



The City of Lynchburg, Virginia

CITY HALL, 900 CHURCH STREET, LYNCHBURG, VIRGINIA 24504
(434) 455-3968
FAX (434) 845-0711

FINANCIAL SERVICES
OFFICE OF THE DIRECTOR

To: City Council

From: Donna Witt, Director of Financial Services 

cc: Bonnie Svrcek, City Manager
Charles Hartgrove, Deputy City Manager
John Hughes, Assistant City Manager

Date: March 21, 2017

Re: March 28, 2017 Finance Committee meeting

Please be advised the March 28, 2017 Finance Committee meeting is cancelled.

The next Finance Committee meeting is Tuesday, April 25, 2017 at 11:30 a.m.

Thank you.

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **March 28, 2017**

AGENDA ITEM #: **1**

CONSENT:
ACTION:

REGULAR:
INFORMATION: **X**

WORK SESSION: **X**

CLOSED SESSION:
(Confidential)

ITEM TITLE: Virginia Cooperative Extension Healthy Food Retail Coordinator

Strategic Pillar(s) Impacted:

☐ Arts & Culture	☐ Citizen Engagement & Social Capital	☐ Economic Development	☒ Healthy & Active Living
☐ Infrastructure	☐ Land Use	☐ Lifelong Learning	☐ Natural Resources
☐ Neighborhoods	☐ Safe Community	☐ Social Equity	☐ Transportation
			☐ Administrative

RECOMMENDATION: Hear a brief presentation from Liza Dobson, Healthy Food Retail Coordinator with Virginia Cooperative Extension.

SUMMARY: Kevin Camm, Extension Agent and Unit Coordinator for Cooperative Extension will introduce the new Healthy Food Retail Coordinator for our area.

PRIOR ACTION(S): None

FISCAL IMPACT: None

CONTACT(S): Bonnie Svrcek, City Manager – 455-3990

ATTACHMENT(S): None

REVIEWED BY: bms

040K

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **March 28, 2017**

AGENDA ITEM #:2

CONSENT:
ACTION:

REGULAR:
INFORMATION: **X**

WORK SESSION: **X**

CLOSED SESSION:
(Confidential)

ITEM TITLE: Presentation of Proposed FY 2018 Lynchburg City Schools Budget

Strategic Pillar(s) Impacted:

☐ Arts & Culture	☐ Citizen Engagement & Social Capital	☐ Economic Development	☐ Healthy & Active Living
☐ Infrastructure	☐ Land Use	☐ Lifelong Learning	☐ Natural Resources
☐ Neighborhoods	☐ Safe Community	☐ Social Equity	☐ Transportation
			☒ Administrative

RECOMMENDATION: Hear a presentation regarding the FY 2018 Lynchburg City Schools Budget.

SUMMARY: Superintendent of Schools, Dr. Scott Brabrand, will make a presentation regarding the FY 2018 Budget for Lynchburg City Schools.

PRIOR ACTION(S): N/A

FISCAL IMPACT: As noted in the *FY 2018 Proposed Operating and FY 2018-FY 2022 Capital Improvement Program*

CONTACT(S): Dr. Scott Brabrand – 515-5070

ATTACHMENT(S): Superintendent's Proposed 2017-2018 Budget Presentation

REVIEWED BY: bms

042K



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

ADDRESSING OUR CHALLENGES

- Attracting and Retaining High Quality Personnel ◀
- Enhancing Targeted Instructional Support Increasing Student Opportunities By Name and By Need ◀
- Operational Cost Increases ◀

WHAT'S NEW THIS YEAR?

- LCS requested city increase to school budget is \$3.7 million ◀
- State budget increase is \$1.1 million ◀
- City Manager proposal gives LCS an additional \$1.2 million ◀
- \$1.4 million of LCS requests remain unfunded ◀
- Additional state and local dollars only cover mandatory requests ◀
- State provides money for 2% raise effective February 15, 2018 for state-supported positions ◀

A TRADITION OF EXCELLENCE FOR ALL



LYNCHBURG CITY SCHOOLS



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

Total Mandatory Requests:	\$2,254,439
Total Tier 1 Requests:	\$1,546,327
Less: Personnel Efficiency Savings	(\$65,000)
GRAND TOTAL	\$3,735,766



Mission: Every Child,
 By Name and By
 Need, to Graduation

Superintendent's proposed 2017-18 Budget

BUDGET PROCESS

FY2017-2018 BUDGET REQUESTS	
Operating Budget	\$ 3,735,766
School Bus Replacement	0
Total Operating Budget Requests	3,735,766
Capital Projects	0
TOTAL BUDGET REQUESTS	\$ 3,735,766

FY2017-2018 PROPOSED BUDGETS	
Operating Budget	\$ 96,791,941
Capital Projects Budget	0
	\$ 96,791,941



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

ATTRACTING/RETAINING QUALITY PERSONNEL

- Maintain 2% COLA for all employees from 2016-17
- Increase in VRS Retirement Rate

City Manager's
proposed
budget funds
these two items

- Hire an assistant director of personnel
- 1 % for all employees effective July 1, 2017
- Remaining salary market adjustment for:
 - All Instructional Assistants/TEAs
 - Bus drivers and bus assistants
 - Custodians and select positions in maintenance



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

ENHANCING TARGETED INSTRUCTIONAL SUPPORT

- Staffing to support the increased needs of special education students
- Need for additional slots at elementary and secondary alternative education sites

INCREASING STUDENT OPPORTUNITIES BY NAME AND BY NEED

- Hire additional coordinator for equity work, including curriculum and professional development support



Mission: Every Child,
By Name and By
Need, to Graduation



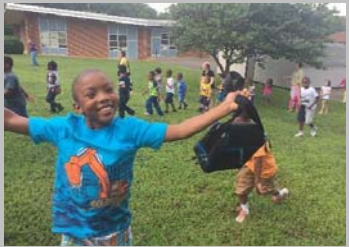
Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

OPERATIONAL COST INCREASES

- Workman's Comp insurance
- General liability insurance
- Copy machine lease
- Empowerment Academy lease agreement
- Background checks on volunteers

- Division Safety Coordinator
- Security Camera Maintenance Contract
- Hourly rate for LPD off-duty officer rate
- Facilities and Maintenance Operations
- Transportation field coordinator
- Hire an assistant director of personnel



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

3.7 Million Requested



■ Total Funded ■ Total unfunded



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

ADM vs. Enrollment—A Review

ADM formula that averages student attendance over time

Enrollment snapshot in time of students actively enrolled in schools on a particular day

ADM formula definition

aggregate number of days of all students' enrollment as of a date

divided by

total number of student days as of a date



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

ADM vs. Enrollment

Example of ADM calculation

Enrollment = 3

student 1	enrolled 180 days
student 2	enrolled 100 days
student 3	enrolled 100 days

Total days of enrollment: **380** days

divided by

total number of school days **180**

ADM = 2.11

ADM is always less than or
equal to enrollment—
never more than enrollment



Mission: Every Child,
By Name and By
Need, to Graduation

Superintendent's proposed 2017-18 Budget

ADDRESSING OUR CHALLENGES

- Attracting and Retaining High Quality Personnel ◀
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LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **March 28, 2017**

AGENDA ITEM #: **3**

CONSENT:
ACTION:

REGULAR:
INFORMATION:

WORK SESSION: **X**

CLOSED SESSION:
(Confidential)

ITEM TITLE: Department of Water Resources 2017 Annual Report Presentation

Strategic Pillar(s) Impacted:

☐ Arts & Culture	☐ Citizen Engagement & Social Capital	☐ Economic Development	☐ Healthy & Active Living
☒ Infrastructure	☐ Land Use	☐ Lifelong Learning	☒ Natural Resources
☐ Neighborhoods	☐ Safe Community	☐ Social Equity	☐ Transportation
			☐ Administrative

RECOMMENDATION: Proceed to a public hearing regarding the rate recommendations contained within the Department of Water Resources FY 2017 Rate Study and Annual Report.

SUMMARY: The Department of Water Resources staff will present an overview of the Department of Water Resources 2017 Annual Report which includes information on the following:

- Drinking Water, Wastewater and Stormwater overview,
- Financial Overview including: Revenues and expenditures by fund and division, rate analysis and comparisons,
- Water, Sewer, and Stormwater Projections,
- Statistical data.

The utility rate strategy developed for this year continues with the guiding principles of:

- Minimize the impact of rate adjustments on residential and other small customers.
- Ensure necessary funding is provided for increases in operating and debt service costs.
- Ensure compliance with the Special Order for Combined Sewer Overflow (CSO).
- Ensure compliance with adopted Fund Balance and Debt Management Financial Policies.
- Provide an equitable distribution of costs based on actual services provided.

PRIOR ACTION(S): None

FISCAL IMPACT: The proposed 5.1% water rate increase will result in an \$397,000 in additional annual revenue to the Water Fund.

CONTACT(S): Tim Mitchell, Director of Water Resources, 455-4252

ATTACHMENT(S): Department of Water Resources 2017 Annual Report

REVIEWED BY: bms

041K

2017

ANNUAL

REPORT



LYNCHBURG
WATER
RESOURCES

Construction of Pedlar Dam



Pedlar River (above) - James River (below)

Photos taken during dam and waterline construction



Tightening the
bands on the
redwood pipeline

Inside

Our History 4

Our Mission 10

Our Water 11

Our Environment 16

Our People 23

Budget and Rates 26

Appendix A - Financial Projections

Appendix B- Statistical Data

Our Mission:

*"To provide excellent water, wastewater, and stormwater
services that promote the health, prosperity, and
environmental stewardship of the community!"*



Our History!

The History of Lynchburg's Water System

...by Steve Shenk

"The Saga of a City"

An excerpt from *The Saga of a City*, published in 1936 by the Lynchburg Sesquicentennial Association, "Lynchburg's most important community achievement is the thoroughly modern system which distributes to every part of the City an abundance of pure, healthful water at low cost to the residents. Lynchburg does not enjoy this utility by any piece of good luck, but rather because of one hundred years of thought and work and determination. Yet, one is apt to forget that the clear, palatable water that gushes from a spigot at the turn of a handle has its own story of the triumph of our forbearers over obstacles once considered insuperable; the commonplace is apt, too, to cause us to forget to acknowledge the debt we still own those who envisioned the great plan."



1812 Locust Log Water Line

First Water System

Only 18 towns in the country were supplied with water in 1799, and within a few years Lynchburg gained the distinction of being the first town in Virginia to complete such a system. Until then, the citizens drew water from springs, dug wells, the James River, and even ditches. But in 1811, a Watering Committee was formed, and the first water system was completed in 1812. It consisted of logs with 3-inch holes bored through and connected by iron bands. The wooden piping extended from springs near today's Sixth and Harrison Streets belonging to John Lynch, Jr., the nephew of the City's founder, John Lynch, to a wooden reservoir at Church and Ninth Streets. Sections of this pipe are on display at the City Museum and the Water Resource Center at College Hill, which the public are encouraged to visit.

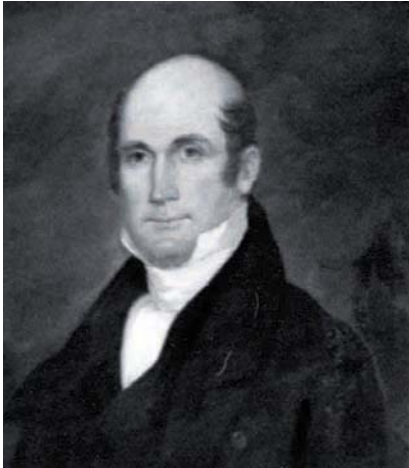
By 1822, the town was rapidly growing away from the river, and the leaking wooden piping system had become obsolete. Another watering committee was appointed by council in 1827, consisted of John Victor, Reverend John Early, and Council President John Thurman. At the October 18, 1826 Council meeting President John Thurman was authorized to invite a competent engineer to determine the best means of developing



**1829 7" Cast Iron Water Line
(Sections are still in service)**

History continued...

a suitable water supply. Historians claim that Councilman John Victor, chair of the Watering Committee, took matters into his own hands, and hired at his own expense Albert Stein, a Prussian trained engineer from Philadelphia. Mr. Stein drew up plans for a proposed system consisting of a dam, 2,200 feet of canal, a pumping station at the end of present day 7th Street, 7-inch cast iron piping, and a brick reservoir on Clay Street. The water wheel powered pump would have to lift the water 242 feet from the river to the reservoir, an unprecedented engineering feat at the time. Council approved borrowing \$40,000 for the project.



John Victor (1793–1845),
chairman of the Watering
Committee



Albert Stein (1785–1874),
born and educated in
Dusseldorf, Prussia, de-
signed Lynchburg's 1829
waterworks.

“Lynchburg and Its People”

This from a contemporary report from the book *Lynchburg and Its People* by Dr. Christian, “The whole town was in a state of excitement on July 18, 1829, the day selected for the trial of the machinery. Some friends went to John Victor and Reverend John Early and advised them to leave town on that day, for there was a plan on foot to hang them if the plan failed. They replied, ‘The water will run if the principles of science are true, and if not, we are not afraid of the hanging.’ Saturday evening a large crowd gathered at the reservoir, and the pump was started. Great was the suspense as they waited in almost breathless stillness to see if the water would run. George Thurman, a small boy, was let down into the pipe to see if the water was coming. He said he could only hear a roaring. Again he was let down and drawn up. This time he reported dust and a current of air. The friends of the movement looked sad; and they thought some error had been made in the construction and the people would be disappointed. The third time the boy was let down, but before he had gotten far he cried: ‘Here she is, draw me up quick!’ He was quickly drawn up and before he had gotten well out of the way the water bulged out. A long and loud shout went up from the crowd, and John Victor, John Early, and the watering committee were the heroes of the hour, and it is said that many of the citizens got drunk drinking to the health of each other with James River water.”



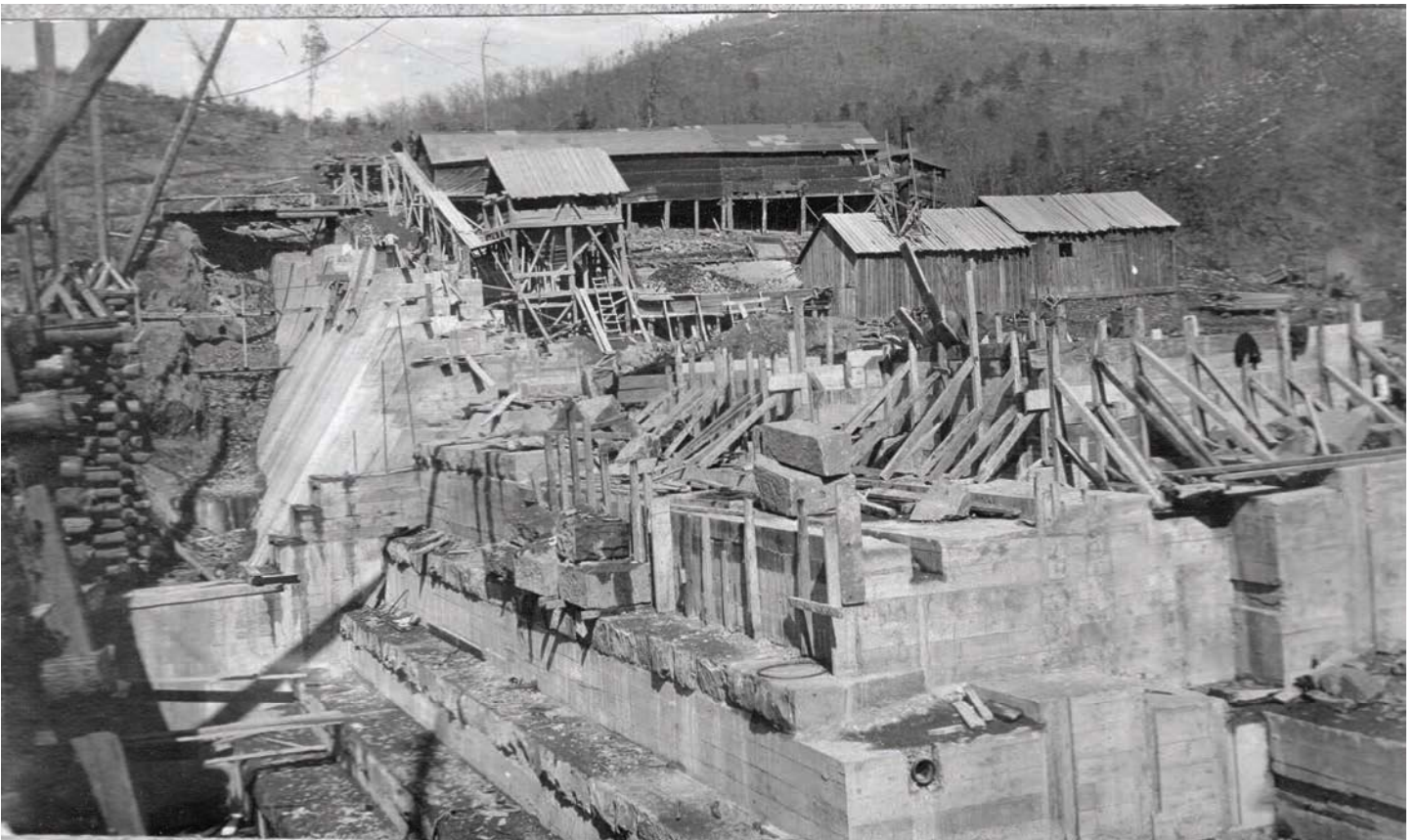
Drawing by T.K. Menefee,
The Saga of A City, 1936

“Here she is, draw me up quick!”
~ George Thurman

History continued...



Pedlar Dam Construction 1904-1907



History continued...



About 1857 the station was expanded and a new pump installed. Colonel August Forsberg, a Swedish immigrant, former Confederate officer, and the first city engineer, further enlarged the station in 1868 or 1869. In 1883 and 1886 Forsberg designed and built the Clay Street reservoir that still exists today. The architectural features of local greenstone façade, ornamental Glamorgan iron fencing, and an Egyptian water bearer statue were clearly intended to complement the downtown architecture of the time.

By the mid-1800s as the city continued to push uphill from the river, it was no longer possible to serve the higher areas from the Clay Street reservoir. Samuel Miller, a wealthy citizen who had died in 1870, had left in his will \$20,000 for a new reservoir, provided it was completed within 10 years. So in 1878 Colonel Forsberg built a new 235-foot diameter reservoir at College Hill. The reservoir was made of local greenstone and had a cascade tower to aerate the water as it spilled in. Unfortunately, in the haste to comply with the 10-year time limit, the supply to the reservoir had not been thought out. Colonel Forsberg reported that “some clever citizens feel that all we need to constitute a new water-works is simply a hole in College Hill and a pipe in the ground.” By the late 1800s, pollution had become a problem caused by “manufactories” that were disposing of their waste in the James River and its tributaries. Colonel Forsberg had also foreseen this problem and had recommended the search and development of a gravity supply; it took another 30 years for this to be accomplished.

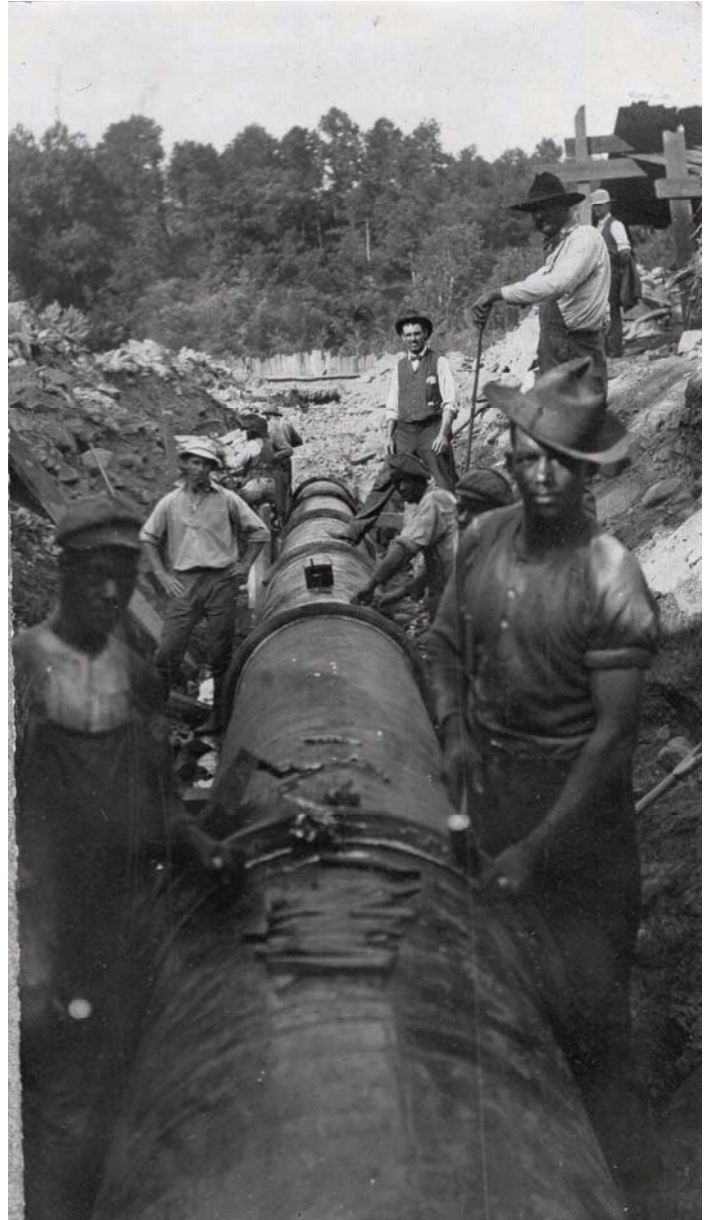
About 1900, another John Victor, grandson of the first, led a campaign to pipe clean water from the mountains. It was determined that the Pedlar River in Amherst County would be an excellent source. A site was selected and the surveyors found that the elevation was high enough to deliver water all the way to the College Hill by gravity. A storm of protest arose when the cost was estimated at \$700,000. The proponents were forced to fight for the plan, as the proponents of Albert Stein's system had done 75 years earlier.

The system, completed in 1907, consisted of the Pedlar River Dam and 21 miles of 30-inch diameter redwood pipe. The dam was 52 feet high and over 400 feet long. The pipe was made of California redwood planks bound together by iron hoops, much like a wooden barrel is made. Even today, we continue to find remnants of this pipe. The redwood pipe was replaced with 36-inch cast iron pipe in 1933 and 1934 as part of the depression era Federal Public Works Administration program. The iron pipe was cast by Lynchburg Foundry at its Radford plant.

History continued...

The dam has been raised three times, last in 1964 to 87 feet, impounding one billion gallons and a surface area of 138-acres. Its 33-square mile watershed lies almost entirely in the George Washington and Jefferson National Forest along the Blue Ridge Parkway. This source provides over 90% of Lynchburg's water, with the remainder from the James River only during severe drought or pipeline breaks. Pedlar River Dam was rehabilitated in 2009 and 2010 and is ready to serve another 100 years. The dam has twice received the Best Publicly Maintained Dam in Virginia award, and in 2013 was named an AWWA National Water Landmark.

In 1917, Council approved construction of a state-of-the-art filtration plant next to the College Hill reservoir. History tells us "the typhoid rate dropped to zero". Chlorination was begun about 1934, and fluoridation in the 1950s. The plant continued in operation for almost 70 years, then for the next 25 years the building was used as parts warehouse but by then was deteriorating. It was renovated in 2010 and houses Water Resources administration, engineering, water quality management, and accounting. It also contains a Water Resources Center dedicated to preserving Lynchburg's 200 plus years of water history and providing a place for citizens and students to learn more about the water they drink.



History continued...

By the 1950s, rapid growth, annexation, and arrival of the new General Electric and Babcock & Wilcox plants, combined to increase demand beyond the capacity of the 1917 filtration plant. Wiley & Wilson, a local architectural and engineering firm was retained to design a new College Hill plant. The best account of this project is by W. Martin Johnson, former chairman of Wiley|Wilson, and the engineering genius who was responsible for the unique 7-story design, with the filters on the 7th floor. The College Hill plant is revolutionary, to say the least, and to our knowledge, there is no other plant like it in the country, perhaps in the world. Today, in addition to housing the filtration process and SCADA control of the entire distribution system, it contains water and sewer field operations, maintenance operations and shops, safety, backflow prevention, GIS, and work management. In 1972, a second treatment plant at Abert on the James River about 7 miles upstream of downtown was built, and serves the western half of the City and parts of Bedford County. This plant was sited next to the Pedlar Gravity Pipeline, so that it may withdraw from that source or from the James River.

As the city has grown, delivering water to all areas by gravity as in earlier times has not been possible. Downtown, Rivermont, and Peakland are still served by gravity, but tanks and pumping stations are required for most of the other areas. Today the city is served by 10 distribution tanks and 7 finished or raw water pump stations, 460 miles of piping, pressure reducing stations, and nearly 3,100 fire hydrants. Much of the piping is over 100 years old.



"One hundred and fifty years after the City's founding and more than a century after the first water works was established, Lynchburg can pay no adequate tribute to the originators of the proposal and the advocates of the project. There remains, only, the hope that present generations may catch the spirit, endeavoring to pass on to our successors, some tangible good in this and other lines." ~ Saga of a City - 1936

Our Mission!

Over 200 years of excellence and innovation!

I am fascinated with the history of our water system and amazed by the accomplishments of our predecessors. I believe that it is important to understand the decisions of the past and former leaders' vision of the future in order to help inform our decisions as we plan for the next century. Lynchburg has been providing its citizenry drinking water for the past 205 years. While many circumstances such as waterborne disease, leaky pipes, and adequate supply dictated the need to seek better sources of water and improve the water infrastructure, the decisions made to address those circumstances went far beyond just fixing an immediate need. Past leaders recognized the importance of having an abundant supply of excellent water. They took risks and challenged the status quo in order to provide life sustaining water to a growing city. Their actions not only addressed their immediate needs but are still providing for the citizens of Lynchburg over a century later. This year the Pedlar Reservoir is 110 years old, the building that was the original state-of-the-art water filtration plant and now houses our administrative offices is 100 years old, and in the process of replacing the water lines downtown we are preserving two blocks of a water line that is 188 years old.



Recently, the City's Museum System Director, Doug Harvey, came across hundreds of historic photographs of the construction of the Pedlar Dam and a 22 mile long, 30 inch diameter, redwood pipeline from the reservoir to College Hill. These pictures are absolutely incredible as they show in detail how this enormous project was built. Deep trenches were dug by hand, rocks were moved on sleds by horses, mined material from tunnels was wheeled out by hand, large granite rocks were moved using improvised cranes and then carved by expert stone masons. The redwood stave pipe was constructed in the trench board by board and strapped together with over a quarter of a million iron bands. It is clear that transportation was by horse and buggy, as a result, a village of buildings was constructed around what would be the Pedlar Reservoir for the workers to live onsite. Constructed over a hundred years ago, the ingenuity and foresight are clearly evident. The construction was done with precision from the cut stones that were laid for the gate house on the dam to the perfectly dug trenches for the pipe. The work was hard and the conditions I am sure at times were unbearable, but they persevered and completed an amazing project even by today's standards.

It is this precision, foresight, and dedication that we endeavor to achieve with our decisions and actions. It is not an option to settle for the status quo or be content with it is good enough. We are building and maintaining infrastructure and making decisions that will impact our city for the next century and beyond. Our decisions and investments must be wise and not short sighted. The employees of Water Resources embody these characteristics. They recognize the importance of their work and that they are stewards of the water assets but also realize that the funds for this come from our citizens and that our investments in our future must also be balanced with the realities of the present. In the Department of Water Resources,

Our Job is Clear!

Our Water!



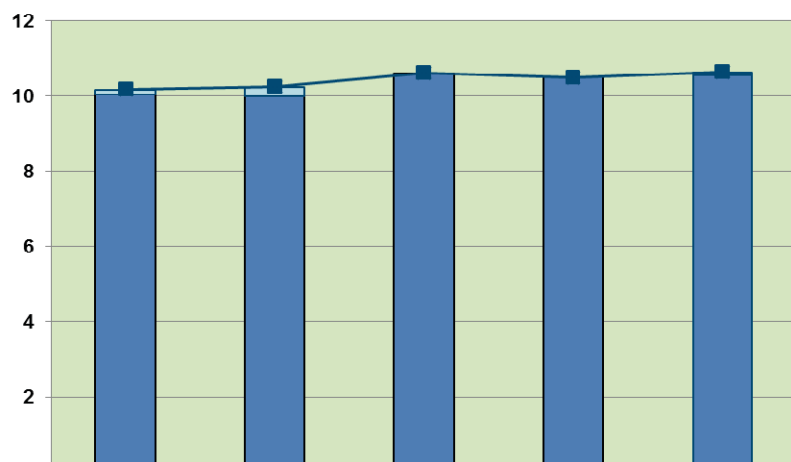
Water Treatment

Providing clean, safe, life sustaining drinking water is at the core of our mission. We deliver water to nearly 23,000 connections within the City and provide wholesale water to the counties of Amherst, Bedford and Campbell. Our water always meets or exceeds all state and federal regulations as evidenced by receiving the Virginia Department of Health's Excellence in Waterworks Performance Award for 10 consecutive years. To ensure our water quality we monitor, sample, and analyze our source waters, throughout our treatment processes, and our finished water at locations throughout the distribution system. Our Cross Connection Control and Backflow Program helps to further protect the public water supply from pollutants and contaminants that under certain circumstances be drawn into the public water supply from private properties.

Each year our operators and chemist perform over 130,000 water quality tests, testing for more than 70 types of contaminants such as lead, copper, chlorine, radium, coliform bacteria, and cryptosporidium. Annually in June a Water Quality Report with specific details about our drinking water is sent to each household. We take great pride in our drinking water and believe that it is the foundation for the health, safety, and prosperity of the community. Last year we treated over 3.8 billion gallons of water.

Our Water continued...

Water Withdrawals in MGD



James	0.12	0.26	0.00	0.00	0.08
Pedlar	10.05	9.99	10.61	10.50	10.55
Total	10.17	10.25	10.61	10.50	10.63

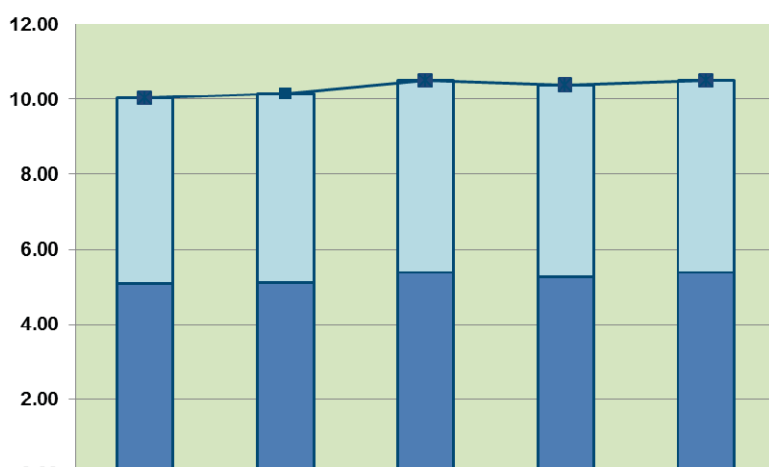


Water Withdrawals and Production

Water withdrawals and production have remained fairly steady over the last three years. Last year for the first time in the last three years we had to utilize the James River. Of the average daily withdraw of 10.63 million gallons only 0.08 million gallons was from the James River. The total use of the river was less than one percent of our total withdrawals and production.

Water production was nearly equally divided between the College Hill and Abert Water Filtration Plants with College Hill trending slightly higher. Total average production was 10.49 million gallons per day which is far less than the combined design capacity of 26 million gallons per day of both filtration plants.

Water Production in MGD



Abert	4.94	5.04	5.11	5.10	5.12
College Hill	5.10	5.11	5.38	5.27	5.37
Total	10.04	10.15	10.49	10.37	10.49



Mike Smith Water Plant Operator

Our Water continued...



Water Distribution



Downtown Utility and Streetscape Project

Our primary focus for water line replacements this past year has been on the Downtown Utility and Streetscape project. Because of the complex and difficult nature of this project water line replacement totals for the past year were down significantly, only 0.87 miles of water line were replaced. This is important because at that rate it will take 524 years to renew our water system. While previous years were better we are still significantly behind where we need to be. Our target replacement rate should be no more than one hundred years as this would exceed the useful life of most waterlines. Significant increases in capital expenditures and staffing resources are needed in order to meet this goal. The consequences of not increasing the pace of water system renewal will be devastating. Increased frequency of breaks, boil water notices, service disruptions, property damage, and emergency repairs will be the norm. This will impact the economy, public health, and public safety making it less likely for new businesses to locate here, increase risks of water system contamination, and possibly impact fire protection.

Water System Replacement

	FY 2013	FY 2014	FY 2015	FY 2016
Feet of Water Line Replaced	16,900	12,845	14,861	4,615
Miles of Water Line Replaced	3.20	2.43	2.81	0.87
Water System Renewal Rate	143 Years	188 Years	163 Years	524 Years



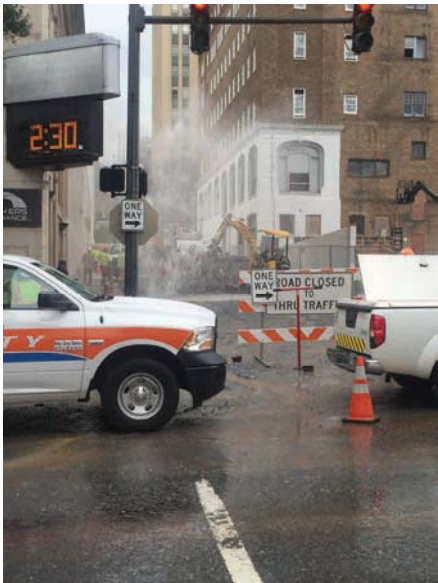
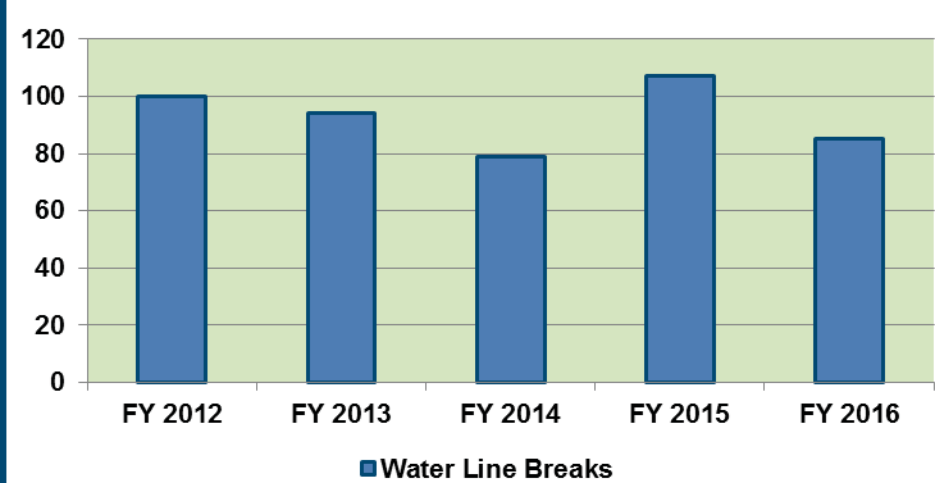
Our Water continued...



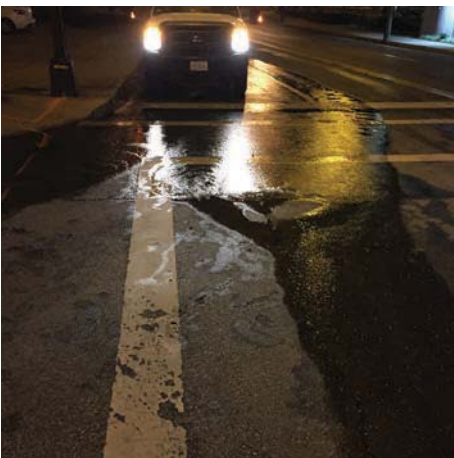
Water Distribution



Water Line Breaks



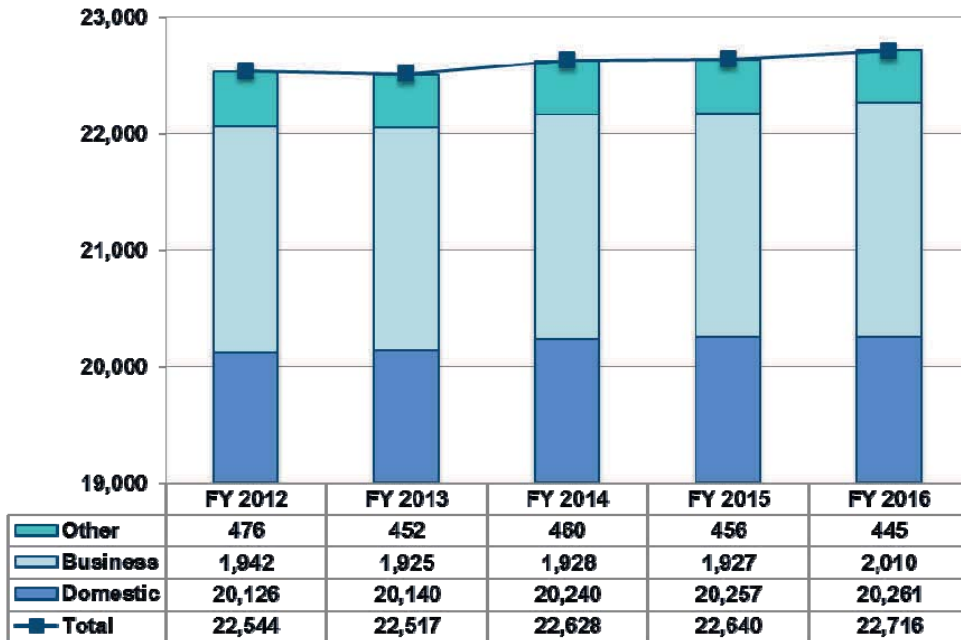
On September 16, 2016 crews responded to a water leak at the intersection of 12th and Church Streets. They uncovered a six inch cast iron pipe with a wooden plug wedged in place with a rock. The wooden plug was still holding but the cast iron pipe had cracked around the bell. Exactly how long this has been in place is unknown but it is estimated to be at least one hundred years. (Pictures below)



Our Water continued...

Our Customers

Number of Water Customers



Water Customers

Our base of water customers continues to steadily increase. From FY 2012 to FY 2016 business connections have increased by 3.5% and residential connections have increased by 0.7%. Over the same period overall water use has increased by 4.5%.



Safe Water

Our team is absolutely dedicated to this task clean, safe, and affordable drinking water to all of our customers all of the time. Continued investment in our infrastructure is critical to accomplishing this goal and failure is not an option. The health, safety, and prosperity of our community is absolutely dependent upon a well planned and maintained water system from the source to the tap.

Last year we...

- Installed 43 new water services
- Renewed 66 water services
- Replaced 32 fire hydrants
- Performed maintenance on 2,370 fire hydrants
- Performed maintenance on 462 valves
- Repaired 112 water mains and services

What's at stake...



HEALTH,



SAFETY,



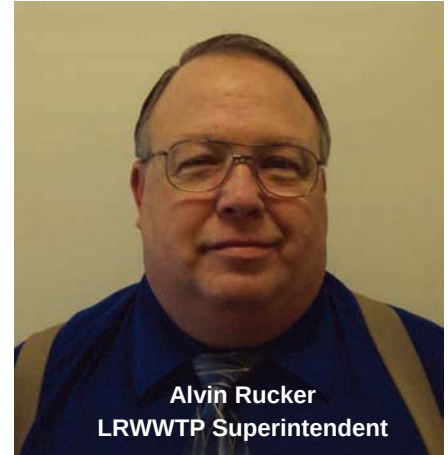
PROSPERITY

...of our community!

Our Environment!

Lynchburg Regional Wastewater Treatment Plant

The Lynchburg Regional Wastewater Treatment Plant (LRWWTP) is the single most important component of our infrastructure in terms of protecting our environment. Although designed as a secondary treatment plant the actual performance of the plant far surpasses its designed performance. That is directly attributable to our staff. They diligently work to get every possible pound of pollutant out of the wastewater prior to the final product being discharged back to the James River. Last year alone we treated 4.74 billion gallons and removed a total of 36,368,035 pounds of pollutants prior to the clean water being returned to the James River. This is due in large part to the extraordinary effort of our wastewater plant staff including our operators, maintenance staff, laboratory staff, and all the support staff. Making the plant perform well beyond its design capabilities takes meticulous effort. The most delicate component is the operation of the aeration basins. These large tanks require constant monitoring and testing to ensure that the biological treatment process performs at the optimal level. The amount of air and food for the trillions of microorganisms that clean up the waste is constantly adjusted to achieve the greatest results. Incoming wastewater is controlled so that it does not overwhelm the basins and is introduced into the basins at different points to achieve optimal treatment.



Alvin Rucker
LRWWTP Superintendent

The pollutants that are removed, now referred to as sludge, also have to be rigorously treated. Water is removed from the sludge through the use of centrifuges that spin the sludge at nearly 3,000 revolutions per minute creating a product that is about 30% solids. This is important because for every one percent of water that we can extract from the sludge we save up to \$70,000 in sludge disposal cost. Lime is then added to the sludge to kill the pathogens. Each tractor trailer load of sludge is subjected to a series of tests prior to it being disposed. These tests include checking for pH, temperature, and various metals such as lead, chromium, mercury among others. Sludge is disposed of it at the Region 2000 Services Authority landfill in Campbell County or at the Maplewood Landfill in Amelia County. We also treat a portion of the sludge to a higher level to produce biosolids that can be beneficially reused through land application. Each year we dispose of approximately 25,000 tons of sludge and biosolids.



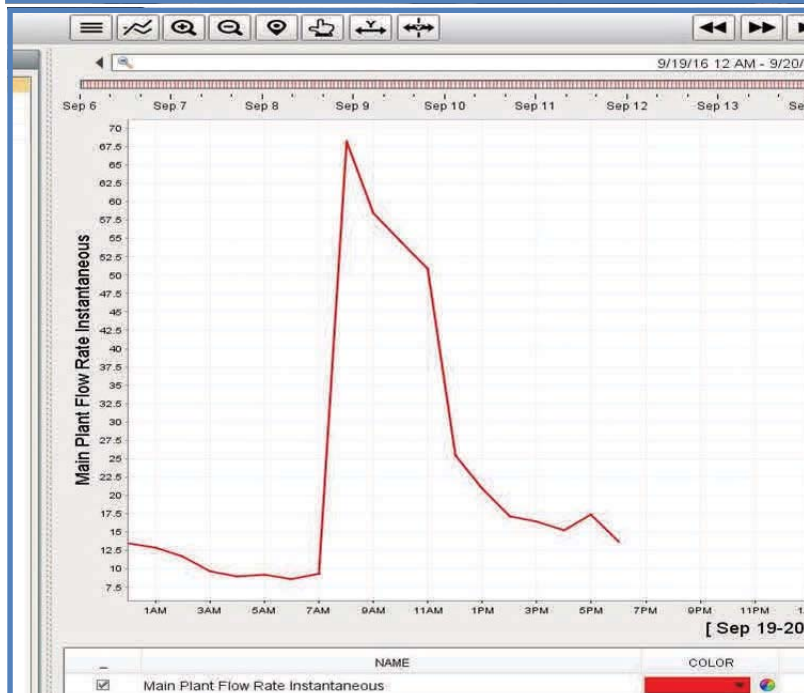
Lynchburg Regional Wastewater Treatment Plant

Our Environment continued...

Wastewater

The plant effluent (the water being discharged back into the river) must meet very stringent requirements. Our plant operators routinely must take samples throughout the treatment process to be tested to ensure that each step of the treatment process is functioning as it should. Certain samples are subject to even more stringent testing in our certified environmental laboratory. There we have a licensed chemist performing complex tests in a very controlled environment to ensure the accuracy of the tests.

When it rains, things really get exciting. It is all hands on deck with our sewer system being a combined sewer system (stormwater and sewage). Incoming flows can go from 7 million gallons per day to 70 million gallons per day in a matter of minutes. Operators and maintenance staff must then make sure screens that remove large incoming debris are kept clean and that the incoming flow is diverted to various locations in the treatment plant such as empty storage tanks to maximize the amount of flow that is fully treated. Design has begun on the next major project at the wastewater treatment plant. A \$36 million dollar Combined Sewer Overflow project that consists of: upgrades to the plant headworks including new screens, influent pumps, and electrical room; a new four million gallon storage tank and disinfection facility to temporarily store and treat peak flows; a new relocated warehouse to make room for the storage and disinfection facility; and upgrades to the main electrical building switchgear and a backup generator. This will be the last major project of our \$300 million CSO Program. It will result in significant improvements in the water quality of the James River.



**Graph Depicting Flow Increase During a Rainstorm
(8 mgd to 70 mgd in less than one hour)**

Last year we...

- 🌊 Treated 4.74 Billion Gallons of Wastewater
- 🌊 Removed 36,368,035 Pounds of Pollutants
- 🌊 Disposed of 19,538 Tons of Sludge
- 🌊 Land Applied 4,568 Tons of Biosolids

Our Environment continued...

Sewer and Storm System Maintenance

In addition to the CSO Program, we are placing an increased emphasis on the maintenance needs of the entire wastewater collection system. The Environmental Protection Agency is placing more pressure on utilities to adequately manage and maintain collection systems in order to prevent sanitary sewer overflows (SSO). This is accomplished through the implementation of a Capacity, Management, Operations, and Maintenance (CMOM) Program. Our CMOM Program includes: a sewer line inspection and cleaning program by priority areas; asset condition evaluations through Sanitary Sewer Evaluation Studies (SSES); capacity assurance, and a program for Fats, Oils, and Grease (FOG). The FOG program is primarily directed at food establishments to adequately manage their discharges and minimize overflows associated with grease blockages along with eliminating the discharge of oil and grit deposits to the environment. Ensuring that there is adequate capacity in the sewer system is important for economic development and is also critical to preventing SSO's. A key capacity related sewer project that has started this year is the Burton Creek Interceptor Replacement Project which runs from Sandusky Middle School to Wards Road, serving a growing Liberty University and Wards Road commercial area.

This past year our crews have cleaned and flushed over a half of a million feet (95 miles) of sewer line and over 21,500 feet of storm lines, and televised over 170,600 feet of sewer lines and 40,000 feet of storm system lines. Additionally, Water Resources' crews have cleaned over 2,200 inlets throughout the City. Maintaining many of these lines is very challenging due to their location. A large portion of the sanitary and storm lines are off road in areas where access is difficult and over the years the right-of-way has become overgrown. In order to address this and reclaim the right-of-ways, Water Resources has begun a right-of-way clearing program. Over the past year we have cleared 19,245 linear feet of right-of-way.



Distance	Fault Observation	Time	Picture
7.7	Fracture Longitudinal Position: 6 Severity: None Struct Weight: 3	02:06	
8.0	Fracture Multiple Position: 12 To 12 Severity: None Cont Defect: 501 Joint Struct Weight: 4	04:27	
10.6	Deformed Severity: None Cont Defect: 502 Percent: 10 Struct Weight: 4	05:13	



Our Environment continued...

Sewer and Storm System Maintenance

Inspecting and cleaning the sewer and storm systems are only a portion of the work that is performed. Water Resources has five construction crews that install and repair sewer services, manholes and sewer lines. Additionally, these same crews repair stormwater inlets, pipe and outfalls. We have personnel on stand-by 24/7 for emergency response. Below is a summary of some of the annual work performed.

Last year we...

- 🔥 Cleaned 505,723 Feet of Sewer Line
- 🔥 Televised 170,601 Feet of Sewer Line
- 🔥 Televised 40,000 Feet of Storm Line
- 🔥 Cleaned 2,214 Storm Inlets



Sewer System Maintenance Summary

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Sewer Services Installed	52	58	56	55	56
Sewer Services Repaired	229	221	211	204	164
Sewer Lines Repaired	52	131	208	260	197
Storm Inlets Repaired	89	61	68	68	128
Storm Line Repairs	-	24	31	38	57



Our Environment continued...

Stormwater

Last year we continued making significant progress towards on Chesapeake Bay Total Maximum Daily Load (TMDL) reduction requirements. During the current permit cycle we are required to achieve 5% of our reduction requirements for nitrogen, phosphorous, and sediment. Including credit that we were able to obtain for previous work and five projects that are either under design or construction we will complete this permit cycle in 2018 and achieve pollutant reductions of 16.1% nitrogen, 28.8% phosphorous, and 38.6% sediment, far beyond our 5% requirements for each. After the completion of the current permit on June 30, 2018 we will have two more permit cycles (10 years) to achieve 100% of our reduction requirements.

Additionally, last year we were fully in compliance with our Municipal Separate Storm Sewer System (MS4) permit. Annually we are required to submit a report showing compliance with specific requirements of six minimum control measures identified in our MS4 permit. This includes areas such as: (1) Public Education and Outreach, (2) Public Involvement and Participation, (3) Illicit Discharge Detection and Elimination, (4) Construction Site Stormwater Runoff Control, (5) Post-Construction Stormwater Management, and (6) Pollution Prevention and Good Housekeeping for Municipal Operations.



