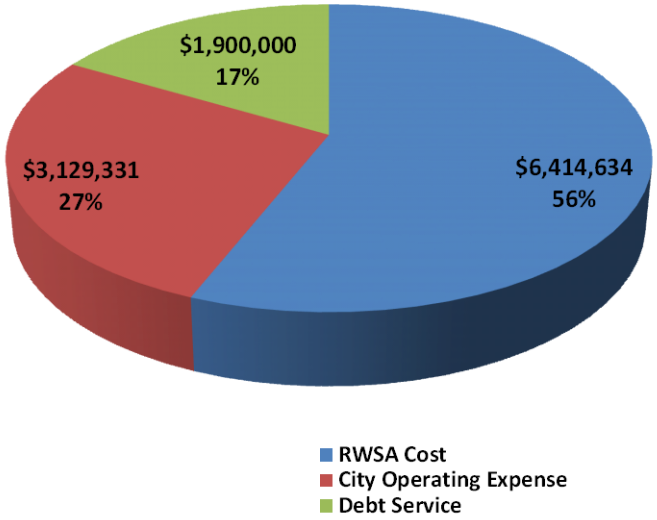
The impact of each component on the final rate is depicted above. The increase in the treatment rate from RWSA, from $26.667/mcf to $26.876/mcf, increases the rate an additional $0.26 to $50.51/mcf. The use of rate stabilization funds reduces the rate to customers. By using $850,000 the rate is $9.49 lower than it would be without its use. However proposed use in FY2014 is lower than was used in FY2013, therefore the rate is $1.40 higher than in the previous fiscal year. Changes in City expenses and revenue (although expenses are declining, revenue is declining by a greater amount) result in an increase of the rate of $1.18 to $53.09/mcf. The reduction in treatment volume increases the per unit cost necessary for the utility to break even and adds an addition $0.91 for a final rate per mcf of $54.00.

Changes in Wastewater Rate Expenses – Biennial Comparison

Wastewater Expenses

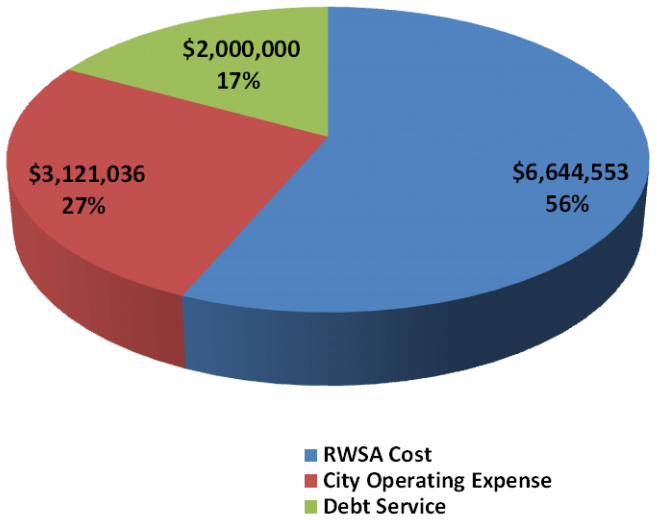
FY2013

$11,443,965



FY2014

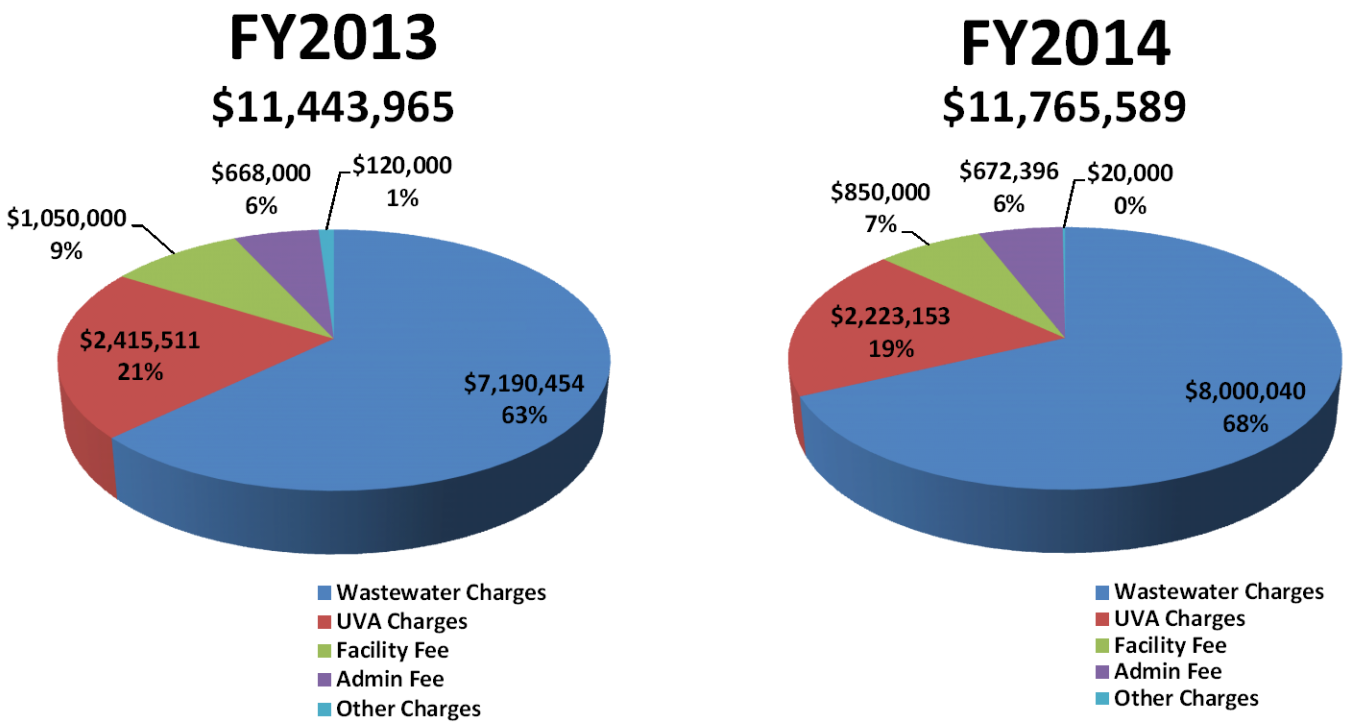
$11,765,589



Both the volume of wastewater treated is expected to increase as well as an increase in the RWSA costs associated with wastewater treatment resulting in an increase of $229,919 or (3.58%) in the cost attributable to RWSA. A slight increase in the City's operating expense is primarily due to increased costs associated with health care and personnel costs. The City's debt service is increasing to support capital projects associated with improvement projects to aging sewer infrastructure.

Changes in Wastewater Rate Revenue – Biennial Comparison

Wastewater Revenue



An increase of $321,624 (2.81%) is projected in wastewater revenue between FY2013 and FY2014. There are five key factors affecting this increase, which are attributed to revenue collected from City customers through wastewater charges, collections from UVa, facility fee, administrative, and other service charges. Wastewater charges collected from City customers are expected to increase $809,586 (11.26%) due to a projected increase in volume. UVa's volume is declining, reflecting an anticipated collection decrease of $192,358 (-7.96%). Facility fees are declining $200,000 . This fee is utilized to offset a projected rate increase to City customers. Administrative fees increase only slightly due to an increased customer base. While other charges are projected to decrease by $100,000 due to the elimination of a pass-thru charge to a City manufacturer.

E. Rate Comparisons

Exhibits V-A and V-B provide a comparison of customer bills at various levels under the current and proposed rates. The City has experienced significant rate increases over the past several years, particularly for wastewater.

As a point of reference, even with the rate increase, the cost of water per gallon under the proposed rate is a little more than one-half of a penny (0.58 cents). The cost of treatment of a gallon of wastewater is a little less than three-quarters of a cent (0.72 cents). It should be noted that it was fiscal year 2012 when the cost of wastewater treatment actually exceeded the cost of water for City customers. The primary reason is the increase in debt service, both from RWSA and City operations. For the single-family household using approximately 454 CF of water per month, the combined water and wastewater bill will be $52.54. This is an increase of $2.00 or 3.96% based on the proposed composite rate structure. A retail customer using 1,000 CF will have a combined water and wastewater bill that will be $106.09, an increase of $4.39 or 4.32%.

F. Wastewater Assistance Program

A wastewater assistance program was created by City Council in FY2012 to assist customers who had difficulty paying their bills due to extreme circumstances. The program was begun with $25,000 that has been set aside for the Wastewater Assistance Program (WWAP). It is recommended that an additional $25,000 be budgeted to further fund the WWAP. 26 customers received assistance in FY2012. 43 customers have benefited from the program through March of 2013. This program will continue to operate in conjunction with the WAP. The program will be administered by the Utility Billing Office in a similar fashion as the Gas Assistance Program established in 2002.

G. Facility Fees

City Council adopted a fee increase in FY2013, the first since FY2009, to more accurately reflect the actual costs of increasing capacity on wastewater treatment from the addition of wastewater lines. No increase is proposed for the City in FY2014. The structure, along with a comparison to ACSA's fee structure is provided below.

COMPARISON OF FY2014 FACILITY FEES WITH THE ALBEMARLE COUNTY SERVICE AUTHORITY

Meter Size	ERC	City Sewer Facilities Fee	ACSA Sewer Facilities Fee	Albemarle's Fee is higher by
5/8"	1	$5,350	$6,502	**$1,152**
1"	2.5	$13,375	$16,255	$2,880
1.5"	5	$26,750	$32,510	**$5,760**
2"	8	$42,800	$52,016	$9,216
3"	15	$80,250	$97,530	**$17,280**
4"	25	$133,750	$162,550	$28,800
6"	50	$267,500	$325,100	**$57,600**

Note: Charlottesville provides an $800 connection fee for projects certified for low income housing.

H. Wastewater Utility Capital Projects

The current capital projects in each entity's five-year capital plan are listed below. The City updates its capital plan annually with the 5 year capital plan being FY2014–FY2018. RWSA adopted its Capital Improvement Plan February 26, 2013 (fiscal years 2013-2017).

