



Water & Sanitary Utility Rate Study

PREPARED FOR

CITY OF SALEM
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Salem, New Jersey 08079

PREPARED BY

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October 2020

Executive Summary

In Spring 2020, the City commissioned Remington & Vernick Engineers (RVE) to complete an asset evaluation of the water and sanitary utility systems. The purpose of the study was to identify the current and long-term needs of the system and to develop a plan to *sustain* the system and provide safe and reliable service to the customers of the City. It should be noted that the goal of the evaluation was to not create a perfect system but to create a reliable system that was compliant with regulatory health and safety requirements. A product of the evaluation was the development of a 20-Year Capital Improvement Plan which outlined the work necessary to achieve these goals.

Subsequent to the asset evaluation and 20-Year Capital Improvement Plan, RVE completed a rate study for the City Water and Sanitary Utilities. The rate study was completed to establish the current financial status of the City Utility System. In recent years, the City has made improvements to the system which has resulted in taking on debt service to fund the improvements. However, the asset evaluation identified specific improvements which were necessary to *sustain* the utility systems. The rate study was completed to determine the financial impacts that these improvements would have on the current and future customer of the utility system.

The rate study compared current and projected expenditures to projected revenues through 2041. It also considered existing debt service, operating costs and capital improvement needs. The projected debt service was based on the 20 Year Utility Capital Improvements Plan and is reflected in the recommended rate structure.

The current rate structure was adopted by ordinance by the Mayor and Council in 2014 which outlines rates and no rate increase has occurred since. Even without any consideration to the long-term capital utility improvement needs and the associated debt service, rate increases are strongly recommended to balance future revenues with anticipated expenditures.

Operating and maintaining water and sewer infrastructure is important to the wellbeing, health and safety of a community. Due to the age of water and sewer system components, future capital projects are needed to ensure uninterrupted operations in compliance with the various environmental regulations. Given the aging utility infrastructure and the current rate structure, increased rates are necessary for the sustainable operation and maintenance of the infrastructure. Based upon the 20 Year Capital Improvements Plan, various rate structures are provided in Appendix A and B which outlines the financial impact to customer as well as projected debt service as the end of the 20-Year study period.

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Section 1 - Introduction

The City of Salem (City) is located in Salem County, New Jersey. It covers approximately 2.8 square miles of area and has approximately 5,000 residents. The City owns and operates their own potable water supply, water treatment plant, water distribution system, a series of sanitary sewer lift stations, a sanitary sewer conveyance system, and a wastewater treatment plant. The City currently serves approximately 2,310 customers.

In March 2020, the City authorized Remington & Vernick Engineers to tour their existing utility facilities, review current records, and interview utility personnel to prepare an evaluation of the existing utility facilities. Included in the evaluation of the system was an analysis of both above ground and below ground infrastructure. The condition of existing infrastructure based upon known age, recent improvements/upgrades, repair /emergency response records, operational/maintenance records, interviews with the operator and physical observations were utilized to evaluate the system.

The intent of the evaluation was to provide a summary of the City of Salem major utility facilities and present findings and recommended improvements regarding the physical condition, operation, and maintenance of these facilities. Included in the recommendations was the development of a 20-Year Capital Improvement Plan (CIP) that outlined the minimum amount of work necessary for the long-term sustainability of the system. Subsequent to the asset evaluation and 20-Year CIP, the City commissioned RVE to develop a financial analysis of the impacts that the required improvements would have on the utility customers of the City of Salem.

While it is desired to maintain the current rate structure, preventive maintenance, repairs and capital improvements are needed to protect the infrastructure and maximize its useful life. Since public health, safety and environmental protection are at stake, continuous operation of the public water supply and sanitary sewer systems are essential. It is important for revenues to equal or exceed expenditures and create a small excess to add to a surplus account for emergency events. A surplus or reserve should be maintained to fund unplanned events that disrupt water and sewer services.

The City of Salem has a large amount of infrastructure to maintain particularly when considering the customer base. While the outlined CIP will assist in preventing unplanned improvements, emergencies cannot be avoided. To assist in negative impacts to the utility budget, it is recommended that the utility reserve of no less than \$100,000 should be maintained.

Section 2 - Capital Improvement Plan

Future capital improvement projects and the associated debt service have a significant impact on the proposed rate structure. To hold or minimize utility rates is important to maintain a limit to the debt service. Ideally projects are scheduled in conjunction with retirement of existing debt. However, looking at the City's current remaining utility debt service, it will be more than ten (10) years before a significant reduction is experienced. Furthermore, a long-term capital utility improvements plan consisting of multiple system upgrades each year is recommended due to the age of water and sewer system components.

The projected debt service was based on the 20 Year Utility Capital Improvements Plan, which was prepared by Remington & Vernick Engineers in 2020. The Capital Improvements Plan consisted of a comprehensive evaluation of the existing water and sanitary facilities. It included an analysis of above ground and below ground infrastructure based upon known age, recent improvements, repair /emergency response records and operational and maintenance records. The intent of the evaluation was to provide a summary of the City's major utility facilities and identify capital improvement needs. Considering many of the existing facilities are aged, some having been constructed in the early 1900's which are still in service today, the implementation of a long-term capital utility improvements plan is highly recommended.

Based upon the 20 Year Capital Improvements Plan, it is estimated that the annual cost of the capital improvements over the next 20 years will cost an *average* of \$944,665 per year. It should be noted that this represents a very conservative improvement schedule which was developed to merely sustain the utility.

Annual Estimated Capital Improvement Costs (above grade infrastructure)	\$638,415
Annual Estimated Water Distribution System Improvement Costs	\$187,500
<u>Annual Estimated Sanitary Conveyance System Improvement Costs</u>	<u>\$118,750</u>
Total Annual Estimated Utility Capital Improvement Budget	\$944,665*

** Does not include the annual Operation Budget, current Debt Service or additional utility personnel

Section 3 - Existing Water Utility Summary

The existing water supply, treatment and distribution system consists of four (4) actively permitted water supply wells, one (1) water treatment plant, one (1) elevated water storage tank, one (1) standpipe, and the water distribution system. The age of the water system infrastructure ranges from 1880 to more recent improvements completed as recent as 2014.

The City provides water service to the residents of the City of Salem as well as portions of Quinton Township and Mannington Township. The City owns and operates the infrastructure in the outlying service area including the responsibility of responding to emergency calls. In general, the water supply, treatment, and pumping facilities are noted to be a mixture of newer infrastructure and older infrastructure which is nearing the end of its useful life.

The Water Treatment Plant was constructed in 2012 for the treatment of both surface water and well water. Prior to its construction, the wells were treated at each well site and pumped directly to the water distribution system. The surface water had been pumped to the previous water treatment plant, located on the same site, and then pumped into the water distribution system. The new Water Treatment Plant is comprised of four membrane filters for ultrafiltration, diffused aerators for oxidation, two ultraviolet (UV) units for disinfection, addition of sodium hydroxide and sulfuric acid for pH adjustment, aluminum chlorohydrate for coagulation, powdered activated carbon for taste and odor, Klephos 300 for sequestration and sodium hypochlorite for post chlorination. A clearwell and set of high service pumps provide for the appropriate chlorine contact time and distribute the treated water. The plant is designed to treat 2 MGD.

In 2014, the City began receiving taste and odor complaints from its residents. The source of the taste and odor complaints was determined to be from use of the surface water treatment system, which was subsequently shut down. Surface water has not been pumped and treated at this facility since. In order to use the surface water available, the plant needs to be upgraded to address the taste and odor concerns from use of the surface water through the installation of additional filters or other equipment.

The water distribution system consists of approximately 21 miles of water main. The water main infrastructure has not been mapped in GIS format. As part of the Water Quality Accountability Act (WQAA), the City is responsible for mapping water infrastructure in GIS format.

Based upon the existing water system mapping, the breakdown of the existing main by diameter is estimated as follows:

Pipe Diameter	Approx. % of System
12+\" Diameter	50%
8\" Diameter	20%
6\" Diameter	20%
4\" Diameter	10%

As indicated by the table, approximately 10% of the water main is smaller than 6\" diameter; the minimum recommended size for distribution and fire suppression requirements based upon the City's current daily demand. For planning purposes, the initial focus was on the areas where there is smaller diameter water main. The replacement of this older and smaller diameter water main equates to approximately \$187,500 annually for improvements. It should be noted that the improvements do not account for other sections of the City and are considered to be conservative given the age and current condition of the infrastructure.

Section 4 - Existing Sanitary Utility Summary

The existing wastewater collection and pumping system consists of three (3) sanitary lift stations, the associated force main, and gravity sewer mains. The City owns and operates a Wastewater Treatment Plant for the treatment of the sanitary sewerage.

The Water Treatment Plant was near the intersection of Grieves Parkway and West Front Street. The Wastewater Treatment Plant is permitted for up to 1.4 MGD. The age of most of the major treatment components are estimated to be 40 years old.

The treatment system consists of the following:

- Screw Pumps with screen system
- Orbal Tank
- Clarifiers
- Digester Tanks
- Effluent Tank

In general, during the inspection of the facilities, much of the equipment was in need of repair and rehabilitation and portions of the system were not operational. Routine planned upgrades to the plant will help eliminate unforeseen failures and streamline the operational process.

Similar to the water distribution system, the wastewater collection system is a mixture of newer and older components. The existing sanitary system estimated at 15 miles of gravity main and approximately 2 miles of force main associated with the lift stations. The majority of the sanitary collection system is 6" and 8" pipe. Many of the City's original sewer sections remain in their original form. These older areas of the system are significant sources of infiltration which creates undue burden on both the pump stations and the wastewater treatment plant.