Hollins Mill Road Clean-up



Summer Campers - Installed Storm Drain Markers



Jefferson Street Raingardens

Our Environment continued...



Sheffield Elementary Bioretention



Opti RTC - Continuous Monitoring and Adaptive Control



Greenwood Pond Constructed Wetlands

Water Quality

In FY 2016 we held and participated in many public events such as rain barrel workshops, presentations to garden clubs and career days, stream clean-ups, and storm drain marking. Brochures with information on pet waste disposal, yard maintenance, septic system maintenance, and “Living in Your Watershed” were distributed to thousands of people in Lynchburg. Our staff inspected many stormwater outfalls including water quality testing and responded to 44 reported illicit discharges with problem identification, flow tracing, water quality testing, resolution and follow-up on each discharge. Stormwater Pollution Prevention Plans (SWPPPs) are in the process of being developed and implemented for 10 different City facilities and Nutrient Management Plans (NMPs) have been developed on 8 different City sites covering a total of 23.89 acres.

Maintaining compliance with our MS4 permit is complex and challenging as it covers many different City Departments, including City Schools, and many different facilities, hundreds of miles of roadway, and approximately 7,800 acres of regulated urban area. The Stormwater Division of Water Resources has been able to fully comply with all stormwater regulations and through innovative programs and financing have saved the citizens of Lynchburg millions of dollars over initial compliance estimates.

Another interesting initiative was the installation of an Opti RTC (a company that provides real time controls) system on one of our stormwater basins. This system continuously monitors the weather and will automatically adjust the water levels in the basin in advance of incoming storms so that the basin will provide the optimal amount of storage and treatment.

One of the biggest challenges in stormwater is infrastructure maintenance. Over the last four years we have been extensively mapping the storm system and performing a condition assessment. What is obvious is that for decades maintenance has been neglected. As a result, we have identified hundreds of stormwater capital improvement needs. We are currently in the process of prioritizing these projects in order to address them as effectively as possible.

Our Environment continued...

Burton Creek Tributary Stream Stabilization

The Burton Creek Tributary Stream Stabilization site is located north of Wards Ferry Road and south of the Lynchburg Expressway (US Route 501). This project involved the stabilization of approximately 145 linear feet of Burton Creek and was located entirely within a stream channel. Severe stream channel erosion had occurred along the outside of the existing sharp bend which resulted in the exposure of an 18" sanitary line in the stream bank. The focus of project was to protect the existing sanitary sewer infrastructure in order to prevent it from failing and spilling raw sewage into the stream. The project involved placing large stones in front of the exposed and realigning and straightening the channel. The stream was realigned to eliminate the sharp bend that was contributing to the erosion while tying in with the natural geometry of the existing channel upstream and downstream of the project area as seamlessly as possible. The project was carefully designed and constructed to minimize impacts to mature hardwood trees. The project results were excellent, the aesthetics of the stream were greatly improved along with the flow characteristics that will help to prevent future erosion issues in this area.



Our People!

Nearly 140 highly trained people are dedicated to serving the citizens of Lynchburg by producing and delivering the highest quality drinking water, protecting our environment, and making safety paramount. These public servants have a vast array of skills and abilities and each deserve special recognition. In the following pages we are highlighting a few of our exceptional employees.



Mike White
Reservoir Caretaker
19 Years

Mike White started out in Water Resources as a Meter Reader. Since 2010 he has been the Pedlar Reservoir Caretaker. Likely the City's most unique position, the Caretaker is required to reside fulltime at the reservoir which is located in a remote area in the George Washington National Forest. His duties include: controlling the daily flow of raw water to the City; adding lime to the raw water; and monitoring, recording, and reporting weather conditions and lake levels. He keeps the dam and the grounds in immaculate condition.

Mike is also responsible for safety and security, and controlling and monitoring any fishing activities. Anyone who goes to the lake always enjoys talking to Mike. He always has a story or two to tell about the history of the lake, the bear he saw last week or what bait to use to have the best luck fishing. His love of nature and the outdoors are a perfect fit for this position and his service to the citizens of Lynchburg even way out in Amherst County!

"I love my job, I wake up every morning in the middle of the mountains never knowing what I might see from eagles to otters. I am the first step in delivering the best water to the citizens of Lynchburg."

~Mike White



Shirley Jones
Utility Line Tech III
12 Years

Shirley Jones has been with Water Resources since 2005. As a member of the Utility Line Maintenance Division, Shirley has performed many functions. She has handled citizen complaints, fire hydrant maintenance and flushing, construction inspection, assisting contractors, and outfall inspections just to name a few. What really stands out about Shirley is her outstanding customer service skills. She receives numerous compliments from citizens regarding her professionalism and attention to detail.

"I really like being able to work outside and talk to our customers. Responding to complaints I feel that I am the first line of defense. Most people don't think about their water or sewer until it is not there or not working properly and are often upset in the beginning. By taking time to explain and show the customer what is going on in most cases they are understanding. I love doing what I do!"

~Shirley Jones

Our People continued...



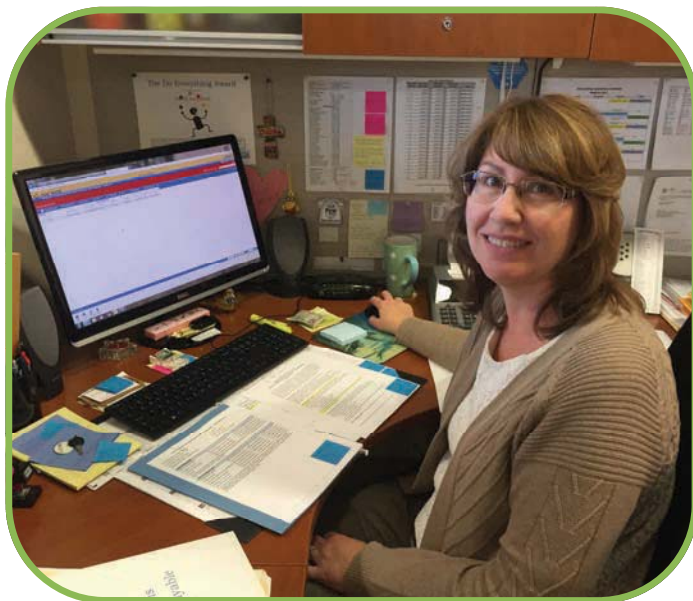
Steven Dunn
Assistant Wastewater Superintendent
3 Years

Steve has been actively involved in the community since coming to Water Resources in 2014. Steve was a member of Leadership Lynchburg 42 and is an alumni consultant for Leadership Lynchburg 43, a member of the Business Subcommittee for Bridges out of Poverty, has been a mentor for Groom and Bloom, and is captain of the Department of Water Resources bowling team.

Steve is a leader in our organization. He inspires others to achieve more and grow themselves. Every week Steve sends a summary of the week's activities along with a motivational message. It is employees like Steve that make Water Resources successful in achieving our mission.

"I feel we share the same vision to perform at an "Award Winning" level. We are putting together a team of capable, energized employees who strive to do their best. I get to see the impact of the work we do every day. I enjoy the freedom of being in an environment where employees are allowed to express themselves, share their ideas, analyze the process and develop sound, consistent policies and procedures."

~Steven Dunn



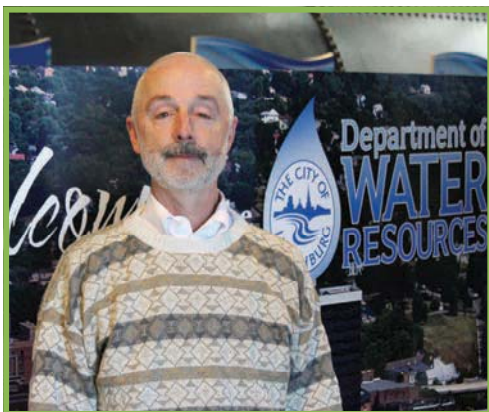
Katherine McCleese
Executive Assistant to the Director
11 Years

Kathy has served as the Executive Assistant to the Director since 2006. Kathy is one of our most trusted and respected employees. Managing payroll and personnel matters in a highly professional manner with great respect for confidentiality. Kathy's calm demeanor and exceptional customer service skills make her an ideal fit for the position which can require her interaction with customers during emergencies and scheduling appointments with a congressional office in the same day. In both cases she is a great ambassador for the Department.

"I like working for Water Resources because every single employee has a stake in the department's success. We are very team-driven, and we operate in a way that puts collective goals ahead of individual successes. Colleagues share and teach about the water industry and share their knowledge with others. This is a working environment where I can develop and make a difference. I am respected and my contributions are considered important. It is a pleasure and a privilege to surround myself with a diverse team of talented and dedicated people. Working for Water Resources feels like being part of a big family!"

~Kathy McCleese

Our People continued...



Jeff Martin
Safety Manager



Ensuring the safety of our employees and the public

For years the Department of Water Resources has maintained an active traditional safety program that involved an extensive training agenda and safety procedures focused on keeping employees safe and protecting resources. However, over the past few years a series of changes have occurred that has required the Department to modify how we approach our safety activities. Regulatory changes have impacted operations in several areas. Social changes, such as the make-up of the work force, internal and external communication expectations, community expectations for both local government as well as the water industry have impacted the manner in which the Department must address employee and community safety. Today, safety is more than just keeping employees safe and protecting resources. Safety includes looking at the manner in which we maintain and deliver the services we provide to our community. From the employee working alone reading meters to the crews repairing water and sewer lines, each of them interact with and impact our community, citizens and businesses. Our staff must understand their role as local government employees, our commitment to the community we serve, and our need to maintain and ensure the future of the services we provide.

The Department is actively working to revitalize our safety activities. We can no longer simply train employees to complete task safely. We must educate them to perform their duties in a manner that positively impacts themselves, the organization, and the community. We are training them to understand the complexity of our diverse operations and preparing them to become our leaders of the future. From our most senior employees to the newest employee, everyone is trained to understand these roles and responsibilities.



Budget and Rates!

At Water Resources we strive to keep our water, sewer, and stormwater rates as low as possible. Our promise is that we are good stewards of the financial resources that we receive from our customers. We strive to invest in our infrastructure wisely so that are minimizing the life cycle costs of our water assets. Our goal is to manage these assets so that we minimize the life cycle costs. In other words, while we do not want to replace the water infrastructure too soon we also do not want to wait to late because at a certain point of the assets useful life the maintenance costs would exceed the replacement costs. We also strive to find innovative ways to save our citizens money. While not new information, it is still worth mentioning that the new Combined Sewer Overflow (CSO) Long Term Control Plan will save Lynchburg over a quarter billion dollars. In our Stormwater Program, our extensive mapping of the storm system to better define the regulated areas resulted in significant reductions in the amount of pollutants we need to eliminate to be in compliance with the Chesapeake Bay Total Maximum Daily Load. This translates into savings in the tens of millions of dollars. We have also been aggressive in taking credit for past CSO projects where we installed stormwater best management practices, sewer connections that eliminated septic systems, and other pollutant removal activities. We also seek out and aggressively seek grants. We have received over \$65 million in CSO grants, recently were awarded \$1.7 million in a Stormwater Local Assistance Fund (SLAF) grants for Chesapeake Bay compliance, and have also received grants associated with dam safety upgrades. In conjunction with the grants we also utilized the Virginia Clean Water Revolving Loan Fund. While there are state and federal strings attached these loans, they are almost always zero percent interest for us saving us millions in interest charges. We are likely the only locality that has used these loans as the match for the SLAF grants further extending those dollars.

We also seek to enhance our revenues from sources outside of the City. As a member of the Virginia Nutrient Credit Exchange Association (the Exchange), we are able to sell nitrogen and phosphorous credits. This is based on how much nitrogen and phosphorous we discharge for the LRWWTP compared to our allocation. The further below the allocation we are the more credits we can sell. This has incentivized our staff to operate the plant in a manner that maximizes the removal of nitrogen and phosphorous benefiting both the environment and our bottom line. Last year we received over \$88,000 from the Exchange and in FY 2018 we anticipate receiving \$70,000. The revenue reduction is not due to our treatment efforts but due to an overall reduction in phosphorous allocations to all treatment facilities on the James River. Another, more significant new source of revenue to the sewer fund is associated with accepting and treating tanker truck loads of leachate from several landfills from around the state. We are receiving up to nine 6,500 gallon tanker truck loads per day generating nearly \$1 million in new revenue from outside the city with relatively little additional expense associated with treating the leachate.

We also strive to keep our operational costs down. While some of our costs vary based on the amount of water and wastewater treated, most are fixed. Our water and wastewater plants have minimum required staffing levels that we are required to meet. Water, wastewater, and stormwater are among the most heavily regulated areas in the City and a large portion of our budget is directly associated with meeting regulatory requirements. Additionally, while personnel costs are a large part of our budget, chemicals, power, maintenance supplies, pipe, pumps, and other materials comprise a very large portion of the budget. As a result, much of our budget is dependent upon the prices of chemicals, power, and materials. Our work is also very technical, our operators, engineers, chemists, accountants, and most all other staff are required to have a certain amount of continuing education annually. Retention of these highly trained employees is critical in keeping costs down as some positions receive close to \$10,000 worth of training their first year alone.

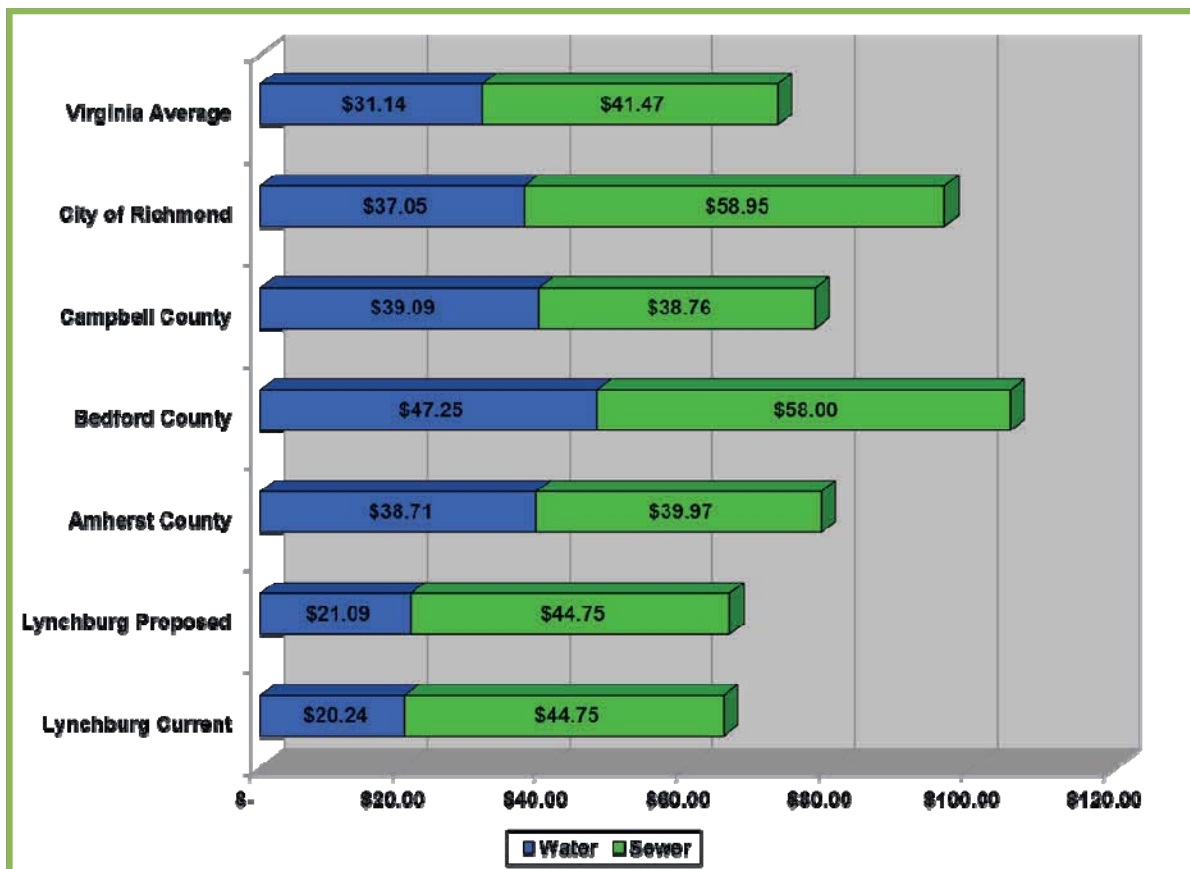
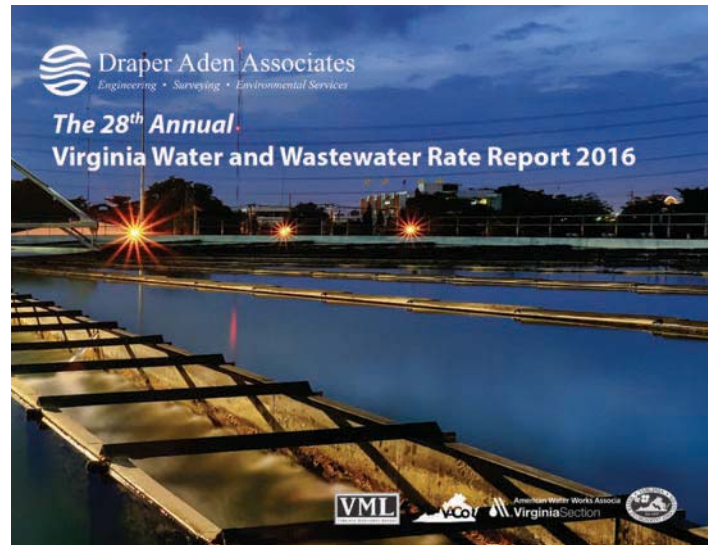
Developing our budget is a complex process of balancing operational needs, capital needs, and meeting regulatory requirements while meeting City Council's financial criteria and meeting the financial criteria in our CSO Consent Order for the Sewer Fund. Our goal is to set our rates so that they equitably cover the cost of the service being provided, adequately fund the operational and capital needs while minimizing rate increases and stay below the statewide average.

Budget and Rates continued...

Rates

A comparison of the City's water and sewer bills for a customer using 5,000 gallons (6.68 hcf) of water per month is shown below. Information from other localities is based on the 27th Annual Virginia Water and Wastewater Report 2016," prepared by Draper Aden Associates.

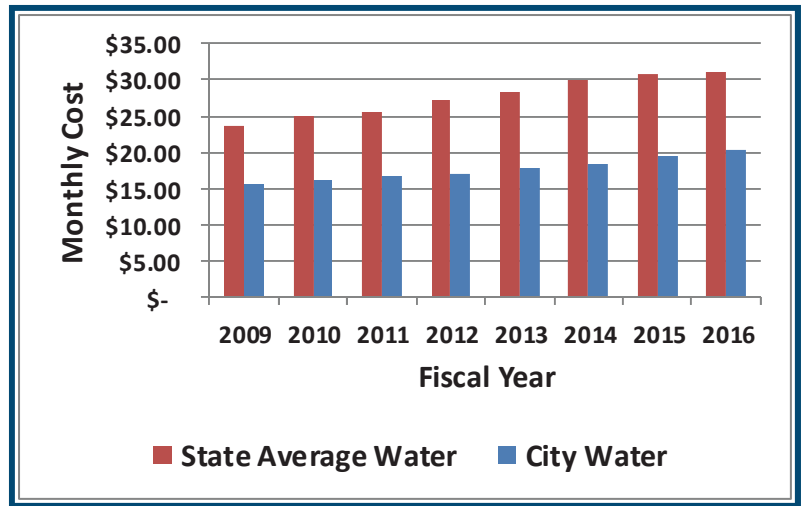
The City of Lynchburg's current combined rates are the lowest in the region including those of Amherst, Bedford, and Campbell Counties. Lynchburg is also lower than the City of Richmond, the state's other CSO city.



Budget and Rates continued...

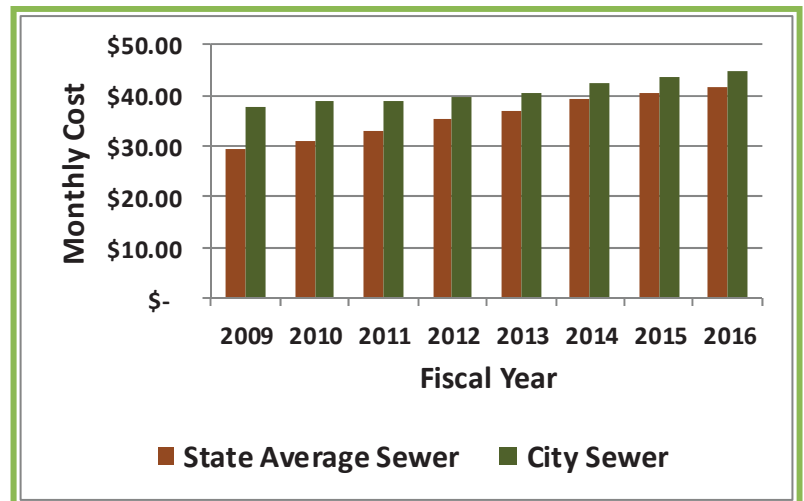
Water Rate Comparison

The City of Lynchburg's water rate was \$10.90 per month less than the statewide average. Last year the state average water rate increase was \$0.37 or about 1.2%.



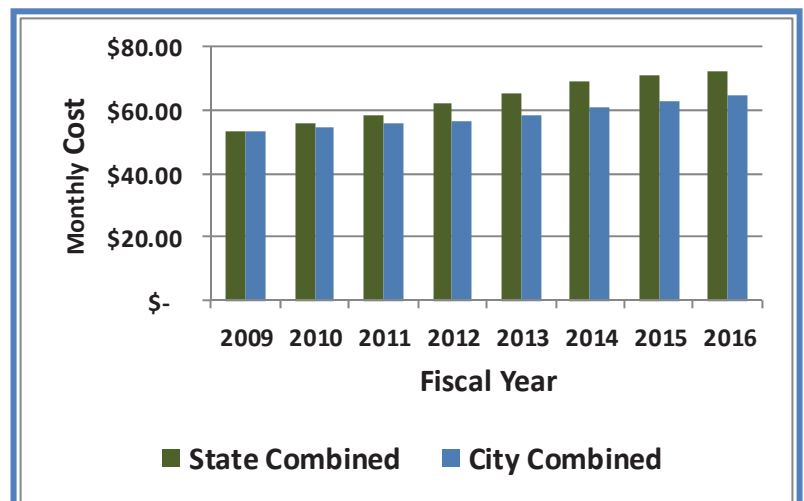
Sewer Rate Comparison

The City of Lynchburg's sewer rate is \$3.28 per month more than the statewide average. Last year the state average sewer rate increase was 2.7% or approximately \$1.10 more per month.



Combined Water and Sewer Rates

This is the seventh year that the City of Lynchburg's combined water and sewer rates have been lower than the statewide average. This year the difference in the average monthly bill is \$7.62.



Budget and Rates continued...

Water Fund Revenues

Water Fund revenues are expected to be \$163,888 more than last year. The primary increase in revenues is an additional \$295,800 increase is from City water sales associated with a proposed 5.1% water rate increase. The increase would raise the water rate from \$2.55 per hundred cubic feet to \$2.68 per hundred cubic feet. Other increases in various connection and availability fees are based on historic trends. The water rate increase and its associated revenue is needed to offset the expected loss of revenue from the Bedford Regional Water Authority (BRWA). While the new contract with BRWA ensures that they will purchase a minimum of one million gallons per day even after completion of their new water line to Forest, that is still a decrease of 500,000 gallons per day and it is at a much lower rate. We are anticipating a change in revenue from \$1,457,007 in FY 2016 to \$605,120 in FY 2018 a reduction of over \$850,000 and a net reduction in revenues from all counties of \$398,570 from FY 2017 to FY 2018.

	2016 ACTUAL	2017 ADOPTED BUDGET	2018 PROPOSED BUDGET	INCREASE / DECREASE
REVENUES:				
Water Sales - Inside City	\$ 7,434,740	\$ 7,905,000	\$ 8,200,800	\$ 295,800
General Fund Hydrant Rental	879,498	845,191	871,831	26,640
Cut-on/Late Charges	97,868	100,000	95,000	(5,000)
Delinquent Account Fees	93,838	87,000	87,000	0
Fire Protection Fees	109,089	105,000	109,000	4,000
Connection Fees	120,129	50,000	100,000	50,000
Availability Fees	107,920	60,000	75,000	15,000
Account Charges	1,284,510	1,245,500	1,280,000	14,500
Water Cost Plus	125,369	30,000	55,000	25,000
Sewer & Stormwater Fund Charges	1,754,000	1,815,000	1,880,000	45,000
All Other Charges	20,321	16,200	12,500	(3,700)
Water Contracts - Counties	2,073,501	1,813,440	1,214,870	(398,570)
Water Contracts - Industrial	731,691	600,000	677,600	77,600
Interest and Other	282,001	283,119	280,737	17,818
	\$ 15,094,475	\$ 14,735,450	\$ 14,899,338	\$ 163,888

Budget and Rates continued...

Water Fund Expenses

Overall Water Fund expenses for FY 2018 are proposed to be \$168,607 less than the current year budget. Significant changes include a \$269,633 increase in salaries and benefits to fully fund the 2% pay increase that was effective January 1, 2017 and funding a new Civil Engineer II position needed to help develop and manage water, sewer, and stormwater capital projects. The Sewer and Stormwater fund will partially fund this position through transfers to the Water Fund. The position is needed due to several very large ongoing projects, specifically the Downtown Utility and Streetscape Project and the upcoming CSO project at the Lynchburg Regional Wastewater Plant.

Other notable changes include a slight reduction in Contractual Services due to changes in software maintenance services and temporary employee services. A \$57,000 reduction in Chemicals due to favorable chemical bids. A \$264,409 increase in Indirect Cost payments to the General Fund partially offset by a \$73,694 reduction in payments to the Self-Insurance fund. Other significant reductions include \$64,500 in Capital Outlay, \$250,000 reduction in Capital Transfers, and a \$225,094 reduction in Debt Service.

This budget results in a Debt Coverage Ratio of 1.17, slightly below target of 1.20. This drop below 1.20 related to the expected loss of revenue from Bedford Regional Water Authority and is the primary financial driver for the proposed rate increase. The rate increase is needed in order to raise this ratio above the minimum in future years. During FY 2018 the Fund Balance is expected to be 48% and drops below 40% in future years.

	2016 ACTUAL	2017 ADOPTED BUDGET	2018 PROPOSED BUDGET	INCREASE / DECREASE
EXPENSES:				
Salaries	\$ 3,375,549	\$ 3,547,761	\$ 3,756,768	\$ 209,007
Employee Benefits	1,288,837	1,384,998	1,425,822	80,828
Contractual Services	672,471	736,432	707,326	(29,106)
Chemicals	291,951	457,000	400,000	(57,000)
Telecommunications	35,269	37,075	41,825	4,750
Utilities-Water Treatment Plant	844,849	742,853	717,254	(25,399)
Supplies and Materials	945,526	1,143,725	1,138,975	(4,750)
Indirect Costs	845,105	781,224	1,045,833	264,409
Self-Insurance	162,329	162,329	88,635	(73,694)
All Other	394,873	472,558	477,903	5,345
Non-departmental	486,977	308,786	325,585	16,799
Capital Outlay	0	131,000	66,500	(64,500)
Transfers- Capital	1,250,000	1,750,000	1,500,000	(250,000)
Debt Service	4,388,033	4,382,244	4,157,150	(225,094)
	\$ 14,737,569	\$ 16,017,783	\$ 15,849,176	\$ (168,607)

Budget and Rates continued...

Sewer Fund Revenues

Sewer Fund revenues are expected to have an overall increase of \$166,176. Overall sewer use is expected to be slightly less due to historic trends resulting in a \$120,400 decrease in revenue. This is offset by an expected increase in Septic Hauler Charges associated with receiving leachate from several landfills from around the state. The only other significant change is expected in Industrial Contracts based on historic trends.

	2016 ACTUAL	2017 ADOPTED BUDGET	2018 PROPOSED BUDGET	INCREASE / DECREASE
REVENUES:				
Sewer Sales - Inside City	\$ 14,840,813	\$15,531,600	\$15,411,200	\$ (120,400)
Septic Hauler Charges	964,546	650,000	810,000	160,000
College Hill Backwash Charge	134,450	111,653	121,254	9,601
Leachate Treatment	72,206	96,430	104,291	7,861
Industrial Pre-treatment	4,480	5,665	4,480	(1,185)
Industrial Monitoring Charges	35,086	56,650	51,500	(5,150)
Industrial Surcharges	430,583	437,750	437,750	0
Cut-on & Penalty Charges	89,934	98,000	89,000	(9,000)
Connection Charges	97,201	75,000	75,000	0
Availability Fees	166,898	100,000	105,000	5,000
Account Charges	1,277,358	1,271,980	1,273,000	1,020
Sewer Cost Plus	7,452	12,000	12,000	0
Miscellaneous	150,858	13,000	13,000	0
Sewer contracts - Counties	801,434	1,365,950	1,373,343	7,393
Sewer contracts - Industrial	2,380,479	2,269,500	2,375,000	105,500
Interest and Other	127,799	105,836	111,372	5,536
	\$ 21,581,577	\$ 22,201,014	\$ 22,367,190	\$ 166,176

Budget and Rates continued...

Sewer Fund Revenues

Sewer Fund Expenses are expected to be only slightly higher overall. An increase of \$92,669 in salaries and benefits is to fund a full year of the 2% pay increase that was effective January 1, 2017. Increases in chemicals are expected due to higher levels of treatment of the sludge. Increases of \$139,225 in contractual services are primarily related to land application of biosolids and increase in line locating charges. Increases in supplies and materials are primarily due to increasing sewer line repairs and lab supplies for regulatory compliance. Other changes include an increase in the Indirect Cost payment to the General Fund of \$93,397 which is partially offset by a \$55,505 decrease in payments to the Self-Insurance Fund. Other notable changes include a decrease of \$34,500 in Capital Outlay associated with decreased purchases of computer and specific use equipment, a \$200,000 decrease in capital transfers and a \$130,819 reduction in debt service.

This budget results in a Debt Coverage Ratio of 1.18, slightly below target of 1.20. The debt coverage for future years is expected to be above the 1.20 as a result of reductions in debt service. During FY 2018 the Fund Balance is expected to be 28% within the target range.

	2016 ACTUAL	2017 ADOPTED BUDGET	2018 PROPOSED BUDGET	INCREASE / DECREASE
EXPENSES:				
Salaries	\$ 2,278,340	\$ 2,428,240	\$ 2,503,931	\$ 75,691
Employee Benefits	844,134	941,909	958,887	16,978
Chemicals-WWTP	761,441	855,000	880,000	25,000
Communication Charges	15,060	17,700	21,900	4,200
Utilities-Waste Water Treatment Plant	752,804	838,300	813,300	(25,000)
Natural Gas	48,564	95,000	80,000	(15,000)
Sludge Disposal	433,529	453,700	453,700	0
Contractual Services	1,425,770	1,691,328	1,830,553	139,225
Supplies and Materials	727,846	658,775	797,100	138,325
Indirect Costs	774,329	761,963	855,360	93,397
Self-Insurance	213,027	213,027	157,522	(55,505)
Admin/Overhead Payments to Water fun	1,182,000	1,200,000	1,210,000	10,000
All Other	342,379	484,086	538,665	54,579
Non-departmental	314,292	336,296	353,874	17,578
Capital Outlay	0	647,000	612,500	(34,500)
Transfers - Capital	1,975,000	1,300,000	1,100,000	(200,000)
Debt Service	9,401,189	9,432,752	9,301,933	(130,819)
	\$ 21,489,704	\$ 22,355,076	\$ 22,469,225	\$ 114,149

Budget and Rates continued...

Stormwater Fund Revenues

Stormwater Fund revenues are only expected to increase slightly by around \$9,000 due to increases in impervious area within the city.

	2016 ACTUAL	2017 ADOPTED BUDGET	2018 PROPOSED BUDGET	INCREASE / DECREASE
REVENUES:				
Charges for Services	\$ 3,161,600	\$ 3,149,400	\$ 3,161,120	\$ 11,720
State Categorical Aid - Highway Mainten	275,000	275,000	275,000	0
Miscellaneous	49,169	42,500	40,000	(2,500)
	\$ 3,485,769	\$ 3,466,900	\$ 3,476,120	\$ 9,220

Stormwater Fund Expenses

The primary variables in FY 2018 expenses as compared to the current year budget is a \$454,288 increase in other charges most significant of which includes increases in the Indirect Cost payment to the General Fund. Transfers to Capital are being reduced by \$325,000 in FY 2018 while currently funded projects are being constructed. The fund balance is expected to be 19% in FY 2018, close to the target range. There currently is no debt in the Stormwater Fund but expect debt to be added in FY 2019 related water quality projects.

	2016 ACTUAL	2017 ADOPTED BUDGET	2018 PROPOSED BUDGET	INCREASE / DECREASE
EXPENSES:				
Salaries	\$ 312,468	\$ 374,067	\$ 394,637	\$ 20,570
Employee Benefits	116,891	153,601	154,373	772
Contractual Services	32,115	225,325	180,600	(44,725)
Internal Service Charges	115,450	139,592	136,159	(3,433)
Other Charges	1,610,518	1,448,606	1,902,894	454,288
Rentals and Leases	54	750	750	0
Capital Outlay	0	32,000	0	(32,000)
Non-departmental	26,155	46,907	51,168	4,261
Transfer - Sewer Operating	126,734	0	0	0
Transfer - Capital	1,150,000	1,175,000	850,000	(325,000)
	\$ 3,490,385	\$ 3,595,848	\$ 3,670,581	\$ 74,733

Complete financial data is for all funds is included in Appendix A - Financial Projections



Our Job is Clear!

A decorative wavy line in blue and green colors, positioned below the slogan.

Appendix A

Financial Projections



WATER FUND
FINANCIAL PROJECTIONS
FY 2017 to FY 2022

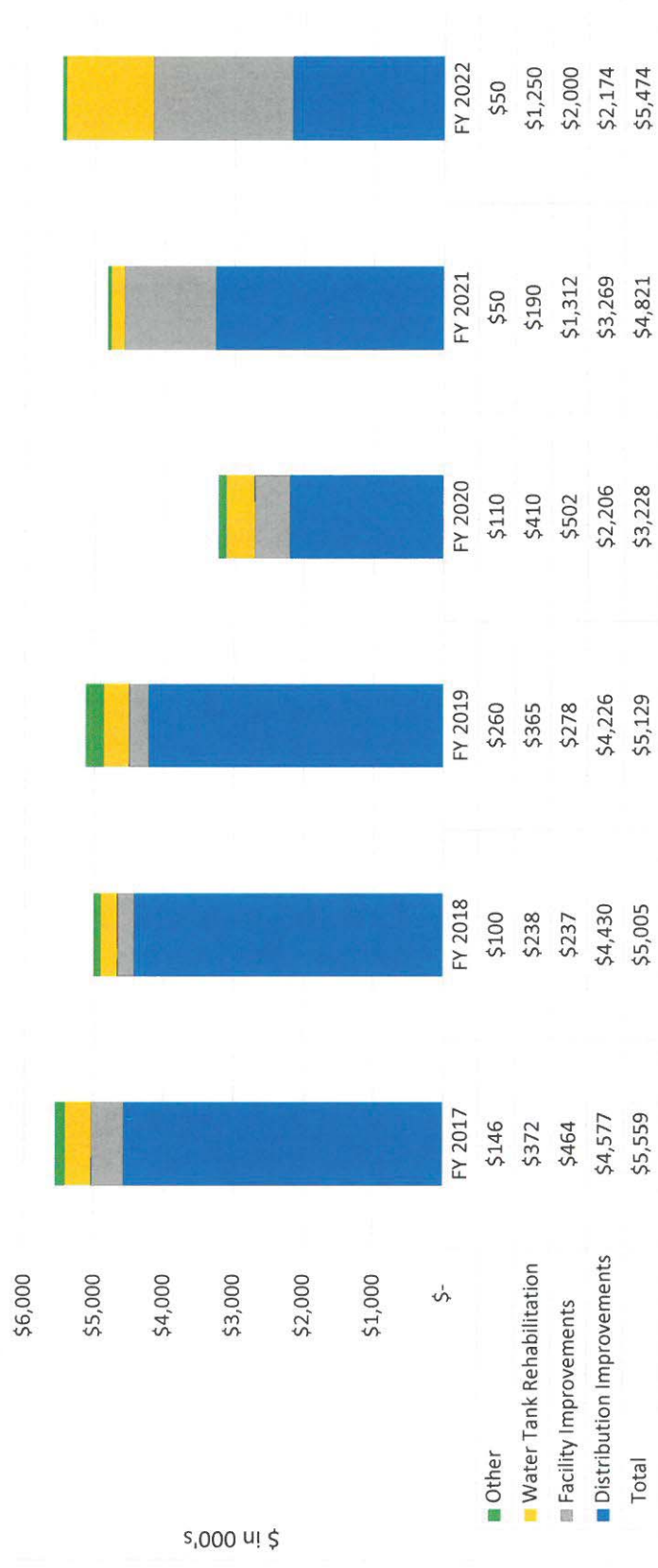
WATER FUND FINANCIAL PROJECTION OVERVIEW

This overview is intended to provide City Council and other stakeholders with a general understanding of the future capital expenditures, operating revenues and expenses, debt service coverage and fund balance of the Water Fund. Details of these matters are discussed below.

Capital Expenditures

Over the past five years' annual water capital expenditures have averaged \$3.9 million and have resulted in renewal and replacement of much of the above ground water assets and some underground infrastructure. As shown in Figure 1 below, water capital expenditures from FY 2017 to FY 2022 are projected to average \$4.9 million per year and total \$29.2 million.

Figure 1: Water Fund Capital Expenditures



As presented in Figure 1, over 70% of the capital expenditures are for distribution improvements. Most of these improvements are scheduled in the central business district. The increase in facility improvements in FY 2021 and FY 2022 is due to a planned project to rehabilitate a sludge pond at the Abert Water Treatment Plant. The increase in water tank rehabilitation in FY 2022 is due to the scheduled rehabilitation of one of the largest water tanks.

The capital expenditures will be financed from a combination of existing funds in the Water Capital Fund (\$9.9 million), transfers from the Water Operating Fund (\$8.3 million) and new debt financing (\$13.0) million. Details of the planned capital expenditures and financing plan are included on page W-6.

Projected Water Revenues

Total water revenues in FY 2016 totaled \$15.1 million. As shown in Figure 2 below, total annual water revenues are projected to decrease slightly in FY 2017 and then increase at an annual of approximately 2.4%.

Figure 2: Projected Water Revenues



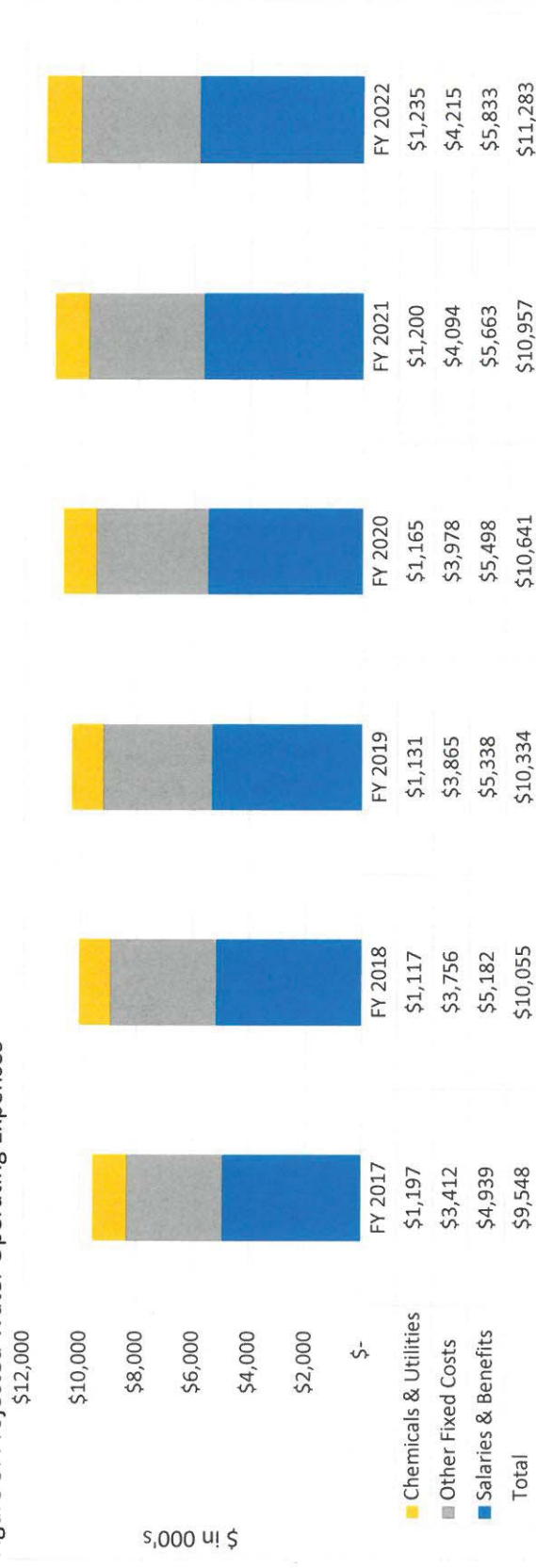
Starting in FY 2018, Charges for Services represent over 85% of total water revenues. The projected charges for services are based on a no water consumption growth and annual volume rate increases ranging from 2% to 5%. No increase in the monthly account charge is anticipated through FY 2022. Details of the projected charges for services are included on page W-9. The average residential customer with 7 HCF of monthly water use will see a 4.3% water bill increase in FY 2018. Average water bill increases after FY 2018 are projected to range from 2% to 4%.

Water contracts have been negotiated with Amherst, Bedford and Campbell Counties and West Rock Company and Frito- Lay. In FY 2016 water contract revenues totaled \$2.8 million. Historically contract revenues from Bedford County have accounted for approximately 50% of the total water contract revenues. Effective October 1, 2016, Bedford County revenues decreased because their water contract rate was reduced from approximately \$2.00 per HCF to \$1.20 per HCF. In FY 2018 it is anticipated that Bedford County will reduce its annual water purchases from the City from approximately 1.5 MGD to 1.0 MGD. Contract revenue from Amherst County which totaled \$.9 million in 2016, is expected to be substantially eliminated by FY 2022 due to phasing out of the Central Virginia Training Center. Details of projected charges for services are included on page W-10.

Projected Water Operating Expenses

Total water operating expenses in FY 2016 totaled \$9.0 million. Projected water operating expenses in FY 2017 and FY 2018 are based on recently submitted budget documents.

Figure 3: Projected Water Operating Expenses

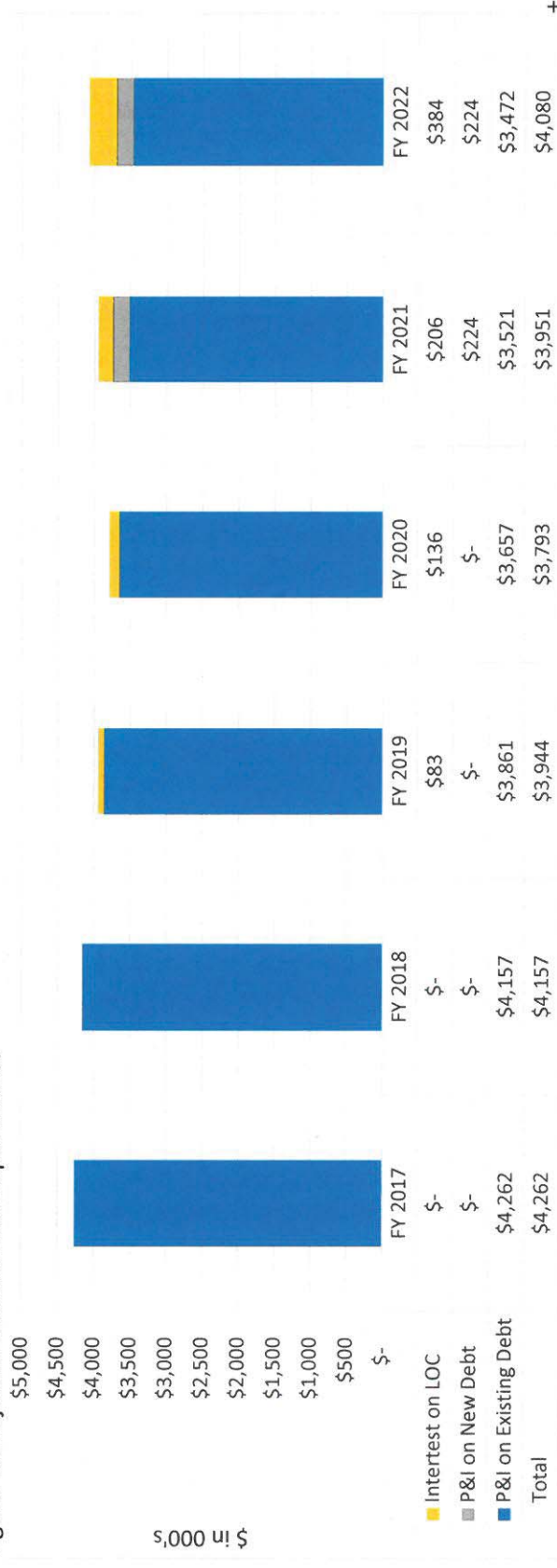


The impact of reduced water use by Bedford County beginning in FY 2018 has been factored into the projected chemical and utility expenses. Expenses after FY 2018 are assumed to increase at annual rate of 3%. Starting in FY 2018, salaries and benefit expenses are based on 73.35 equivalent full time staff positions. Details of operating expenses by sub-department are included on pages W-12 to W-16.

Projected Debt Service Expenditures

Debt service includes principal and interest (P&I) payments and interest only payments on Line of Credit (LOC) borrowing. In 2016 debt service totaled \$4.4 million. As presented in Figure 4 below the total debt service is projected to decrease each year through FY 2020 and then increase in FY 2021 and FY 2022.

Figure 4: Projected Debt Service Expenditures



Principal and Interest (P&I) on new debt are project to start in FY 2021 when LOC draws will be refunded with the proceeds of a \$3.3 million general obligation bond in FY 2020 with interest rate of 5.25% and 29 year payment terms. An additional general obligation bond is assumed to be issued in FY 2022 to refund LOC draws of \$5.5 million. Details of projected debt service are included on page W-17.