City Capital Projects – Wastewater System	**Projected Five Year Capital Cost**
14th / 15th St Sewer Line upgrade .	$ 3,500,000
Rehabilitation Program	$ 9,401,000
Total City Capital Wastewater	**$ 12,901,000**

RWSA Urban Wastewater Projects	**Projected Five Year Capital Cost**
Meadow Creek Interceptor Improvements	$ 2,052,835
Schenks' Branch Interceptor	$ 4,882,876
Rivanna Interceptor Pumping Capacity Improvements	$ 38,615,381
Sanitary Sewer Model Update	$ 165,000
Interceptor Sewer & Manhole Repair	$ 867,841
Administration Building Repairs	$ 125,000
Bridge Repairs	$ 264,510
Moore's Creek WWTP Odor Control	$ 2,000,000
Moores' Creek WWTP	$ 5,837,184
Total RWSA Urban Wastewater	**$ 54,810,627**

RWSA Urban Wastewater Projects	**Projected Five Year Capital Cost**
Meadow Creek Interceptor Improvements	$ 20,000,000
Schenks' Branch Interceptor	$ 7,965,000
Rivanna Interceptor Pumping Capacity Improvements	$ 40,000,000
Moores' Creek Pump Station & Force Main Upgrade	$ 5,000,000
Sanitary Sewer Model Update	$ 165,000
Miscellaneous Repairs to Pipeline adjacent to Streams	$ 310,375
Interceptor Sewer & Manhole Repair	$ 1,450,000
Flow Meters for Sanitary Sewer Flow Monitoring	$ 60,000
Moore's Creek WWTP Upgrade to ENR Design	$ 3,000,000
Moore's Creek WWTP Upgrade to ENR Construction	$ 45,783,000
Bridge Repairs	$ 100,000
Moore's Creek WWTP Odor Control	$ 355,300
Septage Receiving	$ 1,200,000
Digester Heating and Mixing Upgrade	$ 4,100,000
Moores' Creek WWTP Wet Weather Capacity	$ 7,870,000
Total RWSA Urban Wastewater	**$137,358,675**

EXHIBIT IV-A
WASTEWATER UTILITY
TWO YEAR BUDGET COMPARISON

Revenue Required	FY2013 BUDGET	FY2014 BUDGET	PERCENT CHANGE
Cost of treatment	$ 6,414,634	$ 6,644,553	3.58 %
Operations & maintenance	1,852,361	1,892,176	2.15
Payment in lieu of taxes	581,335	616,438	6.04
Indirect costs	132,532	151,104	14.01
Utility billing office budget	271,981	270,125	-0.68
Meter reading budget	46,836	46,067	-1.64
Wastewater assistance program	25,000	25,000	0.00
Bad debts	20,000	20,000	0.00
High strength sewer surcharge	100,000	-	-100.00
Vehicle replacement	73,606	73,606	0.00
Computer system support	25,680	26,520	3.27
Debt service funding	$ 1,900,000	$ 2,000,000	5.26
Total operations	$ 11,443,965	$ 11,765,589	2.81 %
Less revenues not related to sewer rates:			
Finance charges for late payments	$ 20,000	$ 20,000	0.00
Rate stabilization	1,050,000	850,000	
Sewer surcharge	$ 100,000	$ -	-100.00
Total	$ 1,170,000	$ 870,000	-25.64 %
Revenue required from sewer charges	$ 10,273,965	$ 10,895,589	6.05 %
LESS UVa central charges	2,415,511	2,223,153	-7.96 %
Balance to be recovered by City Water Sales	$ 7,858,454	$ 8,672,436	10.36 %
Required Percent Increase in Overall Rates	11.25%	6.84%	
Minimum Monthly Charge	4.00	4.00	0.00 %
Minimum charges	$ 668,000	$ 672,396	
Balance to be recovered through rate above minimum	$ 7,190,454	$ 8,000,040	11.26 %
Volume (MCF) above minimum	143,086	148,141	3.53 %
Rate per MCF	**$ 50.25**	**$ 54.00**	7.46 %

EXHIBIT IV-B
WASTEWATER RATE CALCULATION
FY2014

		MCF		AMOUNT
Revenue required:				
Cost of treatment		195,392	$	6,644,553
Operations & maintenance				1,892,176
Payment in lieu of taxes				616,438
Indirect costs				151,104
Utility billing office budget				270,125
Meter reading budget				46,067
Wastewater assistance program				25,000
Bad debts				20,000
High strength sewer surcharge				-
Vehicle replacement				73,606
Computer system support				26,520
Debt service funding			$	2,000,000
Total revenue required			$	11,765,589
Less revenues not related to usage:				
Finance charges for late payments			$	20,000
Rate Stabilization				$850,000
Sewer surcharge			$	-
Total other revenues			$	870,000
Revenue required from sewer charges			$	10,895,589
Less fixed sewer charges :				
U Va central charges[1]	$ 47.05	47,251	$	2,223,153
Minimum charges @	$ 4.00	0		672,396
Total fixed sewer charges		47,251	$	2,895,549
Balance to recover through rate above minimum		148,141	$	8,000,040
Rate required per MCF above minimum			**$**	**54.00**

Note: 1 According to the 1981 agreement, UVA is charged 100% of the wholesale rate the City pays to RWSA plus 50% of the general operation, administrative overhead, assessment and collection and capital outlay cost components of the City's retail rate.

EXHIBIT IV-C
WASTEWATER UTILITY
PROJECTED REVENUE REQUIREMENTS

Funds Required	FY2013	FY2014
Cost of treatment	$ 6,414,634	$ 6,644,553
Operations & maintenance	1,852,361	1,892,176
Payment in lieu of taxes	581,335	616,438
Indirect costs	132,532	151,104
Utility billing office budget	271,981	270,125
Meter reading budget	46,836	46,067
Wastewater assistance program	25,000	25,000
Bad debts	20,000	20,000
High strength sewer surcharge	100,000	-
Vehicle replacement	73,606	73,606
Computer system support	25,680	26,520
Debt service funding	$ 1,900,000	$ 2,000,000
Total Funds Required	$ 11,443,965	$ 11,765,589
Funds Provided		
Sewer charges	$ 10,273,965	$ 10,895,589
Finance charges for late payments	20,000	20,000
Rate stabilization	1,050,000	850,000
Sewer surcharge	$ 100,000	$ -
Total Funds Provided	$ 11,443,965	$ 11,765,589
Gain (Loss)	$ -	$ -

EXHIBIT IV-D

WASTEWATER RATE COMPARISON

MONTHLY USAGE (CUBIC FEET)	$ 4.00 / $ 50.25 FY2013	$ 4.00 / $ 54.00 FY2014	DOLLAR CHANGE	PERCENT CHANGE
0	$ 4.00	$ 4.00	$ -	0.00 %
200	14.05	14.80	0.75	5.34
267	17.42	18.42	1.00	5.74
300	19.08	20.20	1.12	5.87
454	26.81	28.52	1.71	6.38
750	41.69	44.50	2.81	6.74
1,000	54.25	58.00	3.75	6.91
2,000	104.50	112.00	7.50	7.18
3,000	154.75	166.00	11.25	7.27
5,000	255.25	274.00	18.75	7.35
10,000	506.50	544.00	37.50	7.40
100,000	$ 5,029.00	$ 5,404.00	$ 375.00	7.46 %

Note: Average single-family customer uses 454 CF per month.

SECTION V:
COMBINED WATER AND WASTEWATER CHARGES

The following charts show the impact on customers given the newly proposed water and wastewater rates for the upcoming fiscal year. Exhibit V-A shows the impact of water usage on the combined bill using the composite water rate. Exhibit V-B shows the seasonal impact of water usage on the customer bill given the combined rates. The final exhibit, Exhibit V-C, shows the proposed combined facility fee and provides a comparison with Albemarle County.

EXHIBIT V-A

COMBINED WATER AND SEWER BILL COMPARISON

CURRENT FY2013 AND PROPOSED FY2014 RATES

USING COMPOSITE WATER RATES

Composite Water Rates

	Current FY2013 Rates			Proposed FY2014 Rates			Dollar Increase (Decrease)	Percent Increase (Decrease)
	Water	Sewer	Total	Water	Sewer	Total		
Rate Schedule								
Customer Charge	$ 4.00	$ 4.00	$ 8.00	$ 4.00	$ 4.00	$ 8.00		
Charge per mcf	$ 43.45	$ 50.25	$ 93.70	$ 44.09	$ 54.00	$ 98.09		
Bill Amounts								
Cu Ft								
0	$ 4.00	$ 4.00	$ 8.00	$ 4.00	$ 4.00	$ 8.00	$ -	0.00 %
200	12.69	14.05	26.74	12.82	14.80	27.62	0.88	3.29
267	15.60	17.42	33.02	15.77	18.42	34.19	1.17	3.54
300	17.04	19.08	36.12	17.23	20.20	37.43	1.31	3.63
454	23.73	26.81	50.54	24.02	28.52	52.54	2.00	3.96
750	36.59	41.69	78.28	37.07	44.50	81.57	3.29	4.20
1,000	47.45	54.25	101.70	48.09	58.00	106.09	4.39	4.32
1,500	69.18	79.38	148.56	70.14	85.00	155.14	6.58	4.43
2,000	90.90	104.50	195.40	92.18	112.00	204.18	8.78	4.49
3,000	134.35	154.75	289.10	136.27	166.00	302.27	13.17	4.56
5,000	221.25	255.25	476.50	224.45	274.00	498.45	21.95	4.61
10,000	438.50	506.50	945.00	444.90	544.00	988.90	43.90	4.65
100,000	$ 4,349.00	$ 5,029.00	$ 9,378.00	$ 4,413.00	$ 5,404.00	$ 9,817.00	$ 439.00	4.68

Note: Average single-family customer uses 454 CF per month.

