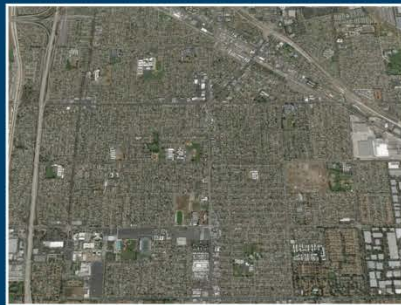


City of

NORWALK | CALIFORNIA



Water Rate Study

January 14, 2016

Final Draft Report



Financial & Economic Consulting Services

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Section 1 - Introduction

1.1. Introduction

Willdan Financial Services (“Willdan”) was retained by the City of Norwalk (“City”) to conduct a Water Rate Study (“Rate Study”). This Rate Study Report details the results of the Rate Study for the six-year period FY 2016-2021.

The results of the Rate Study presented herein are a financial plan, and associated rates and charges, which were designed to provide revenues sufficient to fund the ongoing operating and capital costs necessary to operate the Norwalk Municipal Water System (NMWS), while meeting the financial requirements and goals set forth by the City for the NMWS.

1.2. Organization of this Report

This Rate Study Report presents an overview of the rate-making concepts employed in the development of the analysis contained herein, followed by a discussion of the data, assumptions and results associated with the analysis. An appendix with detailed schedules is presented for a further investigation into the data, assumptions and calculations which drive the results presented in this Report. Appendix A presents the detailed schedules for each optional scenario presented herein for the FY 2016-2021 time period. The report is organized as follows:

- Section 1 – Introduction
- Section 2 – Overview of Norwalk Municipal Water System (NMWS) Rate-Making Principles, Processes and Issues
- Section 3 – Water Rate Study Development and Results
- Section 4 – Conclusions and Recommendations
- Appendix A – Detailed Rate Study Schedules

Section 2 - Overview of Utility Rate-Making Principles, Processes and Issues

2.1. Introduction

The Rate Study utilized generally accepted rate-making principles which resulted in the development of rates and charges which are projected to: 1) generate sufficient revenue to meet the financial requirements of the utility, 2) address the need to recover costs from customers in a manner which is fair and equitable relative to service provided, and 3) meet the rate design goals of the utility. A discussion of some of the key principles of rate-making, and how the processes employed herein are guided by those principles, is presented below.

2.2. Discussion of General Rate-Making Principles

While the individual rates for each water system vary based on a variety of factors, the development of rates should, for the most part, be consistent with general rate-making principles set forth in utility rate-making practice and literature – such as the American Water Works Association (AWWA) M1 Manual. The principle by which rate practitioners are guided is that rates designed for any utility should strike a reasonable balance between several key principles. In general, rates designed should:

- Generate a stable rate revenue stream which, when combined with other sources of funds, is sufficient to meet the financial requirements and goals of the water system
- Be fair and equitable – that is, they should generate revenue from customer classes which is reasonably in proportion to the cost to provide service to that customer class
- Be easy to understand by customers
- Be easy to administer by the water system
- Minimize customer impact
- Encourage conservation of resources

Designing a rate structure which completely addresses all of these principles is challenging given the sometimes competing goals of the principles. For instance, designing a rate structure which generates a stable revenue stream would guide the rate practitioner to the development of a rate structure with high fixed charges which result in an assumed guaranteed revenue stream each year. However, high

fixed charges typically do not minimize customer impact, nor do they typically encourage conservation (through a price signal). Striking the appropriate balance between the principles of rate-making is the result of a detailed process of evaluation of revenue requirements and cost of service; and how those translate into the rate design alternatives, which most closely meet the specific objectives of the individual water system under the particular circumstances in which the water system operates.

2.3. The Revenue Sufficiency Process

In order to develop rates and charges which generate sufficient revenue to meet the fiscal requirements of the water system, a determination of the annual rate revenue required must be completed. This rate revenue, combined with other sources of funds, is evaluated to determine whether the total revenue is sufficient to meet those fiscal requirements. This process is typically referred to as a **Revenue Sufficiency Analysis**.

The process employed in the Revenue Sufficiency Analysis results in the identification of revenue requirements of the system, such as administrative expenses, operating expenses, capital expenses (minor and major), debt service expense (including a provision for debt service coverage), transfers out and the maintenance of both restricted and unrestricted reserves at appropriate levels. These revenue requirements are then compared to the total sources of funds during each year of the forecast period to determine the adequacy of projected revenues to meet projected revenue requirements. To the extent that the existing revenue stream is not sufficient to meet the annual revenue requirements of the system, a series of rate revenue increases are calculated which would be required in order to provide revenue sufficient to meet those needs.

2.4. The Cost Allocation Process

In order to provide guidance to the utility as to how to appropriately recover the rate revenue requirements identified in the Revenue Sufficiency Analysis, a Cost of Service Analysis is conducted.

The process employed in the **Cost of Service Analysis** results in the identification of the cost to provide water service to customers. These water service cost allocations are then used as the basis for the assignment of revenue requirements to customer classes, upon which the development of rates and charges is based.

The industry standard approach to the development of a cost of service analysis is the Base-Extra Capacity methodology, as detailed in the American Water Works Association (AWWA) M1 Manual – Principles of Water Rates, Fees and Charges.

The general approach to the development of cost of service allocations under the Base-Extra Capacity methodology is to: 1) identify the costs by functional cost category, 2) allocate the functionalized costs further to cost categories and then 3) allocate rate revenue requirements to customer classes based on the distribution of costs and customer characteristics.

The resulting allocations provide guidance to the rate practitioner which, combined with the other goals and objectives of the utility, provides the necessary information required to proceed to the development of utility rates and charges.

2.5. The Rate Design Process

With the rate revenue requirement determined in the Revenue Sufficiency Analysis, and the manner in which that rate revenue should be recovered determined in the Cost of Service Analysis, the development of specific rates and charges can commence.

Water systems consider a variety of factors in establishing rates, including cost allocation, customer impact, conservation of resources and ease of administration. The rate design process seeks to find the balance between the need to recover sufficient revenue in a fair and equitable manner and the need to do so within the constraints of other objectives which are unique to each water system. By understanding the types of customers served by the water system, and the general usage characteristics of those customers, a system of rates and charges can be developed that balances those many objectives while also generating sufficient revenue.

First, the rate design goals of the water system are reviewed to identify areas the water system wishes to address over the course of the Rate Study. Next, an assessment of the existing rate design is undertaken to identify what has worked well for the water system with regard to their specific goals and objectives, and the general goals and objectives of utility rate-making. This assessment typically also identifies areas for improvement which can provide guidance to the rate practitioner with respect to the design of future rates and charges.

With an evaluation of the strengths and weaknesses of the existing rate structure and the goals of the water system going forward, the development of a new rate structure can begin. Development of a new rate structure which recovers the costs to provide water and sewer service in a manner which achieves the goals of the water system in a manner consistent with standard rate-making practice requires an analysis of the projected usage characteristics of the customer base to which the rates will apply. This analysis is typically referred to as a billing frequency analysis.

The billing frequency analysis is provided through the billing system of the water system and then used by the rate-practitioner to accumulate billing statistics for each class of customer. Typical customer classes for water and sewer utilities consist of residential, sometimes broken down into subcategories such as single family and multi-family, and non-residential, sometimes broken down into subcategories such as commercial, government, industrial and others. Billing data allows for the development of rates based on the use of the system by each class. Alternative rate designs which account for customer usage patterns and also address various combinations of the water system's rate-making goals and rate-making principles can then be developed and reviewed by both the rate-practitioner and the water system regarding the viability of each rate structure designed.

With the identification of the rate revenue required, the manner in which those requirements should be recovered and the billing units to be used to recover the required revenue, specific rates and charges can then be developed.

2.6. Financial Management Goals of the Water System

The establishment of specific financial management goals of a water system is a key step in developing financial plans which will ensure the financial health of the water system. Financial management goals exist as a way for the water system to track financial performance so the water system can ensure financial strength and proper stewardship of the water system's assets, both financial and operational.

Section 3 - Water Rate Study Development and Results

3.1. General Methodology

In order to develop rates and charges which generate sufficient revenue to meet the fiscal requirements of the NMWS, a determination of the annual revenue from rates which, combined with other sources of funds, will provide sufficient funds to meet those fiscal requirements must first be completed. This process is typically referred to as a Revenue Sufficiency Analysis.

The process employed in the Revenue Sufficiency Analysis resulted in the identification of revenue requirements of the system, such as operating expenses, capital expenses (minor and major), debt service expense (including a provision for debt service coverage, as applicable), transfers out and the maintenance of both restricted and unrestricted reserves at appropriate levels. These revenue requirements were then compared to the total sources of funds during each year of the forecast period to determine the adequacy of projected revenues to meet requirements. To the extent that the existing revenue stream was not sufficient to meet the annual revenue requirements of the system, a series of rate revenue increases were calculated to provide revenue sufficient to meet those needs.

The Capital Improvement Plan (CIP), including the timing of projects and estimated costs, was provided by the NMWS. Willdan relied on this information and the CIP was fully integrated into the Revenue Sufficiency Analysis.

3.2. Financial Management Goals of the NMWS

The financial management goals of the City's NMWS are described below.

3.2.1.1. Debt Service Coverage

The NMWS, like most utilities, has utilized long-term debt to fund capital assets in the past. To secure this debt, a pledge of NMWS net revenue as the source of repayment for the debt was required and made by the NMWS. In addition, there exists a debt service coverage requirement to be met in each year in which the debt is outstanding. Debt service coverage requirements generally mandate some multiple of annual net revenue, defined as operating revenue less operating expenses, as compared to annual debt service payments due.

In the case of the NMWS, the covenants associated with this debt require that minimum debt service coverage of 1.25 times be maintained, or exceeded, in each year of the forecast period. As a further measure of financial strength, it was determined that a goal of achieving a 1.50 times debt service coverage during the forecast period was prudent for this analysis.