Council Adopted Financial Policies

As presented in Figures 5 and 6 below the projected debt coverage (revenues-operating expenses / debt service) and unreserved fund balance are within or exceeds City Council's financial criteria except in FY 2018. In FY 2018, the debt coverage falls below 1.20 (1.17) due to the revenue loss associated with Bedford County's reduced water purchases and decreased water contract rate. However, the unreserved fund balance in FY 2018 exceeds City Council's target 40%. From FY 2017 to FY 2022, ending unreserved fund balance is projected to meet or exceed City Council's requirements of 25% to 40%

Figure 5: Projected Debt Coverage

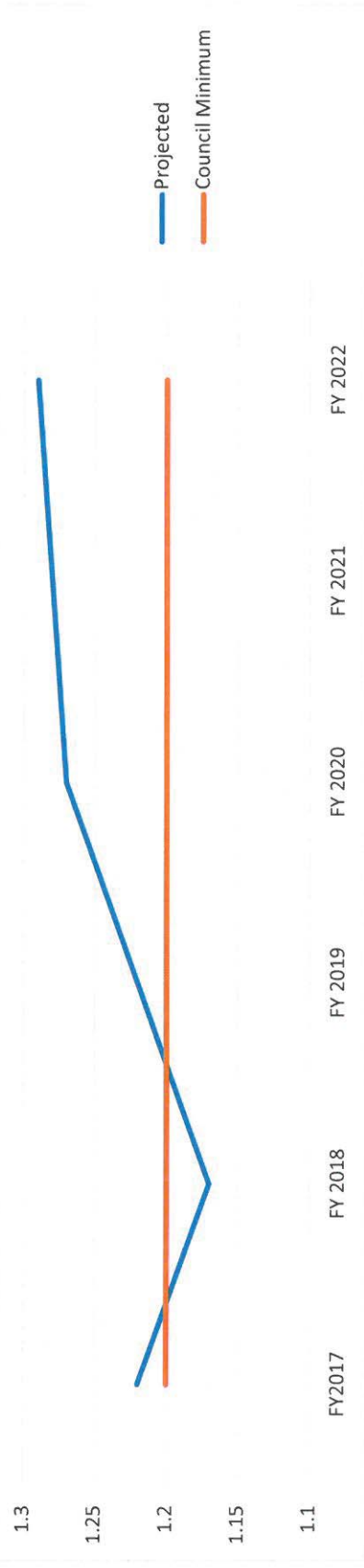
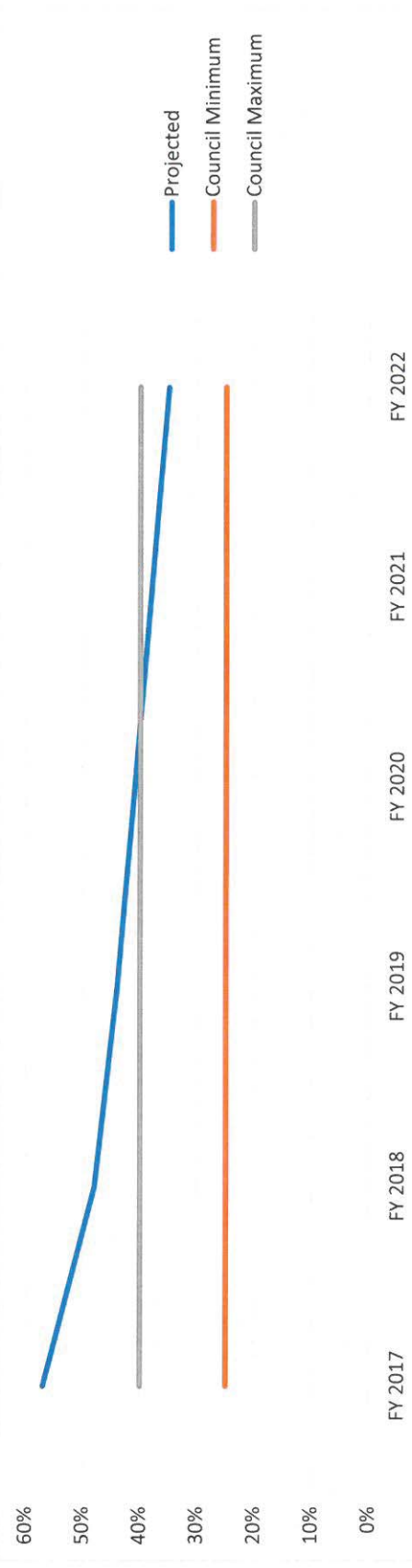


Figure 6: Projected Unreserved Fund Balance



**CITY OF LYNCHBURG
PROJECTED WATER OPERATING FUND DEBT COVERAGE**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Revenues:							
Charges for services	\$12,002,104	\$12,181,691	\$12,726,131	\$12,934,931	\$13,206,605	\$13,694,203	\$14,183,577
Water contracts	2,805,192	2,284,544	1,892,470	1,919,594	1,998,010	2,047,666	2,090,130
Interest and other	287,180	277,110	280,737	274,110	271,110	267,110	267,110
Total Revenues	15,094,476	14,743,345	14,899,338	15,128,635	15,475,725	16,008,980	16,540,817
Expenses:							
Water treatment	2,922,268	3,306,994	3,292,429	3,369,058	3,467,988	3,569,885	3,674,840
Water line maintenance	1,797,095	1,997,380	2,079,412	2,141,794	2,206,048	2,272,230	2,340,397
Meter reading	612,101	753,442	835,692	860,763	886,586	913,183	940,579
Administration / engineering	3,303,095	3,286,598	3,592,408	3,700,180	3,811,186	3,925,521	4,043,287
Non-departmental	414,499	295,994	350,584	360,352	370,412	380,774	391,448
Capitalizable cost (1)	(90,150)	(92,855)	(95,640)	(98,509)	(101,465)	(104,509)	(107,644)
Total Expenses	8,958,908	9,547,554	10,054,885	10,333,637	10,640,755	10,957,085	11,282,906
Operating income	6,135,568	5,195,792	4,844,453	4,794,997	4,834,970	5,051,894	5,257,911
Debt Service	4,366,033	4,262,410	4,157,150	3,943,596	3,792,818	3,951,192	4,080,188
Net Revenue	\$1,769,535	\$933,382	\$687,303	\$851,401	\$1,042,152	\$1,100,702	\$1,177,723
Debt Coverage Ratio	1.41	1.22	1.17	1.22	1.27	1.28	1.29

Notes:

1. Capitalizable cost includes internal labor charges applicable to time spent on capital project activities.

**CITY OF LYNCHBURG
PROJECTED WATER OPERATING FUND CASH FLOW**

	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Beginning Funds (1)	\$ 8,927,805	\$ 7,887,332	\$ 6,912,495	\$ 6,363,387	\$ 6,002,075	\$ 5,696,268
Net revenue plus capitalized costs	840,527	591,663	752,892	940,688	996,194	1,070,080
Capital expenditures for equipment	(131,000)	(66,500)	(52,000)	(52,000)	(52,000)	(52,000)
Transfers to Water Capital Fund	(1,750,000)	(1,500,000)	(1,250,000)	(1,250,000)	(1,250,000)	(1,250,000)
Ending Funds	\$ 7,887,332	\$ 6,912,495	\$ 6,363,387	\$ 6,002,075	\$ 5,696,268	\$ 5,464,348
Water Operating Fund budget (2)	13,902,818	14,307,675	14,375,743	14,535,037	15,012,786	15,470,738
Ending Funds as a % of budget	57%	48%	44%	41%	38%	35%

Notes:

1. Beginning Funds in FY 2017 includes:

Unrestricted cash	\$ 1,245,156
Investments excluding SNAP funds	7,633,295
Discount / premium on investments	39,439
Unrealized loss on investment	(9,397)
Interest receivable on investment	19,312
	<u>\$ 8,927,805</u>

2. Water Operating Fund budget equals expenses that excludes capitalizable costs plus debt service.

**CITY OF LYNCHBURG
CHARGES FOR SERVICES**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Water Sales							
HCF of use (1)	3,059,564	3,060,000	3,060,000	3,060,000	3,060,000	3,060,000	3,060,000
Water volume rate (2)	2.43	2.55	2.68	2.73	2.80	2.94	3.08
	\$7,434,740	\$7,803,000	\$8,200,800	\$8,353,800	\$8,568,000	\$8,996,400	\$9,424,800
All Other:							
Account / Fixed charge (3)	1,264,510	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000
Sewer/Stormwater Fund charge (4)	1,754,000	1,815,000	1,860,000	1,915,800	1,973,274	2,032,472	2,093,446
Hydrant rentals-water	4,328	3,000	3,000	3,000	3,000	3,000	3,000
Hydrant rentals-equip.	4,050	4,000	4,000	4,000	4,000	4,000	4,000
General Fund Fire Protection	879,498	845,191	871,831	871,831	871,831	871,831	871,831
Cut-on/off-late fees	97,868	95,000	95,000	95,000	95,000	95,000	95,000
Meter removal	5,815	5,500	5,500	5,500	5,500	5,500	5,500
Delinquent account fee	93,838	87,000	87,000	87,000	87,000	87,000	87,000
Fire protection	109,089	109,000	109,000	109,000	109,000	109,000	109,000
Connection fees	120,129	65,000	100,000	100,000	100,000	100,000	100,000
Availability fees	107,920	60,000	75,000	75,000	75,000	75,000	75,000
Water cost plus & other	126,319	30,000	55,000	55,000	55,000	55,000	55,000
	4,567,364	4,378,691	4,525,331	4,581,131	4,638,605	4,697,803	4,758,777
	\$12,002,104	\$12,181,691	\$12,726,131	\$12,934,931	\$13,206,605	\$13,694,203	\$14,183,577

Notes:

1. Water use by City customers assumed to remain stable at 3,060,000 HCF. Average annual City customer use over the past five years has been 3,084,959 HCF.
2. Water volume rate assumed to increase 5% in FY 2018; 2% in FY 2019, 3% in FY 2020, and 5% per year thereafter.
3. No increase in Account/Fixed charge planned during the projection period.
4. Sewer/Stormwater Fund charge is designed to recover cost of the Adm. / Engineering Dept. that are attributable to the Sewer and Stormwater Funds.

**CITY OF LYNCHBURG
WATER CONTRACT REVENUES**

	Actual	Est.	Proj.	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
AMHERST (1) (2)							
HCF of use	43,445	20,000	15,000	5,000	5,000	1,000	1,000
Rate	2.06	2.06	2.25	2.32	2.39	2.46	2.46
Current year bills	\$89,497	\$41,200	\$33,750	\$11,600	\$11,950	\$2,460	\$2,460
Prior year settlement	(4,000)	(2,259)	-	-	-	-	-
	\$85,497	\$38,941	\$33,750	\$11,600	\$11,950	\$2,460	\$2,460
BEDFORD (2) (3)							
HCF of use	750,100	750,000	488,000	488,000	488,000	488,000	488,000
Rate	1.98	1.40	1.24	1.28	1.32	1.35	1.40
Current year bills	\$1,485,198	\$1,050,000	\$605,120	\$623,274	\$641,972	\$661,231	\$681,068
Prior year settlement	(28,191)	25,118	-	-	-	-	-
	\$1,457,007	\$1,075,118	\$605,120	\$623,274	\$641,972	\$661,231	\$681,068
CAMPBELL (2) (4)							
HCF of use	278,100	256,000	256,000	256,000	256,000	256,000	256,000
Rate	2.04	2.04	2.25	2.32	2.39	2.46	2.46
Current year bills	\$567,324	\$522,240	\$576,000	\$593,920	\$611,840	\$629,760	\$629,760
Prior year settlement	(36,327)	(11,755)	-	-	-	-	-
	\$530,997	\$510,485	\$576,000	\$593,920	\$611,840	\$629,760	\$629,760
WEST ROCK (5)							
HCF of use	312,427	290,000	290,000	290,000	290,000	290,000	290,000
Rate	1.48	1.50	1.54	1.57	1.66	1.71	1.77
	\$462,392	\$435,000	\$446,600	\$455,300	\$482,618	\$497,097	\$512,009
FRITO-LAY (5)							
HCF of use	181,959	150,000	150,000	150,000	150,000	150,000	150,000
Rate	1.48	1.50	1.54	1.57	1.66	1.71	1.77
	\$269,299	\$225,000	\$231,000	\$235,500	\$249,630	\$257,119	\$264,832
	\$2,805,192	\$2,284,544	\$1,892,470	\$1,919,594	\$1,998,010	\$2,047,666	\$2,090,130

Notes:

1. Amherst water use assumed to decrease as the Central Virginia Training Center is phased-out.
2. Amherst and Campbell County water rates increase approximately 10% in FY 2018 due to decrease in Bedford County's water use.
3. Bedford County water use in FY 2018 is based on minimum contract use of 1.0 MGD. The new contract rate started October 1, 2016 is \$1.20 per HCF. The new rate is projected to increase 3% per year.
4. Campbell's water use includes water not used per existing take or pay contract.
5. West Rock and Frito-Lay rates are based on cost of service rate calculations as per contract terms.

**CITY OF LYNCHBURG
OTHER WATER REVENUES**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Interest revenue	41,904	32,250	31,250	25,250	22,250	18,250	18,250
IRS interest rebate (1)	233,860	233,860	234,487	233,860	233,860	233,860	233,860
Federal grants	-	-	-	-	-	-	-
All other	11,416	11,000	15,000	15,000	15,000	15,000	15,000
	\$287,180	\$277,110	\$280,737	\$274,110	\$271,110	\$267,110	\$267,110

Notes:

1. IRS interest rebate is from Public Improvement Bonds issued 8/13/09 under the American Recovery Reinvestment Act that allows an annual interest subsidy for capital projects.

**CITY OF LYNCHBURG
WATER OPERATING FUND SUBDEPARTMENT - ADMIN. / ENGINEERING**

	Actual	Est	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Personal services (1)	\$1,433,589	\$1,486,815	\$1,593,077	\$1,640,869	\$1,690,095	\$1,740,798	\$1,793,022
Fringe benefits	515,963	545,091	578,181	595,526	613,392	631,794	650,748
Supplies & materials	74,976	64,500	69,700	71,791	73,945	76,163	78,448
Gasoline / fuel	4,854	8,720	9,260	9,538	9,824	10,119	10,422
Internal service charges	27,404	28,747	28,439	29,292	30,171	31,076	32,008
Rentals & leases	3,429	5,000	5,000	5,150	5,305	5,464	5,628
Communication charges	13,063	16,050	16,300	16,789	17,293	17,811	18,346
Contractual services	183,036	151,222	113,350	116,751	120,253	123,861	127,576
Training & travel	20,296	19,650	25,083	25,835	26,611	27,409	28,231
Indirect costs (2) (3)	845,105	781,224	1,045,633	1,077,002	1,109,312	1,142,591	1,176,869
Self - insurance	162,329	162,329	88,635	91,294	94,033	96,854	99,759
Miscellaneous	19,052	17,250	19,750	20,343	20,953	21,581	22,229
	3,303,095	3,286,598	3,592,408	3,700,180	3,811,186	3,925,521	4,043,287

Notes:

1. Personal services in FY 2017 assumes funded staff of 24.6 full time equivalents (FTE's). In FY 2018, two new positions will be added.
(a Civil Engineer II and Marketing Program Coordinator). One FTE position will be deleted (Financial Professional II).
2. Indirect costs fluctuate in FY 2017 due to revisions in previous year cost allocations.
3. Indirect cost changes after FY 2017 occur due to revisions in the methodology of allocating General Fund cost to funds and departments.
The methodology changes were updated to better align allocated cost to the level of service provided.

**CITY OF LYNCHBURG
WATER OPERATING FUND SUBDEPARTMENT - WATER TREATMENT**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Personal services (1)	\$1,069,456	\$1,100,727	\$1,148,650	\$1,183,110	\$1,218,603	\$1,255,161	\$1,292,816
Fringe benefits	417,346	437,569	451,074	464,606	478,544	492,901	507,688
Supplies & materials	144,569	142,250	146,250	150,638	155,157	159,811	164,606
Chemicals (2) (3)	291,950	457,000	400,000	382,748	394,230	406,057	418,239
Gasoline / fuel	5,035	9,770	9,225	9,502	9,787	10,080	10,383
Internal service charges	27,560	34,749	34,610	35,648	36,718	37,819	38,954
Rentals & leases	3,172	4,200	4,200	4,326	4,456	4,589	4,727
Communication charges	14,740	16,200	16,600	17,098	17,611	18,139	18,683
Electricity (2) (3)	454,555	560,000	525,000	550,000	566,500	583,495	601,000
Other utilities	190,294	179,853	192,454	198,228	204,174	210,300	216,609
Contractual services (4)	224,235	282,776	282,966	291,455	300,199	309,205	318,481
Training & travel	7,204	10,500	10,000	10,300	10,609	10,927	11,255
Misc., incl. operations fee	72,150	71,400	71,400	71,400	71,400	71,400	71,400
	2,922,268	3,306,994	3,292,429	3,369,058	3,467,988	3,569,885	3,674,840

Notes:

1. Personal services in FY 2017 assumes funded staff of 24 full time equivalents (FTE's).
2. Chemicals and electricity includes a contingency for incremental cost of treating James River water in dry weather periods.
3. Chemicals and electricity expense reflect the impact of decreased water projected to be purchased by Bedford County beginning in FY 2018.
4. Contractual service increase in FY 2017 represents planned maintenance in buildings, grounds and equipment.

**CITY OF LYNCHBURG
WATER OPERATING FUND SUBDEPARTMENT - WATER LINE MAINTENANCE**

	Actual	Est	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Personal services (1)	\$620,452	\$721,597	\$753,561	\$776,168	\$799,453	\$823,436	\$848,140
Fringe benefits	229,097	278,619	286,610	295,208	304,065	313,186	322,582
Supplies & materials	528,070	533,450	559,000	575,770	593,043	610,834	629,159
Gasoline / fuel	24,941	38,900	48,185	49,631	51,119	52,653	54,233
Internal service charges	141,633	153,193	148,902	153,369	157,970	162,709	167,591
Rentals & leases	4,568	3,500	3,500	3,605	3,713	3,825	3,939
Communication charges	3,482	3,575	4,500	4,635	4,774	4,917	5,065
Contractual services	229,063	255,566	265,574	273,541	281,747	290,200	298,906
Training & travel	13,635	4,900	5,500	5,665	5,835	6,010	6,190
Miscellaneous	2,154	4,080	4,080	4,202	4,328	4,458	4,592
	1,797,095	1,997,380	2,079,412	2,141,794	2,206,048	2,272,230	2,340,397

Notes:

1. Personal services in FY 2017 assumes funded staff of 16.75 full time equivalents (FTE's).

**CITY OF LYNCHBURG
WATER OPERATING FUND - METER READING**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Personal services (1)	\$252,052	\$259,103	\$261,480	\$269,324	\$277,404	\$285,726	\$294,298
Fringe benefits	104,427	109,097	109,757	113,050	116,441	119,934	123,532
Supplies & materials (2)	196,784	279,675	362,025	372,886	384,072	395,594	407,462
Gasoline / fuel	9,434	18,900	18,662	19,222	19,799	20,392	21,004
Internal service charges	34,484	33,999	31,807	32,761	33,744	34,756	35,799
Rentals & leases	67	100	100	103	106	109	113
Communication charges	3,985	4,300	4,425	4,558	4,694	4,835	4,980
Contractual services	36,137	47,268	45,436	46,799	48,203	49,649	51,139
Training & travel	168	1,000	2,000	2,060	2,122	2,185	2,251
Miscellaneous (3)	(25,436)	-	-	-	-	-	-
	612,101	753,442	835,692	860,763	886,586	913,183	940,579

Notes:

1. Personal services in FY 2017 assumes funded staff of 7 full time equivalents (FTE's).
2. Supplies & materials expense is primarily related to meter replacements. The number of new meter replacements are scheduled to increase in FY 2017.
3. Credit balance is result of capital outlay entry intended for another fund. No impact to fund's cash position.

**CITY OF LYNCHBURG
WATER OPERATING FUND NON-DEPARTMENTAL**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Financial audit	\$24,626	\$25,279	\$26,282	\$27,070	\$27,883	\$28,719	\$29,581
Interest on customer deposits	9,067	7,931	10,000	10,300	10,609	10,927	11,255
Workers compensation (1)	101,774	20,000	20,000	20,600	21,218	21,855	22,510
OPEB & retirees health benefits (1)	206,450	180,784	231,552	238,499	245,654	253,023	260,614
Allowance for doubtful accounts	35,147	37,000	37,750	38,883	40,049	41,250	42,488
Budget compensation adjustments (2)	-	-	-	-	-	-	-
Project costs charged to operations (3)	37,435	25,000	25,000	25,000	25,000	25,000	25,000
	\$414,499	\$295,994	\$350,584	\$360,352	\$370,412	\$380,774	\$391,448

Notes:

1. Workers compensation, OPEB & retirees health benefits amounts in FY 2017 and FY 218 are based on Human Resources Department estimates.
2. Budget compensation adjustments include assumed pay increases for all Water Fund employees.
3. Project costs expensed are capital projects that cost less than \$10,000 or design projects that are not expected to go to the construction phase.

**CITY OF LYNCHBURG
WATER OPERATING FUND DEBT SERVICE**

	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
P&I on outstanding debt @ 6/30/16	\$4,262,410	\$4,157,150	\$3,861,096	\$3,656,693	\$3,520,886	\$3,472,507
Interest on LOC borrowing (1)						
FY 2018 - FY 2020	-	-	82,500	82,500	-	-
FY 2020 - FY 2022				53,625	206,250	152,625
FY 2022						231,000
P&I payments on new G.O. Bonds (2) (3)						
\$3.3 million G.O bond in FY 2020	-	-	-	-	224,056	224,056
\$5.5 million G.O. bond in FY 2022	-	-	-	-	-	-
	\$4,262,410	\$4,157,150	\$3,943,596	\$3,792,818	\$3,951,192	\$4,080,188

Notes:

1. Interest on LOC borrowings for period FY 2018 - FY 2020 is based on the average outstanding line of credit (LOC) balance each year times 5%. Period FY 2020 - FY 2021 is based on the average outstanding LOC balance each year times 5.50%.
2. General Obligation (G.O.) Bonds planned for FY 2020 and FY 2022 will be used to refund outstanding LOC balances in FY 2020 and FY 2022.
3. G.O. bond in FY 2020 is assumed to be at 5.25%, 29 year repayment terms.

SEWER FUND
FINANCIAL PROJECTIONS
FY 2017 to FY 2022

SEWER FUND

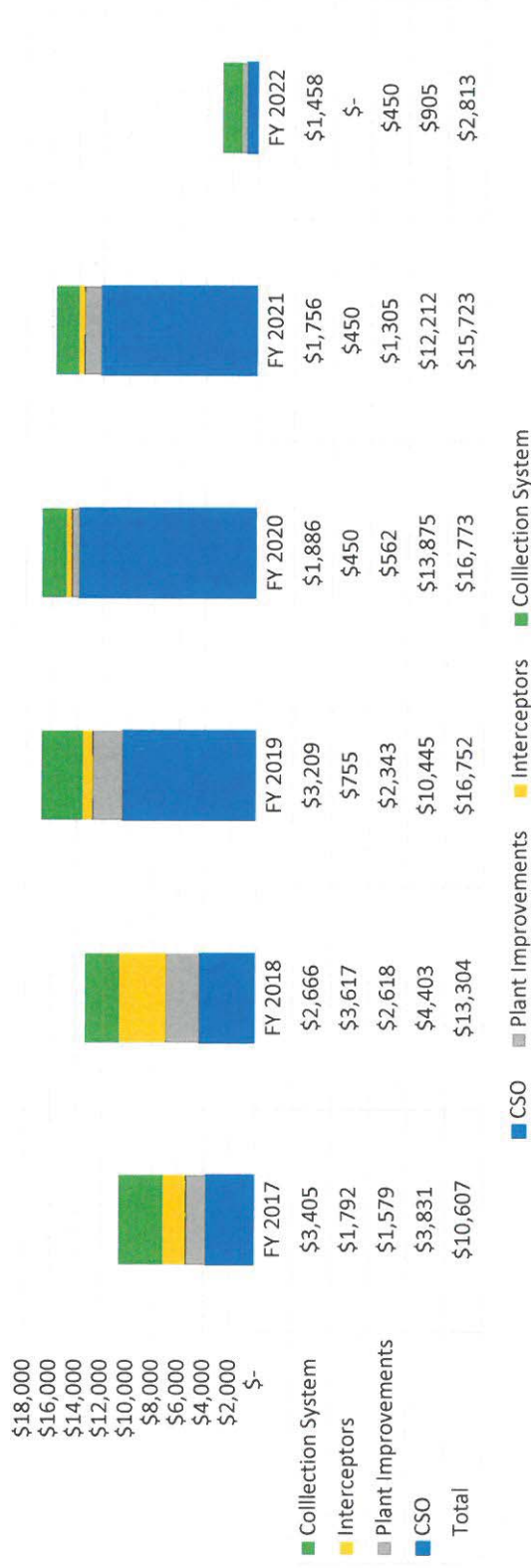
FINANCIAL PROJECTION OVERVIEW

This overview is intended to provide City Council and other stakeholders with a general understanding of the future capital expenditures, operating revenues and expenses, debt service coverage and fund balance of the Sewer Fund. Details of these matters are discussed below.

Capital Expenditures

Over the past five years' annual Sewer capital expenditures have averaged \$14.2 million. Over 75% of these capital expenditures were related to the Combined Sewer Overflow (CSO) Program. As presented in Figure 1 below, annual sewer capital expenditures from FY 2017 to FY 2022 are projected to average \$12.7 million per year and total \$76.0 million.

Figure 1: Sewer Fund Capital Expenditures



Over 60% of the planned capital expenditures from FY 2017 to FY 2022 are related to the CSO Program and recently approved Long Term Control Plan. The CSO expenditures shown in Figure 1 are believed to be sufficient to substantially complete the CSO Program by FY 2021. As a result the projected total capital expenditures are projected to decrease substantially in FY 2022. Plant Improvements include two major projects to upgrade the electronic control equipment and instrumentation at the wastewater treatment plant and to modernize the laboratory for compliance with new regulations. The cost of interceptors shown in Figure 1 includes projects to replace portions of the Burton Creek and

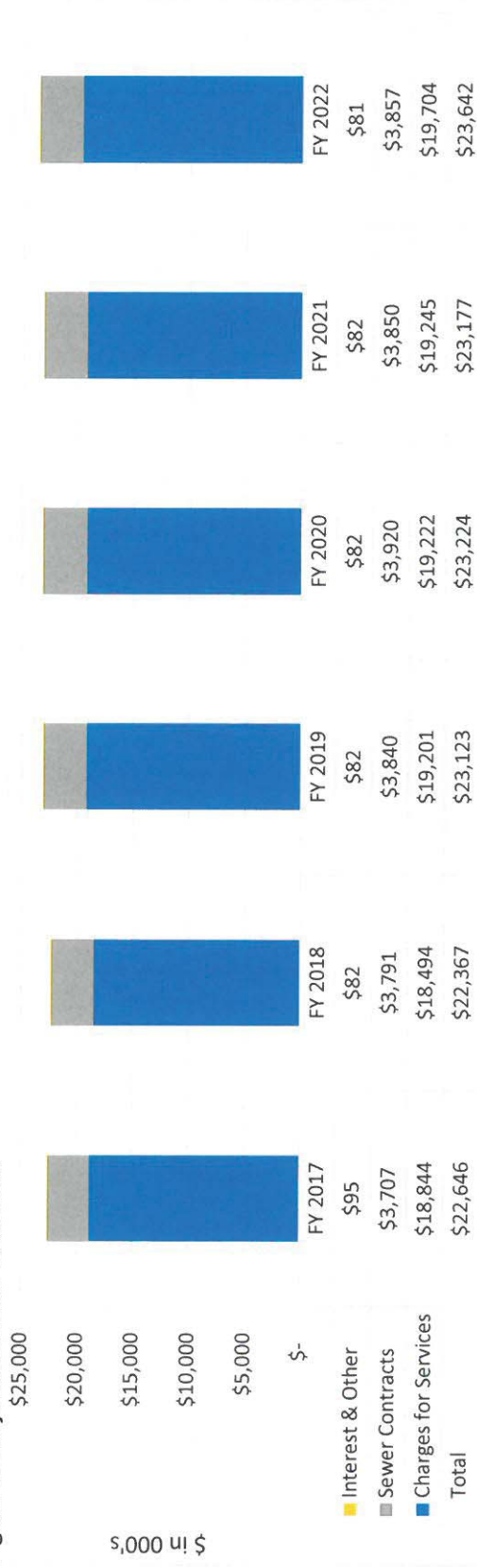
Fishing Creek Interceptors that will increase flow capacity. The Collection System expenditures include numerous projects to evaluate and identify defective sewer lines throughout the City. Defective sewer lines will result in future projects that will result in needed rehabilitation or replacement.

The capital expenditures will be financed from a combination of existing funds in the Sewer Capital Fund (\$14.8 million), transfers from the Sewer Operating Fund (\$9.4 million), remaining State grant funds (\$21.9 million) and new debt financing (\$32.5) million. Details of the planned capital expenditures and financing plan are included on page S-7.

Projected Sewer Revenues

Total sewer revenues in FY 2016 totaled \$22.1 million. As shown in Figure 2 below, total annual sewer revenues are projected to increase by approximately 2.7% in FY 2017 and then about 1% per year after FY 2017.

Figure 2: Projected Sewer Revenues



Charges for services represent over 83% of total water revenues. The projected charges for services are based on a no water consumption growth and annual volume rate increases of 5.5% in FY 2019 and 2.7% in FY 2022. The average residential sewer bill increase in these two years is projected to be 4.9% and 2.4%, respectively. No increase in the monthly account charge is anticipated through FY 2022. It is noteworthy that the FY 2017 projected sewer revenues includes \$1.2 million of truck hauled waste billings. It is not clear how much or how long this level of

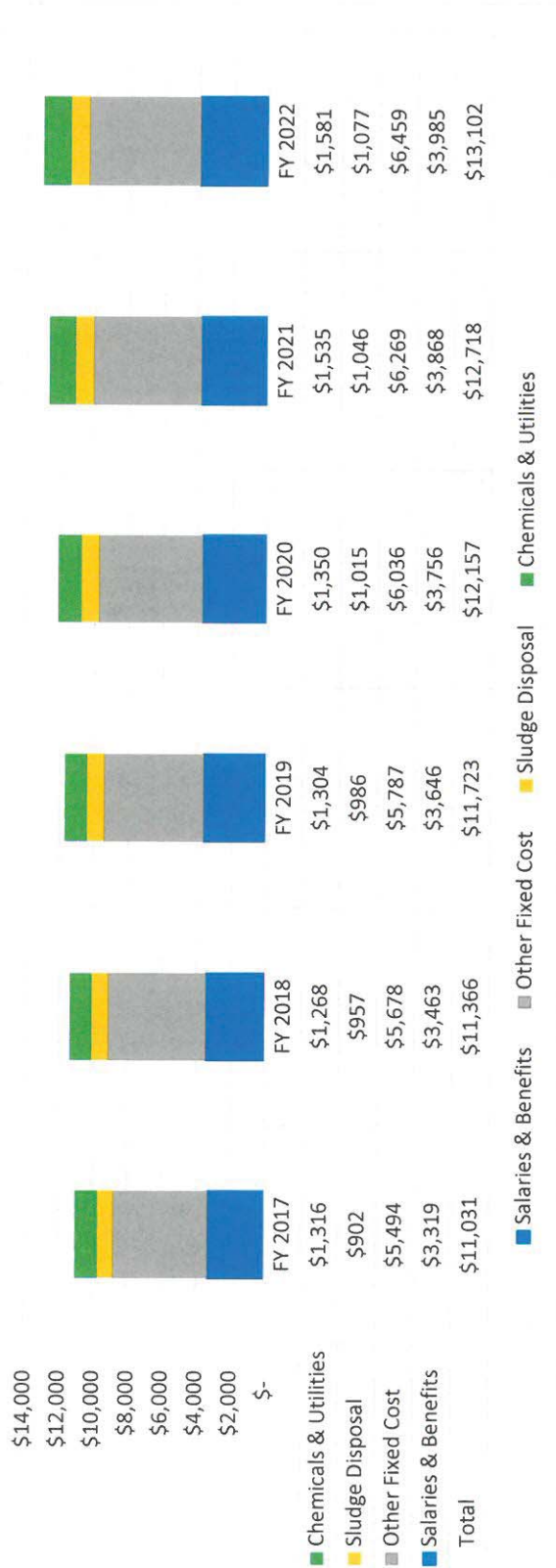
billings associated with these customers will continue. For projection purposes, these billings are assumed to decrease by approximately .4 million in FY 2018 and stop. After FY 2018, should this level of billings continue the projected FY 2019 volume rate increase and average residential sewer bill is anticipated to be less than noted above. Details of the projected charges for services are included on page S-10.

Sewer contracts have been negotiated with Amherst, Bedford and Campbell Counties and West Rock Company and Frito- Lay. In FY 2016 sewer contract revenues totaled \$3.7 million. The sewer contract revenues from the three counties account for between \$1.2M and \$1.5M annually. The sewer contract revenue from West Rock Company and Frito- Lay are projected to account for \$2.2M in FY 2017 and increase 2% each year thereafter. Details of projected sewer contract revenues are included on page S-11.

Projected Sewer Operating Expenses

Total sewer operating expenses in FY 2016 totaled \$10.1 million. Projected sewer operating expenses in FY 2017 and FY 2018 are based on recently submitted budget documents.

Figure 3: Projected Sewer Operating Expenses



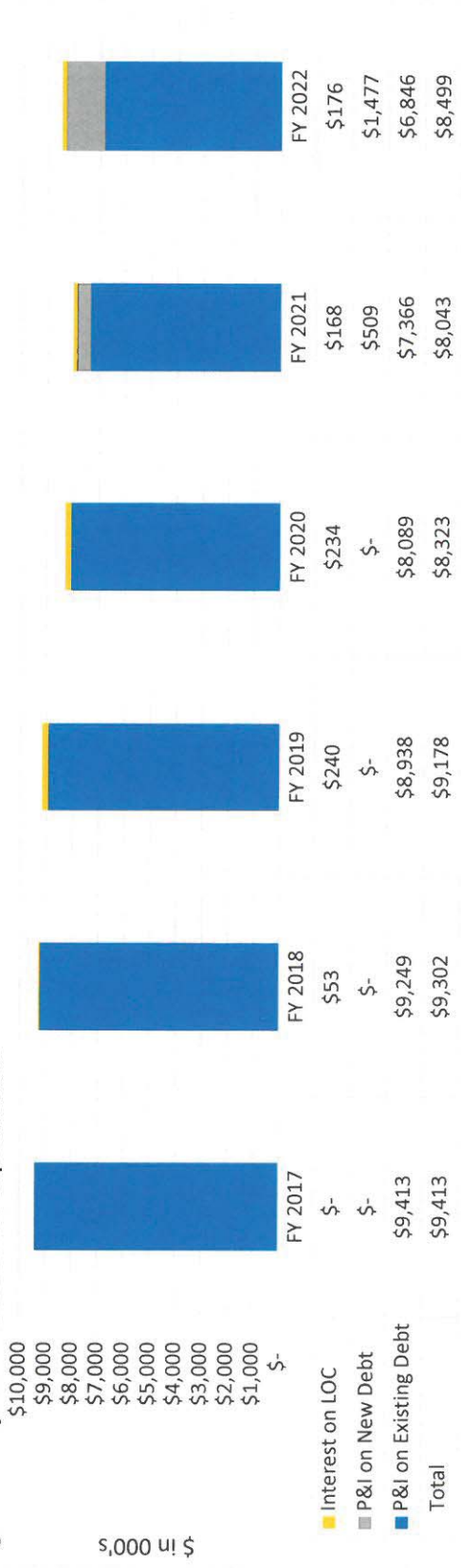
Salaries and benefit expenses are based on 55.45 equivalent full time staff positions in FY 2017 and FY 2018. One additional full time position in

FY 2019 is projected to be added.

Projected Debt Service Expenditures

In 2016 debt service totaled \$9.4 million. As presented in Figure 4 below the total debt service is projected to decrease each year through FY 2021 and then increase in FY 2022.

Figure 4: Projected Debt Service Expenditures

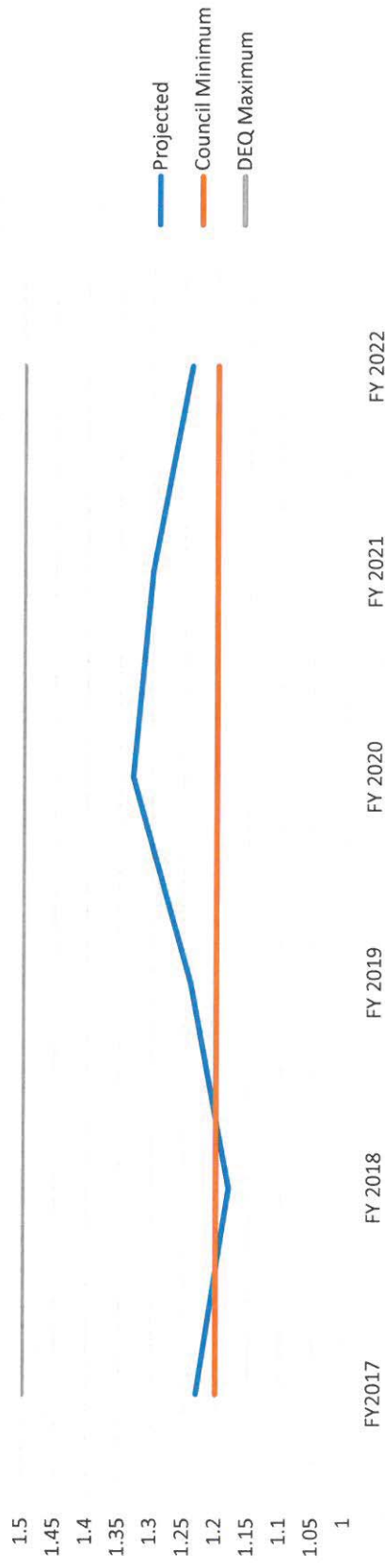


P&I (Principal and Interest) on existing debt decreases each year as presented in Figure 4 as total outstanding principal is reduced. P&I on new debt are projected to start in FY 2021 when Line of Credit (LOC) draws will be refunded from the proceeds of a \$7.5 million general obligation bond. Debt service payments increase again in FY 2022 when payments are projected to start on a \$19.4 million loan from the Virginia Water Facilities Revolving Fund (VWFRF) loan. The VWFRF loan is expected to be at 0%, 20-year repayment terms. General Obligation bonds are assumed to be issued in FY 2020 and FY 2022 and used to refund line of credit draws. The general obligation bonds are assumed to be at interest rates ranging from 5.25% to 5.5% with 29 year payment terms. Details of the projected debt service are included on page S-16.

Council Adopted Financial Policies

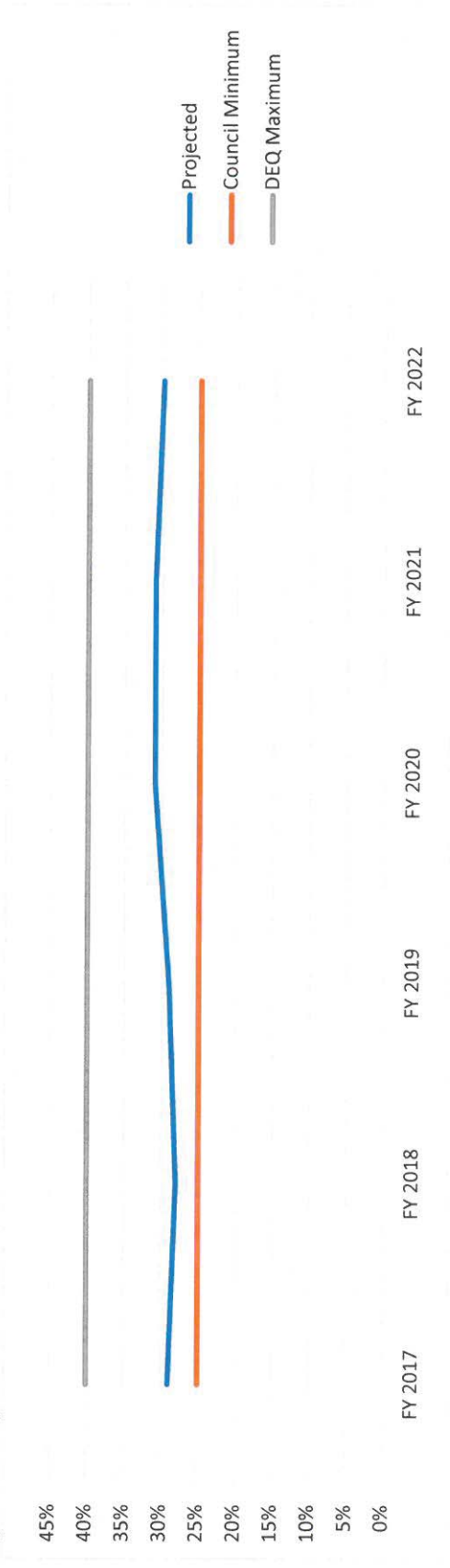
As presented in Figure 5 below the Sewer Fund debt coverage (revenues-operating expenses / debt service) is projected to exceed City Council's financial requirement of 1.20 except in FY 2018 and also be less than the 1.50 maximum stipulated in the CSO Consent Special Order with the Department of Environmental Quality (DEQ). Under the CSO Consent Special Order, the debt coverage shall be within 1.1 to 1.5. All fiscal years presented in Figure 5 demonstrates debt coverage is in compliance with the CSO Consent Special Order.

Figure 5: Projected Debt Coverage



As presented in Figure 6 below, the Sewer Fund 's projected fund balance is expected to exceed City Council's financial requirement of no less than 25% of total fund appropriations (operating expenses and debt service) and no more than the DEQ maximum of 40% in all years.

Figure 6: Projected Unreserved Fund Balance



**CITY OF LYNCHBURG
PROJECTED SEWER CAPITAL FUND CASH FLOW**

	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Beginning Funds (1)	\$ 14,750,305	\$8,412,053	\$1,902,530	\$2,853,795	\$2,780,795	\$2,844,795
Receipts:						
Transfers from operations	1,300,000	1,100,000	1,500,000	2,000,000	1,750,000	1,750,000
Grant reimbursements (2)	2,759,656	3,394,075	7,896,000	7,882,555	-	-
VWFRF loan reimbursements (3)	209,309	-	2,907,257	5,117,445	11,336,879	-
LOC borrowings (4)	-	2,300,000	5,400,000	1,700,000.00	2,700,000.00	1,000,000
G.O. borrowings	-	-	-	-	-	-
Total Receipts	4,268,965	6,794,075	17,703,257	16,700,000	15,786,879	2,750,000
Capital Expenditures:						
Sanitary Sewer Evaluation Study (SSES)	2,983,713	2,076,000	2,983,983	1,221,000	1,651,000	1,353,000
Sewer Extensions	305,485	145,000	163,784	100,000	100,000	100,000
Sewer Separation and Rehab	851,775	265,352	565,000	865,000	865,000	895,000
VWFRF Projects (3)	209,309	733,257	1,974,000	5,117,445	11,336,879	-
Grant Projects (2)	2,759,656	3,394,075	7,896,000	7,882,555	-	-
RDP	10,071	10,000	10,000	10,000	10,000	10,000
WWTP Improvements	1,328,900	2,618,200	2,342,845	562,000	1,305,000	450,000
Blue Ridge Farms	70,448	440,000	56,000	560,000	-	-
Burton Creek Interceptor	1,792,000	3,616,714	555,380	-	-	-
Fishing Creek Interceptor	-	-	200,000	450,000	450,000	-
College Hill Water Plant	249,604	-	-	-	-	-
Other	46,256	5,000	5,000	5,000	5,000	5,000
Total Expenditures	10,607,217	13,303,598	16,751,992	16,773,000	15,722,879	2,813,000
Ending Capital Funds	\$ 8,412,053	\$1,902,530	\$2,853,795	\$2,780,795	\$2,844,795	\$2,781,795

Notes:

- Beginning funds in FY 2017 include:

SNAP funds	\$ 9,707,734
Cash & investments in Capital Fund	5,042,571
	<u>\$ 14,750,305</u>
- Grant reimbursements represent remaining pay-outs on a \$30 million state grant awarded to the City to help fund CSO improvements. These grant funds are held by Department of Environmental Quality (DEQ) and released to the City to pay project designers and construction firms as work progresses on the CSO improvement projects.
- VWFRF loan reimbursements represent remaining payouts on a previously awarded loan from the Virginia Water Facility Revolving Fund (VWFRF) and a future loan scheduled to be closed in FY 2019 in the amount of \$19.4 million. Similar to the \$30 million state grant, these funds are held by DEQ and released to the City to pay project designers and construction firms as work progresses on CSO improvements.
- LOC borrowings are draws from line of credit. LOC draws are projected to be refunded with general obligation bonds in FY 2020 and FY 2022.

**CITY OF LYNCHBURG
PROJECTED SEWER OPERATING FUND DEBT COVERAGE**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Revenues:							
Charges for services	\$18,121,007	\$18,843,763	\$18,494,475	\$19,200,719	\$19,222,806	\$19,245,556	\$19,704,188
Sewer contracts	3,710,861	3,706,551	3,791,116	3,840,936	3,919,628	3,850,133	3,856,706
Interest and other	225,586	95,599	81,599	81,599	81,599	81,599	81,599
Total Revenues	22,057,454	22,645,913	22,367,190	23,123,254	23,224,033	23,177,288	23,642,493
Expenses:							
WWTP	7,480,017	8,243,192	8,522,641	8,820,420	9,168,333	9,641,683	9,934,233
Sewer line maintenance	2,317,985	2,565,852	2,578,251	2,630,599	2,709,516	2,790,802	2,874,526
Non-departmental	404,503	346,491	393,874	404,490	415,425	426,688	438,288
Capitalizable cost (1)	(131,088)	(125,000)	(128,750)	(132,613)	(136,591)	(140,689)	(144,909)
Total Expenses	10,071,417	11,030,535	11,366,016	11,722,896	12,156,683	12,718,484	13,102,138
Operating Income	11,986,037	11,615,378	11,001,174	11,400,358	11,067,349	10,458,804	10,540,355
Debt service	9,401,189	9,412,637	9,301,933	9,177,767	8,323,375	8,043,211	8,499,332
Net Revenue	\$2,584,848	\$2,202,741	\$1,699,241	\$2,222,591	\$2,743,974	\$2,415,592	\$2,041,023
Debt Coverage Ratio	1.27	1.23	1.18	1.24	1.33	1.30	1.24

Notes:

1. Capitalizable cost includes internal labor charges applicable to time spent on capital project activities.

**CITY OF LYNCHBURG
PROJECTED SEWER OPERATING FUND CASH FLOW**

	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Beginning Funds (1)	\$ 5,751,988	\$ 5,902,510	\$ 5,760,501	\$ 6,050,479	\$ 6,357,863	\$ 6,582,766
Net revenue plus capitalized costs	2,077,741	1,570,491	2,089,978	2,607,383	2,274,904	1,896,113
Capital expenditures for equipment	(627,219)	(612,500)	(300,000)	(300,000)	(300,000)	(300,000)
Transfers to Sewer Capital Fund	(1,300,000)	(1,100,000)	(1,500,000)	(2,000,000)	(1,750,000)	(1,750,000)
Ending Funds	\$ 5,902,510	\$ 5,760,501	\$ 6,050,479	\$ 6,357,863	\$ 6,582,766	\$ 6,428,880
Sewer Operating Fund Budget (2)	20,568,172	20,796,699	21,033,276	20,616,649	20,902,384	21,746,380
Ending Funds as a % of Budget	29%	28%	29%	31%	31%	30%

Notes:

1. Beginning Funds in FY 2017 includes:

Unrestricted cash	\$ 1,648,467
Investments excluding SNAP funds	4,088,463
Discount / premium on investments	(3,661)
Unrealized loss on investments	16,580
Interest receivable on investments	2,139
	<u>\$ 5,751,988</u>

2. Sewer Operating Fund budget equals expenses that excludes capitalizable cost plus debt service.

**CITY OF LYNCHBURG
CHARGES FOR SERVICES**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
CITY CUSTOMERS							
HCF of use (1)	2,545,594	2,560,000	2,560,000	2,560,000	2,560,000	2,560,000	2,560,000
Rate (2)	5.83	6.02	6.02	6.35	6.35	6.35	6.52
	\$14,840,813	\$15,411,200	\$15,411,200	\$16,256,000	\$16,256,000	\$16,256,000	\$16,691,200
ALL OTHER:							
Account / Fixed charge (3)	1,277,358	1,273,000	1,273,000	1,273,000	1,273,000	1,273,000	1,273,000
College Hill backwash	134,450	111,653	121,254	124,892	128,638	132,498	136,472
Leachate treatment	72,206	96,430	104,291	107,420	110,642	113,962	117,380
Truck hauled waste (4)	964,546	1,200,000	810,000	650,000	650,000	650,000	650,000
Industrial pre-treatment	4,480	4,480	4,480	4,480	4,480	4,480	4,480
Industrial surcharges	430,583	425,000	437,750	450,883	464,409	478,341	492,691
Industrial monitoring	35,086	50,000	51,500	53,045	54,636	56,275	57,964
Cut-on penalties	89,934	89,000	89,000	89,000	89,000	89,000	89,000
Connection charges (5)	97,201	75,000	75,000	75,000	75,000	75,000	75,000
Availability charges (5)	166,898	100,000	105,000	105,000	105,000	105,000	105,000
Sewer cost plus	7,452	8,000	12,000	12,000	12,000	12,000	12,000
	3,280,194	3,432,563	3,083,275	2,944,719	2,966,806	2,989,556	3,012,988
	\$18,121,007	\$18,843,763	\$18,494,475	\$19,200,719	\$19,222,806	\$19,245,556	\$19,704,188

Notes:

1. Sewer volume billed to City customers assumed to remain stable at 2,560,000 HCF. Average annual City billed sewer volume over the past 5 years has been 2,567,624 HCF.
2. Sewer volume rate assumed to increase 5.5% in FY 2019, 0% in FY 2020 and FY 2021 and 2.7% in FY 2022.
3. No increase in the Account / Fixed charge planned during the projection period.
4. In FY 2016, FY 2017 and FY 2018, include truck hauled waste billings that is much higher than the annual average experienced in previous years. It is not clear how much or how long this level of truck hauled waste billings will continue. For planning purposes the truck hauled waste revenues have been reduced to pre 2016 levels starting in FY 2019.
5. Availability and connection fees for FY 2017 - FY 2022 are conservative due to uncertainty in real estate development.

**CITY OF LYNCHBURG
SEWER CONTRACT REVENUES**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
AMHERST							
Operating (1)	\$209,000	\$225,000	\$230,000	\$246,972	\$256,713	\$269,967	\$278,159
Existing capital amort.	256,400	259,419	259,092	253,579	250,692	151,836	127,857
Prior Year O&M settlement	(2,204)	(2,204)	-	-	-	-	-
Capital PAYGO.	30,877	42,428	30,166	30,786	30,899	24,992	14,200
Future capital - Financed	-	-	6,016	9,896	28,858	30,818	30,818
	494,073	524,643	525,274	541,233	567,162	477,613	451,034
BEDFORD							
Operating (1)	242,000	252,000	252,000	264,613	275,050	289,250	298,027
Existing capital amort.	214,199	211,857	194,758	140,476	113,078	47,121	37,599
Prior Year O&M settlement	1,292	(8,701)	-	-	-	-	-
Capital PAYGO.	8,426	29,035	33,687	29,575	18,064	19,793	5,688
Future capital - Financed	-	-	1,156	1,413	8,561	8,561	8,561
	465,917	484,191	481,601	436,077	414,753	364,725	349,875
CAMPBELL							
Operating (1)	228,000	318,000	325,000	352,817	366,733	385,667	397,369
Existing capital amort.	58,349	57,032	55,532	57,031	57,030	57,030	57,029
Prior Year O&M settlement	73,367	68,650	-	-	-	-	-
Capital PAYGO.	10,676	29,035	27,261	29,575	18,064	19,793	5,688
Future capital - Financed	-	-	1,448	1,704	24,935	24,935	24,935
	370,392	472,717	409,241	441,127	466,762	487,425	485,021
INDUSTRIAL							
WestRock (2)	1,379,353	1,300,000	1,400,000	1,428,000	1,456,560	1,485,691	1,515,405
Frito-Lay (2)	1,001,126	925,000	975,000	994,500	1,014,390	1,034,678	1,055,371
	2,380,479	2,225,000	2,375,000	2,422,500	2,470,950	2,520,369	2,570,776
	\$3,710,861	\$3,706,551	\$3,791,116	\$3,840,936	\$3,919,628	\$3,850,133	\$3,856,706

Notes:

- County operating revenues based on percentage of WWTTP expenses (Amherst-2.8%, Bedford-3.0%, Campbell-4.0%).
- West Rock and Frito-Lay revenues are assumed to increase 2% per year from FY 2018 through FY 2022.

**CITY OF LYNCHBURG
OTHER SEWER REVENUES**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Other Revenues							
Interest revenue	32,015	40,000	26,000	26,000	26,000	26,000	26,000
Collection & tax lien fees	11,565	7,000	7,000	7,000	7,000	7,000	7,000
Miscellaneous revenue	12,559	6,000	6,000	6,000	6,000	6,000	6,000
SW Fund start-up repayment (1)	126,734	-	-	-	-	-	-
IRS interest rebate (2)	42,713	42,599	42,599	42,599	42,599	42,599	42,599
	\$225,586	\$95,599	\$81,599	\$81,599	\$81,599	\$81,599	\$81,599

Notes:

1. SW Fund start-up repayment was a transfer from the Stormwater Fund to recover the cost incurred by the Sewer Fund to study, organize and implement the Stormwater Fund and initial fees to property owners.
2. IRS interest rebate is from Public Improvement Bonds issued 8/13/09 under the American Recovery Reinvestment Act that allows an annual interest subsidy for capital projects.

**CITY OF LYNCHBURG
SEWER OPERATING FUND SUBDEPARTMENT - WASTEWATER TREATMENT**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Personal services (1)	\$1,688,187	\$1,796,226	\$1,845,054	\$1,960,406	\$2,019,218	\$2,079,794	\$2,142,188
Fringe benefits (1)	611,708	653,955	690,153	730,858	752,783	775,367	798,628
Supplies & materials (2)	519,504	500,950	567,200	584,216	601,742	669,795	689,889
Sludge disposal - landfill	432,992	450,000	450,000	463,500	477,405	491,727	506,479
Chemicals (2)	761,440	883,000	880,000	906,400	933,592	1,011,600	1,041,948
Gasoline / fuel	16,161	21,500	32,520	33,496	34,500	35,535	36,602
Internal service charges	180,594	150,920	167,545	172,571	177,748	183,081	188,573
Rentals & leases	3,727	51,000	6,000	6,180	6,365	6,556	6,753
Communication charges	8,002	14,400	14,400	14,832	15,277	15,735	16,207
Electricity (2)	722,482	770,000	775,000	798,250	827,198	947,013	975,424
Other utilities	80,164	114,900	119,900	123,497	127,202	131,018	134,949
Contractual services (3)	1,045,990	1,431,655	1,452,555	1,496,132	1,541,016	1,587,246	1,634,863
Training & meetings	18,290	22,900	22,900	23,587	24,295	25,023	25,774
Indirect costs (4)	567,892	535,916	608,114	626,357	645,148	664,503	684,438
Self-insurance (2) (5)	55,770	55,770	84,300	86,829	114,434	117,867	121,403
Water Adm. Services	827,400	840,000	847,000	872,410	898,582	925,540	953,306
Nutrient payments	-	-	-	-	-	-	-
Nutrient sales	(88,067)	(80,000)	(70,000)	(110,000)	(110,000)	(110,000)	(110,000)
Misc.(2)	27,780	30,100	30,000	30,900	81,827	84,282	86,810
	7,480,017	8,243,192	8,522,641	8,820,420	9,168,333	9,641,683	9,934,233

Notes:

1. Personal services in FY 2017 are based on 39 full time equivalent (FTE) positions. 1 new mechanic planned to be added in FY 2019.
2. These expense items are projected to increase starting in FY 2019 as WWTP projects related to the CSO program are completed and become operational.
3. Indirect cost changes occur due to revisions in the methodology of allocating General Fund cost to funds and departments. The methodology changes were updated to better align allocated cost to the level of service provided.
4. Self insurance increases due to a re-evaluation of risks and claims history.

**CITY OF LYNCHBURG
SEWER OPERATING FUND SUBDEPARTMENT - SEWER LINE MAINTENANCE**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Personal services (1)	\$590,152	\$610,823	\$658,875	\$678,641	\$699,000	\$719,971	\$741,570
Fringe benefits	232,432	257,991	268,710	276,771	285,074	293,627	302,435
Supplies & materials	206,367	225,675	226,375	233,166	240,161	247,366	254,787
Gasoline / fuel	23,700	48,250	45,545	46,911	48,319	49,768	51,261
Internal service charges (2)	145,279	279,986	282,530	291,006	299,736	308,728	317,990
Rentals & leases	5,462	8,000	8,000	8,240	8,487	8,742	9,004
Communication charges	7,059	6,900	7,500	7,725	7,957	8,195	8,441
Contractual services	379,775	372,773	377,998	364,338	375,268	386,526	398,122
Training & meetings	8,577	8,150	15,150	15,605	16,073	16,555	17,051
Indirect costs	206,437	226,047	247,246	254,663	262,303	270,172	278,278
Self-insurance	157,257	157,257	73,222	75,419	77,681	80,012	82,412
Water Adm. Services	354,600	360,000	363,000	373,890	385,107	396,660	408,560
Miscellaneous Expenses	888	4,000	4,100	4,223	4,350	4,480	4,615
	2,317,985	2,565,852	2,578,251	2,630,599	2,709,516	2,790,802	2,874,526

Notes:

1. Personal services in FY 2016 is based on 15.45 full time equivalent (FTE) positions. In FY 2017, 1 new Utility Line Tech was added .
2. Internal service charges increased starting in FY 2017 in order to adequately fund eventual replacement of vactor trucks and other heavy road equipment.

**CITY OF LYNCHBURG
SEWER OPERATING FUND NON-DEPARTMENTAL**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Financial audit	\$18,832	\$19,331	\$20,098	\$20,701	\$21,322	\$21,962	\$22,620
Allowance for doubtful accounts	28,839	40,000	40,000	41,200	42,436	43,709	45,020
Workers compensation (1)	96,917	65,000	65,000	66,950	68,959	71,027	73,158
OPEB & retirees health benefits (1)	194,166	182,160	228,776	235,639	242,708	249,990	257,489
Compensation adjustments (2)	-	-	-	-	-	-	-
Project costs charged to operations (3)	65,749	40,000	40,000	40,000	40,000	40,000	40,000
	\$404,503	\$346,491	\$393,874	\$404,490	\$415,425	\$426,688	\$438,288

Notes:

1. Workers compensation and OPEB and retirees health benefit amounts in FY 2017 and FY 2018 based on Human Resources Department estimates.
2. Compensation adjustments include assumed pay increases for all Sewer Fund employees.
3. Project costs charged to operations are capital projects that cost less than \$10,000 or design projects that are not expected to go to the construction phase.

**CITY OF LYNCHBURG
SEWER OPERATING FUND DEBT SERVICE**

	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
P&I on outstanding debt @ 6/30/16	9,412,637	9,249,433	8,937,767	8,089,125	7,366,243	6,846,045
Interest on LOC borrowings (1)						
FY 2018 - FY 2020	-	52,500	240,000	187,500	-	-
FY 2020 - FY 2022				46,750	167,750	121,000
FY 2022						55,000
P&I payments on new G.O. Bonds (2) (3)						
\$7.5 million G.O. bond in FY 2020	-			-	509,218	509,218
\$2.9 million G.O. bond in FY 2022	-	-	-		-	
VWFRF debt service (4)						
\$19.4 million loan close 7/1/19	-	-	-	-	-	-
						968,069
	\$9,412,637	\$9,301,933	\$9,177,767	\$8,323,375	\$8,043,211	\$8,499,332

NOTES:

1. Interest on LOC borrowings for period FY 2018 - FY 2020 is based on the average outstanding line of credit (LOC) balance each year times 5%. Period FY 2020 - FY 2021 is based on the average outstanding LOC balance each year times 5.50%.
2. General Obligation (G.O.) Bonds planned for FY 2020 and FY 2022 will be used to refund outstanding LOC balances in FY 2020 and FY 2022.
3. G.O. bond in FY 2020 is assumed to be at 5.25%, 29 year repayment terms.
4. Debt service on all VWFRF loan is at 0% interest with 20 year repayment terms.

STORMWATER FUND
FINANCIAL PROJECTIONS
FY 2017 to FY 2022

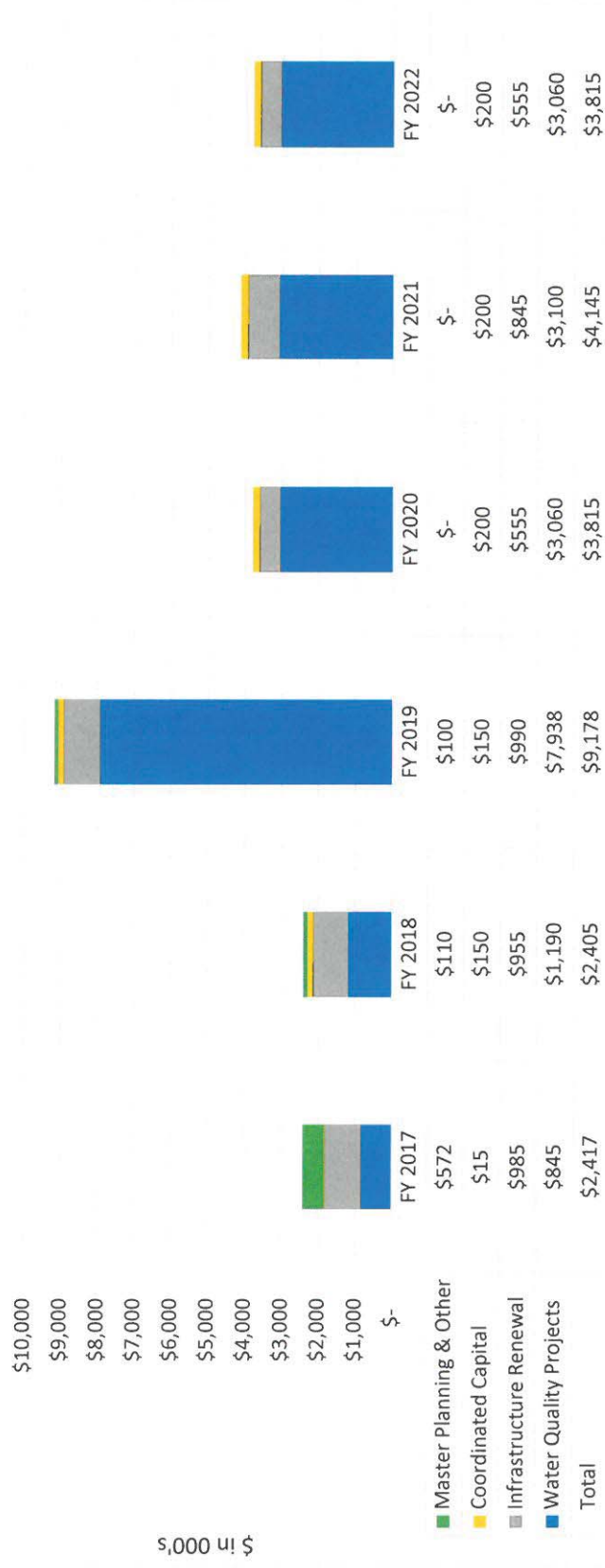
STORMWATER FUND FINANCIAL PROJECTION OVERVIEW

This overview is intended to provide City Council and other stakeholders with a general understanding of the future capital expenditures, operating revenues and expenses, debt service coverage and fund balance of the Stormwater Fund. Details of these matters are discussed below.

Capital Expenditures

The Stormwater Fund was created on July 1, 2012. Since that time to June 30, 2016 total stormwater capital expenditures have totaled approximately \$2.2 million. As shown in Figure 1 below, annual stormwater capital expenditures from FY 2017 to FY 2022 are projected to average \$4.3 million per year and total \$25.8 million.

Figure 1: Stormwater Fund Capital Expenditures



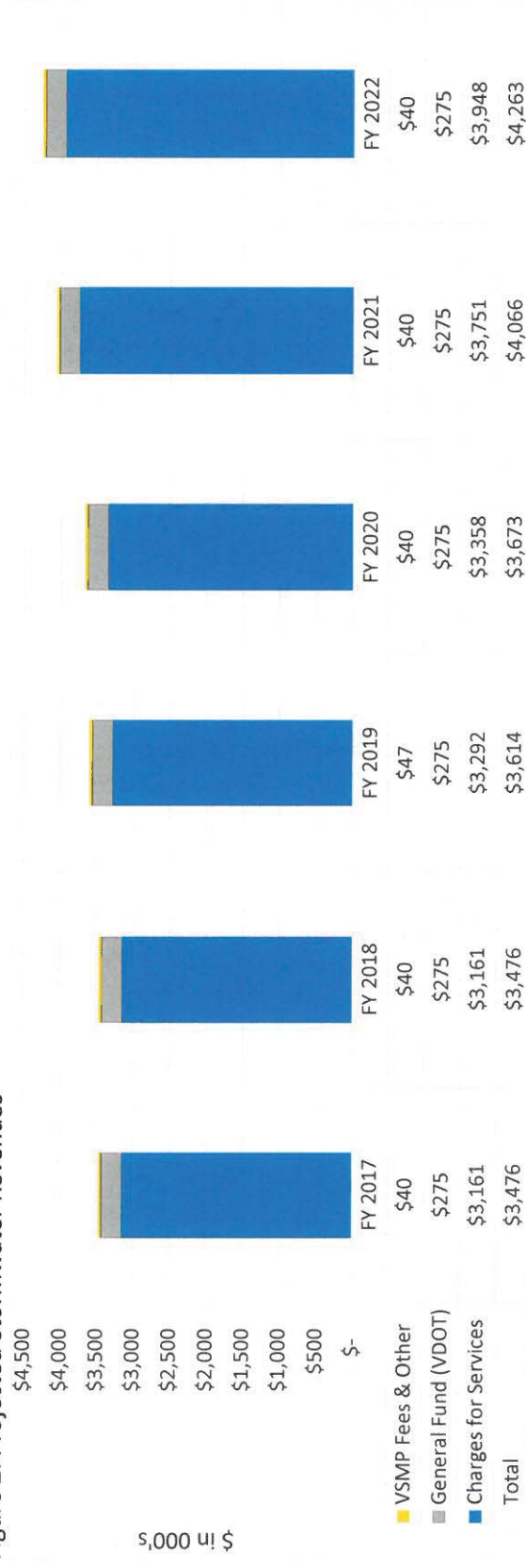
Expenditures in FY 2019 largely increase which is mostly attributable to a streambank restoration project that will provide significant water quality improvements that will work toward meeting the City's Chesapeake Bay Total Maximum Daily Load (TMDL) pollution reduction requirements.

Capital expenditures will be financed from a combination of existing funds in the Stormwater Capital Fund (\$1.7 million), transfers from the Stormwater Operating Fund (\$3.4 million), Stormwater Local Assistance Fund (SLAF) grants from the State (\$1.6 million) and new debt financing (\$19.7) million. Loans from the Virginia Water Facilities Revolving Fund (VWFRF) at 0% interest are expected to be available to fund approximately 86% of the all new debt financing. Details of the planned capital expenditures and financing plan are included on page SW-6.

Projected Stormwater Revenues

Total stormwater revenues in FY 2016 totaled \$3.5 million. As shown in Figure 2 below, total annual stormwater revenues are projected to remain constant until FY 2019 when annual rate increase will likely be needed and again in FY 2021 and FY 2022.

Figure 2: Projected Stormwater Revenues



For planning purposes the current monthly stormwater fee of \$4.00 per Single Family Unit (SFU) is projected to increase to \$5.00 by FY 2022. This projected increase is largely due to capital expenditures needed to meet current and future water quality goals included in the City's Municipal Separate Storm Systems (MS4) permit. The projected monthly stormwater fee increase to \$5.00 per SFU by FY 2022 may be mitigated should additional grants become available from the Stormwater Local Assistance Fund.

Projected Stormwater Operating Expenses

Total stormwater operating expenses in FY 2016 totaled \$2.2 million. Projected stormwater operating expenses in FY 2017 and FY 2018 are based on recently submitted budget documents.

Figure 3: Projected Stormwater Operating Expenses

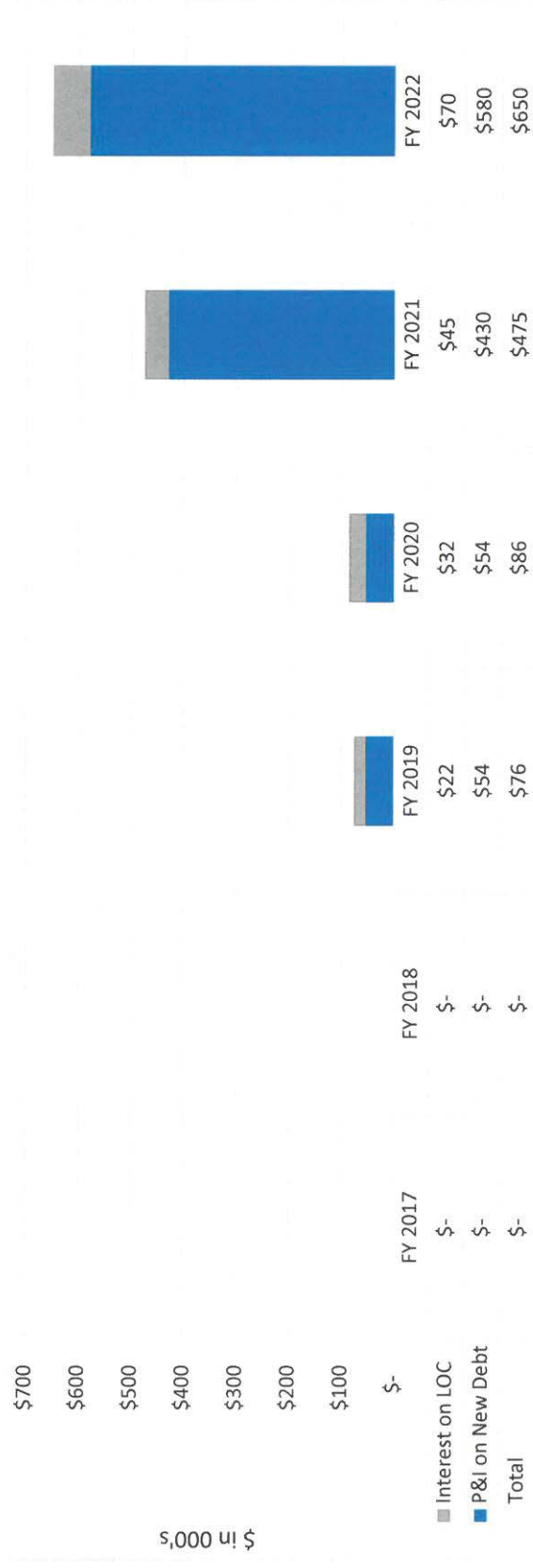


In most years, Allocated Cost is reimbursements to other City departments or funds which represents up to 60% of the total stormwater operating expenses. Allocated Cost includes the following charges (or reimbursements): (1) Public Works Department for 50% of the cost of leaf collection and engineering for stormwater projects. (2) Community Development Department for conducting plan reviews, inspections and enforcement of erosion and sediment control and City stormwater ordinances for development projects. (3) Water Fund for Administrative and Engineering expenses (4) General Fund departmental support services and self-insurance charges. Starting in FY 2017, salaries and benefit expenses are based on 9.05 equivalent full time staff positions. Incremental & Other expenses are remaining operating expenses. As new stormwater capital projects are completed and put in service these expenses are expected to increase by approximately 10% to cover additional maintenance related costs. Details of operating expenses are included on pages SW-10 and SW-11.

Projected Debt Service Expenditures

As of July 1, 2016, the Stormwater Fund had no outstanding bonds or loans payable. As presented in Figure 4 below, debt service will start in FY 2019 using financing vehicles as Line of Credit (LOC), general obligation bonds, and loans from the Virginia Water Facility Revolving Fund (VWFRF) to fund capital expenditures.

Figure 4: Projected Debt Service Expenditures

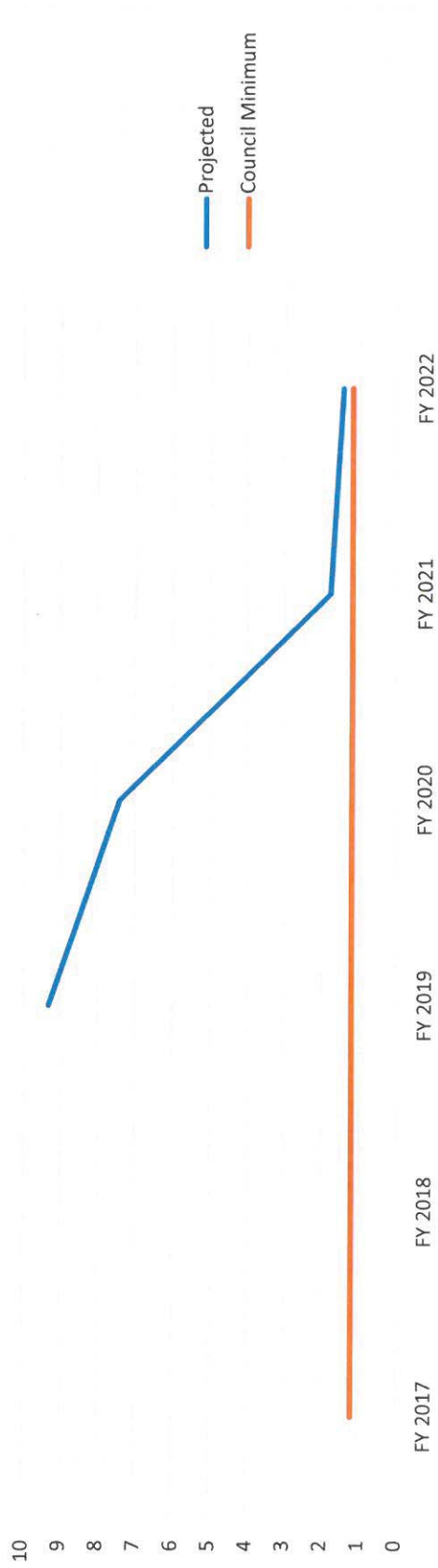


VWFRF loan payments for principal and interest are assumed to start in FY 2019 with 0% interest and 20 year payment terms. General obligation bonds are assumed to be issued in FY 2020 and FY 2022 and used to refund line of credit draws. The general obligation bonds are assumed to be at interest rates ranging from 5.25% to 5.50% and 20-year payment terms. Details of projected debt service are included on page SW-12.

Council Adopted Financial Policies

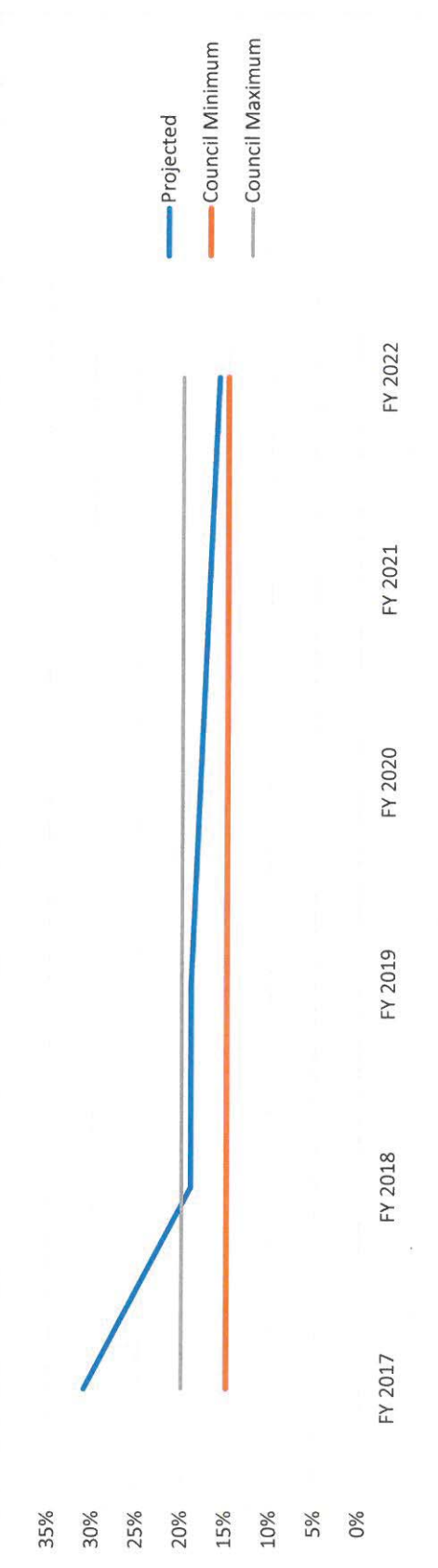
As presented in Figure 5 below the projected debt coverage (revenues-operating expenses / debt service) starts in FY 2019 when the Stormwater Fund is projected to begin debt service expenditures. Debt coverage is projected to exceed City Council's financial requirement of no less than 1.20. The projected debt service decreases each year as more debt is used to fund capital expenditures.

Figure 5: Projected Debt Coverage



As presented in Figure 6 below, the projected fund balance is projected to exceed City Council's financial requirement of no less than 15% of total appropriations (operating expenses + debt service) in all years.

Figure 6: Projected Unreserved Fund Balance



**CITY OF LYNCHBURG
PROJECTED STORMWATER CAPITAL FUND CASH FLOW**

	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Beginning Funds	\$ 1,711,155	\$ 1,247,902	\$ 604,937	\$ 554,937	\$ 539,937	\$ 539,937
Receipts:						
SLAF grant reimbursements (1)	357,108	485,979	714,000			
VWFRF loan reimbursements (2)	421,673	425,854	7,014,000	3,000,000	3,000,000	3,000,000
LOC borrowings (3)	-	-	900,000	350,000	945,000	600,000
G.O. Borrowings						
Transfer from operations	1,175,000	850,000	500,000	450,000	200,000	180,000
Total Receipts	1,953,781	1,761,833	9,128,000	3,800,000	4,145,000	3,780,000
Capital Expenditures:						
Master planning (4)	538,283	110,000	100,000	-	-	-
Infrastructure renewal	985,199	955,000	990,000	555,000	845,000	555,000
VWFRF projects (2)	383,273	425,854	7,014,000	3,000,000	3,000,000	3,000,000
Grant projects (1)	370,260	425,854	714,000	-	-	-
Quality improvements	92,460	338,090	210,000	60,000	100,000	60,000
Coordinated capital (5)	15,000	150,000	150,000	200,000	200,000	200,000
Other projects	32,559					
Total Expenditures	2,417,034	2,404,798	9,178,000	3,815,000	4,145,000	3,815,000
Ending Capital Funds	\$ 1,247,902	\$ 604,937	\$ 554,937	\$ 539,937	\$ 539,937	\$ 504,937

Notes:

1. Grant reimbursements represent remaining pay-outs on Stormwater Local Assistance Fund (SLAF) grant awarded to the City to help fund water quality improvement projects. These grant funds are held by Department of Environmental Quality (DEQ) and released to the City to pay designers and contractors on eligible capital projects.
2. Virginia Water Facility Revolving Fund (VWFRF) loan reimbursements represent remaining payouts on awarded loans from the VWFRF for project design and construction under terms and conditions of the VWFRF program. The loan funds are held by DEQ and released to the City to pay designers and contractors as work progresses on eligible capital projects.
3. LOC borrowings are draws from line of credit. LOC draws are projected to be refunded with general obligation bonds in FY 2020 and FY 2022.
4. Master planning expenditures will be funded from operating transfers.
5. Coordinated capital expenditures include projects that are planned and constructed as part of General Fund projects.

**CITY OF LYNCHBURG
PROJECTED STORMWATER OPERATING FUND DEBT COVERAGE**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Revenues:							
Charges for services	\$ 3,161,601	\$ 3,161,120	\$ 3,161,120	\$ 3,292,250	\$ 3,357,815	\$ 3,751,205	\$ 3,947,900
General Fund (VDOT)	275,000	275,000	275,000	275,000	275,000	275,000	275,000
VSMP fees and other	49,169	40,000	40,000	47,000	40,000	40,000	40,000
Total Revenues	3,485,770	3,476,120	3,476,120	3,614,250	3,672,815	4,066,205	4,262,900
Expenses:							
Departmental	\$2,187,497	\$2,302,117	\$2,769,413	\$2,852,495	\$2,938,070	\$3,026,212	\$3,116,999
Non-Departmental	38,952	44,596	51,168	52,253	53,371	54,522	55,357
Incremental O&M (1)	-	-	-	70,000	145,000	245,000	255,000
Capitalizable cost (2)	-	-	-	(70,000)	(100,000)	(103,000)	(106,000)
Total Expenses	2,226,449	2,346,713	2,820,581	2,904,748	3,036,441	3,222,734	3,321,356
Operating Income	1,259,321	1,129,407	655,539	709,502	636,374	843,471	941,544
Debt Service	-	-	-	76,264	85,889	475,107	649,982
Net Revenue	1,259,321	1,129,407	655,539	633,238	550,485	368,363	291,561
Debt Coverage Ratio	n/a	n/a	n/a	9.30	7.41	1.78	1.45

Notes:

1. Incremental Operation and Maintenance (O&M) expenses is a best estimate of future expenses needed to maintain current Best Management Practices (BMPs) and future BMPs constructed as water quality improvement capital projects.
2. Capitalizable cost includes City labor charges applicable to time spent on capital project activities.

**CITY OF LYNCHBURG
PROJECTED STORMWATER OPERATING FUND CASH FLOW**

	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Beginning Funds	\$ 820,234	\$ 731,891	\$ 537,430	\$ 590,668	\$ 581,153	\$ 636,517
Net revenue plus capitalizable costs	1,129,407	655,539	563,238	450,485	265,363	185,561
Payment to Sewer Operating Fund		-	-	-	-	-
Capital expenditures for equipment	(42,750)	-	(10,000)	(10,000)	(10,000)	(10,000)
Transfers to Stormwater Capital Fund	(1,175,000)	(850,000)	(500,000)	(450,000)	(200,000)	(180,000)
Ending Funds	\$ 731,891	\$ 537,430	\$ 590,668	\$ 581,153	\$ 636,517	\$ 632,078
Stormwater Operating Fund budget (1)	2,346,713	2,820,581	3,051,012	3,222,330	3,800,842	4,077,339
Ending Funds as a % of budget	31%	19%	19%	18%	17%	16%

Notes:

1. Stormwater Operating Fund budget equals expenses that excludes capitalizable costs plus debt service.

**CITY OF LYNCHBURG
STORMWATER OPERATING FUND REVENUES**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
Charges for Services:	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
SFUs billed	65,565	65,565	65,565	65,565	65,565	65,565	65,565
Annual rate	48.00	48.00	48.00	50.00	51.00	57.00	60.00
Annual billed revenue	3,147,098	3,147,120	3,147,120	3,278,250	3,343,815	3,737,205	3,933,900
Delinquent account charges	14,503	14,000	14,000	14,000	14,000	14,000	14,000
	\$ 3,161,601	\$ 3,161,120	\$ 3,161,120	\$ 3,292,250	\$ 3,357,815	\$ 3,751,205	\$ 3,947,900
Interest & other:							
VSMP permit fees (1)	47,153	38,000	38,000	45,000	38,000	38,000	38,000
Interest & miscellaneous	2,016	2,000	2,000	2,000	2,000	2,000	2,000
	\$ 49,169	\$ 40,000	\$ 40,000	\$ 47,000	\$ 40,000	\$ 40,000	\$ 40,000

Notes:

1. Virginia Stormwater Management Program (VSMP) permit fees vary by year depending on the level of permit renewals expected.

**CITY OF LYNCHBURG
STORMWATER OPERATING FUND DEPARTMENTAL EXPENSES**

	Actual FY 2016	Est. FY 2017	Budget FY 2018	Proj. FY 2019	Proj. FY 2020	Proj. FY 2021	Proj. FY 2022
Personal services (1)	\$ 312,469	\$ 377,770	\$ 394,637	\$ 406,476	\$ 418,670	\$ 431,231	\$ 444,167
Fringe benefits	116,891	153,655	154,373	159,004	163,774	168,688	173,748
Supplies & materials	136,741	138,650	163,900	168,817	173,882	179,098	184,471
Gasoline / fuel	21,783	28,520	25,200	25,956	26,735	27,537	28,363
Internal service charges	93,667	111,172	111,059	114,391	117,822	121,357	124,998
Communication charges	2,440	3,650	3,900	4,017	4,138	4,262	4,389
Training & meetings	2,796	10,200	14,533	14,969	15,418	15,881	16,357
Contractual charges	32,115	184,294	180,600	186,018	191,599	197,346	203,267
Water Adm. Services (2)	572,000	615,000	650,000	669,500	689,585	710,273	731,581
Indirect costs (3) (4)	107,328	(75,204)	235,717	242,789	250,072	257,574	265,302
Self Insurance (5)	10,000	10,000	35,796	36,870	37,976	39,115	40,289
Community Development charges (6)	499,003	392,864	495,590	510,458	525,771	541,545	557,791
PW charges (7)	272,832	335,896	289,958	298,657	307,616	316,845	326,350
Other charges	7,433	15,650	14,150	14,575	15,012	15,462	15,926
	\$ 2,187,497	\$ 2,302,117	\$ 2,769,413	\$ 2,852,495	\$ 2,938,070	\$ 3,026,212	\$ 3,116,999

Notes:

1. Personal services in FY 2016 assumes funded staff of 7.05 Full Time Equivalents (FTE's). In FY 2017 2 additional FTE's were added to staff; 1 for a Best Management Practice Inspector and 1 Utility Line Maintenance Technician.
2. Water Adm. Services is based on Water Fund engineering and administration cost allocations to Stormwater Fund.
3. Indirect costs fluctuate in FY 2017 due to revisions in previous year cost allocations.
4. Indirect cost changes after FY 2017 occur due to revisions in the methodology of allocating General Fund cost to funds and departments. The methodology changes were updated to better alien allocated cost to the level of service provided.
5. Self insurance increases due to a re-evaluation of risks and claims history.
6. Community Development charges are for administration of the Erosion Sediment Control (ESC) and Virginia Stormwater Management Program (VSMP) Which includes plan reviews, inspections and enforcement on new development and re-development. FY 2018 costs are increased due to more time is allocated for plan reviews and site inspections.
7. Public Works (PW) charges include engineering services related to stormwater capital projects and 50% of leaf collection costs.

**CITY OF LYNCHBURG
STORMWATER OPERATING FUND NON-DEPARTMENTAL**

	Actual	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Financial audit	\$ 7,243	\$ 11,896	\$ 12,368	\$ 12,739	\$ 13,121	\$ 13,515	\$ 13,920
Allowance for doubtful accounts	1,951	15,000	15,000	15,000	15,000	15,000	15,000
OPEB / Retirees Health/WC (1)	15,690	17,700	23,800	24,514	25,249	26,007	26,437
Budget compensation adjustments (2)	-	-	-	-	-	-	-
Project costs expensed (3)	14,068	-	-	-	-	-	-
	\$ 38,952	\$ 44,596	\$ 51,168	\$ 52,253	\$ 53,371	\$ 54,522	\$ 55,357

Notes:

1. OPEB/Retirees Health/WC benefits amounts in FY 2017 and FY 218 are based on Human Resources Department estimates.
2. Budget compensation adjustments include assumed pay increases for Stormwater Fund employees.
3. Project costs expensed are capital projects that cost less than \$10,000 or design projects that are not expected to go to the construction

**CITY OF LYNCHBURG
STORMWATER OPERATING FUND DEBT SERVICE**

	Est.	Budget	Proj.	Proj.	Proj.	Proj.
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
P&I on outstanding debt @ 6/30/16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest on LOC borrowings (1)						
FY 2018 - FY2020	-	-	22,500	22,500	-	
FY 2020 - FY2022				9,625	45,238	35,613
FY 2022						34,500
P&I payments on G.O Bonds (2) (3)						
\$900K G.O bond in FY 2020	-	-			61,106	61,106
\$1.3 million G.O. bond in FY 2022						
VWFRF debt service (4)						
\$1.08 million loan in FY 2017			53,764	53,764	53,764	53,764
\$6.30 million loan in FY 2019					315,000	315,000
\$3.00 million loan in FY 2020						150,000
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ 76,264	\$ 85,889	\$ 475,107	\$ 649,982

Notes:

1. Interest on LOC borrowings for period FY 2018 - FY 2020 is based on the average outstanding line of credit (LOC) balance each year times 5%. Period FY 2020 - FY 2022 is based on the average outstanding LOC balance each year times 5.50%.
2. General Obligation (G.O.) Bonds planned for FY 2020 and FY 2022 will be used to refund outstanding LOC balances in FY 2020 and FY 2022.
3. G.O. bond in FY 2020 is assumed to be at 5.25%, 29 year repayment terms.
4. Debt service on all VWFRF loans is at 0% interest with 20 year repayment terms.