EXHIBIT V-B

COMBINED WATER AND SEWER BILL COMPARISON

CURRENT FY2013 AND PROPOSED FY2014 RATES

Using Winter Rates

	Current FY2013 Rates			Proposed FY2014 Rates			Dollar Increase (Decrease)	Percent Increase (Decrease)
	Water	Sewer	Total	Water	Sewer	Total		
Rate Schedule								
Customer Charge	$ 4.00	$ 4.00	$ 8.00	$ 4.00	$ 4.00	$ 8.00		
Charge per mcf	$ 38.41	$ 50.25	$ 80.62	$ 38.94	$ 54.00	$ 92.94		
Bill Amounts								
Cu Ft								
0	$ 4.00	$ 4.00	$ 8.00	$ 4.00	$ 4.00	$ 8.00	$ -	0.00 %
200	11.68	14.05	25.73	11.79	14.80	26.59	0.86	3.34
267	14.26	17.42	31.68	14.40	18.42	32.82	1.14	3.60
300	15.52	19.08	34.60	15.68	20.20	35.88	1.28	3.70
454	21.44	26.81	48.25	21.68	28.52	50.20	1.95	4.04
750	32.81	41.69	74.50	33.20	44.50	77.70	3.20	4.30
1,000	42.41	54.25	96.66	42.94	58.00	100.94	4.28	4.43
1,500	61.62	79.38	141.00	62.41	85.00	147.41	6.41	4.55
2,000	80.82	104.50	185.32	81.87	112.00	193.87	8.55	4.61
3,000	119.23	154.75	273.98	120.81	166.00	286.81	12.83	4.68
5,000	196.05	255.25	451.30	198.69	274.00	472.69	21.39	4.74
10,000	388.10	506.50	894.60	393.37	544.00	937.37	42.77	4.78
100,000	$ 3,845.00	$ 5,029.00	$ 8,874.00	$ 3,897.75	$ 5,404.00	$ 9,301.75	$ 427.75	4.82

Using Summer Rates

	Current FY2012 Rates			Adopted FY2013 Rates			Dollar Increase (Decrease)	Percent Increase (Decrease)
	Water	Sewer	Total	Water	Sewer	Total		
Rate Schedule								
Customer Charge	$ 4.00	$ 4.00	$ 8.00	$ 4.00	$ 4.00	$ 8.00		
Charge per mcf	$ 49.93	$ 50.25	$ 92.16	$ 50.62	$ 54.00	$ 104.62		
Bill Amounts								
Cu Ft								
0	$ 4.00	$ 4.00	$ 8.00	$ 4.00	$ 4.00	$ 8.00	$ -	0.00 %
200	13.99	14.05	28.04	14.12	14.80	28.92	0.88	3.14
267	17.33	17.42	34.75	17.52	18.42	35.94	1.19	3.42
300	18.98	19.08	38.06	19.19	20.20	39.39	1.33	3.49
454	26.67	26.81	53.48	26.98	28.52	55.50	2.02	3.78
750	41.45	41.69	83.14	41.97	44.50	86.47	3.33	4.01
1,000	53.93	54.25	108.18	54.62	58.00	112.62	4.44	4.10
1,500	78.90	79.38	158.28	79.93	85.00	164.93	6.65	4.20
2,000	103.86	104.50	208.36	105.24	112.00	217.24	8.88	4.26
3,000	153.79	154.75	308.54	155.86	166.00	321.86	13.32	4.32
5,000	253.65	255.25	508.90	257.10	274.00	531.10	22.20	4.36
10,000	503.30	506.50	1,009.80	510.20	544.00	1,054.20	44.40	4.40
100,000	$ 4,997.00	$ 5,029.00	$ 10,026.00	$ 5,066.00	$ 5,404.00	$ 10,470.00	$ 444.00	4.43

Note: Average single-family customer uses 454 CF per month.

EXHIBIT V-C

COMPARISON OF FY2014 FACILITY FEES WITH THE ALBEMARLE COUNTY SERVICE AUTHORITY

Meter Size	ERC	City Water Facilities Fee	ACSA Water Facilities Fee	Albemarle's Fee is higher by	City Sewer Facilties Fee	ACSA Sewer Facilites Fee	Albemarle's Fee is higher by	Combined City Facilities Fee	Combined ACSA Facilities Fee	Albemarle's Fee is higher by
5/8"	1	$3,100	$6,560	**$3,460**	$5,350	$6,502	**$1,152**	$8,450	$13,062	**$4,612**
1"	2.5	$7,750	$16,400	**$8,650**	$13,375	$16,255	**$2,880**	$21,125	$32,655	**$11,530**
1.5"	5	$15,500	$32,800	**$17,300**	$26,750	$32,510	**$5,760**	$42,250	$65,310	**$23,060**
2"	8	$24,800	$52,480	**$27,680**	$42,800	$52,016	**$9,216**	$67,600	$104,496	**$36,896**
3"	15	$46,500	$98,400	**$51,900**	$80,250	$97,530	**$17,280**	$126,750	$195,930	**$69,180**
4"	25	$77,500	$164,000	**$86,500**	$133,750	$162,550	**$28,800**	$211,250	$326,550	**$115,300**
6"	50	$155,000	$328,000	**$173,000**	$267,500	$325,100	**$57,600**	$422,500	$653,100	**$230,600**

Note: Charlottesville provides a separate $800 connection fee for water and sewer connections for projects certified for low income housing.

SECTION VI:
GAS UTILITY

A. Background

The City of Charlottesville's gas utility operates on a self-supporting basis, and is not designed to operate at a profit. However, due to various factors (winter weather and the number of gas customers) it can generate a profit or loss in any given year. Over time, however, the rates are designed to be at a break-even point.

Natural gas adapts to a wide variety of uses and is also the cleanest burning fossil fuel because it is composed mainly of methane. When methane is burned completely, the principal products of combustion are carbon dioxide and water vapor thus helping to reduce our carbon footprint. Natural gas also costs less than electricity, heating oil, propane or kerosene and 98% of natural gas is produced within U.S. borders. For all these reasons natural gas is very competitive and preferred by many people, but the market area is restricted to those geographic areas that are served by distribution lines. To get maximum sales from new developments, it is important to have mains in place before construction begins. If a customer has installed equipment that uses another fuel, conversion to natural gas takes place over an extended time period and diminishes the economic feasibility of line extensions. Therefore, it is essential to work with potential gas customers as they are making their initial decisions, via an active marketing effort, if the City wishes to continue to add new customers.

The Charlottesville gas system currently provides service to an area that includes all of Charlottesville and parts of Albemarle County consisting of 319 miles of main. As of March, 2013, there are approximately 18,943 customers (12,068 in the City and 6,875 in the County). This includes 217 new customers over last year, as well as another 94 finished service connections that will become customers once the home or business is reoccupied. This is an increase of 311 connections over last year, and an example of the

expansion programs which have provided a substantial capacity for growth, allowing the gas system to compete for business in a growing service area.

Four levels of service are provided to meet the needs of various customer classes - firm, interruptible, air conditioning and transportation. Most consumers are firm customers, with a priority for gas use at all times. Currently, there are 14 large-volume customers with interruptible service who are not assured of continuous service; they must maintain an alternate fuel system and be prepared to switch to that alternate fuel within several hours of notification. This customer class is vital to the system because it allows the City to stay within the volume requirements of the firm transportation entitlement and still meet the gas needs of firm customers in peak demand periods. Interruptible customers pay lower rates than firm customers because they have no assurance of service in peak demand periods and, therefore, do not share in the cost of providing peak period supply. The air conditioning class includes a few customers who use gas air conditioning systems and pay lower rates because this is an off-peak load. Transportation customers are those who purchase their own gas from independent suppliers and transport it through the City's distribution system to their location. All transportation service is on an interruptible basis. There is currently one transportation customer. For fiscal year 2012, the City's gas consumption (by volume) was approximately:

- 71% firm customers
- 29% interruptible
- <1% air conditioning
- 100%

B. Marketing Efforts and New Business

Market Trends

In 2012, the Charlottesville real estate market finally showed signs of real recovery. Overall, sales in the greater Charlottesville area were up 15 percent from 2011, marking the largest yearly increase in seven years, according to a year-end real estate report from the Charlottesville Area Association of Realtors (CAAR).

Nationwide, the combination of lower housing supply with higher median house prices will support further rapid gains in home building in 2013, as stated in a recent J.P. Morgan economic report. The organization anticipates that real residential investment will grow 22 percent this year, the fastest since the early 1980s.

Signs of this housing industry optimism are starting to reflect locally. During the first two months of 2013, we experienced a 60% incremental increase of the number of gas applications for new residential construction in comparison with the same time period in 2012. Moreover, developers are finally moving forward with long-waited PUD projects such as Hyland Ridge, Cascadia and Dunlora Forest.

The recent financial turmoil changed the new construction market in Charlottesville. Before the recession there were dozens of local homebuilders, and now there are a handful of selected builders. The good news is the remaining premium builders are building in large quantities and using natural gas as a standard in all of their units. In 2012, three builders accounted for over 63% of residential gas applications. Last year, Ryan Homes, Piedmont Realty and Southern Development were our top builders.

The home improvement market is another niche we have been concentrating our sales efforts on. The large difference of energy cost between natural gas and oil/propane help homeowners to offset the initial cost of conversion. This market accounted for more than 27% of applications for residential gas service in 2012.

New services completed and projects underway:

Projects: County (1) – City (2)

Residential

- Apartments at 'First and Main' (2)
- Avinity – 124 mixed residential units (1)
- Briarwood – 665 residences (1)
- Dunlora Gates – 18 units (1)
- Dunlora Forest – 99 units (1)
- Evangeline – 13 Single homes (2)
- Hyland Ridge – 84 luxury single homes (1)
- Kenridge – 60 villas/townhouses (1)
- Main Extension at Linda Court (2)
- Main Extension at Buckingham Circle (1)
- Pavilions – 340 town homes (1)
- Willow Glen – Single homes and townhomes (1)

Commercial

- Greenbrier 7-Eleven (1)
- Jefferson School City Center (2)
- Hyatt Place at the Stonefield shopping center (1)
- Main Street Market Annex (2)
- New shops at the old Shell gas station on Barracks Road Mall (2)
- Pace Charlottesville (2)
- Portico Church at Airport Rd (1)
- Rivanna Plaza – Restaurants/Day care (1)
- Shadwell Market (1)
- Shops at the Stonefield – Retail/Restaurants/Offices (1)
- Squash Club @ Boars Head Inn – Sports Club (1)
- St. Thomas Aquinas Priory (2)
- Trader Joe's Market (1)
- UVa Battle Building (2)
- UVa North Grounds Recreation Center Expansion (2)
- Whitewood Road Child Care Center (1)
- Westminster Canterbury Expansion (1)

Potential new projects include:

Residential

- Arlington and Milmont Apartments – 230 units (2)
- Avemore Phase IV – 46 townhomes (1)
- Belvedere 2nd phase – 120 lots (1)
- Belvedere Station – 17 townhomes (1)
- Burnett Commons Phase II – 45 lots (2)
- Cascadia - 50 units (1)
- Estes Park - 68-unit (1)
- Lochlyn Hill – Townhomes (2)
- North Pointe – 900 residences and 700,000 sq. commercial space (1)
- Whittington – 95 luxury single homes (1)

Commercial

- Belvedere Station – Retail and Restaurant (1)
- CFA Headquarters – Offices (2)
- Colonial Auto Center Expansion (1)
- Fifth Street Station - Retail (1)
- Fontaine Fire Station (2)
- Homewood Suites hotel (2)
- Kroger Marketplace at Seminole Square (2)
- New Hope Community Church (1)
- Union Ridge Baptist Church (1)
- University of Virginia Physicians Group (1)
- YMCA McIntire Park (2)

Communication Efforts

Gas Safety Public Awareness Program

In 2007, in order to comply with the RP 1162 regulation, we launched a comprehensive gas safety program featuring the mascot, Flicker the Flame. After the San Bruno, CA natural gas tragedy in 2010, we decided to intensify our preventive gas safety communication efforts. In March 2012 we received the results of a follow-up survey, and the outcome was very positive. The gas safety survey showed that 64

percent of residents within the service area would recognize the smell of rotten eggs as natural gas, versus 39 percent as reported in 2007. Our actions in 2012 included:

- *Jingle* - A jingle was composed to match the on-screen upbeat persona of Flicker the Flame. The commercial included the catchy phrase, "Play it safe and remember the name - Flicker the Flame!" The radio spot is on rotation with a 30 second tag version with the gas safety message.