3.2.1.2. Minimum Unrestricted Operating Reserve Fund Balance

In order to maintain a certain level of liquidity, utilities typically establish some form of unrestricted operating reserve fund balance target. The analysis presented herein has a goal of maintaining an unrestricted working capital / operating fund reserve amount of approximately 3 months of Operating Expenses.

3.3. Water Revenue Sufficiency Analysis

3.3.1 Data Items

Key data items reviewed, discussed and incorporated into the Revenue Sufficiency Analysis were:

- Financial management goals of the NMWS
- Ending Balances related to the FY 2014 Financial Statements
- Sources of Funds from FY 2015 Actuals and FY 2016 and FY 2017 Operating Budget and resulting projections
- Uses of Funds from FY 2015 Actuals and FY 2016 and FY 2017 Operating Budget and resulting projections
- Capital Improvement Plan (CIP)
- General assumptions related to:
 - Customer growth
 - Cost escalation factors
 - New debt terms

During the course of this study, we reviewed the data and assumptions presented in this report with the City in several meetings.

A discussion of the use of each of the above data items is presented below.

3.3.2 Fund Balances Related to the FY 2014 Financial Statements

To better understand what funds the NMWS had on hand to start the forecast period, a detailed review of the City’s FY 2013-2014 Financial Statements was conducted and reviewed with staff. Assumptions were made to estimate the actual funds available at the end of FY 2013-2014, and therefore at the beginning of FY 2014-2015, based on discussions with staff. A summary of the individual funds and fund balances associated with the NMWS for FY 2014-2015, as adjusted for use in this analysis, is presented in Table W-1 below. A more detailed presentation of the beginning fund balances is presented in Water Schedule A-2 in Appendix A.

Table W-1				
Water				
Beginning Fund Balances - By Source				
Funding Source	Current Assets	Current Liabilities	Adjustments	Net Cash Available
Operating Fund	\$ 11,036,151	\$ (3,571,613)	\$ (553,570)	\$ 6,910,968
Existing Bond Funds	3,496,405	-	-	3,496,405
Source: FY 2014 Audit				

Note: Additional detail associated with this table can be found in Appendix A in Water Schedule A - 2

3.3.3 Sources of Funds from FY 2014-2015 Actuals, FY 2015-2016 and FY 2016-2017 Operating Budget and Resulting Projections

Staff provided the FY 2014-2015 Actuals and FY 2015-2016 and FY 2016-2017 Revenue Budgets, and associated line-item revenue detail, as the basis for the projection of financial performance for FY 2014-2015 through 2016-2017. In addition, line-item projected revenues for FY 2017-2018 to FY2019-2021 were developed using the FY 2015-2016 and FY 2016-2017 detail as the basis.

A summary of the FY 2015-2016 and FY 2016-2017 Revenue Budget, and subsequent projected budgetary revenues, is presented below in Table W-2. A more detailed presentation of the line-item budgeted and projected revenues is presented in Water Schedule A-3 in Appendix A.

Table W-2							
Water							
Sources of Funds							
	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021
Operating Fund							
Water Rate Revenue Increases	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%
% of Year Rate Increase Effective	0%	0%	96%	96%	96%	96%	96%
Total Water Rate Revenue	\$4,770,500	\$4,770,500	\$5,044,804	\$5,347,492	\$5,668,342	\$6,008,442	\$6,368,949
Other Operating Revenue	274,295	232,650	92,650	92,650	92,650	92,650	92,650
Interest Income - Operating Fund	9,000	9,000	4,000	4,000	1,000	1,000	1,000
Total Operating Revenue - Operating Fund - Water	\$5,053,795	\$5,012,150	\$5,141,454	\$5,444,142	\$5,761,992	\$6,102,092	\$6,462,599
Existing Bond Funds							
Sources of Funds	\$ 390,468	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Earnings	4,000	5,000	-	-	-	-	-
Total Restricted Reserves	\$ 394,468	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -
Total Projected Sources of Funds - Water	\$5,448,263	\$5,017,150	\$5,141,454	\$5,444,142	\$5,761,992	\$6,102,092	\$6,462,599

Note: Additional detail associated with this table can be found in Appendix A in Water Schedule A - 3

3.3.4 Uses of Funds from FY 2015-2016 Operating Budget and Resulting Projections

Staff provided the FY 2014-2015 Actual Expenses and FY 2015-2016 and FY 2016-2017 Budgeted Expenses, and associated line-item expense detail, as the basis for the projection of financial performance for FY 2014-2015 through FY2016-2017. In addition, line-item projected expenses for FY 2017-2018 through FY2020-2021 were developed using cost escalation factors.

Cost escalation factors were reviewed by staff and were used to project line-item costs beyond the 2016-2017 budget. Those factors were applied based on line-item cost classifications.

A summary of the FY 2015-2016 and FY 2016-2017 Expense Budget, and subsequent projected budgetary expenses, is presented below in Table W-3. A more detailed presentation of the line-item budgeted and projected expenses is presented in Water Schedule A-4 in Appendix A.

Table W-3 Water Projected Uses of Funds							
	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021
Operating Fund							
Operating Expenses	\$ 3,560,326	\$ 4,344,935	\$ 3,777,688	\$ 3,907,389	\$ 4,041,964	\$ 4,181,619	\$ 4,326,574
Minor Capital	352,271	119,000	92,000	94,760	97,603	100,532	103,548
Major Capital Funded with Existing Reserves/Current Cash	-	3,517,299	583,495	2,895,727	598,055	587,910	215,621
Transfers Out	243,505	243,505	243,505	243,505	243,505	243,505	243,505
Non Operating Expenses	-	-	-	-	-	-	-
Existing Revenue Bond Debt Service	541,123	541,013	538,813	541,413	538,613	540,613	540,113
New Revenue Bond Debt Service	-	-	-	-	413,000	413,000	997,000
Total Uses of Funds - Operating Fund - Water	\$ 4,697,225	\$ 8,765,752	\$ 5,235,501	\$ 7,682,793	\$ 5,932,740	\$ 6,067,178	\$ 6,426,360
Existing Bond Funds							
Uses of Funds other than Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Major Capital Funded with Existing Reserves/Current Cash	57,934	3,837,939	-	-	-	-	-
Total Restricted Reserves	\$ 57,934	\$ 3,837,939	\$ -	\$ -	\$ -	\$ -	\$ -
Total Projected Uses of Funds - Water	\$ 4,755,159	\$12,603,691	\$ 5,235,501	\$ 7,682,793	\$ 5,932,740	\$ 6,067,178	\$ 6,426,360

Note: Additional detail associated with this table can be found in Appendix A in Water Schedule A - 4

3.3.5 Capital Improvements Plan (CIP)

The City provided a forecast of capital requirements for the FY 2015-2016 through FY 2020-2021 forecast period. This capital forecast was escalated for use in the analysis by a factor of 3% per year.

A summary table of the CIP for the FY 2015-2016 through FY 2020-2021 forecast period is presented below in Table W-4. A more detailed CIP, including the timing and funding source for each respective project, is presented in Water Schedules A-5 and A-6, respectively, in Appendix A.

Table W-4							
Water							
Capital Improvements Program and Projected Funding							
	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021
Capital Projects - Water	\$ 57,934	\$ 7,355,238	\$ 583,495	\$ 2,895,727	\$ 3,421,547	\$ 3,768,800	\$ 4,226,945
Funding Source:							
Existing Bond Funds	57,934	3,837,939	-	-	-	-	-
Grants	-	-	-	-	-	-	-
Operating Fund	-	3,517,299	583,495	2,895,727	598,055	587,910	215,621
New Bonds	-	-	-	-	2,823,491	3,180,890	4,011,324
Total Capital Project Funded	\$ 57,934	\$ 7,355,238	\$ 583,495	\$ 2,895,727	\$ 3,421,547	\$ 3,768,800	\$ 4,226,945
Variance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note: Additional detail associated with this table can be found in Appendix A in Water Schedules A-5 and A-6

3.3.6 General Assumptions

In order to develop the financial and rate projections, certain assumptions were made with regard to elements of the revenue sufficiency analysis. A summary of those assumptions is presented below.

3.3.6.1. Growth

Based on discussion with the City, it was decided to assume no annual growth in the NMWS customer base during the forecast period.

3.3.6.2. Cost Escalation Factors

Based on discussion with the City, it was assumed that costs were to be escalated at approximately 3.0% per year.

3.3.6.3. New Debt Terms

Based on discussion with the City, new debt during the forecast period is assumed to carry a 30 year repayment term at a rate of 5.5% per year.^{1 2}

3.3.7 Results of the Water Revenue Sufficiency Analysis

After a thorough review of the above-mentioned data elements, the resulting financial plan presented herein is the embodiment of the data, assumptions and review process undertaken with staff in several meetings.

3.3.7.1. Summary Pro Forma and Revenue Increases Required

The revenue requirements and financial goals of the NMWS during the forecast period necessitate the need for additional revenue in the form of water revenue increases.

Table W-5 below presents a summary Pro Forma, and associated annual water revenue increase requirements, required during the forecast period in order for the NMWS to meet its financial goals.

FY 2016-2017	6.0% Water Revenue Increase – Implemented in July 2016
FY 2017-2018	6.0% Water Revenue Increase – Implemented in July 2017
FY 2018-2019	6.0% Water Revenue Increase – Implemented in July 2018
FY 2019-2020	6.0% Water Revenue Increase – Implemented in July 2019
FY 2020-2021	6.0% Water Revenue Increase – Implemented in July 2020

A more detailed presentation of the pro forma, including a fund balance reconciliation and projection of annual debt service coverage, is presented in Water Schedule A-1 in Appendix A.

¹ Willdan is not a financial advisor to the City with respect to debt terms, and urges the City to seek guidance from professionals in the arena of debt terms in order to validate our general assumptions for purposes of this analysis.

² In the event the City chose to not issue new debt for capital projects then the projects would need to be eliminated from the capital plan or funded through another funding source.