Appendix B

Statistical Data

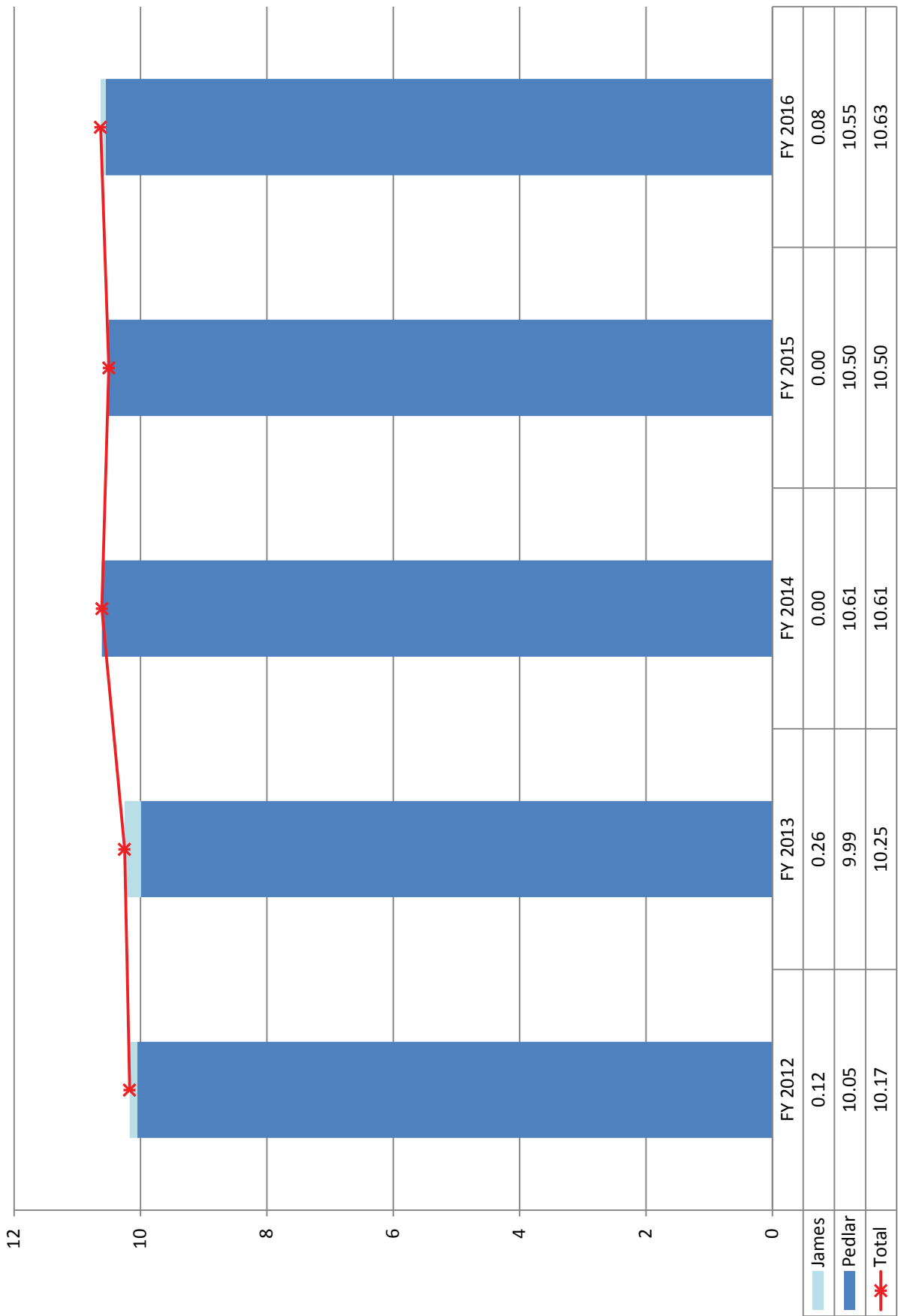


Water Fund Statistics

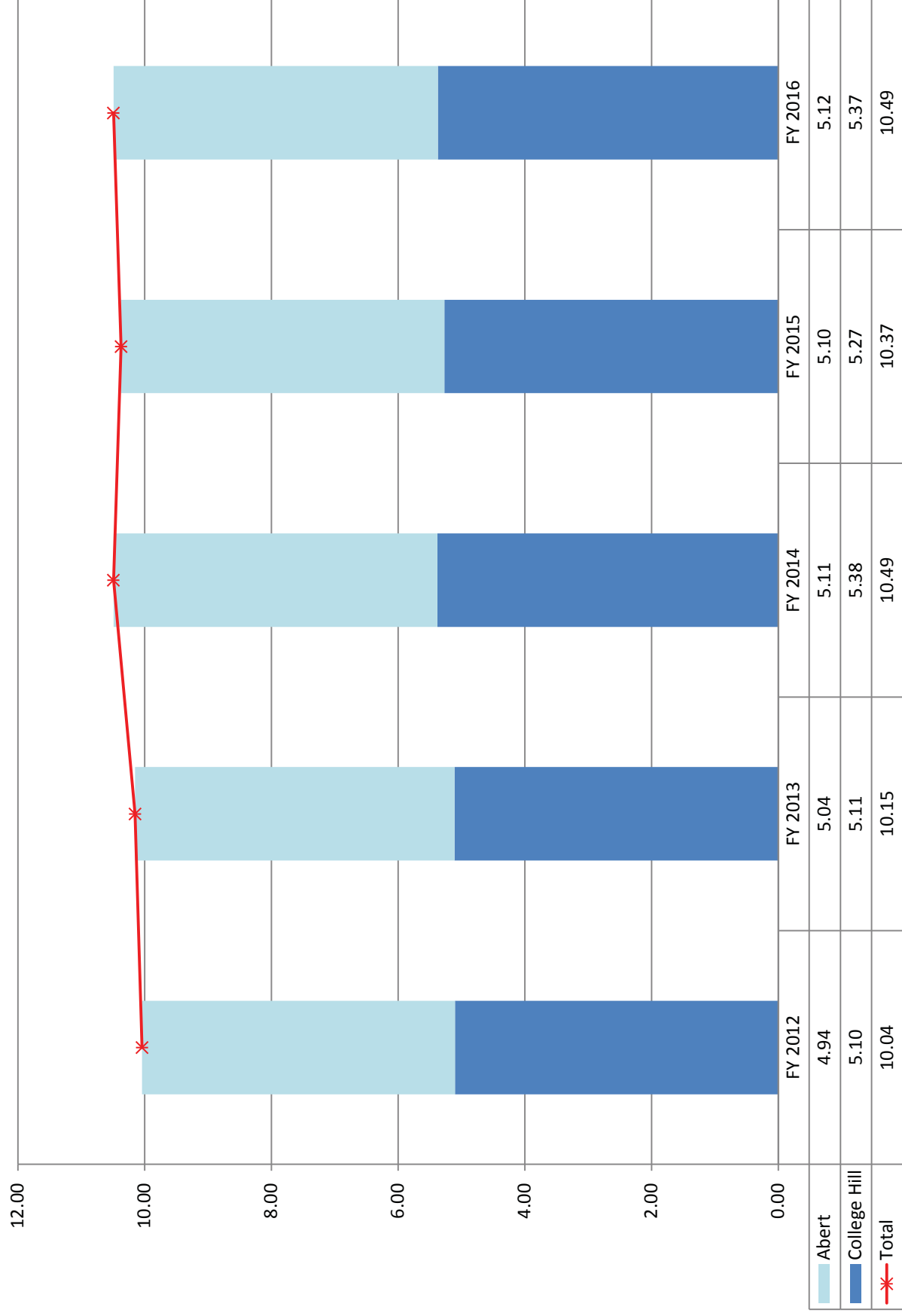
Number of Water Customers



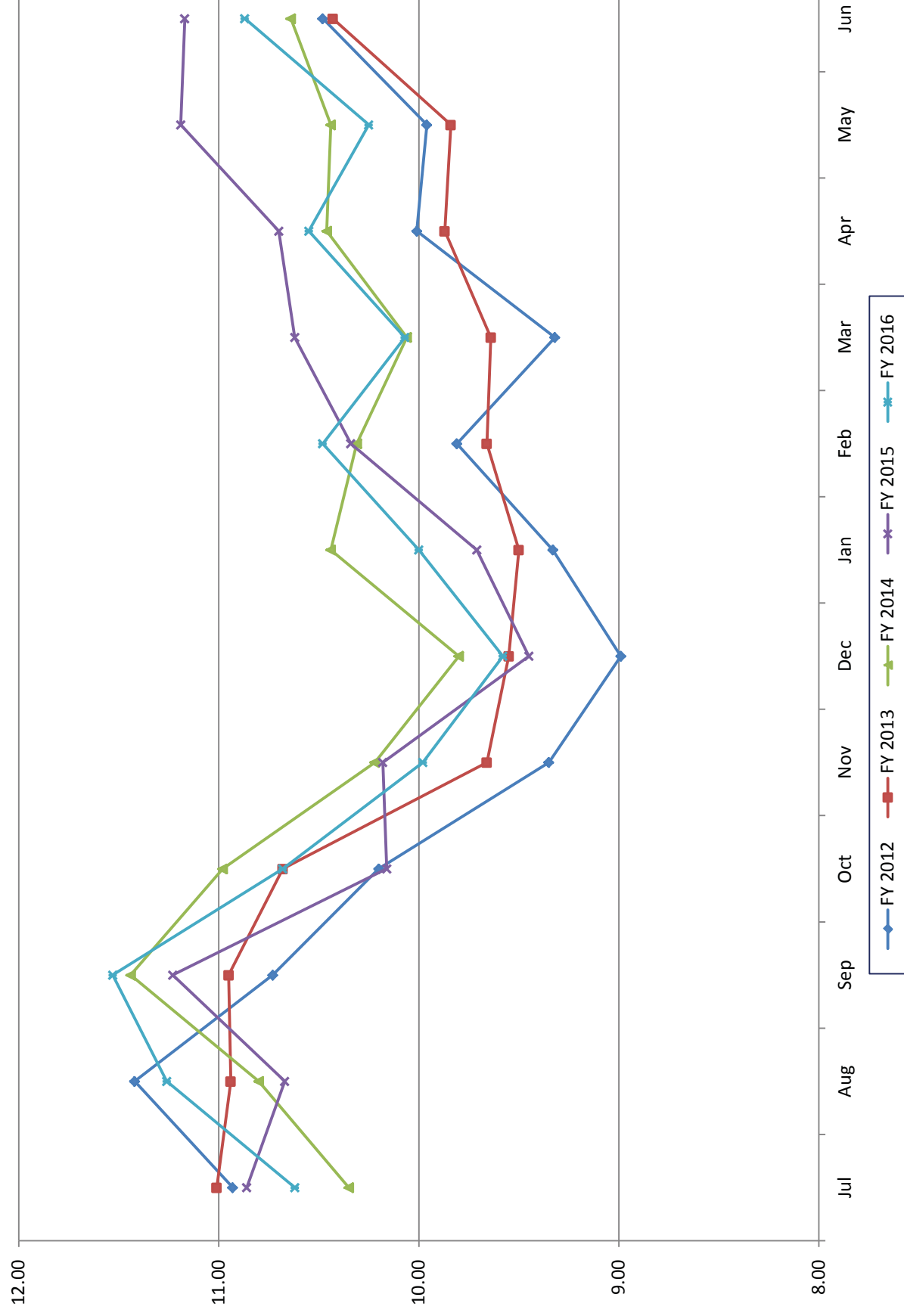
Water Withdrawals in MGD



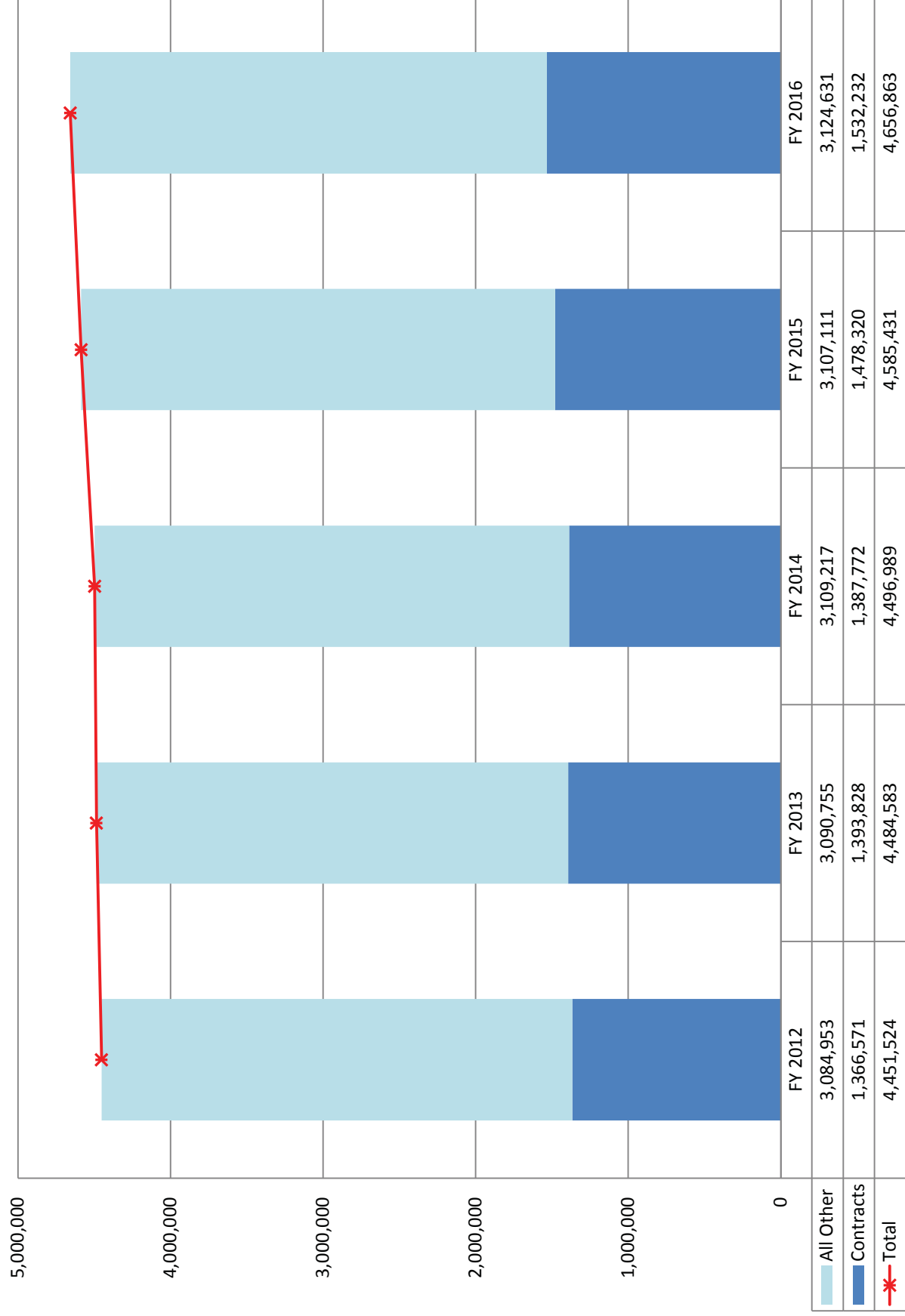
Water Production in MGD



Monthly Production in MGD



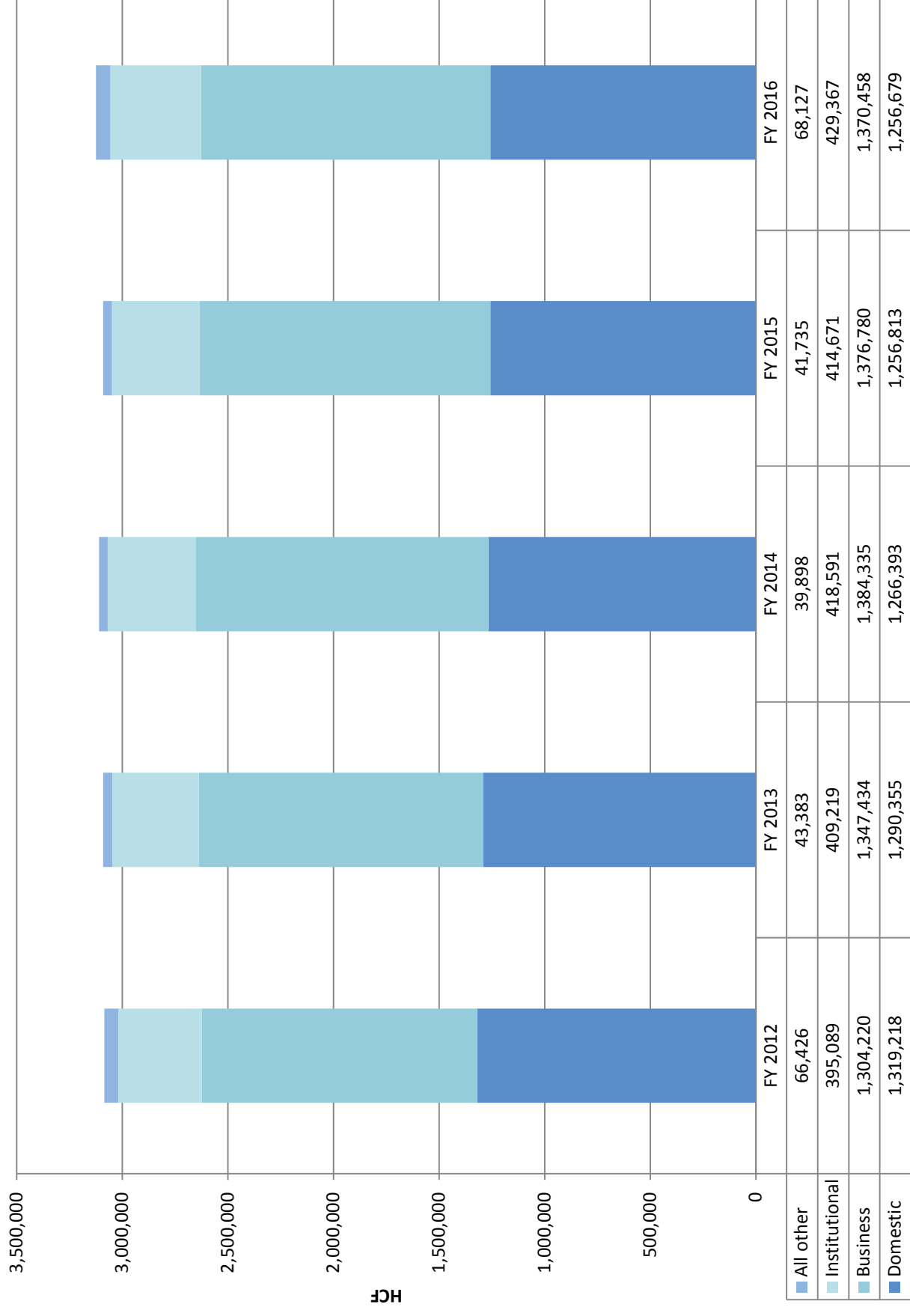
Water Sold in HCF



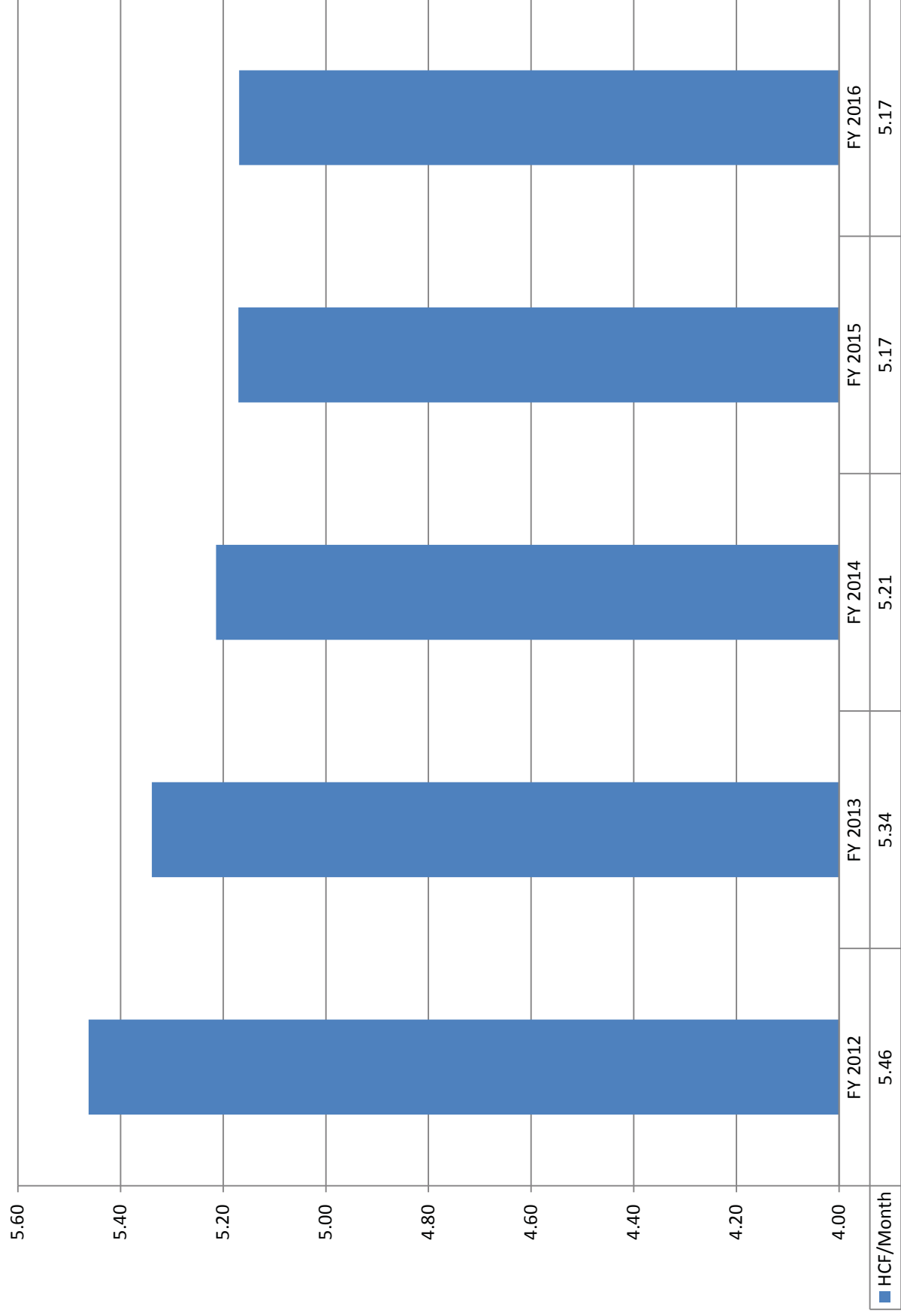
Contract Water Use in HCF

Water Customers	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Amherst	43,105	41,850	43,680	42,075	41,332
Bedford	745,849	764,949	737,793	786,354	756,999
CCUSA	180,221	201,298	208,244	215,697	238,492
Frito-Lay	135,011	137,992	146,604	157,018	182,044
Rock Tenn	262,385	247,739	251,451	277,176	313,365
Total contract use	1,366,571	1,393,828	1,387,772	1,478,320	1,532,232
Non-contract use	3,084,953	3,090,755	3,109,217	3,107,111	3,124,631
Total use	4,451,524	4,484,583	4,496,989	4,585,431	4,656,863
Contract % of use	31%	31%	31%	32%	33%

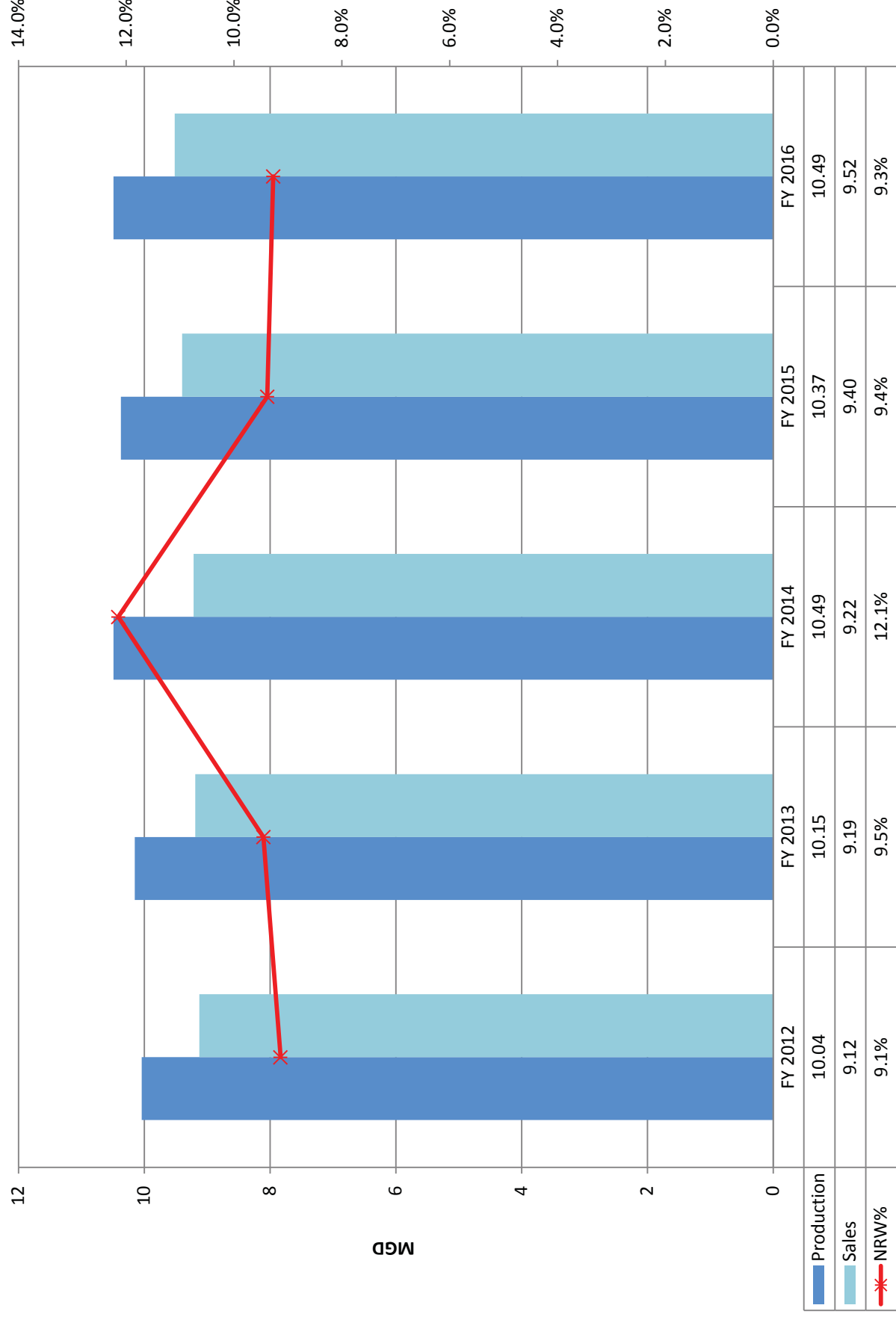
Non-Contract Water Sales in HCF



Average Monthly Water Sold Domestic Customers



Non-Revenue Water



Water Complaints

Type of Complaint	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
1. Discolored water	53	62	52	64	45
2. Odor / taste	6	7	8	3	1
3. No water	13	15	65	14	13
4. High / low pressure	67	54	47	87	49
5. Service line leaks	85	72	73	83	82
6. Main breaks	39	22	13	16	30
7. Meter related	71	41	71	59	54
8. Unclassified	232	239	293	345	309
Total complaints	566	512	622	671	583
Number of water customers	22,544	22,517	22,628	22,640	22,716
Complaints / 1,000 customers	25	23	27	30	26

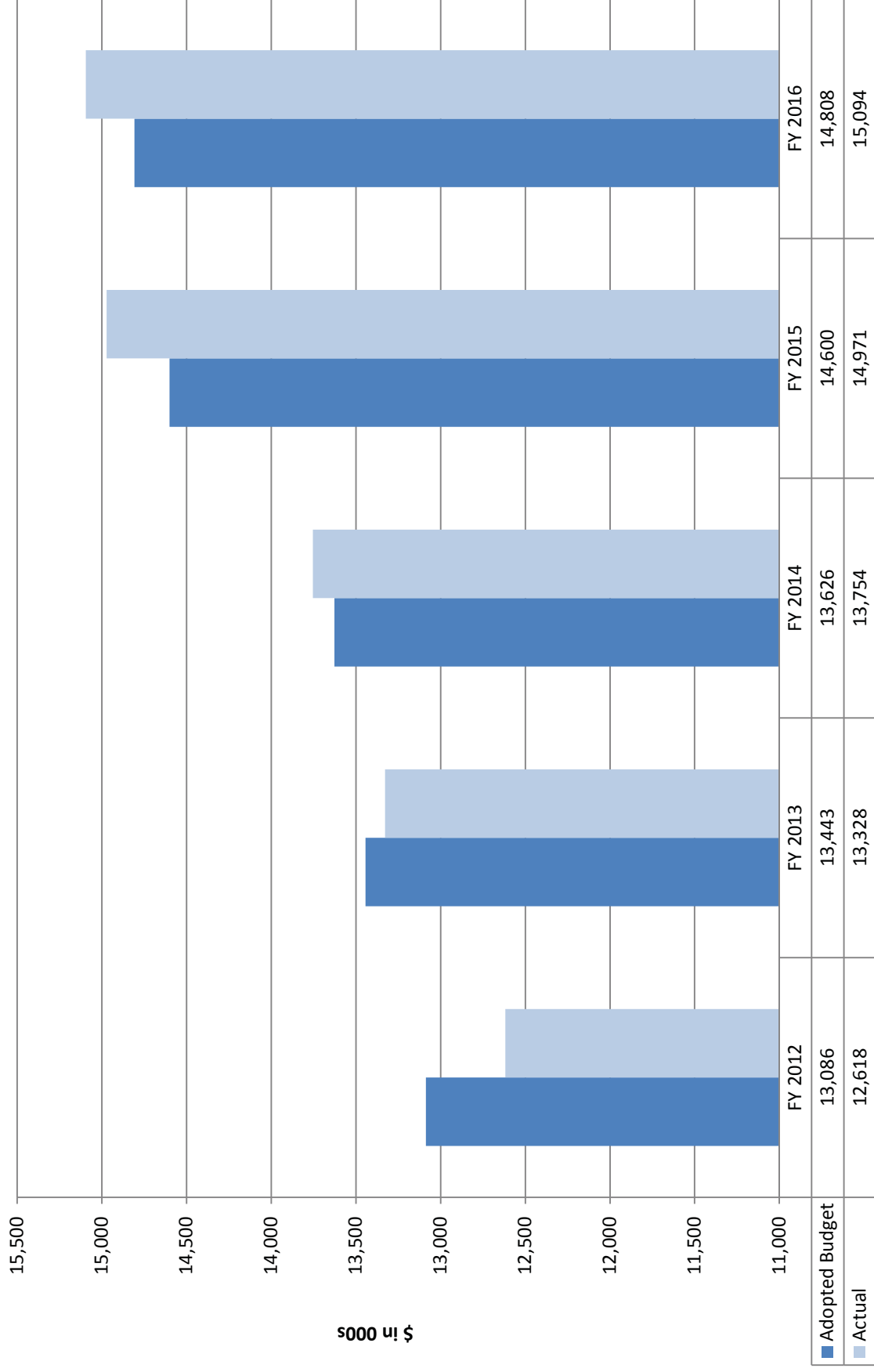
Water Fund Financial Data

Water Fund Debt Coverage

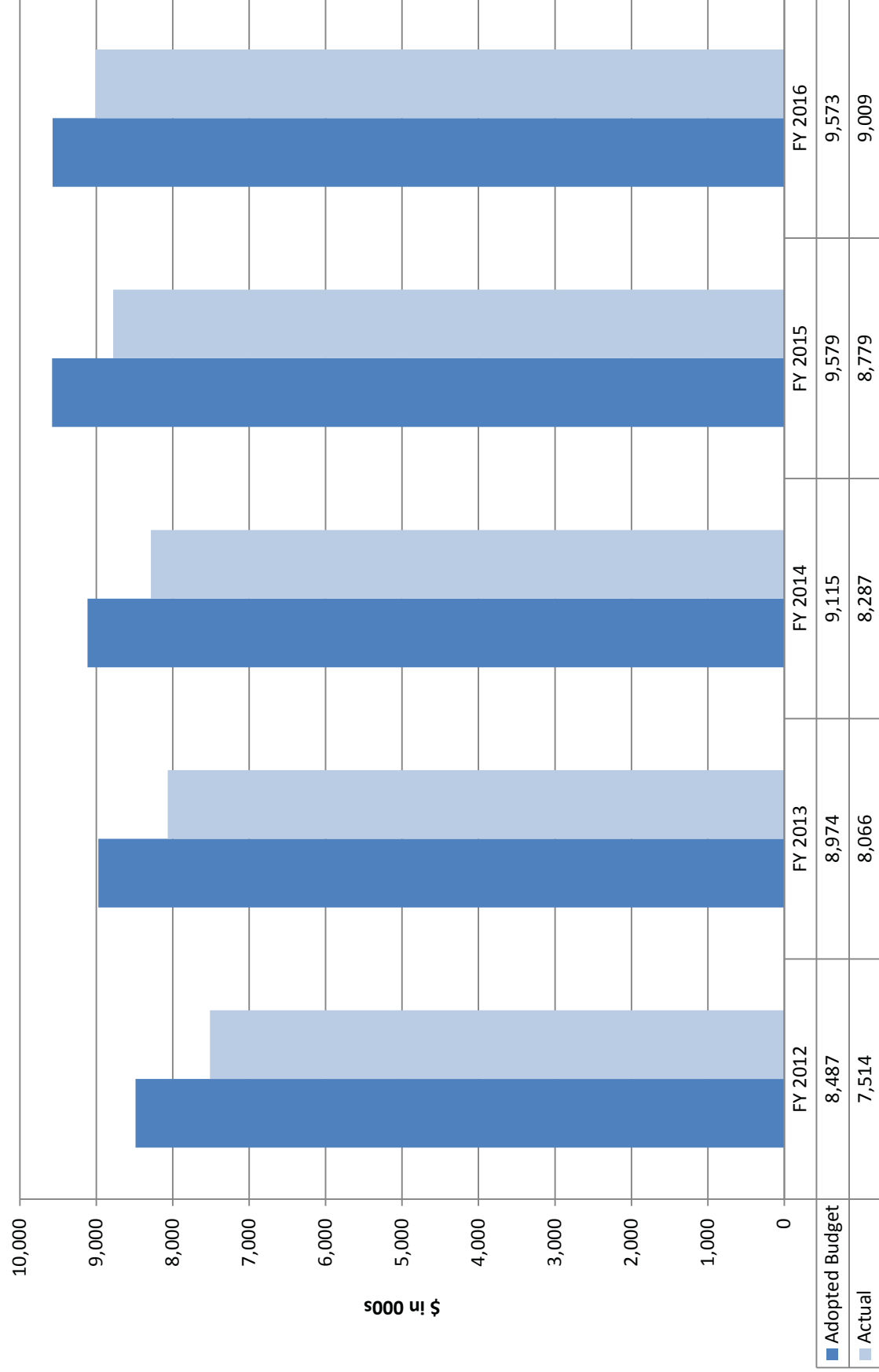
(\$ in 000s)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Revenues:					
Charges for services	\$9,791	10,549	10,920	11,920	12,002
Water contracts	2,518	2,432	2,555	2,780	2,805
Interest & other	309	347	279	271	287
	12,618	13,328	13,754	14,971	15,094
Expenses:					
Water treatment	2,390	2,727	2,741	2,846	2,920
Water line maintenance	1,469	1,378	1,592	1,766	1,797
Meter reading	885	787	796	758	612
Administration	2,647	2,967	2,982	3,320	3,303
Non-departmental	119	195	176	90	377
Expenses paid by Capital Fund	21	285	100	37	37
Capitalizable Expenses	-103	(145)	(171)	(138)	(90)
	7,428	8,194	8,216	8,679	8,956
Operating income	5,190	5,134	5,538	6,292	6,138
Debt service	3,650	3,617	3,586	4,320	4,366
Debt coverage	1.42	1.42	1.54	1.46	1.41

Water Revenues Adopted Budget vs. Actual



Water Operating Expenses Adopted Budget vs. Actual



Largest Water Customers

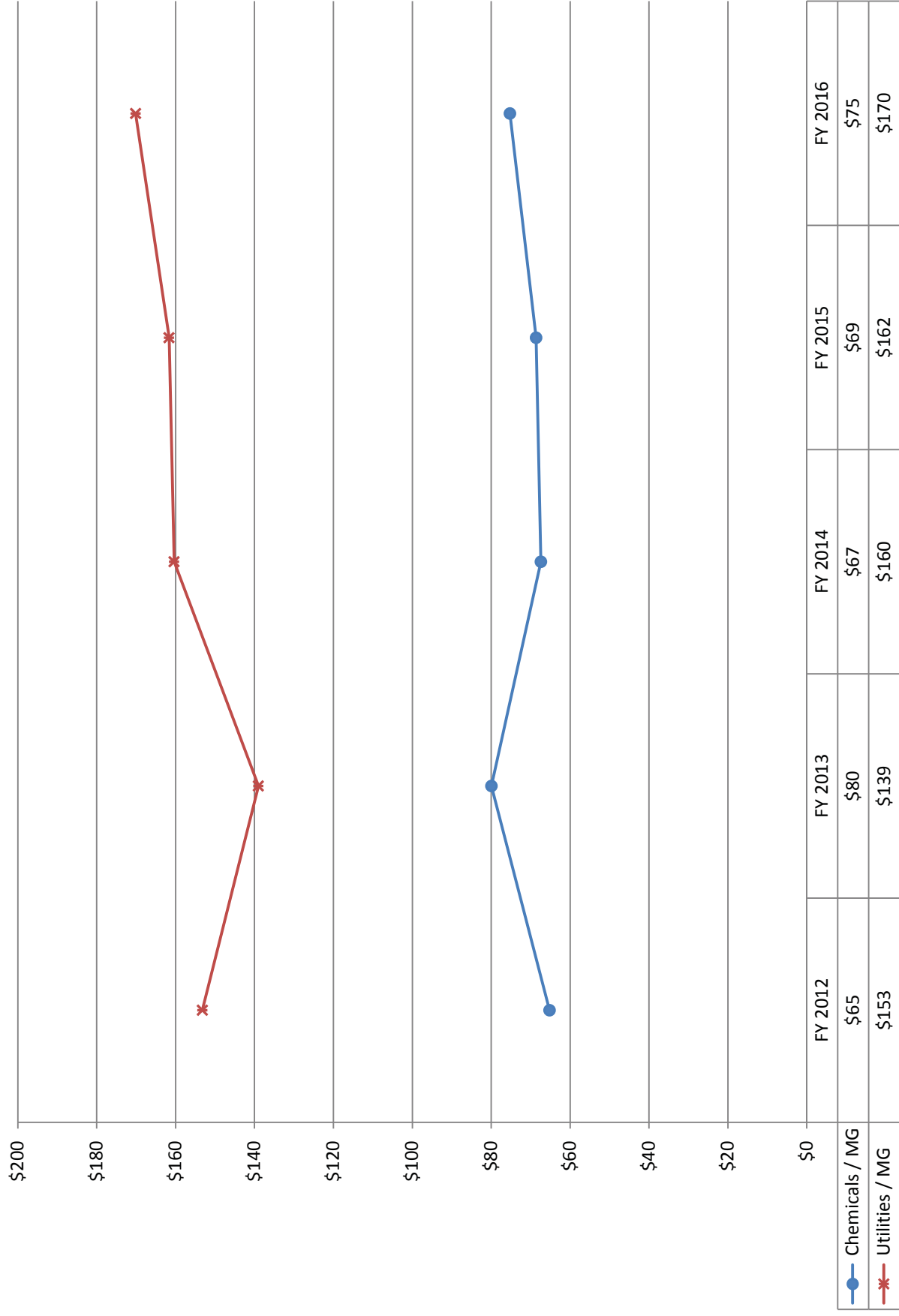
(\$ in 000s)

Customer	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
1. Bedford County	\$1,406	\$1,354	\$1,432	\$1,534	\$1,457
2. CCUSA	543	515	517	537	531
3. Rock Tenn	324	313	326	395	462
4. Liberty University	303	355	404	457	497
5. Frito-Lay	168	176	193	228	269
6. Azdel	126	193	288	298	276
7. Centra Health	262	246	243	255	256
8. Griffin Pipe	148	187	185	249	189
9. Amherst County	77	74	86	86	86
10. Kroger / Westover	107	109	88	97	91
11. Tri-Tech	154	179	191	160	165
12. RR Donnelley	112	115	111	95	90
Total top 12	3,730	3,816	4,064	4,391	4,369
Total water revenues	12,618	13,328	13,754	14,971	15,094
Top 12 % of total	30%	29%	30%	29%	29%

Water Expenses by Object (\$ in 000s)

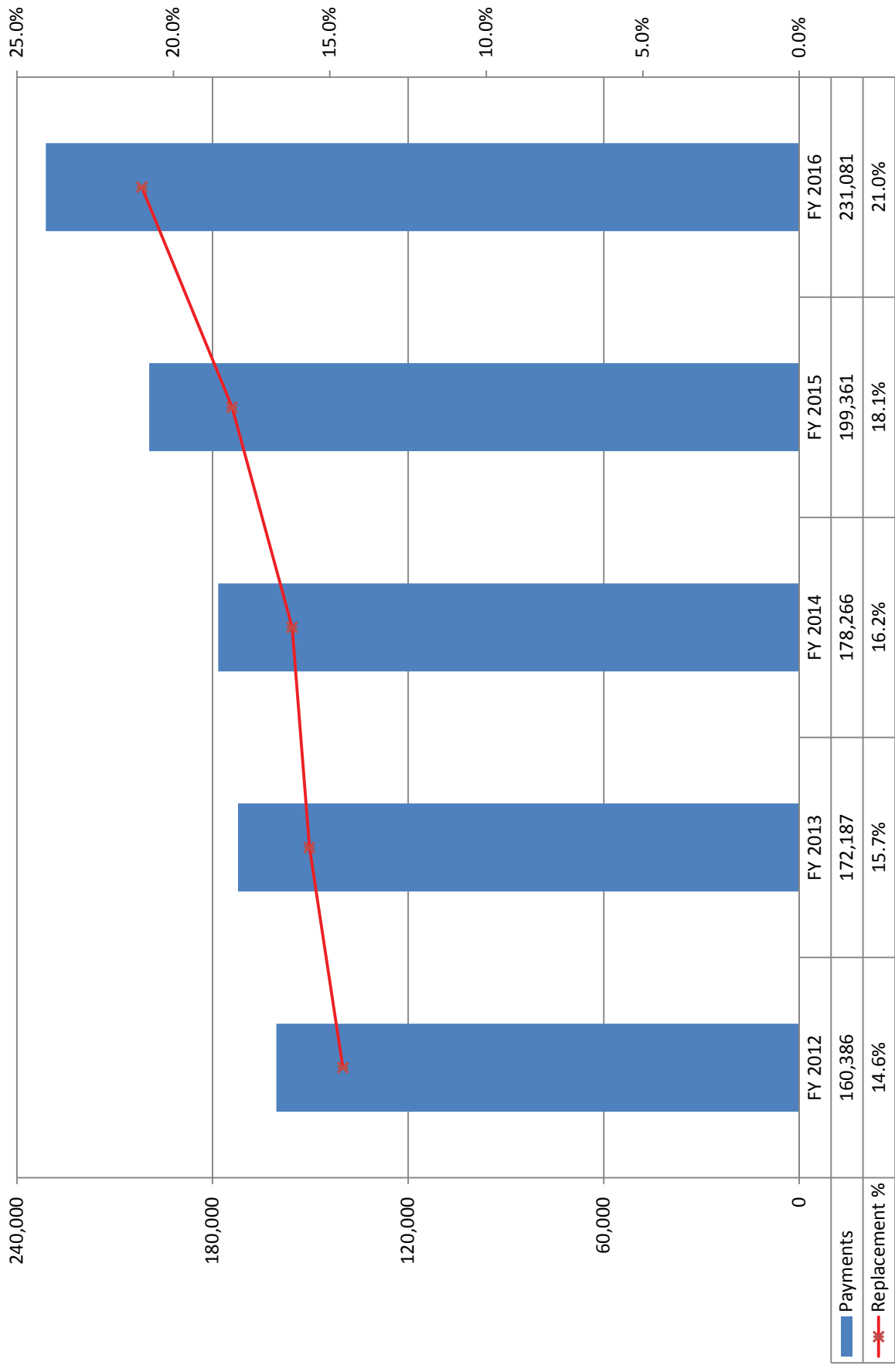
Expenses by object	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Personal services	2,770	3,084	3,093	3,215	3,376
Fringe benefits	979	1,294	1,137	1,237	1,267
Supplies & materials	1,051	908	957	943	919
Contractual services	472	420	582	699	672
Utilities, including natural gas	516	600	626	652	645
Chemicals	242	299	261	263	292
General Fund allocations	1,003	1,013	1,052	1,247	1,007
All other, including project expenses	395	576	508	434	454
Total excluding capitalized expenses	7,428	8,194	8,216	8,690	8,632
% increase	-8.2%	10.3%	0.3%	5.8%	-0.7%

Water Variable Expenses/MG



Water Vehicle Costs

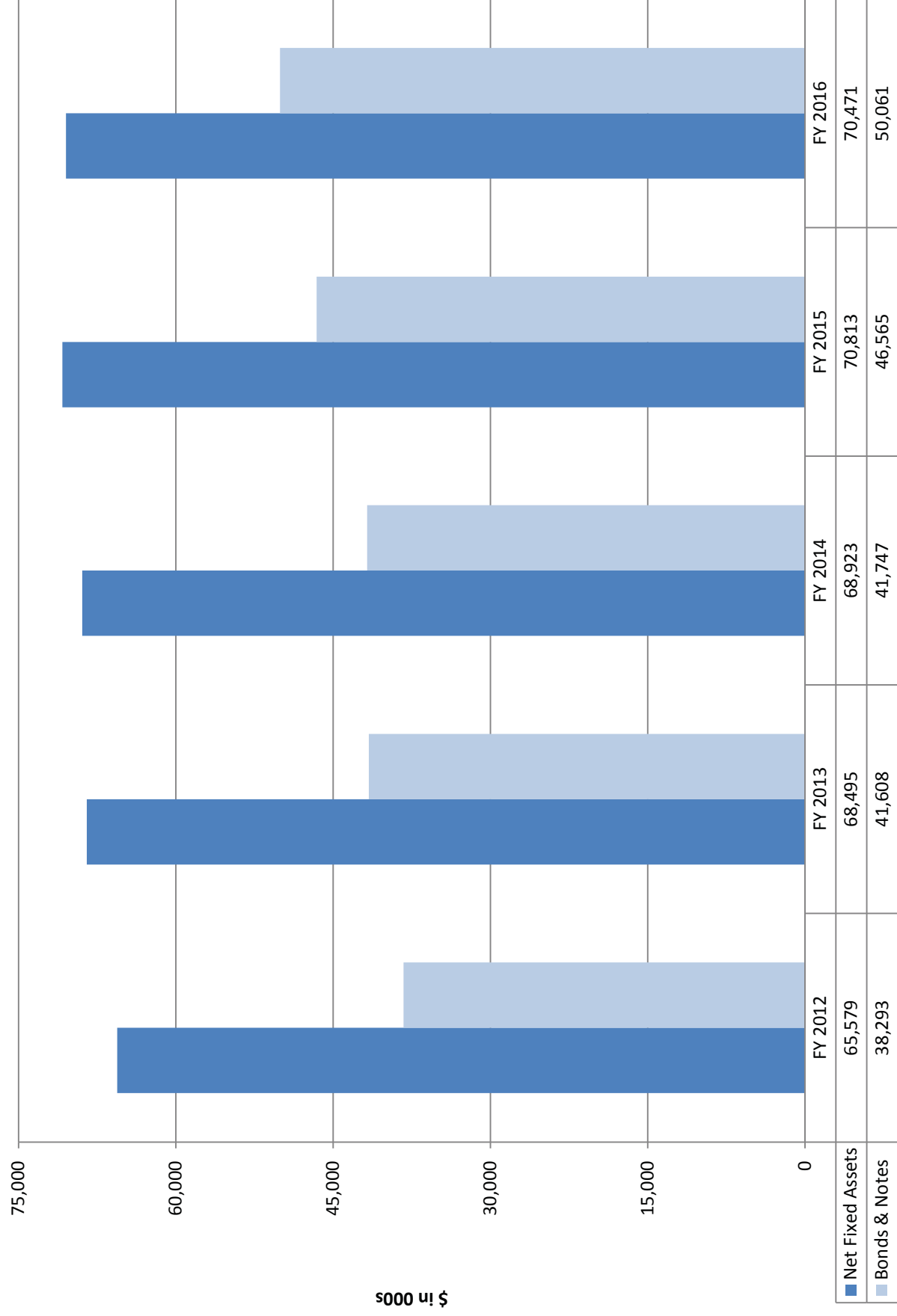
Total cost of all vehicles (\$1.1 million)



Water Capital Expenditures (\$ in 000s)

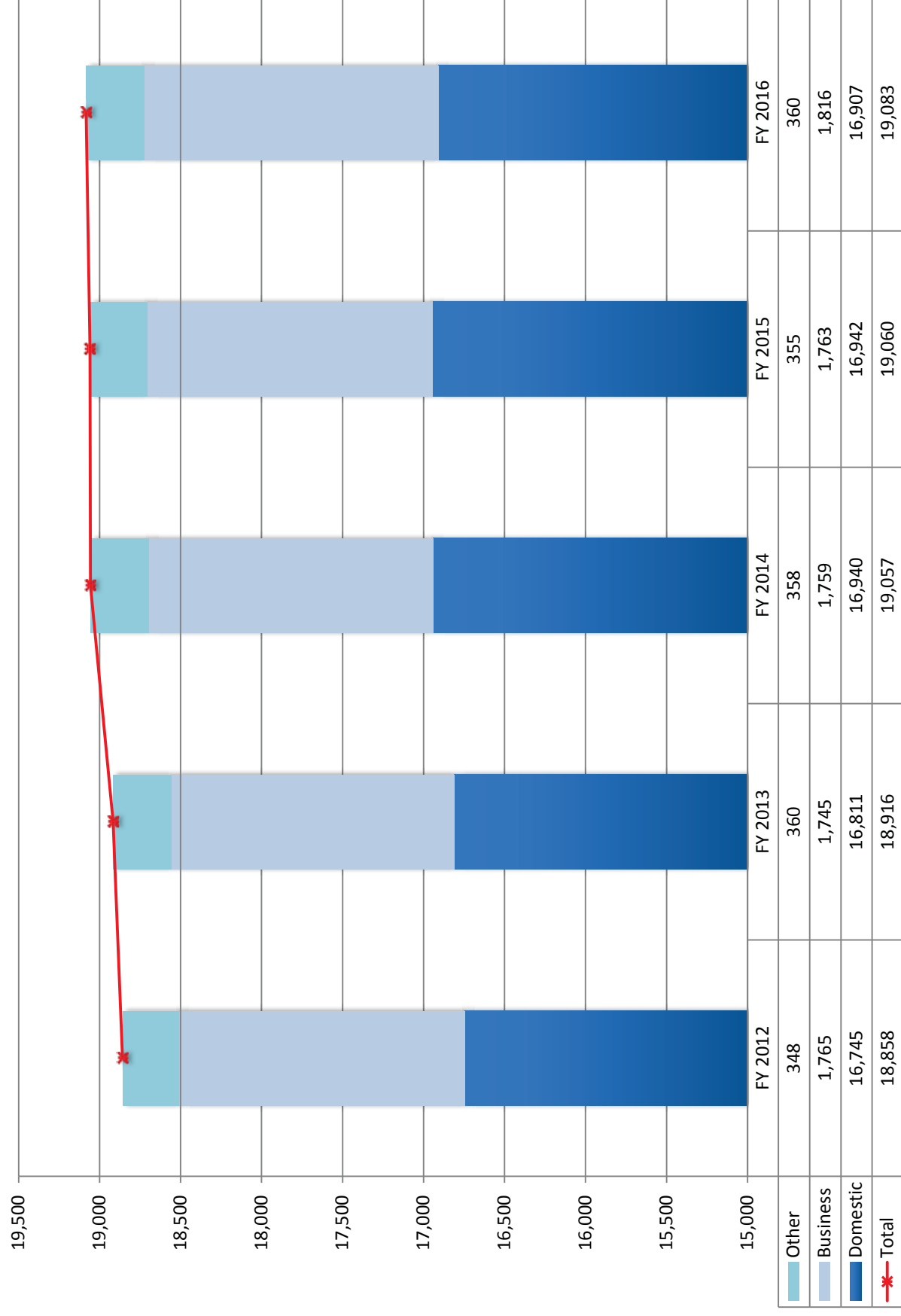
Capital Expenditures	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Source of supply	103	206	31	57	0
Treatment plants	298	209	527	430	204
Storage tanks	22	26	481	388	72
Petitions & extensions	111	121	68	0	111
Distribution & CSO improvements	2,920	5,245	2,000	3,491	2,394
Other	0	0	0	0	0
Total	3,454	5,807	3,107	4,366	2,781

Net Water Capital Assets

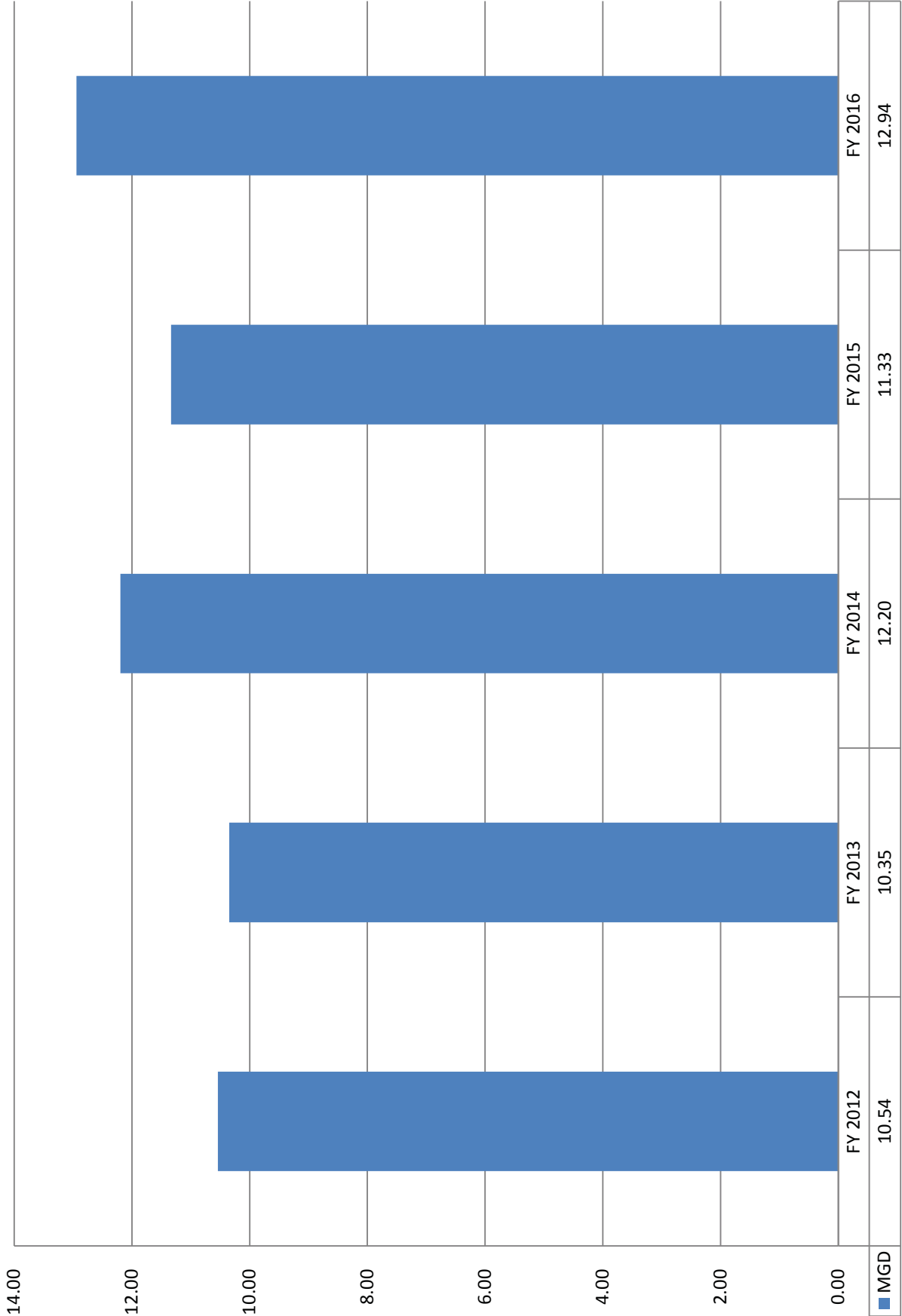


Wastewater Statistics

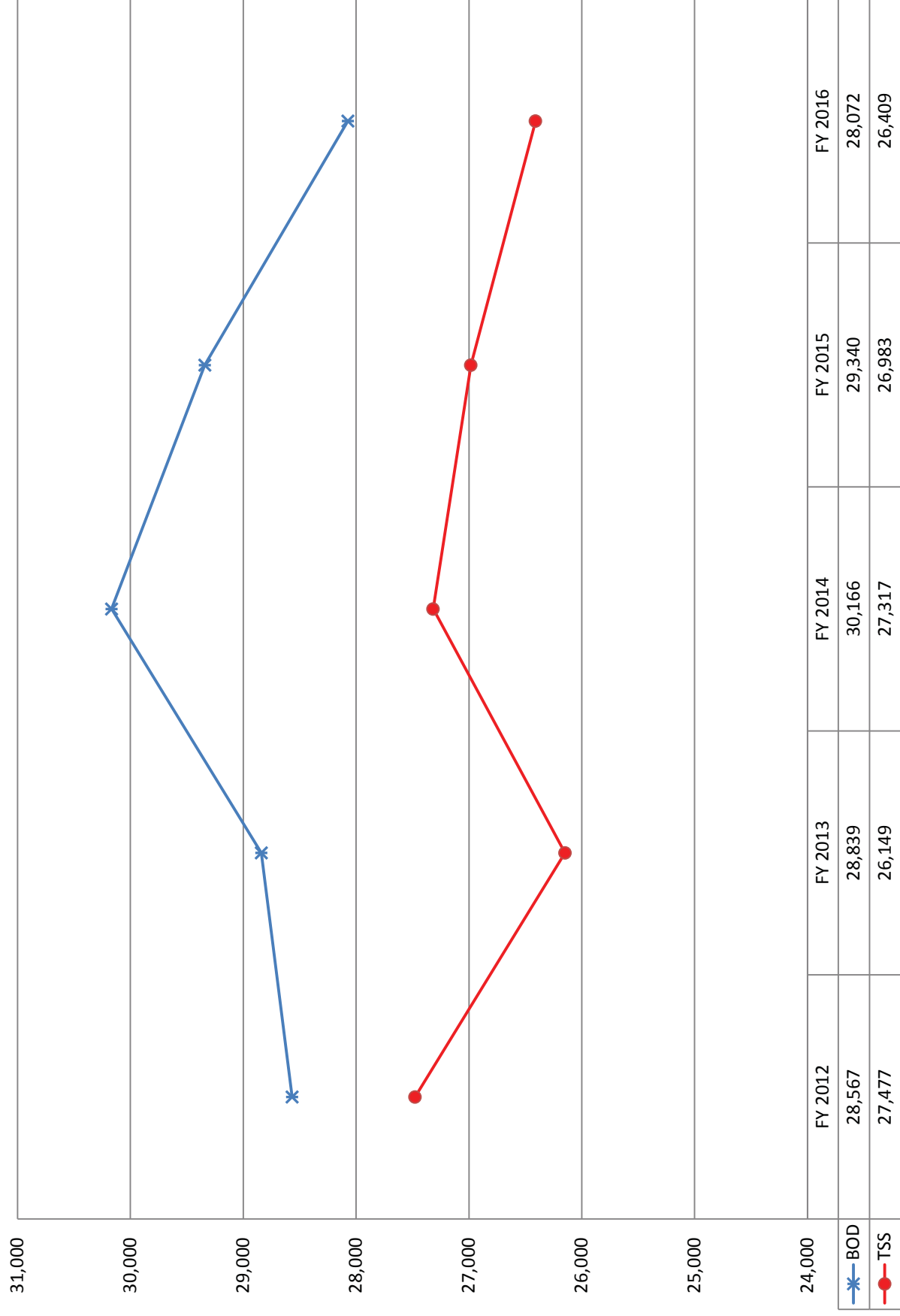
Number of Sewer Customers



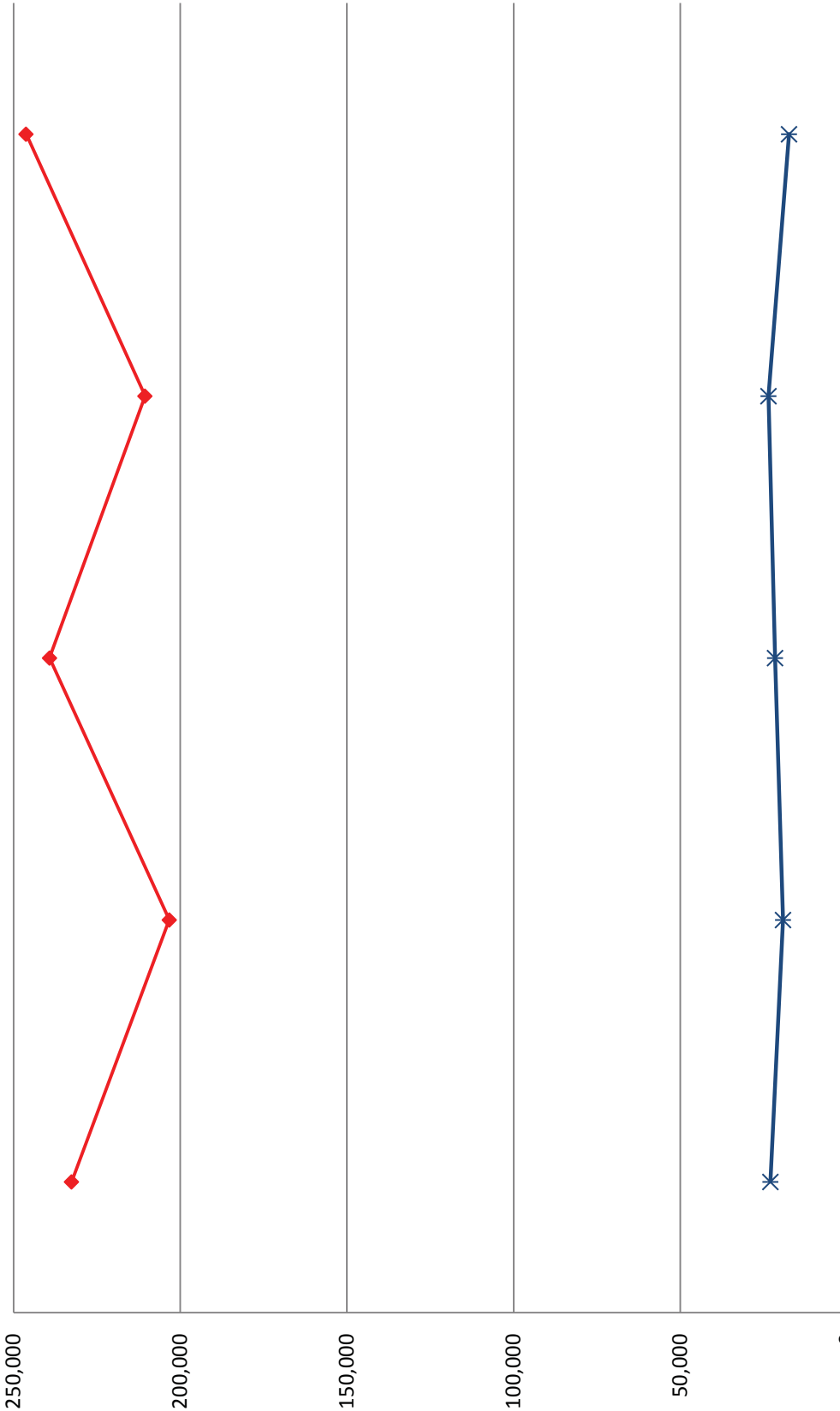
Wastewater Effluent in MGD



BOD/TSS Loadings in Lbs/Day

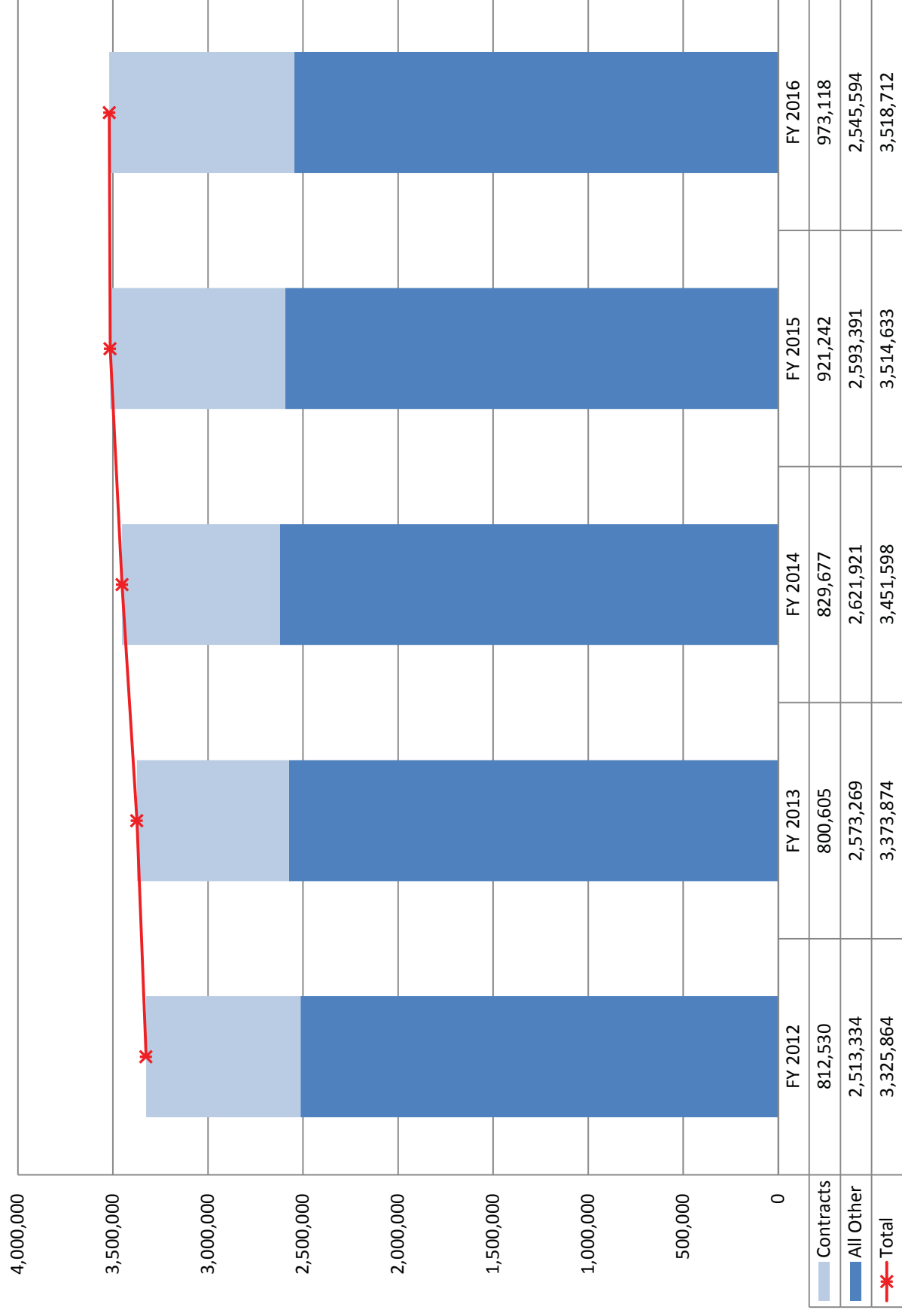


Nitrogen/Phosphorous Annual Discharge in Lbs

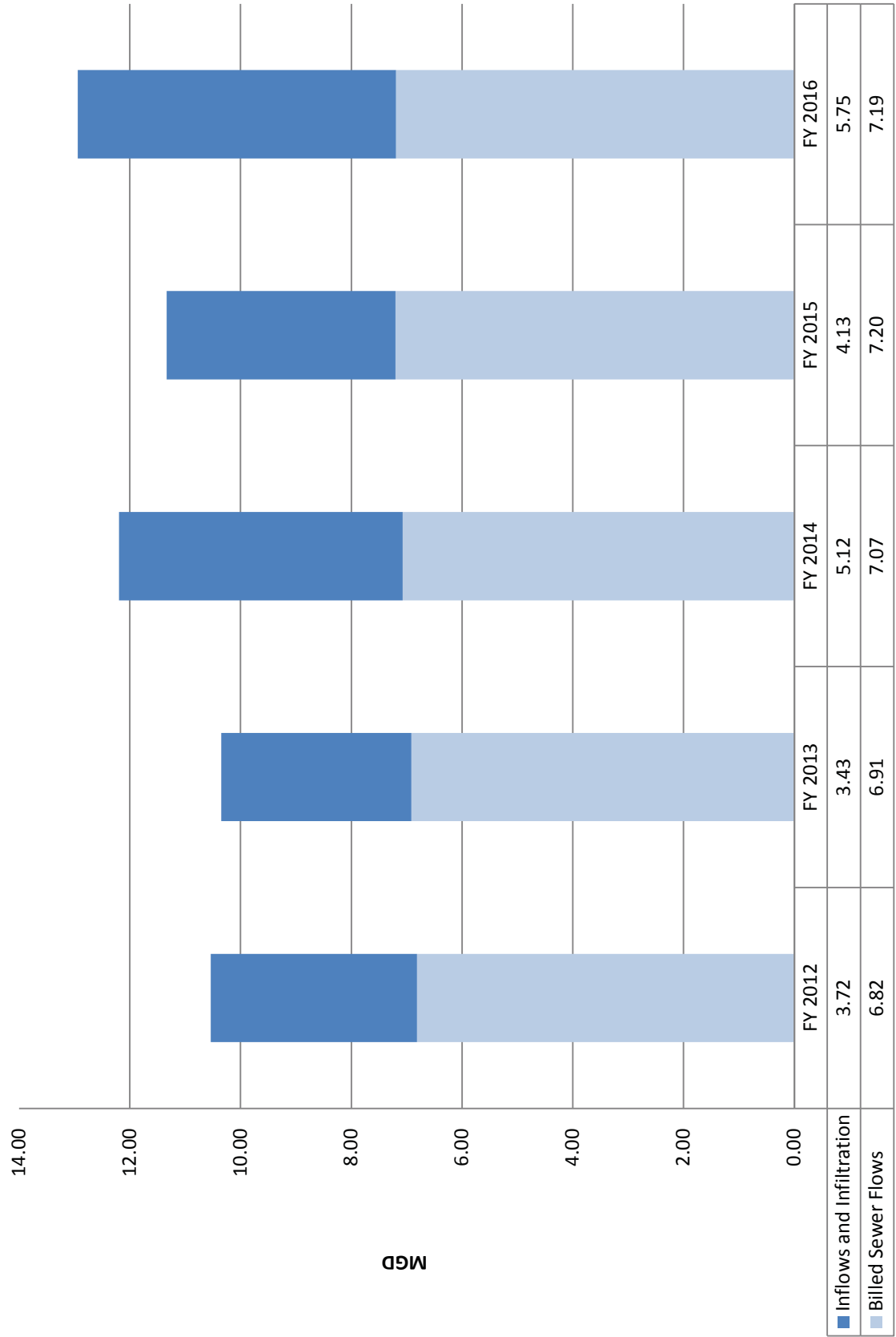


	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Phosphorous	22,949	19,156	21,565	23,540	17,375
Nitrogen	232,563	203,280	239,208	210,565	246,215

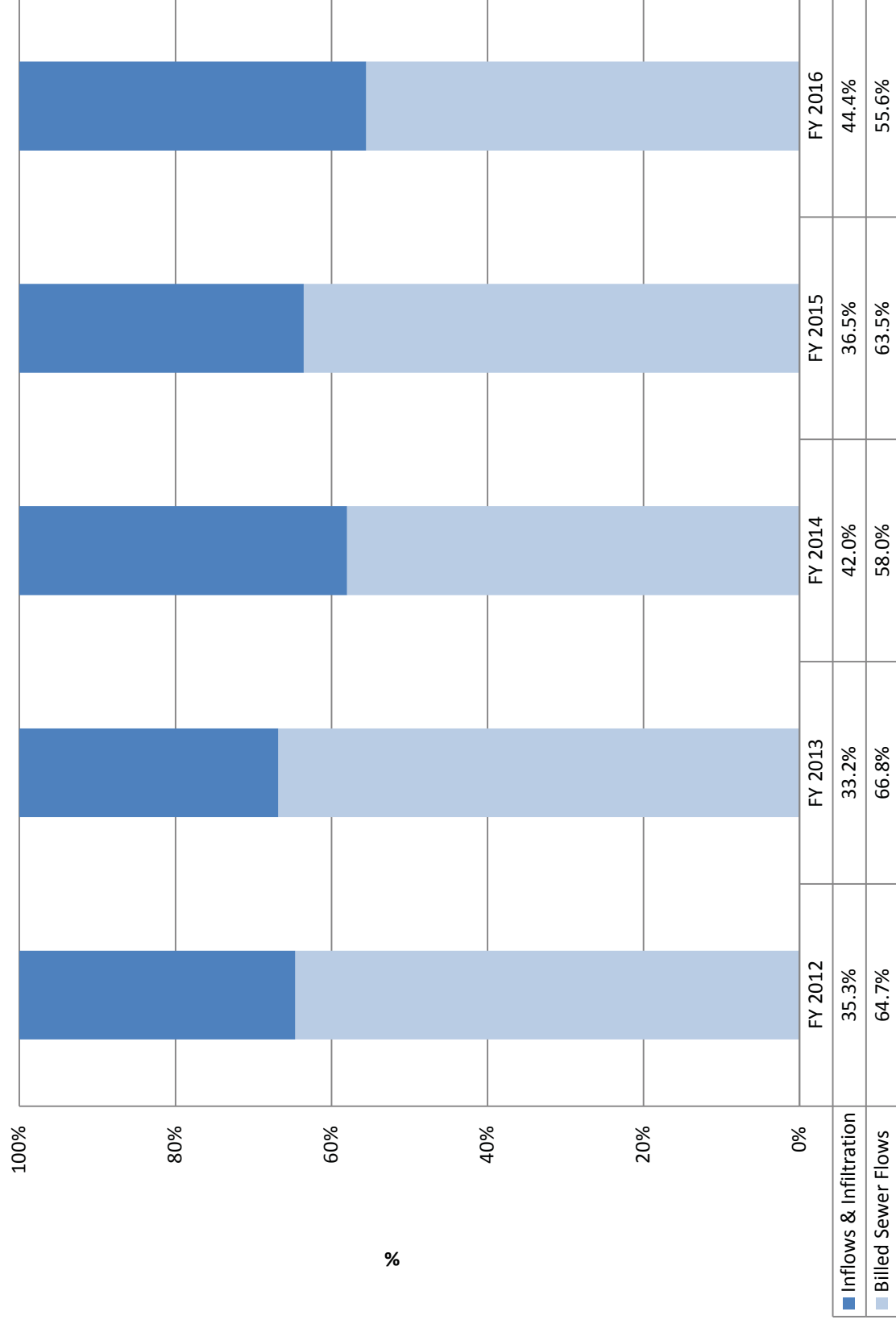
Sewer Sold in HCF



Billed Sewer Flows vs. Inflows and Infiltration Flows



Billed Sewer Flows vs. Inflows and Infiltration Flows %



Sewer Complaints

Type of Complaint	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
1. Cave-in / broken sewer line	0	-	-	-	-
2. Sewer odor	30	32	15	26	24
3. Sewer overflow / backups	10	18	18	93	88
4. Stormwater related	154	178	201	124	266
5. All other	217	197	220	105	173
Total complaints	411	425	454	348	551
Number of sewer customers	18,858	18,916	19,057	19,060	19,083
Complaints / 1,000 customers	22	22	24	18	29

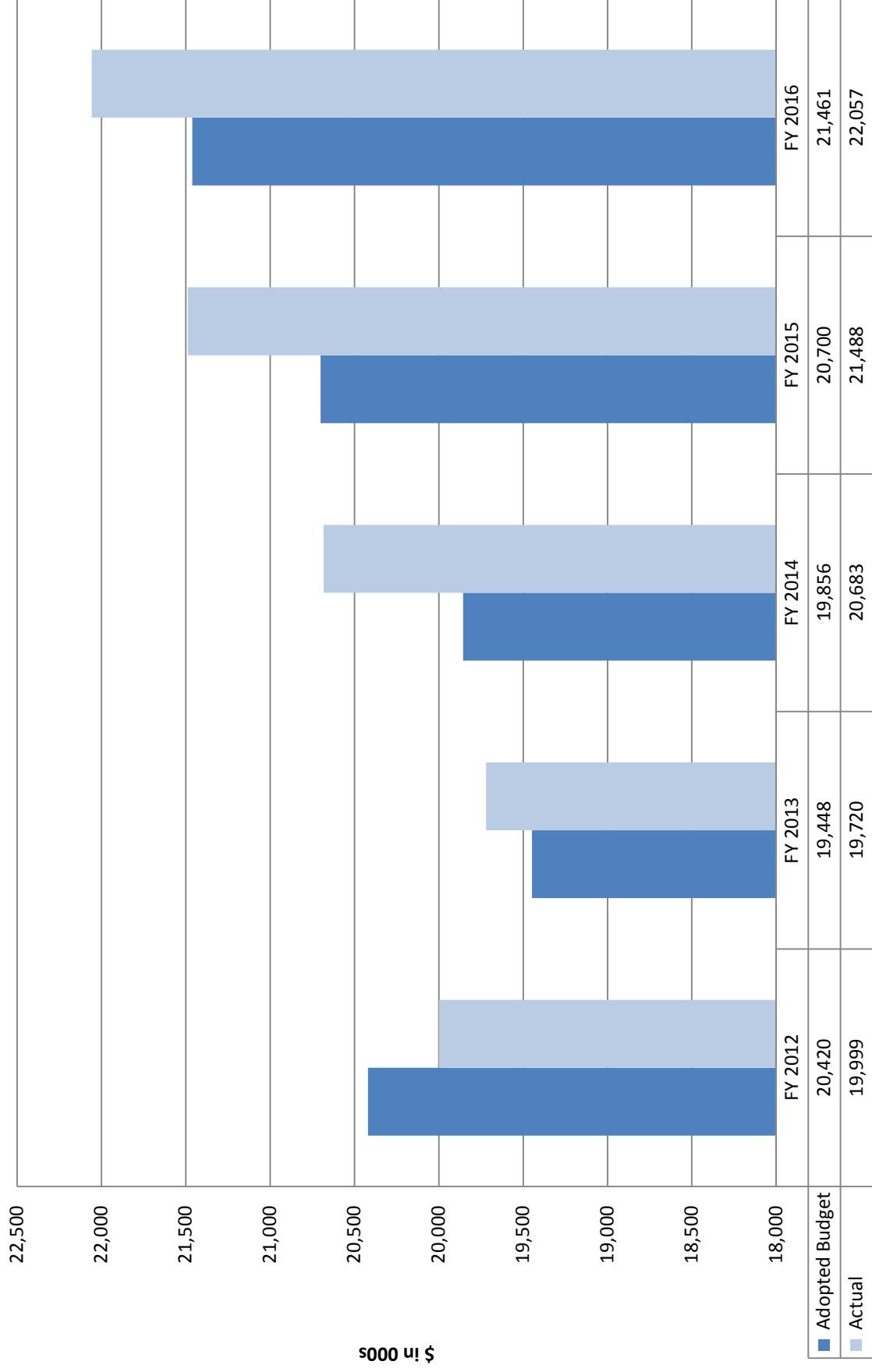
Sewer Fund Financial Data

Sewer Fund Debt Coverage

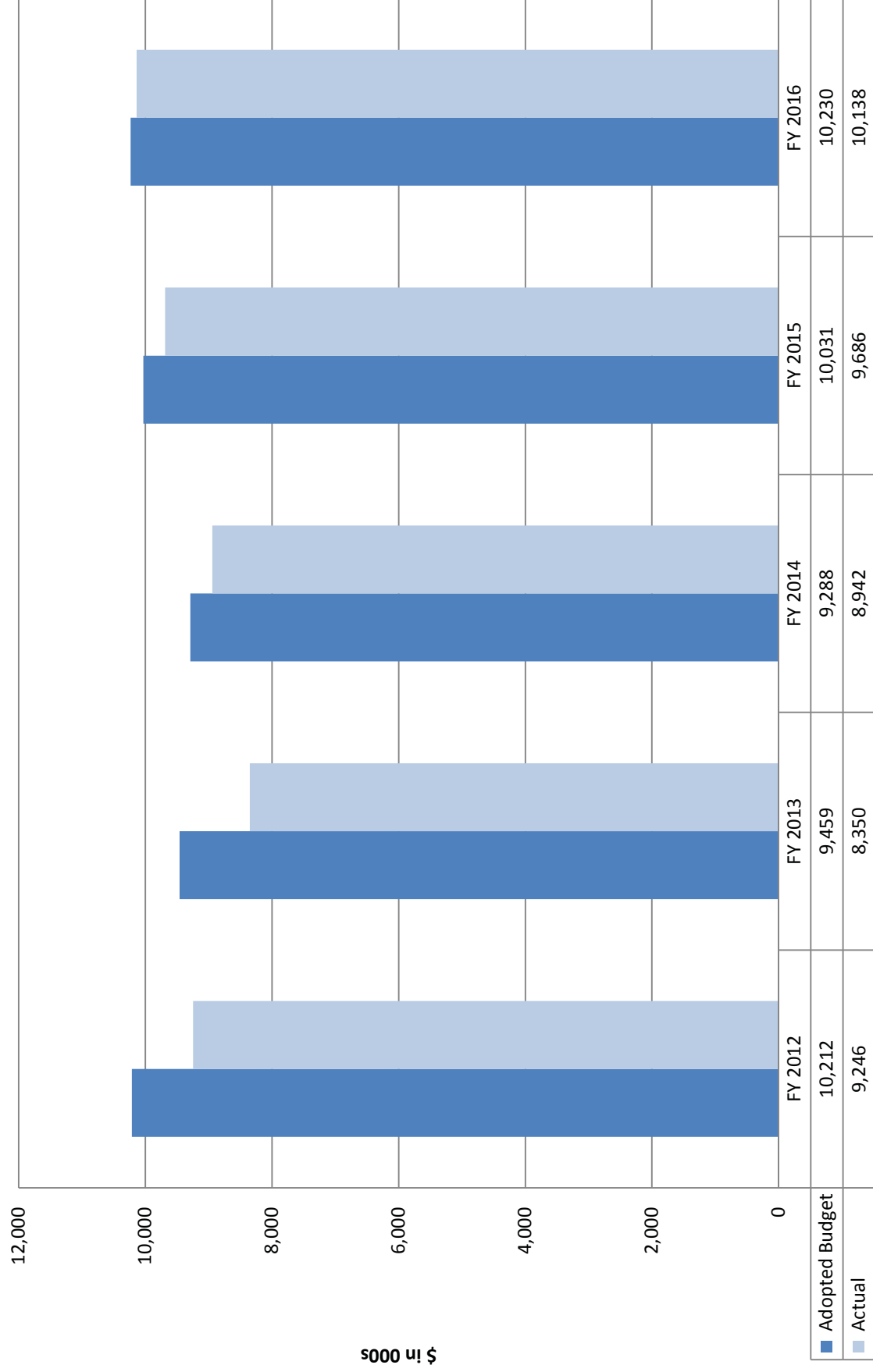
(\$ in 000s)

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Revenues:					
Charges for services	16,267	16,573	17,235	17,342	18,121
Sewer contracts	2,802	2,909	3,220	3,944	3,711
Interest & other	930	238	228	202	225
	19,999	19,720	20,683	21,488	22,057
Expenses:					
WWTP	6,104	6,448	6,773	7,338	7,480
Sewer line maintenance + sw	2,598	1,952	2,022	2,276	2,318
Non-departmental	462	156	172	72	339
Project expenses	380	15	134	38	65
Capitalizable expenses	-298	(221)	(159)	(151)	(131)
	9,246	8,350	8,942	9,573	10,071
Operating income	10,753	11,370	11,741	11,915	11,986
Debt service, net of IRS rebate	8,067	8,412	8,625	9,234	9,401
Debt coverage	1.33	1.35	1.36	1.29	1.27

Sewer Revenues Adopted Budget vs. Actual



Sewer Operating Expenses Adopted Budget vs. Actual



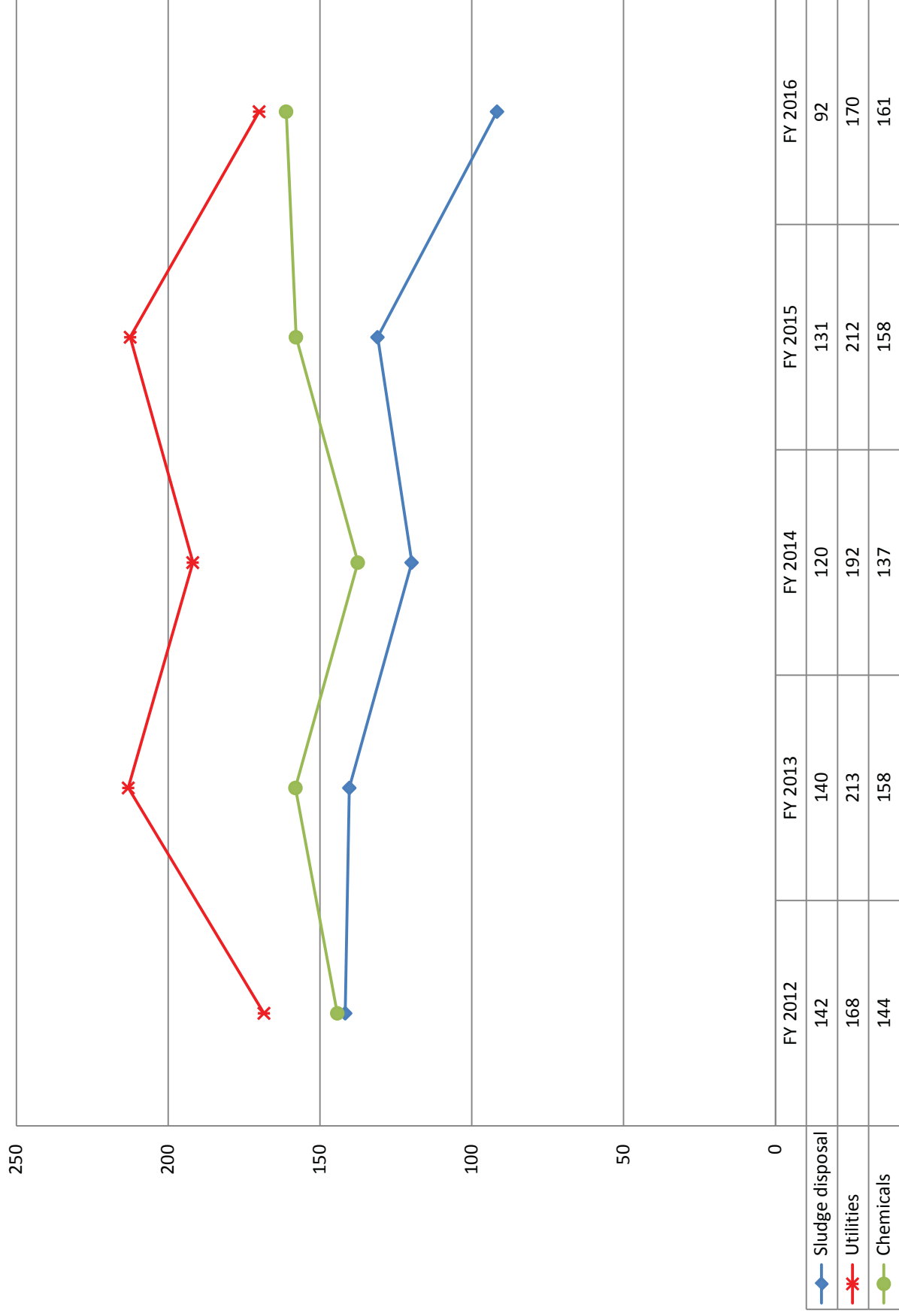
Ten Largest Sewer Customers (\$ in 000s)

Customers	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
1. Rock Tenn	\$921	\$982	\$1,043	\$1,268	\$1,379
2. Frito-Lay	1102	1230	1445	1,487	1,008
3. Centra Health	516	601	414	450	496
4. Liberty University	614	722	691	856	901
5. Azdel	368	567	872	732	775
6. Tri-Tech	525	615	586	511	526
7. Bedford County	441	443	437	450	466
8. Amherst County	400	413	497	492	494
9. Griffin Pipe	283	502	446	582	455
10. Kroger / Westover Dairy	290	325	206	263	158
11. CCUSA	350	308	352	764	370
Total top 11	5,810	6,708	6,989	7,855	7,028
Total sewer revenues	19,999	19,720	20,683	21,488	22,057
Top 11 % of total	29%	34%	34%	37%	32%

Sewer Expenses by Object (\$ in 000s)

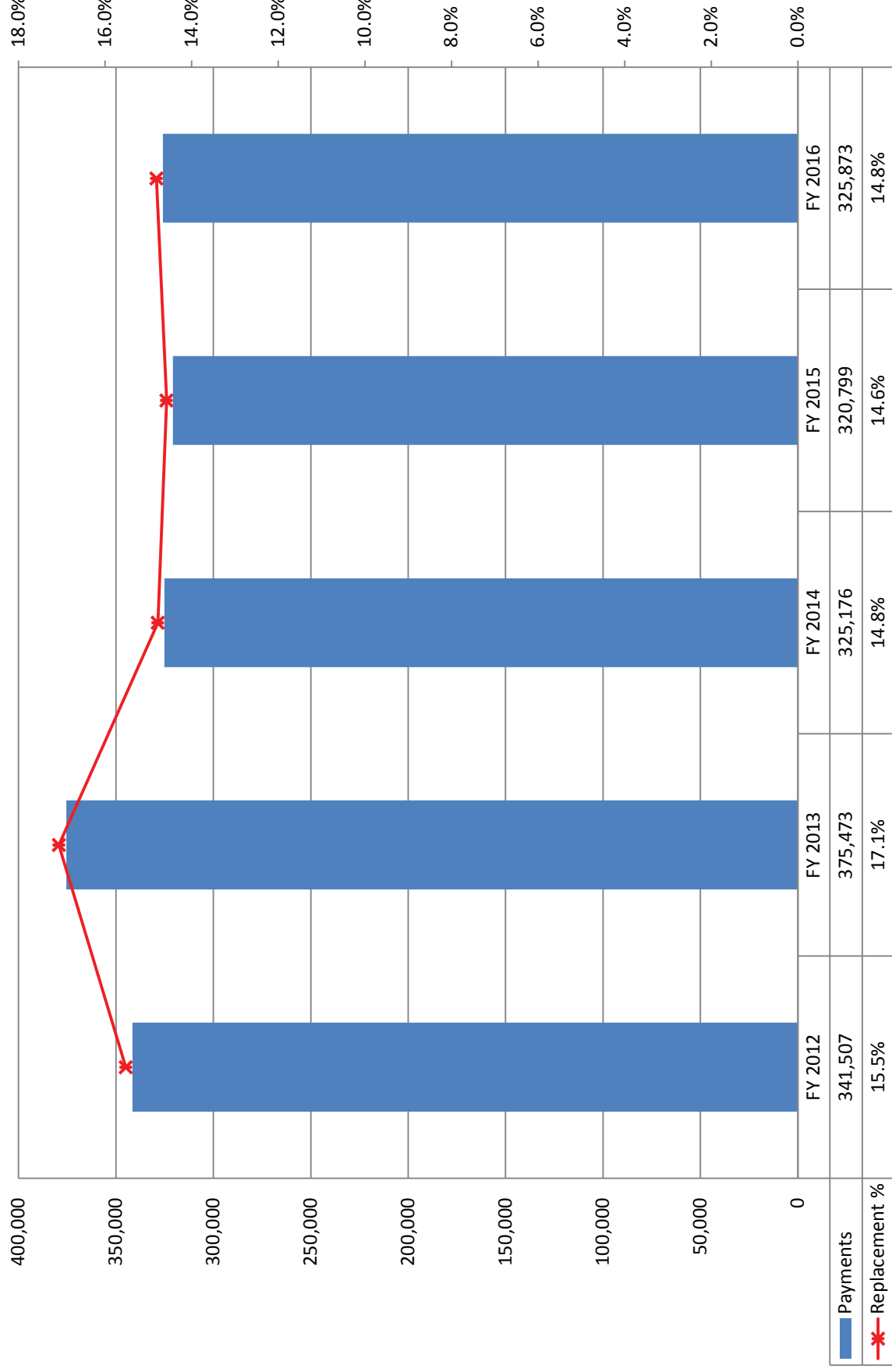
Expenses by object	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Personal services	2,087	1,898	2,020	2,145	2,278
Fringe benefits	737	723	752	841	844
Supplies & materials	517	436	544	671	726
Contractual expenses	964	866	1,029	1,144	1,426
Sludge disposal	545	530	533	542	433
Utilities	648	805	854	879	803
Chemicals	555	597	612	653	761
General & Water Fund Allocations	2,136	2,118	2,091	2,471	2,169
All other	1,057	377	267	267	358
Total excluding capitalized expense	\$ 9,246	\$ 8,350	\$ 8,702	\$ 9,613	\$ 9,798
% Increase -total	1.3%	-9.7%	4.2%	10.5%	1.9%

Sewer Variable Expenses/MG



Sewer Vehicle Costs

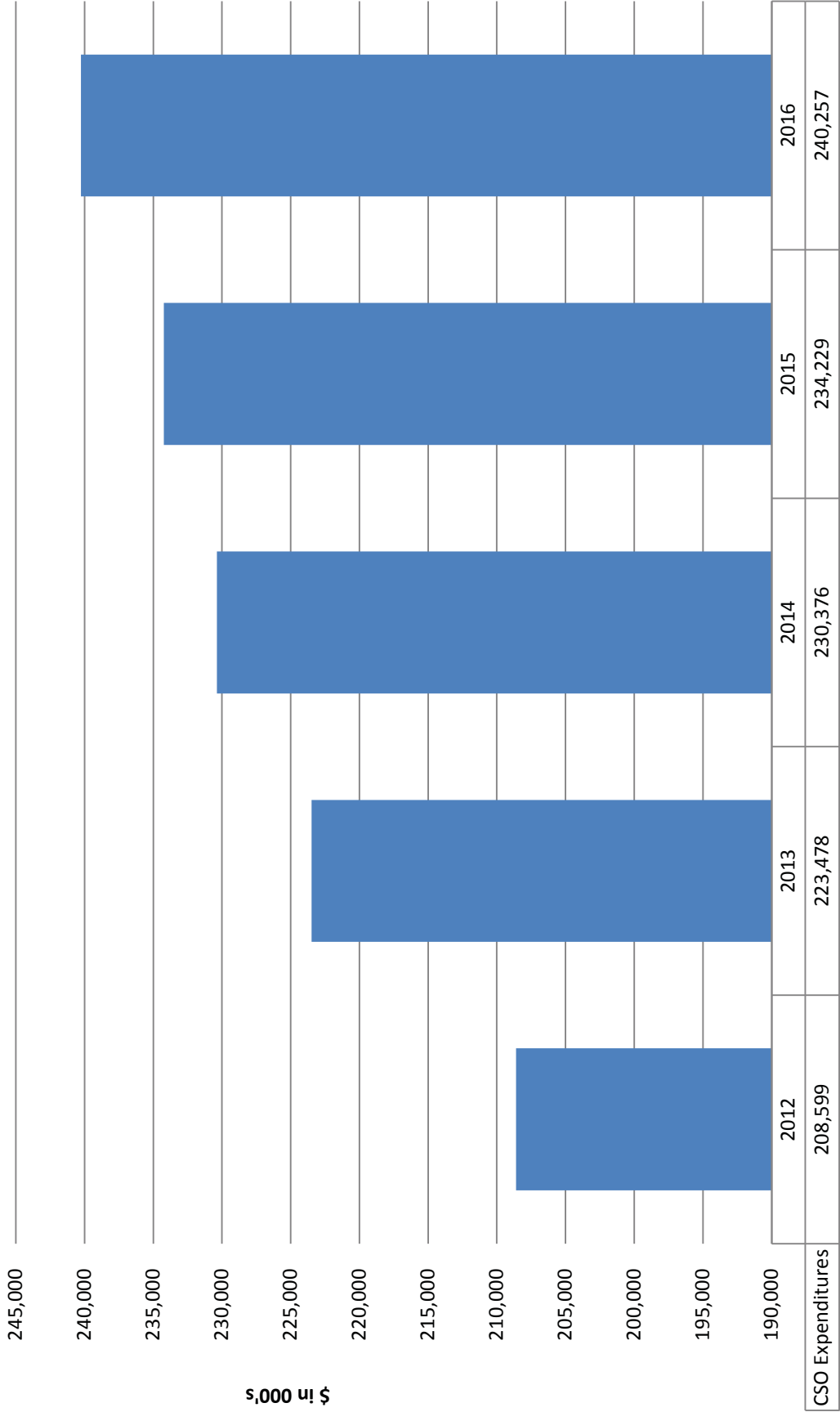
Total cost of all vehicles (\$2.2million)



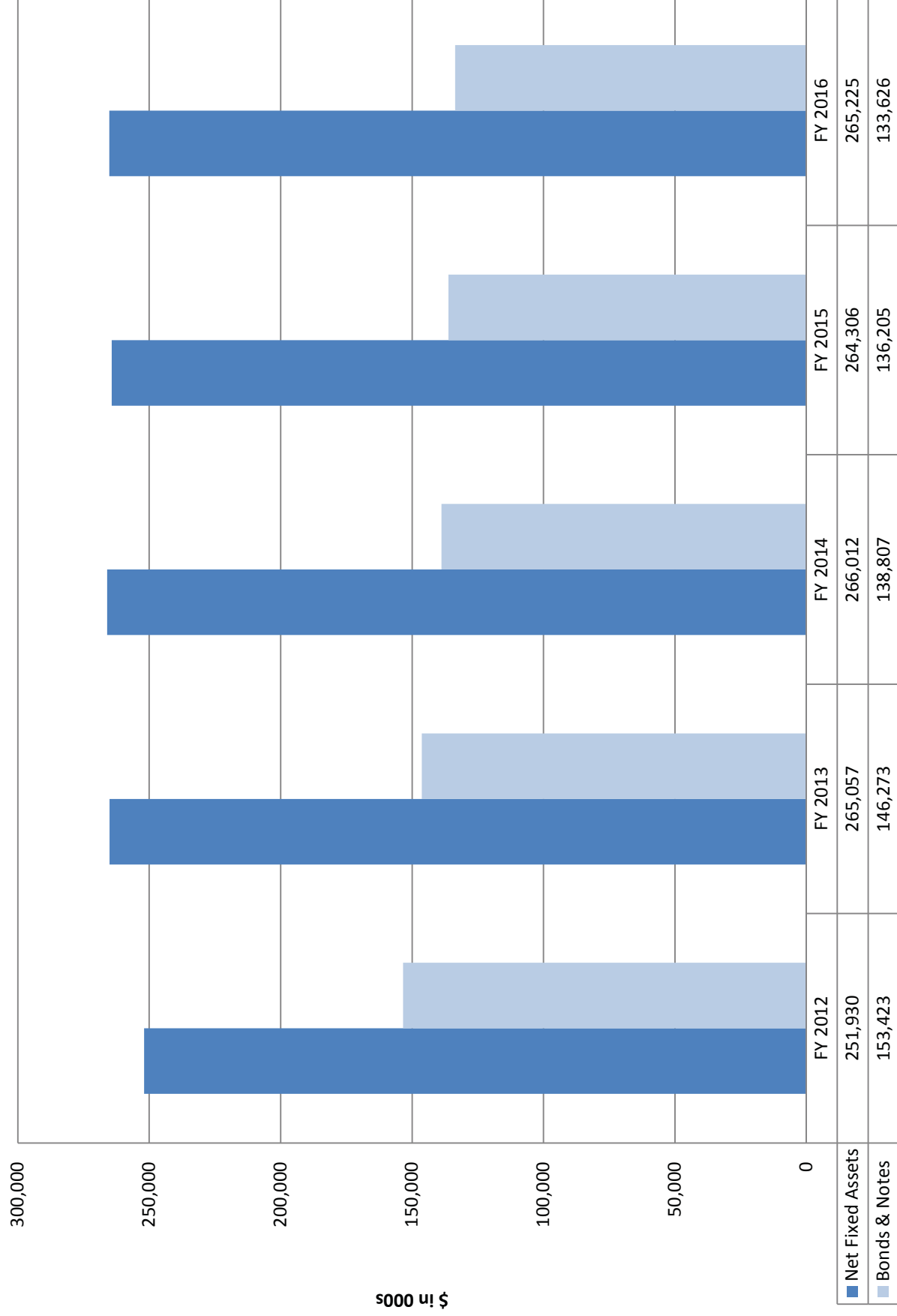
Sewer Capital Expenditures (\$ in 000s)

Capital Expenditures	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Sewer extensions	258	69	108	0	164
Treatment plant	5,572	3,377	452	372	440
Collection system repairs	1,667	1,402	303	1,503	1,508
CSO - separation & RDP	5,194	5,497	3,524	886	1,517
Interceptors	15,639	8,846	3,222	2,967	4,610
Stormwater	92	77	0	0	0
Other	1,132	183	249	26	115
Total	29,554	19,451	7,858	5,754	8,354

Cumulative CSO Expenditures



Net Sewer Capital Assets

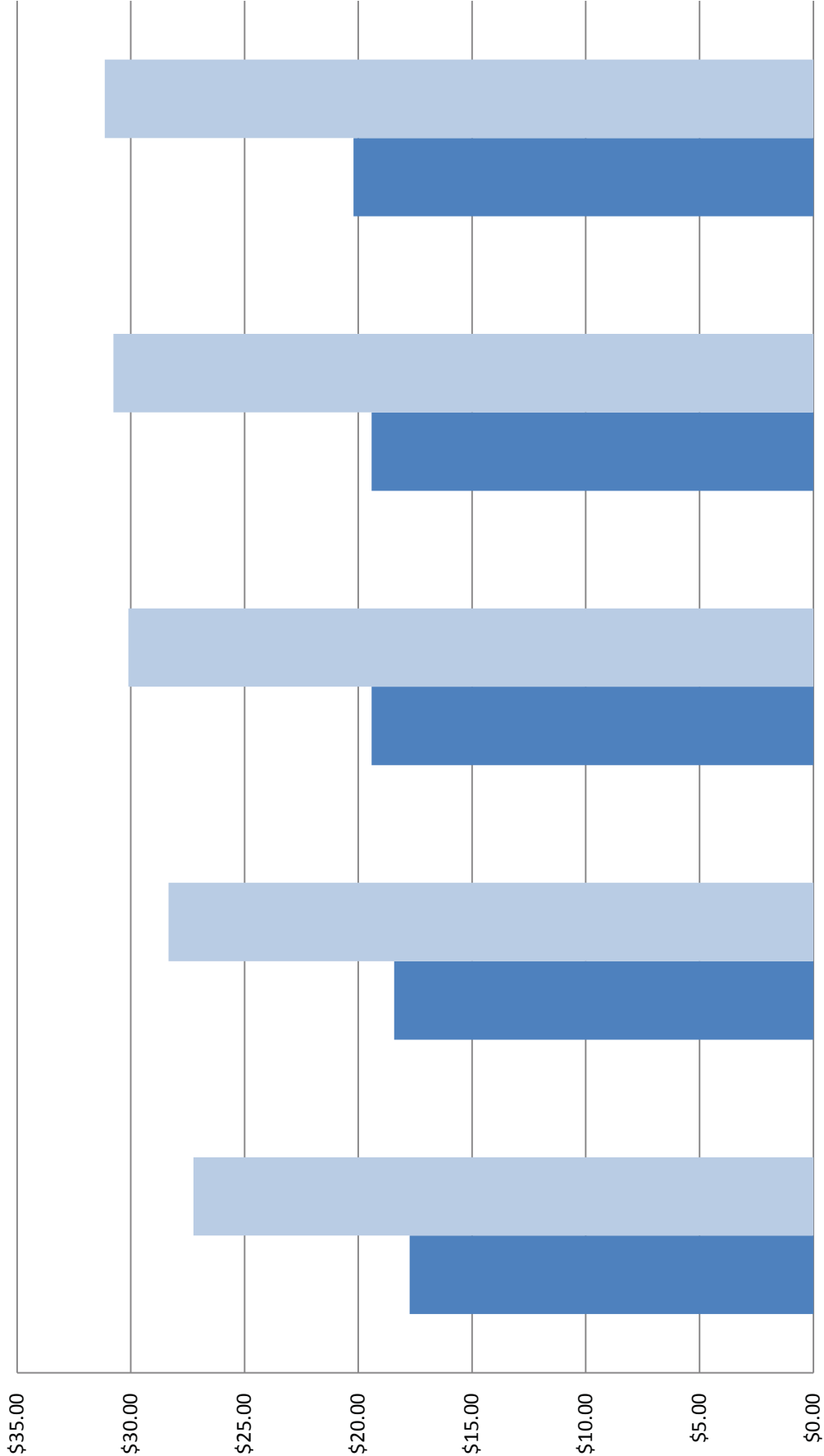


Rate & Bill Data

Water, Sewer & Stormwater Rates

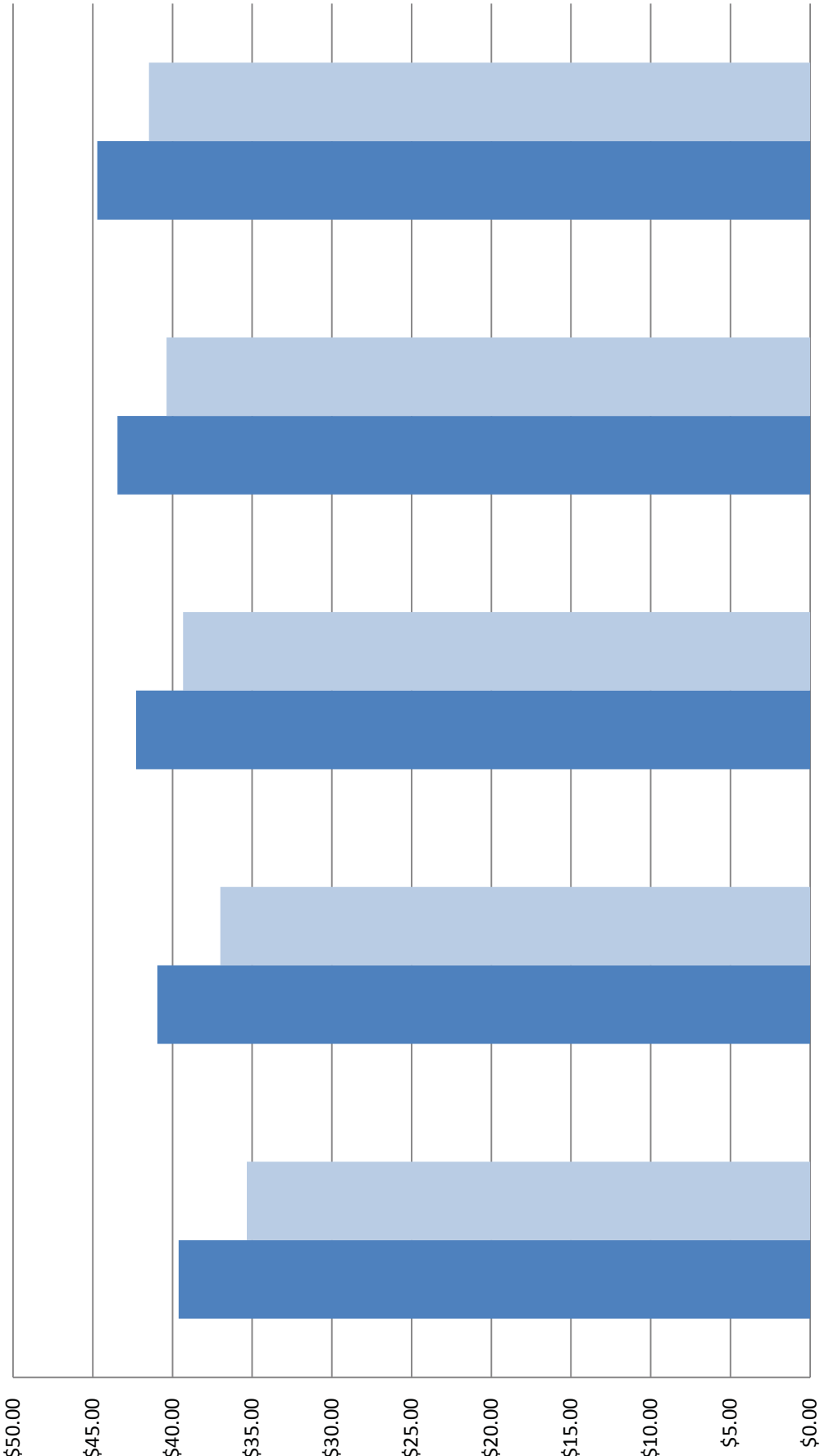
	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016
Water volume charge / hcf	\$ 2.38	\$ 2.38	\$ 2.43	\$ 2.43	\$ 2.55
Sewer					
Volume charge / hcf	5.65	5.65	5.65	5.83	6.02
BOD / 100 lbs	21.33	22.40	23.52	23.52	24.46
TSS / 100 lbs.	24.12	25.33	26.60	26.60	27.66
Septic hauler charge	195.14	204.90	204.90	204.90	204.90
Avg. industrial pre-treatment / permit fee	1,606.00	1,606.00	1,606.00	1,606.00	1,606.00
Sewer only	43.24	44.58	45.92	47.18	48.51
Account charge for Water and or Sewer	3.69	5.69	7.69	7.69	7.69
Stormwater					
Rate per sfu per month (1,301- 4,300 sq. ft)	4.00	4.00	4.00	4.00	4.00
Water Connection fees					
3/4" & 5/8" meters	950	1,045	1,045	1,045	1,150
1" service - 5/8" meter	1,000	1,100	1,100	1,100	1,210
1" service - 1" meter	1,150	1,265	1,265	1,265	1,400
Greater than 1" minimum	1,150	1,265	1,265	1,265	1,400
Sewer Connection Fees					
4" line	1,100	1,210	1,210	1,210	1,330
Greater than 4" - minimum	1,200	1,320	1,320	1,320	1,450
Availability fee					
Water	1,220	1,220	1,220	1,220	1,220
Sewer	1,950	1,950	1,950	1,950	1,950
Fire protection fees (monthly)					
Hydrants & 8" fire lines	19.79	19.79	19.79	19.79	20.58
10" fire line	35.53	35.53	35.53	35.53	36.95
12" fire line	56.38	56.38	56.38	56.38	58.64
Cut-on charge	15	15	15	15	15
Cut-off charge	30	30	30	30	30

City of Lynchburg Water Bill Comparison @ 5,000 gallons/month



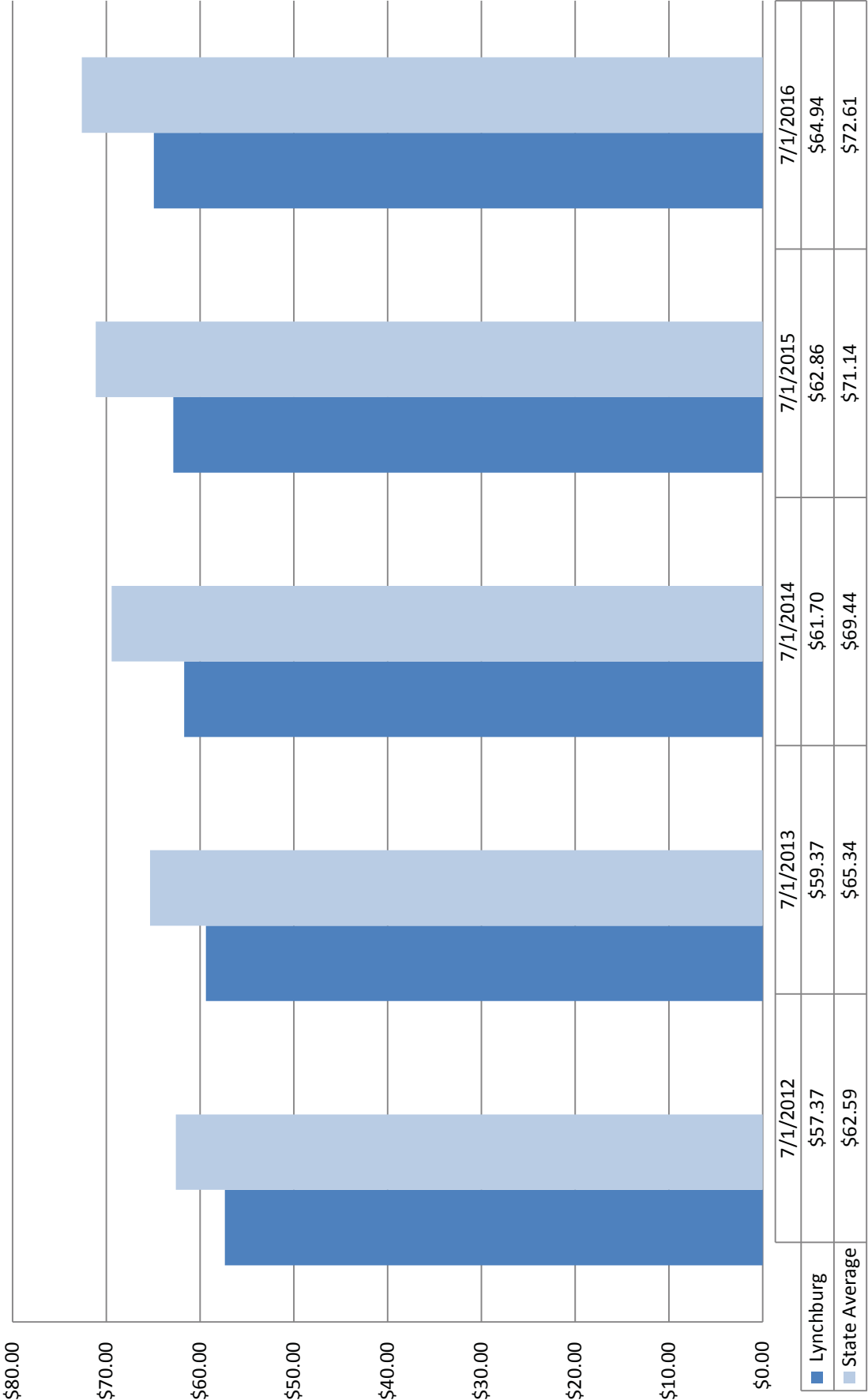
	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016
Lynchburg	\$17.75	\$18.42	\$19.41	\$19.41	\$20.22
State Average	\$27.25	\$28.34	\$30.11	\$30.77	\$31.14

City of Lynchburg Sewer Bill Comparison @ 5,000 gallons/month

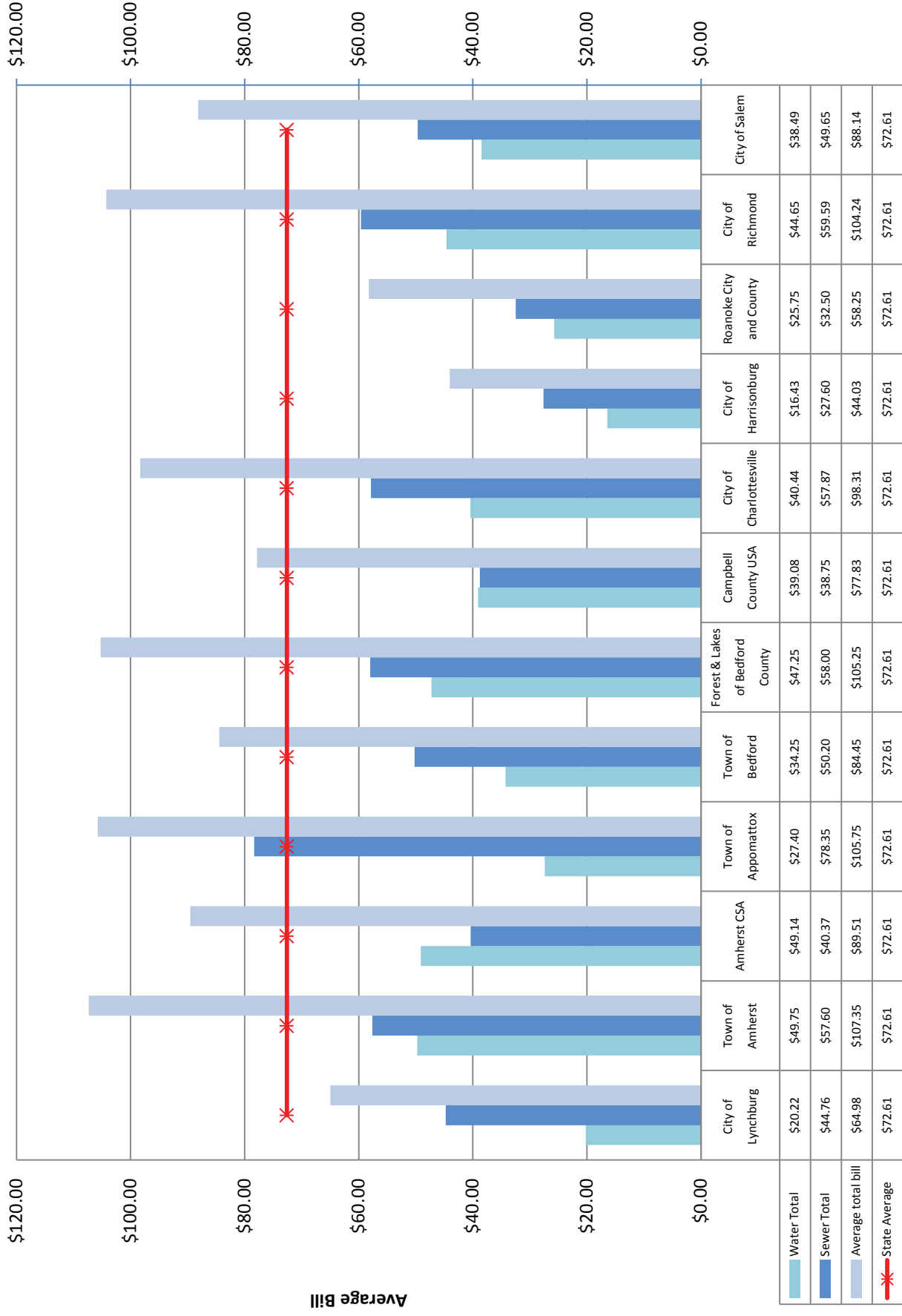


	7/1/2012	7/1/2013	7/1/2014	7/1/2015	7/1/2016
Lynchburg	\$39.62	\$40.95	\$42.29	\$43.45	\$44.72
State Average	\$35.34	\$37.00	\$39.33	\$40.37	\$41.47

City of Lynchburg Water & Sewer Bill Comparison @ 5,000 gallons/month



Average Water & Sewer Bill Per 5,000 Gallons By Locality



Contract Rate History

	FY2012	FY2013	FY2014	FY2015	FY2016
Water Contract rates / HCF					
Amherst	1.84	1.98	1.98	1.94	2.00
Bedford	1.84	1.98	1.98	1.94	2.01
CCUSA	1.82	1.97	1.97	1.93	1.99
Frito-Lay	1.24	1.27	1.3	1.45	1.48
WestRock	1.24	1.27	1.3	1.45	1.48
Sewer Contract rates / 1,000 gallons					
Amherst (1)	1.6	1.73	1.53	1.53	1.53
Bedford (1)	1.6	1.73	1.53	1.53	1.53
CCUSA (1)	1.6	1.73	1.53	1.53	1.53
Frito-Lay	2.82	2.87	3.03	3.36	3.43
WestRock	2.01	2.01	2.08	2.26	2.46

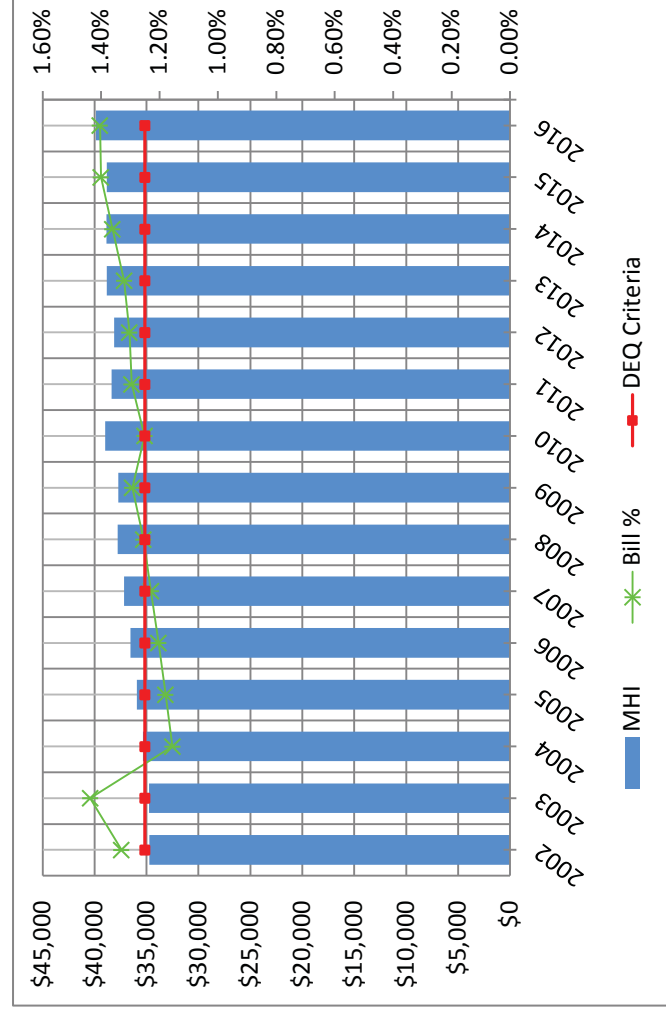
1. Volume rate only base on WWTP flows of fiscal year.
2. FY 2015 county rates are provisional rates

Annual Sewer Bill as a % of MHI

Annual Sewer Bill

FY	Bill	MHI	%	DEQ Criteria
1993	\$199.08	\$25,437	0.78%	1.25%
1994	\$255.00	\$25,539	1.00%	1.25%
1995	\$282.96	\$25,523	1.11%	1.25%
1996	\$321.36	\$25,527	1.26%	1.25%
1997	\$342.96	\$25,370	1.35%	1.25%
1998	\$374.28	\$27,370	1.37%	1.25%
1999	\$388.32	\$28,168	1.38%	1.25%
2000	\$406.68	\$28,965	1.40%	1.25%
2001	\$421.80	\$29,762	1.42%	1.25%
2002	\$461.76	\$34,716	1.33%	1.25%
2003	\$499.56	\$34,756	1.44%	1.25%
2004	\$408.33	\$35,340	1.16%	1.25%
2005	\$423.72	\$35,934	1.18%	1.25%
2006	\$439.68	\$36,537	1.20%	1.25%
2007	\$456.48	\$37,151	1.23%	1.25%
2008	\$473.92	\$37,775	1.25%	1.25%
2009	\$487.56	\$37,710	1.29%	1.25%
2010	\$487.56	\$38,983	1.25%	1.25%
2011	\$496.80	\$38,353	1.30%	1.25%
2012	\$496.80	\$38,126	1.30%	1.25%
2013	\$512.76	\$38,823	1.32%	1.25%
2014	\$528.72	\$38,842	1.36%	1.25%
2015	\$543.84	\$38,838	1.40%	1.25%
2016	\$559.80	\$39,877	1.40%	1.25%

Note (1) - MHI based on 9 hcf of monthly use up to 2003; 7 hcf thereafter.





LYNCHBURG
WATER
RESOURCES

March 14, 2017

397

// Members of City Council, Economic Development Authority, City Staff and Media met at the corner of 8th and Church Streets for a tour of The Virginian Hotel.

// A regular meeting of the Council of the City of Lynchburg was held on the 14th day of March, 2017, at 4:00 P.M. in the Council Chamber, City Hall, Joan Foster, President, presiding. The following Members were present:

Present: Dolan, Helgeson, Nelson, Perrow, Tweedy, Wilder, Foster

7

Absent:

0

// City Manager Bonnie Svrcek presented the Proposed FY 2018 Operating Budget and FY 2018 – FY 2022 Capital Improvement Program (CIP) for the City of Lynchburg which includes the General, Fleet, Airport, Water, Sewer, Stormwater and other minor funds as well as the Capital Improvement Program (CIP) and totals \$375.9 million, an increase of \$23.7 million or 6.7%, including a proposed increase in the Real Property, Lodging and Meals Taxes. In comparison, the FY 2018 Proposed Budget and CIP totals \$375.9 million versus the FY 2017 Adopted Operating Budget and CIP of \$352.2 million. Ms. Svrcek stated the FY 2018 Budget was built with a relatively flat, yet stable revenue environment offset by increasing operating and capital improvement needs with other key needs which include addressing improved education outcomes and a reduction in households living in poverty. The Proposed FY 2018 Budget fully complies with City Council's Adopted Financial Management Policies that were reaffirmed on March 22, 2016. The four major components of the City's Financial Management Policies include, Fund Balance, Debt Management, Budget, and Investments. Ms. Svrcek went on to say the initial gap between projected FY 2018 revenues and submitted operating expenditures was \$4.7 million. The \$3.7 million of the projected gap is directly attributable to the request from Lynchburg City Schools. Without the Schools request the Operating Budget gap in the General Fund would have been \$1.0 million; one of the smallest gaps between revenues and expenditures in many years. The General Fund Operating Budget including Schools is proposed to be funded with ongoing revenues. The General Fund Non-Dedicated Revenues total \$144.7 million, an increase of approximately \$1.2 million or slightly less than a one percent (0.8%) increase from the Adopted FY 2017 Budget. Dedicated Revenues in the Proposed FY 2018 Budget total \$38.4 million, approximately \$1.5 million or slightly over four percent (4.1%) more than the current year. Ms. Svrcek further stated, while the Proposed FY 2018 Budget was challenging to balance due to constrained revenue sources and the growing list of much needed capital projects, it was still possible to balance our delivery of services with ongoing revenues. This challenge will continue in future years and will be evaluated as our environment changes. Ms. Svrcek concluded that the Proposed FY 2018 Budget is offered for City Council consideration, deliberation, amendment, and adoption. Over the next several weeks, Council will have the opportunity to hear from and question the representatives of the various departments and agencies seeking funding in the FY 2018 Budget.

// During roll call Council Member Wilder stated that Mayor Joan Foster and Vice Mayor Treney Tweedy's State of the City Address was very well received.

// Mayor Foster thanked everyone for attending the State of the City Address and made the following

announcement "Save the date - May 4, 2017 Poverty to Progress event at E. C. Glass High School at 6:30 p.m." to start working on decreasing the 24% poverty rate in Lynchburg.

// City Council recessed the meeting at 5:05 p.m.

// City Council reconvened the meeting at 7:30 p.m.

The following Members were present:

Present: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Absent: Perrow 1

Council Member Dolan gave the Invocation, followed by the Pledge of Allegiance.

// Copies of the minutes of the February 7, 2017 Joint City/School Board meeting, having been previously furnished Council, reading was dispensed with, and on motion of Council Member Nelson, seconded by Council Member Wilder, Council by the following recorded vote approved the minutes as presented:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// Copies of the minutes of the February 14, 2017 meeting, having been previously furnished Council, reading was dispensed with, and on motion of Council Member Nelson, seconded by Council Member Wilder, Council by the following recorded vote approved the minutes as presented:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// Copies of the minutes of the February 28, 2017 meeting, having been previously furnished Council, reading was dispensed with, and on motion of Council Member Nelson, seconded by Council Member Wilder, Council by the following recorded vote approved the minutes as presented:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// In the matter of Circuit Court, Resolution #R-17-017 to amend the FY 2017 City/Federal/State Aid Fund budget and appropriate \$3,070 with resources from a grant from the Library of Virginia to preserve one (1) Deed book numbered KK with records dated November 1884 through July 1888 at the Lynchburg Circuit Court Clerk's Office, laid over from the February 28, 2017 meeting, was again presented and read, and on motion of Council Member Nelson, seconded by Council Member Wilder, Council by the following recorded vote adopted the Resolution:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// In the matter of Human Services, Resolution #R-17-018 to amend the FY 2017 Detention Home Fund budget and appropriate \$657,000 from the State Department of Juvenile Justice to operate the Community Placement Program and to approve the addition of three (3) full-time positions at the

Detention Center to assist with the operation of the Community Place Program, laid over from the February 28, 2017 meeting, was again presented and read, and on motion of Council Member Nelson, seconded by Council Member Wilder, Council by the following recorded vote adopted the Resolution:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster	6
Noes:	0
Absent: Perrow	1

// In the matter of Community Development - Zoning, a public hearing was held regarding City Council Report #8 outlining the petition of Liberty Christian Academy for a Conditional Use Permit (CUP) at 601 Mountain View Road to allow a multi-sport athletic stadium with lighting in an IN-2, Institutional 2 District. City Planner Tom Martin provided a summary of the CUP that the Liberty Christian Academy is requesting at 601 Mountain View Road with the Planning Commission recommending approval of the CUP petition. Mr. Patrick Proffitt of Hurt & Proffitt, representing the petitioner, explained that the project will consist of a track and multi-use field that will accommodate eleven sports. There was no one else present who wished to speak to this item, and the public hearing was closed. On motion of Council Member Helgeson, seconded by Council Member Wilder, Council by the following recorded vote adopted Resolution #R-17-019, as presented, granting the petition of Liberty Christian Academy located at 601 Mountain View Road for a the Conditional Use Permit:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster	6
Noes:	0
Absent: Perrow	1

// In the matter of Community Development, a public hearing was held regarding City Council Report #9 regarding the Community Development Block Grant (CDBG) and HOME Program FY 2018 funding allocations being incorporated into the FY 2018 General Fund Operating Budget and Program Year 2017 Annual Action Plan. Grants Manager Melva Walker provided a summary of this request stating that the U.S. Department of Housing and Urban Development (HUD) funds the CDBG and HOME Programs. The final entitlement allocations for FY 2018 have not been received from HUD; however, the City anticipates receiving approximately \$662,772 in CDBG entitlement funds with an additional \$25,000 and \$65,500.01 in reprogrammable and program income funds, respectively, for a total allocation available for CDBG funding of \$753,272.01. The City anticipates receiving \$317,893 in HOME Program entitlement funds. The following individuals spoke on their prospective allocation: Ms. Denis Crews spoke on behalf of Lynchburg Community Action Group (LYCAG) asking for continued support of LYCAG; Ms. Dawn Fagen, Director of Lynchburg Redevelopment and Housing Authority (LRHA) asked Council to support the four projects for LRHA; and Ms. Mildred Smith spoke on behalf of Daniel's Hill Neighborhood Center requesting \$175,000 for needed improvements at the Center. There was no one else present who wished to speak to this item, and the public hearing was closed. Mayor Foster, Chair of the Community Development Advisory Committee (CDAC) remarked on the process and explained that each applicant provided a detailed summary of their submitted applications. Council Member Nelson, Vice Chair of

CDAC made remarks on the process of the funding requests. On motion of Mayor Foster, seconded by Council Member Nelson, Council by the following recorded vote adopted Resolution #R-17-020, as presented, regarding the Community Development Block Grant (CDBG) and HOME Program FY 2018 funding allocations being incorporated into the FY 2018 General Fund Operating Budget and Program Year 2017 Annual Action Plan.

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// In the matter of Registrar, a public hearing was held regarding City Council Report #10 regarding amending Section 14-35 of the City Code relating to the designation of a voting place for the Third Precinct of the Fourth Ward. Karen Patterson, General Registrar provided Council with the request for moving the voting location for the Third Precinct of the Fourth Ward from Memorial Christian Church, 615 Perrymont Avenue, to Perrymont Fellowship Hall at 114 Perrymont Avenue, due to the church no longer wishing to be a polling location. There was no one else present who wished to speak to this item, and the public hearing was closed. On motion of Council Member Nelson, seconded by Council Member Helgeson, Council by the following recorded vote adopted Resolution #R-17-021, as presented, amending Section 14-35 of the City Code relating to the designation of a voting place from Memorial Christian Church located at 615 Perrymont Avenue to Perrymont Fellowship Hall located at 114 Perrymont Avenue:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// In the matter of City Council, Ms. Alicia Roberts spoke before Council regarding traffic on Towne Crier Road in the subdivision of New Towne.

// In the matter of Museum, City Council Report #12 was considered. On motion of Council Member Helgeson, seconded by Council Member Nelson, Council by the following recorded vote adopted Resolution #R-17-022, as presented, approving the placement of an Interpretive Marker on Monument Terrace in Honor of Desmond Doss:

Ayes: Dolan, Helgeson, Nelson, Tweedy, Wilder, Foster 6

Noes: 0

Absent: Perrow 1

// The meeting was adjourned at 8:25 P.M.

Clerk of Council

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **March 28, 2017**

AGENDA ITEM #: **6**

CONSENT:
ACTION: **X**

REGULAR: **X**
INFORMATION:

WORK SESSION:

CLOSED SESSION:
(Confidential)

ITEM TITLE: Lynchburg Community Action Group (LYNCAG) Lease

Strategic Pillar(s) Impacted:

☐ Arts & Culture	☐ Citizen Engagement & Social Capital	☐ Economic Development	☐ Healthy & Active Living
☐ Infrastructure	☐ Land Use	☐ Lifelong Learning	☐ Natural Resources
☐ Neighborhoods	☐ Safe Community	☐ Social Equity	☐ Transportation
			☒ Administrative

RECOMMENDATION: After a public hearing, adopt a resolution authorizing the City Manager to execute a lease with Lynchburg Community Action Group (LYNCAG) for the White Rock School Property at 400 Buena Vista Street allowing LYNCAG to use the property for as a Head Start Center.

SUMMARY: Starting in 1986 the City has leased the White Rock School Property at 400 Buena Vista Street to LYNCAG in order that LYNCAG can use the property for a Head Start Center. LYNCAG uses the property in the operation of the Head Start Program for instruction and recreation purposes for pre-school age children. Under the terms of the lease LYNCAG pays the City \$1.00 per year in rent and assumes full responsibility for the maintenance and upkeep of the property. The initial term of the lease was up a number of years ago, but LYNCAG has continued to use the building as a holdover tenant under the terms of the lease. LYNCAG would like to apply for a grant to replace the windows in the building, but in order to be eligible for the grant it needs an updated lease. Therefore, LYNCAG has requested a new lease from the City. The proposed lease will be for an initial one-year term and after the initial term will automatically renew for additional one-year terms until the City and LYNCAG decide to terminate the lease. Like the original lease, LYNCAG will pay the City \$1.00 a year in rent and will be fully responsible for the maintenance and upkeep of the property.

PRIOR ACTION(S): In 1986 the City leased the White Rock School Property at 400 Buena Vista Street to LYNCAG for use as a Head Start Center.

FISCAL IMPACT: None

CONTACT(S): Walter C. Erwin, City Attorney's Office, 455-3973

ATTACHMENT(S): A resolution authorizing the City Manager to execute a lease with LYNCAG

REVIEWED BY: bms

RESOLUTION:

BE IT RESOLVED That the City Manager is hereby authorized to execute a lease agreement with the Lynchburg Community Action Group for the White Rock School Property at 400 Buena Vista Street in order that the Lynchburg Community Action Group can use the property as a Head Start Center.

Adopted:

Certified:

Clerk of Council

039K



Rodney E. Taylor
Market at Main
904 Main Street
Downtown Lynchburg, VA 24504

March 13, 2017

Valeria P. Chambers
Clerk of Council
City of Lynchburg
900 Church Street
Lynchburg, VA 24504

Via: Hand delivery

Dear Ms. Chambers,

I request an opportunity to speak at the City Council meeting on March 28, 2017 to address concerns with the implementation of two-way traffic on Main Street and Church Street. I will be speaking on behalf of a group of Downtown merchants and stakeholders who wish to ask that the City seek input from those whose businesses will be impacted by the conversion of Main Street and Church Street to two way traffic. Specifically we wish to request that the City hold workshops, perhaps in conjunction with Lynch's Landing, where Downtown merchants and stakeholders would be given an opportunity to express concerns about the proposed conversion and receive feedback regarding the plans.

Please feel free to contact me at 434-401-0916 if you have any questions or need any additional information. Thank you for your consideration.

Sincerely,



Rodney E. Taylor

043K

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **March 28, 2017**

AGENDA ITEM #: **8**

CONSENT:
ACTION: **X**

REGULAR: **X**
INFORMATION:

WORK SESSION:

CLOSED SESSION:
(Confidential)

ITEM TITLE: Virginia Wireless E-911 Services Board Education Grant

Strategic Pillar(s) Impacted:

☐ Arts & Culture	☐ Citizen Engagement & Social Capital	☐ Economic Development	☐ Healthy & Active Living
☐ Infrastructure	☐ Land Use	☐ Lifelong Learning	☐ Natural Resources
☐ Neighborhoods	☒ Safe Community	☐ Social Equity	☐ Transportation
			☐ Administrative

RECOMMENDATION: Adopt a resolution to amend the FY 2017 City/Federal/State Aid Fund budget to appropriate \$2,000 with resources from the Virginia Wireless E-911 Services Board FY17 Public Safety Answering Point (PSAP) Education Grant Program for training opportunities.

SUMMARY: A grant application was submitted to the Virginia Wireless E-911 Services Board for costs associated with training opportunities, including registration, lodging and meal expenses. Notification was received that the grant was awarded and the funds for reimbursement were available on July 1, 2016.

The Public Safety Answering Point (PSAP) Education Grant Program covers some of the costs associated with sending employees to external training which can include registration, lodging, and meals.

PRIOR ACTION(S): Finance Committee, March 28, 2017

FISCAL IMPACT: None, no local match is required.

CONTACT(S):

Melissa D. Foster, Director of Emergency Services, 455-4285

Jennifer E. Maul, Deputy Director of Emergency Services, 455-4149

ATTACHMENT(S):

Resolution

Grant Award Letter

REVIEWED BY: bms

RESOLUTION:

BE IT RESOLVED that the FY 2017 City/Federal/State Aid Fund budget is amended and \$2,000 is appropriated with resources from the Virginia Wireless E-911 Services Board FY17 Public Safety Answering Point (PSAP) Education Grant Program for reimbursement of training expenses.

Introduced:

Adopted:

Certified:

Clerk of Council

038K



COMMONWEALTH of VIRGINIA

Virginia E-911 Services Board

Jeffrey D. Stern
Chairman
VDEM

Jim Junkins
Vice Chairman
Harrisonburg-
Rockingham ECC

David A. Von Moll
Treasurer
Comptroller

Danny Garrison
Richmond Ambulance
Authority

Dennis E. Hale
Chief of Fire & EMS
Dinwiddie County

Honorable Kevin W. Hall
Sheriff of the City of
Covington

Diane Harding
Verizon Wireless

Steve Hudson
Chief of Police
Prince William County

Robert Layman
AT & T

Anthony McDowell
Fire Chief
Henrico County

Nelson P. Moe
CIO - VITA

Kathleen Seay
Hanover County

Jolena Young
Twin County

Dep Secretary Adam Thiel
Office of the Governor
Advisor

Dorothy Spears-Dean
PSC Coordinator
(804) 416-6201

Terry D. Mayo
Board Administrative
Assistant
(804) 416-6197

January 21, 2016

Dear Lynchburg PSAP:

Thank you for submitting a FY17 PSAP Education Program Grant application. Your application meets the current Grant Guidelines and was recommended for funding by the PSAP Grant Committee. I am pleased to advise you that the Virginia E-911 Services Board has approved your request. You have been awarded \$2,000 for your individual training opportunities, grant ID 073.

Funding for this grant award will be available on a reimbursement basis beginning July 1, 2016. Reimbursements will only be made for items allowable under the current Grant Guidelines. All funding requests must be submitted on the Public Safety Grant Payment Request Form, which is available on the ISP website. The receipt(s) that substantiates the amount requested must be attached to the request at the time of submission.

Finally, in order for a funding request to be processed, the PSAP must have already submitted any required financial and grant progress reports for any previous fiscal years by the identified deadline. This includes required submission of any true-ups and supporting documentation.

If you have any questions, please do not hesitate to contact your Regional Coordinator or me. Congratulations on your grant award!

Sincerely,

Lisa Nicholson
PSAP Grant Program Manager

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **March 28, 2017**

AGENDA ITEM #: **9**

CONSENT:
ACTION: **X**

REGULAR: **X**
INFORMATION:

WORK SESSION:

CLOSED SESSION:
(Confidential)

ITEM TITLE: **Conversion to Two-Way Traffic on Main and Church Streets**

Strategic Pillar(s) Impacted:

☐ Arts & Culture	☐ Citizen Engagement & Social Capital	☒ Economic Development	☒ Healthy & Active Living
☒ Infrastructure	☐ Land Use	☐ Lifelong Learning	☐ Natural Resources
☒ Neighborhoods	☒ Safe Community	☐ Social Equity	☒ Transportation
			☐ Administrative

RECOMMENDATION: Adopt a resolution supporting the conversion of Main and Church Streets to a two-way traffic pattern following a presentation on the history and timeline regarding two-way traffic.

SUMMARY: The conversion of Church and Main Streets from one-way to two-way traffic has been an item of discussion since the adoption of the Downtown and Riverfront Master Plan in 2001. The Master Plan recommends two-way traffic conversion in order to slow traffic and increase retail exposure. As noted below in "Prior Actions" there has been significant discussion and outreach with Downtown stakeholders and City Council on the matter of conversion to two-way traffic Downtown.

On July 13, 2004 City Council voted to hire a traffic consultant to study the possible conversion of Main and Church Streets to two-way traffic.

On March 28, 2006 downtown stakeholders submitted a petition to the City Manager requesting the City reestablish two-way traffic on Church and Main Streets.

As the former City Manager stated in his report to you on June 14, 2016 (see attached minutes and Council Agenda Item), one of the responsibilities and authority of the City Manager is to manage traffic in the City. Section 25-37 of the *City Code* states "The city manager shall have general supervision and control of the management and direction of all vehicular and pedestrian traffic and of the parking and routing of vehicles in the interest of public safety, comfort and convenience not inconsistent with the provisions of *Code of Virginia, Title 46.2*."

At Council's June 14, 2016 meeting, following the presentation on two-way traffic, there was no concern voiced by City Council regarding the implementation of two-way traffic as reported by the former City Manager. As a result, staff has been proceeding down the path of implementing two-way traffic.

Following concerns from four Council members regarding the implementation of two-way traffic on Church and Main Streets, the City Manager reported during Roll Call on February 28, 2017 that she would review with City Council on March 28, 2017 how we got to where we are today and discuss a path forward. To bring closure to the debate regarding two-way traffic, the City Manager recommends that City Council adopt a resolution supporting the implementation of two-way traffic.

It should be noted that the Board of Directors of the Lynch's Landing Foundation passed a Resolution (copy attached) on March 9, 2017 supporting two-way traffic on Main Street.

The attachments provide further information regarding the planned two-way conversion. Staff will discuss this information and be prepared to answer any questions during the Council meeting.

PRIOR ACTION(S):

- May 22, 2001, Adoption of the Downtown and Riverfront Master Plan
- July 13, 2004 Council Meeting, two-way traffic study approved
- March 28, 2006 Council meeting, petition for two-way traffic discussed
- June 14, 2016 Council Meeting, two-way traffic briefing
- October 14, 2014, Physical Development Committee Meeting

PRIOR ACTION(S) - continued:

- July 14, 2015, Physical Development Committee Meeting
- July 16, 2015, Public Meeting of Downtown Stakeholders
- November 16, 2015, Public Meeting of Downtown Stakeholders
- May 23, 2016 Public Meeting of Downtown Stakeholders
- December 12, 2016 Public Meeting of Downtown Stakeholders
- March 20, 2017 Two-Way Traffic Stakeholder Briefing at Market at Main Restaurant

FISCAL IMPACT: Responses to a Request for Proposals for the implementation of two-way traffic including signage, striping and the addition of traffic signals have been received. The apparent low bid is \$572,900. Funding in the amount of \$2.0 million was budgeted for this component of the Downtown Water Main Replacement and Streetscape Project. After further analysis, the \$1.4 million balance will be reallocated to other critical transportation projects.

CONTACT(S):

- Bonnie Svrcek, City Manager, 455-3990
- Charles Hartgrove, Deputy City Manager, 455-3990
- Gaynelle Hart, Director of Public Works, 455-4406
- Lee Newland, City Engineer, 455-3947
- Maggie Cossman, Traffic Engineer, 455-3935

ATTACHMENT(S):

- Resolution
- July 13, 2004 City Council Minutes and Agenda Summary
- March 28, 2006 City Council Minutes and Agenda Summary
- June 14, 2016 Minutes of the Proceedings of Agenda Item regarding Conversion to Two-Way Traffic on Church and Main Streets and Agenda Item Summary (without attachments)
- *City Code* Sec.25-37 Regarding Powers of City Manager (related to managing traffic in the City)
- Downtown Two-Way Traffic Conversion Timeline
- Two-way Street Conversion as a Downtown Revitalization Tool
- Two-Way Traffic Stakeholder Briefing, March 20, 2017 (Powerpoint Presentation)
- Streetscape and Two-Way Traffic Plan Design
- Resolution from the Board of Directors of Lynch's Landing Foundation

REVIEWED BY: bms

RESOLUTION:

WHEREAS, two-way traffic conversion will promote the further development of Downtown businesses by increasing exposure and enhancing the pedestrian and bicycling experience;

WHEREAS, two-way traffic will strengthen the vibrancy of Downtown Lynchburg as a destination for residents and visitors alike to enjoy the culture, recreation and history of a Downtown environment;

WHEREAS, two-way traffic studies of the conversion show speed is reduced and adequate road capacity is maintained;

WHEREAS, Lynch's Landing Foundation, Lynchburg's Downtown advocacy organization approved a Resolution on March 9, 2017 in support of two-way traffic on Main Street;

NOW, THEREFORE, BE IT RESOLVED that the Lynchburg City Council hereby supports the conversion of Main and Church Streets to a two-way traffic pattern as currently designed and planned for implementation in Phase I of the Downtown Water Main Replacement and Streetscape project.

Adopted:

Certified:

Clerk of Council

044K

FORM B AGENDA ITEM #4

CITY COUNCIL MEETING OF July 13, 2004

// City Manager Kimball Payne along with Lynch's Landing Executive Director Terri Proffitt and Community Planning Director Rachel Flynn provided an overview regarding the possible conversion of Main and Church Streets to two-way traffic. Mr. Payne explained that Downtown merchants are interested in converting Main and Church Streets to two-way traffic because they believe that it would maximize their exposure to motorists, slow down traffic, reduce confusion and travel distance, and improve access. Mr. Payne went on to say that support for the conversion is mixed, but that everyone agrees that further information is needed before an informed decision can be made regarding the conversion of Main and Church Streets to two-way traffic. Mr. Payne informed that traffic consultant Walter Kulash has submitted a proposal for a conceptual plan and technical support for the conversion of one-way traffic flow to two-way flow on Main and Church Streets at a cost of \$15,000. Mr. Payne asked for City Council approval to contract with Mr. Kulash to conduct the first phase of study at a cost of \$15,000, to be funded from the capital appropriation for downtown improvements. Several Council Members agreed with the need for further information before making a decision regarding the conversion to two-way traffic on Main and Church Streets. On motion of Council Member Dodson, seconded by Council Member Seiffert, Council by the following recorded vote authorized the hiring of a traffic consultant to study the possible conversion of Main and Church Streets to two-way traffic at a cost of \$15,000, to be funded from the capital appropriation for downtown improvements:

Ayes: Dodson, Gillette, Seiffert, Hutcherson	4
Noes: Helgeson	1
Absent: Foster, Johnson	2

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: July 13, 2004, Work Session

AGENDA ITEM NO.: **BT**

CONSENT:

REGULAR: **X**

CLOSED SESSION:

ACTION: **X**

INFORMATION:

ITEM TITLE: **Proposed Conversion to Two-way Traffic Downtown**

RECOMMENDATION:

Authorize the hiring of a traffic consultant to study the possible conversion of Main Street and Church Street to two-way traffic.

SUMMARY:

Downtown merchants are interested in converting Main Street and Church Street to two-way traffic. They believe that this conversion will maximize their exposure to motorists, slow down traffic, reduce confusion and travel distance, and improve access. The City and Lynch's Landing began researching the issue and found several other cities that converted their downtown streets to two-way. Gerry Harter, City Traffic Engineer, made a presentation at a Lynch's Landing Quarterly Forum on 12/02/03 to explain the process of a conversion. In addition, Mayor Carl Hutcherson and Rachel Flynn contacted the former Mayor of Albuquerque, Jim Baca. He was instrumental in successfully converting certain streets in their downtown to two-way traffic. Mayor Baca credited their success to their traffic consultant, Walter Kulash, with Glatting Jackson Engineers in Orlando, Florida.

The City contacted Mr. Kulash and invited him to meet with City staff/Lynch's Landing and assess downtown Lynchburg's situation. Mr. Kulash concluded that our downtown would be a good candidate for a two-way conversion given our traffic volumes and street widths. In addition to City staff and the Lynch's Landing Director, he also met with the public at a Quarterly Forum to discuss his experiences with two-way conversion in several other downtowns. Lynch's Landing also formed a Citizen's Steering Committee that will focus on the matter and advise accordingly. The committee includes representatives from Genworth, Main Street Eatery, Bowen Jewelry, the YMCA, Oppleman's, and the Allied Arts Building.

Support for the conversion is mixed, with some strongly supportive and others raising concerns. All agree that further information is needed before an informed decision can be made. Given that, City staff, Lynch's Landing, and the Citizen's Steering Committee recommend proceeding to the next step. This involves a traffic study prior to any physical changes. Mr. Kulash's cost estimates range from \$15,000 to \$40,000 depending on the level of analysis required. It is anticipated that the scope of work would include turning movement analysis the development of a traffic movement simulation, an analysis of parking impacts and opportunities, and an estimate of the cost to make the necessary physical changes to accommodate two-way traffic.

PRIOR ACTIONS:

c. 1955: Main Street and Church Street are converted to one-way traffic.

November 2003: Downtown merchants submit petition to the City requesting conversion of Main Street and Church Street back to two-way traffic.

December 2, 2003: Lynch's Landing Quarterly Forum and discussion with Gerry Harter.

December 19, 2003: Mayor Hutcherson and Rachel Flynn discuss two-way conversion of Albuquerque's downtown streets with the former Mayor, Jim Baca. He recommends traffic consultant, Walter Kulash, with Glatting Jackson.

June 14, 2004: Walter Kulash meets with City staff/Lynch's Landing, and makes presentation at Quarterly Forum.

June 15, 2004: Mr. Kulash meets with Citizen's Steering Committee.

July 1, 2004: Lynch's Landing Board votes to endorse the next steps for further study of the two-way conversion.

FISCAL IMPACT: It is anticipated that the cost of the study would be approximately \$40,000. Funds for the study would come from the capital appropriation for downtown improvements.

CONTACTS: Rachel Flynn – 455-3902 Terri Proffitt – 528-3950, Gerry Harter – 455-3935

ATTACHMENTS: None

REVIEWED BY: lkp

December 17, 2003

Mr. Bruce McNabb, P.E., Director of Public Works
Ms. Rachel O'Dwyer Flynn, AIA, Director
Community Planning & Development
City of Lynchburg
900 Church Street
Lynchburg, VA 24504

RE: Main Street/Church Street One-Way Pair
GJ#18095.00

Dear Bruce and Rachel:

Glatting Jackson is pleased to submit this proposal for a conceptual plan and technical support for the conversion of one-way traffic flow to two-way flow, on Main Street between 5th Street and 12th Street and Church Street between 5th Street and Washington Street, in downtown Lynchburg, Virginia.

National Context

Beginning with a few pioneering examples in the early 1990's, the conversions of one-way streets to two-way traffic flow in the U.S. have become too numerous to easily catalog. We estimate that in the last ten years, at least 200 cities have converted no less than 1,000 streets from one-way to two-way operation. Typically, converted streets are in downtowns, were formerly two-ways converted to one-way prior to the Interstate program (1950's-1960's), being advocated for conversion by a combination of local business owners and national retailers, and initiated by elected officials (Mayor, City Council) often in the face of skepticism or opposition traffic specialists. Despite concerns, however, we know of no instances in which streets converted from one-way to two-way operations have been reverted to their previous one-way traffic flow.

Glatting Jackson Experience and Qualifications in One-Way Street Conversion

Glatting Jackson provided traffic engineer support and conceptual design for these one-way street conversions, all of which have been accomplished or are in the process of implementation:

- **Lakeland, Florida** – Main/Lemon pair; 16 blocks in center of downtown.
- **Chattanooga, Tennessee** – Bailey/McCallie pair; 44 blocks, from downtown Chattanooga through adjacent residential neighborhoods.
- **Albuquerque, New Mexico** – Copper/Gold pair; 18 blocks in center of downtown.
- **New Haven, Connecticut** – 12 blocks in and around the Yale Campus.
- **West Palm Beach, Florida** – Dixie/Olive pair; 30 blocks in center of downtown.
- **Toledo, Ohio** – Adams/Monroe pair; 24 blocks in center of downtown.
- **St. Paul, Minnesota** – Wabasha Avenue; 11 blocks in center of downtown.

Glatting Jackson has also conducted the technical analysis for a number of one-way street conversions that are in the process of approval and adoption. Cities with projects at these stages include Columbus, Ohio, Baltimore, Cleveland, Norfolk, Pensacola, Florida and Lexington, Kentucky.

Scope of Services

Task 1: Site Visit, Reconnaissance and Methodology Meeting

In a two-day visit to Lynchburg:

- Meet with City staff to review the scope of the one-way street conversion, and to establish the methodology for the traffic analysis supporting the conversion.
- As directed by the City, meet with stakeholders (property owners, business owners, etc.) with interest and concern regarding the conversion of the streets.
- Make a detailed walking and driving tour of Main Street between 5th and 12th Street and Church Street between 5th Street and Washington Street.
- Obtain further traffic and cost estimating materials.
- Obtain base map materials.

Product: Brief memorandum confirming methodology and identifying additional data needs.

Task 2: Traffic Analysis

Following the methodology developed at the initial meeting, analyze the traffic flow for the one-way conversion through the following steps:

- Reassign the existing traffic, according to the methodology established in Task 1.
- Apply traffic growth factors, as established in Task 1.
- Perform capacity analysis of all intersections involved in the conversion. Methods will be established in Task 1.
- Identify changes in traffic signal phasing, offset and cycle length.

- Establish need and sizing of any auxiliary (left turn) lanes required due to the conversion.
- Compute the change in on-street parking space supply due to the conversion.
- Identify changes in accessibility for large trucks (WB-50).

Task 3: Conceptual Plan

On a base map provided by the City, prepare a conceptual plan of the conversion, showing the following features on Church and Main Streets between 5th and 12th Streets:

- Lane and auxiliary lane configuration.
- Location of parking spaces.
- Location of traffic signal heads.
- Pavement striping.
- Traffic control signs, type and placement.

Task 4: Cost Estimate

Using unit costs as provided by the City, prepare a cost estimate for the conversion. Cost elements will include:

- Traffic signal modifications.
- Pavement striping.
- Other traffic control devices (signs).

Task 5: Final Report

Combine, into a brief final report, the summary of the preceding tasks as follows:

- Traffic analysis.
- Cost analysis.
- Recommendations for implementation.

Task 6: Final Meeting and Presentation (Optional)

In a one-day visit to Lynchburg, meet with City staff, elected officials and others, as directed by the City, to summarize the conclusions of the conversion study, and to respond to questions and concerns.

Compensation

We estimate a direct labor cost of \$14,165.00 for all tasks excluding a final presentation, and a total of \$16,255.00 for all tasks including a final presentation. Tasks are budgeted as follows:

Task 1	\$ 5,700.00
Task 2	1,800.00
Task 3	2,520.00
Task 4	1,185.00
Task 5	<u>2,960.00</u>
Subtotal (no final presentation)	\$14,165.00
Total (with final presentation)	\$16,255.00

We suggest that the project be billed on the basis of time charges, at the rates and conditions shown in the attached Hourly Rate Schedule and Supplemental Terms of Agreement. We proposed that expenses be billed as incurred, also in accordance with the attached Hourly Rate Schedule.

Staffing

Proposed staffing for this project will include:

Principal-in-Charge and Project Manager:

Walter M. Kulash, P.E.

Associate level staff support to be selected from:

Raj Mohabeer, Transportation/Urban Designer

Jane Lim, Transportation/Urban Designer

Schedule

The initial meeting would be scheduled to occur within two weeks of a notice to proceed. The analysis, conceptual plan, cost estimate and report (Tasks 2, 3, 4 and 5) would be completed within four weeks of the City's delivery of required data and background information. A final meeting, if necessary, would be scheduled at a mutually acceptable time.

Next Steps

Please review the proposed scope of work and budget. Feel free to modify our proposed approach, or request that we do so. To proceed with a contract for this project, we could

incorporate the proposed scope, budget and schedule in our standard contracting format, or, if you prefer, could provide those items for your inclusion in the City's standard format.

Please feel free to call with any comments or questions you may have.

Sincerely,

Walter M. Kulash, P.E.