- *New TV spot* - Two Sing-A-Long safety commercials featuring our Flicker the Flame jingle were produced and began airing in 2012. The first spot focuses on the smell of gas and what to do if you suspect a leak, and the second spot highlights calling Miss Utility before digging. Both commercials featured city employees and local kids, and were produced by a local television station, the Newsplex.

- *Improved gas safety flyer.* This bilingual bill stuffer featured a more user friendly lay-out and a scratch-n-sniff with the scent of natural gas. To measure the effectiveness of this action, we launched a contest. Our customers could test their gas safety knowledge by participating in a short quiz on our webpage for a chance to win a prize.

- *Intensified outreach programs.* We targeted events with high attendance such as UVa Baseball and Basketball games, Holiday Heritage Parade and the WVPT Kids Book Festival. Flicker even had the honor of throwing out the first pitch at one UVa Baseball ACC series game.

- *Expansion of the Flicker @ your classroom program.* During the school year of 2012, the Flicker @ your Classroom and Summer Camp programs reached over 450 kids. Letters and work sheets received from the programs document that the children are learning the key points of gas safety.

In addition, our gas safety communications efforts recently received recognition for excellence from two organizations. The Southern Gas Association (SGA) named Charlottesville Gas the winner of its 2012 Marketing Best Practices Award, "Public Awareness/Education Programs" category, and the City-County Communications and Marketing Association (3CMA) selected the *"Sing-A-Long with Flicker the Flame"* gas safety PSA for the 2012 Savvy *"Silver Circle Award".*

Gas Safety Public Awareness Program

TV Spot

Flyer with natural gas scent

All promotional material created in-house (no production cost)

Outreach Programs

UVA Athletic Events

Holiday Parade

WVPT Kids Book Festival

Flicker @ your classroom

In 2011, the program reached over 700 kids

Gas Marketing Program

Since September of 2011, we've promoting our campaign "CHARLOTTESVILLE GAS: TURN YOUR HOUSE INTO A HOME". In this communication campaign, we emphasized the selling points of natural gas appliances. For the warmer weather, we highlighted the unique benefits of cooking with natural gas. During winter, our campaign focused on the comfortable warmth provided by gas furnaces and gas fireplaces.

We have improved our online presence this year. In 2012, the Charlottesville Gas website traffic increased 34% in comparison with the previous year. The increase is due to updated content and easier navigation on the Charlottesville Gas website, combined with a Web Banner campaign on Newsplex, The Daily Progress and Yahoo! Webpages.

In November 2010, we launched the Flicker the Flame Facebook. By March 2013, the page had 302 friends. With this initiative, we hope to create an open channel with our customers as well as with our Flicker fans.

Charlottesville Gas got a new marketing tool. The "Flicker Mobile" runs completely on American made compressed natural gas (CNG). The Honda Civic natural gas model is considered the cleanest/greenest car available today. On average, natural gas costs one-third less than conventional gasoline at the pump. The CNG car is used to sign up new gas customers and promote the Public Awareness Safety Program.

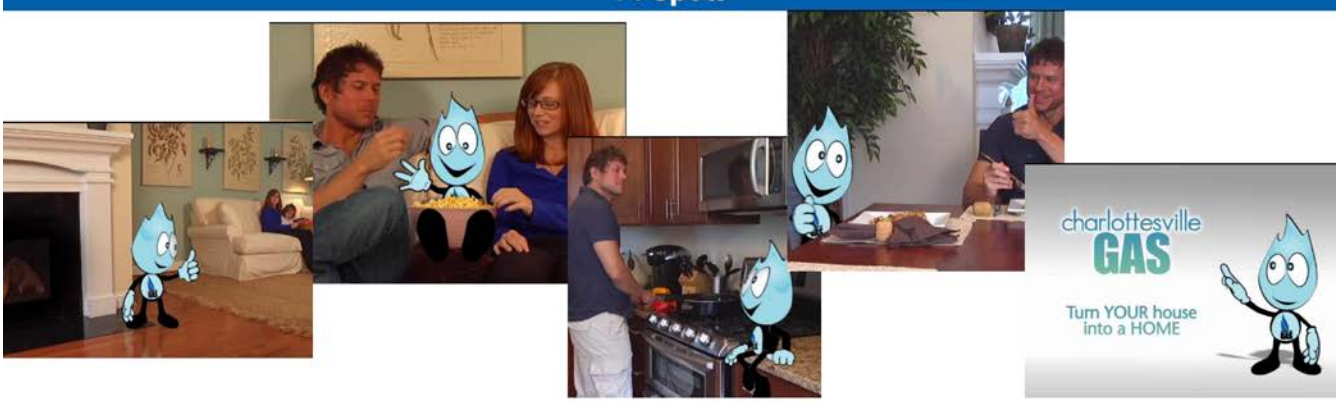
Charlottesville Gas was recently presented with a national award for their marketing efforts. The American Public Gas Association awarded Charlottesville Gas with their Outstanding Marketing and Sales award. This is the second time in three years Charlottesville Gas has received this honor from the APGA.

In addition to working closely with developers and builders, some of the City's marketing activities included:

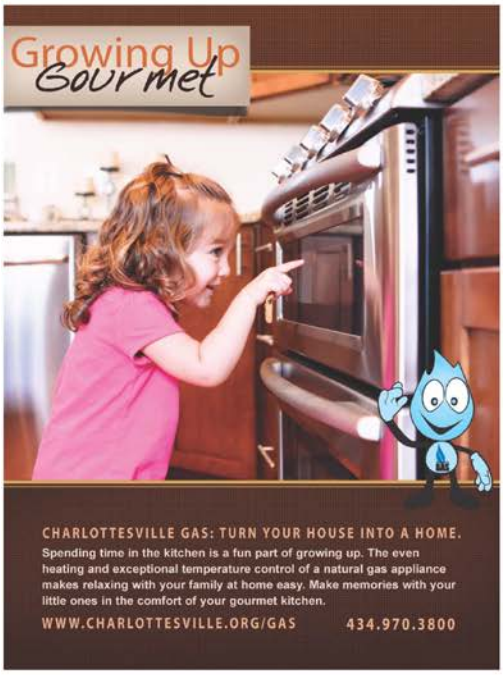
- Conducting gas main extension surveys to existing neighborhoods located nearby our service area;
- Developing and mailing various brochures targeting specific businesses; and
- Developing and mailing postcards for potential customers with gas mains in front of their homes.

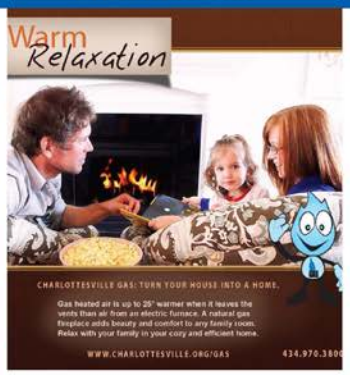
Gas Marketing Program

TV Spots



Print Material





Postcards

Miscellaneous

Flicker Facebook

CNG Car

C. *Review of Fiscal Year 2013 Performance*

When base rates are determined each year, there are always two variables that cannot be predicted with any confidence. The first is the severity of the winter weather and the resulting heating demand and the second is the wholesale cost of gas. This winter was colder than last year resulting in a higher gas usage.

Base rates for the year include both a gas cost component based on actual wholesale prices in effect as of March, 2013 and budgeted operating costs for the year. The operating cost component remains fixed for the year, but the gas cost component is adjusted monthly through the Purchased Gas Adjustment (PGA) to reflect the actual cost of gas for the month. Rates for the current year were designed to recover the FY2014 budget on a break-even basis.

Natural gas commodity prices continue to be extremely volatile. NYMEX prices have ranged from $2.036/Dth to $3.471 in the last twelve months. Over the past months, the NYMEX monthly gas commodity prices have averaged $0.81925/Dth less than the prior twelve months. However, current prices for March 2013 are higher ($3.427/Dth) than they were in March 2012 ($2.446/Dth).

Other energy related fuels such as oil, gasoline, propane, coal and electricity have varied widely in price as well. Crude Oil prices have ranged from $83.17 - $103.03 per oil barrel (BBL) in the past twelve months and are currently at $90.71/BBL. Coal prices have declined again this year ranging from $55.25 – 64.96/ton. Electricity prices have been somewhat less volatile. Electricity for home heating, although typically more expensive than natural gas, is becoming less competitive due to lower gas prices.

Sales to the firm customers should be higher than the FY2013 forecast. The firm customers continued to use less per customer on weather adjusted annual basis. This is part of a nationwide trend being driven by improved appliance efficiency, home energy efficiency improvements and conscious conservation efforts as a reaction to high gas commodity prices. However, we have increased our customer base creating an overall increase in sales. Sales to the Interruptible customers were less than last year when the University of Virginia's Power Plant is removed from the equation. This is usually linked to the market demand for their products, conservation and efficiency efforts and/or alternate fuel competition.

Sales to the UVA Power Plant were higher than forecasted. The University of Virginia increased their gas consumption over the winter months due to using gas more than coal.

D. Fiscal Year 2014 Budget, Estimated Gas Sales and Proposed Rates

Budget

The operating budget for fiscal year 2014 was used in these rate calculations.