Table W-5 Water Summary Pro Forma								
	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021	
Operating Fund								
Beginning Unrestricted Fund Balance	\$6,910,968	\$7,267,538	\$3,513,937	\$3,419,890	\$1,181,239	\$1,010,491	\$1,045,405	
Water Rate Revenue Increases								
Water Rate Revenue Increases	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%	
% of Year Rate Increase Effective	0%	0%	96%	96%	96%	96%	96%	
Total Rate Revenue	\$4,770,500	\$4,770,500	\$5,044,804	\$5,347,492	\$5,668,342	\$6,008,442	\$6,368,949	
Other Operating Revenue	274,295	232,650	92,650	92,650	92,650	92,650	92,650	
Interest Income - Operating Fund	9,000	9,000	4,000	4,000	1,000	1,000	1,000	
Total Revenue	\$5,053,795	\$5,012,150	\$5,141,454	\$5,444,142	\$5,761,992	\$6,102,092	\$6,462,599	
Operating Expenses	\$3,560,326	\$4,344,935	\$3,777,688	\$3,907,389	\$4,041,964	\$4,181,619	\$4,326,574	
Minor Capital	352,271	119,000	92,000	94,760	97,603	100,532	103,548	
Major Capital Funded with Existing Reserves/Cur	-	3,517,299	583,495	2,895,727	598,055	587,910	215,621	
Transfers Out	243,505	243,505	243,505	243,505	243,505	243,505	243,505	
Non Operating Expenses	-	-	-	-	-	-	-	
Existing Revenue Bond Debt Service	541,123	541,013	538,813	541,413	538,613	540,613	540,113	
New Revenue Bond Debt Service	-	-	-	-	413,000	413,000	997,000	
Total Expenses	\$4,697,225	\$8,765,752	\$5,235,501	\$7,682,793	\$5,932,740	\$6,067,178	\$6,426,360	
Ending Unrestricted Fund Balance	\$7,267,538	\$3,513,937	\$3,419,890	\$1,181,239	\$1,010,491	\$1,045,405	\$1,081,644	
Existing Bond Funds								
Beginning Fund Balance	\$3,496,405	\$3,832,939	\$ -	\$ -	\$ -	\$ -	\$ -	
Sources of Funds	394,468	5,000	-	-	-	-	-	
Uses of Funds	57,934	3,837,939	-	-	-	-	-	
Ending Fund Balance	\$3,832,939	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Summary of Key Metrics:								
Unrestricted Operating Funds (Min) -		Target						
Months of (O&M)	3.0	24.5	9.7	10.9	3.6	3.0	3.0	
Debt Service Coverage (Min)	1.50	2.76	1.23	2.53	2.84	1.81	2.01	

Note: Additional detail associated with this table can be found in Appendix A in Water Schedule A - 1

3.4. Water Cost of Service Analysis

3.4.1 General Methodology

In order to provide guidance to the NMWS as to how to adequately recover the rate revenue requirements identified in the Revenue Sufficiency Analysis, in a manner consistent with generally accepted rate-making principles, a Cost of Service Analysis was conducted.

The Cost of Service Analysis resulted in the identification of the cost to provide service to customers based on functional cost categories. This provided the rationale for the allocation of costs to expense categories related to water service. These water cost allocations were then used as the basis for the assignment of revenue requirements to customer classes upon which the development of rates and charges presented herein is based.

For the purposes of this analysis, the cost of service analysis for water was based on the Base-Extra Capacity methodology, as detailed in the American Water Works Association (AWWA) M1 Manual – Principles of Water Rates, Fees and Charges.

The general approach to the development of cost of service allocations under the Base-Extra Capacity Cost Allocation methodology was to: 1) identify the costs by functional cost category, 2) allocate the functionalized costs further to base-extra capacity categories and then to 3) allocate costs and rate revenue requirements to customer classes based on the distribution of costs and customer characteristics. The Cost of Service Analysis and Results is presented below.

3.4.2 Functional Cost Allocation

Line-item costs were categorized by functional cost category (source of supply, pumping, treatment, etc.) and summarized by these functional cost categories. The summary of this functional cost allocation for the five-year average annual budgeted / projected expenses during FY 2016-2020 is presented in Table W-6 below.

Table W-6						
Water						
Summary Allocation of Costs to Functional Cost Component						
Functional Cost Component	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	5 Year Average
Source of Supply	\$2,392,830	\$1,730,586	\$1,767,771	\$1,829,467	\$1,896,101	\$1,923,351
Pumping	451,002	638,938	635,023	652,237	670,311	609,502
Water Treatment	279,470	268,210	249,875	255,273	261,225	262,811
Transmission & Distribution	450,646	407,568	373,629	381,166	389,614	400,525
Meter-related Services	359,493	354,047	334,990	342,679	351,039	348,449
Hydrants	92,330	82,217	74,790	76,247	77,895	80,696
Meters & Services	274,009	262,450	234,087	238,264	243,109	250,384
Billing & Collection	808,856	777,420	693,200	711,512	730,373	744,272
General Admin	419,066	419,020	411,805	422,585	433,982	421,291
Total	\$5,527,703	\$4,940,456	\$4,775,170	\$4,909,431	\$5,053,647	\$5,041,281

Note: Additional detail associated with this table can be found in Appendix A in Water Schedule A - 4

3.4.3 Allocation of Functional Costs to Base-Extra Capacity Components

The functionalized costs were then further allocated based on the Base-extra Capacity Method, the preferred industry method, as presented in the AWWA M1 Manual of Practice. The Base-extra Capacity method results in the allocation of functionalized costs in a manner consistent with the functional reality behind each type of cost. For instance, transmission costs are related to not only a base, or average, level of water flow, but are also related to the fact that transmission assets are typically sized to meet maximum day and maximum hour demands. Therefore, some portion of transmission costs should be allocated to the base component, and further to the extra capacity component (max day and max hour). Table W-7 below presents the results of the Base-extra Capacity method.

Table W-7 Water Allocation of Functional Costs to Base / Extra Capacity Cost Components								
Functional Cost Component	Summary of Expenses by Base / Extra Capacity Components							
	Base	Extra Capacity			Meters & Services	Billing & Collection	Direct Fire Protection	Total
	Average Day	Max Day	Max Hour					
Source of Supply	\$ 1,923,351	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,923,351
Pumping	380,939	228,563	-	-	-	-	-	609,502
Water Treatment	164,257	98,554	-	-	-	-	-	262,811
Transmission & Distribution	139,071	83,443	178,011	-	-	-	-	400,525
Meter-related Services	-	-	-	348,449	-	-	-	348,449
Hydrants	-	-	-	-	-	80,696	-	80,696
Meters & Services	-	-	-	250,384	-	-	-	250,384
Billing & Collection	-	-	-	-	744,272	-	-	744,272
General Admin	237,786	37,438	16,233	54,607	67,869	7,359	-	421,291
Total	\$ 2,845,403	\$ 447,998	\$ 194,244	\$ 653,440	\$ 812,141	\$ 88,054	\$ -	\$5,041,281

3.5. Water Rate Design Analysis – Option 1

3.5.1 Assumptions Specific to Option 1

The City requested that two options be presented which addressed different levels of reduced consumption:

Option 1 assumes all users reduce their flow, from FY 2013- 2014 levels, by 3%.

Option 2, presented later in this Report, assumes a reduction of 5% from FY 2013-2014 levels.

This reduction in flow is referred to in the text and schedules to follow as an “Elasticity Adjustment”.

3.5.2 Discussion of Option 1

During discussions with, and presentations to, the City, the City requested the development of an option whereby all customer classes were charged the same flow-based water rate – a structure which is consistent with the existing rate structure employed by the City. The rates developed for Option 1 below incorporate this approach.

3.5.3 Analysis and Validation of Water Customer Data

An analysis of water billing data was conducted, using billing data provided by the City for Fiscal Year 2013-2014. That water billing data was compiled and tested using multiple methods to evaluate its accuracy for rate design purposes.

3.5.4 Summary of Water Fixed Charge Billing Data and Water Fixed Charge Development – Option 1

The analysis of water billing data provided a count of bills and meters, by both customer class and meter size, which would become the basis by which the fixed monthly charges for the NMWS would be developed. The Total Water Rate Revenue Requirement was apportioned to two rate components, the fixed charge component and the flow charge component. The calculations associated with the fixed charge calculations are presented in Table W-8 for Fiscal Year 2016-2017. Note that under both Options 1 and 2, it was assumed that fixed charges would recover approximately 40% of the total water rate revenue requirement in order to remain consistent with existing practice. A summary forecast of all water rates is presented later in this Report.