Section 5 - Proposed Rate Structure

Sufficient funds are not available for the routine maintenance, upgrades and long-term planning of the water and sewer infrastructure. Due to the age of the existing water and sewer facilities, a long-term capital utility improvements plan is needed to ensure continuous operation of the public water supply and sanitary sewer systems. Based upon the 20 Year Capital Improvements Plan, it is estimated that the annual cost of the capital improvements over the next 20 years will cost an average of 944,665 per year. It should be noted that this is the minimal amount of work required to sustain the system. Accordingly, it is recommended that additional funds be allocated by the City, if feasible, to add to the upgrades of the utility systems.

Given the condition of the utility infrastructure and the current rate structure, increased rates are unavoidable. The City currently budgets \$20,000 annually for capital improvements, maintenance and repairs. In addition, the utility currently carries approximately \$16 million of debt service for previous improvements completed to the utility system. Considering the current utility rates and an annual estimated utility capital improvement budget of \$944,665, the City's utility account is unable to fund the necessary capital improvement projects under the current rate structure. For the purpose of this rate study, additional debt service resulting from the 20 Year Capital Improvements Plan was projected through 2041. The projected debt service for the proposed capital improvements would increase each year over the next 20 years and reach an annual cost of approximately **\$1,701,913 in year 20** which equates to approximately 1/3 of the rents collected by the utility or a total debt incurrence of **\$50,055,062**. A schedule of the proposed debt service is included as Appendix C while the existing debt service is outline in Appendix E.

Annual projected revenues and expenditures through 2041 are shown in Attachment A. This schedule considers the existing debt service, in addition to the recommended capital improvement projects needed to address aging infrastructure. Based upon the 20 Year Capital Improvements Plan, **Scenarios 1 -5**, were developed to show various funding mechanisms and the resulting rate increase to fund the existing debt service and proposed debt service. The current water and sewer service user fees were adjusted based upon the recommended rate increases. Schedules showing the proposed water service and sewer rates are included in Appendix B. Please note, connection fees were not considered as part of this study. Nevertheless, these fees should also be adjusted and should be increased to correspond to the proposed rate structure and as the debt service is defeased.

As previously shown, the water distribution and sanitary conveyance system replacement plan accounts for the majority of the annual utility fees over the next 20 years. It is important to recognize the importance implementing a replacement plan and the advantages of taking a pro-active approach. Not only is this approach cost effective, but it enhances the condition, performance and reliability of the utility system. This allows the City to begin the budgetary allocation for the strategic improvements to the water and sanitary infrastructure and make the necessary rate structure adjustments.

Appendix A

Utility Rate Analysis – Scenario 1 thru 6

RATE ANALYSIS - SCENARIOS 1 THRU 6

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Analysis 1 - Do Nothing; No New CIP, No New CIP Loans, No Rate Increases											
Total Expenses	3,647,450	3,497,622	3,356,401	3,324,372	3,374,960	3,406,205	3,458,702	3,510,042	3,561,370	3,615,638	3,670,992
Rate Increase	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
Annual Surplus (Deficit)	52,988	160,755	30,699	(12,308)	(70,041)	(101,286)	(153,783)	(205,123)	(256,450)	(310,719)	(366,072)
Beginning Fund Balance	525,315	578,303	739,058	769,757	757,448	687,407	586,122	432,339	227,217	(29,234)	(339,953)
End Fund Balance	578,303	739,058	769,757	757,448	687,407	586,122	432,339	227,217	(29,234)	(339,953)	(706,025)
Analysis 2 - Start 20-Year CIP, No New CIP Loans, No Rate Increases											
Total Expenses	3,647,450	3,497,622	3,356,401	3,324,372	3,374,960	7,973,867	5,670,046	8,847,653	4,618,068	4,904,852	5,245,452
Rate Increase	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
Annual Surplus (Deficit)	52,988	160,755	30,699	(12,308)	(70,041)	(4,668,948)	(2,365,127)	(5,542,734)	(1,313,149)	(1,599,933)	(1,940,533)
Beginning Fund Balance	525,315	578,303	739,058	769,757	757,448	687,407	(3,981,540)	(6,346,667)	(11,889,401)	(13,202,549)	(14,802,482)
End Fund Balance	578,303	739,058	769,757	757,448	687,407	(3,981,540)	(6,346,667)	(11,889,401)	(13,202,549)	(14,802,482)	(16,743,015)
Analysis 3 - Start 20-Year CIP, Obtain new Loans for CIP , No Rate Increases											
Total Expenses	3,647,450	3,497,622	3,356,401	3,324,372	3,374,960	7,973,867	5,670,046	8,847,653	4,618,068	4,904,852	5,245,452
Rate Increase	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	7,274,584	4,918,266	8,044,533	3,763,620	3,996,136	4,281,383
Annual Surplus (Deficit)	52,988	160,755	30,699	(12,308)	(70,041)	(699,283)	(751,780)	(803,120)	(854,447)	(908,716)	(964,069)
Beginning Fund Balance	525,315	578,303	739,058	769,757	757,448	687,407	(11,875)	(763,655)	(1,566,775)	(2,421,222)	(3,329,938)
End Fund Balance	578,303	739,058	769,757	757,448	687,407	(11,875)	(763,655)	(1,566,775)	(2,421,222)	(3,329,938)	(4,294,007)
Analysis 4 - Start 20-Year CIP, No New CIP Loans, Rate Increases											
Total Expenses	3,647,450	3,497,622	3,356,401	3,324,372	3,374,960	7,973,867	5,670,046	8,847,653	4,618,068	4,904,852	5,245,452
Rate Increase	0	0	0	0	0	100.00%	40.00%	15.00%	-50.00%	10.00%	5.00%
Total Revenues	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	5,513,844	7,679,382	8,816,289	4,458,145	4,893,959	5,133,657
Annual Surplus (Deficit)	52,988	160,755	30,699	(12,308)	(70,041)	(2,460,023)	2,009,336	(31,363)	(159,923)	(10,893)	(111,795)
Beginning Fund Balance	525,315	578,303	739,058	769,757	757,448	687,407	(1,772,615)	236,721	205,358	45,434	34,542
End Fund Balance	578,303	739,058	769,757	757,448	687,407	(1,772,615)	236,721	205,358	45,434	34,542	(77,253)
Analysis 5 - Start 20-Year CIP, Obtain new loans for CIP, Increase Rates											
Total Expenses	3,647,450	3,497,622	3,356,401	3,324,372	3,374,960	7,973,867	5,670,046	8,847,653	4,618,068	4,904,852	5,245,452
Rate Increase	N/A	N/A	N/A	N/A	N/A	5.00%	20.00%	3.00%	2.00%	4.00%	1.00%
Total Revenues	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	7,409,930	5,622,066	8,850,655	4,640,003	5,015,851	5,338,363
Annual Surplus (Deficit)	52,988	160,755	30,699	(12,308)	(70,041)	(563,937)	(47,980)	3,002	21,935	110,999	92,911
Beginning Fund Balance	525,315	578,303	739,058	769,757	757,448	687,407	123,471	75,491	78,493	100,428	211,426
End Fund Balance	578,303	739,058	769,757	757,448	687,407	123,471	75,491	78,493	100,428	211,426	304,338
Analysis 6- New 1-Year CIP, New CIP Loans, Rate Increases											
Total Expenses	3,647,450	3,497,622	3,356,401	3,324,372	3,374,960	30,050,924	4,783,251	4,834,591	4,885,918	4,940,187	4,995,540
Rate Increase	0	0	0	0	0	100.00%	45.00%	-40.00%	0.00%	-5.00%	-5.00%
Total Revenues	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	25,617,782	8,348,071	5,208,042	5,208,042	4,972,539	4,748,812
Annual Surplus (Deficit)	52,988	160,755	30,699	(12,308)	(70,041)	(4,433,142)	3,564,821	373,451	322,123	32,353	(246,728)
Beginning Fund Balance	525,315	578,303	739,058	769,757	757,448	687,407	(3,745,734)	(180,914)	192,537	514,661	547,013
End Fund Balance	578,303	739,058	769,757	757,448	687,407	(3,745,734)	(180,914)	192,537	514,661	547,013	300,285