Estimated Gas Sales

For fiscal year 2014, we are projecting total gas flows to the City of 2,981,873 Dth. This higher gas purchase volume and anticipated sales are offset by higher gas capacity costs which raises the dollars per Dth needed to recover fixed costs and resulting in increasing rates. Firm usage is forecast to be higher due to more customers.

Gas flows this year were forecast using gas consumption factors that have been correlated to the local climatological data. This is an inexact process, and forecast flows will continue to vary for similar weather conditions.

Interruptible rates are forecast to increase based on historical consumption and input from the large customers, while our transportation customer is forecasted to be less than last year. The University of Virginia estimated usage in FY2014 of 744,000 Dth is higher than last year. The FY2014 budget includes the assumption that sales to Interruptible customers will increase while sales to transportation customers will decrease.

Total flow estimates include an allowance of 2% for unaccounted for gas. Actual gas system losses for the past year were less than 2%. It is common, however, to design rates assuming a 1-2% loss. In FY2014 as in previous years, the conservative assumption of 2% loss has been used.

Proposed Rates

Proposed rates for fiscal year 2014 are based on wholesale gas rates as of March 1, 2013, the City's operating budget and projected sales volume for the year. The PGA in effect for March 2013 is included in the proposed rates, and is reduced to zero as a starting point for next year. These proposed rates will become base rates for next year, and will be adjusted up or down as needed to reflect monthly changes in actual gas cost.

Proposed firm rates for July 1, 2013 are 3.89% lower for the typical firm customer, who uses 8,000 cf, than actual rates for March, 2013. The base rate increase includes a non-gas operating cost decrease of about .58% in budgeted expenses as well as a sales volume increase resulting in a 1.64% decrease in the base rate. There was a one-time refund from Columbia gas of $274,544 resulting in a 0.97% decrease in the

base rate. Finally contract price changed resulting in a decrease of 0.70%. The major changes in budgeted combined non-gas operating costs components include the following:

- The total non-gas operating budget decrease by $85,305 from FY2013 to FY2014, reflecting an decrease of 0.58%,
- Sales volume increased in FY2014 by 314,971 from FY2013 causing a 1.64% decrease,
- One time refund from Columbia gas of $274,544 results in a 0.97% decrease,
- Decrease in the contract price of 0.70%.

Proposed interruptible rates are about 5.14% lower than current actual rates for the typical interruptible customer.

E. Gas Rate Comparison

Exhibit VI-E provides a comparison of the City's current firm gas rates with other Virginia gas companies. It is difficult to compare rates in the environment of rapidly changing wholesale gas costs. The exhibits reflect a snapshot of rates for March 2013. No information is available for potential changes to other gas system's rates. Because the gas utilities have different ways of passing through increases in wholesale gas cost, the relative competitiveness of these systems is constantly changing. Firm industrial rates are more difficult to compare since many systems incorporate a monthly demand charge into the rate. Interruptible rates are also very difficult to compare from system to system. Many surrounding systems do not have a published interruptible rate and others routinely discount from a published rate on a monthly basis. Rate comparisons are provided only for general information and trend determination.

F. Gas Assistance Program

The City's Gas Assistance Program (GAP) provides financial assistance to local residents who need help to pay heating bills. This fund supplements assistance that is available to many people under other programs, and may be the assistance available for some residents who need help but do not qualify under the guidelines of other programs. In the last twelve months, the City has provided 411 households with over $88,922.37 in assistance. Contributions from area businesses and residents help to supplement the amount of money that is available for assistance. The FY2014 budget includes $60,000 in new funding plus carryovers from prior years and should be sufficient to fund the program in FY2014.

G. *Programmable Thermostat Rebate Program*

The thermostat rebate program provides a rebate of up to $100 per account to any customer who purchases and installs a programmable thermostat. The thermostats can be used to automatically lower the temperature in a building at night or while a resident is away at work, vacation or the like, and to raise the temperature at pre-set times. By setting their thermostats back 10° to 15° at night for 8 hours, it is estimated that a customer can reduce their heating bills by 5% to 15%. Over the past year, 93 customers have received rebates totaling $8,189.06. Next year's budget includes $10,000 to continue funding this program.

H. Summary of Recommendations

Exhibit VI-C reflects the FY2013 Base Rate, the March 2013 rate (with the PGA applied), and the proposed FY2014 Bas Rates. The rates for the Firm, Interruptible, Transportation, Air Conditioning, and Gas Lighting classifications are illustrated on the exhibit.

The gas rate proposals in this report are summarized as follows:

1. Adopt the rate schedules presented in Exhibit VI-C; and
2. Establish a base unit cost for firm gas of $5.4479 per Dth and a base unit cost for interruptible gas of $3.9347 per Dth.

Impact on Average Customer

Rates for July 1, 2013 are 3.89% lower for the average typical firm customer, who uses 8,000 cf, than the rates for March, 2013. Firm customers include various customers (residential, commercial and industrial) for whom gas supplies are guaranteed to be available all year long without interruption. The actual percent decrease is dependent upon usage.

- For a representative residential monthly consumption of 8,000 cf, the monthly bill will decrease from $93.32 to $89.69, a decrease of 3.89%.
- The average single-family household, who consumes 4,460 cf of gas, will see the monthly bill decrease from $58.48 to $56.46, a reduction of 3.45%.

Factors Influencing the Gas Rate

The City of Charlottesville's gas rate is influenced by the operating budget, sales volume, contract price, and any additional revenue received by the gas utility.

We received a one-time refund from Columbia Gas who owns the pipeline that transports the natural gas to the City of Charlottesville. The fees the city owes Columbia Gas for transporting the gas is billed to the City by BP, our wholesaler, in a combined bill for gas purchased and transportation fees. Our refund was due on the transportation of natural gas charged by Columbia Gas.

Continued growth in our customer base and a volatile gas wholesale market contribute to the 3.89% decrease to firm customers. The incremental impacts are shown below:

- The total non-gas operating budget decreased by $85,305 from FY2013 to FY2014, or 0.58%, resulting in a $0.54 decrease due to lower operating expenses.
- The sales volume increased in FY2014 by 314,971 Dth causing a 1.64% decrease in the gas rate producing a $1.53 decline.
- The contract price decreased by 0.70% causing a $0.65 decrease.
- A one-time refund from Columbia gas of $274,544 resulted in a $0.91 or 0.97% decrease for a rate of $89.69.

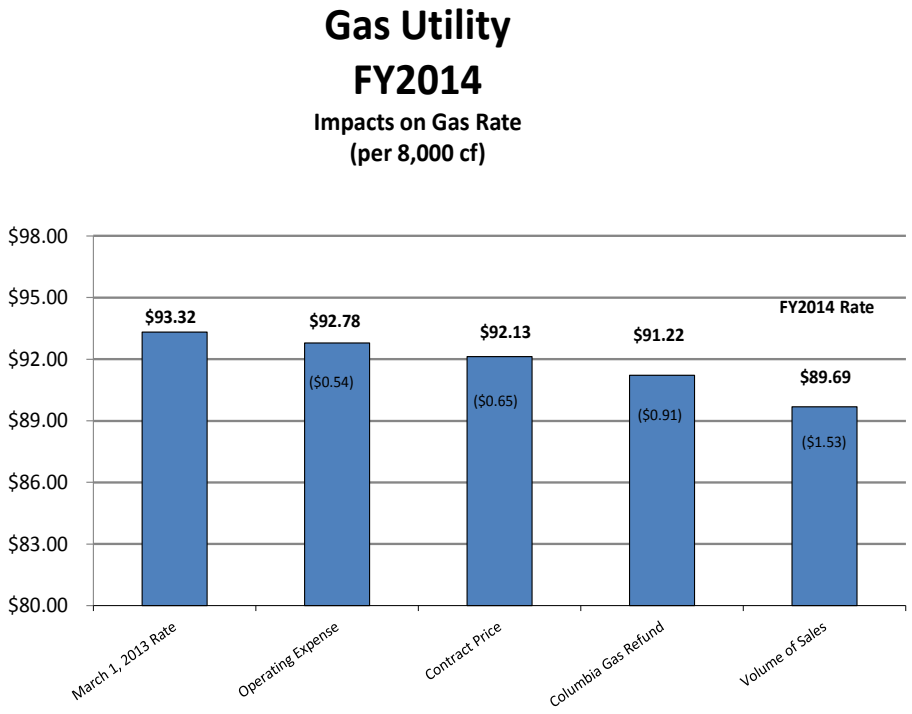


EXHIBIT VI-A
Gas Utility
Projected Revenue Requirements

Revenue Requirements:	FY2013 BUDGET	FY2014 BUDGET
Gas Purchased	$ 10,965,831	$ 13,456,180
Operations & Maintenance	8,026,199	8,329,592
Payment in Lieu of Taxes	3,348,955	3,375,571
Allocated Costs	437,102	474,574
Assessment and Collection	1,276,628	1,087,977
Bad Debt	70,000	70,000
New Construction Projects	367,511	353,376
Debt Service Funding	1,150,000	900,000
Total Revenue Required for operations	$ 25,642,226	$ 28,047,270
Revenue Provided by Ooperations:		
Gas Sales	$ 25,317,226	$ 27,447,726
Columbia Gas One Time Refund	$ -	$ 274,544
Other Operating Revenue	325,000	325,000
Total Revenue Provided by Operations	$ 25,642,226	$ 28,047,270
Gain (Loss) From Operations	$ -	$ -

EXHIBIT VI-B
Gas Utility
FY2014

Revenue Required:	DT		Amount
Gas Purchased	2,981,873	$	13,456,180
General Operations			2,412,239
Distribution Lines			2,225,910
Gas Supply - Other			473,547
Gas Service			939,586
Payment in Lieu of Taxes			3,375,571
Allocated Costs			474,574
Assessment and Collection			1,087,977
Bad Debt			70,000
Marketing			40,000
City Yard Evaluation			100,000
Integrated Information System			1,350,000
Capital Projects - New Business			353,376
Gas Assistance Program Contribution			60,000
Thermostat Replacement Program			10,000
Debt Service Funding - Combined			900,000
Environmental Administration			343,666
Stormwater Utility*			159,744
Vehicle Replacement			214,900
Total Revenue Required		$	28,047,270
Less Other Funding Sources:			
Air Conditioning Sales	10,000	$	54,549
Transportation Fees	36,773		126,726
Columbia Gas Refund			274,544
Other Revenue			325,000
Total	46,773	$	780,819
Revenue Required from Firm and Interruptible Customers	2,935,100	$	27,266,451
Estimated Sales at Proposed Rates:			
Air Conditioning	10,000		
Gas loss	58,468		
Firm Sales	2,055,765	$	21,635,946
Interruptible Sales	857,640		5,630,505
Total Estimated Sales	2,981,873	$	27,266,451

* Stormwater Utility is for 6 months only.