Development of Fixed Charges – FY 2017

Table W-8											FY 2016 - 2017			
Water														
Development of Fixed Charges														
FY 2016 - 2017														
Net Water Rate Revenue Requirement											\$ 5,056,730			
% to Fixed Charge											40%			
Fixed Charge Revenue Requirement											\$ 2,022,692			
Portion to Billing Charge											\$ 812,141			
Portion to Meter Charge											\$ 1,210,551			
Summary of Fixed Charges														
Meter Size	AWWA Meter Equivalency Factor	Bi Monthly Charge per Bill	Bi Monthly Charge per Meter	Total Bi Monthly Fixed Charge										
3/4" METER	1.00	\$ 25.24	\$ 25.50	\$ 50.74										
1" METER	1.67	25.24	42.50	67.74										
1 1/2" METER	3.33	25.24	85.00	110.24										
2" METER	5.33	25.24	136.00	161.24										
2 1/2" METER	7.67	25.24	195.50	220.74										
3" METER	10.00	25.24	255.00	280.24										
4" METER	16.67	25.24	425.00	450.24										
6" METER	33.33	25.24	850.00	875.24										
8" METER	53.33	25.24	1,360.00	1,385.24										
10" METER	76.67	25.24	1,955.00	1,980.24										
											Billing Charge Calculation		Meter Charge Calculation	
Meter Size	C	FIRE	IND	INST	IRR	IRRIGATION	L	MF	RECLAIM	SF	Total Bills	Meter Equiv. Factor	Meter Equivalents	
3/4" METER	2,032	24	144	202	12	154	-	1,548	-	55,174	59,290	1.00	59,290	
1" METER	408	12	72	48	12	204	-	958	-	216	1,930	1.67	3,217	
1 1/2" METER	276	12	204	58	-	48	12	624	-	-	1,234	3.33	4,113	
2" METER	238	-	228	180	12	72	-	540	-	12	1,282	5.33	6,837	
2 1/2" METER	-	-	24	-	-	-	-	-	-	-	24	7.67	184	
3" METER	-	12	-	-	-	-	-	-	12	-	24	10.00	240	
4" METER	-	84	-	36	-	-	-	-	-	-	120	16.67	2,000	
6" METER	-	360	-	12	-	12	-	-	-	-	384	33.33	12,800	
8" METER	-	84	-	-	-	-	-	-	-	-	84	53.33	4,480	
10" METER	-	24	-	-	-	-	-	-	-	-	24	76.67	1,840	
Total	2,954	612	672	536	36	490	12	3,670	12	55,402	64,396		95,001	
											Revenue Target		\$ 812,141	
											Monthly Charge		\$ 12.62	
											Bi Monthly Charge per Bill / Equivalent Meter		\$ 25.24	
													\$ 12.75	
													\$ 25.50	

3.5.5 Summary of Water Flow Charge Billing Data and Water Flow Charge Development – Option 1

An analysis of water billing data, adjusted for the proposed 3% reduction in flow as assumed in Option 1, is presented in Table W-9 below.

A summary forecast of all water rates is presented later in this Report.

Table W-9							FY 2016 - 2017	
Water Development of Flow Charges								
				FY 2016 - 2017				
Net Water Rate Revenue Requirement				\$ 5,056,730				
				% to Fixed Charge		40%		
Fixed Charge Revenue Requirement				\$ 2,022,692				
Flow Charge Revenue Requirement				\$ 3,034,038				
Class	Annual Flow	Equivalency Factor (1)	Equivalent Flow	Elasticity Adjustment	Final Flow for Rate Design	Rates by Class	Revenue by Class	
C	63,406	1.00	63,406	97%	61,504	\$ 3.45	\$ 212,188	
FIRE	330	1.00	330	97%	320	3.45	1,104	
IND	35,575	1.00	35,575	97%	34,508	3.45	119,052	
INST	20,772	1.00	20,772	97%	20,149	3.45	69,513	
IRR	713	1.00	713	97%	692	3.45	2,386	
IRRIGATION	21,008	1.00	21,008	97%	20,378	3.45	70,303	
L	148	1.00	148	97%	144	3.45	495	
MF	179,122	1.00	179,122	97%	173,748	3.45	599,432	
RECLAIM	1,168	0.75	876	97%	850	2.59	2,932	
SF	586,435	1.00	586,435	97%	568,842	3.45	1,962,505	
Total	908,677		908,385		881,133		3,039,910	
					Revenue Target \$		3,034,038	
					Monthly Charge \$		3.45	

(1) The City chose to establish rates for all classes (excluding Reclaimed @ 75% of potable) which would be the same. Equivalency factors represent that.

3.6. Water Rate Design Analysis – Option 2

3.6.1 Assumptions Specific to Option 2

The City requested that two options be presented; which addressed different levels of reduced consumption. Option 2 assumes that all users reduce their flow, from FY 2013-2014 levels, by 5%. Option 1, presented earlier in this Report, assumed a reduction of 3% from FY 2013-2014 levels. This reduction in flow is referred to in the text and schedules to follow as an “Elasticity Adjustment”.

3.6.2 Discussion of Option 2

During discussions with, and presentations to, the City, the City requested the development of an option whereby all customer classes were charged the same flow-based water rate – a structure which is consistent with the existing rate structure employed by the City. The rates developed for Option 2 below incorporate this approach.

3.6.3 Analysis and Validation of Water Customer Data

An analysis of water billing data was conducted, using billing data provided by the City for Fiscal Year 2013-2014. That water billing data was compiled and tested using multiple methods to evaluate its accuracy for rate design purposes.

3.6.4 Summary of Water Fixed Charge Billing Data and Water Fixed Charge Development – Option 2

The analysis of water billing data provided a count of bills and meters, by both customer class and meter size, which would become the basis by which the fixed monthly charges for the NMWS would be developed. The Total Water Rate Revenue Requirement was apportioned to two rate components, the fixed charge component and the flow charge component. The calculations associated with the fixed charge calculations are presented in Table W-10 for Fiscal Year 2016-2017. Note that under both Options 1 and 2, it was assumed that fixed charges would recover approximately 40% of the total water rate revenue requirement in order to remain consistent with existing practice. A summary forecast of all water rates is presented later in this Report.

Development of Fixed Charges – FY 2017

Table W-10											FY 2016 - 2017			
Water														
Development of Fixed Charges														
FY 2016 - 2017														
Net Water Rate Revenue Requirement											\$ 5,056,730			
% to Fixed Charge											40%			
Fixed Charge Revenue Requirement											\$ 2,022,692			
Portion to Billing Charge											\$ 812,141			
Portion to Meter Charge											\$ 1,210,551			
Summary of Fixed Charges														
Meter Size	AWWA Meter Equivalency Factor	Bi Monthly Charge per Bill	Bi Monthly Charge per Meter	Total Bi Monthly Fixed Charge										
3/4" METER	1.00	\$ 25.24	\$ 25.50	\$ 50.74										
1" METER	1.67	25.24	42.50	67.74										
1 1/2" METER	3.33	25.24	85.00	110.24										
2" METER	5.33	25.24	136.00	161.24										
2 1/2" METER	7.67	25.24	195.50	220.74										
3" METER	10.00	25.24	255.00	280.24										
4" METER	16.67	25.24	425.00	450.24										
6" METER	33.33	25.24	850.00	875.24										
8" METER	53.33	25.24	1,360.00	1,385.24										
10" METER	76.67	25.24	1,955.00	1,980.24										
											Billing Charge Calculation		Meter Charge Calculation	
Meter Size	C	FIRE	IND	INST	IRR	IRRIGATION	L	MF	RECLAIM	SF	Total Bills	Meter Equiv. Factor	Meter Equivalents	
3/4" METER	2,032	24	144	202	12	154	-	1,548	-	55,174	59,290	1.00	59,290	
1" METER	408	12	72	48	12	204	-	958	-	216	1,930	1.67	3,217	
1 1/2" METER	276	12	204	58	-	48	12	624	-	-	1,234	3.33	4,113	
2" METER	238	-	228	180	12	72	-	540	-	12	1,282	5.33	6,837	
2 1/2" METER	-	-	24	-	-	-	-	-	-	-	24	7.67	184	
3" METER	-	12	-	-	-	-	-	-	12	-	24	10.00	240	
4" METER	-	84	-	36	-	-	-	-	-	-	120	16.67	2,000	
6" METER	-	360	-	12	-	12	-	-	-	-	384	33.33	12,800	
8" METER	-	84	-	-	-	-	-	-	-	-	84	53.33	4,480	
10" METER	-	24	-	-	-	-	-	-	-	-	24	76.67	1,840	
Total	2,954	612	672	536	36	490	12	3,670	12	55,402	64,396		95,001	
											Revenue Target		\$ 812,141	
											Monthly Charge		\$ 12.62	
											Bi Monthly Charge per Bill / Equivalent Meter		\$ 25.24	
											Meter Charge		\$ 1,210,551	
											Monthly Charge		\$ 12.75	
											Bi Monthly Charge per Bill / Equivalent Meter		\$ 25.50	

3.6.5 Summary of Water Flow Charge Billing Data and Water Flow Charge Development – Option 2

An analysis of water billing data, adjusted for the proposed 5% reduction in flow as assumed in Option 2, is presented in Table W-9 below.

A summary forecast of all water rates is presented later in this Report.

Table W-11		FY 2016 - 2017						
Water								
Development of Flow Charges								
		FY 2016 - 2017						
Net Water Rate Revenue Requirement		\$ 5,056,730						
% to Fixed Charge		40%						
Fixed Charge Revenue Requirement		\$ 2,022,692						
Flow Charge Revenue Requirement		\$ 3,034,038						
Class	Annual Flow	Equivalency Factor (1)	Equivalent Flow	Elasticity Adjustment	Final Flow for Rate Design	Rates by Class	Revenue by Class	
C	63,406	1.00	63,406	95%	60,236	\$ 3.52	\$ 212,030	
FIRE	330	1.00	330	95%	314	3.52	1,104	
IND	35,575	1.00	35,575	95%	33,796	3.52	118,963	
INST	20,772	1.00	20,772	95%	19,733	3.52	69,462	
IRR	713	1.00	713	95%	677	3.52	2,384	
IRRIGATION	21,008	1.00	21,008	95%	19,958	3.52	70,251	
L	148	1.00	148	95%	141	3.52	495	
MF	179,122	1.00	179,122	95%	170,166	3.52	598,984	
RECLAIM	1,168	0.75	876	95%	832	2.64	2,929	
SF	586,435	1.00	586,435	95%	557,113	3.52	1,961,039	
Total	908,677		908,385		862,966		3,037,639	
					Revenue Target \$	3,034,038		
					Monthly Charge \$	3.52		
(1) The City chose to establish rates for all classes (excluding Reclaimed @ 75% of potable) which would be the same. Equivalency factors represent that.								

3.7. Summary Rate Schedules – Options 1 and 2

Rate schedules for FY 2016-2017 through FY 2020-2021, with a presentation of the existing water rates, are presented below for Option 1 – Table W-12, and Option 2 – Table W-13.