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Analysis 1 - Do Nothing; No New CIP, No New CIP Loans, No Rate Increases															
Total Expenses	3,679,969	3,737,559	3,796,301	3,421,718	3,448,259	3,223,795	3,287,379	3,352,234	3,418,387	3,485,863	3,554,688	3,624,890	3,696,496	3,769,534	3,844,033
Rate Increase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
Annual Surplus (Deficit)	(375,050)	(432,640)	(491,382)	(116,799)	(143,340)	81,125	17,541	(47,315)	(113,468)	(180,944)	(249,769)	(319,971)	(391,577)	(464,615)	(539,114)
Beginning Fund Balance	(706,025)	(1,081,075)	(1,513,714)	(2,005,096)	(2,121,895)	(2,265,235)	(2,184,110)	(2,166,570)	(2,213,885)	(2,327,353)	(2,508,296)	(2,758,065)	(3,078,036)	(3,469,613)	(3,934,228)
End Fund Balance	(1,081,075)	(1,513,714)	(2,005,096)	(2,121,895)	(2,265,235)	(2,184,110)	(2,166,570)	(2,213,885)	(2,327,353)	(2,508,296)	(2,758,065)	(3,078,036)	(3,469,613)	(3,934,228)	(4,473,341)
Analysis 2 - Start 20-Year CIP, No New CIP Loans, No Rate Increases															
Total Expenses	4,745,433	4,478,956	4,555,783	3,876,616	4,174,514	3,614,762	4,042,974	3,947,392	4,221,978	3,909,058	4,372,569	4,065,183	4,547,419	4,227,614	3,844,033
Rate Increase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
Annual Surplus (Deficit)	(1,440,514)	(1,174,037)	(1,250,864)	(571,697)	(869,595)	(309,843)	(738,055)	(642,473)	(917,059)	(604,139)	(1,067,650)	(760,263)	(1,242,500)	(922,695)	(539,114)
Beginning Fund Balance	(16,743,015)	(18,183,529)	(19,357,565)	(20,608,429)	(21,180,126)	(22,049,721)	(22,359,564)	(23,097,619)	(23,740,091)	(24,657,150)	(25,261,290)	(26,328,940)	(27,089,203)	(28,331,703)	(29,254,398)
End Fund Balance	(18,183,529)	(19,357,565)	(20,608,429)	(21,180,126)	(22,049,721)	(22,359,564)	(23,097,619)	(23,740,091)	(24,657,150)	(25,261,290)	(26,328,940)	(27,089,203)	(28,331,703)	(29,254,398)	(29,793,512)
Analysis 3 - Start 20-Year CIP, Obtain new Loans for CIP , No Rate Increases															
Total Expenses	4,745,433	4,478,956	4,555,783	3,876,616	4,174,514	3,614,762	4,042,974	3,947,392	4,221,978	3,909,058	4,372,569	4,065,183	4,547,419	4,227,614	3,844,033
Rate Increase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	3,772,386	3,448,319	3,466,404	3,161,820	3,433,177	3,097,889	3,462,518	3,302,080	3,510,513	3,130,118	3,524,803	3,147,215	3,557,846	3,165,003	2,706,922
Annual Surplus (Deficit)	(973,047)	(1,030,637)	(1,089,379)	(714,796)	(741,337)	(516,873)	(580,457)	(645,312)	(711,465)	(778,941)	(847,766)	(917,968)	(989,574)	(1,062,612)	(1,137,111)
Beginning Fund Balance	(4,294,007)	(5,267,054)	(6,297,691)	(7,387,070)	(8,101,865)	(8,843,202)	(9,360,075)	(9,940,531)	(10,585,844)	(11,297,309)	(12,076,249)	(12,924,015)	(13,841,983)	(14,831,557)	(15,894,169)
End Fund Balance	(5,267,054)	(6,297,691)	(7,387,070)	(8,101,865)	(8,843,202)	(9,360,075)	(9,940,531)	(10,585,844)	(11,297,309)	(12,076,249)	(12,924,015)	(13,841,983)	(14,831,557)	(15,894,169)	(17,031,280)
Analysis 4 - Start 20-Year CIP, No New CIP Loans, Rate Increases															
Total Expenses	4,745,433	4,478,956	4,555,783	3,876,616	4,174,514	3,614,762	4,042,974	3,947,392	4,221,978	3,909,058	4,372,569	4,065,183	4,547,419	4,227,614	3,844,033
Rate Increase	0.00%	0.00%	-15.00%	-15.00%	0.00%	0.00%	0.00%	6.00%	6.00%	2.00%	0.00%	0.00%	0.00%	0.00%	-1.00%
Total Revenues	5,133,657	5,133,657	4,378,609	3,736,817	3,736,817	3,736,817	3,736,817	3,955,026	4,186,328	4,268,054	4,268,054	4,268,054	4,268,054	4,268,054	4,226,374
Annual Surplus (Deficit)	388,224	654,701	(177,174)	(139,799)	(437,697)	122,055	(306,157)	7,634	(35,650)	358,996	(104,515)	202,872	(279,365)	40,440	382,341
Beginning Fund Balance	(77,253)	310,971	965,672	788,497	648,699	211,002	333,057	26,900	34,534	(1,116)	357,880	253,365	456,237	176,872	217,312
End Fund Balance	310,971	965,672	788,497	648,699	211,002	333,057	26,900	34,534	(1,116)	357,880	253,365	456,237	176,872	217,312	599,653
Analysis 5 - Start 20-Year CIP, Obtain new loans for CIP, Increase Rates															
Total Expenses	4,745,433	4,478,956	4,555,783	3,876,616	4,174,514	3,614,762	4,042,974	3,947,392	4,221,978	3,909,058	4,372,569	4,065,183	4,547,419	4,227,614	3,844,033
Rate Increase	0.00%	0.00%	0.00%	0.00%	-12.00%	0.00%	0.00%	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	0.00%	2.00%
Total Revenues	4,829,367	4,505,300	4,523,385	4,218,801	4,038,490	3,703,202	4,067,830	3,907,392	4,182,070	3,869,244	4,332,851	4,025,562	4,507,898	4,115,055	3,730,114
Annual Surplus (Deficit)	83,934	26,344	(32,398)	342,185	(136,025)	88,440	24,856	(40,000)	(39,908)	(39,814)	(39,718)	(39,621)	(39,521)	(112,559)	(113,919)
Beginning Fund Balance	304,338	388,272	414,616	382,218	724,403	588,378	676,818	701,674	661,675	621,767	581,953	542,234	502,614	463,092	350,533
End Fund Balance	388,272	414,616	382,218	724,403	588,378	676,818	701,674	661,675	621,767	581,953	542,234	502,614	463,092	350,533	236,614
Analysis 6- New 1-Year CIP, New CIP Loans, Rate Increases															
Total Expenses	5,004,518	5,062,108	5,120,850	4,746,267	4,772,808	4,548,343	4,611,927	4,676,783	4,742,936	4,810,412	4,879,237	4,949,439	5,021,045	5,094,083	3,844,033
Rate Increase	0.00%	12.00%	0.00%	0.00%	-10.00%	-6.00%	-3.00%	0.00%	0.00%	10.00%	3.00%	0.00%	2.00%	1.00%	-15.00%
Total Revenues	4,748,812	5,258,910	5,258,910	5,258,910	4,782,819	4,525,729	4,404,898	4,404,898	4,404,898	4,795,588	4,924,515	4,924,515	5,013,046	5,058,196	4,374,166
Annual Surplus (Deficit)	(255,706)	196,802	138,061	512,644	10,011	(22,614)	(207,030)	(271,886)	(338,038)	(14,824)	45,278	(24,924)	(7,999)	(35,887)	530,134
Beginning Fund Balance	300,285	44,580	241,382	379,443	892,086	902,097	879,483	672,453	400,567	62,529	47,705	92,983	68,059	60,060	24,174
End Fund Balance	44,580	241,382	379,443	892,086	902,097	879,483	672,453	400,567	62,529	47,705	92,983	68,059	60,060	24,174	554,307

Appendix B
Projected Fees Based upon Rate Increase

CAPITAL IMPROVEMENT PLAN IMPLEMENTATION PLAN	TYPICAL ANNUAL UTILITY COST PER CONNECTION*										
	2018 Rate	2019 Rate	2020 Rate	2021 Rate	2022 Rate	2023 Rate	2024 Rate	2025 Rate	2026 Rate	2027 Rate	2028 Rate
Analysis 1: Do Nothing: No CIP, No new Loans and No Rate Increase	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82
Analysis 2: Start CIP, No Loans or Rate Increase	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82
Analysis 3: Start CIP,Obtain loans to finance CIP, No rate increase	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82
Analysis 4: Start CIP, No new loans, Finance CIP thru rate increase only	\$817.82	\$817.82	\$817.82	\$1,635.64	\$2,289.90	\$2,633.38	\$1,316.69	\$1,448.36	\$1,520.78	\$1,520.78	\$1,520.78
Analysis 5: Start CIP and finance thru both loans and rate increase	\$817.82	\$817.82	\$817.82	\$858.71	\$1,030.45	\$1,061.37	\$1,082.59	\$1,125.90	\$1,137.16	\$1,137.16	\$1,137.16
Analysis 6: Finance CIP in 1 Year & Implement Rate Increase	\$817.82	\$817.82	\$817.82	\$1,635.64	\$2,371.68	\$1,423.01	\$1,423.01	\$1,351.86	\$1,284.26	\$1,284.26	\$1,438.38

** Projected Debt = Remaining debt from current bonds *plus* additional debt from implementation of CIP

CAPITAL IMPROVEMENT PLAN IMPLEMENTATION PLAN	TYPICAL ANNUAL UTILITY COST PER CONNECTION*												
	2029 Rate	2030 Rate	2031 Rate	2032 Rate	2033 Rate	2034 Rate	2035 Rate	2036 Rate	2037 Rate	2038 Rate	2039 Rate	2040 Rate	2041 Rate
Analysis 1: Do Nothing: No CIP, No new Loans and No Rate Increase	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82
Analysis 2: Start CIP, No Loans or Rate Increase	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82
Analysis 3: Start CIP, Obtain loans to finance CIP, No rate increase	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82	\$817.82
Analysis 4: Start CIP, No new loans, Finance CIP thru rate increase only	\$1,292.66	\$1,098.76	\$1,098.76	\$1,098.76	\$1,098.76	\$1,164.69	\$1,234.57	\$1,259.26	\$1,259.26	\$1,259.26	\$1,259.26	\$1,259.26	\$1,246.67
Analysis 5: Start CIP and finance thru both loans and rate increase	\$1,137.16	\$1,137.16	\$1,000.70	\$1,000.70	\$1,000.70	\$1,000.70	\$1,020.71	\$1,041.13	\$1,061.95	\$1,083.19	\$1,104.85	\$1,104.85	\$1,126.95
Analysis 6: Finance CIP in 1 Year & Implement Rate Increase	\$1,438.38	\$1,438.38	\$1,294.54	\$1,216.87	\$1,180.36	\$1,180.36	\$1,180.36	\$1,298.40	\$1,337.35	\$1,337.35	\$1,364.09	\$1,377.74	\$1,171.07