Exhibit VI-C
GAS UTILITY
FY2014

	7/1/2012 Base Rate	3/1/2013 PGA	*Actual 3/1/2013 Rates	Proposed Rates FY14
FIRM				
Customer Charge (Minimum)	$ 10.00		$ 10.00	$ 10.00
First 3,000 Cu Ft, Per MCF	$ 10.6424	$ 0.4374	$ 11.0798	$ 10.6256
Next 3,000 Cu Ft, Per MCF	10.0039	0.4374	10.4413	9.9881
Next 144,000 Cu Ft, Per MCF	8.9396	0.4374	9.3770	8.9255
Over 150,000 Cu Ft, Per MCF	$ 8.7268	$ 0.4374	$ 9.1642	$ 8.7130
INTERRUPTIBLE				
Customer Charge (Minimum)	$ 60.00		$ 60.00	$ 60.00
First 600 MCF, Per MCF	$ 8.0400	$ 0.4447	$ 8.4847	$ 8.0380
Over 600 MCF, Per MCF	$ 6.4067	$ 0.4447	$ 6.8514	$ 6.5065
Annual Minimum (MCF)	1,200		1,200	1,200
AIR CONDITIONING				
All Gas Used, Per DTH	$ 7.6381	$ 0.4374	$ 8.0755	$ 9.0796
GAS LIGHT				
Charge per Month	$ 17.00		$ 17.00	$ 17.00
TRANSPORTATION				
Monthly Service Charge	$ 150.00		$ 150.00	$ 150.00
Rate per DTH	$ 3.9257		$ 3.9257	$ 3.4461

*Proposed rate schedules are based on wholesale rates for March, 2013

Note: MCF is volume adjusted by thermal factor and is equivalent to DTH

EXHIBIT VI-D
GAS UTILITY
COMPARISON OF CHARGES WITH FY2013 and FY2014 RATES

FIRM CUSTOMERS	BASE RATES FY2013	ACTUAL RATES 03-01-13	PROPOSED WITH 03-01-13 GAS COST	PERCENT INCREASE (DECREASE)
4,000 CU. FT.	$ 51.93	$ 53.68	$ 51.86	(3.39) %
4,460 CU. FT.*	56.53	58.48	56.46	(3.45)
8,000 CU. FT.	89.82	93.32	89.69	(3.89)
15,000 CU. FT.	152.40	158.96	152.17	(4.27)
20,000 CU. FT.	197.09	205.84	196.80	(4.39)
25,000 CU. FT.	241.79	252.73	241.43	(4.47)
35,000 CU. FT.	331.19	346.50	330.68	(4.57)
60,000 CU. FT.	554.68	580.92	553.82	(4.67)
100,000 CU. FT.	912.26	956.00	910.84	(4.72)
150,000 CU. FT.	1,359.24	1,424.85	1,357.11	(4.75)
200,000 CU. FT.	$ 1,795.58	$ 1,883.06	$ 1,792.76	(4.80) %
INTERRUPTIBLE CUSTOMERS				
100,000 CU. FT.	$ 864.00	$ 908.47	$ 863.80	(4.92) %
200,000 CU. FT.	1,668.00	1,756.94	1,667.60	(5.08)
400,000 CU. FT.	3,276.00	3,453.88	3,275.20	(5.17)
600,000 CU. FT.	4,884.00	5,150.82	4,882.80	(5.20)
1,000,000 CU. FT.	7,446.68	7,891.38	7,485.40	(5.14)
2,000,000 CU. FT.	13,853.38	14,742.78	13,991.90	(5.09)
4,000,000 CU. FT.	$ 26,666.78	$ 28,445.58	$ 27,004.90	(5.06) %

* Average Residential customer

EXHIBIT VI-E
GAS RATE COMPARISON
SUMMER AND WINTER RESIDENTIAL REQUIREMENTS
AT MARCH 1, 2013

Distributor	Minimum Charge	4 DTH of Usage	8 DTH of Usage
Charlottesville - Proposed	$ 10.00	$ 51.86	$ 89.69
Charlottesville - Present	$ 10.00	$ 53.68	$ 93.32
Columbia Gas of Virginia	$ 14.25	$ 56.18	$ 98.11
Richmond	$ 11.05	$ 49.85	$ 88.65
Virginia Natural Gas	$ 11.00	$ 51.64	$ 91.27
Danville	$ 11.15	$ 47.57	$ 84.00
Southwestern VA Gas	$ 11.17	$ 42.64	$ 74.11

EXHIBIT VI-F
Actual Rates for the Average 8 DTH Customer

	2009	2010	2011	2012	2013
July	$ 177.71	$ 106.35	$ 120.10	$ 97.83	$ 88.50
August	151.88	104.85	112.51	105.41	89.82
September	144.75	104.09	104.89	104.72	89.31
October	136.78	105.16	106.26	104.61	89.67
November	128.10	107.03	102.47	104.29	93.59
December	131.72	106.22	109.14	104.08	95.11
January	125.22	116.66	108.69	103.70	92.80
February	110.89	113.15	109.38	102.37	91.94
March	107.26	110.13	105.85	102.84	$ 93.32
April	103.52	103.65	108.90	102.55	
May	100.84	106.61	109.83	102.34	
June	$ 102.81	$ 105.46	$ 109.55	$ 102.86	

Lowest rate	$ 88.50	July, 2012
Highest rate	$ 177.71	July, 2008

SECTION VII:
ESTIMATED FUTURE WATER AND WASTEWATER RATES

A. *General*

The following analysis shows the impact of assumptions regarding operating costs and impacts of capital projects, both those of the City and of RWSA, on future water and wastewater rates. In addition, an analysis is performed to gauge the impact of the use of rate stabilization revenue to mitigate dramatic rate increases in any given year. Revenue has been reserved to offset future rate increases and minimize the fluctuation in rate changes over the period examined. These fluctuations are caused primarily by rising future capital costs. Exhibits VII-A and VII-D present estimates of the future wholesale rates from RWSA and the future City water and wastewater rates for fiscal years 2014 through 2018. Both rates will be impacted by significant increases in capital improvement costs and the effects of the capital expenditures on future rates are presented. The following assumptions were used to develop these estimates:

1. RWSA Wholesale Rates and the purchase of water and wastewater:
    - Estimates, provided by RWSA, of the projected wholesale rates are presented at the top of each exhibit.
    - RWSA's rates are split into an Operational Rate and a Debt Rate.
    - Analysis includes RWSA's Adopted Capital Improvement Plan for Fiscal Years 2013-2017, proposed January 22nd, 2013.
    - For each year, the two rates are added together to get the overall wholesale rate.
    - The purchase volume of water and wastewater from RWSA is assumed to remain constant. The total treatment cost is calculated for each year and is included in the City's wastewater utility budget.
2. The City's water and wastewater Budgets:
    - Debt service is based on funding the City's adopted water and wastewater CIP's for fiscal years 2014 through 2018.
    - Operations and maintenance, payment in lieu of taxes, indirect costs, utility billing, meter reading, and water conservation line items in the City's budget are inflated at an annual rate of 2.0% for 2014 through 2018.
3. Other Revenue (service charges, etc.) – Assumed to remain constant for each year. However, the facility fee rate structure that was implemented in FY2009 and recommended to increase in FY2013 will have an impact on the mount of rate stabilization that will be used to mitigate future rate increases. Revenue received from these fees, along with additional revenue from the water fund has been reserved to offset future rate increases, if approved. The impacts are presented at the bottom of Exhibits VII-A and VII-D and are discussed in more detail in Item 7.

4. Flows – The future flow volumes and proportions that the City sells to UVa and to the City customers are assumed to remain constant.

5. Revenue from UVa – Revenue from the sale of water and wastewater service to UVa is calculated using the contract procedure and are included.

6. Results – The resulting rates per mcf for each year are shown at the bottom of each exhibit with the percent increase from the year before. Below that is the monthly bill for the average single-family residential customer (454 CF per month) and the percent increase for each year.

7. Impact of the Rate Stabilization on the Future Rates – At the bottom of each exhibit, the effect of the facility fees on the rates are calculated using the following assumptions:

    - City Staff estimates that the following revenue will be generated each year for each (water and wastewater) fund.

Year	Water Revenue	Wastewater Revenue
FY2014	$250,000	$350,000
FY2015	$350,000	$450,000
FY2016	$450,000	$550,000
FY2017	$500,000	$600,000
FY2018	$600,000	$700,000

    - This additional revenue is shown for each year. It is assumed that $2,150,000 of additional revenue will be generated for the water funds and $2,650,000 for the wastewater fund from FY2014 through FY2018.
    - The amount of each year's revenue that will be applied to reducing that year's rates is presented. City Staff intends to carry over a portion of the balance in revenue each year in order to stabilize rate increases for future years.
    - For each year, the amount of carryover from prior years to achieve relatively stable annual rate increases is presented.
    - The total rate stabilization revenue to be applied to the rate calculation in each year and the new balance to be recovered is then calculated.
    - Results – The resultant rates per mcf are shown at the bottom with the new rates for the average single-family residential customer.

B. *Future Water Rates*

Exhibit VII-A presents the estimated future water rates for fiscal years 2014 through 2018. Also shown are the FY2014 rates recommended in this report. Without the new facility fees, the rate per mcf increases from $44.09 in 2014 to $57.32 projected in 2018. The monthly bill of the average single-family

residential customer (454 CF per month) rises from $24.02 in 2014 to $30.02 anticipated in 2018, a 25% increase over the entire period.

Using the revenue generated from the rate stabilization fund to reduce and stabilize the rates over the years results in anticipated future annual rate increases per mcf of approximately 5.75%. The average single-family water bill will increase between approximately 4.8% and 4.9%.

Exhibit VII-B presents projected future rates per mcf with and without the use of rate stabilization revenue. Without the use of stabilization revenue, rates range from $51.04 in FY2015 to $57.32 in FY2018. With the use of rate stabilization revenue, rates vary from $46.63 in FY2014 to $49.321 in FY2018. Exhibit VII-C shows the average monthly bill of a typical single-family household in the City. Without the rate stabilization, the monthly bill varies from $27.17 in FY2015 to $30.02 in FY2018. Using stabilization funds, the average monthly bill is projected to be $25.17 in FY2014 and $29.04 in FY2018.