Table W-12		Option 1				
Water						
Final Rate Schedule						
	Existing	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021
Bi Monthly Fixed Charge - Potable Water						
3/4" METER	\$ 51.49	\$ 50.74	\$ 53.79	\$ 57.02	\$ 60.45	\$ 64.08
1" METER	107.46	67.74	71.81	76.12	80.69	85.54
1 1/2" METER	167.60	110.24	116.86	123.88	131.32	139.20
2" METER	227.09	161.24	170.92	181.18	192.06	203.59
2 1/2" METER	240.83	220.74	233.99	248.03	262.92	278.70
3" METER	337.29	280.24	297.06	314.89	333.79	353.82
4" METER	530.25	450.24	477.26	505.90	536.26	568.44
6" METER	576.20	875.24	927.76	983.43	1,042.44	1,104.99
8" METER	626.00	1,385.24	1,468.36	1,556.47	1,649.86	1,748.86
10" METER	NA	1,980.24	2,099.06	2,225.01	2,358.52	2,500.04
Bi Monthly Fixed Charge - Fire Service						
3" METER	\$ 253.45	\$ 42.65	\$ 45.21	\$ 47.93	\$ 50.81	\$ 53.86
4" METER	141.15	62.33	66.07	70.04	74.25	78.71
6" METER	197.95	132.96	140.94	149.40	158.37	167.88
8" METER	253.45	254.79	270.08	286.29	303.47	321.68
10" METER	311.73	438.04	464.33	492.19	521.73	553.04
Flow Charge per CCF						
Flow Charge - Potable Water	\$ 3.12	\$ 3.45	\$ 3.66	\$ 3.88	\$ 4.12	\$ 4.37
Flow Charge - Reclaimed Water	3.12	2.59	2.75	2.92	3.10	3.29

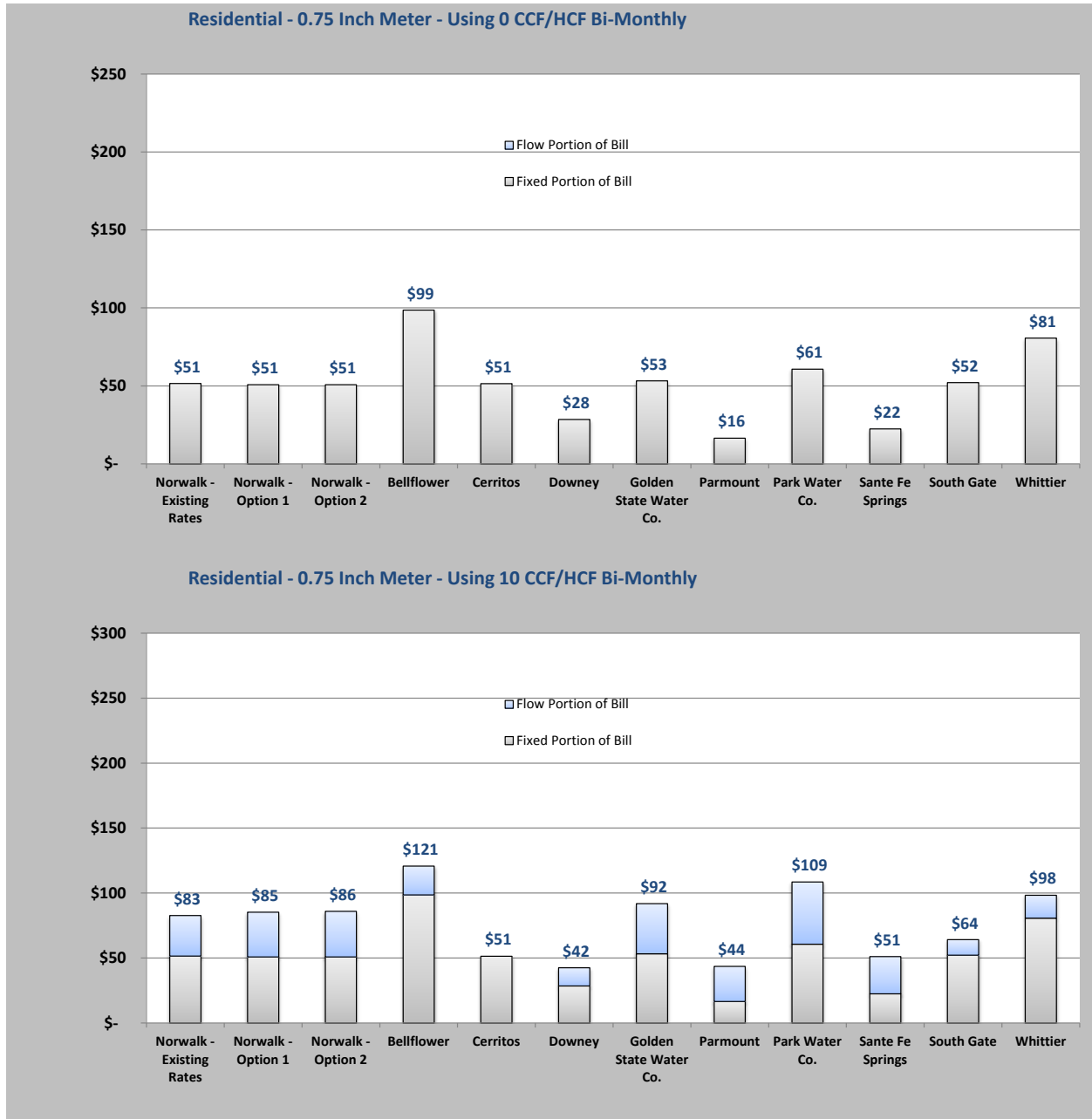
Table W-13		Option 2				
Water						
Final Rate Schedule						
	Existing	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019	FY 2019 - 2020	FY 2020 - 2021
Bi Monthly Fixed Charge - Potable Water						
3/4" METER	\$ 51.49	\$ 50.74	\$ 53.79	\$ 57.02	\$ 60.45	\$ 64.08
1" METER	107.46	67.74	71.81	76.12	80.69	85.54
1 1/2" METER	167.60	110.24	116.86	123.88	131.32	139.20
2" METER	227.09	161.24	170.92	181.18	192.06	203.59
2 1/2" METER	240.83	220.74	233.99	248.03	262.92	278.70
3" METER	337.29	280.24	297.06	314.89	333.79	353.82
4" METER	530.25	450.24	477.26	505.90	536.26	568.44
6" METER	576.20	875.24	927.76	983.43	1,042.44	1,104.99
8" METER	626.00	1,385.24	1,468.36	1,556.47	1,649.86	1,748.86
10" METER	NA	1,980.24	2,099.06	2,225.01	2,358.52	2,500.04
Bi Monthly Fixed Charge - Fire Service						
3" METER	\$ 253.45	\$ 42.65	\$ 45.21	\$ 47.93	\$ 50.81	\$ 53.86
4" METER	141.15	62.33	66.07	70.04	74.25	78.71
6" METER	197.95	132.96	140.94	149.40	158.37	167.88
8" METER	253.45	254.79	270.08	286.29	303.47	321.68
10" METER	311.73	438.04	464.33	492.19	521.73	553.04
Flow Charge per CCF						
Flow Charge - Potable Water	\$ 3.12	\$ 3.52	\$ 3.74	\$ 3.97	\$ 4.21	\$ 4.47
Flow Charge - Reclaimed Water	3.12	2.64	2.80	2.97	3.15	3.34

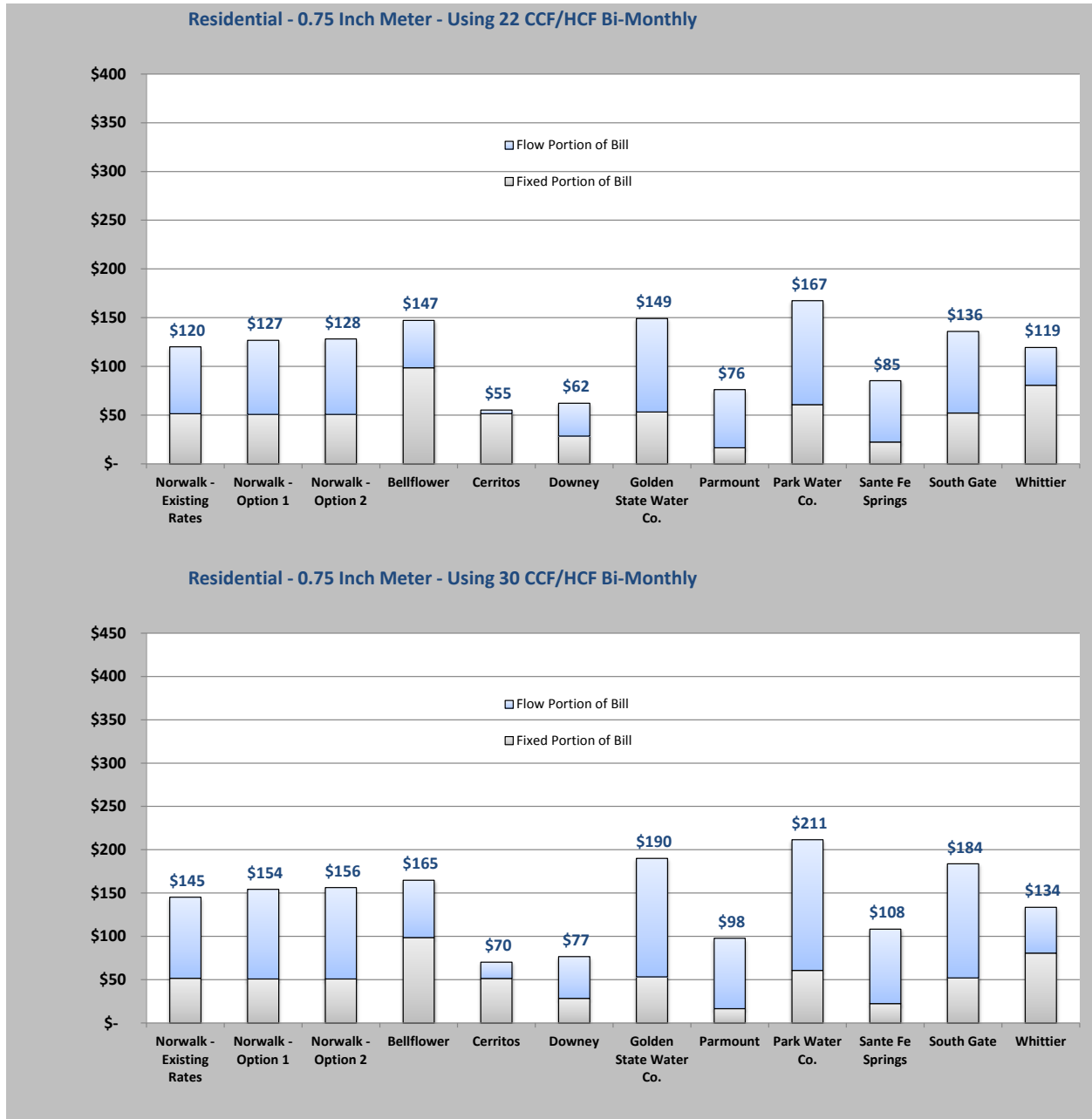
3.8. Summary Customer Impact Results – Options 1 and 2

The comparison of monthly water bills for residential customers with a ¾" meter using various amounts of bi-monthly water usage is presented below compared to neighboring water providers. The comparison also presents water bills for Options 1 and 2 as compared to the City's existing water rates.