CAPITAL IMPROVEMENT PLAN IMPLEMENTATION PLAN	2041 END FUND BALANCE	TOTAL PROJECTED DEBT **	CONCLUSION / SUMMARY
Analysis 1: Do Nothing: No CIP, No new Loans and No Rate Increase	-\$4,473,341.36	\$16,516,798.50	Do Nothing: 1) System does not receive necessary upgrades for system sustainability 2) City still has a large amount of debt remaining from previous utility improvements and 3) customer rates have not changed creating a deficit for the utility
Analysis 2: Start CIP, No Loans or Rate Increase	-\$29,793,512.01	\$16,516,798.50	Start the necessary Capital Improvement Plan (CIP) but do not raise rates or obtain additional loans to fund: 1) the necessary work to sustain the utility is initiated 2) without funding, the utility enters into a \$29 million deficit 3) the existing debt service is \$16 mil
Analysis 3: Start CIP, Obtain loans to finance CIP, No rate increase	-\$17,031,279.51	\$50,555,062.00	Start the necessary Capital Improvement Plan (CIP) but only fund the improvements via loans: 1) Rates stay stable for the users 2) the debt service increases to \$50.5 million for the utility and the borrowing capacity of the utility may be exceeded while the utility observes a \$17 million deficit due to debt payment
Analysis 4: Start CIP, No new loans, Finance CIP thru rate increase only	\$776,682.00	\$16,516,798.50	Start the necessary Capital Improvement Plan (CIP) but only fund via rate increases: 1) the debt service does not increase 2) the utility customers experience typical annual utility charges at an increase of almost 100% . While this decreases at the end of the 20 Year Planning Period, the increase
Analysis 5: Start CIP and finance thru both loans and rate increase	\$236,614.49	\$50,555,062.00	Start the necessary Capital Improvement Plan (CIP) and funding thru rate increases and loans: 1) The rates will increase significantly to offset the additional debt service to fund the CIP 2) the bonding capacity of the City may not its current debt service plus the additional debt service from the CIP. The water and utility taxable value is approximately \$44 million. Accordingly, bonding for the CIP is over the taxable value of the assets.
Analysis 6: Finance CIP in 1 Year & Implement Rate Increase	\$554,307.30	\$43,007,773.00	Start and fund the Capital Improvement Plan (CIP) in a single year. Fund via rate increases and loans: 1) this approach nearly triples the annual water & sewer fee paid by the City customers 2) The annual debt service payment is in excess of \$1 million which is more than 1/3 of the rents collected by the utility

Appendix C

Schedule of Proposed Debt Service

Proposed Annual Debt Service - 20 Year CIP - Based on Capital Improvement Plan*

Improvement Year	Improvement Construction Cost	2021 Debt Service	2022 Debt Service	2023 Debt Service	2024 Debt Service	2025 Debt Service	2026 Debt Service	2027 Debt Service	2028 Debt Service	2029 Debt Service	2030 Debt Service
Year 1 (2021)	\$4,567,662	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019
Year 2 (2022)	\$2,211,344		\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637
Year 3 (2023)	\$5,337,611			\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771
Year 4 (2024)	\$1,056,698				\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027
Year 5 (2025)	\$1,289,214					\$86,655	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655
Year 6 (2026)	\$1,574,460						\$105,828	\$105,828	\$105,828	\$105,828	\$105,828
Year 7 (2027)	\$1,065,464							\$71,616	\$71,616	\$71,616	\$71,616
Year 8 (2028)	\$741,397								\$49,834	\$49,834	\$49,834
Year 9 (2029)	\$759,482									\$51,049	\$51,049
Year 10 (2030)	\$454,898										\$30,576
Year 11 (2031)	\$726,255										
Year 12 (2032)	\$390,967										
Year 13 (2033)	\$755,596										
Year 14 (2034)	\$595,157										
Year 15 (2035)	\$803,591										
Year 16 (2036)	\$423,196										
Year 17 (2037)	\$817,881										
Year 18 (2038)	\$440,293										
Year 19 (2039)	\$850,923										
Year 20 (2040)	\$458,080										
Total Improvement Plan Cost	\$25,320,171	\$307,019	\$455,656	\$814,427	\$885,454	\$972,109	\$1,077,938	\$1,149,554	\$1,199,387	\$1,250,436	\$1,281,013

Proposed Annual Debt Service - 1 Year CIP - Based on Capital Improvement Plan*

Improvement Year	Improvement Construction Cost	2021 Debt Service	2022 Debt Service	2023 Debt Service	2024 Debt Service	2025 Debt Service	2026 Debt Service	2027 Debt Service	2028 Debt Service	2029 Debt Service	2030 Debt Service
Year 1 (2021)	\$19,705,941	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549
Total Improvement Plan Cost	\$25,320,171	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549

* Table reflects the anticipated annual debt service resulting from additional system upgrades based on Capital Improvements Plan; Assume 3% interest rate with balance paid over 20 years

Improvement Year	2031 Debt Service	2032 Debt Service	2033 Debt Service	2034 Debt Service	2035 Debt Service	2036 Debt Service	2037 Debt Service	2038 Debt Service	2039 Debt Service	2040 Debt Service
Year 1 (2021)	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019	\$307,019
Year 2 (2022)	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637	\$148,637
Year 3 (2023)	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771	\$358,771
Year 4 (2024)	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027	\$71,027
Year 5 (2025)	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655	\$86,655
Year 6 (2026)	\$105,828	\$105,828	\$105,828	\$105,828	\$105,828	\$105,828	\$105,828	\$105,828	\$105,828	\$105,828
Year 7 (2027)	\$71,616	\$71,616	\$71,616	\$71,616	\$71,616	\$71,616	\$71,616	\$71,616	\$71,616	\$71,616
Year 8 (2028)	\$49,834	\$49,834	\$49,834	\$49,834	\$49,834	\$49,834	\$49,834	\$49,834	\$49,834	\$49,834
Year 9 (2029)	\$51,049	\$51,049	\$51,049	\$51,049	\$51,049	\$51,049	\$51,049	\$51,049	\$51,049	\$51,049
Year 10 (2030)	\$30,576	\$30,576	\$30,576	\$30,576	\$30,576	\$30,576	\$30,576	\$30,576	\$30,576	\$30,576
Year 11 (2031)	\$48,816	\$48,816	\$48,816	\$48,816	\$48,816	\$48,816	\$48,816	\$48,816	\$48,816	\$48,816
Year 12 (2032)		\$26,279	\$26,279	\$26,279	\$26,279	\$26,279	\$26,279	\$26,279	\$26,279	\$26,279
Year 13 (2033)			\$50,788	\$50,788	\$50,788	\$50,788	\$50,788	\$50,788	\$50,788	\$50,788
Year 14 (2034)				\$40,004	\$40,004	\$40,004	\$40,004	\$40,004	\$40,004	\$40,004
Year 15 (2035)					\$54,014	\$54,014	\$54,014	\$54,014	\$54,014	\$54,014
Year 16 (2036)						\$28,445	\$28,445	\$28,445	\$28,445	\$28,445
Year 17 (2037)							\$54,974	\$54,974	\$54,974	\$54,974
Year 18 (2038)								\$29,595	\$29,595	\$29,595
Year 19 (2039)									\$57,195	\$57,195
Year 20 (2040)										\$30,790
	\$1,329,828	\$1,356,107	\$1,406,895	\$1,446,899	\$1,500,913	\$1,529,359	\$1,584,333	\$1,613,928	\$1,671,123	\$1,701,913

Improvement Year	2031 Debt Service	2032 Debt Service	2033 Debt Service	2034 Debt Service	2035 Debt Service	2036 Debt Service	2037 Debt Service	2038 Debt Service	2039 Debt Service	2040 Debt Service
Year 1 (2021)	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549
Total Improvement	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549	\$1,324,549

Appendix D

Current Water & Sewer Rates

**CITY OF SALEM
ORDINANCE NO. 14-06**

**AN ORDINANCE AMENDING WATER & SEWER RATES SET FORTH IN CHAPTER
230 OF THE MUNICIPAL CODE OF THE CITY OF SALEM**

BE IT HEREBY ORDAINED, by the Common Council of the City of Salem, County of Salem and State of New Jersey that Chapter 230 of the Municipal Code of the City of Salem is hereby amended as follows:

§230-45 entitled "Sanitary Sewer Rates" is hereby amended to read as follows:

A. The rate fixed and the amount to be paid for the use of the sanitary sewer shall be in accordance with N.J.S.A. 40A:26A-10 and the following schedule and classification (those properties which are subject to monthly water charges to be billed on a prorated monthly basis.):

Type of Property	Service Charge	Present	Effective June 1 st , 2014
Residential (for each Single-family unit)	Semi-annual	\$230.49	\$265.06
Commercial, institutional And industrial	Semi-annual	\$6.87 per 1,000 gallons, \$265.06 Minimum charge per unit June 1, 2014	
	Quarterly	\$6.87 per 1,000 gallons, \$132.55 Minimum charge per unit June 1, 2014	
	Monthly	\$6.87 per 1,000 gallons, \$44.17 Minimum charge per unit June 1, 2014	

B. Surcharge. For residential, commercial, institutional and industrial customers whose wastewater BOD₅ or suspended solids as follows:

Item	Additional Cost (effective June 1, 2014)
(1) Per pound of BOD ₅	\$0.20
(2) Per pound of suspended solids	\$0.13
(3) Septage rates per gallon	\$0.0628

§230-48 entitled "Water Rates" is hereby amended to read as follows:

A. The price to be paid per semi-annum for use of water furnished by the City shall be as follows:

<u>Flat Rate</u>	<u>Present</u>	<u>6/1/2014</u>	<u>2015</u>	<u>2016</u>
Per single family unit	\$218.00	\$300.84	\$315.88	\$330.10
<u>Metered</u>				
Residential and light commercial				
Minimum semi-annual rate for metered water shall be:				
5/8" meter	\$95.00	\$131.10	\$137.66	\$143.85
First 15,000 gallons				
3/4" meter	\$189.00	\$260.82	\$273.86	\$286.18
First 30,000 gallons				
1" meter	\$339.00	\$467.82	\$491.21	\$513.32
First 54,000 gallons				
1 1/4" meter to 1 1/2" meter	\$754.00	\$1,040.52	\$1,092.55	\$1,141.71
First 120,000 gallons				
2" meter				
First 210,000 gallons	\$1,321.00	\$1,822.98	\$1,914.13	\$2,000.26
Excess semi-annual use charge for water consumed beyond minimum amounts listed above:				
Up to 1,000,000 gallons	\$4.34	\$5.99	\$6.29	\$6.57
(per 1,000 gallons)				
Over 1,000,000 gallons	\$5.19	\$7.16	\$7.52	\$7.86
(per 1,000 gallons)				
Institutional, heavy commercial and industrial				
Minimum monthly rate for metered water				
5/8" meter	\$15.89	\$21.93	\$23.02	\$24.06
First 2,500 gallons				
3/4" meter	\$32.24	\$44.49	\$46.72	\$48.82

First 5,000 gallons

1" meter First 9,000 gallons	\$56.58	\$78.08	\$81.98	\$85.67
1 1/4" meter to 1 1/2" meter First 20,000 gallons	\$125.80	\$173.60	\$182.28	\$190.49
2" meter First 35,000 gallons	\$220.19	\$303.86	\$319.06	\$333.41
3" meter First 50,000 gallons	\$315.00	\$434.70	\$456.44	\$476.97
4" meter First 100,000 gallons	\$629.00	\$868.02	\$911.42	\$952.43
6" meter First 150,000 gallons	\$942.40	\$1,300.51	\$1,365.54	\$1,426.99
8" meter First 300,000 gallons	\$1,887.00	\$2,604.06	\$2,734.26	\$2,857.30

Excess monthly use charge for water consumed beyond minimum amounts listed above:

Up to 167,000 gallons (per 1,000 gallons)	\$4.34	\$5.99	\$6.29	\$6.57
Over 167,000 gallons (per 1,000 gallons)	\$5.19	\$7.16	\$7.52	\$7.86

B. Fire Service*

Public fire service per month Per month for each hydrant	\$31.82	\$43.91	\$46.11	\$48.18
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Private fire service per month

2" service line	\$27.19	\$37.52	\$39.40	\$41.17
4" service line	\$127.76	\$176.31	\$185.12	\$193.45
6" service line	\$225.11	\$310.65	\$326.18	\$340.86
8" service line	\$317.58	\$438.26	\$460.17	\$480.88
10" service line	\$413.10	\$570.08	\$598.58	\$625.52

For each sprinkler head installed and not metered by an approved fire line meter: \$0.28 per sprinkler head, per month.

Notes:

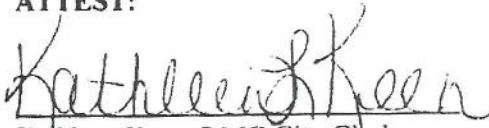
Fire Service Lines shall be installed with an approved back flow prevention device as approved by the Water or Sewer Superintendent.

C. Purchase of bulk-rate water (tanker trucks) shall be \$15.50 per 1,000 gallons.

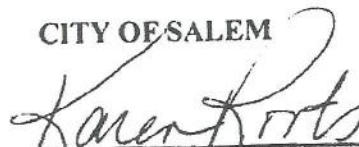
Any rates affected by the above shall be effective June 1st, 2014. All Ordinance or parts of Ordinance inconsistent with or in conflict with this Ordinance are hereby repealed as to said inconsistencies and conflict.

THIS ORDINANCE shall take effect according to law.

ATTEST:


Kathleen Keen, RMC City Clerk

CITY OF SALEM

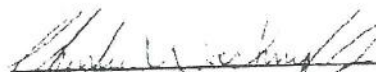

Karen Roots, Council President

COUNCIL	MOVED	SECONDED	Y	N	ABSTAIN	ABSENT
R. Carter			X			
V. Groce			X			
S. Hampton			X			
C. Hassler			X			
H. Johnson	X		X			
R. Lanard		X		X		
J. Waddington			X			
K. Roots			X			

Introduced: April 7, 2014
Published: April 14, 2014
Public Hearing: April 21, 2014
Final Adoption: April 21, 2014
Final Publication: April 27, 2014

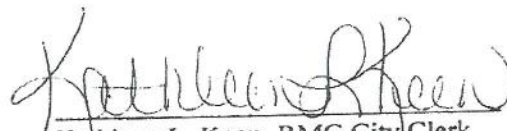
APPROVED BY MAYOR:

5/13/2014
Date


Charles Washington, Jr., Mayor

I hereby certify the foregoing Ordinance was duly adopted by the City Council at its meeting on April 21, 2014.

April 1, 2015
Date


Kathleen L. Keen, RMC City Clerk

CITY OF SALEM
19 South Front Street
Salem, New Jersey 08079
(856) 935-0350

Frederick J. Mucci, III
Water Superintendent

Thomas H. Gant
Sewer Superintendent

SUMMER WATER CONVERSATION MEASURES

The City has taken conversation measures and discourages overwatering during summer months. Limited water conservation measures will be implemented immediately by the City of Salem and will continue through September 30.

In an effort to reduce peak demand on the water supply, outside water usage shall be on alternate days designated by the house or box number of the resident or business. Persons or businesses having an even house or box number may use water for outdoor use on an even calendar day of the week. Persons or businesses having an odd house or box number may use water for outdoor use on an odd calendar day of the week. Outside water use may take place before 11 a.m. and from 6 p.m. to midnight. Hand held hoses are permitted at all times on the appropriate days.

The ban exempts businesses like commercial car washes, power-washing businesses, commercial nurseries, garden centers and contractors who use water for work. Restaurants are not permitted to serve water unless requested by customers.

For more information call the City of Salem Water & Sewer Department at (856) 935-0350 during normal business hours.

City of Salem, NJ
Monday, July 20, 2015

Chapter 230. WATER AND SEWERS

§ 230-21. Unnecessary waste of water.

[Amended 10-16-1995 by Ord. No. 95-15]

It shall be prohibited for any persons to permit the water to flow unnecessarily from any part of a private pipe or fixtures thereof or to permit any waste of water on his or her premises, either within a building or enclosure or any street, court or alley. In all cases where several premises receive a supply of water by branches, hydrants or other fixtures uniting with a common pipe, each and every person who may so receive the water shall be bound to keep such common pipe in repair, and the case of waste by leak or leaks therefrom or from any other cause shall be severally liable. If at any time it shall be necessary to repair a private pipe within the limits of any street, court or alley, a permit shall be first taken out for so doing, and the expense for repaving and repairs shall be paid by such owner.

§ 230-22. Notice of violation; failure to repair.

[Amended 10-16-1995 by Ord. No. 95-15]

The Superintendent or his agent is authorized to inquire at any premises or other place where there is unnecessary waste of water into the cause of the same, and if said waste arises from want of repair in the pipes or other fixtures and if the owner of said premises shall neglect or refuse, upon 24 hours' notice in writing being given, to have the necessary repairs made forthwith, said Superintendent or other authorized person shall be and is hereby authorized and empowered to shut off the water leading to such premises.

§ 230-23. Evasion or disregard of provisions.

[Amended 10-16-1995 by Ord. No. 95-15]

In case the Superintendent shall have reason to believe that there is actual or probable evasion or disregard of the provisions of any ordinances, rules or regulations relating to the distribution of water in any buildings, lot of ground or premises into or through which pipes for conducting a supply of water may be laid, it shall and may be lawful for the Superintendent or other persons authorized by him to enter at all times into such buildings, lot of ground or premises for the purpose of examining the pipes or conduit or other fixtures and ascertain whether the same are in proper order and repair and for cutting off the pipes or communications or shutting off the stopcocks or detaching the stopcocks where delinquencies occur in the payment of water rents; and it shall be unlawful for any persons to obstruct, prevent or oppose the aforesaid persons in making such examinations or to turn on the water or cause the same to be turned on without authority.

§ 230-24. Improper use of fire hydrant.

[Amended 10-16-1995 by Ord. No. 95-15]

It shall be prohibited for any person or persons who have been permitted to introduce upon his, her or their premises a fire hydrant for the protection of their property from fire to use or permit the hydrant to be used for sprinkling or washing the yards or streets, filling wells, boilers or tanks or for any purpose whatever,

except its legitimate use for the extinguishing of fires.

§ 230-25. Permit required for use other than extinguishing fires.

[Amended 10-16-1995 by Ord. No. 95-15]

It shall be prohibited for any person or persons to open or use any fire hydrant for building purposes, street sprinkling or supply of shipping or any other purpose, except for the extinguishment of fire in the neighborhood or to permit any person in his employ to open or use any fire hydrant, except as aforesaid, without a permit for that purpose.

§ 230-26. Obstructions to use.

[Amended 10-16-1995 by Ord. No. 95-15]

It shall be prohibited for any person or persons to obstruct the access to any fire hydrant, stop valve or other fixtures connected with the supply of water to the City by placing thereon or within 10 feet thereof stone, brick, lumber, dirt or any other material or order the same to be placed by anyone in their employ or to park any automobile, motor truck or other vehicle within 10 feet thereof. If he, she or they neglect or refuse to move the same forthwith after written notice given by the Superintendent or other authorized person, said Superintendent or authorized person may remove the same, and the expense attending such removal shall be paid by the party so offending.

§ 230-29. Damage to property.

[Amended 10-16-1995 by Ord. No. 95-15]

No person or persons shall break, injure or do any damage whatever to any engine, pump or machinery or to any engine house or other structure or to any pipe, valve, stopcock, fire hydrant or other fixtures or appurtenances pertaining to or connected with the waterworks or shall throw or put any stones, earth, filth or any foreign matter or substance whatever into the reservoirs, wells or waterways or watercourse or shall be found bathing or fishing therein or shall break down or injure the fences, embankments or any other part of the reservoirs or grounds or shall enter the lots in which the reservoirs, buildings or structures are enclosed without permission or shall dig or break the earth in any of the roads, streets, lanes, alleys or grounds for the purpose of disturbing, moving or injuring the pipes or other fixtures or appurtenances or obstructing the passage of water through the same.

§ 230-33. Responsibility for meter and measuring.

[Amended 2-21-1983 by Ord. No. 83-2; 3-21-1983 by Ord. No. 83-6]

- A. All meter or measuring devices installed or required to be used shall be under the control of the City and accessible to the City's representative during the operational hours of the industry. The industrial user for whom such measuring equipment is installed, at its own expense, shall be responsible for:
- (1) Maintenance and safekeeping.
 - (2) All repairs whether by normal wear or other causes.
 - (3) Annual certified calibration by the manufacturer.
 - (4) Supply replacing of daily recording charts and safekeeping of the charts until collected by the City's agents of the treatment works. State agency and/or EPA will be permitted to enter all

properties of the contributing industry for the purpose of inspection, observation, measurement, sampling and testing.

- B. Cost for repairs or calibration if paid for by the City shall be reimbursed to the City within 30 days after written notification of such payment by the City.

§ 230-55. Emergency periods.

[Amended 10-16-1995 by Ord. No. 95-15]

No person shall use water from the supply being provided by the City in excessive or unnecessary quantities (including but not limited to the watering of lawns, the washing of cars, the use of water sprinklers, etc.) during any declared emergency period during which the use of such excess water may, in the opinion of the committee, endanger the water supply and thereby affect the public welfare. Before any such emergency shall be held to exist, the Mayor, at the request of the committee, shall publicly declare the same and shall publish a notice thereof providing for such emergency period in any newspaper published or circulated in the City.

§ 230-56. Emergency repairs.

[Amended 10-6-1975 by Ord. No. 75-20]

Should a leak, stoppage or other disruptive condition occur in a water or sewer line which is a user's responsibility to keep in good working order and should an inspector from the City or County Department of Health declare that such condition is a threat to the health of the community, then, after 24 hours' written notice to the user or such other notice as is reasonable under the circumstances, the City of Salem shall have the right to have its employees or privately employed workmen correct the condition and to assess the cost of said correction as a lien or charge upon the premises, in the same manner as unpaid fees for the use of the City's water and sewer system becomes a lien against the premises, without further action by the City. For the purposes of this section, "user" shall be defined as any individual, organization, association or other entity which owns real estate on which premises are connected to the City's water supply system or sewage collection system. The user's responsibility for maintenance of the water and sewer system shall commence with the place of connection to the water distribution mains and sewage collection mains and continue throughout the length of each user's sewer laterals or water service line.

Editor's Note: Original Section 8-45, penalties, which immediately followed this section, was deleted 10-16-1995 by Ord. No. 95-15.

Appendix E

Existing Debt Service

Existing Annual Debt Service

Bond Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
General Serial Bonds Issued on June 15, 2012 \$3,110,000.00 @ 3.00%-4.00% Maturity on June 15, 2026	\$ 371,830.00	\$ 305,242.57	\$ 308,382.28	\$ 311,247.57	\$ 308,907.06	\$ 301,497.94	\$ 274,902.87	\$ 274,902.87	\$ 274,902.87	\$ 274,902.87
Water/Sewer Serial Bonds Issued on June 15, 2012 \$290,000 @ 3.00%-4.00% Maturity on June 15, 2026	\$ 28,137.39	\$ 27,482.43	\$ 26,842.72	\$ 26,177.43	\$ 25,492.94	\$ 24,802.06	\$ 29,104.78	\$ 28,283.82	\$ 26,407.35	\$ 26,407.35
Water/Sewer Wastewater Improvement Bonds Issued on August 1, 1991 \$4,939,700.00 @ 5.00% Maturity on August 1, 2031	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00
Water/Sewer USDA Loan Issued on May 16, 2005 \$854,000.00 total @ 4.25% Maturity on July 1, 2045	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00
Water/Sewer NJ Environmental Infrastructure Loans Issued on March 10, 2010 \$4,043,875.00 @ 0.00% & \$3,235,000.00 @ 3.00% - 5.00% Maturity on August 1, 2029	\$ 419,262.68	\$ 427,819.06	\$ 460,160.52	\$ 449,660.52	\$ 451,780.52	\$ 453,580.52	\$ 450,636.52	\$ 450,636.52	\$ 450,636.52	\$ 450,636.52
Water/Sewer State of NJ Dam Restoration Loan Issued on July 31, 2012 \$581,000.00 @ 2.00% Maturity on April 30, 2030	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28	\$ 39,512.28
TOTAL:	\$ 1,190,140.35	\$ 1,131,454.34	\$ 1,166,295.80	\$ 1,157,995.80	\$ 1,157,090.80	\$ 1,150,790.80	\$ 1,125,554.45	\$ 1,124,733.49	\$ 1,122,857.02	\$ 1,122,857.02

Bond Type	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
General Serial Bonds Issued on June 15, 2012 \$3,110,000.00 @ 3.00%-4.00% Maturity on June 15, 2026	\$ 274,902.87	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water/Sewer Serial Bonds Issued on June 15, 2012 \$290,000 @ 3.00%-4.00% Maturity on June 15, 2026	\$ 26,407.35	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water/Sewer Wastewater Improvement Bonds Issued on August 1, 1991 \$4,939,700.00 @ 5.00% Maturity on August 1, 2031	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.00	\$ 286,802.01	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water/Sewer USDA Loan Issued on May 16, 2005 \$854,000.00 total @ 4.25% Maturity on July 1, 2045	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00
Water/Sewer NJ Environmental Infrastructure Loans Issued on March 10, 2010 \$4,043,875.00 @ 0.00% & \$3,235,000.00 @ 3.00% - 5.00% Maturity on August 1, 2029	\$ 450,636.52	\$ 434,499.56	\$ 434,499.56	\$ 434,499.55	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water/Sewer State of NJ Dam Restoration Loan Issued on July 31, 2012 \$581,000.00 @ 2.00% Maturity on April 30, 2030	\$ 39,512.28	\$ 34,573.24	\$ 34,573.24	\$ 34,573.24	\$ 34,573.21	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 1,122,857.02	\$ 800,470.80	\$ 800,470.80	\$ 800,470.79	\$ 365,971.21	\$ 331,398.01	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00

Bond Type	2038	2039	2040	2041	2042	2043	2044	2045	Total Remaining Debt Service
General Serial Bonds Issued on June 15, 2012 \$3,110,000.00 @ 3.00%-4.00% Maturity on June 15, 2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,281,621.77
Water/Sewer Serial Bonds Issued on June 15, 2012 \$290,000 @ 3.00%-4.00% Maturity on June 15, 2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 295,545.63
Water/Sewer Wastewater Improvement Bonds Issued on August 1, 1991 \$4,939,700.00 @ 5.00% Maturity on August 1, 2031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,588,832.01
Water/Sewer USDA Loan Issued on May 16, 2005 \$854,000.00 total @ 4.25% Maturity on July 1, 2045	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,354.25	\$ 44,354.25	\$ 44,354.25	\$ 44,354.25	\$ 1,336,913.00
Water/Sewer NJ Environmental Infrastructure Loans Issued on March 10, 2010 \$4,043,875.00 @ 0.00% & \$3,235,000.00 @ 3.00% - 5.00% Maturity on August 1, 2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,218,945.09
Water/Sewer State of NJ Dam Restoration Loan Issued on July 31, 2012 \$581,000.00 @ 2.00% Maturity on April 30, 2030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 572,928.01
	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,354.25	\$ 44,354.25	\$ 44,354.25	\$ 44,354.25	\$ 16,294,785.51

Appendix F

Revenue

Revenues	2016	2017	2018	(Budget) 2019	PROJECTED				
					2020	2021	2022	2023	2024
Revenues									
Water & Sewer Rents									
Rents with No Increases	2,976,743	3,001,431	2,424,757	2,424,757	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922
Annual Rate Increase (No New CIPP Loans) (20 Year CIP)	N/A	N/A	N/A	N/A	N/A	100%	40%	15%	-50%
Rents with Annual Rate Increase (No New CIPP Loans) (20 Year CIP)	\$ 2,976,742.77	\$ 3,001,431.48	\$ 2,424,757.42	\$ 2,424,757.00	\$ 2,706,922.17	\$ 5,413,844.34	\$ 7,579,382.07	\$ 8,716,289.38	\$ 4,358,144.69
Annual Rate Increase (New CIPP Loans) (20 Year CIP)	N/A	N/A	N/A	N/A	N/A	5%	20%	3%	2%
Rents with Annual Rate Increase (New CIPP Loans) (20 Year CIP)	\$ 2,976,742.77	\$ 3,001,431.48	\$ 2,424,757.42	\$ 2,424,757.00	\$ 2,706,922.17	\$ 2,842,268.28	\$ 3,410,721.93	\$ 3,513,043.59	\$ 3,583,304.46
Annual Rate Increase (New CIPP Loans) (1 Year CIP)	N/A	N/A	N/A	N/A	N/A	100%	45%	-40%	0%
Rents with Annual Rate Increase (New CIPP Loans) (1 Year CIP)	\$ 2,976,742.77	\$ 3,001,431.48	\$ 2,424,757.42	\$ 2,424,757.00	\$ 2,706,922.17	\$ 5,413,844.34	\$ 7,850,074.29	\$ 4,710,044.57	\$ 4,710,044.57
Miscellaneous	\$ 400,647.82	\$ 390,453.48	\$ 624,579.92	\$ 576,307.00	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06
Unexpended Balance of Appropriation Reserves	\$ 16,148.94	\$ 65,584.10	\$ 136,854.16	\$ 211,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Payable Cancelled	\$ 106,897.99	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Surplus Anticipated	\$ 200,000.00	\$ 200,908.00	\$ 200,908.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00
Proposed CIP Bonding (20 Year CIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,567,662.00	\$ 2,211,344.19	\$ 5,337,610.94	\$ 1,056,698.20
Proposed CIP Bonding (1 Year CIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,705,941.00	\$ -	\$ -	\$ -
TOTAL REVENUE (No Rate increase and No loans)	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
TOTAL REVENUE (With No Rate Increases & With New CIP Loans to fund 20 Year CIP)	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	7,274,584	4,918,266	8,044,533	3,763,620
TOTAL REVENUE (With Annual Rate Increase to fund CIP & No New CIP Loans)	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	5,513,844	7,679,382	8,816,289	4,458,145
TOTAL REVENUE (With Annual Rate Increase & With New CIP Loans - 20 Year CIP)	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	7,409,930	5,622,066	8,850,655	4,640,003
TOTAL REVENUE (With Annual Rate Increase & With New CIP Loans - 1 Year CIP)	3,700,438	3,658,377	3,387,100	3,312,064	3,304,919	25,617,782	8,348,071	5,208,042	5,208,042

	PROJECTED								
	2025	2026	2027	2028	2029	2030	2031	2032	2033
Water & Sewer Rents									
Rents with No Increases	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922
Annual Rate Increase (No New CIPP Loans) (20 Year CIP)	10%	5%	0%	0%	-15%	-15%	0%	0%	0%
Rents with Annual Rate Increase (No New CIPP Loans) (20 Year CIP)	\$ 4,793,959.16	\$ 5,033,657.12	\$ 5,033,657.12	\$ 5,033,657.12	\$ 4,278,608.55	\$ 3,636,817.27	\$ 3,636,817.27	\$ 3,636,817.27	\$ 3,636,817.27
Annual Rate Increase (New CIPP Loans) (20 Year CIP)	4%	1%	0%	0%	0%	0%	-12%	0%	0%
Rents with Annual Rate Increase (New CIPP Loans) (20 Year CIP)	\$ 3,726,636.64	\$ 3,763,903.01	\$ 3,763,903.01	\$ 3,763,903.01	\$ 3,763,903.01	\$ 3,763,903.01	\$ 3,312,234.64	\$ 3,312,234.64	\$ 3,312,234.64
Annual Rate Increase (New CIPP Loans) (1 Year CIP)	-5%	-5%	0%	12%	0%	0%	-10%	-6%	-3%
Rents with Annual Rate Increase (New CIPP Loans) (1 Year CIP)	\$ 4,474,542.34	\$ 4,250,815.23	\$ 4,250,815.23	\$ 4,760,913.05	\$ 4,760,913.05	\$ 4,760,913.05	\$ 4,284,821.75	\$ 4,027,732.44	\$ 3,906,900.47
Miscellaneous	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06
Unexpended Balance of Appropriation Reserves	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Payable Cancelled	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Surplus Anticipated	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00
Proposed CIP Bonding (20 Year CIP)	\$ 1,289,213.96	\$ 1,574,460.43	\$ 1,065,464.31	\$ 741,396.76	\$ 759,482.28	\$ 454,898.24	\$ 726,254.93	\$ 390,967.24	\$ 755,595.63
Proposed CIP Bonding (1 Year CIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL REVENUE (No Rate increase and No loans)	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
TOTAL REVENUE (With No Rate Increases & With New CIP Loans to fund 20 Year CIP)	3,996,136	4,281,383	3,772,386	3,448,319	3,466,404	3,161,820	3,433,177	3,097,889	3,462,518
TOTAL REVENUE (With Annual Rate Increase to fund CIP & No New CIP Loans)	4,893,959	5,133,657	5,133,657	5,133,657	4,378,609	3,736,817	3,736,817	3,736,817	3,736,817
TOTAL REVENUE (With Annual Rate Increase & With New CIP Loans - 20 Year CIP)	5,015,851	5,338,363	4,829,367	4,505,300	4,523,385	4,218,801	4,038,490	3,703,202	4,067,830
TOTAL REVENUE (With Annual Rate Increase & With New CIP Loans - 1 Year CIP)	4,972,539	4,748,812	4,748,812	5,258,910	5,258,910	5,258,910	4,782,819	4,525,729	4,404,898

	PROJECTED							
	2034	2035	2036	2037	2038	2039	2040	2041
Water & Sewer Rents								
Rents with No Increases	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922	2,706,922
Annual Rate Increase (No New CIPP Loans) (20 Year CIP)	6%	6%	2%	0%	0%	0%	0%	-1%
Rents with Annual Rate Increase (No New CIPP Loans) (20 Year CIP)	\$ 3,855,026.30	\$ 4,086,327.88	\$ 4,168,054.44	\$ 4,168,054.44	\$ 4,168,054.44	\$ 4,168,054.44	\$ 4,168,054.44	\$ 4,126,373.89
Annual Rate Increase (New CIPP Loans) (20 Year CIP)	0%	2%	2%	2%	2%	2%	0%	2%
Rents with Annual Rate Increase (New CIPP Loans) (20 Year CIP)	\$ 3,312,234.64	\$ 3,378,479.34	\$ 3,446,048.92	\$ 3,514,969.90	\$ 3,585,269.30	\$ 3,656,974.69	\$ 3,656,974.69	\$ 3,730,114.18
Annual Rate Increase (New CIPP Loans) (1 Year CIP)	0%	0%	10%	3%	0%	2%	1%	-15%
Rents with Annual Rate Increase (New CIPP Loans) (1 Year CIP)	\$ 3,906,900.47	\$ 3,906,900.47	\$ 4,297,590.52	\$ 4,426,518.23	\$ 4,426,518.23	\$ 4,515,048.60	\$ 4,560,199.08	\$ 3,876,169.22
Miscellaneous	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06	\$ 497,997.06
Unexpended Balance of Appropriation Reserves	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Payable Cancelled	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Surplus Anticipated	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00
Proposed CIP Bonding (20 Year CIP)	\$ 595,157.49	\$ 803,591.07	\$ 423,195.51	\$ 817,881.01	\$ 440,292.61	\$ 850,923.41	\$ 458,080.43	\$ -
Proposed CIP Bonding (1 Year CIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL REVENUE (No Rate increase and No loans)	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919	3,304,919
TOTAL REVENUE (With No Rate Increases & With New CIP Loans to fund 20 Year CIP)	3,302,080	3,510,513	3,130,118	3,524,803	3,147,215	3,557,846	3,165,003	2,706,922
TOTAL REVENUE (With Annual Rate Increase to fund CIP & No New CIP Loans)	3,955,026	4,186,328	4,268,054	4,268,054	4,268,054	4,268,054	4,268,054	4,226,374
TOTAL REVENUE (With Annual Rate Increase & With New CIP Loans - 20 Year CIP)	3,907,392	4,182,070	3,869,244	4,332,851	4,025,562	4,507,898	4,115,055	3,730,114
TOTAL REVENUE (With Annual Rate Increase & With New CIP Loans - 1 Year CIP)	4,404,898	4,404,898	4,795,588	4,924,515	4,924,515	5,013,046	5,058,196	4,374,166

Appendix G

Expenses

EXPENSES	2016	2017	2018	2019	2020	2021	2022	2023	2024
Operating Expenses									
Salaries & Wages	\$ 960,000.00	\$ 960,000.00	\$ 750,002.25	\$ 800,000.00	\$ 816,000.00	\$ 832,320.00	\$ 848,966.40	\$ 865,945.73	\$ 883,264.64
Fringe Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Expenses	\$ 1,525,000.00	\$ 1,525,000.00	\$ 1,559,997.75	\$ 1,500,000.00	\$ 1,530,000.00	\$ 1,560,600.00	\$ 1,591,812.00	\$ 1,623,648.24	\$ 1,656,121.20
Deferred Charges:									
Ordinance 07-15, 08-18, 09-15	\$ -	\$ -	\$ 29,649.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ordinance 09-14	\$ 147,095.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other		\$ 23,039.93	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Statutory Expenditures:									
Public Employees' Retirement System	\$ 78,359.00	\$ 78,359.00	\$ 75,093.00	\$ 83,624.00	\$ 85,296.48	\$ 87,002.41	\$ 88,742.46	\$ 90,517.31	\$ 92,327.65
Contributions to Social Security System (O.A.S.I.)	\$ 71,413.07	\$ 71,413.07	\$ 61,950.69	\$ 74,000.00	\$ 75,480.00	\$ 76,989.60	\$ 78,529.39	\$ 80,099.98	\$ 81,701.98
Refund of Prior Year Revenue	\$ 7,672.46	\$ -	\$ 11,257.06	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Major Repairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Current Debt Service	\$ 837,910.18	\$ 819,810.25	\$ 848,450.79	\$ 846,748.23	\$ 848,183.74	\$ 849,292.86	\$ 850,651.58	\$ 849,830.62	\$ 847,954.15
Ancillary Capital Improvement Plan	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
Proposed Debt Service (20 Year CIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 307,018.63	\$ 455,655.70	\$ 814,426.99	\$ 885,453.71
Proposed Debt Service (1 Year CIP)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77
Proposed Capital Improvement Plan (20 Year)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,567,662.00	\$ 2,211,344.19	\$ 5,337,610.94	\$ 1,056,698.20
Proposed Capital Improvement Plan (1 Year)						\$ 25,320,170.66			
Total Expenses (With starting CIP & No New Debt Service)	\$ 3,647,449.71	\$ 3,497,622.25	\$ 3,356,400.54	\$ 3,324,372.23	\$ 3,374,960.22	\$ 7,973,866.87	\$ 5,670,046.02	\$ 8,847,652.81	\$ 4,618,067.83
Total Expenses (do nothing)	\$ 3,647,449.71	\$ 3,497,622.25	\$ 3,356,400.54	\$ 3,324,372.23	\$ 3,374,960.22	\$ 3,406,204.87	\$ 3,458,701.83	\$ 3,510,041.87	\$ 3,561,369.63
Total Expenses (With Proposed CIP & No new Debt Service & Fund CIP only with Rate Increases)	\$ 3,647,449.71	\$ 3,497,622.25	\$ 3,356,400.54	\$ 3,324,372.23	\$ 3,374,960.22	\$ 7,973,866.87	\$ 5,670,046.02	\$ 8,847,652.81	\$ 4,618,067.83
Total Expenses (With proposed CIP, Rate Increases & New Loans)	\$ 3,647,449.71	\$ 3,497,622.25	\$ 3,356,400.54	\$ 3,324,372.23	\$ 3,374,960.22	\$ 8,280,885.50	\$ 6,125,701.72	\$ 9,662,079.81	\$ 5,503,521.55
Total Expenses (With Proposed CIP & New Debt Service - 1 year CIP)	\$ 3,647,449.71	\$ 3,497,622.25	\$ 3,356,400.54	\$ 3,324,372.23	\$ 3,374,960.22	\$ 30,050,924.29	\$ 4,783,250.60	\$ 4,834,590.64	\$ 4,885,918.40

Notes & Assumptions:

Salaries and Wages - Assume 2% increase per year

Other Expenses - Assume 2% increase per year

Debt Service - Assume 2% increase per year

Major Repairs - Assume 2% increase per year

Proposed Capital Imrovement Plan - Anticipated debt service resulting from additional system upgrades based on Capital Improvements Plan; Assume using NJEIT Funds with at an interest rate of 3% paid off over 20 years

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Operating Expenses											
Salaries & Wages	\$ 900,929.94	\$ 918,948.53	\$ 937,327.50	\$ 956,074.05	\$ 975,195.54	\$ 994,699.45	\$ 1,014,593.44	\$ 1,034,885.30	\$ 1,055,583.01	\$ 1,076,694.67	\$ 1,098,228.56
Fringe Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Expenses	\$ 1,689,243.63	\$ 1,723,028.50	\$ 1,757,489.07	\$ 1,792,638.85	\$ 1,828,491.63	\$ 1,865,061.46	\$ 1,902,362.69	\$ 1,940,409.95	\$ 1,979,218.14	\$ 2,018,802.51	\$ 2,059,178.56
Deferred Charges:											
Ordinance 07-15, 08-18, 09-15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ordinance 09-14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Statutory Expenditures:											
Public Employees' Retirement System	\$ 94,174.21	\$ 96,057.69	\$ 97,978.84	\$ 99,938.42	\$ 101,937.19	\$ 103,975.93	\$ 106,055.45	\$ 108,176.56	\$ 110,340.09	\$ 112,546.89	\$ 114,797.83
Contributions to Social Security System (O.A.S.I.)	\$ 83,336.02	\$ 85,002.74	\$ 86,702.79	\$ 88,436.85	\$ 90,205.59	\$ 92,009.70	\$ 93,849.89	\$ 95,726.89	\$ 97,641.43	\$ 99,594.26	\$ 101,586.14
Refund of Prior Year Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Major Repairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Current Debt Service	\$ 847,954.15	\$ 847,954.15	\$ 800,470.80	\$ 800,470.80	\$ 800,470.79	\$ 365,971.21	\$ 331,398.01	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00
Ancillary Capital Improvement Plan	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
Proposed Debt Service (20 Year CIP)	\$ 972,109.14	\$ 1,077,937.61	\$ 1,149,553.55	\$ 1,199,387.06	\$ 1,250,436.20	\$ 1,281,012.50	\$ 1,329,828.24	\$ 1,356,107.38	\$ 1,406,895.28	\$ 1,446,899.21	\$ 1,500,913.15
Proposed Debt Service (1 Year CIP)	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77
Proposed Capital Improvement Plan (20 Year)	\$ 1,289,213.96	\$ 1,574,460.43	\$ 1,065,464.31	\$ 741,396.76	\$ 759,482.28	\$ 454,898.24	\$ 726,254.93	\$ 390,967.24	\$ 755,595.63	\$ 595,157.49	\$ 803,591.07
Proposed Capital Improvement Plan (1 Year)											
Total Expenses (With starting CIP & No New Debt Service)	\$ 4,904,851.90	\$ 5,245,452.04	\$ 4,745,433.32	\$ 4,478,955.74	\$ 4,555,783.02	\$ 3,876,615.99	\$ 4,174,514.42	\$ 3,614,761.94	\$ 4,042,974.31	\$ 3,947,391.82	\$ 4,221,978.16
Total Expenses (do nothing)	\$ 3,615,637.94	\$ 3,670,991.62	\$ 3,679,969.01	\$ 3,737,558.98	\$ 3,796,300.73	\$ 3,421,717.75	\$ 3,448,259.48	\$ 3,223,794.70	\$ 3,287,378.68	\$ 3,352,234.33	\$ 3,418,387.10
Total Expenses (With Proposed CIP & No new Debt Service & Fund CIP only with Rate Increases)	\$ 4,904,851.90	\$ 5,245,452.04	\$ 4,745,433.32	\$ 4,478,955.74	\$ 4,555,783.02	\$ 3,876,615.99	\$ 4,174,514.42	\$ 3,614,761.94	\$ 4,042,974.31	\$ 3,947,391.82	\$ 4,221,978.16
Total Expenses (With proposed CIP, Rate Increases & New Loans)	\$ 5,876,961.04	\$ 6,323,389.65	\$ 5,894,986.87	\$ 5,678,342.80	\$ 5,806,219.21	\$ 5,157,628.50	\$ 5,504,342.66	\$ 4,970,869.32	\$ 5,449,869.59	\$ 5,394,291.03	\$ 5,722,891.31
Total Expenses (With Proposed CIP & New Debt Service - 1 year CIP)	\$ 4,940,186.71	\$ 4,995,540.39	\$ 5,004,517.78	\$ 5,062,107.75	\$ 5,120,849.50	\$ 4,746,266.52	\$ 4,772,808.25	\$ 4,548,343.47	\$ 4,611,927.44	\$ 4,676,783.10	\$ 4,742,935.86

	2036	2037	2038	2039	2040	2041
Operating Expenses						
Salaries & Wages	\$ 1,120,193.14	\$ 1,142,597.00	\$ 1,165,448.94	\$ 1,188,757.92	\$ 1,212,533.08	\$ 1,236,783.74
Fringe Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Expenses	\$ 2,100,362.13	\$ 2,142,369.37	\$ 2,185,216.76	\$ 2,228,921.09	\$ 2,273,499.52	\$ 2,318,969.51
Deferred Charges:						
Ordinance 07-15, 08-18, 09-15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ordinance 09-14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Statutory Expenditures:						
Public Employees' Retirement System	\$ 117,093.79	\$ 119,435.66	\$ 121,824.38	\$ 124,260.87	\$ 126,746.08	\$ 129,281.00
Contributions to Social Security System (O.A.S.I.)	\$ 103,617.87	\$ 105,690.22	\$ 107,804.03	\$ 109,960.11	\$ 112,159.31	\$ 114,402.50
Refund of Prior Year Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Major Repairs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Current Debt Service	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00	\$ 44,596.00
Ancillary Capital Improvement Plan	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
Proposed Debt Service (20 Year CIP)	\$ 1,529,358.54	\$ 1,584,332.99	\$ 1,613,927.57	\$ 1,671,122.99	\$ 1,701,913.19	\$ 1,394,894.55
Proposed Debt Service (1 Year CIP)	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ 1,324,548.77	\$ -
Proposed Capital Improvement Plan (20 Year)	\$ 423,195.51	\$ 817,881.01	\$ 440,292.61	\$ 850,923.41	\$ 458,080.43	\$ -
Proposed Capital Improvement Plan (1 Year)						
Total Expenses (With starting CIP & No New Debt Service)	\$ 3,909,058.43	\$ 4,372,569.27	\$ 4,065,182.71	\$ 4,547,419.39	\$ 4,227,614.42	\$ 3,844,032.74
Total Expenses (do nothing)	\$ 3,485,862.92	\$ 3,554,688.26	\$ 3,624,890.10	\$ 3,696,495.98	\$ 3,769,533.98	\$ 3,844,032.74
Total Expenses (With Proposed CIP & No new Debt Service & Fund CIP only with Rate Increases)	\$ 3,909,058.43	\$ 4,372,569.27	\$ 4,065,182.71	\$ 4,547,419.39	\$ 4,227,614.42	\$ 3,844,032.74
Total Expenses (With proposed CIP, Rate Increases & New Loans)	\$ 5,438,416.97	\$ 5,956,902.26	\$ 5,679,110.28	\$ 6,218,542.38	\$ 5,929,527.60	\$ 5,238,927.30
Total Expenses (With Proposed CIP & New Debt Service - 1 year CIP)	\$ 4,810,411.69	\$ 4,879,237.02	\$ 4,949,438.87	\$ 5,021,044.75	\$ 5,094,082.75	\$ 3,844,032.74