C. *Future Wastewater Rates*

Exhibit VII-D presents the estimated future wastewater rates for fiscal years 2015 through 2018. Also shown are the FY2014 rates recommended in this report. The rate per mcf increases from $63.32 in 2015 to $75.37 projected in 2018. Without the facility fees, the monthly bill of the average single-family customer (454 CF per month) rises from $32.75 in 2015 to $38.22 anticipated in 2018.

Because of limited availability of funds in the wastewater utility, rate stabilization usage will be lower than in previous years. It should be noted that the forecast of future available funds is extremely conservative. Using the available rate stabilization revenue to reduce and stabilize the rates results in an average 6% reduction in rates and a 5.5% reduction for the single-family user.

Exhibit VII-E and VII-F present wastewater rates per mcf and the average monthly bill of a single-family household in the City.

It should be noted that any future changes in RWSA's or the City's capital expenditure plan, operating expenditures, volume or purchases or sales and/or collection of facility fee revenue will have an impact on future rates.

EXHIBIT VII-A
WATER FUND
FUTURE WATER RATE PROJECTIONS

	FY2014	FY2015	Projected FY2016	FY2017	FY2018
Estimated Wholesale Cost of Water					
RWSA - Operational Rate (Cost/MCF)	$10.94	$11.26	$11.60	$11.95	$12.31
RWSA - Debt Rate (Cost/MCF)	$6.57	$6.83	$7.08	$7.32	$6.93
Total RWSA Rate (Cost/MCF)	**$17.51**	**$18.09**	**$18.68**	**$19.27**	**$19.24**
Percent Change in RWSA Rates	-4.18%	3.33%	3.23%	3.19%	-0.16%
Amount of Water Sold (MCF)	240,123	238,589	238,589	238,589	238,589
Cost of Water Purchase From RWSA	**$4,204,717**	**$4,316,817**	**$4,456,333**	**$4,598,268**	**$4,591,000**
Percent Change in Water Purchase Cost	-8.83%	2.67%	3.23%	3.19%	-0.16%
Projected City Budgets					
Water purchases	$4,204,717	$4,316,817	$4,456,333	$4,598,268	$4,591,000
Operations & maintenance (inflate 2.0%)	2,214,139	2,258,422	2,303,591	2,349,663	2,396,656
Water conservation (inflate 2.0%)	188,455	192,224	196,069	199,990	203,990
Toilet rebate program	40,000	40,000	40,000	40,000	40,000
Payment in lieu of taxes (inflate 2.0%)	531,844	542,480	553,330	564,397	575,685
Indirect costs (inflate 2%)	177,114	180,656	184,269	187,955	191,714
Utility Billing Office budget (inflate 2%)	270,125	275,528	281,038	286,659	292,392
Meter Reading budget (inflate 2%)	46,067	46,988	47,928	48,886	49,864
Water assistance program	25,000	25,000	25,000	25,000	25,000
Vehicle replacement budget	73,029	73,029	73,029	73,029	73,029
Computer System Support	27,046	27,046	27,046	27,046	27,046
Bad debts	10,000	10,000	10,000	10,000	10,000
Interest on deposits	5,000	5,000	5,000	5,000	5,000
Debt service funding	**1,550,000**	**1,725,000**	**1,925,000**	**2,125,000**	**2,250,000**
Total operations	$9,362,536	$9,718,191	$10,127,633	$10,540,893	$10,731,375
Percent Increase	-4.01%	3.80%	4.21%	4.08%	1.81%
Less revenues not related to water use:					
Connection fees	125,000	125,000	125,000	125,000	125,000
Other revenue	65,000	65,000	65,000	65,000	65,000
Rate stabilization	647,000	0	0	0	0
Total	$837,000	$190,000	$190,000	$190,000	$190,000
Revenue required from water charges	$8,525,536	$9,528,191	$9,937,633	$10,350,893	$10,541,375
LESS UVa central charges	1,333,504	1,376,136	1,417,043	1,458,673	1,462,137
Balance to be recovered by City Water Sales	$7,192,031	$8,152,054	$8,520,590	$8,892,220	$9,079,238
Minimum Monthly Charge	**4.00**	**4.00**	**4.00**	**4.00**	**4.00**
Minimum charges revenue	$678,928	$681,304	$683,689	$686,082	$688,483
Balance to be recovered through rate above minimum	$6,513,103	$7,470,750	$7,836,901	$8,206,138	$8,390,755
Volume (MCF) above minimum	147,709	146,375	146,375	146,375	146,375
Rate per MCF	**$44.09**	**$51.04**	**$53.54**	**$56.06**	**$57.32**
Percent Change in MCF Rate	1.47%	15.76%	4.90%	4.71%	2.25%
Monthly Bill for Single-family Cust. (454 CF/month)	**$24.02**	**$27.17**	**$28.31**	**$29.45**	**$30.02**
Percent Change in Monthly Bill	1.22%	13.14%	4.18%	4.04%	1.94%
Proposed Rates with Additional Facility Fees					
Beginning Facility Fee Revenue Balance	*$288,000*	*$538,000*	*$243,000*	*$74,000*	*$1,000*
Additional revenue from proposed Facility Fees	*$250,000*	*$350,000*	*$450,000*	*$500,000*	*$600,000*
Revenue to be applied to the current year to reduce rates	***$0***	***$645,000***	***$619,000***	***$573,000***	***$318,000***
Ending Facility Fee Revenue Balance	*$538,000*	*$243,000*	*$74,000*	*$1,000*	*$283,000*
Newbalance to be recovered through the rate above minimum	*$6,513,103*	*$6,825,750*	*$7,217,901*	*$7,633,138*	*$8,072,755*
New Rate per MCF	***$44.09***	***$46.63***	***$49.31***	***$52.15***	***$55.15***
Percent Change in MCF Rate	*1.47%*	*5.76%*	*5.75%*	*5.76%*	*5.75%*
New Monthly Bill for Single-family Cust. (454 CF/month)	***$24.02***	***$25.17***	***$26.39***	***$27.68***	***$29.04***
Percent Change in Monthly Bill	*1.22%*	*4.80%*	*4.83%*	*4.89%*	*4.92%*

Exhibit VII-B
Future Water Rates
(1,000 CF)

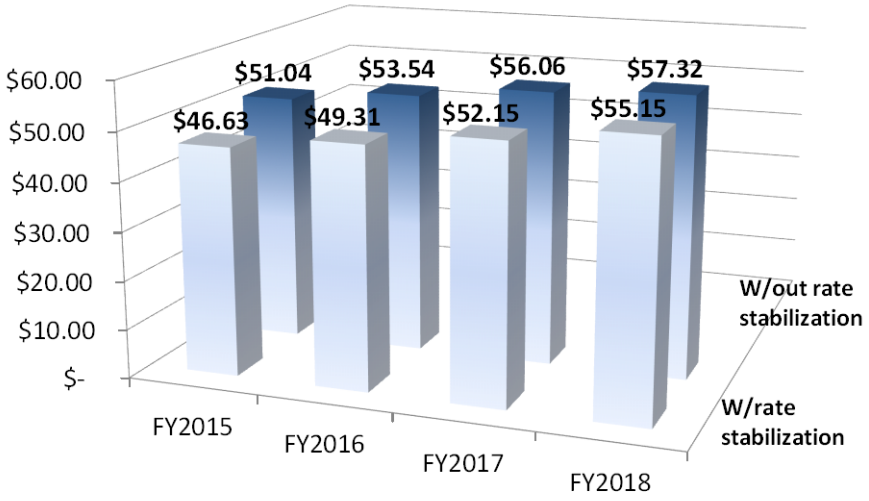


Exhibit VII-C
Future Water Rates
Single-Family (454 CF)

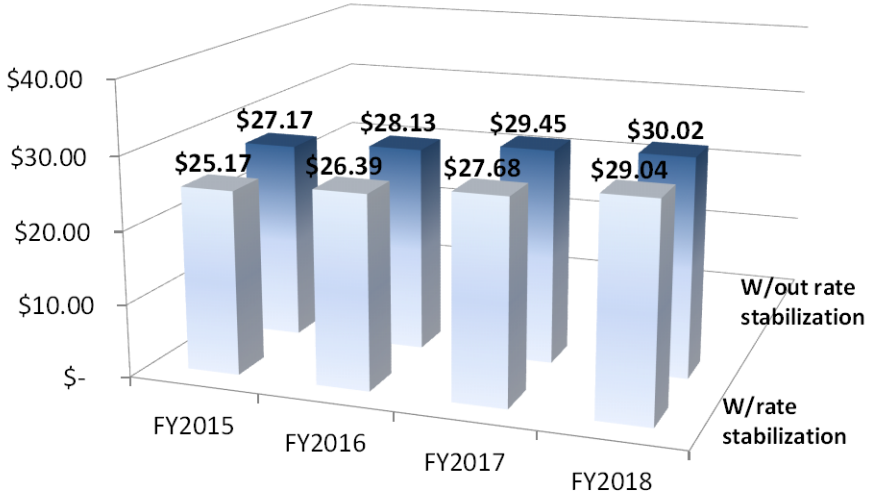


EXHIBIT VII-D
SEWER UTILITY
FUTURE SEWER RATE PROJECTIONS

	Proposed FY2014	FY2015	FY2016	FY2017	FY2018
Estimated Wholesale Cost of Sewer					
RWSA - Operational Rate (Cost/MCF - Forecasts provided by RWSA)	$ 13.67	$ 14.08	$ 14.50	$ 14.93	$ 15.38
RWSA - Debt Rate (Cost/MCF - Forecasts provided by RWSA)	13.21	14.59	15.96	17.34	18.34
Total RWSA Rate (Cost/MCF)	**$ 26.88**	**$ 28.67**	**$ 30.46**	**$ 32.27**	**$ 33.72**
Amount of Treatment Purchased (MCF)	247,233	242,655	242,655	242,655	242,655
Cost of Sewer Purchase From RWSA	**$ 6,644,553**	**$ 6,956,775**	**$ 7,391,399**	**$ 7,830,911**	**$ 8,182,837**
Percent Increase	3.58%	4.70%	6.25%	5.95%	4.49%
Projected City Budgets					
Cost of treatment	$ 6,644,553	$ 6,956,775	$ 7,391,399	$ 7,830,911	$ 8,182,837
Operations and maintenance (Inflate by 2.0%)	1,892,176	1,930,020	1,968,620	2,007,992	2,048,152
Payment in lieu of taxes (Inflate by 2.0%)	616,438	628,767	641,342	654,169	667,252
Indirect costs (Inflate by 2.0%)	151,104	154,126	157,209	160,353	163,560
Uility billing office budget (Inflate by 2.0%)	270,125	275,528	281,038	286,659	292,392
Meter reading budget (Inflate by 2.0%)	46,067	46,988	47,928	48,886	49,864
Wastewater assistance program	25,000	25,000	25,000	25,000	25,000
Bad debts	20,000	20,000	20,000	20,000	20,000
High strength sewer surcharge	0	0	0	0	0
Vehicle replacement	73,606	73,606	73,606	73,606	73,606
Computer system support	26,520	26,520	26,520	26,520	26,520
Debt service funding	**$ 2,000,000**	**$ 2,250,000**	**$ 2,550,000**	**$ 2,750,000**	**$ 3,050,000**
Total operations	$ 11,765,589	$ 12,387,329	$ 13,182,662	$ 13,884,096	$ 14,599,184
Percent Increase	2.81%	5.28%	6.42%	5.32%	5.15%
Less revenues not related to sewer rates:					
Finance charges for late payments	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000
Rate stabilization	850,000	-	-	-	-
Sewer surcharge	-	-	-	-	-
Total	$ 870,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000
Revenue required from sewer charges	$ 10,895,589	$ 12,367,329	$ 13,162,662	$ 13,864,096	$ 14,579,184
LESS UVa central charges	2,223,153	2,311,620	2,459,852	2,597,312	2,725,822
Balance to be recovered by City sewer sales	$ 8,672,436	$ 10,055,709	$ 10,702,810	$ 11,266,785	$ 11,853,362
Minimum Monthly Charge	**4.00**	**4.00**	**4.00**	**4.00**	**4.00**
Minimum charges	$ 672,396	$ 676,094	$ 679,813	$ 683,552	$ 687,311
Balance to be recovered through rate above minimum	$ 8,000,040	$ 9,379,615	$ 10,022,997	$ 10,583,233	$ 11,166,051
Volume (MCF) above minimum	148,141	148,141	148,141	148,141	148,141
Rate per MCF	**$ 54.00**	**$ 63.32**	**$ 67.66**	**$ 71.44**	**$ 75.37**
Percent Change in MCF Rate	7.46%	17.26%	6.85%	5.59%	5.50%
Monthly Bill for Average Single-family Cust. (454 CF/month)	**$ 28.52**	**$ 32.75**	**$ 34.72**	**$ 36.43**	**$ 38.22**
Percent Change in Monthly Bill	6.35%	14.84%	6.02%	4.94%	4.90%
Proposed Rates with Additional Facility Fees					
Beginning Facility Fee Revenue Balance	*$ 600,000*	*$ 100,000*	*$ -*	*$ -*	*$ -*
Additional revenue from proposed Facility Fees	*350,000*	*450,000*	*550,000*	*600,000*	*700,000*
Revenue to be applied to the current year to reduce rates	***$ -***	***$ 550,000***	***$ 550,000***	***$ 600,000***	***$ 700,000***
Ending Facility Fee Revenue Balance	*$ 100,000*	*$ -*	*$ -*	*$ -*	*$ -*
Newbalance to be recovered through the rate above minimum	*$ 8,000,040*	*$ 8,829,615*	*$ 9,472,997*	*$ 9,983,233*	*$ 10,466,051*
New Rate per MCF	***$ 54.00***	***$ 59.60***	***$ 63.95***	***$ 67.39***	***$ 70.65***
Percent Change in MCF Rate	*7.46%*	*10.37%*	*7.30%*	*5.38%*	*4.84%*
New Monthly Bill for Average Single-family Cust. (454 CF/month)	***$ 28.52***	***$ 31.06***	***$ 33.03***	***$ 34.60***	***$ 36.08***
Percent Change in Monthly Bill	*6.35%*	*8.92%*	*6.36%*	*4.73%*	*4.28%*

Note *1 An annual inflation rate of 2.0% is assumed for FY2014 thru FY2017.*

Exhibit VII-E
Future Wastewater Rates
(1,000 CF)

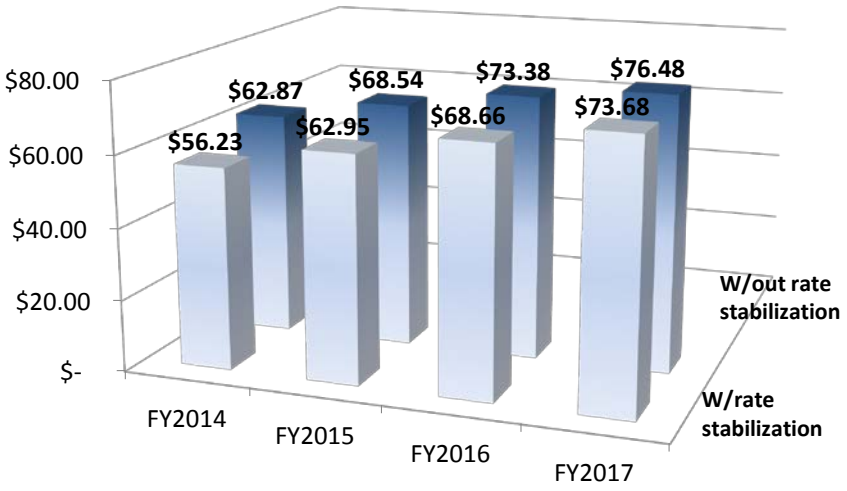
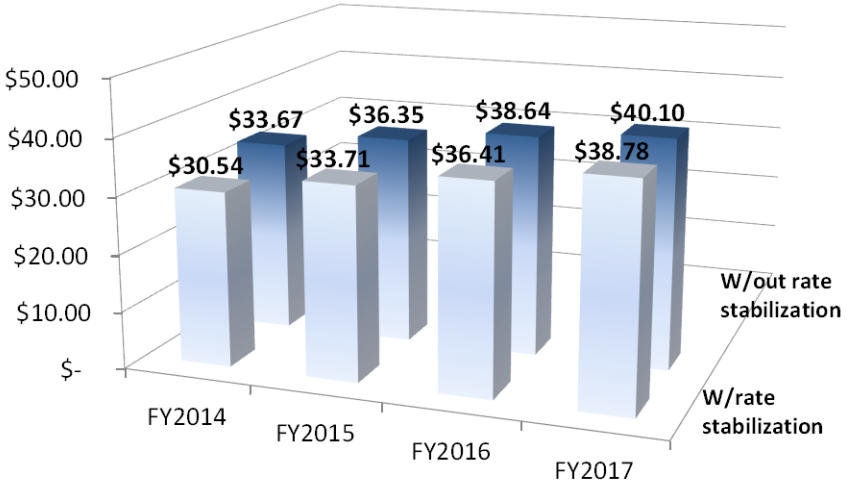


Exhibit VII-F
Future Wastewater Rates
Single-Family (454 CF)



GLOSSARY OF TERMS

Base Rate – The gas rate as set each year as of July 1, consisting of budgeted operating costs and current wholesale gas prices; it is adjusted each month to reflect changes in the cost of wholesale gas, through the PGA.

Basin – A geographical area of the City wastewater collection system.

CCTV – Closed circuit televising – Technology in which a camera, driven via remote control through the sanitary sewer, allows the operator to view blockages/breakages, etc., in the line and to schedule necessary maintenance accordingly.

Debt Service – The amount required to pay the annual principal and interest payments on long term debt, such as bonds.

Degree Day – The measure of relative heating requirements determined by subtracting the average temperature for the day from 65 degrees. The higher the number of degree days, the lower the temperature and, therefore, the higher the heating need.

Dth – Decatherm; a measurement of gas that is 1,000,000 BTU (British thermal units) of heat. A metered volume of gas (mcf) is converted to a constant heat value (Dth) for billing purposes. Both purchases and sales are measured and priced by Dth.

Indirect Cost - Local governments have overhead and administrative costs essential to operating the government and providing services to the public. Examples include costs incurred for a city manager, human resources, financial management, and information technology. Although these services typically reside in the General Fund, they also support agencies in other funds, such as utilities. The indirect cost associated with these services and then charged to other funds is calculated, typically annually, based on a standard methodology of cost allocation.

mcf – 1,000 cf; a volumetric measurement of water flows. One mcf of water is approximately 7,480 gallons.

NYMEX – New York Mercantile Exchange - The City purchases gas from its supplier based on closing monthly prices from this exchange.

Payment in lieu of taxes (PILOT) – An annual payment to the City's General Fund for the approximate amount that a private utility company would be paying in taxes plus an allocation of indirect costs for management services provided by the City that a private company would incur, including legal, accounting and human resource services. A formula is used each year to calculate the amount, based on the City's indirect cost allocation plan plus a percentage of utility revenues from the prior year. (Currently 8.5% for gas and 6% for water and wastewater.)

PGA – Purchased Gas Adjustment; the change in the annual base rate. It is calculated monthly to reflect the change in wholesale gas costs.

Rate of Return – The discount or interest rate that is used to calculate the maximum investment that the City will make to assess a potential gas line extension project, based on an expected flow of income.

Rate Stabilization – Money that has been set aside in prior years for the specific purposes of being used to offset all or a portion of a potential utility rate increase.

Storage Gas – Natural gas that the City buys in the summer months, to be stored by Columbia Gas in its storage fields for use during winter heating seasons. This is necessary because the Columbia Gas Transmission System does not have enough capacity to move gas from the producing fields through the pipelines to all customers during the winter months. There is frequently a savings benefit from buying gas in the summer, when the price normally declines.

Water Loss Factor – The difference between the amount of water purchased by the City from Rivanna Water and Sewer Authority for distribution and the amount that is billed to City customers. The loss may result from leaks, inaccurate meters, firefighting and other unmetered uses.

Working Capital – Current assets (cash and other liquid assets) less liabilities due within one year or net liquid assets available for use in current operations.

Working Capital Requirement – A formula used to calculate the amount needed to pay operating expenses for 60 days for water, wastewater, and for gas. This formula is used to ensure that there are adequate cash balances maintained to pay all obligations on time, without borrowing from the City's General Fund.