The average residential water customer uses approximately 11 CCF per month (or 22 CCF per bi-monthly) period. The third graph below presents a comparison of bi-monthly water bills at this consumption level.

It is important to note that several of these comparative entities have not updated their rates since 2011 and they are most likely preparing to update their rates and will likely have to address the same types of fiscal pressure currently being experienced by many other utilities in the State.





Section 4 - Conclusions and Recommendations

4.1. Conclusions

- Projected operating revenues and operating expenses for the forecast period were developed by, and/or in consultation with, City staff and are based upon reasonable projections.
- The projected capital project expenses have been developed by City staff to address the NMWS capital needs over the forecast period.
- Based on the conclusions above, we are of the opinion that the financial projections presented herein demonstrate the NMWS' ability to meet its obligations during the forecast period.

4.2. Recommendations

- Prior to implementing the rates and charges presented herein it is recommended the City conduct a billing test to simulate a year of billing under the proposed rates to test the revenue collected under the billing test to the projected revenue associated with the rates presented in this report as a test of reasonableness.
- It is recommended that the City implement the proposed rates and charges associated with either Option 1 or 2 by July of each Fiscal Year.
- It is recommended that the City update the revenue sufficiency analysis portion of this study each year to ensure projected revenue is sufficient to fund projected expenses going forward as assumptions made during this analysis may change and have a material impact upon the analysis.
- It is recommended that, in order to implement the proposed rates and charges, the City undertake the following to ensure compliance with the requirements of Proposition 218:
 - ✓ The City Council will accept the preliminary report, set a date for a Public Hearing, and give direction for a notice of the Public Hearing to be mailed to affected property owners and customers in accordance with the requirements of Prop 218;
 - ✓ The date of the Public Hearing will be no sooner than 45 days after the date that the Notice is mailed;

- ✓ At the Public Hearing, the City Council will provide an opportunity for interested parties to provide comments, questions and testimony;
- ✓ Property owners and customers may also submit written protests to the City if they wish. One protest will be allowed per property, as specified in Prop 218, and may be submitted at any time up until the conclusion of the Public Hearing;
- ✓ Following the conclusion of the Public Hearing, the protests will be tabulated, and if written protests have been received from a majority of the properties subject to the proposed rates, they shall not be implemented;

Appendix A

City of Norwalk
Pro Forma with Debt Service Coverage and Fund Balance Reconciliation

Line No		2015	2016	2017	2018	2019	2020	2021
	Operating Fund							
1	Water and Sewer Rate Revenue Increases	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%
	% of Year Rate Increase Effective	0.01%	50.00%	95.83%	95.83%	95.83%	95.83%	95.83%
2	Beginning Unrestricted Fund Balance	\$ 6,910,968	\$ 7,267,538	\$ 3,513,937	\$ 3,419,890	\$ 1,181,239	\$ 1,010,491	\$ 1,045,405
3	Water Rate Revenue	\$ 4,770,500	\$ 4,770,500	\$ 5,044,804	\$ 5,347,492	\$ 5,668,342	\$ 6,008,442	\$ 6,368,949
4	Total Rate Revenue	\$ 4,770,500	\$ 4,770,500	\$ 5,044,804	\$ 5,347,492	\$ 5,668,342	\$ 6,008,442	\$ 6,368,949
5	Other Operating Revenue	274,295	232,650	92,650	92,650	92,650	92,650	92,650
6	Interest Income - Operating Fund	9,000	9,000	4,000	4,000	1,000	1,000	1,000
7	Total Operating Revenue	\$ 5,053,795	\$ 5,012,150	\$ 5,141,454	\$ 5,444,142	\$ 5,761,992	\$ 6,102,092	\$ 6,462,599
8	Operating Expenses	(3,560,326)	(4,344,935)	(3,777,688)	(3,907,389)	(4,041,964)	(4,181,619)	(4,326,574)
9	Net Revenue	\$ 1,493,469	\$ 667,215	\$ 1,363,766	\$ 1,536,753	\$ 1,720,028	\$ 1,920,473	\$ 2,136,025
	Plus:							
	Other Sources of Funds							
10	Transfers In	-	-	-	-	-	-	-
	Less:							
	Other Uses of Funds							
11	Minor Capital	\$ (352,271)	\$ (119,000)	\$ (92,000)	\$ (94,760)	\$ (97,603)	\$ (100,532)	\$ (103,548)
12	Major Capital Funded with Existing Reserves/Current Cash	-	(3,517,299)	(583,495)	(2,895,727)	(598,055)	(587,910)	(215,621)
13	Transfers Out	(243,505)	(243,505)	(243,505)	(243,505)	(243,505)	(243,505)	(243,505)
14	Non Operating Expenses	-	-	-	-	-	-	-
15	Existing Revenue Bond Debt Service	(541,123)	(541,013)	(538,813)	(541,413)	(538,613)	(540,613)	(540,113)
16	New Revenue Bond Debt Service	-	-	-	-	(413,000)	(413,000)	(997,000)
17	Net Cash Flow	\$ 356,570	\$ (3,753,602)	\$ (94,047)	\$ (2,238,651)	\$ (170,748)	\$ 34,914	\$ 36,239
18	Ending Unrestricted Fund Balance	\$ 7,267,538	\$ 3,513,937	\$ 3,419,890	\$ 1,181,239	\$ 1,010,491	\$ 1,045,405	\$ 1,081,644
19	Days of O&M	745	295	330	110	91	91	91
20	Target Unrestricted Fund Balance	890,082	1,086,234	944,422	976,847	1,010,491	1,045,405	1,081,644
	Debt Service Coverage Calculations:							
	Revenue Bond Debt Service Coverage							
	Rate Covenant Debt Service Coverage Test:							
21	Net Revenue Available for Debt Service Coverage Test	\$ 1,493,469	\$ 667,215	\$ 1,363,766	\$ 1,536,753	\$ 1,720,028	\$ 1,920,473	\$ 2,136,025
	Revenue Bond Debt Service:							
22	Existing Revenue Bond Debt Service	541,123	541,013	538,813	541,413	538,613	540,613	540,113
23	New Revenue Bond Debt Service	-	-	-	-	413,000	413,000	997,000
24	Total Revenue Bond Debt Service	\$ 541,123	\$ 541,013	\$ 538,813	\$ 541,413	\$ 951,613	\$ 953,613	\$ 1,537,113
25	Debt Service Coverage - Rate Covenant	2.76	1.23	2.53	2.84	1.81	2.01	1.39
26	Debt Service Coverage Requirement	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Parity Debt Service Coverage Test:							
27	Net Revenue Available for Debt Service Coverage Test	\$ 1,493,469	\$ 667,215	\$ 1,363,766	\$ 1,536,753	\$ 1,720,028	\$ 1,920,473	\$ 2,136,025
28	Maximum Revenue Bond Debt Service	541,413	541,413	541,413	541,413	953,613	953,613	1,537,613
29	Debt Service Coverage - Parity Test	NA	NA	NA	NA	1.80	NA	1.39
30	Debt Service Coverage Requirement	1.50	1.50	1.50	1.50	1.50	1.50	1.50
	Existing Bond Funds							
31	Beginning Balance	\$ 3,496,405	\$ 3,832,939	\$ -	\$ -	\$ -	\$ -	\$ -
32	Sources of Funds	390,468	-	-	-	-	-	-
33	Interest Earnings	4,000	5,000	-	-	-	-	-
34	Uses of Funds other Than Major Capital	-	-	-	-	-	-	-
35	Major Capital Funded with Existing Bond Funds	(57,934)	(3,837,939)	-	-	-	-	-
36	Ending Balance	\$ 3,832,939	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Norwalk
Beginning Fund Balance Reconciliation

BEGINNING BALANCES		Source: FY 14 CAFR	
Line No:		Operating Fund	Existing Bond Funds
1	Current assets:		
2	Pooled Cash and Investments	6,682,089	
3	Cash and Investments with Fiscal Agents	3,496,405	3,496,405
4	Accounts Receivable	682,657	
5	Inventory	-	
6	Due from Other Governments	175,000	
7	Total Current Assets	\$ 11,036,151	\$ 3,496,405
8		Checkfigure \$ 11,036,151	Pg. 28 of FY 14 CAFR
	Current Liabilities:		
9	Accounts Payable	\$ 296,232	
10	Accrued Expenses	19,611	
11	Deposits Payable	91,345	
12	Other Liabilities	21,590	
13	Advances from Other Funds	2,942,835	
14	Unearned Revenue	-	
15	Long-term Debt - Current Portion	200,000	
16	Total Current Liabilities	\$ 3,571,613	\$ -
17		Checkfigure \$ 3,571,613	Pg. 28 of FY 14 CAFR
	Adjustments by JV:		
18	Bond Funds Remaining	(3,496,405)	
19	Removal of Advances from Other Funds from	2,942,835	
20	Net Adjustments	\$ (553,570)	\$ -
21	Net Beginning Balances (Curr Assets less Current Liabilities - with Adjustments)	\$ 6,910,968	\$ 3,496,405