WMK/pae

Project Name: City of Lynchburg, VA
Project Number: 18095.00

GLATTING JACKSON KERCHER ANGLIN LOPEZ RINEHART, INC.

HOURLY RATE SCHEDULE

Principal 4	\$225	Ecologist 4	\$125
Principal 3	\$200	Ecologist 3	\$105
Principal 2	\$175	Ecologist 2	\$85
Principal 1	\$150	Ecologist 1	\$65
Planner 5	\$150	Landscape Architect 5	\$150
Planner 4	\$125	Landscape Architect 4	\$125
Planner 3	\$105	Landscape Architect 3	\$105
Planner 2	\$85	Landscape Architect 2	\$85
Planner 1	\$75	Landscape Designer 3	\$85
Transportation Engineer 6	\$175	Landscape Designer 2	\$75
Transportation Engineer 5	\$150	Landscape Designer 1	\$65
Transportation Engineer 4	\$125	Public Relations 2	\$85
Transportation Engineer 3	\$105	Public Relations 1	\$65
Transportation Engineer 2	\$85	GIS Specialist 2	\$85
Transportation Engineer 1	\$65	GIS Specialist 1	\$65
Transportation Planner 5	\$150	Graphic Artist 3	\$85
Transportation Planner 4	\$125	Graphic Artist 2	\$75
Transportation Planner 3	\$105	Graphic Artist 1	\$65
Transportation Planner 2	\$85	Administrative Assistant	\$50
Transportation Planner 1	\$65	Technician	\$50

Increase In Hourly Rates - Glatting Jackson shall conduct a review of hourly rates on an annual basis and may, upon notification to the Client, increase such rates in our sole discretion.

Other Direct Costs – Other direct costs incurred in completing the scope of services shall be billed to the Client at a multiple of 1.15 times cost. These costs are in addition to the fees for each part of the Scope of Services detailed in the Agreement. Other direct costs may include, but are not limited to, costs for reproduction, printing, photocopying, photography, courier services, automobile mileage and other expenses. Personal automobile mileage shall be charged at the current IRS regulation limit. Field vehicle mileage shall be charged at a rate of \$0.50 per mile.

Application Fees – All application, filing, and permit fees, including, without limitation, all fees to local, regional and state governments and agencies, shall be paid by the Client directly to the appropriate agency at the required time.

Client Initials _____

Glatting Jackson Initials _____

Petition for Two Way Traffic on Main Street

We, the Merchants of Main Street, request the City of Lynchburg to change the traffic pattern of Main Street from One Way to Two Way. We feel this would slow the traffic down enough to afford people more time to notice what Downtown Main Street has to offer. It would slow down traffic enough to allow people to find parking spaces, without being intimidated by the faster traffic flow produced by One Way traffic.

Thank you for your consideration.

Name of Business

Owner/Manager

GOWEN JEWELRY CO 845-3495	BRIAN GOWEN, SR
More Fresh Air 845-7311	Cathy McLaughlin & Alva Pick
MA. JIMMY THURMAN SHOP	Wall Thurman Jr.
Dee's House of Fashion	Sharon E. Deere
IRS, MAIN ST EATERY	U. Wood
L. OPPELMAN INC 909 MAIN ST	Don
GRAND PIANO BLD. 805 MAIN	Don
1021 MAIN ST REL LOAN CO. (FMA)	Don
RESURCE 845-4489	Kimberly Milam
3465 F&T THE COLLECTORS LAIR	Paul Haly
Lynchburg CAMERA	Bill Buckett
ROBERTS PIANO CO.	W. Whit
Schemel's Furniture	Cal Stett
L. JAMES P. JAMES	Modern Body Shop
Josephine's Store	Josephine Smith
Chris's Workshop	The Light Barber Shop
The Wig Center	Harley
MAIN ST MARKET Deli	Jackie
Fashion plus, 906 Main St	Wanda Chis
CVS Pharmacy	L. Kay Christian
Cable Metals	Bill Devere
BANK OF THE JAMES	Debra Day
Pamela L. Baldwin	Baley B's
Baldwin	Paul Balder

FORM B AGENDA ITEM #5

CITY COUNCIL MEETING OF March 28, 2006

// City Manager Kimball Payne stated that a petition signed by a number of downtown stakeholders was recently received requesting that the City reestablish two-way traffic on Church and Main Streets.

Mr. Payne asked for direction from City Council with regard to this request. Council Member Gillette expressed concern regarding the accuracy of the names on the petition and stated that he would like to see developed a more accurate way to ascertain exactly what the downtown stakeholders really want and also that any conversion be coordinated with the Lynchburg Parking Authority. Other Council Members also expressed interest in developing a mechanism that would more accurately gather input from the downtown stakeholders regarding the conversion from one-way to two-way traffic. City Manager Payne stated that he would contact Lynch's Landing Executive Director regarding this matter. Council Member Helgeson asked to receive a copy of the consultant's report regarding the proposed conversion.

The undersigned property and business owners on Main and Church streets are petitioning Lynchburg's City council to open the roads to two-way traffic

Received 1/30/06

ROONEY TAYLOR 929 MAIN STREET LYNCHBURG, VA 24504	846-5223 ext. 106
GARY BURNS 828 MAIN ST LYNCHBURG, VA	846-2333
GEORGE ZIPPEL 700 MAIN ST LYNCHBURG VA	948-5473
W.D. HARDWICK 828 MAIN ST. LYNCHBURG, VA.	845-7500
TRACY SIFAW 828 MAIN ST LYNCHBURG, VA 24504	434-455-9112
J.C. Baldwin 828 Main St	846-9000
Phong Q. Q. Robert R. Chapman, III 828 Main Street	455-7510
Bruce Chapman 203 Church St 24504	848 3011
1000 MAIN ST. MARRIS BURNERS -	202-4159495
Sum Stone 209 N. 4th ST.	845-3232
BRIAN BOWEN, JR. 929 + 825 + 823 MAIN STREET LYNCHBURG, VA 24504	845-3495
Anthony Robinson Anthony & Co. 701 Church St. Lynchburg VA 24504	846-2232
Ralph Wilson 400 Main St. CHOPPER'S	400-110-108 Ninth St Lynchburg Va 24504
Emmett Lefay 1030 Main Calm	846-7400
Randy Gault 1024 Main St	846-0196

The undersigned property and business owners on Main and Church streets are petitioning Lynchburg's City council to open the roads to two-way traffic

John R. Ferris FERRIS BAKER WATTS 725 CHURCH STREET	846-3442
BARBARA B. TEMPLES FERRIS BAKER WATTS INC 725 CHURCH ST.	846-3442
ROBERT E EVANS, PAMELA H. EVANS EVANS LAW OFFICE 725 CHURCH ST	845-4551
Mort Sajadin Amazement Square	845-1888
Debra Grant (Debra Grant) 725 Church St. (employed downtown)	947-2200
Jon T Travis - ANA 725 Church St.	845-5668
Petty Livingston Newton & Richards 725 Church St. Jenn R. Little	846-2768
DAVID MASS 715 Church St	508-2300
Pollye Alterations 725 Church St	846-2775
James F. Antorch, Esq. 725 Church St.	847-1000
Downtown Salon 725 Church St Lynch	846-0557
Bowman, Schmitt Richard Bryant	846-6822
Therbert Sales Co 1417 Church St Joseph Therbert & Co	845-0977
Tim Proffitt 210 8th St	528-3950

The undersigned property and business owners on Main and Church streets are petitioning Lynchburg's City council to open the roads to two-way traffic

DELORES JONES Delores Jones
815 Main St.
D & G'S HOUSE OF FASHION

Minutes (June 14, 2016, Item #14: Two-Way Traffic)

Mayor Gillette began by stating the presentation on Two-Way Traffic conversion on Church and Main Streets from one-way to two-way traffic. Council is not voting on this issue tonight, but to receive a briefing from the City Manager, Mr. Payne.

Mr. Payne gave a presentation on Two-Way Traffic conversion on Church and Main Streets from one-way to two-way traffic. **One of the responsibilities and authority of the City Manager is to manage traffic in the city.** The conversion of Church and Main Streets has been an item of discussion since the Downtown and Riverfront Master Plan was adopted in 2001. The Downtown area was the hub of shopping before the Plaza and the Mall were built and there was two-way traffic downtown. (Several images of two-way traffic in the 1950s, were shown.) The Downtown Master Plan of 2000 acknowledged the concern and suggested that two-way traffic was requested by retail merchants to slow traffic down and to increase exposure of their properties.

Subsequently, at least two petitions were submitted to the City calling for two-way traffic on Main Street. At the Council's meeting in March 2006, they discussed one such petition and asked for more information. Subsequently, Lynch's Landing reached out to Downtown stakeholders in 2007 to offer a summary report (provided in information to current Council) **that stated 50%-55% of the stakeholders responded with support for two-way traffic downtown. However, this was not a tipping point for multiple reasons that action was never taken.** Now that the utility line has been replaced and the streetscape improvement projects, I believe it is now time to take some action. Some of the information provided to Council in the form of articles and documents made the connection between the opportunities of the streetscape project and make the conversion to allow two-way traffic, which would more of an impact than just the conversion alone. These two taken together can have a significant impact on economic development.

One of the priorities of the Downtown Master Plan was to encourage economic development and comments that the City has been very successful in doing this. The assessed property value has more than doubled, multiple building have been converted, new businesses open up downtown, and yet there is still a large amount of vacant space

in Downtown particularly at the street level out of empty storefronts. The development Downtown and the potential is increasingly becoming a destination for residents and visitors, Mr. Payne argues it is important that the City continues doing what it has done for 15 years to continue to put the public structure and processes in place to support the private sector in continuing to develop the private property that is Downtown. And the City has done that with a million dollar yearly investment for infrastructure, what happens on the streets, and parking to further develop private property downtown. Despite the progress made in the last 15 years, one-way streets that limit storefront exposure, that facilitate high traffic speeds, are detrimental to pedestrians and customers, and they have hindered further development.

Why convert to two-way traffic. (Shows slide) These are the areas that will show improvement according to the literature: increased property values, slower pedestrian traffic, and storefront exposure. Travelers see more when they are moving at a slower speed. We no longer have major storefronts like a Leggett's or Sear's Downtown. Those are not coming back downtown, but we do have a lot of small businesses. Safety demonstrated in the literature states that crime has gone down. More activity on the street reduces crime.

This information was also shared at the Community Outreach meeting on May 23rd with Downtown stakeholders at the Holiday Inn. Council Member Nelson was in attendance when the following benefits were stated: I don't remember seeing any other Council Member at that meeting.

- Traffic calming
- Less confusing for visitors and tourists
- Easier to navigate Downtown
- Downtown is a destination, not a thru-way
- Improved access to Downtown businesses
- Improved businesses visibility and storefront exposure
- Reduced vacancy rates

Due to factors such as the suburbanization of America (the sprawl), the Downtown area served primarily as a place where people come to work, not a destination, and then they leave to shop, recreate, and explore cultural events elsewhere. Now that Downtowns are becoming more of a destination, a place where people want to live and enjoy the amenities of Downtown, we need to provide a destination. City Manager commented on the number of residential lofts that are open, yet they are still having a difficult time filling the storefronts. I believe it is the City's responsibility to provide the proper environment for the storefronts to be successful.

Mr. Payne challenged his staff to find an article that explores how the situation worsened after a two-way traffic conversion was created. The available literature has favorably stated the positive benefits of such changes. (three links provided) There will be challenges that arise:

- Managing and enforcing delivery times may be challenging
- Increased need for loading zones for peak deliveries
- Cost
- Learning curve for downtown drivers
- Alternate routes through downtown from Rivermont to 29
- Increased time to move across downtown?

Changing people's habits is very difficult. We have buildings without alleys, which makes it difficult to load and unload goods and schedule deliveries. Also, allowing people to park to patronize businesses and changing the loading zone times so as not to disrupt business peak hours. There are costs, primarily stoplights that must be included (5th Street, 12th Street, etc.).

We have completed travel studies (2005 and one more recently) and found that creating a two-way street will increase travel times by 20 second when traveling from 5th Street to 12th Street. These studies and images show the blind spots that get erased without two-way traffic patterns which Maggie Cossman showed a slide of the two-way traffic on Church and Main Streets, not having two-way traffic patterns is really a detriment to these storefronts, which is also preventing future developments.

They also completed studies of both Church Street and Main Street to make sure they put in these ideas. When this proposed plan was shown to the stakeholders at the Holiday Inn meeting, business owners could identify their property, parking spaces, and loading zones to see how the two-way traffic plan would help. The streetscape and Phase I also keep these ideas in mind. **The earliest it could be implemented is September of 2017.** with consideration for the utility line project underway now. A two-way traffic pattern will appear on Church Street tomorrow because we must find a way to get the traffic back into the parking lot at the Allied Arts building (traffic moving in the opposite direction) As part of our plan, such changes will occur.

Mayor Gillette asked City Manager Mr. Payne, how can one enter and leave downtown given the split coming down Rivermont. He suggested there are several options (shorter and longer) to address this issue. Switching the traffic so that each leg will have two-way traffic patterns, also, the roundabout on Rivermont, on both 5th Street and Church Street. The analysis showed the best option is to keep the split two-way traffic pattern at the Morrison Garden. **The final recommendation is to implement two-way traffic on Church Street and Main Street to keep the traffic by the Morrison Garden area as it is and to observe how traffic is flowing once we make the conversion. Phase II could be a roundabout at the Rivermont Bridge end and the Morrison Garden.**

Council Member Perrow thanked Mr. Payne on his level of study and expertise that was done on this project. He expressed concern over the loading zones and concerns over other factors such as emergency vehicles and disabled vehicles. I don't know if it was included but if staff has any recommendations specially addressing loading zones they could refer the articles also.

The emergency vehicles are a different matter because they show up in an emergency and they are taking this into consideration even though this is a temporary situation. He is aware the uses of the buildings could change on the ground floor. Removing parking spaces to add a loading area or vice versa are also parts of the discussion. There are lots of ways to get creative with the streetscape changes as the building use changes. The

Downtown will no longer be stagnant. We want to promote a positive business environment at the street level.

Two comments: You may be aware the Tiger grant is an innovation way for loading zones, to use the loading zones especially in the 900 block of Main Street, utilizing the Midtown Parking deck, constructing a freight elevator on Commerce Street at the end of the Midtown parking deck and then putting a permanent ament loading zone on Commerce Street where they could unload. I wanted to know how this works in Charlottesville, (there is no parking on the downtown mall) they are not equipped to handle tractor trailers on the side streets, they use side streets and don't have allies behind their buildings. They made great use of the carts to roll their goods and trash out of the building.

We are allowing parking in front of the businesses and I think that is an enhancement than what they are doing in Charlottesville and by any stretch the store fronts in Charlottesville ae knocking it out of the park.

Mayor Gillette said we need to move on and this was just an information briefing on two-way traffic, an opportunity (you all) in 2017 and beyond.

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **June 14, 2016**

AGENDA ITEM NO.: 14

CONSENT:

REGULAR: **X**

WORK SESSION:

CLOSED SESSION:

(Confidential)

ACTION:

INFORMATION: **X**

ITEM TITLE: **Conversion to Two-Way Traffic on Church and Main Streets**

RECOMMENDATION: No action required.

SUMMARY: Staff will provide an overview of the plan to convert Church and Main Streets from one-way to two-way traffic.

The conversion of Church and Main Streets from one-way to two way traffic has been an item of discussion since the development of the Downtown and Riverfront Master Plan at the beginning of the millennium. The master plan indicated an interest in two-way traffic on the part of downtown retail merchants in order to slow traffic and increase exposure. Subsequently, at least two petitions were submitted calling for two-way traffic on Main Street. At its meeting of March 28, 2006, City Council discussed one such petition and asked for more information. Subsequently, Lynch's Landing conducted outreach to downtown stakeholders and in 2007 provided a summary report on support for the two-way conversion (copy attached). For multiple reasons, although interest in the conversion has continued, a tipping point to take action was never achieved. Now, with the utility line replacement and streetscape improvement project, it is time to act.

One of the priorities of the downtown master plan was to promote economic development and significant success has been realized. Multiple buildings have been converted to loft apartments and new businesses have moved downtown. Most noteworthy, the assessed value of downtown properties has more than doubled since the plan's adoption in 2001. Yet, there is still a large amount of vacant space in downtown buildings, particularly at the street level. An adage of economic development that "retail follows rooftops" is also applicable to downtown revitalization. Furthermore, as downtown increasingly becomes a destination for residents and visitors there is an opportunity for further retail development. It is contingent upon the City to manage its infrastructure, especially its streets, parking and traffic patterns, to promote the further development of the private property downtown. Despite, the success of the last fifteen years, an argument can be made that further retail development is hindered by one-way streets that limit storefront exposure, facilitate high traffic speeds, and are detrimental to customer and pedestrian comfort and convenience.

The overriding goal of the two-way traffic conversion is to promote the further development of downtown businesses by increasing exposure, enhancing the pedestrian experience, and strengthening the image of downtown Lynchburg as a destination for residents and visitors alike to enjoy the culture, recreation and history of a downtown environment. As pointed out in some of the literature on two-way traffic conversion, doing so in concert with a major streetscape improvement project presents an opportunity that may increase the benefits.

If the plan proceeds, the earliest that conversion would occur is Fall 2017, concurrent with the completion of the first phase of the utility line replacement and streetscape improvements.

The attachments provide further information on the planned two-way conversion. Staff will discuss this information and be prepared to answer any questions during the Council meeting.

PRIOR ACTION(S): May 22, 2001, Adoption of the Downtown and Riverfront Master Plan; March 28, 2006 Council meeting, petition for two-way traffic discussed; October 14, 2014, Physical Development Committee Meeting; May 23, 2016 meeting of downtown stakeholders.

FISCAL IMPACT: Still being determined; preliminary estimate is \$1-1.5 million. The main costs will be related to signage, striping and the replacement of traffic signals.

CONTACT(S): Kimball Payne, City Manager, 455-3990; Gaynelle Hart, Director of Public Works, 455-4406; Lee Newland, City Engineer, 455-3947; Maggie Cossman, Traffic Engineer, 455-3935.

ATTACHMENT(S): Presentation on Two-Way Traffic Conversion; Lynch's Landing Report, 2007; Streetscape and Two-Way Traffic Plan; Three articles on two-way conversions; Traffic studies (2);

REVIEWED BY: lkp

086K

Sec. 25-37. - Powers of city manager—Generally.

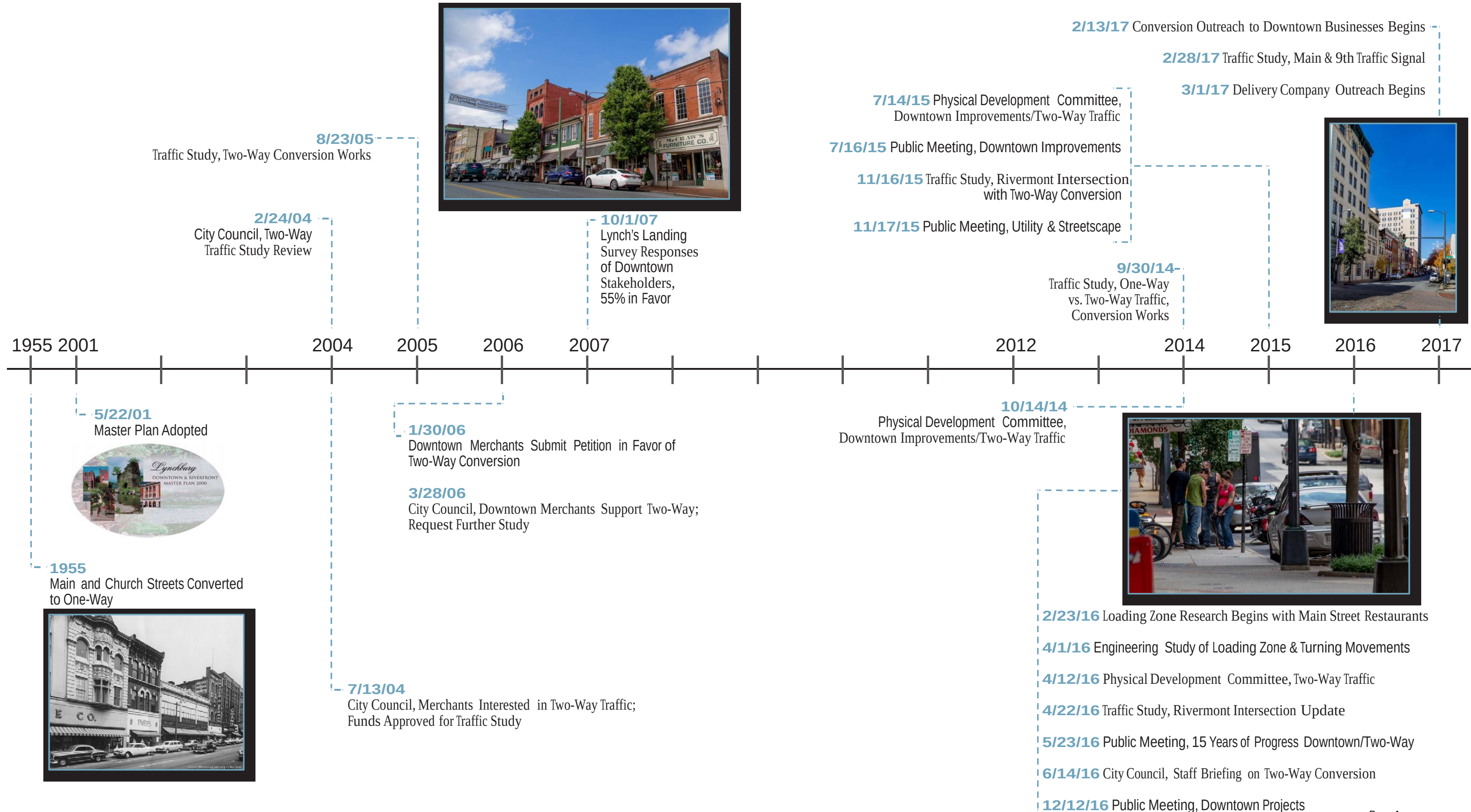
The city manager shall have general supervision and control of the management and direction of all vehicular and pedestrian traffic and of the parking and routing of vehicles in the interest of the public safety, comfort and convenience not inconsistent with the provisions of Code of Virginia, Title 46.2. The city manager may cause appropriate signs to be erected and maintained, designating residence and business districts, school, hospital and safety zones, highways and railway crossings, arterial streets, arterial stops, turns at intersections, traffic lanes and such other signs as may be necessary to carry out the provisions of this chapter. The city manager shall have power to regulate the traffic by means of traffic officers or semaphores or other signaling devices on any portion of the highway where traffic is heavy or continuous, or where in his judgment conditions may require, and may prohibit other than one-way traffic upon certain highways, and may regulate the use of the highways by processions and assemblages. The city manager shall have the power to regulate the parking and stopping of vehicles on the public streets including the power to establish restricted parking areas. The city manager may adopt any such regulations not inconsistent with the provisions of this chapter which shall be deemed advisable and necessary, including the repeal, amendment or modification of any such regulations; provided, however, that such regulations, laws or rules shall not be deemed to be violated, if at the time of the alleged violation any sign or designation required under the terms of this chapter is missing, effaced, mutilated or defaced so that an ordinarily observant person under the same circumstances would not be apprised of or aware of the existence of such rule.

(Code 1959, § 20-3; Ord. No. O-95-242, 12-12-95)

Cross reference— Manager, § 2-96 et seq.

State Law reference— Powers of local authorities generally, Code of Virginia, § 46.2-1300 et seq.

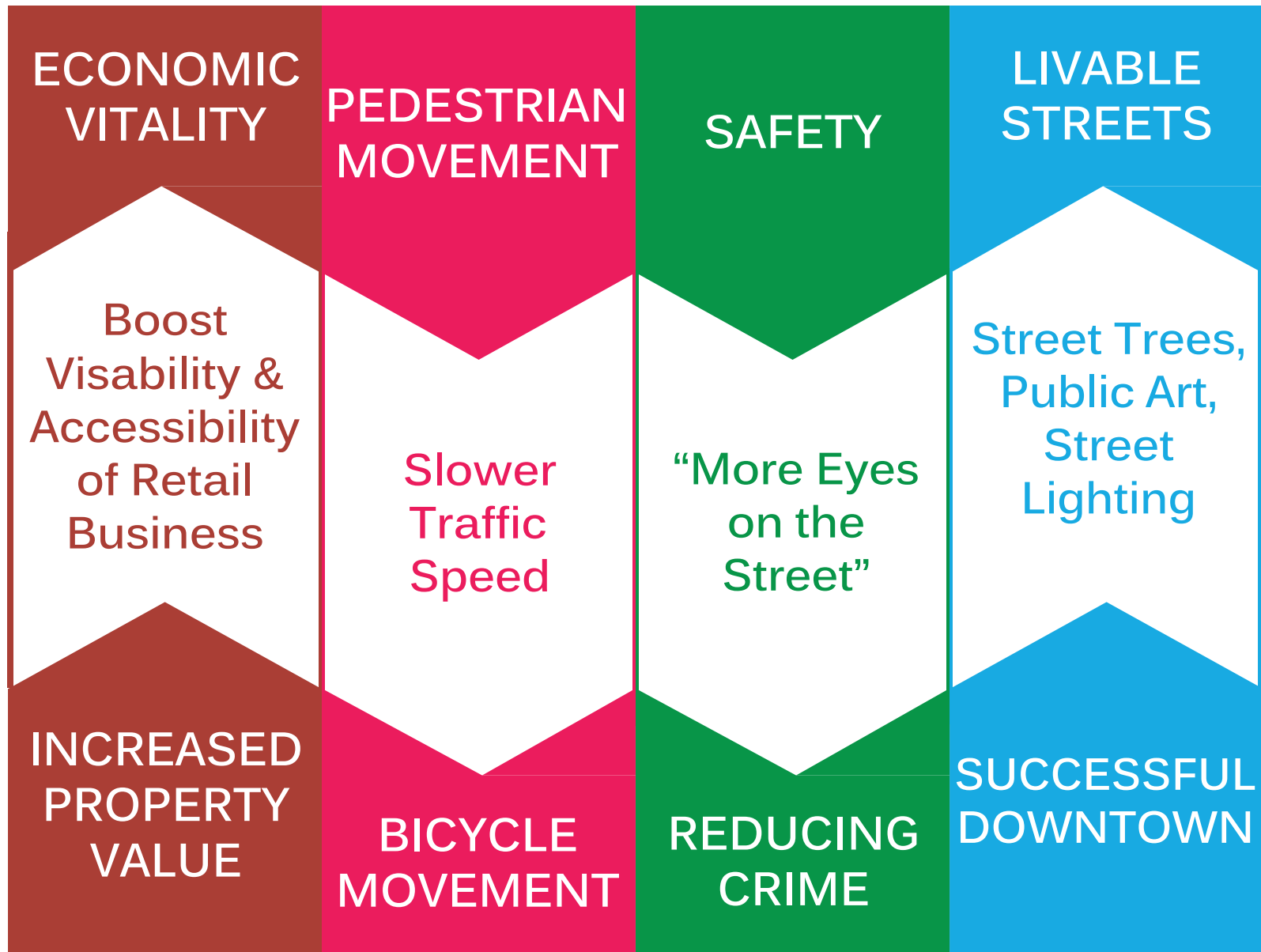
DOWNTOWN TWO-WAY TRAFFIC CONVERSION TIMELINE



Downtown Two-Way Traffic Conversion Timeline

DATE	ACTION
1955	Main and Church Streets converted to one-way
5/22/2001	Master Plan Adopted
2/24/2004	CC 2Way Traffic Study Review
7/13/2004	CC Merchants interested in 2Way traffic; proceed with further study
7/13/2004	CC Agenda Item, Funds approved for traffic study
7/13/2004	CC Minutes on merchant interest; study funds approved
8/23/2005	2Way Study, Conversion Works
8/23/2005	Memo from Enginnering Consultant on Traffic Analysis, conversion works
3/28/2006	CC Downtown Merchants support 2Way; request further study
3/28/2006	CC Agenda Summary; Determine approach to consider a petition to re-establish 2Way
3/28/2006	Downtown Merchant Petition
3/28/2006	CC Minutes on LL merchant petition
7/1/2007	Lynch's Landing Report in support of 2Way
10/1/2007	LL Survey Responses to Downtown Stakeholders
9/30/2014	EPR Study of One-Way vs 2Way Traffic
10/14/2014	PDC Downtown Improvements/2Way Traffic
7/14/2015	PDC Downtown Improvements/2Way Traffic
7/16/2015	Public Meeting, Downtown Improvements
11/16/2015	EPR Study of Rivermont Intersection
11/17/2015	Public Meeting, Utility & Streetscape
2/23/2016	Loading Zone Research begins with Main St. restaurants
4/1/2016	WRA Study of Loading Zone & Turning Movements
4/12/2016	PDC 2Way Traffic
4/22/2016	EPR Study of Rivermont Intersection Update
5/18/2016	Press Release for 2Way Public Meeting
5/18/2016	News & Advance Article on 2Way Public Meeting
5/20/2016	2Way tab added to Utility & Streetscape website
5/23/2016	Public Meeting, 15 Years of Progress Downtown/2Way
5/23/2016	News & Advance Article on 2Way Public Meeting recap
6/14/2016	CC Agenda Item, Staff Briefing
6/14/2016	Powerpoint Presentation
11/28/2016	Press Release for Downtown Projects Public Meeting
11/29/2016	News & Advance Ad for Downtown Projects Public Meeting
12/5/2016	Press Release Reminder for Downtown Projects Public Meeting
12/6/2016	News & Advance Ad for Downtown Projects Public Meeting
12/12/2016	Public Meeting, Downtown Projects
1/5/2017	Engineering and LPD 2Way Update meeting
1/17/2017	Communications/Marketing and LPD 2Way Update meeting
1/31/2017	Implementation Plan Draft for 2Way Conversion
2/1/2017	Invitation to Bid Issued
2/13/2017	Conversion outreach to downtown businesses begins
2/22/2017	Engineering and LPD 2Way Update meeting
3/1/2017	Delivery company outreach begins

TWO-WAY STREET CONVERSION



Two-Way Street Conversion as a Downtown Revitalization Tool

Traffic Engineers have evaluated the conversion of streets from one to two-way and it will work on a practical level. Staff and consultants have identified and modeled turning movements, traffic flow, loading zones, and on-street parking on Church and Main Streets.

One-way streets allow for greater traffic and higher automobile speeds, while two-way streets provide the same functionality, while also increasing pedestrian safety and business visibility, essentials for successful downtowns.

According to research, over 100 cities in America have converted to two-way as a method of traffic calming in their downtown core.

Economic Vitality

The most important reason for changing the traffic flow of a downtown is to improve the economic well-being of the commercial district and, more specifically, to boost the visibility and accessibility of the retail segment. In this regard making the circulation system more “customer friendly” is a prerequisite in increasing the retail of downtown and appealing to investors and merchants who are interested in coming to main street.

Safety

Two-way conversion improves the livability of a neighborhood by significantly reducing crime due in part to more “eyes on street”. A study in the City of Louisville found three years after the conversion crime dropped 23%. Auto theft dropped 36% while robberies dropped 42%.

Increased Property Value

Due to overall economic vitality and crime reduction, property values in the downtown area see an increase. Property owners take pride in ownership and neighbors demand property cleanliness and upgrades to building facades. Livable streets equal neighborhood prosperity especially when coupled with proven infrastructure improvements, such as street trees, public art, and street lighting.

Pedestrian Movement

Changing the downtown environment better serves pedestrian movement for residents and visitors. Two way streets are perceived to be narrower thereby slowing traffic which allows for more visibility to drivers. For instance, at 30 mph, the driver begins to see things at the road's edge; and at 20 mph the foreground comes into focus. At 15 mph, motorists see pedestrians and other elements on adjacent buildings. This translates into safer streets for pedestrians.

Bicycle Movement

Two-way traffic also reduces conflicts between autos and bicycles as traffic speeds are slower and allow for bicyclists to remain with the flow of traffic. All-way stops further the decrease in conflicts as driver awareness is elevated when they look to the left and right before proceeding.

Loading Zones

Loading zones will be identified on a per block basis to serve deliveries to the businesses. These zones will be designated with signs and enforced by Parking Management staff. An all-day loading zone is proposed on Commerce St. where drivers can then access the elevator in the midtown deck.



Two-Way Traffic Stakeholder Briefing

March 20, 2017



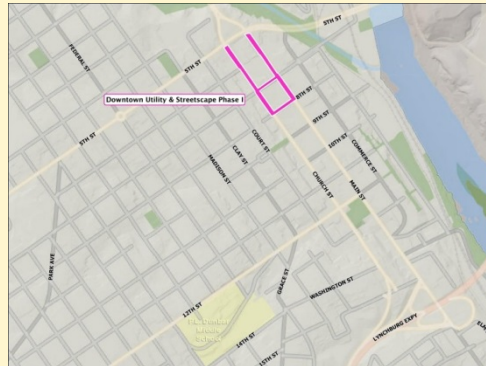
Projects

- Downtown Utility and Streetscape – Phase 1
- Community Market Deck Replacement
- Two-Way Street Conversion
- Main Street Bridge Replacement
- Fifth Street Improvements – Phase III
- Downtown Water and Streetscape – Future



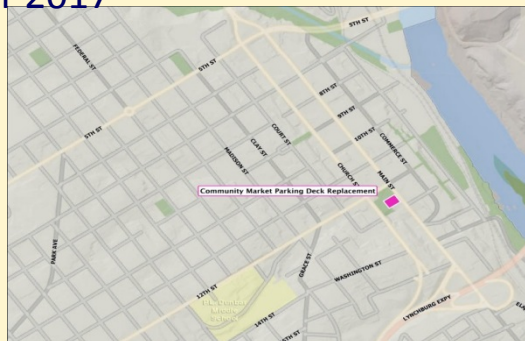
Downtown Utility and Streetscape

- Driven by aging water infrastructure
- Also includes improved streetscape appearance
- Complete Fall 2017



Community Market Deck

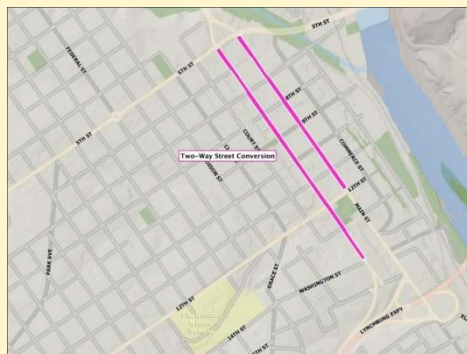
- Driven by aging infrastructure
- Also includes minor plaza improvements
- Complete Summer 2017





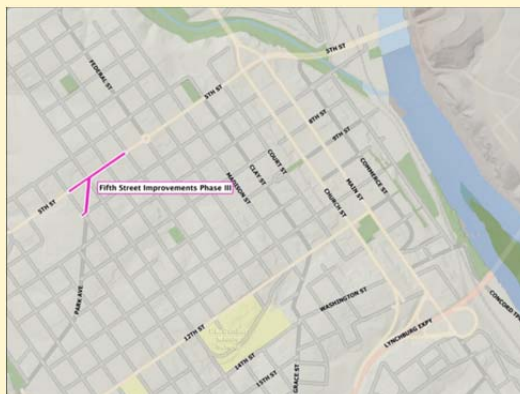
Two-Way Street Conversion

- Driven by improved:
 - business visibility
 - traffic safety
 - pedestrian access
 - less through traffic



Fifth Street Improvements

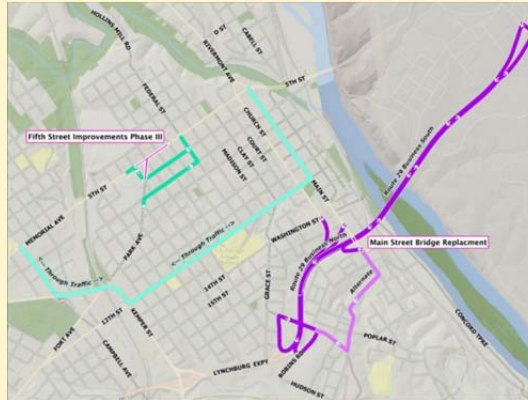
- Driven by aging water infrastructure
- Also includes improved streetscape appearance
- Schedule – Begins October/November 2017





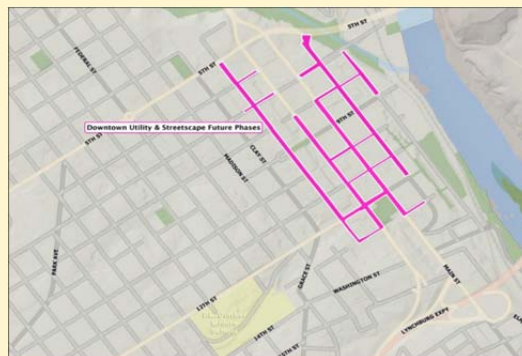
Main Street Bridge Replacement

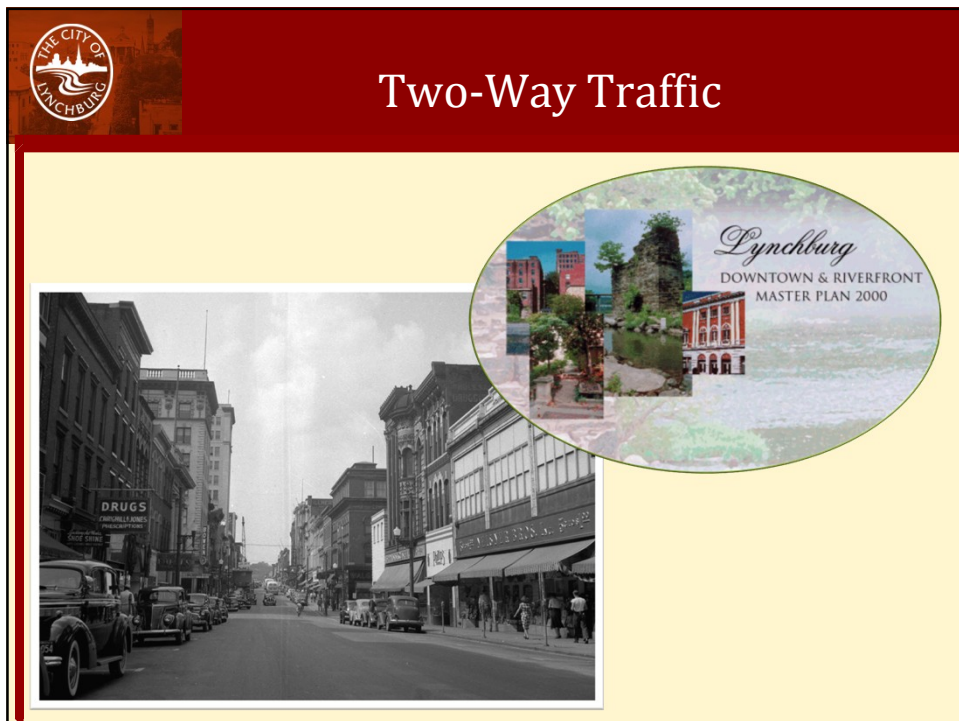
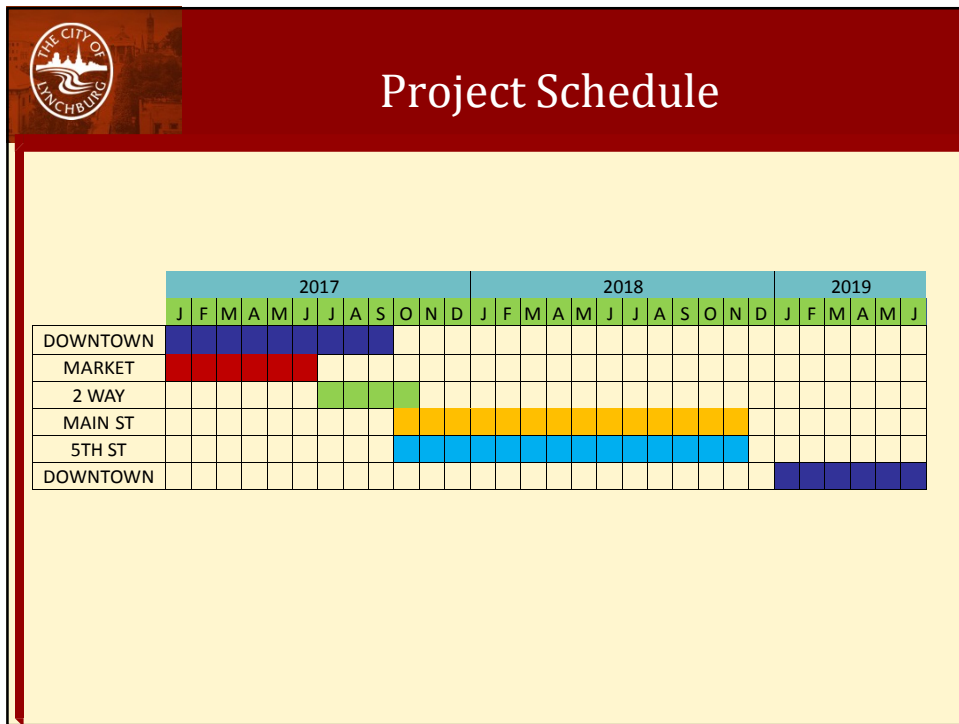
- Driven by structural concerns
- Also includes improved gateway appearance
- Schedule –
Begins October/
November 2017



Downtown Utility and Streetscape

- Master Plan Update to determine next phase
- Driven by aging water infrastructure
- Improved streetscape appearance
- Schedule –
Begins Winter
2019







Two-Way Traffic Conversion

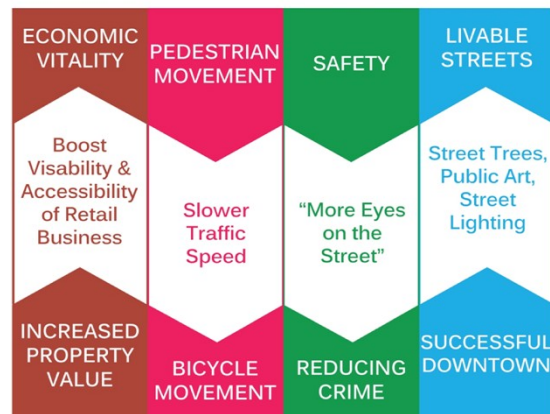
- **Four Public Meetings**
 - 7/16/2015, 11/17/2015, 5/23/2016, 12/12/2016
- **Three City Council Briefings**
 - 7/13/2004, 3/28/2006, 6/14/2016
- **Three City Council Physical Development Committee Meetings**
 - 10/14/2014, 7/14/2015, 4/12/2016
- **Six Traffic Engineering Studies**
 - 8/23/2005, 9/30/2012, 11/16/2015, 4/1/2016, 4/22/2016, 2/28/2017
- **Thirty Individual Outreach Meetings since 2/1/2017**



Why Two-Way Traffic?



TWO-WAY STREET CONVERSION





Benefits

- Improved business visibility and storefront exposure
- Traffic Calming
 - Slower-paced streets offer better shopping and dining experiences
 - Improved pedestrian environment
- Less confusing for visitors and tourists
- Easier to navigate downtown
- Improves road network and access to downtown business
- Downtown is a destination – not a thru way



Benefits

- Reduced vacancy rates
 - A 2001 study for Hyannis Main Street studied 22 cities that had converted from one-way to two-way and found that as a result of the change in traffic flow, the number of businesses located in the downtown increased.
 - Popular business locations benefit from two-way traffic:
12th & Main, Jefferson & Commerce Streets
- Opportunity with utility construction
- Improved access during construction



How Challenges Have Been

- Loading zones
 - Location: One per block
 - Enforcement: Lynchburg Police Department & Parking Management
- Emergency vehicle access
- GLTC bus stops
- Cost
- Learning curve for downtown drivers
- Alternate routes through downtown from Rivermont to 29



Detailed Implementation Plan

- One loading zone provided per block
- All-way stops at all intersections between 5th and 12th
- Outreach: Businesses, residents, delivery companies, emergency services, GLTC, City schools, general public
- Enforce loading zones: Police Department and Parking Management
- Convert Church Street, Summer 2017
- Convert Main Street, Fall 2017
- Monitor & adjust as needed



Closing

Questions?

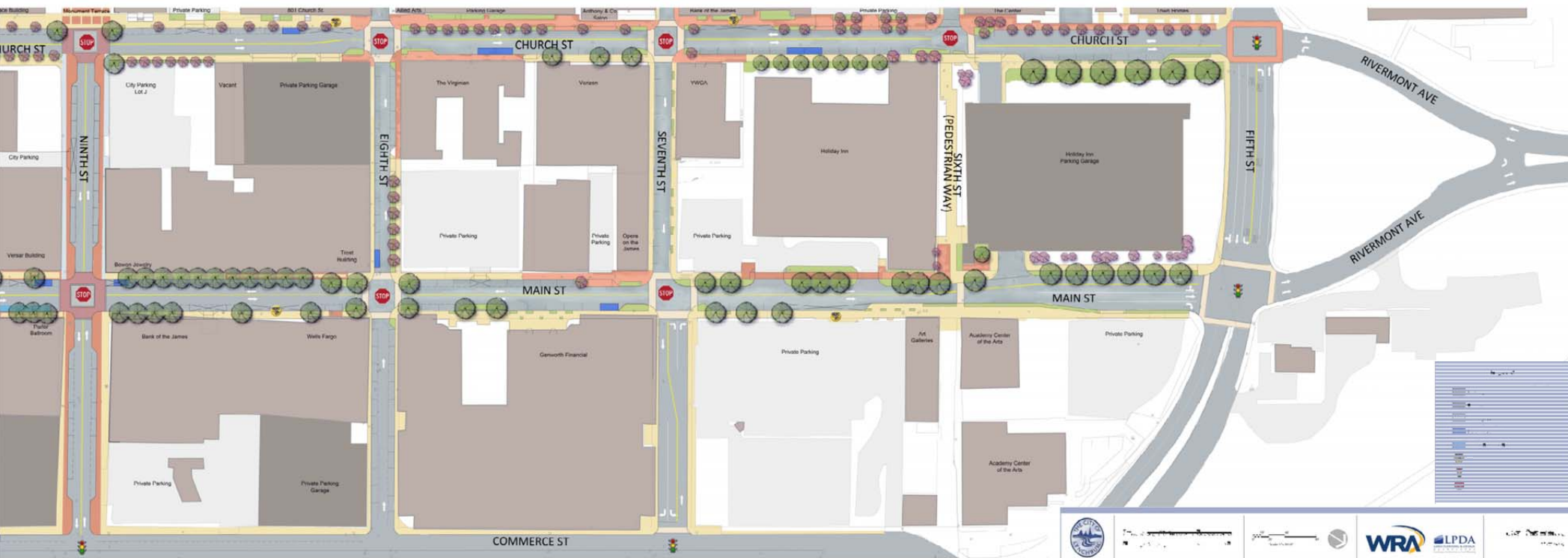
For individual outreach meetings regarding
Two-Way Traffic contact:

Heather Kennedy

(434) 528-3041

hkennedy@cella.cc

www.lynchburgva.gov/tuningupdowntown



**RESOLUTION OF THE BOARD OF DIRECTORS OF
LYNCH'S LANDING FOUNDATION
IN SUPPORT OF TWO-WAY TRAFFIC
ON MAIN STREET IN LYNCHBURG, VIRGINIA**

At a regular meeting of the Board of Directors of Lynch's Landing Foundation (the "Board") held on March 9, 2017, at which a quorum was present, the following preambles and resolutions were proposed and adopted:

WHEREAS, the City of Lynchburg (the "City") adopted the Downtown & Riverfront Master Plan 2000 in May 2001 (the "Master Plan") in order to guide revitalization in Downtown Lynchburg, and has devoted significant resources to execution of the Master Plan;

WHEREAS, stakeholder input was sought and received by the City for the Master Plan that included recommendations from Main Street retail merchants to "...implement two-way traffic to (1) slow traffic, and (2) double their exposure";

WHEREAS, numerous studies have recommended conversion of Main Street to two-way traffic patterns in downtown areas as a means to increase pedestrian safety, increase retail visibility, slow vehicular traffic speeds, increase bike-ability, and support residential living;

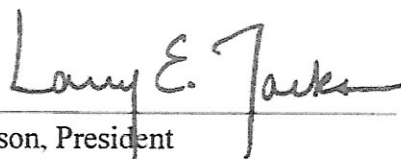
WHEREAS, implementation of the Streetscape project provides an excellent opportunity to create the infrastructure necessary to support two-way traffic patterns; and

WHEREAS, the Lynch's Landing Foundation, Lynchburg's downtown advocacy organization, supports the continued revitalization of Lynchburg's downtown; now therefore, be it

RESOLVED, that the Board of Directors of Lynch's Landing Foundation supports execution of the two-way traffic pattern provisions of the Master Plan as part of the current Streetscape project; and be it further

RESOLVED, that the Board supports the City's continued outreach to and interaction with downtown stakeholders to ensure a smooth return to two-way traffic in Downtown Lynchburg.

Given under my hand this 9th day of March 2017.



Larry E. Jackson, President

Attest:



Victoria Bartholomew, Secretary