City of Norwalk
Expenses Other than Major Capital Expenses

Summary - Operating Fund										
FUND #	Expense Code	Description	2015	2016	2017	2018	2019	2020	2021	
1	1	Operating	\$ 3,560,326	\$ 4,344,935	\$ 3,777,688	\$ 3,907,389	\$ 4,041,964	\$ 4,181,619	\$ 4,326,574	
3	1	Non Operating	-	-	-	-	-	-	-	
4	1	Minor Capital	352,271	119,000	92,000	94,760	97,603	100,532	103,548	
5	1	Transfers	243,505	243,505	243,505	243,505	243,505	243,505	243,505	
6	1	Existing Bond Debt Service	541,123	541,013	538,813	541,413	538,613	540,613	540,113	
	1	New Bond Debt Service	-	-	-	-	413,000	413,000	997,000	
	1	Existing SRF Debt Service	-	-	-	-	-	-	-	
	1	New SRF Debt Service	-	-	-	-	-	-	-	
7		TOTAL	4,697,225	5,248,453	4,652,006	4,787,067	5,334,685	5,479,269	6,210,740	

Summary - Existing Bond Funds										
FUND #	Expense Code	Description	2015	2016	2017	2018	2019	2020	2021	
8	3	Operating	-	-	-	-	-	-	-	
10		TOTAL	-	-	-	-	-	-	-	

Detail

FUND #	Cost Escalation Factor Code	Expense Code	Annual Expense Escalation Factor	EXPENSES	2015	2016	2017	2018	2019	2020	2021
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FUND 1

Personnel Expenditures											
13	1	Personnel	Operating	3.0%	SPEC FEE-LOBBYIST WASH DC	-	-	-	-	-	-
14	1	Personnel	Operating	3.0%	REG SALARIES & WAGES	527,879	544,553	554,432	571,065	588,197	605,843
15	1	Personnel	Operating	3.0%	PART TIME WAGES	8,627	10,092	10,192	10,498	10,813	11,137
16	1	Personnel	Operating	3.0%	OVERTIME SALARY & WAGES	27,680	24,000	24,000	24,720	25,462	26,226
17	1	Personnel	Operating	3.0%	COMP TIME PAY	-	-	-	-	-	-
18	1	Personnel	Operating	3.0%	MEDICAL OPT-OUT-GEN. UNIT	3,684	5,760	5,760	5,933	6,111	6,294
19	1	Personnel	Operating	3.0%	BI-LINGUAL/CERTIFICAT PAY	1,999	1,300	1,300	1,339	1,379	1,420
20	1	Personnel	Operating	3.0%	STANDBY PAY	5,638	6,300	6,300	6,489	6,684	6,885
21	1	Personnel	Operating	3.0%	AUTO ALLOWANCE	847	984	984	1,014	1,044	1,075
22	1	Personnel	Operating	3.0%	CELLPHONE ALLOWANCE	-	-	-	-	-	-
23	1	Personnel	Operating	3.0%	PAID SICK LEAVE	6,726	8,300	8,300	8,549	8,805	9,069
24	1	Personnel	Operating	3.0%	ACCRUED PAID VACATION	9,895	11,300	11,300	11,639	11,988	12,348
25	1	Personnel	Operating	3.0%	COMPENSATED ABSENCES	(2,345)	-	-	-	-	-
26	1	Personnel	Operating	3.0%	PAID SICK LEAVE ON TERMIN	-	-	-	-	-	-
27	1	Personnel	Operating	3.0%	SEVERANCE PAY	1,484	-	-	-	-	-
28	1	Personnel	Operating	3.0%	MANAGEMENT BENEFIT 401A	3,689	3,857	3,894	4,011	4,131	4,255
29	1	Personnel	Operating	3.0%	MEDICARE	7,403	8,941	9,090	9,363	9,644	9,933
30	1	Personnel	Operating	3.0%	MGMT BENEFIT/MEDICAL	5,744	2,647	3,194	3,290	3,389	3,491
31	1	Personnel	Operating	3.0%	PERS-EMPLOYEES' PORTION	30,339	27,420	27,814	28,648	29,507	30,392
32	1	Personnel	Operating	3.0%	PERS-EMPLOYER'S PORTION	109,067	121,940	135,845	139,920	144,118	148,442
33	1	Personnel	Operating	3.0%	UNIFORM ALLOWANCE	-	500	500	515	530	546
34	1	Personnel	Operating	3.0%	LIFE INSURANCE	1,681	1,386	1,401	1,443	1,486	1,531
35	1	Personnel	Operating	3.0%	LONG-TERM DISABILITY	5,530	5,499	5,600	5,768	5,941	6,119
36	1	Personnel	Operating	3.0%	MEDICAL INS - FT EMPL	57,319	64,234	64,894	66,841	68,846	70,911
37	1	Personnel	Operating	3.0%	DENTAL INS - FT EMPL	9,019	8,984	8,984	9,254	9,532	9,818
38	1	Personnel	Operating	3.0%	VISION INS - FT EMPL	1,182	1,196	1,196	1,232	1,269	1,307
39	1	Personnel	Operating	3.0%	MEDICAL INS - PT EMPL	696	-	-	-	-	-
40	1	Personnel	Operating	3.0%	DENTAL INS - PT EMPL	352	-	-	-	-	-
41	1	Personnel	Operating	3.0%	MEDICAL INS - RETIREES	14,265	16,200	16,900	17,407	17,929	18,467
42	1	Personnel	Operating	3.0%	UNEMPLOYMENT INSURANCE	-	-	-	-	-	-
43	1	Personnel	Operating	3.0%	WORKERS' COMPENSATION	11,292	10,462	11,998	12,358	12,729	13,111
				3.0%	OPEB-FUTURE RETIREES -FT	18,840	38,100	38,900	40,067	41,269	42,507
					Personnel Expenditures	\$ 868,533	\$ 923,955	\$ 952,778			
					Checkfigure to Budget Book	Actuals	\$ 923,955	\$ 952,778			
					Variance		-	-			

City of Norwalk
Expenses Other than Major Capital Expenses

Summary - Operating Fund										
FUND #	Expense Code	Description	2015	2016	2017	2018	2019	2020	2021	
1	1	Operating	\$ 3,560,326	\$ 4,344,935	\$ 3,777,688	\$ 3,907,389	\$ 4,041,964	\$ 4,181,619	\$ 4,326,574	
3	1	Non Operating	-	-	-	-	-	-	-	
4	1	Minor Capital	352,271	119,000	92,000	94,760	97,603	100,532	103,548	
5	1	Transfers	243,505	243,505	243,505	243,505	243,505	243,505	243,505	
6	1	Existing Bond Debt Service	541,123	541,013	538,813	541,413	538,613	540,613	540,113	
	1	New Bond Debt Service	-	-	-	-	413,000	413,000	997,000	
	1	Existing SRF Debt Service	-	-	-	-	-	-	-	
	1	New SRF Debt Service	-	-	-	-	-	-	-	
7		TOTAL	4,697,225	5,248,453	4,652,006	4,787,067	5,334,685	5,479,269	6,210,740	

Summary - Existing Bond Funds										
FUND #	Expense Code	Description	2015	2016	2017	2018	2019	2020	2021	
8	3	Operating	-	-	-	-	-	-	-	
10		TOTAL	-	-	-	-	-	-	-	

Detail											
FUND #	Cost Escalation Factor Code	Expense Code	Annual Expense Escalation Factor	EXPENSES	2015	2016	2017	2018	2019	2020	2021
Operating Expenditures											
44	1	Operating		CONTRACT SVC/NON-CLASS	166,490	236,460	248,960	256,429	264,122	272,046	280,207
45	1	Operating	3.0%	CONTRA SVC/SPECIAL STUDY	14,150	270,000	50,000	51,500	53,045	54,636	56,275
46	1	Operating	3.0%	LEGAL SERVICES	12,320	15,000	15,000	15,450	15,914	16,391	16,883
47	1	Operating	3.0%	EQUIP MTCE & SUPPLIES	52	500	500	515	530	546	562
48	1	Operating	3.0%	UTILITIES	138,288	197,000	420,000	432,600	445,578	458,945	472,713
49	1	Operating	3.0%	CONFERENCES & MEETINGS	495	2,500	3,000	3,090	3,183	3,278	3,376
50	1	Operating	3.0%	MEMBERSHIPS	17,261	27,500	27,500	28,325	29,175	30,050	30,952
	1	Operating	3.0%	OFFICE EQPT MTCE	3,499	1,000	1,000	1,030	1,061	1,093	1,126
51	1	Operating	3.0%	OFFICE SUPPLIES	7,453	7,500	7,500	7,725	7,957	8,196	8,442
52	1	Operating	3.0%	POSTAGE	20,492	21,000	21,000	21,630	22,279	22,947	23,635
53	1	Operating	3.0%	RENTAL EXPENSE	-	-	-	-	-	-	-
54	1	Operating	3.0%	SPECIAL FEES & SERVICES	54,821	88,000	95,000	97,850	100,786	103,810	106,924
55	1	Operating	3.0%	ADMINISTRATIVE COSTS	223,277	227,100	231,600	238,548	245,704	253,075	260,667
56	1	Operating	3.0%	SPEC FEE-LOBBYIST WASH DC	24,167	26,500	26,500	27,295	28,114	28,957	29,826
57	1	Operating	3.0%	WATER RIGHTS LEASES	-	-	-	-	-	-	-
58	1	Operating	3.0%	SPECIAL MAT'LS-SUPPLIES	58,256	100,500	109,000	112,270	115,638	119,107	122,680
59	1	Operating	9.0%	SMALL TOOLS	2,079	1,800	1,800	1,962	2,139	2,332	2,542
60	1	Operating	6.0%	WATER REPLENISHMENT FEES	233,266	254,000	542,000	574,520	608,991	645,530	684,262
61	1	Operating	3.0%	PURCHASED WATER-DOMESTIC	1,535,855	1,783,000	841,000	866,230	892,217	918,984	946,554
62	1	Operating	3.0%	PURCHASED WATER-RESALE	-	-	-	-	-	-	-
63	1	Operating	3.0%	TELEPHONE & FAX	2,622	2,500	2,550	2,627	2,706	2,787	2,871
64	1	Operating	3.0%	INTERNET,ISDN DSL SERVICE	1,106	600	600	618	637	656	676
65	1	Operating	3.0%	VEHICLE MTCE & SUPPLIES	52,151	36,000	39,200	40,376	41,587	42,835	44,120
66	1	Operating	3.0%	PROGRAMS & ACTIVITIES	-	-	-	-	-	-	-
67	1	Operating	3.0%	DUPLICATING/LAMINATION	-	-	-	-	-	-	-
68	1	Operating	3.0%	TRAINING EXPENSE	1,790	4,100	4,600	4,738	4,880	5,026	5,177
69	1	Operating	3.0%	FRANCHISE TAX EXP	10,936	11,500	12,300	12,669	13,049	13,440	13,843
70	1	Operating	3.0%	PROPERTY ACQUISITON	-	-	-	-	-	-	-
71	1	Operating	3.0%	LIAB, FIRE & OTHER INS.	56,924	56,920	68,300	70,349	72,459	74,633	76,872
	1	Operating	3.0%	BANK SERVICE CHARGES	54,043	50,000	56,000	57,680	59,410	61,192	63,028
	1	Transfers	3.0%	INTEREST EXPENSE	147,142	142,324	137,265	137,265	137,265	137,265	137,265
	1	Transfers	3.0%	PRINCIPAL EXPENSE	96,363	101,181	106,240	106,240	106,240	106,240	106,240
				DEPRECIATION EXPENSES	290,956	295,000	300,000				
					<--Not cash expense, excluded from rate study						
Operating Expenditures					\$ 3,226,254	\$ 3,959,485	\$ 3,368,415				
Checkfigure to Budget Book					Actuals	\$ 3,664,485	\$ 3,068,415				
Variance						295,000	300,000	<-- Diff is depreciation in staff spreadsheet which is, correctly, removed from budget t			
Capital Outlay											
72	1	Minor Capital	3.0%	C/O-AUTOMOTIVE EQUIPMENT	-	75,000	55,000	56,650	58,350	60,101	61,904
73	1	Minor Capital	3.0%	C/O-TOOLS & WORK EQUIP	-	-	-	-	-	-	-
74	1	Minor Capital	3.0%	C/O-OFFICE EQUIPMENT	-	-	-	-	-	-	-
75	1	Minor Capital	3.0%	MISCELLANEOUS OTHER	352,271	44,000	37,000	38,110	39,253	40,431	41,644
Total Capital Outlay					352,271	119,000	92,000				
Checkfigure to Budget Book					Actuals	119,000	92,000				
Variance						-	-				

City of Norwalk
Expenses Other than Major Capital Expenses

Summary - Operating Fund											
FUND											
Line No:	#	Expense Code	Description	2015	2016	2017	2018	2019	2020	2021	
1	1	Operating	Operating	\$ 3,560,326	\$ 4,344,935	\$ 3,777,688	\$ 3,907,389	\$ 4,041,964	\$ 4,181,619	\$ 4,326,574	
2	1	Non Operating	Non Operating	-	-	-	-	-	-	-	
3	1	Minor Capital	Minor Capital	352,271	119,000	92,000	94,760	97,603	100,532	103,548	
4	1	Transfers	Transfers	243,505	243,505	243,505	243,505	243,505	243,505	243,505	
5	1	Existing Bond Debt Service	Existing Bond Debt Service	541,123	541,013	538,813	541,413	538,613	540,613	540,113	
6	1	New Bond Debt Service	New Bond Debt Service	-	-	-	-	413,000	413,000	997,000	
	1	Existing SRF Debt Service	Existing SRF Debt Service	-	-	-	-	-	-	-	
	1	New SRF Debt Service	New SRF Debt Service	-	-	-	-	-	-	-	
7			TOTAL	4,697,225	5,248,453	4,652,006	4,787,067	5,334,685	5,479,269	6,210,740	

Summary - Existing Bond Funds											
FUND											
Line No:	#	Expense Code	Description	2015	2016	2017	2018	2019	2020	2021	
8	3	Operating	Operating	-	-	-	-	-	-	-	
9			TOTAL	-	-	-	-	-	-	-	
10											

Detail													
Line No:	FUND #	Cost Escalation Factor Code	Expense Code	Annual Expense Escalation Factor	EXPENSES	2015	2016	2017	2018	2019	2020	2021	
					Debt Service								
76	1	Existing Bond Debt Service	Existing Bond Debt Service	0.0%	ADMINISTRATIVE COSTS	1,160	1,300	1,300	1,300	1,300	1,300	1,300	##
77	1	Existing Bond Debt Service	Existing Bond Debt Service	0.0%	INTEREST EXPENSE	364,963	359,713	352,513	345,113	337,313	329,313	318,813	##
78	1	Existing Bond Debt Service	Existing Bond Debt Service	0.0%	PRINCIPAL EXPENSE	175,000	180,000	185,000	195,000	200,000	210,000	220,000	##
79	1	Existing Bond Debt Service	Existing Bond Debt Service	0.0%	ISSUANCE COST	-	-	-	-	-	-	-	#
					Total Debt Service	541,123	541,013	538,813					
					Checkfigure to Budget Book	Actuals	541,012	538,812					
					Variance								
13													
80	1	New Bond Debt Service	New Bond Debt Service	0.0%	New Debt Service - Revenue Bonds	-	-	-	-	413,000	413,000	997,000	

City of Norwalk
CIP

Cost Escalation Factor 3.0%

Line No:	Description	2015	2016	2017	2018	2019	2020	2021
Carryover Capital Projects								
1	Norwalk Park Well No 10 - Phase II	21,038	276,894	-	-	-	-	-
2	Water system interconnection Across I-5 at Railroad Right-of-Way	-	-	-	-	-	-	-
3	Iron Magnesium pH Adjustment - Well No. 10	-	125,000	-	-	-	-	-
4	Design of Capital Projects - Engineering and Plan Specs	36,896	-	-	-	-	-	-
5	Water Main Replacements - Ph III	-	-	-	-	-	-	-
New Capital Projects								
6	Connection Central to Southern System (Design)	-	146,000	-	-	-	-	-
7	Connection Central to Southern System (Pipeline)	-	4,000,000	-	-	-	-	-
8	Water Main Replacement & Upgrade - Central System (Pipeline)	-	1,923,114	-	-	-	-	-
Capital Projects from Staff - FY 16 - 23								
9	SCADA - Water	-	-	200,000	200,000	200,000	-	-
10	IRWM Plan Update	-	-	-	-	-	-	-
11	AMR/AMI - Water	-	230,000	250,000	300,000	350,000	400,000	500,000
12	Asset Management - Water	-	-	-	-	-	-	-
13	PRS - Maidstone/Alondra	-	-	removed per Jul	-	-	-	-
14	Emergency Connection - SE SA	-	340,000	-	-	-	-	-
15	Pipeline - Alondra	-	100,000	-	1,200,000	-	-	-
16	Pipeline - South SA	-	-	-	-	1,950,000	1,950,000	-
17	Pipeline - Pioneer	-	-	100,000	950,000	-	-	-
18	New Taddy Well	-	-	-	-	340,000	-	1,520,000
19	New Leffingwell Reservoir	-	-	-	-	-	200,000	-
20	New Leffingwell Pump Station	-	-	-	-	-	340,000	1,520,000
21	MWP Update	-	-	-	-	200,000	-	-
22	Pipeline - Foster	-	-	-	-	-	83,000	-
23	Pipeline - Wells 5 to 4	-	-	-	-	-	100,000	-
24	Pipeline - Wells 5 to Foster	-	-	-	-	-	178,000	-
25	Pipeline - CSA to WSA	-	-	-	-	-	-	removed (JL)
26	Norwalk Park Reservoir	-	-	-	-	-	-	-
27	Norwalk Park Pump Station	-	-	-	-	-	-	-
28	Well 10 Upgrade	-	-	-	-	-	-	-
29	Pipeline - CSA to SSA 2	-	-	-	-	-	-	-
Total		\$ 57,934	\$ 7,141,008	\$ 550,000	\$ 2,650,000	\$ 3,040,000	\$ 3,251,000	\$ 3,540,000
Total Prioritized CIP (incl. Cost Esc.)		\$ 57,934	\$ 7,355,238	\$ 583,495	\$ 2,895,727	\$ 3,421,547	\$ 3,768,800	\$ 4,226,945

City of Norwalk
CIP Funding

Line No:		2015	2016	2017	2018	2019	2020	2021
1	Capital Project Costs	\$ 57,934	\$ 7,355,238	\$ 583,495	\$ 2,895,727	\$ 3,421,547	\$ 3,768,800	\$ 4,226,945
2								
3								
4	Funding Sources							
5	Existing Bond Funds	57,934	3,837,939	-	-	-	-	-
6	Operating Fund	-	3,517,299	583,495	2,895,727	598,055	587,910	215,621
7	New Bonds	-	-	-	-	2,823,491	3,180,890	4,011,324
8	Total Project Funding	\$ 57,934	\$ 7,355,238	\$ 583,495	\$ 2,895,727	\$ 3,421,547	\$ 3,768,800	\$ 4,226,945
9	Variance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -