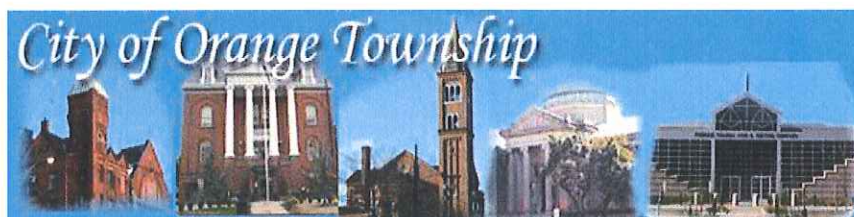


CITY OF ORANGE TOWNSHIP



REVIEW OF THE OPERATING AGREEMENT BETWEEN THE CITY AND U.S. WATER, LLC INCLUDING A WATER AND SEWER RATE STUDY

Prepared by:



LERCH, VINCI & HIGGINS, LLP

CERTIFIED PUBLIC ACCOUNTANTS

REGISTERED MUNICIPAL ACCOUNTANTS

Dated 9/27/2013

TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	1-16
Water & Sewer Systems - 2013 through 2018 Budget Projection Base Case: United Water Operations with Existing User Charges	
Combined Systems - 2013 through 2018 Budget Projection	17-18
Water System - 2013 through 2018 Budget Projection	19-20
Sewer System - 2013 through 2018 Budget Projection	21-22
United Water - Repair/Replacement Costs	
2012 Repair/Replacement (Bill-Back Charges)	23-25
2013 Repair/Replacement (Bill-Back Charges) - Payments Year to Date as of 7/23/13	26
Existing Debt and Proposed Financing Plan (Capital Improvements)	
Existing and Proposed Debt Service	27-28
Existing Debt Service	29-30
Schedule of Ordinances to be Bonded	31
Proposed Notes	32
Proposed Bonds	33-34
Analysis of Future Capital Projects	35-37
Water & Sewer Systems - 2013 through 2018 Budget Projection Scenario 1: United Water Operations with Proposed Rate Increases Effective January 1, 2014 and 2017	
Combined Systems - 2013 through 2018 Budget Projection	38-39
Water System - 2013 through 2018 Budget Projection	40-41
Sewer System - 2013 through 2018 Budget Projection	42-43
Water & Sewer Systems - 2013 through 2018 Budget Projection Scenario 2: City Operations with Proposed Rate Increases Effective January 1, 2014 and 2017	
Combined Systems - 2013 through 2018 Budget Projection	44-45
Water System - 2013 through 2018 Budget Projection	46-47
Sewer System - 2013 through 2018 Budget Projection	48-49
Projected Costs - City Operated Utility Systems	50
2013 Projected Costs - City Operated Utility Systems	51
Proposed Debt Service for Equipment Required for City Operated Utility Systems	52

TABLE OF CONTENTS

	<u>Page</u>
Water & Sewer Systems - Existing Rate Structure	
United Water Operated Utility Systems	
Water System	53-54
Sewer System	55-56
Water & Sewer Systems - Existing Rate Structure	
City Operated Utility Systems	
Water System	57-58
Sewer System	59-60
Water & Sewer Systems - Rate Model Alternative	
Scenario 1a: United Water Operations with Flat Fee Residential Rates	
Water System	61-62
Sewer System	63-64
Water & Sewer Systems - Rate Model Alternative	
Scenario 2a: City Operations with Flat Fee Residential Rates	
Water System	65-66
Sewer System	67-68
Water & Sewer Systems - 2012 Cost Allocation Support	
2012 Revenues and Expenditures	69
2012 Actual Expenditures	70
Gas and Electric Cost Allocation	71
Sources and Uses - \$30,000,000 Water/Sewer Utility Bonds Dated June 1, 2003	72
Debt Service Allocation - Series 2003A and 2003B Bonds	73

I. EXECUTIVE SUMMARY

It is the pleasure of Lerch, Vinci & Higgins, LLP (“LV&H”) to present this comprehensive study to the City of Orange Township (the “City”). LV&H has prepared this study relying on information provided by the City’s management and administrative staff.

The purpose of this study is to: i) review the existing services provided by United Water Resources, Inc. (hereinafter “United Water”) in connection with the operation and maintenance of the City’s water and sewer systems (collectively the “Systems”) and project the associated costs of these services should the City opt to extend the current agreement with United Water; ii) develop a financing plan based on the capital infrastructure needs of the Systems identified by United Water and the City; iii) prepare an alternative cost analysis assuming City personnel operate and maintain the Systems and the projected cost/benefit under this alternative; iv) develop rate model alternatives which will be utilized to generate separate water and sewer bills for all locations within the City.

The financial analysis section of this report is presented in nine sections: i) Executive Summary; ii) Review of Existing Services Provided by United Water; iii) Base Case – United Water Operations with Existing User Charges; iv) Repair and Replacement Costs under United Water Agreement; v) Existing Debt and Proposed Financing Plan (Capital Improvements); vi) Scenario 1 – United Water Operations with Proposed User Charges; vii) City Operations Alternative for Maintenance of the Systems; viii) Scenario 2 – City Operations with Proposed User Charges and ix) Rate Model Alternative.

II. REVIEW OF EXISTING SERVICES PROVIDED BY UNITED WATER

The City entered into an Agreement for Operation, Maintenance and Management Services for the City’s Municipal Water, Wastewater and Stormwater Systems (the “Operating Agreement”) dated May 1, 2003 with U.S. Water, LLC, an affiliate of United Water. United Water began providing services under the Operating Agreement on August 1, 2003 (the “Commencement Date”). Services to be provided under the Operating Agreement include both the operation and maintenance of the Systems as well as billing, collection and metering functions.

The Water System is comprised of approximately 400,000 linear feet of pipe, 510 hydrants and 8 wells. Water is supplied from the 8 wells located within the City or Orange as well a reservoir located in the Township of West Orange. The City has 3 separate locations for water treatment which include the main plant at 632 Chestnut Street, Gist Place Well #8 and Orange Park Well #7. In accordance with Section 6.17 of the Operating Agreement, United Water’s maintenance of the Water System includes but is not limited to the following: i) flow test forty thousand feet of water pipe per year, ii) flush all hydrants at least once per year, iii) exercise water valves at least once every four years and iv) test all 45 large meters (3 inches and above) once every four years.

The Wastewater System is comprised of approximately 210,000 linear feet of pipe. In accordance with Section 6.18 of the Operating Agreement, United Water’s maintenance of the Wastewater System includes but is not limited to the following: i) develop and implement a program for the identification and isolation of infiltration/inflow, ii) clean all sewer mains at least once every three years and iii) internally inspect all sewer mains via a television camera over a ten year period.

The Storm Water System is comprised of approximately 96,150 linear feet of pipe and 641 catch basins. In accordance with Section 6.19 of the Operating Agreement, United Water's maintenance of the Storm Water System includes but is not limited to the following: i) develop and implement a flood prevention program, ii) clean all storm water mains at least once every five years, iii) clean all catch basins and inlets at least twice per year and iv) clean all open public channels at least twice per year.

The City is required to pay an annual service fee under the Operating Agreement which is made in monthly installments. The service fee is adjusted at the beginning of each contract year by the annual change in the Consumer Price Index - All Urban Consumers for New York-Northern New Jersey-Long Island. The service fee paid for the period January 1, 2013 through July 31, 2013 was \$114,716 per month. The initial term of the Operating Agreement expired on August 1, 2013, the tenth anniversary of the Commencement Date. The City has the option of extending the Operating Agreement for two additional five-year terms. As of the date of this report, the City has not exercised this option. United Water has agreed to continue providing the services outlined in the Operating Agreement for an extended period of three months while demobilizing operations at an additional cost of 10% per month. The monthly service fee has been amended by United Water effective August 1, 2013 to \$126,188.

In addition, the City is responsible for the costs of repair and replacement items in excess of the annual limits set forth in Schedule K of the Operating Agreement. If United Water exceeds the annual limits set forth in Schedule K, the additional costs are calculated by United Water on a unit price basis in accordance with Schedule J. The unit price basis is utilized for items of maintenance such as supply pipe repairs, supply pipe replacement, lateral service pipe repairs, and hydrant relocation. At the beginning of each contract year, the repair and replacement costs in Schedule J are increased by 3%. A summary of the annual limits and rates charged by United Water in accordance with the Operating Agreement is presented below:

<u>Item of Maintenance</u>	<u>Annual Limit Units per Year</u>	Unit Price per Item in Excess of Annual Limit	
		<u>Base Year 1</u>	<u>Existing Year 10</u>
Supply Pipe Repairs	725	\$ 900	\$ 1,174
Supply Pipe Replacement	25	\$ 1,200	\$ 1,566
Lateral Service Pipe Repairs	0	\$ 900	\$ 1,174
Hydrant Relocation	5	\$ 5,700	\$ 7,437
Hydrant Replacement	5	\$ 2,500	\$ 3,262
Hydrant Maintenance/Repair	25	\$ 250	\$ 326
Hydrant Flow Testing	10	\$ 70	\$ 91
Service Investigations	150	\$ 35	\$ 46
OMB Repairs	5	\$ 350	\$ 457
Service Turn-Offs	150	\$ 35	\$ 46
Service Turn-Ons	150	\$ 35	\$ 46
Mark-Outs	600	N/A	N/A

For repair and replacement costs not covered under the unit price basis, the City in its sole discretion, may require that such work be performed by its own employees or by other contractors. If the City opts for United Water to oversee the additional work, such costs are calculated by United Water on a cost plus basis. Under this compensation method, the sum of labor, materials, equipment and subcontracts is increased 15% for United Water profit and overhead. The majority of repair and replacement costs incurred by the City have been calculated utilizing the cost plus basis.

Based on the tabulation of the monthly contractual requirements reports provided by United Water for the calendar years 2011, 2012 and 2013 (8 months), it appears that United Water has not been fulfilling some of its contractual requirements outlined in Sections 6.17, 6.18 and 6.19 of the Operating Agreement. Specifically, during the period reviewed: i) the cleaning of the storm sewer system has not met the requirement for contract year 2013 of approximately 18,000 linear feet per year; ii) the exercising of the water valves has not met the requirement of approximately 375 per year; iii) the flushing of the hydrants has not met the requirement for contract year 2013 of 500 per year, iv) hydrant flow testing has not met the requirement of approximately 40,000 linear feet per year, v) testing of water meters on lines larger than 3 inches has not been completed.

We interviewed the United Water plant superintendent to obtain the monthly contractual requirement reports and discussed the issues surrounding some of the performance issues identified above. Responses provided by the plant superintendent regarding the issues identified above were as follows: i) Cleaning of the storm sewer systems for the year 2013 was not completed due to United Water budget and staffing cuts; ii) Water valves have not been exercised as required because the valves are failing and are in need of repair. Exercising the valves would cause them to break and would require replacement which is a cost to the City and has not been authorized; iii) Flushing of the hydrants for the year 2013 was not completed due to United Water budget and staffing cuts; iv) Hydrant flow testing has not been completed because the City does not have the necessary hydrants in place to conduct the flow testing required. For United Water to complete the flow testing required under the agreement, the City would have to complete the installation of certain hydrants at specific points along the main which have been included in the capital improvement plan provided by United Water; v) United Water completed the testing of all of the 3 inch water meters back in 2009. They are due to be tested again, but the required testing has not been completed at this time.

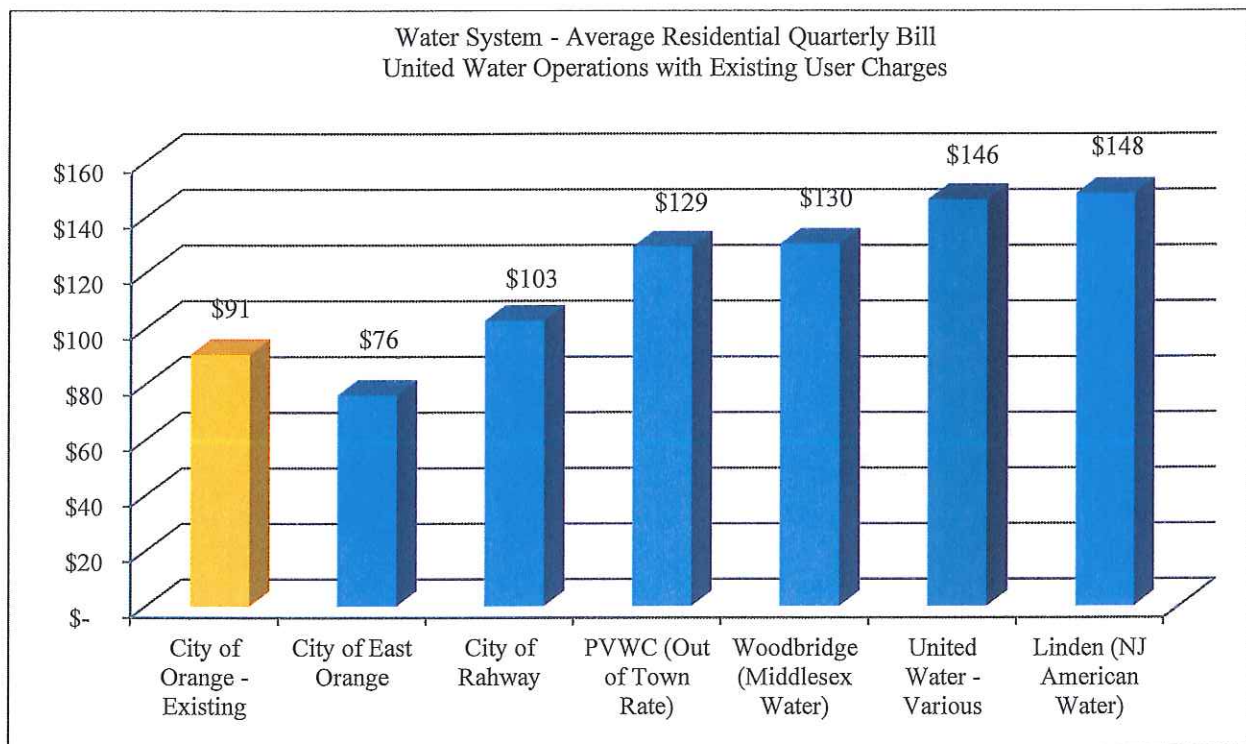
III. BASE CASE – UNITED WATER OPERATIONS WITH EXISTING USER CHARGES

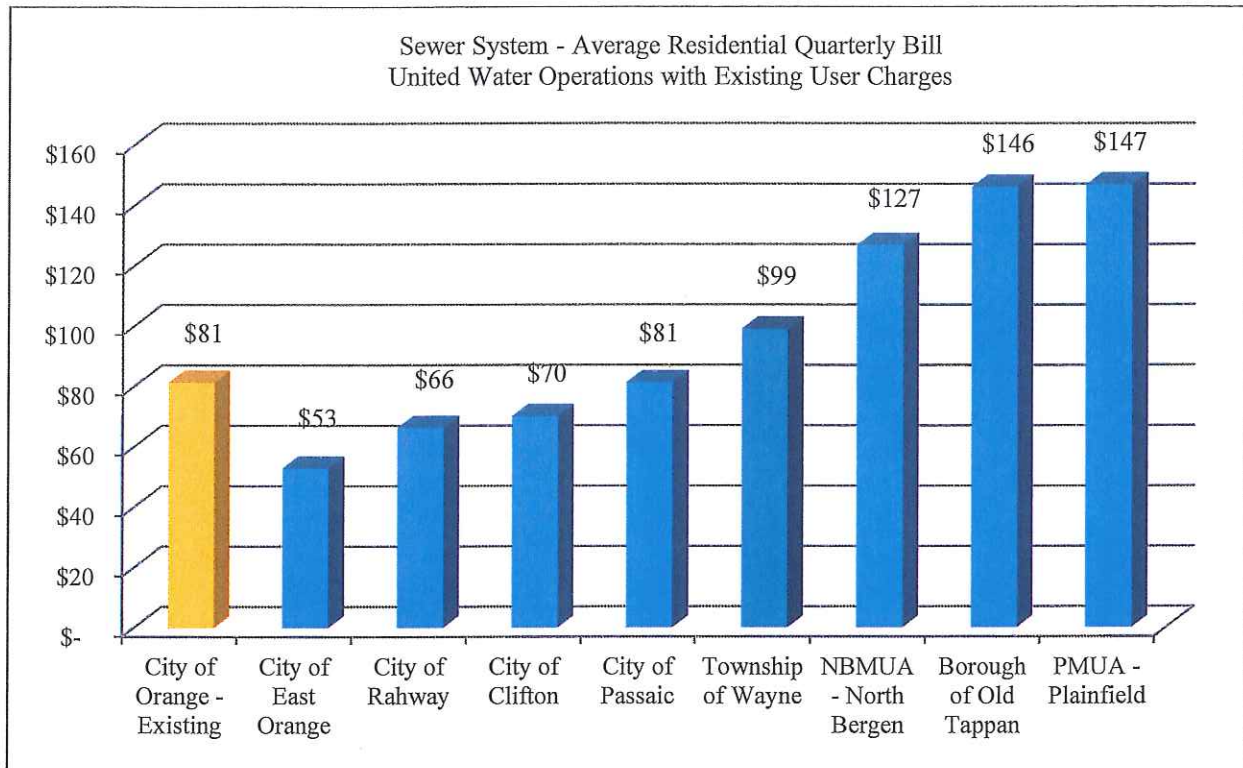
We have prepared a budget projection for the City's Water and Sewer Utility Operating Fund based on the existing rates charged to property owners with no increase. Under the Base Case, it is assumed that the City will renew the Operating Agreement with United Water for a period of five years. We have assumed that the existing monthly rate currently charged by United Water of \$126,188, effective August 1, 2013 will remain in effect until July 31, 2014. Beginning August 1, 2014 and each August 1st thereafter, it is assumed that the United Water rates will increase 2.75% based on the 10 year average annual historical increase in the Consumer Price Index - All Urban Consumers for New York-Northern New Jersey-Long Island from 2003 to 2013.

Our projections also include approximately \$5.4 million for capital improvements to both the water and sewer systems. Based upon the assumptions contained in this report, it is projected that the City will incur significant operating deficits. A detail of the projected revenues and expenditures is presented on pages 17 through 22. A summary of the projected budgetary deficits based on existing rates for the combined Water and Sewer Utility Operating Fund are as follows:

Year	Projected Revenues	Projected Expenditures	Projected Deficit
2013	\$ 7,933,097	\$ 7,933,097	\$ -
2014	7,933,217	8,068,934	(135,717)
2015	7,933,217	8,259,303	(326,086)
2016	7,933,217	8,449,369	(516,152)
2017	7,933,217	8,866,267	(933,050)
2018	7,933,217	9,031,657	(1,098,440)
Total			<u>\$ (3,009,445)</u>

We have prepared the following comparisons for both the Water System and Sewer System which compare the existing average residential quarterly water bill in the City of Orange to other municipalities and water providers. The figures presented in the tables below are based on the 2012 average annual water consumption for single family homes in the City of Orange of 78,000 gallons or 104 CCFs.





IV. REPAIR AND REPLACEMENT COSTS UNDER UNITED WATER AGREEMENT

As previously discussed in Section II, the City is responsible for the costs of repair and replacement items not covered under the unit price basis. The City provided approximately \$400,000 in its 2013 operating budget for the costs of repair and replacement. A detail of the actual costs paid to United Water for 2012 and the period through July 23, 2013 (which includes services provided through early April, 2013) is presented on pages 23 through 26. A summary of the actual charges paid to United Water is as follows:

Service Period	Water System	Sewer System	Total
January 1, 2012 - December 31, 2012	\$522,745	\$200,568	\$723,313
January 1, 2013 - April 30, 2013	<u>122,609</u>	<u>4,338</u>	<u>126,948</u>
Total January 1, 2012 - April 30, 2013	<u>\$645,355</u>	<u>\$204,906</u>	<u>\$850,261</u>

V. EXISTING DEBT AND PROPOSED FINANCING PLAN (CAPITAL IMPROVEMENTS)

The City's existing bonded debt service for the water and sewer systems is comprised of the Series 2003A and Series 2003B bonds, originally issued in the amount of \$30,000,000. Proceeds of the Series 2003A and Series 2003B were used to: (i) refund the Series 1997A and the Series 1997B bonds issued by the Essex County Improvement Authority and guaranteed by the City as part of a lease agreement with the East Orange Water Commission and (ii) provide approximately \$6,000,000 of new money for capital improvements to the systems. The City's existing debt service also includes the 2008 New Jersey Environmental Infrastructure Trust Loan originally issued in the amount of \$7,499,719. The City's existing debt service requirements for the water and sewer systems for the years 2012 through 2018 is presented on pages 29 and 30.

The City currently has approximately \$1,500,000 of unfunded debt for the water and sewer systems related to Ordinance 08-08 titled "Construction of and Improvements to the City's Mountain Wells, the Chestnut Street Treatment Facility and High Street Pump Station". Based on United Water's recommendations, the projected future capital improvement costs for the water and sewer systems total \$4,631,000 and \$3,305,000, respectively. In addition, the City has approximately \$4,000,000 of unencumbered funds on hand which are available to fund a portion of the future capital improvements identified. An analysis of the various future capital improvements for the water and sewer systems is presented on pages 35 and 36. Proposed funding of future capital improvements has been projected based on the priority ranking assigned by United Water.

SCHEDULE OF ORDINANCES TO BE FUNDED - WATER CAPITAL

Description	Projected Costs to be Funded	Other Funding	December 2013 Proposed Notes	December 2014 Proposed Notes	December 2015 Proposed Notes	December 2016 Proposed Bonds
Construction of and Imprv. to the City's Mountain Wells, the Chestnut Street Treatment Facility and High High Pump Station	\$ 1,500,281	\$ 281	\$1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
<u>Various Future Projects</u>						
High Priority	3,281,000	1,000	2,430,000	2,860,000	3,280,000	3,280,000
Medium Priority	1,350,000					1,350,000
Subtotal Various Future Projects	4,631,000	1,000	2,430,000	2,860,000	3,280,000	4,630,000
Subtotal Water Capital	6,131,281	1,281	3,930,000	4,360,000	4,780,000	6,130,000
Less: Unexpended Capital Funds	(2,000,000)	-	(2,000,000)	(2,000,000)	(2,000,000)	(2,000,000)
	<u>\$4,131,281</u>	<u>\$ 1,281</u>	<u>\$1,930,000</u>	<u>\$ 2,360,000</u>	<u>\$ 2,780,000</u>	<u>\$ 4,130,000</u>

SCHEDULE OF ORDINANCES TO BE FUNDED - SEWER CAPITAL

Description	Projected Costs to be Funded	Other Funding	December 2013 Proposed Notes	December 2014 Proposed Notes	December 2015 Proposed Notes	December 2016 Proposed Bonds
Various Future Projects High Priority	\$3,305,000		\$2,435,000	\$ 2,870,000	\$ 3,305,000	\$ 3,305,000
Subtotal Sewer Capital	3,305,000	-	2,435,000	2,870,000	3,305,000	3,305,000
Less: Unexpended Capital Funds	(2,000,000)	-	(2,000,000)	(2,000,000)	(2,000,000)	(2,000,000)
	<u>\$1,305,000</u>	<u>\$ -</u>	<u>\$ 435,000</u>	<u>\$ 870,000</u>	<u>\$ 1,305,000</u>	<u>\$ 1,305,000</u>

The proposed financing plan will fund all of the high priority projects over a period of three years through the issuance of bond anticipation notes in each December for the years 2013, 2014 and 2015. The bond anticipation notes are to be permanently financed through the issuance of water and sewer bonds in December 2016. An analysis of the existing and proposed debt service is presented on pages 27 and 28.

VI. SCENARIO 1 – UNITED WATER OPERATIONS WITH PROPOSED USER CHARGES

Proposed rate increases under Scenario 1 assume that the City will extend the Operating Agreement with United Water, as previously discussed in Section III under the Base Case. Utilizing the City’s existing rate structure, water and sewer rates are proposed to increase 17% and 8%, respectively, effective January 1, 2014. Effective January 1, 2017, water and sewer rates are each proposed to increase an additional 3%. A summary of the existing and proposed water and sewer rates are as follows:

WATER SYSTEM

Meter Size (inches)	Allowance per Quarter (cubic feet)	Minimum Charge per Quarter		
		2013 Existing Rates	2014 Proposed Rates	2017 Proposed Rates
5/8	1,000	\$ 34.74	\$ 40.65	\$ 41.87
3/4	2,500	86.85	101.61	104.66
1	5,000	173.70	203.23	209.33
1 1/2	10,000	347.40	406.46	418.65
2	15,000	521.10	609.69	627.98
3	25,000	868.50	1,016.15	1,046.63
4	40,000	1,389.60	1,625.83	1,674.60
6	50,000	1,737.00	2,032.29	2,093.26
8	50,000	1,737.00	2,032.29	2,093.26

Usage above quarterly allowance billed at: \$3.474 per ccf \$4.065 per ccf \$4.187 per ccf

SEWER SYSTEM

<u>Meter Size (inches)</u>	<u>Allowance per Quarter (cubic feet)</u>	Minimum Charge per Quarter		
		<u>2013 Existing Rates</u>	<u>2014 Proposed Rates</u>	<u>2017 Proposed Rates</u>
5/8	1,000	\$ 31.17	\$ 33.66	\$ 34.67
3/4	2,500	77.93	84.16	86.68
1	5,000	155.85	168.32	173.37
1 1/2	10,000	311.70	336.64	346.74
2	15,000	467.55	504.95	520.10
3	25,000	779.25	841.59	866.84
4	40,000	1,246.80	1,346.54	1,386.94
6	50,000	1,558.50	1,683.18	1,733.68
8	50,000	1,558.50	1,683.18	1,733.68

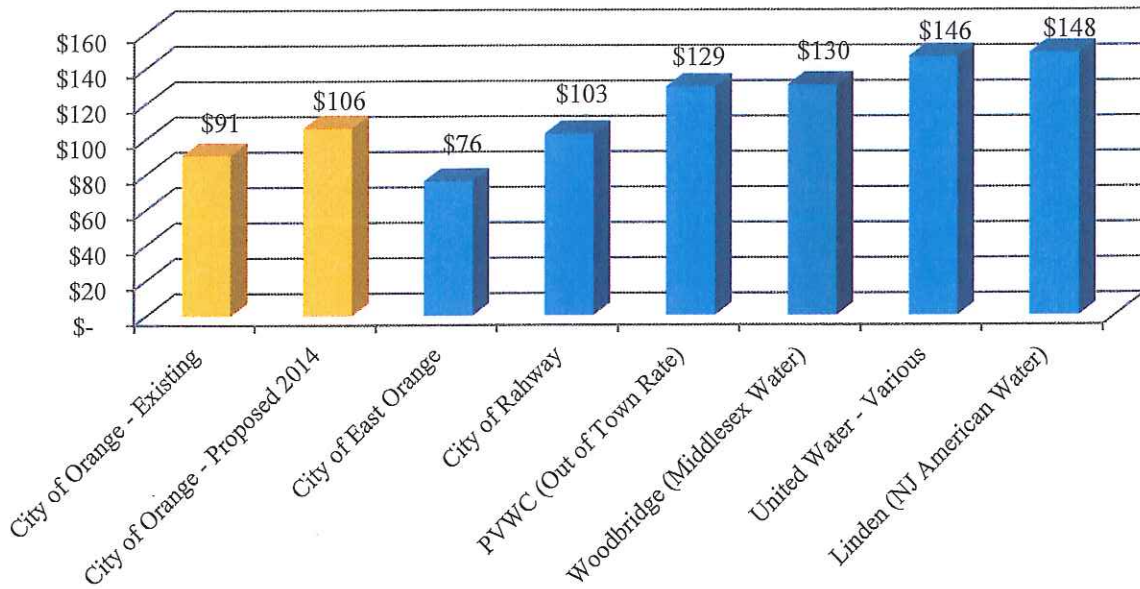
Usage above quarterly allowance billed at: \$3.117 per ccf \$3.366 per ccf \$3.467 per ccf

Due to the uncertainty of revenues associated with fluctuations in water consumption, we have utilized a projected fund balance for the water/sewer utility at December 31, 2018 of approximately \$1,800,000, or 20% of projected revenues. Based on our detail budget projections presented on pages 38 through 43, the proposed rate increases should provide sufficient revenues for the Water/Sewer Utility Operating Fund to remain self-liquidating through December 31, 2018. A summary of the projected annual budgetary surplus based on proposed rates for the combined Water and Sewer Utility Operating Fund are as follows:

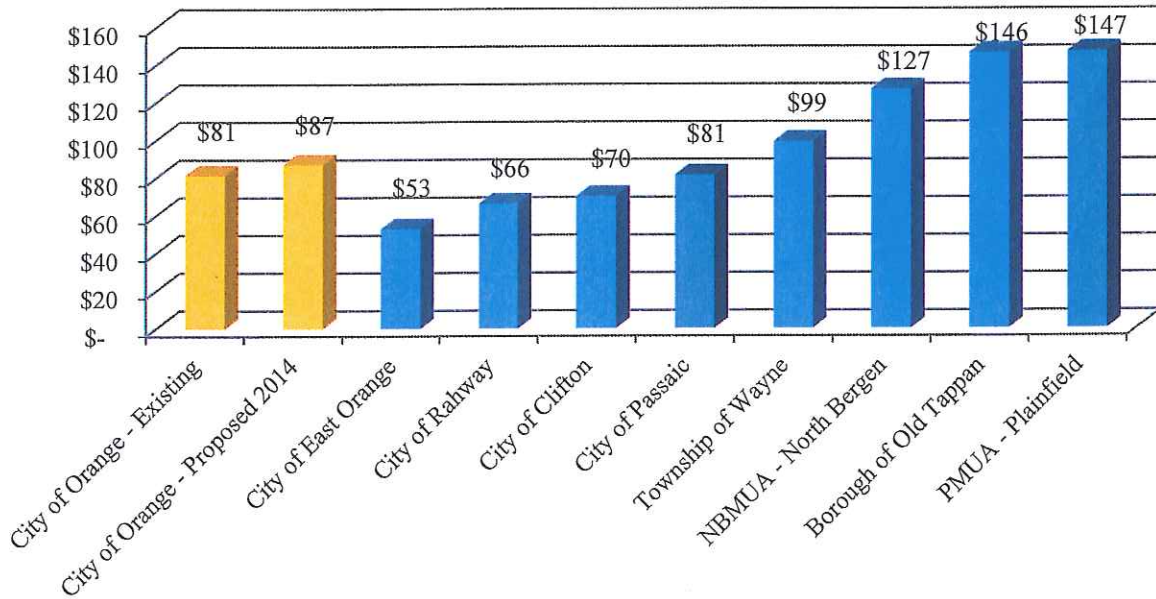
Year	Projected Revenues	Projected Expenditures	Projected Surplus
2013	\$ 7,933,097	\$ 7,933,097	\$ -
2014	8,791,504	8,068,934	722,570
2015	8,791,504	8,259,303	532,201
2016	8,791,504	8,449,369	342,135
2017	9,053,868	8,866,267	187,601
2018	9,111,568	9,031,657	79,911
Total			<u>\$ 1,864,418</u>

We have prepared the following comparisons for both the Water System and Sewer System which compare the existing and proposed average residential quarterly water bill in the City of Orange under the United Water Operations Alternative to other municipalities and water providers. The figures presented in the tables below are based on the 2012 average annual water consumption for single family homes in the City of Orange of 78,000 gallons or 104 CCFs.

Water System - Average Residential Quarterly Bill
 United Water Operations with Proposed User Charges



Sewer System - Average Residential Quarterly Bill
 United Water Operations with Proposed User Charges



VII. CITY OPERATIONS ALTERNATIVE FOR MAINTENANCE OF THE SYSTEMS

At the request of the City, we have prepared an alternative for operation and maintenance of the Water, Wastewater and Stormwater Systems utilizing City employees (the "City Operations Alternative"). Under this scenario, we have assumed that the City would: i) hire additional personnel for the operation and maintenance of the Systems; ii) enter into a separate agreement for billing, collection and metering services; iii) enter into a separate agreement for the routine maintenance of the catch basins, iv) pay for all operating costs associated with the maintenance of the Systems; v) purchase equipment necessary for the day to day operations and maintenance of the Systems.

The projected additional personnel requirements are as follows: one plant superintendent, two plant operators, one utility crew chief, two repair crews consisting of one driver and two laborers in each crew and one administrative assistant for a total of eleven individuals. Projected personnel expenses, including salaries and fringe benefits, for the additional eleven employees amounts to \$793,000.

Based on costs incurred by comparative municipalities, an outside utility billing, collection and metering contract would cost the City approximately \$100,000 per year and projected costs for water treatment chemicals, engineering, catch basin cleaning, repair/replacement supplies and auto insurance totaled \$375,000. The capital equipment to be bonded includes a sewer jet-vac truck, two pickup trucks, television inspection truck with camera and computer equipment. Proposed debt service for the capital equipment averaged approximately \$115,000 per year.

In summary, the total projected cost to the City to operate the Water, Wastewater and Stormwater Systems including additional personnel, an outside contract for utility billing, collection and metering services, an outside contract for the routine maintenance of catch basins, engineering, repair & replacement supplies and purchase equipment necessary to handle the day to day operations and maintenance of the Systems is approximately \$1,383,000.

Water System Operations

The primary responsibility of the water plant superintendent will be supervision and coordination of the two plant operators and the utility crew chief. The plant operators would be responsible for the operation and maintenance of the City's water treatment facilities including the main water plant at 632 Chestnut Street, Gist Place Well #8 and Orange Park Well #7. Plant operators would also be responsible for monitoring and testing alarms at the main water plant, measuring chemical usage at the 3 treatment facilities on a daily basis, and gathering water samples to be sent out for lab testing as required.

One of the field crews consisting of one driver and two laborers is to be assigned to the water system operations and would report directly to the utility crew chief. Responsibilities of the water system field crew would include: i) flushing all hydrants at least once per year, ii) replacing hydrants as needed, iii) inspection of wells, iv) exercise all valves once every 4 years (or 375 valves per year), v) inspect all meters on water lines larger than 3 inches once per year (approximately 45 per year), vi) dam and spillway inspections, vii) hydrant flow testing of entire system once every 10 years (or 40,000 linear feet per year).

Wastewater System Operations

One of the field crews consisting of one driver and two laborers is to be assigned to the wastewater system operations and would report directly to the utility crew chief. Responsibilities of the wastewater system field crew would include: i) clean all sewer mains at least once every three years (or 70,000 linear feet per year), ii) tv camera and inspection of all sewer mains over a ten year period (or 21,000 linear feet per year) and iii) minor repairs to the sewer system which do not require specialized equipment.

Stormwater System Operations

It is assumed that all of the operations related to the stormwater system including routine cleaning of the storm sewers and catch basins will be outsourced to a private vendor. The field crew assigned to the wastewater operations should be able to provide cleaning for the stormwater system on an emergency basis as needed, but it is not anticipated that the wastewater field crew will be able to provide all of the cleaning required for the stormwater system.

Repair and Replacement Costs

The City currently includes approximately \$400,000 in its operating budget for major repair and replacement costs related to emergencies. Under the City Operations Alternative, we have assumed that the City will continue to outsource these emergency repairs. City field crews will only be responsible for minor repairs.

Capital Improvements

It is assumed that all of the capital improvements will be financed through the issuance of debt as previously discussed in Section V of this report. Under the City Operations Alternative, we have included an annual appropriation in the amount of \$50,000 to cover the engineering costs associated with planning and design for the various capital improvements identified by United Water and the City.

VIII. SCENARIO 2 – CITY OPERATIONS WITH PROPOSED USER CHARGES

Proposed rate increases under Scenario 2 assume that the City will operate and maintain the Systems, as previously discussed in Section VII. Utilizing the City’s existing rate structure, water and sewer rates are proposed to increase 15% and 6%, respectively, effective January 1, 2014. Effective January 1, 2017, water and sewer rates are each proposed to increase an additional 3%. A summary of the existing and proposed water and sewer rates are as follows:

WATER SYSTEM

<u>Meter Size (inches)</u>	Allowance per Quarter (cubic feet)	Minimum Charge per Quarter		
		2013 Existing Rates	2014 Proposed Rates	2017 Proposed Rates
5/8	1,000	\$ 34.74	\$ 39.95	\$ 41.15
3/4	2,500	86.85	99.88	102.88
1	5,000	173.70	199.76	205.75
1 1/2	10,000	347.40	399.51	411.50
2	15,000	521.10	599.27	617.25
3	25,000	868.50	998.78	1,028.74
4	40,000	1,389.60	1,598.04	1,645.98
6	50,000	1,737.00	1,997.55	2,057.48
8	50,000	1,737.00	1,997.55	2,057.48

Usage above quarterly allowance billed at: \$3.474 per ccf \$3.995 per ccf \$4.115 per ccf

SEWER SYSTEM

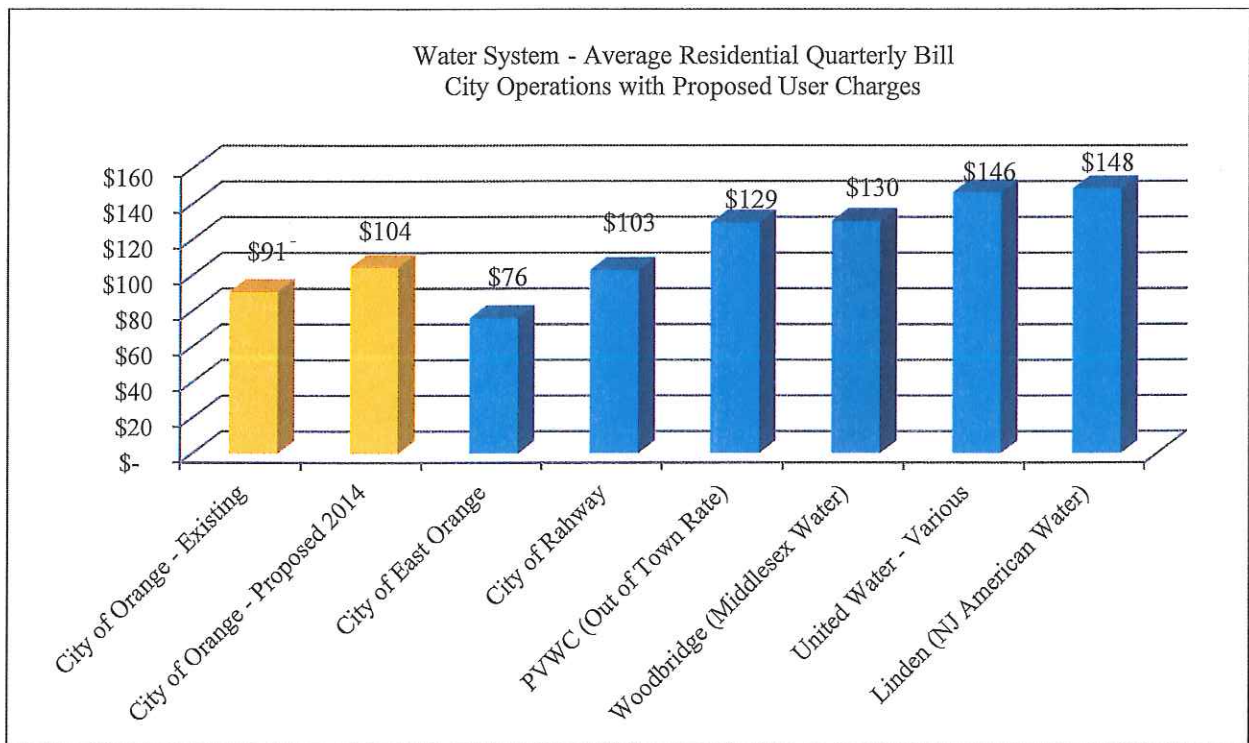
<u>Meter Size (inches)</u>	Allowance per Quarter (cubic feet)	Minimum Charge per Quarter		
		2013 Existing Rates	2014 Proposed Rates	2017 Proposed Rates
5/8	1,000	\$ 31.17	\$ 33.04	\$ 34.03
3/4	2,500	77.93	82.61	85.09
1	5,000	155.85	165.20	170.16
1 1/2	10,000	311.70	330.40	340.31
2	15,000	467.55	495.60	510.47
3	25,000	779.25	826.01	850.79
4	40,000	1,246.80	1,321.61	1,361.26
6	50,000	1,558.50	1,652.01	1,701.57
8	50,000	1,558.50	1,652.01	1,701.57

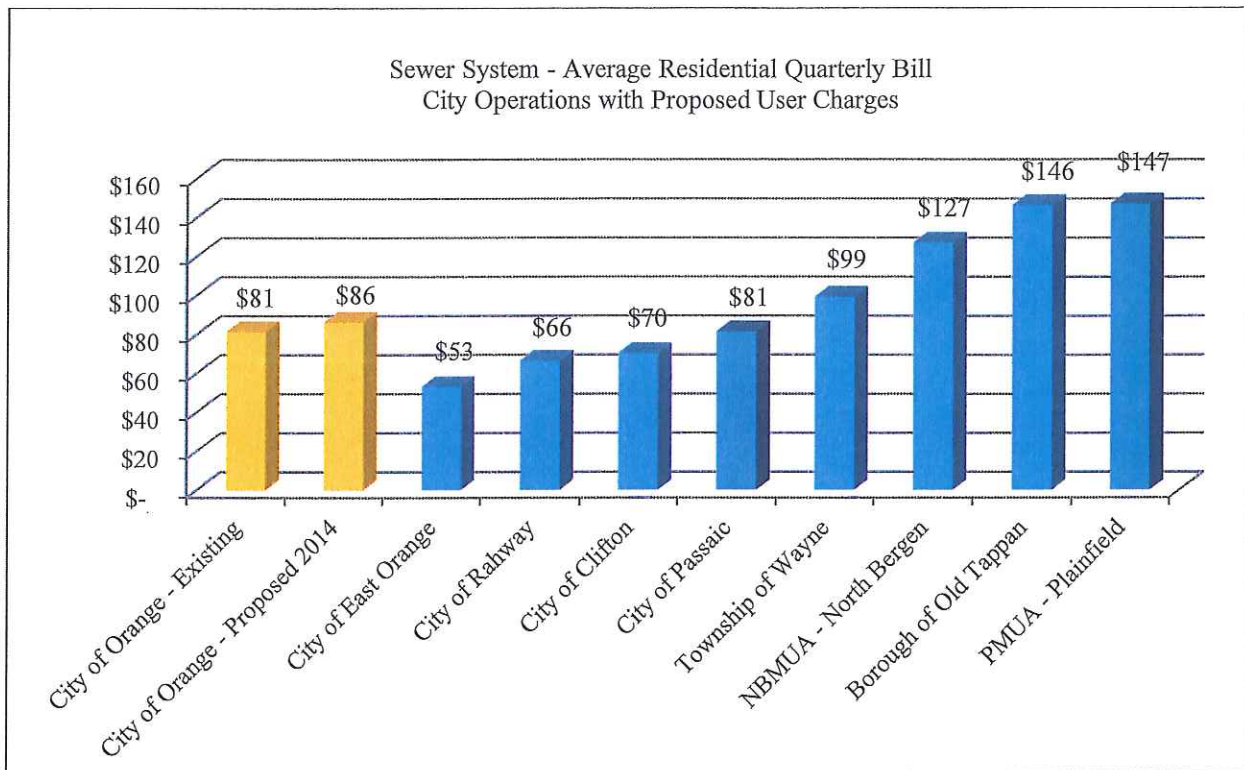
Usage above quarterly allowance billed at: \$3.117 per ccf \$3.304 per ccf \$3.403 per ccf

Due to the uncertainty of revenues associated with fluctuations in water consumption, we have utilized a projected fund balance for the water/sewer utility at December 31, 2018 of approximately \$1,800,000, or 20% of projected revenues. Based on our detail budget projections presented on pages 44 through 49, the proposed rate increases should provide sufficient revenues for the Water/Sewer Utility Operating Fund to remain self-liquidating through December 31, 2018. A summary of the projected annual budgetary surplus based on proposed rates for the combined Water and Sewer Utility Operating Fund are as follows:

Year	Projected Revenues	Projected Expenditures	Projected Surplus
2013	\$ 7,933,097	\$ 7,933,097	\$ -
2014	8,636,450	7,946,034	690,416
2015	8,636,450	8,120,103	516,347
2016	8,636,450	8,293,369	343,081
2017	8,894,164	8,692,867	201,297
2018	8,898,731	8,839,957	58,774
Total			\$ 1,809,915

We have prepared the following comparisons for both the Water System and Sewer System which compare the existing and proposed average residential quarterly water bill in the City of Orange under the City Operations Alternative to other municipalities and water providers. The figures presented in the tables below are based on the 2012 average annual water consumption for single family homes in the City of Orange of 78,000 gallons or 104 CCFs.





IX. RATE MODEL ALTERNATIVE

At the request of the City, we have developed an alternative rate structure in which residential bills are based on a flat fee charge regardless of usage. Commercial, industrial and tax-exempt users would continue to be billed based on usage.

Scenario 1a – United Water Operations with Flat Fee Residential Rates

Proposed rate increases under Scenario 1a assume that the City will extend the Operating Agreement with United Water, as previously discussed in Section VI under Scenario 1. Utilizing the alternative rate structure, water and sewer rates are proposed to increase 17% and 8%, respectively, effective January 1, 2014. Effective January 1, 2017, water and sewer rates are each proposed to increase an additional 3%. A summary of the existing and proposed water and sewer rates under the flat fee residential rate alternative are as follows:

WATER SYSTEM

User Class	Recomputed Existing Annual Rate	2014 Proposed Annual Rate	2017 Proposed Annual Rate
Vacant	\$ 189	\$ 222	\$ 228
Residential - 1 Family	362	424	437
Condo/Townhouse	252	295	304
Apartment	316	370	381

SEWER SYSTEM

<u>User Class</u>	Existing Rate Annual Rate	2014 Proposed Annual Rate	2017 Proposed Annual Rate
Vacant	\$ 203	\$ 219	\$ 226
Residential - 1 Family	320	346	356
Condo/Townhouse	224	242	249
Apartment	279	302	311

Scenario 2a – City Operations with Flat Fee Residential Rates

Proposed rate increases under Scenario 2a assume that the City will operate its Water, Waste Water and Storm Water Systems utilizing City employees, as previously discussed in Section VII under Scenario 2. Utilizing the alternative rate structure, water and sewer rates are proposed to increase 15% and 6%, respectively, effective January 1, 2014. Effective January 1, 2017, water and sewer rates are each proposed to increase an additional 3%. A summary of the existing and proposed water and sewer rates under the flat fee residential rate alternative are as follows:

WATER SYSTEM

<u>User Class</u>	Recomputed Existing Annual Rate	2014 Proposed Annual Rate	2017 Proposed Annual Rate
Vacant	\$ 189	\$ 218	\$ 224
Residential - 1 Family	362	417	429
Condo/Townhouse	252	290	299
Apartment	316	364	375

SEWER SYSTEM

<u>User Class</u>	Existing Rate Annual Rate	2014 Proposed Annual Rate	2017 Proposed Annual Rate
Vacant	\$ 203	\$ 215	\$ 215
Residential - 1 Family	320	339	339
Condo/Townhouse	224	238	238
Apartment	279	296	296

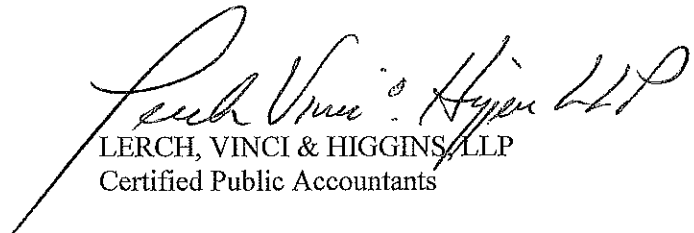
FINDINGS

It has been the pleasure of Lerch, Vinci & Higgins, LLP to submit this comprehensive review of the City's Water, Wastewater and Stormwater operations. A summary of our findings are as follows:

- Certain contractual obligations of United Water have not been fulfilled in accordance with the Agreement for the period reviewed as detailed in Section II of this report.
- It is projected that the City will incur significant operating deficits in the Water/Sewer Utility Fund over the next five years based on existing rates.
- Assuming the City were to extend the agreement with United Water, rate increases of approximately 17% and 8% would be required effective January 1, 2014 for the water and sewer systems, respectively.
- The City of Orange quarterly charges to an average single family home based on existing rates for water and sewer services are \$91 and \$81, respectively. These charges compare favorably when compared with charges of other municipalities and service providers.
- Amounts paid to United Water for repair and replacement items on a cost plus basis for 2012 and the first four months of 2013 total \$723,323 and \$126,948 respectively.
- Capital Improvement projects identified by United Water for the water and sewer system total approximately \$4,600,000 and \$3,300,000, respectively. City has approximately \$2.5 million of unencumbered funds available to use toward these costs leaving a net amount of approximately \$5.4 million to be funded through the issuance of debt.
- We have projected that the City could provide for the water and sewer operations with City personnel at a savings of approximately \$122,000 in year 1 assuming the City were to take over the operations of the Utility.
- Assuming the City was to utilize City employees to provide for the water and sewer operations, rate increases of approximately 15% and 6% would be required effective January 1, 2014 for the water and sewer systems, respectively.
- We have prepared a flat fee alternative rate model for residential customers. The proposed annual rate for single family homes for both water and sewer services under this model, effective January 1, 2014, would range from \$756 to \$770.

We were not engaged to, and did not; perform an audit, the objective of which would be the expression of an opinion on the specified items. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information of the governing body and administration of the City of Orange Township and is not intended to be and should not be used by anyone other than these specified parties.



LERCH, VINCI & HIGGINS, LLP
Certified Public Accountants

Fair Lawn, NJ
September 27, 2013

**WATER & SEWER SYSTEMS
2013-2018 BUDGET PROJECTION**

BASE CASE: UNITED WATER OPERATIONS
WITH EXISTING USER CHARGES

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

COMBINED SYSTEMS - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
REVENUES							
Surplus Anticipated	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rents	7,900,149	7,810,787	7,887,217	7,887,217	7,887,217	7,887,217	7,887,217
Additional Rents	-	76,430	-	-	-	-	-
Interest on Investments	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Miscellaneous	43,888	43,880	44,000	44,000	44,000	44,000	44,000
Other Credits to Income	37,671	-	-	-	-	-	-
Total Revenues	8,193,708	7,933,097	7,933,217	7,933,217	7,933,217	7,933,217	7,933,217
EXPENDITURES							
<u>Operating</u>							
Salaries & Wages	-	30,000	30,600	31,200	31,800	32,400	33,000
United Water O&M Fee - Contractual	1,361,217	1,433,900	1,531,600	1,573,700	1,617,000	1,661,400	1,707,100
United Water - Repair/Replacement (Subcontractors)	723,313	400,000	412,000	424,300	437,000	450,100	463,600
United Water - Water Connection Fees	48,870	50,300	51,800	53,400	55,000	56,700	58,400
United Water - Hydrant Replacement Charges	38,289	39,400	40,600	41,800	43,100	44,400	45,700
United Water - NJ American Water Pass-Thru	17,365	17,900	18,400	19,000	19,600	20,200	20,800
Passaic Valley Sewerage Commission	2,653,675	2,599,335	2,651,000	2,704,000	2,758,000	2,813,000	2,869,000
Second River Joint Meeting	22,689	19,107	19,500	19,900	20,300	20,700	21,100
Gas & Electric	490,173	480,000	504,000	529,200	555,700	583,500	612,700
Professional Services - Engineering	140,111	90,000	91,800	93,600	95,500	97,400	99,300
<u>Real Estate Taxes</u>							
Township of Maplewood	5,106	5,200	5,300	5,400	5,500	5,600	5,700
Township of West Orange	29,359	29,900	30,500	31,100	31,700	32,300	32,900
Township of Millburn	8,763	8,900	9,100	9,300	9,500	9,700	9,900
State Permits and Fees	18,150	20,000	20,000	20,000	20,000	20,000	20,000
Police S&W Outside Duty for Repairs	15,959	16,000	16,300	16,600	16,900	17,200	17,500
Debt Service Administrative Fees	11,505	11,600	11,600	11,600	11,600	11,600	11,600
PY Deficit	-	104,903	-	-	-	-	-
Total Operating Expenditures	5,584,544	5,356,445	5,444,100	5,584,100	5,728,200	5,876,200	6,028,300
Gross Profit Before Debt	2,609,164	2,576,652	2,489,117	2,349,117	2,205,017	2,057,017	1,904,917

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

COMBINED SYSTEMS - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
EXPENDITURES							
<u>Debt Service</u>							
Series 2003A							
Bond Interest	348,780	348,780	348,780	348,780	348,780	348,780	348,780
Series 2003B							
Bond Principal	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	739,265	732,098	688,408	640,649	588,893	534,065	476,053
NJEIT Loan Principal & Interest	510,570	515,774	512,171	516,174	511,371	514,172	516,174
<u>Proposed Debt Service</u>							
Note Interest	-	-	35,475	64,600	102,125	-	-
Bond Principal	-	-	-	-	-	190,000	195,000
Bond Interest	-	-	-	-	-	163,050	157,350
Total Debt Service Expenditures	2,523,615	2,576,652	2,624,834	2,675,203	2,721,169	2,990,067	3,003,357
Total Expenditures	8,108,159	7,933,097	8,068,934	8,259,303	8,449,369	8,866,267	9,031,657
Excess/(Deficit) Revenues over Expenditures	85,549	-	(135,717)	(326,086)	(516,152)	(933,050)	(1,098,440)
Projected Fund Balance, Beginning of Year	827,693	17,693	17,693	(118,024)	(444,110)	(960,262)	(1,893,312)
Adjustment to Rents per AFS	(89,362)	-	-	-	-	-	-
Adjustment to Expenditures per AFS	3,813	-	-	-	-	-	-
Amount Appropriated in Budget	(210,000)	-	-	-	-	-	-
Transfer to General Fund	(600,000)	-	-	-	-	-	-
Projected Fund Balance, End of Year	\$ 17,693	\$ 17,693	\$ (118,024)	\$ (444,110)	\$ (960,262)	\$ (1,893,312)	\$ (2,991,752)

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
<i>Proposed Rate Increase (I)</i>							
0%							
REVENUES							
	\$ 210,000						
Surplus Anticipated		\$ 4,092,393	\$ 4,168,823	\$ 4,168,823	\$ 4,168,823	\$ 4,168,823	\$ 4,168,823
Rents	4,139,213	76,430	-	-	-	-	-
Additional Rents		1,000	1,000	1,000	1,000	1,000	1,000
Interest on Investments	1,000	43,880	44,000	44,000	44,000	44,000	44,000
Miscellaneous	43,888						
Other Credits to Income	37,671						
Total Revenues	4,431,772	4,213,703	4,213,823	4,213,823	4,213,823	4,213,823	4,213,823
EXPENDITURES							
Operating							
Salaries & Wages		15,900	16,200	16,500	16,800	17,100	17,400
United Water O&M Fee - Contractual	983,752	1,036,300	1,106,900	1,137,300	1,168,600	1,200,700	1,233,700
United Water - Repair/Replacement (Subcontractors)	522,745	289,100	297,800	306,700	315,900	325,400	335,200
United Water - Water Connection Fees	48,870	50,300	51,800	53,400	55,000	56,700	58,400
United Water - Hydrant Replacement Charges	38,289	39,400	40,600	41,800	43,100	44,400	45,700
United Water - NJ American Water Pass-Thru	17,365	17,900	18,400	19,000	19,600	20,200	20,800
Gas & Electric	406,893	398,400	418,300	439,200	461,200	484,300	508,500
Professional Services - Engineering	101,258	65,000	66,300	67,600	69,000	70,400	71,800
Real Estate Taxes							
Township of Maplewood	5,106	5,200	5,300	5,400	5,500	5,600	5,700
Township of West Orange	29,359	29,900	30,500	31,100	31,700	32,300	32,900
Township of Millburn	8,763	8,900	9,100	9,300	9,500	9,700	9,900
State Permits and Fees	18,150	20,000	20,000	20,000	20,000	20,000	20,000
Police S&W Outside Duty for Repairs	11,534	11,600	11,800	12,000	12,200	12,400	12,600
Debt Service Administrative Fees	8,315	8,400	8,400	8,400	8,400	8,400	8,400
PY Deficit		55,720					
Total Operating Expenditures	2,200,399	2,052,020	2,101,400	2,167,700	2,236,500	2,307,600	2,381,000
Gross Profit Before Debt	2,231,373	2,161,683	2,112,423	2,046,123	1,977,323	1,906,223	1,832,823

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
EXPENDITURES								
Debt Service								
Series 2003A		276,373	276,373	276,373	276,373	276,373	276,373	276,373
Bond Interest								
Series 2003B		925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Principal		739,265	732,098	688,408	640,649	588,893	534,065	476,053
Bond Interest		368,989	372,750	370,146	373,039	369,568	371,592	373,039
NJ/EIT Loan Principal & Interest								
Proposed Debt Service								
Note Interest				28,950	47,200	69,500		
Bond Principal							150,000	155,000
Bond Interest							123,900	119,400
Total Debt Service Expenditures		2,309,627	2,361,221	2,403,877	2,442,261	2,474,334	2,695,930	2,709,865
Total Expenditures		4,510,026	4,413,241	4,505,277	4,609,961	4,710,834	5,003,530	5,090,865
Excess/(Deficit) Revenues over Expenditures		(78,254)	(199,538)	(291,454)	(396,138)	(497,011)	(789,707)	(877,042)
Projected Fund Balance, Beginning of Year		433,662	586	(198,952)	(490,406)	(886,544)	(1,383,555)	(2,173,262)
Adjustment to Rents per AFS		(46,820)						
Adjustment to Expenditures per AFS		1,998						
Amount Appropriated in Budget		(210,000)						
Transfer to General Fund		(100,000)						
Projected Fund Balance, End of Year		\$ 586	\$ (198,952)	\$ (490,406)	\$ (886,544)	\$ (1,383,555)	\$ (2,173,262)	\$ (3,050,304)

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
<i>Proposed Rate Increase (1)</i>								
0%								
REVENUES								
Surplus Anticipated								
Rents		\$ 3,760,936	\$ 3,718,394	\$ 3,718,394	\$ 3,718,394	\$ 3,718,394	\$ 3,718,394	\$ 3,718,394
Additional Rents		-	-	-	-	-	-	-
Interest on Investments		1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Revenues		3,761,936	3,719,394	3,719,394	3,719,394	3,719,394	3,719,394	3,719,394
EXPENDITURES								
Operating								
Salaries & Wages	2.00%		14,100	14,400	14,700	15,000	15,300	15,600
United Water O&M Fee - Contractual	2.75%	377,465	397,600	424,700	436,400	448,400	460,700	473,400
United Water - Repair/Replacement (Subcontractors)	3.00%	200,568	110,900	114,200	117,600	121,100	124,700	128,400
Passaic Valley Sewerage Commission	2.00%	2,653,675	2,599,335	2,651,000	2,704,000	2,758,000	2,813,000	2,869,000
Second River Joint Meeting	2.00%	22,689	19,107	19,500	19,900	20,300	20,700	21,100
Gas & Electric	5.00%	83,280	81,600	85,700	90,000	94,500	99,200	104,200
Professional Services - Engineering	2.00%	38,853	25,000	25,500	26,000	26,500	27,000	27,500
Police S&W Outside Duty for Repairs	2.00%	4,425	4,400	4,500	4,600	4,700	4,800	4,900
Debt Service Administrative Fees	0.00%	3,190	3,200	3,200	3,200	3,200	3,200	3,200
PY Deficit		-	49,183	-	-	-	-	-
Total Operating Expenditures		3,384,145	3,304,425	3,342,700	3,416,400	3,491,700	3,568,600	3,647,300
Gross Profit Before Debt		377,791	414,969	376,694	302,994	227,694	150,794	72,094
Debt Service								
Series 2003A								
Bond Interest		72,407	72,407	72,407	72,407	72,407	72,407	72,407
NJET Loan Principal & Interest		141,581	143,024	142,025	143,135	141,803	142,580	143,135
Proposed Debt Service								
Note Interest				6,525	17,400	32,625		
Bond Principal							40,000	40,000
Bond Interest							39,150	37,950
Total Debt Service Expenditures		213,988	215,431	220,957	232,942	246,835	294,137	293,492
Total Expenditures		3,598,133	3,519,856	3,563,657	3,649,342	3,738,535	3,862,737	3,940,792

CITY OF ORANGE TOWNSHIP
 WATER & SEWER RATE STUDY

SEWER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
Excess/(Deficit) Revenues over Expenditures	163,803	199,538	155,737	70,052	(19,141)	(143,343)	(221,398)
Projected Fund Balance, Beginning of Year	394,031	17,107	216,645	372,382	442,434	423,293	279,950
Adjustment to Rents per AFS	(42,542)						
Adjustment to Expenditures per AFS	1,815						
Amount Appropriated in Budget							
Transfer to General Fund	(500,000)						
Projected Fund Balance, End of Year	\$ 17,107	\$ 216,645	\$ 372,382	\$ 442,434	\$ 423,293	\$ 279,950	\$ 58,552

WATER & SEWER SYSTEMS

UNITED WATER - REPAIR/REPLACEMENT COSTS

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2012 REPAIR/REPLACEMENT (BILL-BACK CHARGES)

Month Billed	Subcontractor	Subcontractor Invoice Amt.	15% Admin Fee	Amount Billed	Service Type	Description of Work Performed
January 2012	Hatch Mott MacDonald	\$ 28,000.00	\$ 4,200.00	\$ 32,200.00	Water	Orange Park Arsenic Well Treatment Project - process design and permitting
January 2012	J. Fletcher Creamer & Son, Inc.	29,260.21	4,389.03	33,649.24	Water	Valve replacement - North Jefferson Street
January 2012	HW Alward, Inc	5,073.00	760.95	5,833.95	Sewer	Sanitary Sewer Manhole Repair at Carteret Place
January 2012	HW Alward, Inc	10,006.72	1,501.01	11,507.73	Sewer	Catch basin repair at various locations
January 2012	Hungerford & Terry Inc.	73,500.00	11,025.00	84,525.00	Water	Conversion of softener to arsenic treatment
January 2012	Service Works, Inc.	6,163.20	924.48	7,087.68	Water	Unspecified service to 632 Beach Street
February 2012	HW Alward, Inc	3,356.93	503.54	3,860.47	Sewer	Catch basin replacement at Hill Street
February 2012	HW Alward, Inc	6,320.00	948.00	7,268.00	Sewer	Removal and replacement of manhole castings at various locations
February 2012	National Water Main Cleaning, Inc.	55,808.00	8,371.20	64,179.20	Sewer	Installation of CIPP liner
February 2012	National Water Main Cleaning, Inc.	4,606.35	690.95	5,297.30	Sewer	Installation of CIPP at Main Street
February 2012	Mueller Co. LTD	3,843.81	576.57	4,420.38	Water	Hydrant replacement
February 2012	J. Fletcher Creamer & Son, Inc.	9,649.94	1,447.49	11,097.43	Water	
February 2012	J. Fletcher Creamer & Son, Inc.	4,542.85	681.43	5,224.28	Water	Repair water main leak at Valley/Chestnut Streets
February 2012	J. Fletcher Creamer & Son, Inc.	2,066.00	309.90	2,375.90	Water	Backfill and cleanup from valve repairs at Oakwood Avenue
February 2012	J. Fletcher Creamer & Son, Inc.	5,083.12	762.47	5,845.59	Water	Valve repairs at Oakwood Avenue
February 2012	J. Fletcher Creamer & Son, Inc.	6,912.69	1,036.90	7,949.59	Water	Water main repair at Oakwood Place
February 2012	J. Fletcher Creamer & Son, Inc.	2,294.85	344.23	2,639.08	Water	Removal and replacement of hydrant at N. Day Street
February 2012	J. Fletcher Creamer & Son, Inc.	771.00	115.65	886.65	Water	Sinkhole repair at Reock Street
February 2012	J. Fletcher Creamer & Son, Inc.	11,818.21	1,772.73	13,590.94	Water	Repair water main leak at Main Street
February 2012	J. Fletcher Creamer & Son, Inc.	1,753.48	263.02	2,016.50	Water	Valve repair at Pierson/Hickory Streets
February 2012	J. Fletcher Creamer & Son, Inc.	1,394.90	209.24	1,604.14	Water	Paving restoration at various locations
February 2012	Cream Ridge Construction Co. Inc	1,244.70	186.72	1,431.42	Water	Orange Park Arsenic Well Treatment Project - construction phase services
February 2012	Hatch Mott MacDonald	16,988.00	2,548.20	19,536.20	Sewer	Repair of sanitary sewer pipe and manhole at S. Jefferson Street
March 2012	HW Alward, Inc	4,031.00	604.65	4,635.65	Sewer	Catch basin repair at S. Jefferson Street
March 2012	HW Alward, Inc	7,839.00	1,175.85	9,014.85	Sewer	Storm sewer repairs at Orange Park
March 2012	HW Alward, Inc	3,491.00	523.65	4,014.65	Sewer	Storm sewer repairs at Ridge Court
March 2012	HW Alward, Inc	5,073.00	760.95	5,833.95	Sewer	Sewer manhole invert repairs at S. Jefferson Street
March 2012	Longo Electrical Mechanical Inc.	182.63	27.40	210.03	Water	Tax amount owed on previously paid invoices
March 2012	Longo Electrical Mechanical Inc.	129.22	19.38	148.60	Water	Tax amount owed on previously paid invoices
March 2012	J. Fletcher Creamer & Son, Inc.	635.19	95.28	730.47	Water	Valve repair at Pierson/Hickory Streets
March 2012	J. Fletcher Creamer & Son, Inc.	5,005.20	750.78	5,755.98	Water	Repair leak at Nassau/S. Jefferson Streets
March 2012	J. Fletcher Creamer & Son, Inc.	5,001.48	750.22	5,751.70	Water	Repair leak at N. Center Street
March 2012	J. Fletcher Creamer & Son, Inc.	5,515.45	827.32	6,342.77	Water	Valve repair at Central Ave/S. Jefferson Street
March 2012	J. Fletcher Creamer & Son, Inc.	3,104.74	465.71	3,570.45	Water	Valve repair at Scotland Rd/Waverly Place
March 2012	Cream Ridge Construction Co. Inc	1,516.96	227.54	1,744.50	Water	Paving restoration at various locations
March 2012	Cream Ridge Construction Co. Inc	1,252.65	187.90	1,440.55	Water	Paving restoration at various locations
March 2012	Cream Ridge Construction Co. Inc	1,541.21	231.18	1,772.39	Water	Paving restoration at various locations
March 2012	Water Works Supply Co.	6,010.17	901.53	6,911.70	Water	Various material/supplies
March 2012	Cream Ridge Construction Co. Inc	10,207.88	1,531.18	11,739.06	Water	Paving restoration at various locations

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2012 REPAIR/REPLACEMENT (BILL-BACK CHARGES)

Month Billed	Subcontractor	Subcontractor Invoice Amt.	15% Admin Fee	Amount Billed	Service Type	Description of Work Performed
April 2012	HW Alward, Inc	5,844.18	876.63	6,720.81	Sewer	Catch basin repair at Jackson Ave/Lincoln Street
April 2012	J. Fletcher Creamer & Son, Inc.	6,992.40	1,048.86	8,041.26	Water	Repair water main leak at Henry Street
April 2012	J. Fletcher Creamer & Son, Inc.	41,036.00	6,155.40	47,191.40	Water	Installation of flange pipe and valves at Oakwood Ave Plant
April 2012	J. Fletcher Creamer & Son, Inc.	13,250.00	1,987.50	15,237.50	Water	Repair/Replace water valves at S. Jefferson St./Stetson St.
April 2012	J. Fletcher Creamer & Son, Inc.	7,700.00	1,155.00	8,855.00	Sewer	Sewer repair at Nassau Street
May 2012	HW Alward, Inc	3,548.91	532.34	4,081.25	Water	Repair water main at Bell/Monroe Streets
May 2012	HW Alward, Inc	9,618.28	1,442.74	11,061.02	Sewer	Installation of new sewer lateral connection at Taylor Street
May 2012	J. Fletcher Creamer & Son, Inc.	7,208.87	1,081.33	8,290.20	Water	Repair water main leak at Main/Canfield Streets
May 2012	J. Fletcher Creamer & Son, Inc.	3,630.42	544.56	4,174.98	Water	Locate valve and repair shut off valve to hydrant at N. Essex Ave/Main Street
May 2012	J. Fletcher Creamer & Son, Inc.	10,693.64	1,604.05	12,297.69	Water	Repair leak at N. Essex Ave/Main Street
May 2012	Neptune Technology Group Inc.	1,894.14	284.12	2,178.26	Water	Purchased water meters
May 2012	Neptune Technology Group Inc.	2,357.33	353.60	2,710.93	Water	Purchased water meters
May 2012	Water Works Supply Co.	1,739.64	260.95	2,000.59	Water	Various material/supplies
May 2012	Water Works Supply Co.	3,677.18	551.57	4,228.75	Water	Various material/supplies
June 2012	ANEW Fence and Railings	2,320.00	348.00	2,668.00	Water	Gate replacement at Well #3 and #6
June 2012	HW Alward, Inc	407.21	61.08	468.29	Sewer	Catch basin repair at S. Essex Avenue
June 2012	HW Alward, Inc	1,834.56	275.18	2,109.74	Water	Fire hydrant replacement at S. Center/Reock St.
June 2012	HW Alward, Inc	1,834.56	275.18	2,109.74	Water	Fire hydrant replacement at S. Center/Piersen St.
June 2012	HW Alward, Inc	1,834.56	275.18	2,109.74	Water	Fire hydrant replacement at S. Center/Chapman St.
June 2012	Cream Ridges Construction Co. Inc	2,280.47	342.07	2,622.54	Water	Paving restoration at various locations
June 2012	Water Works Supply Co.	2,907.56	436.15	3,343.71	Water	Various material/supplies
June 2012	Hatch Mott MacDonald	3,257.48	488.62	3,746.10	Water	Orange Park Arsenic Well Treatment Project - construction phase services
June 2012	Neptune Technology Group Inc.	6,775.36	1,016.30	7,791.66	Water	Purchased water meters
July 2012	Longo Electrical Mechanical Inc.	1,081.60	162.24	1,243.84	Water	Troubleshooting at 91st Station and Orange Park Station
July 2012	ESC Enterprises Inc.	1,315.02	197.25	1,512.27	Water	Level probe
July 2012	HW Alward, Inc	2,016.58	302.49	2,319.07	Sewer	Catch basin repair at Main Street
July 2012	HW Alward, Inc	4,874.84	731.23	5,606.07	Sewer	Catch basin replacement at New Street
July 2012	HW Alward, Inc	868.06	130.21	998.27	Sewer	Catch basin repair at Main Street
July 2012	HW Alward, Inc	1,492.93	223.94	1,716.87	Sewer	Box out and pave trenches at various locations
July 2012	J. Fletcher Creamer & Son, Inc.	5,728.05	859.21	6,587.26	Water	Repair water main leak at Laurel St. and Scotland Rd.
July 2012	J. Fletcher Creamer & Son, Inc.	3,600.00	540.00	4,140.00	Water	Repair sink hole at Cleveland/White Streets
July 2012	J. Fletcher Creamer & Son, Inc.	3,600.00	540.00	4,140.00	Water	Repair sink hole at William/N. Center Streets
July 2012	Cream Ridge Construction Co. Inc	595.45	89.32	684.77	Water	Paving restoration at various locations
August 2012	AC Shultes Inc.	3,140.00	471.00	3,611.00	Water	Pump motor repairs and well drilling
August 2012	Academy Fence Co. Inc	2,150.00	322.50	2,472.50	Water	Fence installation at Campbell Pond
August 2012	Academy Fence Co. Inc	1,975.00	296.25	2,271.25	Water	Fence installation at Campbell's Pond Bridge
August 2012	Hatch Mott MacDonald	1,267.14	190.07	1,457.21	Water	Orange Park Arsenic Well Treatment Project - construction phase services
August 2012	J. Fletcher Creamer & Son, Inc.	3,600.00	540.00	4,140.00	Sewer	Catch basin repair at Harrison Street
September 2012	J. Fletcher Creamer & Son, Inc.	5,097.58	764.64	5,862.22	Water	Repair valve at Lincoln/ Highland Avenues

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2012 REPAIR/REPLACEMENT (BILL-BACK CHARGES)

Month Billed	Subcontractor	Subcontractor Invoice Amt.	15% Admin Fee	Amount Billed	Service Type	Description of Work Performed
September 2012	Layne Christensen Co.	38,473.00	5,770.95	44,243.95	Water	Removal and replacement of air stripping packing media at Orange Park Tower
September 2012	QC Laboratories	1,635.00	245.25	1,880.25	Water	Lab analysis of water samples
October 2012	HW Alward, Inc	3,266.16	489.92	3,756.08	Water	Repair valve at Main/Canfield Streets
October 2012	HW Alward, Inc	3,332.31	499.85	3,832.16	Water	Repair valve at Main/Canfield Streets
November 2012	National Water Main Cleaning, Inc.	15,292.00	1,993.80	15,285.80	Sewer	Install CIPP at Nassau and McChesney Streets
November 2012	HW Alward, Inc	5,077.06	761.56	5,838.62	Water	Repair valve and trench at Scotland Rd and Carey Street
November 2012	HW Alward, Inc	8,137.46	1,220.62	9,358.08	Water	Replace broken tee and valve at Scotland Rd and Mechanic Street
November 2012	J. Fletcher Creamer & Son, Inc.	2,100.00	315.00	2,415.00	Sewer	Replace catch basin curb piece at Watching Avenue
December 2012	J. Fletcher Creamer & Son, Inc.	15,980.26	2,397.04	18,377.30	Water	Fuel generators for UW Orange
December 2012	QC Laboratories	663.65	99.55	763.20	Water	Lab analysis of water samples
December 2012	QC Laboratories	971.35	145.70	1,117.05	Water	Lab analysis of water samples
		<u>\$ 628,967.99</u>	<u>\$ 94,345.23</u>	<u>\$ 723,313.22</u>		

SUMMARY BY MONTH

January 2012	\$ 152,003.13	\$ 22,800.47	\$ 174,803.60
February 2012	121,466.83	18,220.04	139,686.87
March 2012	77,524.78	11,628.72	89,153.50
April 2012	74,822.58	11,223.39	86,045.97
May 2012	44,368.41	6,655.26	51,023.67
June 2012	23,451.76	3,517.76	26,969.52
July 2012	25,172.53	3,775.89	28,948.42
August 2012	12,132.14	1,819.82	13,951.96
September 2012	45,205.58	6,780.84	51,986.42
October 2012	6,598.47	989.77	7,588.24
November 2012	28,606.52	4,290.98	32,897.50
December 2012	17,615.26	2,642.29	20,257.55
	<u>\$ 628,967.99</u>	<u>\$ 94,345.23</u>	<u>\$ 723,313.22</u>

SUMMARY BY SERVICE TYPE

Water	454,560.91	68,184.16	522,745.07	Allocation
Sewer	174,407.08	26,161.07	200,568.15	72.27%
	<u>\$ 628,967.99</u>	<u>\$ 94,345.23</u>	<u>\$ 723,313.22</u>	27.73%
				100.00%

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2013 REPAIR/REPLACEMENT (BILL-BACK CHARGES) - PAYMENTS YEAR TO DATE AS OF 7/23/13

Month Billed	Subcontractor	Subcontractor Invoice Amt.	15% Admin Fee	Amount Billed	Service Type	Description of Work Performed
January 2013	National Water Main Cleaning	\$ 3,772.40	\$ 565.86	\$ 4,338.26	Sewer	Manhole rehabilitation at Nassau and McChesney Streets
January 2013	J. Fletcher Creamer & Son, Inc.	5,863.17	879.48	6,742.65	Water	Repair water main leak at McChesney Street
January 2013	J. Fletcher Creamer & Son, Inc.	8,854.06	1,328.11	10,182.17	Water	Repair water main and replace valve at Crane Street
January 2013	HW Alward, Inc	17,481.24	2,622.19	20,103.43	Water	Repair/replace various gate valves at S. Center Street
February 2013	Neptune Technology Group, Inc.	2,899.20	434.88	3,334.08	Water	Purchased water meters
February 2013	Neptune Technology Group, Inc.	2,204.40	330.66	2,535.06	Water	Purchased water meters
March 2013	J. Fletcher Creamer & Son, Inc.	3,735.80	560.37	4,296.17	Water	Repair water main at S. Jefferson Street
March 2013	J. Fletcher Creamer & Son, Inc.	8,583.24	1,287.49	9,870.73	Water	Locate leak no S. Essex water main
March 2013	J. Fletcher Creamer & Son, Inc.	10,819.23	1,622.89	12,442.12	Water	Repair valve at Central Place and Parrow Street
March 2013	J. Fletcher Creamer & Son, Inc.	6,130.23	919.53	7,049.76	Water	Repair water main at Berkeley/Haywood
March 2013	J. Fletcher Creamer & Son, Inc.	4,435.81	665.37	5,101.18	Water	Repair water main at Alden/Cleveland Street
March 2013	J. Fletcher Creamer & Son, Inc.	4,918.21	737.73	5,655.94	Water	Repair leak at Oakwood Ave./Parrow Street
March 2013	J. Fletcher Creamer & Son, Inc.	5,829.62	874.44	6,704.06	Water	Repair valve at Hickory Street
March 2013	J. Fletcher Creamer & Son, Inc.	1,914.41	287.16	2,201.57	Water	Millburn Well Field Generator
March 2013	Cream Ridge Construction Co. Inc	3,081.10	462.17	3,543.27	Water	Paving restoration at various locations
March 2013	Cream Ridge Construction Co. Inc	7,135.00	1,070.25	8,205.25	Water	Paving restoration at various locations
March 2013	Water Works Supply Co.	137.69	20.65	158.34	Water	Various material/supplies
March 2013	Water Works Supply Co.	8,279.34	1,241.90	9,521.24	Water	Various material/supplies
April 2013	J. Fletcher Creamer & Son, Inc.	4,315.19	647.28	4,962.47	Water	Repair gate valves at Alden/Cleveland Streets
		<u>\$ 110,389.34</u>	<u>\$ 16,558.41</u>	<u>\$ 126,947.75</u>		
SUMMARY BY MONTH						
January 2013		\$ 35,970.87	\$ 5,395.64	\$ 41,366.51		
February 2013		5,103.60	765.54	5,869.14		
March 2013		64,999.68	9,749.95	74,749.63		
April 2013		4,315.19	647.28	4,962.47		
Total Payments Year to Date as of 7/23/13		<u>\$ 110,389.34</u>	<u>\$ 16,558.41</u>	<u>\$ 126,947.75</u>		

SUMMARY BY SERVICE TYPE		Allocation
Water	106,616.94	96.58%
Sewer	3,772.40	3.42%
	<u>\$ 110,389.34</u>	<u>\$ 16,558.41</u>
		<u>\$ 126,947.75</u>
		100.00%

**WATER & SEWER SYSTEMS
EXISTING DEBT AND PROPOSED FINANCING PLAN
(CAPITAL IMPROVEMENTS)**

CITY OF ORANGE TOWNSHIP
WATER/SEWER RATE STUDY

EXISTING & PROPOSED DEBT SERVICE - WATER

	2012	2013	2014	2015	2016	2017	2018
Debt Service							
<u>Series 2003A</u>							
Bond Interest	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373
<u>Series 2003B</u>							
Bond Principal	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	773,055	732,098	688,408	640,649	588,893	534,065	476,053
NJFIT Loan Principal & Interest	368,989	372,750	370,146	373,039	369,568	371,592	373,039
Proposed Debt Service							
Note Interest			28,950	47,200	69,500		
Bond Principal						150,000	155,000
Bond Interest						123,900	119,400
	2,343,417	\$2,361,221	\$2,403,877	\$2,442,261	\$2,474,334	\$2,695,930	\$2,709,865
Interest Accrual Adjustment	(33,790)						
	\$ 2,309,627						

EXISTING & PROPOSED DEBT SERVICE - SEWER

	2012	2013	2014	2015	2016	2017	2018
Debt Service							
<u>Series 2003A</u>							
Bond Interest	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407
NJFIT Loan Principal & Interest	141,581	143,024	142,025	143,135	141,803	142,580	143,135
Proposed Debt Service							
Note Interest			6,525	17,400	32,625		
Bond Principal						40,000	40,000
Bond Interest						39,150	37,950
	\$ 213,988	\$ 215,431	\$ 220,957	\$ 232,942	\$ 246,835	\$ 294,137	\$ 293,492

CITY OF ORANGE TOWNSHIP
WATER/SEWER RATE STUDY

EXISTING & PROPOSED DEBT SERVICE - COMBINED SYSTEMS

	2012	2013	2014	2015	2016	2017	2018
<u>Debt Service</u>							
Series 2003A							
Bond Interest	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780
Series 2003B							
Bond Principal	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	773,055	732,098	688,408	640,649	588,893	534,065	476,053
NJEIT Loan Principal & Interest	510,570	515,774	512,171	516,174	511,371	514,172	516,174
<u>Proposed Debt Service</u>							
Note Interest			35,475	64,600	102,125		
Bond Principal						190,000	195,000
Bond Interest						163,050	157,350
	2,557,405	\$2,576,652	\$2,624,834	\$2,675,203	\$2,721,169	\$2,990,067	\$3,003,357
Interest Accrual Adjustment	(33,790)						
	\$ 2,523,615						

CITY OF ORANGE TOWNSHIP
WATER/SEWER RATE STUDY

EXISTING DEBT SERVICE - WATER

Debt Service	2012	2013	2014	2015	2016	2017	2018
Series 2003A							
Bond Interest	(1) \$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373	\$ 276,373
Series 2003B							
Bond Principal	(2) 925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	(2) 773,055	732,098	688,408	640,649	588,893	534,065	476,053
NJFIT Loan Principal & Interest	(3) 368,989	372,750	370,146	373,039	369,568	371,592	373,039
	2,343,417	\$2,361,221	\$2,374,927	\$2,395,061	\$2,404,834	\$2,422,030	\$2,435,465
Interest Accrual Adjustment	(33,790)						
	\$ 2,309,627						

EXISTING DEBT SERVICE - SEWER

Debt Service	2012	2013	2014	2015	2016	2017	2018
Series 2003A							
Bond Interest	(1) \$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407	\$ 72,407
NJFIT Loan Principal & Interest	(3) 141,581	143,024	142,025	143,135	141,803	142,580	143,135
	\$ 213,988	\$ 215,431	\$ 214,432	\$ 215,542	\$ 214,210	\$ 214,987	\$ 215,542

- (1) - Allocated based on relative portion of projects funded by bond issue (79.24% Water, 20.76% Sewer)
- (2) - Allocation based on relative portion of projects funded by bond issue (100% Water, 0% Sewer)
- (3) - Allocation based on relative portion of repair/replacement expenses (72.27% Water, 27.73% Sewer)

CITY OF ORANGE TOWNSHIP
WATER/SEWER RATE STUDY

EXISTING DEBT SERVICE - COMBINED SYSTEMS

<u>Debt Service</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
<u>Series 2003A</u>							
Bond Interest	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780	\$ 348,780
<u>Series 2003B</u>							
Bond Principal	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	773,055	732,098	688,408	640,649	588,893	534,065	476,053
NJET Loan Principal & Interest	510,570	515,773	512,171	516,174	511,371	514,173	516,174
	<u>2,557,405</u>	<u>\$2,576,651</u>	<u>\$2,589,359</u>	<u>\$2,610,602</u>	<u>\$2,619,043</u>	<u>\$2,637,018</u>	<u>\$2,651,006</u>

Interest Accrual Adjustment (33,790)

\$ 2,523,615

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

SCHEDULE OF ORDINANCES TO BE BONDED - WATER CAPITAL

Ord #	Description	Useful Life	Authorized But Not Issued	New Authorizations	Other Funding	December 2013 Proposed Notes	December 2014 Proposed Notes	December 2015 Proposed Notes	December 2016 Proposed Bonds
08-08	Construction of and Imprv. to the City's Mountain Wells, the Chestnut Street Treatment Facility and High Pump Station	40.00	1,500,281		281	1,500,000	1,500,000	1,500,000	1,500,000
	Various Future Projects - High Priority	20.00		3,281,000	1,000	2,430,000	2,860,000	3,280,000	3,280,000
	Various Future Projects - Medium Priority	20.00		1,350,000					1,350,000
	Less: Unexpended Capital Funds	20.00	1,500,281	(2,000,000)	1,281	(2,000,000)	(2,000,000)	(2,000,000)	(2,000,000)
			<u>\$ 1,500,281</u>	<u>\$ 2,631,000</u>	<u>\$ 1,281</u>	<u>\$ 1,930,000</u>	<u>\$ 2,360,000</u>	<u>\$ 2,780,000</u>	<u>\$ 4,130,000</u>

Weighted Average Useful Life: 27.255 yrs.

SCHEDULE OF ORDINANCES TO BE BONDED - SEWER CAPITAL

Ord #	Description	Useful Life	Authorized But Not Issued	New Authorizations	Other Funding	December 2013 Proposed Notes	December 2014 Proposed Notes	December 2015 Proposed Notes	December 2016 Proposed Bonds
	Various Future Projects - High Priority	20.00		3,305,000		2,435,000	2,870,000	3,305,000	3,305,000
	Less: Unexpended Capital Funds	20.00		(2,000,000)		(2,000,000)	(2,000,000)	(2,000,000)	(2,000,000)
			<u>\$ -</u>	<u>\$ 1,305,000</u>	<u>\$ -</u>	<u>\$ 435,000</u>	<u>\$ 870,000</u>	<u>\$ 1,305,000</u>	<u>\$ 1,305,000</u>

Weighted Average Useful Life: 20 yrs.

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

PROPOSED NOTES - WATER CAPITAL

Calendar Year	December BANs	Assumed Coupon Rates	Proposed Water Notes Debt Service		
			Principal	Interest	Total
2014	\$ 1,930,000	1.50%	\$ -	\$ 28,950	\$ 28,950
2015	2,360,000	2.00%	-	47,200	47,200
2016	2,780,000	2.50%	-	69,500	69,500
			\$ -	\$ 145,650	\$ 116,700
			\$ -	\$ 145,650	\$ 116,700

*Bond December notes in 2016

PROPOSED NOTES - SEWER CAPITAL

Calendar Year	December BANs	Assumed Coupon Rates	Proposed Sewer Notes Debt Service		
			Principal	Interest	Total
2014	\$ 435,000	1.50%	\$ -	\$ 6,525	\$ 6,525
2015	870,000	2.00%	-	17,400	17,400
2016	1,305,000	2.50%	-	32,625	32,625
			\$ -	\$ 50,025	\$ 50,025
			\$ -	\$ 50,025	\$ 50,025

*Bond December notes in 2016

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

PROPOSED BONDS - WATER CAPITAL

\$4,130,000 Bond Issue; 20 years @ 3.0% - December 2016

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 150,000	\$ 123,900	\$ 273,900
2018	155,000	119,400	274,400
2019	160,000	114,750	274,750
2020	170,000	109,950	279,950
2021	175,000	104,850	279,850
2022	180,000	99,600	279,600
2023	185,000	94,200	279,200
2024	190,000	88,650	278,650
2025	195,000	82,950	277,950
2026	200,000	77,100	277,100
2027	205,000	71,100	276,100
2028	215,000	64,950	279,950
2029	220,000	58,500	278,500
2030	225,000	51,900	276,900
2031	235,000	45,150	280,150
2032	240,000	38,100	278,100
2033	245,000	30,900	275,900
2034	255,000	23,550	278,550
2035	260,000	15,900	275,900
2036	270,000	8,100	278,100
	<u>\$ 4,130,000</u>	<u>\$ 1,423,500</u>	<u>\$ 5,553,500</u>

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

PROPOSED BONDS - SEWER CAPITAL

\$1,305,000 Bond Issue; 20 years @ 3.0% - December 2016

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 40,000	\$ 39,150	\$ 79,150
2018	40,000	37,950	77,950
2019	45,000	36,750	81,750
2020	50,000	35,400	85,400
2021	50,000	33,900	83,900
2022	55,000	32,400	87,400
2023	60,000	30,750	90,750
2024	60,000	28,950	88,950
2025	65,000	27,150	92,150
2026	65,000	25,200	90,200
2027	70,000	23,250	93,250
2028	75,000	21,150	96,150
2029	75,000	18,900	93,900
2030	75,000	16,650	91,650
2031	80,000	14,400	94,400
2032	80,000	12,000	92,000
2033	80,000	9,600	89,600
2034	80,000	7,200	87,200
2035	80,000	4,800	84,800
2036	80,000	2,400	82,400
	<u>\$ 1,305,000</u>	<u>\$ 457,950</u>	<u>\$ 1,762,950</u>

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

FUTURE CAPITAL PROJECTS - WATER SYSTEM

<u>Project</u>	<u>Estimated Cost</u>	<u>Priority</u>
Source of Supply		
Remove silt from recharge basins 1&2; repair earth dam and control structures to maintain proper water level	\$140,000	High
Connect Mountain Wells to SCADA system – use wireless and go to Chestnut Street PS	\$36,000	High
SCADA, electrical and wireless upgrades at Orange Park and Gist Place wells; include transfer switch and emergency power hookup for Gist Well:		
- Orange Park	\$175,000	High
- Gist Place	\$190,000	High
Perform video inspections of Orange Park and Gist Place wells; likely will need rehabilitation		High
Treatment		
Beach Street – abandon/demolish old filter plant room and properly abandon piping to reduce leakage and remove old electrical panels and pumps. Provide trailers as possible replacement?		
- Cut/cap piping to stop leakage	\$50,000	High
- Demolish Front of Building (along Valley Street – approx 13,500 sf)	\$180,000	High
- Provide two trailers for offices and storage)	\$100,000	High
- Demolish Back of Building (approx 12,500 sf)	\$170,000	High
Replace media soon at Orange Park Arsenic Treatment Facility (regenerated vs. virgin media)	\$100,000	High
Chemical feed and containment improvements at new Chestnut Street Pump Station:		
- Move the point of chemical addition to add the chemicals into the clearwell, which would reduce the pressure on the chemical feed pumps, eliminate leakage in the existing chemical feed lines and provide better mixing and more reliable pH and chlorine analyzer readings		
- Containment should be provided for chemical and diesel fuel deliveries	\$100,000	High
- Additional eye washes should be provided in the chlorine and corrosion inhibitor areas		
- Windows should be installed between the pump room and the chemical room		
- Chemical feed should be based on flow pacing to assure adequate chemical dosages unless the distance between the feed points and samples points is increased		
- Provide larger hypochlorite day tank		
Provide treatment for sodium, hardness, TDS at Orange Park and Gist Place Wells		Low
Future Arsenic and/or PFOA treatment for Gist Place well		Low
Future cVOC regulations (lower MCLs for TCE, PCE and regulation of other VOCs		Low
Watch potential GWUDI for Mountain Wells		Low
Transmission and Distribution		
Provide improvements to 16”/20” transmission system (replace isolation valves, air relief valves, provide hydrants for flushing/draining); provide two interconnections between the 16” and 20”	\$1,800,000	High
Replace exposed 20” transmission main under Glenn Ave Bridge (when County finalizes bridge restoration plans) Total = \$300,000 for hanging off bridge; City’s portion 20%	\$60,000	High
Evaluate carrying capacity of the 16”/20” transmission system through flow testing	\$15,000	High
Provide wireless communication at Walker Road Tank to record level (and chlorine leaving tank) in SCADA; provide chlorine analyzer at tank outlet	\$15,000	High
Repair/Replace Surge Tank near well 6R	\$100,000	High
Replace dead end mains detected during flushing (350LF @ \$300/LF)	\$100,000	Medium
South Jefferson Street and Main Street areas may require relining:		
- South Jefferson: 1500 LF from Michelle St to Glebe St @ \$150/LF	\$225,000	Medium
- Main St: 3000 LF parallel 8” (6000 LF) from High St to Hillyer St; 500 LF 8” from Hillyer Street to Greenwood Ave @ \$150/LF	\$975,000	Medium
Inspect Walker Road Tank; last done in 2009 and required cleaning (UW to do in 2013)	\$50,000	Medium
Provide GIS and hydraulic modeling – will help identify problem areas and provide database to store system information	Develop scope and budget	Low

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

FUTURE CAPITAL PROJECTS - WATER SYSTEM (Continued)

<u>Project</u>	<u>Estimated Cost</u>	<u>Priority</u>
<i>Other</i>		
Repair leaking roof at Gist Place	\$50,000	High
Telemetry needed at Chesnut Street Pump Station. Design called for copper wire land line communications		High
200 KW Generator at Well 6 including weatherproof plug installation		High
Abandon old leaking water valves and install isolation valves at Chesnut Street Pump Station		High
Drought conditions in city wells possibly create recharge areas for the basins. Beds require additional work. (Chestnut Street)		Medium
Install isolation valves at Chestnut Street transmission mains		Medium
Order spare pumps and repair kits for HYPO feed pumps at Chestnut Street.		Medium
Install metal corrosion inhibitor day tank sight indicator at Chestnut Street Pump Station		Low
EO Interconnection contract in negotiation between EOWC and City - New interconnect would allow water to be sold to EOWC		Low
TOTAL WATER SYSTEM	\$ 4,631,000	

FUTURE CAPITAL PROJECTS - WASTEWATER COLLECTION SYSTEM

<u>Project</u>	<u>Estimated Cost</u>	<u>Priority</u>
Replacement of broken pipe at various City locations 1960 LF @ \$300/LF (8" pipe)	\$590,000	High
Replacement of structurally deficient pipe at various locations 2400 LF @ \$300/LF (8" pipe)	\$720,000	High
Repair of sewer pipe collapse at Canfield Ave 1250 LF @ \$300/LF (8" pipe)	\$375,000	High
Separation of sanitary and storm sewer pipe at McChesney Street	\$100,000	High
Repair collapsed pipe at Hickory Street (Bob G - \$130K)	\$130,000	High
Identify problem areas through inspections, video inspections and resurfacing projects	\$50,000	High
Repair to sewer pipe at Main Street	\$90,000	High
Provide GIS and use to identify/track needed work	Develop scope and budget	Low
SUBTOTAL WASTEWATER COLLECTION SYSTEM	\$ 2,055,000	

FUTURE CAPITAL PROJECTS - STORMWATER COLLECTION SYSTEM

<u>Project</u>	<u>Estimated Cost</u>	<u>Priority</u>
Repair/replace pipe (especially areas with sinkholes) 1500 LF @ \$300/ LF	\$450,000	High
Install grates on catch basins to prevent clogging of mains, especially Hickory, Essex and Mechanic areas of the City 100 @ \$3,000/grating	\$300,000	High
Replace any grating that is not bicycle grade 100 @ \$3,000/grating	\$300,000	High
Budget approx \$50K per year for catch basin repair(Bob G) (Included 2 years)	\$100,000	High
Identify problem areas through inspections, video inspections and resurfacing projects	\$100,000	High
Provide GIS and use to identify/track needed work	Develop scope and budget	Low
SUBTOTAL STORMWATER COLLECTION SYSTEM	\$ 1,250,000	
TOTAL SEWER SYSTEM	\$ 3,305,000	

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

ANALYSIS OF FUTURE CAPITAL PROJECTS BY PRIORITY

Water System

High Priority	\$ 3,281,000
Medium Priority	<u>1,350,000</u>
	<u>\$ 4,631,000</u>

Sewer System

High Priority	<u>\$ 3,305,000</u>
---------------	---------------------

**WATER & SEWER SYSTEMS
2013-2018 BUDGET PROJECTION**

SCENARIO 1: UNITED WATER OPERATIONS
WITH PROPOSED RATE INCREASES
EFFECTIVE JANUARY 1, 2014 AND 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

COMBINED SYSTEMS - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
REVENUES							
Surplus Anticipated	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,700
Rents	7,900,149	7,810,787	7,887,217	8,745,504	8,745,504	8,745,504	9,007,868
Additional Rents	-	76,430	858,287	-	-	262,364	-
Interest on Investments	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Miscellaneous	43,888	43,880	44,000	44,000	44,000	44,000	44,000
Other Credits to Income	37,671	-	-	-	-	-	-
Total Revenues	8,193,708	7,933,097	8,791,504	8,791,504	8,791,504	9,053,868	9,111,568
EXPENDITURES							
Operating							
Salaries & Wages	-	30,000	30,600	31,200	31,800	32,400	33,000
United Water O&M Fee - Contractual	1,361,217	1,433,900	1,531,600	1,573,700	1,617,000	1,661,400	1,707,100
United Water - Repair/Replacement (Subcontractors)	723,313	400,000	412,000	424,300	437,000	450,100	463,600
United Water - Water Connection Fees	48,870	50,300	51,800	53,400	55,000	56,700	58,400
United Water - Hydrant Replacement Charges	38,289	39,400	40,600	41,800	43,100	44,400	45,700
United Water - NJ American Water Pass-Thru	17,365	17,900	18,400	19,000	19,600	20,200	20,800
Passaic Valley Sewerage Commission	2,653,675	2,599,335	2,651,000	2,704,000	2,758,000	2,813,000	2,869,000
Second River Joint Meeting	22,689	19,107	19,500	19,900	20,300	20,700	21,100
Gas & Electric	490,173	480,000	504,000	529,200	555,700	583,500	612,700
Professional Services - Engineering	140,111	90,000	91,800	93,600	95,500	97,400	99,300
Real Estate Taxes							
Township of Maplewood	5,106	5,200	5,300	5,400	5,500	5,600	5,700
Township of West Orange	29,359	29,900	30,500	31,100	31,700	32,300	32,900
Township of Millburn	8,763	8,900	9,100	9,300	9,500	9,700	9,900
State Permits and Fees	18,150	20,000	20,000	20,000	20,000	20,000	20,000
Police S&W Outside Duty for Repairs	15,959	16,000	16,300	16,600	16,900	17,200	17,500
Debt Service Administrative Fees	11,505	11,600	11,600	11,600	11,600	11,600	11,600
PY Deficit	-	104,903	-	-	-	-	-
Total Operating Expenditures	5,584,544	5,356,445	5,444,100	5,584,100	5,728,200	5,876,200	6,028,300
Gross Profit Before Debt	2,609,164	2,576,652	3,347,404	3,207,404	3,063,304	3,177,668	3,083,268

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

COMBINED SYSTEMS - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
EXPENDITURES							
Debt Service							
Series 2003A							
Bond Interest	348,780	348,780	348,780	348,780	348,780	348,780	348,780
Series 2003B							
Bond Principal	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	739,265	732,098	688,408	640,649	588,893	534,065	476,053
NJEIT Loan Principal & Interest	510,570	515,774	512,171	516,174	511,371	514,172	516,174
Proposed Debt Service							
Note Interest	-	-	35,475	64,600	102,125	-	-
Bond Principal	-	-	-	-	-	190,000	195,000
Bond Interest	-	-	-	-	-	163,050	157,350
Total Debt Service Expenditures	2,523,615	2,576,652	2,624,834	2,675,203	2,721,169	2,990,067	3,003,357
Total Expenditures	8,108,159	7,933,097	8,068,934	8,259,303	8,449,369	8,866,267	9,031,657
Excess/(Deficit) Revenues over Expenditures	85,549	-	722,570	532,201	342,135	187,601	79,911
Projected Fund Balance, Beginning of Year	827,693	17,693	17,693	740,263	1,272,464	1,614,599	1,802,200
Adjustment to Rents per AFS	(89,362)	-	-	-	-	-	-
Adjustment to Expenditures per AFS	3,813	-	-	-	-	-	-
Amount Appropriated in Budget	(210,000)	-	-	-	-	-	(57,700)
Transfer to General Fund	(600,000)	-	-	-	-	-	-
Projected Fund Balance, End of Year	\$ 17,693	\$ 17,693	\$ 740,263	\$ 1,272,464	\$ 1,614,599	\$ 1,802,200	\$ 1,824,411

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Proposed Rate Increase (1)	
								17%	3%
REVENUES									
	\$ 210,000							\$	\$ 57,700
Surplus Anticipated									4,988,165
Rents	4,139,213	\$ 4,092,393	\$ 4,168,823	\$ 4,842,879	\$ 4,842,879	\$ 4,842,879		\$	4,842,879
Additional Rents		76,430	674,056	-	-	145,286			1,000
Interest on Investments	1,000	1,000	1,000	1,000	1,000	1,000			44,000
Miscellaneous	43,888	43,880	44,000	44,000	44,000	44,000			44,000
Other Credits to Income	37,671	-	-	-	-	-			-
	4,431,772	4,213,703	4,887,879	4,887,879	4,887,879	5,033,165			5,090,865
EXPENDITURES									
Operating									
Salaries & Wages	-	15,900	16,200	16,500	16,800	17,100			17,400
United Water O&M Fee - Contractual	983,752	1,036,300	1,106,900	1,137,300	1,168,600	1,200,700			1,233,700
United Water - Repair/Replacement (Subcontractors)	522,745	289,100	297,800	306,700	315,900	325,400			335,200
United Water - Water Connection Fees	48,870	50,300	51,800	53,400	55,000	56,700			58,400
United Water - Hydrant Replacement Charges	38,289	39,400	40,600	41,800	43,100	44,400			45,700
United Water - NJ American Water Pass-Thru	17,365	17,900	18,400	19,000	19,600	20,200			20,800
Gas & Electric	406,893	398,400	418,300	439,200	461,200	484,300			508,500
Professional Services - Engineering	101,258	65,000	66,300	67,600	69,000	70,400			71,800
Real Estate Taxes									
Township of Maplewood	5,106	5,200	5,300	5,400	5,500	5,600			5,700
Township of West Orange	29,359	29,900	30,500	31,100	31,700	32,300			32,900
Township of Millburn	8,763	8,900	9,100	9,300	9,500	9,700			9,900
State Permits and Fees	18,150	20,000	20,000	20,000	20,000	20,000			20,000
Police S&W Outside Duty for Repairs	11,534	11,600	11,800	12,000	12,200	12,400			12,600
Debt Service Administrative Fees	8,315	8,400	8,400	8,400	8,400	8,400			8,400
PY Deficit	-	55,720	-	-	-	-			-
Total Operating Expenditures	2,200,399	2,052,020	2,101,400	2,167,700	2,236,500	2,307,600			2,381,000
Gross Profit Before Debt	2,231,373	2,161,683	2,786,479	2,720,179	2,651,379	2,725,565			2,709,865

(1) - Rate increase effective January 1, 2014 and January 1, 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
EXPENDITURES								
Debt Service								
Series 2003A								
Bond Interest		276,373	276,373	276,373	276,373	276,373	276,373	276,373
Series 2003B								
Bond Principal		925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest		739,265	732,098	688,408	640,649	588,893	534,065	476,053
NJ/EIT Loan Principal & Interest		368,989	372,750	370,146	373,039	369,568	371,592	373,039
Proposed Debt Service								
Note Interest				28,950	47,200	69,500		
Bond Principal							150,000	155,000
Bond Interest							123,900	119,400
Total Debt Service Expenditures		2,309,627	2,361,221	2,403,877	2,442,261	2,474,334	2,695,930	2,709,865
Total Expenditures		4,510,026	4,413,241	4,505,277	4,609,961	4,710,834	5,003,530	5,090,865
Excess/(Deficit) Revenues over Expenditures		(78,254)	(199,538)	382,602	277,918	177,045	29,635	-
Projected Fund Balance, Beginning of Year		433,662	586	(198,952)	183,650	461,568	638,613	668,248
Adjustment to Rents per AFS		(46,820)						
Adjustment to Expenditures per AFS		1,998						
Amount Appropriated in Budget		(210,000)						(57,700)
Transfer to General Fund		(100,000)						
Projected Fund Balance, End of Year		\$ 586	\$ (198,952)	\$ 183,650	\$ 461,568	\$ 638,613	\$ 668,248	\$ 610,548

(1) - Rate increase effective January 1, 2014 and January 1, 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
Proposed Rate Increase (1)								
8%								
REVENUES								
Surplus Anticipated								
Rents		\$ 3,760,936	\$ 3,718,394	\$ 3,718,394	\$ 3,902,625	\$ 3,902,625	\$ 3,902,625	\$ 4,019,703
Additional Rents		-	184,231	-	-	-	117,078	-
Interest on Investments		1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Revenues		3,761,936	3,719,394	3,903,625	3,903,625	3,903,625	4,020,703	4,020,703
EXPENDITURES								
Operating								
Salaries & Wages	2.00%		14,100	14,400	14,700	15,000	15,300	15,600
United Water O&M Fee - Contractual	2.75%	377,465	397,600	424,700	436,400	448,400	460,700	473,400
United Water - Repair/Replacement (Subcontractors)	3.00%	200,568	110,900	114,200	117,600	121,100	124,700	128,400
Passaic Valley Sewerage Commission	2.00%	2,653,675	2,599,335	2,651,000	2,704,000	2,758,000	2,813,000	2,869,000
Second River Joint Meeting	2.00%	22,689	19,107	19,500	19,900	20,300	20,700	21,100
Gas & Electric	5.00%	83,280	81,600	85,700	90,000	94,500	99,200	104,200
Professional Services - Engineering	2.00%	38,853	25,000	25,500	26,000	26,500	27,000	27,500
Police S&W Outside Duty for Repairs	2.00%	4,425	4,400	4,500	4,600	4,700	4,800	4,900
Debt Service Administrative Fees	0.00%	3,190	3,200	3,200	3,200	3,200	3,200	3,200
PY Deficit		-	49,183	-	-	-	-	-
Total Operating Expenditures		3,384,145	3,304,425	3,342,700	3,416,400	3,491,700	3,568,600	3,647,300
Gross Profit Before Debt		377,791	414,969	560,925	487,225	411,925	452,103	373,403
Debt Service								
Series 2003A								
Bond Interest		72,407	72,407	72,407	72,407	72,407	72,407	72,407
NJEIT Loan Principal & Interest		141,581	143,024	142,025	143,135	141,803	142,580	143,135
Proposed Debt Service								
Note Interest			6,525	6,525	17,400	32,625		
Bond Principal							40,000	40,000
Bond Interest							39,150	37,950
Total Debt Service Expenditures		213,988	215,431	220,957	232,942	246,835	294,137	293,492

(1) - Rate increase effective January 1, 2014 and January 1, 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
UNITED WATER OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
Total Expenditures		3,598,133	3,519,856	3,563,657	3,649,342	3,738,535	3,862,737	3,940,792
Excess/(Deficit) Revenues over Expenditures		163,803	199,538	339,968	254,283	165,090	157,966	79,911
Projected Fund Balance, Beginning of Year		394,031	17,107	216,645	556,613	810,896	975,986	1,133,952
Adjustment to Rents per AFS		(42,542)						
Adjustment to Expenditures per AFS		1,815						
Amount Appropriated in Budget								
Transfer to General Fund		(500,000)						
Projected Fund Balance, End of Year		\$ 17,107	\$ 216,645	\$ 556,613	\$ 810,896	\$ 975,986	\$ 1,133,952	\$ 1,213,863

WATER & SEWER SYSTEMS
2013-2018 BUDGET PROJECTION

SCENARIO 2: CITY OPERATIONS
WITH PROPOSED RATE INCREASES
EFFECTIVE JANUARY 1, 2014 AND 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

COMBINED SYSTEMS - 2013 THROUGH 2018 BUDGET PROJECTION
CITY OPERATED UTILITY SYSTEMS

	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
REVENUES							
Surplus Anticipated	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,567
Rents	7,900,149	7,810,787	7,887,217	8,590,450	8,590,450	8,590,450	8,848,164
Additional Rents	-	76,430	703,233	-	-	257,714	-
Interest on Investments	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Miscellaneous	43,888	43,888	44,000	44,000	44,000	44,000	44,000
Other Credits to Income	37,671	-	-	-	-	-	-
Total Revenues	8,193,708	7,933,097	8,636,450	8,636,450	8,636,450	8,894,164	8,898,731
EXPENDITURES							
<u>Operating</u>							
Salaries & Wages	-	30,000	30,600	31,200	31,800	32,400	33,000
United Water O&M Fee - Contractual	1,361,217	1,433,900	-	-	-	-	-
City Operated - O&M Projected Cost	-	-	1,408,700	1,434,500	1,461,000	1,488,000	1,515,400
Repair/Replacement (Subcontractors)	723,313	400,000	412,000	424,300	437,000	450,100	463,600
Water Connection Fees	48,870	50,300	51,800	53,400	55,000	56,700	58,400
Hydrant Replacement Charges	38,289	39,400	40,600	41,800	43,100	44,400	45,700
NJ American Water Pass-Thru	17,365	17,900	18,400	19,000	19,600	20,200	20,800
Passaic Valley Sewerage Commission	2,653,675	2,599,335	2,651,000	2,704,000	2,758,000	2,813,000	2,869,000
Second River Joint Meeting	22,689	19,107	19,500	19,900	20,300	20,700	21,100
Gas & Electric	490,173	480,000	504,000	529,200	555,700	583,500	612,700
Professional Services - Engineering	140,111	90,000	91,800	93,600	95,500	97,400	99,300
<u>Real Estate Taxes</u>							
Township of Maplewood	5,106	5,200	5,300	5,400	5,500	5,600	5,700
Township of West Orange	29,359	29,900	30,500	31,100	31,700	32,300	32,900
Township of Millburn	8,763	8,900	9,100	9,300	9,500	9,700	9,900
State Permits and Fees	18,150	20,000	20,000	20,000	20,000	20,000	20,000
Police S&W Outside Duty for Repairs	15,959	16,000	16,300	16,600	16,900	17,200	17,500
Debt Service Administrative Fees	11,505	11,600	11,600	11,600	11,600	11,600	11,600
PY Deficit	-	104,903	-	-	-	-	-
Total Operating Expenditures	5,584,544	5,356,445	5,321,200	5,444,900	5,572,200	5,702,800	5,836,600
Gross Profit Before Debt	2,609,164	2,576,652	3,315,250	3,191,550	3,064,250	3,191,364	3,062,131

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

COMBINED SYSTEMS - 2013 THROUGH 2018 BUDGET PROJECTION
CITY OPERATED UTILITY SYSTEMS

	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
EXPENDITURES							
Debt Service							
Series 2003A	348,780	348,780	348,780	348,780	348,780	348,780	348,780
Bond Interest							
Series 2003B	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Principal	739,265	732,098	688,408	640,649	588,893	534,065	476,053
Bond Interest	510,570	515,774	512,171	516,174	511,371	514,172	516,174
NJ/EIT Loan Principal & Interest							
Proposed Debt Service							
Note Interest	-	-	35,475	64,600	102,125	-	-
Bond Principal	-	-	-	-	-	190,000	195,000
Bond Interest	-	-	-	-	-	163,050	157,350
Total Debt Service Expenditures	2,523,615	2,576,652	2,624,834	2,675,203	2,721,169	2,990,067	3,003,357
Total Expenditures	8,108,159	7,933,097	7,946,034	8,120,103	8,293,369	8,692,867	8,839,957
Excess/(Deficit) Revenues over Expenditures	85,549	-	690,416	516,347	343,081	201,297	58,774
Projected Fund Balance, Beginning of Year	827,693	17,693	17,693	708,109	1,224,456	1,567,537	1,768,834
Adjustment to Rents per AFS	(89,362)	-	-	-	-	-	-
Adjustment to Expenditures per AFS	3,813	-	-	-	-	-	-
Amount Appropriated in Budget	(210,000)	-	-	-	-	-	(4,567)
Transfer to General Fund	(600,000)	-	-	-	-	-	-
Projected Fund Balance, End of Year	\$ 17,693	\$ 17,693	\$ 708,109	\$ 1,224,456	\$ 1,567,537	\$ 1,768,834	\$ 1,823,041

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
CITY OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Proposed Rate Increase (1)	
									1.5%	3%
REVENUES										
Surplus Anticipated		\$ 210,000		\$ 4,168,823	\$ 4,760,095	\$ 4,760,095	\$ 4,760,095	\$ 4,902,898		
Rents		4,139,213	\$ 4,092,393	591,272	-	-	142,803	-		
Additional Rents			76,430							
Interest on Investments		1,000	1,000	1,000	1,000	1,000	1,000	1,000		
Miscellaneous		43,888	43,880	44,000	44,000	44,000	44,000	44,000		
Other Credits to Income		37,671	-	-	-	-	-	-		
Total Revenues		4,431,772	4,213,703	4,805,095	4,805,095	4,805,095	4,947,898	4,952,465		
EXPENDITURES										
Operating										
Salaries & Wages	2.00%	-	15,900	16,200	16,500	16,800	17,100	17,400		
United Water O&M Fee - Contractual	2.75%	983,752	1,036,300							
City Operated - O&M Projected Cost	See Exh.			1,018,100	1,036,700	1,055,900	1,075,400	1,095,200		
Repair/Replacement (Subcontractors)	3.00%	522,745	289,100	297,800	306,700	315,900	325,400	335,200		
Water Connection Fees	3.00%	48,870	50,300	51,800	53,400	55,000	56,700	58,400		
Hydrant Replacement Charges	3.00%	38,289	39,400	40,600	41,800	43,100	44,400	45,700		
NJ American Water Pass-Thru	3.00%	17,365	17,900	18,400	19,000	19,600	20,200	20,800		
Gas & Electric	5.00%	406,893	398,400	418,300	439,200	461,200	484,300	508,500		
Professional Services - Engineering	2.00%	101,258	65,000	66,300	67,600	69,000	70,400	71,800		
Real Estate Taxes										
Township of Maplewood	2.00%	5,106	5,200	5,300	5,400	5,500	5,600	5,700		
Township of West Orange	2.00%	29,359	29,900	30,500	31,100	31,700	32,300	32,900		
Township of Millburn	2.00%	8,763	8,900	9,100	9,300	9,500	9,700	9,900		
State Permits and Fees	2.00%	18,150	20,000	20,000	20,000	20,000	20,000	20,000		
Police S&W Outside Duty for Repairs	2.00%	11,534	11,600	11,800	12,000	12,200	12,400	12,600		
Debt Service Administrative Fees	0.00%	8,315	8,400	8,400	8,400	8,400	8,400	8,400		
P.Y. Deficit		-	55,720	-	-	-	-	-		
Total Operating Expenditures		2,200,399	2,052,020	2,012,600	2,067,100	2,123,800	2,182,300	2,242,500		
Gross Profit Before Debt		2,231,373	2,161,683	2,792,495	2,737,995	2,681,295	2,765,598	2,709,965		

(1) - Rate increase effective January 1, 2014 and January 1, 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
CITY OPERATED UTILITY SYSTEMS

Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
EXPENDITURES							
Debt Service							
Series 2003A							
Bond Interest	276,373	276,373	276,373	276,373	276,373	276,373	276,373
Series 2003B							
Bond Principal	925,000	980,000	1,040,000	1,105,000	1,170,000	1,240,000	1,310,000
Bond Interest	739,265	732,098	688,408	640,649	588,893	534,065	476,053
NJELT Loan Principal & Interest	368,989	372,750	370,146	373,039	369,568	371,592	373,039
Proposed Debt Service							
Note Interest			28,950	47,200	69,500		
Bond Principal						150,000	155,000
Bond Interest						123,900	119,400
Total Debt Service Expenditures	2,309,627	2,361,221	2,403,877	2,442,261	2,474,334	2,695,930	2,709,865
Total Expenditures	4,510,026	4,413,241	4,416,477	4,509,361	4,598,134	4,878,230	4,952,365
Excess/(Deficit) Revenues over Expenditures	(78,254)	(199,538)	388,618	295,734	206,961	69,668	100
Projected Fund Balance, Beginning of Year	433,662	586	(198,952)	189,666	485,400	692,361	762,029
Adjustment to Rents per AFS	(46,820)						
Adjustment to Expenditures per AFS	1,998						
Amount Appropriated in Budget	(210,000)						(4,567)
Transfer to General Fund	(100,000)						
Projected Fund Balance, End of Year	\$ 586	\$ (198,952)	\$ 189,666	\$ 485,400	\$ 692,361	\$ 762,029	\$ 757,562

(1) - Rate increase effective January 1, 2014 and January 1, 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
CITY OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
Proposed Rate Increase (1)								
6%								
REVENUES								
Surplus Anticipated								
Rents		\$ 3,760,936	\$ 3,718,394	\$ 3,718,394	\$ 3,830,355	\$ 3,830,355	\$ 3,830,355	\$ 3,945,266
Additional Rents		-	111,961	-	-	-	114,911	-
Interest on Investments		1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total Revenues		3,761,936	3,719,394	3,831,355	3,831,355	3,831,355	3,946,266	3,946,266
EXPENDITURES								
Operating								
Salaries & Wages	2.00%		14,100	14,400	14,700	15,000	15,300	15,600
United Water O&M Fee - Contractual	2.75%	377,465	397,600	390,600	397,800	405,100	412,600	420,200
City Operated - O&M Projected Cost				114,200	117,600	121,100	124,700	128,400
Repair/Replacement (Subcontractors)	3.00%	200,568	110,900	114,200	117,600	121,100	124,700	128,400
Passaic Valley Sewerage Commission	2.00%	2,653,675	2,599,335	2,651,000	2,704,000	2,758,000	2,813,000	2,869,000
Second River Joint Meeting	2.00%	22,689	19,107	19,500	19,900	20,300	20,700	21,100
Gas & Electric	5.00%	83,280	81,600	85,700	90,000	94,500	99,200	104,200
Professional Services - Engineering	2.00%	38,853	25,000	25,500	26,000	26,500	27,000	27,500
Police S&W Outside Duty for Repairs	2.00%	4,425	4,400	4,500	4,600	4,700	4,800	4,900
Debt Service Administrative Fees	0.00%	3,190	3,200	3,200	3,200	3,200	3,200	3,200
PY Deficit		-	49,183	-	-	-	-	-
Total Operating Expenditures		3,384,145	3,304,425	3,308,600	3,377,800	3,448,400	3,520,500	3,594,100
Gross Profit Before Debt		377,791	414,969	522,755	453,555	382,955	425,766	352,166
Debt Service								
Series 2003A								
Bond Interest		72,407	72,407	72,407	72,407	72,407	72,407	72,407
NJEIT Loan Principal & Interest		141,581	143,024	142,025	143,135	141,803	142,580	143,135
Proposed Debt Service								
Note Interest				6,525	17,400	32,625		
Bond Principal							40,000	40,000
Bond Interest							39,150	37,950
Total Debt Service Expenditures		213,988	215,431	220,957	232,942	246,835	294,137	293,492

(1) - Rate increase effective January 1, 2014 and January 1, 2017

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - 2013 THROUGH 2018 BUDGET PROJECTION
CITY OPERATED UTILITY SYSTEMS

	Escalator	Actual 2012	Budgeted 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018
Total Expenditures		3,598,133	3,519,856	3,529,557	3,610,742	3,695,235	3,814,637	3,887,592
Excess/(Deficit) Revenues over Expenditures		163,803	199,538	301,798	220,613	136,120	131,629	58,674
Projected Fund Balance, Beginning of Year		394,031	17,107	216,645	518,443	739,056	875,176	1,006,805
Adjustment to Rents per AFS		(42,542)						
Adjustment to Expenditures per AFS		1,815						
Amount Appropriated in Budget								
Transfer to General Fund		(500,000)						
Projected Fund Balance, End of Year		\$ 17,107	\$ 216,645	\$ 518,443	\$ 739,056	\$ 875,176	\$ 1,006,805	\$ 1,065,479

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

PROJECTED COSTS - CITY OPERATED UTILITY SYSTEMS

	Escalator	2013 Projected Cost	2014 Projected Cost	2015 Projected Cost	2016 Projected Cost	2017 Projected Cost	2018 Projected Cost
Billing, Collection and Metering - Contractual Fees	2%	\$ 100,000	\$ 102,000	\$ 104,000	\$ 106,100	\$ 108,200	\$ 110,400
Staffing							
Total Salaries & Wages	2%	512,000	522,200	532,600	543,300	554,200	565,300
Overtime	2%	51,000	52,000	53,000	54,100	55,200	56,300
Fringe Benefits (45% of S&W)		230,000	235,000	239,700	244,500	249,400	254,400
Maintenance, Repairs and Other Expenses	2%	375,000	382,500	390,200	398,000	406,000	414,000
Capital Equipment - To Be Bonded	0%	115,000	115,000	115,000	115,000	115,000	115,000
		<u>\$1,383,000</u>	<u>\$1,408,700</u>	<u>\$1,434,500</u>	<u>\$1,461,000</u>	<u>\$1,488,000</u>	<u>\$1,515,400</u>
Water - (72.27%)		\$ 999,500	\$1,018,100	\$1,036,700	\$1,055,900	\$1,075,400	\$1,095,200
Sewer - (27.73%)		383,500	390,600	397,800	405,100	412,600	420,200
Total		<u>\$1,383,000</u>	<u>\$1,408,700</u>	<u>\$1,434,500</u>	<u>\$1,461,000</u>	<u>\$1,488,000</u>	<u>\$1,515,400</u>

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2013 PROJECTED COSTS - CITY OPERATED UTILITY SYSTEMS

	# of Employees	Estimated Salary	2013 Projected Cost
<u>Billing, Collection and Metering - Contractual Fees</u>			\$ 100,000
 <u>Staffing</u>			
Salaries & Wages			
Plant Superintendent	1	\$ 70,000	70,000
Plant Operators	2	55,000	110,000
Utility Crew Chief	1	65,000	65,000
Repairmen (2 crews)			
Driver	2	45,000	90,000
Laborer	4	38,000	152,000
Administrative Assistant	1	25,000	25,000
Total Salaries & Wages			512,000
Overtime (10% of S&W)			51,000
Fringe Benefits (45% of S&W)			230,000
Total Staffing Expenses			793,000
 <u>Maintenance, Repairs and Other Expenses</u>			
Chemicals - Water Treatment			60,000
Engineering			50,000
Catch Basin Cleaning			70,000
Repair & Replacement Supplies			100,000
Auto Insurance			20,000
Miscellaneous (Facility Maintenance, Lab Testing, etc.)			25,000
Contingency			50,000
Total Maintenance, Repair and Other Expenses			375,000
 Capital Equipment to be Bonded			115,000
 Total City Operated - O&M Costs			\$ 1,383,000

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

**PROPOSED DEBT SERVICE FOR
EQUIPMENT REQUIRED FOR CITY OPERATED UTILITY**

	<u>Useful Life</u>	<u>Estimated Cost</u>
Sewer Jet Vac Truck	10.00	\$ 325,000
2 Pickup Trucks	5.00	80,000
TV Inspection Truck & Camera	7.00	250,000
Computer Equipment	3.00	10,000
Other Equipment	5.00	50,000
 Proposed Bonds		 \$ 715,000
 Avg. Useful Life:		 7.944 yrs.

\$715,000 Bond Issue; 7 years @ 3.0% - December 2013

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2014	\$ 95,000	\$ 21,450	\$ 116,450
2015	95,000	18,600	113,600
2016	100,000	15,750	115,750
2017	100,000	12,750	112,750
2018	105,000	9,750	114,750
2019	110,000	6,600	116,600
2020	110,000	3,300	113,300
	\$ 715,000	\$ 88,200	\$ 803,200

7-Year Average: \$ 115,000 /yr.

WATER & SEWER SYSTEMS

EXISTING RATE STRUCTURE

UNITED WATER OPERATED UTILITY SYSTEMS

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - EXISTING RATE STRUCTURE
UNITED WATER OPERATED UTILITY SYSTEMS

<u>Meter Size (inches)</u>	<u>Allowance per Quarter (cubic feet)</u>	Minimum Charge per Quarter		
		<u>2013 Existing Rates</u>	<u>2014 Proposed Rates</u>	<u>2017 Proposed Rates</u>
5/8	1,000	\$ 34.74	\$ 40.65	\$ 41.87
3/4	2,500	86.85	101.61	104.66
1	5,000	173.70	203.23	209.33
1 1/2	10,000	347.40	406.46	418.65
2	15,000	521.10	609.69	627.98
3	25,000	868.50	1,016.15	1,046.63
4	40,000	1,389.60	1,625.83	1,674.60
6	50,000	1,737.00	2,032.29	2,093.26
8	50,000	1,737.00	2,032.29	2,093.26
Usage above quarterly allowance billed at:		\$3.474 per ccf	\$4.065 per ccf	\$4.187 per ccf

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

WATER SYSTEM - EXISTING RATE STRUCTURE
UNITED WATER OPERATED UTILITY SYSTEMS

Meter Size	# of Accounts	Consumption Billed (in CCF's)	Water System - Amount Billed		
			2012 Existing (\$3.474 per ccf)	2014 Proposed (\$4.065 per ccf)	2017 Proposed (\$4.187 per ccf)
5/8	3,937	503,138	\$ 1,804,633	\$ 2,111,420	\$ 2,174,763
3/4	145	27,935	107,215	125,442	129,205
1	134	79,875	295,766	346,046	356,427
1 1/2	73	84,407	316,930	370,808	381,932
2	122	229,699	841,625	984,701	1,014,242
3	12	55,281	193,158	225,995	232,775
4	19	108,980	378,086	442,360	455,631
6	1	6,969	24,210	28,326	29,176
Unidentified	282	48,847	205,079	239,943	247,141
	<u>4,725</u>	<u>1,145,131</u>	<u>\$ 4,166,702</u>	<u>\$ 4,875,041</u>	<u>\$ 5,021,292</u>
Projected Collections			<u>\$ 4,139,213</u>	<u>\$ 4,842,879</u>	<u>\$ 4,988,165</u>

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - EXISTING RATE STRUCTURE
UNITED WATER OPERATED UTILITY SYSTEMS

<u>Meter Size (inches)</u>	Allowance per Quarter (cubic feet)	Minimum Charge per Quarter		
		2013 Existing Rates	2014 Proposed Rates	2017 Proposed Rates
5/8	1,000	\$ 31.17	\$ 33.66	\$ 34.67
3/4	2,500	77.93	84.16	86.68
1	5,000	155.85	168.32	173.37
1 1/2	10,000	311.70	336.64	346.74
2	15,000	467.55	504.95	520.10
3	25,000	779.25	841.59	866.84
4	40,000	1,246.80	1,346.54	1,386.94
6	50,000	1,558.50	1,683.18	1,733.68
8	50,000	1,558.50	1,683.18	1,733.68
Usage above quarterly allowance billed at:		\$3.117 per ccf	\$3.366 per ccf	\$3.467 per ccf

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

SEWER SYSTEM - EXISTING RATE STRUCTURE
UNITED WATER OPERATED UTILITY SYSTEMS

Meter Size	# of Accounts	Consumption Billed (in CCF's)	Sewer System - Amount Billed		
			2012 Existing (\$3.117 per ccf)	2014 Proposed (\$3.366 per ccf)	2017 Proposed (\$3.467 per ccf)
5/8	3,839	494,167	\$ 1,578,262	\$ 1,704,523	\$ 1,755,659
3/4	141	27,119	93,365	100,834	103,859
1	133	78,938	262,452	283,448	291,951
1 1/2	73	84,407	284,361	307,110	316,323
2	120	226,755	744,717	804,294	828,423
3	12	55,235	173,277	187,139	192,753
4	19	108,980	339,233	366,371	377,362
6	1	6,969	21,722	23,460	24,164
Unidentified	187	48,921	152,654	164,866	169,812
	<u>4,525</u>	<u>1,131,491</u>	<u>\$ 3,650,042</u>	<u>\$ 3,942,045</u>	<u>\$ 4,060,306</u>
Projected Collections			<u>\$ 3,760,936</u>	<u>\$ 3,902,625</u>	<u>\$ 4,019,703</u>

WATER & SEWER SYSTEMS

EXISTING RATE STRUCTURE

CITY OPERATED UTILITY SYSTEMS

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

WATER SYSTEM - EXISTING RATE STRUCTURE
CITY OPERATED UTILITY SYSTEMS

<u>Meter Size (inches)</u>	Allowance per Quarter (cubic feet)	Minimum Charge per Quarter		
		2013 Existing Rates	2014 Proposed Rates	2017 Proposed Rates
5/8	1,000	\$ 34.74	\$ 39.95	\$ 41.15
3/4	2,500	86.85	99.88	102.88
1	5,000	173.70	199.76	205.75
1 1/2	10,000	347.40	399.51	411.50
2	15,000	521.10	599.27	617.25
3	25,000	868.50	998.78	1,028.74
4	40,000	1,389.60	1,598.04	1,645.98
6	50,000	1,737.00	1,997.55	2,057.48
8	50,000	1,737.00	1,997.55	2,057.48
Usage above quarterly allowance billed at:		\$3.474 per ccf	\$3.995 per ccf	\$4.115 per ccf

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

WATER SYSTEM - EXISTING RATE STRUCTURE
CITY OPERATED UTILITY SYSTEMS

Meter Size	# of Accounts	Consumption Billed (in CCF's)	Water System - Amount Billed		
			2012 Existing (\$3.474 per ccf)	2014 Proposed (\$3.995 per ccf)	2017 Proposed (\$4.115 per ccf)
5/8	3,937	503,138	\$ 1,804,633	\$ 2,075,328	\$ 2,137,588
3/4	145	27,935	107,215	123,298	126,997
1	134	79,875	295,766	340,131	350,335
1 1/2	73	84,407	316,930	364,469	375,403
2	122	229,699	841,625	967,869	996,905
3	12	55,281	193,158	222,132	228,796
4	19	108,980	378,086	434,799	447,843
6	1	6,969	24,210	27,842	28,677
Unidentified	282	48,847	205,079	235,841	242,916
	<u>4,725</u>	<u>1,145,131</u>	<u>\$ 4,166,702</u>	<u>\$ 4,791,709</u>	<u>\$ 4,935,460</u>
Projected Collections			<u>\$ 4,139,213</u>	<u>\$ 4,760,095</u>	<u>\$ 4,902,898</u>

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SEWER SYSTEM - EXISTING RATE STRUCTURE
CITY OPERATED UTILITY SYSTEMS

<u>Meter Size (inches)</u>	Allowance per Quarter (cubic feet)	Minimum Charge per Quarter		
		2013 Existing Rates	2014 Proposed Rates	2017 Proposed Rates
5/8	1,000	\$ 31.17	\$ 33.04	\$ 34.03
3/4	2,500	77.93	82.61	85.09
1	5,000	155.85	165.20	170.16
1 1/2	10,000	311.70	330.40	340.31
2	15,000	467.55	495.60	510.47
3	25,000	779.25	826.01	850.79
4	40,000	1,246.80	1,321.61	1,361.26
6	50,000	1,558.50	1,652.01	1,701.57
8	50,000	1,558.50	1,652.01	1,701.57
Usage above quarterly allowance billed at:		\$3.117 per ccf	\$3.304 per ccf	\$3.403 per ccf

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

**SEWER SYSTEM - EXISTING RATE STRUCTURE
CITY OPERATED UTILITY SYSTEMS**

Meter Size	# of Accounts	Consumption Billed (in CCF's)	Sewer System - Amount Billed		
			2012 Existing (\$3.117 per ccf)	2014 Proposed (\$3.304 per ccf)	2017 Proposed (\$3.403 per ccf)
5/8	3,839	494,167	\$ 1,578,262	\$ 1,672,957	\$ 1,723,146
3/4	141	27,119	93,365	98,967	101,936
1	133	78,938	262,452	278,199	286,545
1 1/2	73	84,407	284,361	301,423	310,466
2	120	226,755	744,717	789,400	813,082
3	12	55,235	173,277	183,674	189,184
4	19	108,980	339,233	359,586	370,374
6	1	6,969	21,722	23,026	23,717
Unidentified	187	48,921	152,654	161,813	166,667
	<u>4,525</u>	<u>1,131,491</u>	<u>\$ 3,650,042</u>	<u>\$ 3,869,045</u>	<u>\$ 3,985,117</u>
Projected Collections			<u>\$ 3,760,936</u>	<u>\$ 3,830,355</u>	<u>\$ 3,945,266</u>

WATER & SEWER SYSTEMS
RATE MODEL ALTERNATIVE

SCENARIO 1a: UNITED WATER OPERATIONS
WITH FLAT FEE RESIDENTIAL RATES

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

WATER SYSTEM - ALTERNATE RATE STRUCTURE
UNITED WATER OPERATED UTILITY SYSTEMS

2012 Existing - Recomputed						
<u>Property Class Description</u>	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	% of Total Consumption	Allocated Billings	Annual Flat Fee per Unit	Rate per ccf
Vacant	11	553	0.05%	\$ 2,083	\$ 189	N/A
Residential - 1 Family	4,690	467,148	40.79%	1,699,598	362	N/A
Condo/Townhouse	471	32,591	2.85%	118,751	252	N/A
Apartment	4,369	379,833	33.17%	1,382,095	316	N/A
Other Non-Residential (1)	831	265,006	23.14%	964,175	N/A	\$ 3.474
	<u>10,372</u>	<u>1,145,131</u>	<u>100.00%</u>	<u>\$4,166,702</u>		
Actual Amount Collected				<u>\$4,139,213</u>		

2014 Proposed - 17% Increase Effective 1/1/14						
<u>Property Class Description</u>	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	% of Total Consumption	Allocated Billings	Annual Flat Fee per Unit	Rate per ccf
Vacant	11	553	0.05%	\$ 2,437	\$ 222	N/A
Residential - 1 Family	4,690	467,148	40.79%	1,988,530	424	N/A
Condo/Townhouse	471	32,591	2.85%	138,939	295	N/A
Apartment	4,369	379,833	33.17%	1,617,051	370	N/A
Other Non-Residential (1)	831	265,006	23.14%	1,128,085	N/A	\$ 4.065
	<u>10,372</u>	<u>1,145,131</u>	<u>100.00%</u>	<u>\$4,875,042</u>		
Projected Collections				<u>\$4,842,879</u>		

2017 Proposed - 3% Increase Effective 1/1/17						
<u>Property Class Description</u>	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	% of Total Consumption	Allocated Billings	Annual Flat Fee per Unit	Rate per ccf
Vacant	11	553	0.05%	\$ 2,510	\$ 228	N/A
Residential - 1 Family	4,690	467,148	40.79%	2,048,186	437	N/A
Condo/Townhouse	471	32,591	2.85%	143,107	304	N/A
Apartment	4,369	379,833	33.17%	1,665,563	381	N/A
Other Non-Residential (1)	831	265,006	23.14%	1,161,928	N/A	\$ 4.187
	<u>10,372</u>	<u>1,145,131</u>	<u>100.00%</u>	<u>\$5,021,294</u>		
Projected Collections				<u>\$4,988,165</u>		

(1) - Other Non-Residential includes commercial, industrial and tax-exempt users based on existing rate structure.

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

WATER SYSTEM - 2012 CONSUMPTION BY PROPERTY CLASSIFICATION

Property Class	Property Class Description	2012				
		# of Accounts	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	Average Annual Consumption (in CCF's)	Median Consumption (in CCF's)
1	Vacant	4	4	129	32	21
1	Vacant - Condo/Townhouse	7	7	424	61	56
2	Residential - 1 Family	1,911	1,911	199,355	104	77
2	Residential - 2 Family	1,125	1,800	172,873	154	131
2	Residential - 3 Family	277	609	59,288	214	182
2	Residential - 4 Family	84	235	18,955	226	201
2	Residential - Condo/Townhouse	134	469	32,541	243	58
2	Residential - 1 Family (Senior)	78	62	10,232	131	56
2	Residential - 2 Family (Senior)	50	64	5,338	107	90
2	Residential - 3 Family (Senior)	5	9	1,107	221	190
2	Residential - Condo/Townhouse (Senior)	2	2	50	25	20
4A	Commercial	608	608	167,327	275	77
5A	Industrial	62	62	13,597	219	48
6A	Apartment	217	4,369	379,833	1,750	961
15B	Other School	5	5	728	146	102
15C	Public Property	29	29	21,425	739	98
15D	Church	80	80	12,675	158	103
15E	Cemeteries	1	1	937	937	937
15F	Other Exempt	46	46	48,317	1,050	76
		<u>4,725</u>	<u>10,372</u>	<u>1,145,131</u>	<u>6,792</u>	

1 Family = 1 EDU

2 Family = 1.6 EDUs

3 Family = 2.2 EDUs

4 Family = 2.8 EDUs

Seniors = 80% discount (factored into EDUs)

Apartments/Condo/Townhouse = number of EDUs based on actual number of units

All Others = number of EDUs based on number of accounts

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

**SEWER SYSTEM - ALTERNATE RATE STRUCTURE
UNITED WATER OPERATED UTILITY SYSTEMS**

2012 Existing - Recomputed						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	9	542	0.05%	\$ 1,825	\$ 203	N/A
Residential	4,634	459,958	40.65%	1,483,742	320	N/A
Condo/Townhouse	469	32,585	2.88%	105,121	224	N/A
Apartment	4,369	378,270	33.43%	1,220,209	279	N/A
Other Non-Residential (1)	699	260,136	22.99%	839,145	N/A	\$ 3.117
	<u>10,180</u>	<u>1,131,491</u>	<u>100.00%</u>	<u>\$ 3,650,042</u>		
Actual Amount Collected				<u>\$ 3,760,936</u>		

2014 Proposed - 8% Increase Effective 1/1/14						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	9	542	0.05%	\$ 1,971	\$ 219	N/A
Residential - 1 Family	4,634	459,958	40.65%	1,602,441	346	N/A
Condo/Townhouse	469	32,585	2.88%	113,531	242	N/A
Apartment	4,369	378,270	33.43%	1,317,826	302	N/A
Other Non-Residential (1)	699	260,136	22.99%	906,276	N/A	\$ 3.366
	<u>10,180</u>	<u>1,131,491</u>	<u>100.00%</u>	<u>\$ 3,942,045</u>		
Projected Collections				<u>\$ 3,902,625</u>		

2017 Proposed - 3% Increase Effective 1/1/17						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	9	542	0.05%	\$ 2,030	\$ 226	N/A
Residential - 1 Family	4,634	459,958	40.65%	1,650,514	356	N/A
Condo/Townhouse	469	32,585	2.88%	116,937	249	N/A
Apartment	4,369	378,270	33.43%	1,357,361	311	N/A
Other Non-Residential (1)	699	260,136	22.99%	933,464	N/A	\$ 3.467
	<u>10,180</u>	<u>1,131,491</u>	<u>100.00%</u>	<u>\$ 4,060,306</u>		
Projected Collections				<u>\$ 4,019,703</u>		

(1) - Other Non-Residential includes commercial, industrial and tax-exempt users based on existing rate structure.

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

SEWER SYSTEM - 2012 CONSUMPTION BY PROPERTY CLASSIFICATION

Property Class Code	Property Class Description	2012				
		# of Accounts	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	Average Annual Consumption (in CCF's)	Median Consumption (in CCF's)
1	Vacant	3	3	118	39	29
1	Vacant - Condo/Townhouse	6	6	424	71	56
2	Residential - 1 Family	1,880	1,880	193,450	103	77
2	Residential - 2 Family	1,116	1,786	171,941	96	134
2	Residential - 3 Family	273	601	59,033	98	193
2	Residential - 4 Family	83	232	18,901	81	208
2	Residential - Condo/Townhouse	131	469	32,585	69	60
2	Residential - 1 Family (Senior)	77	62	10,188	164	56
2	Residential - 2 Family (Senior)	50	64	5,338	83	90
2	Residential - 3 Family (Senior)	5	9	1,107	123	190
4A	Commercial	526	526	164,076	312	109
5A	Industrial	43	43	13,382	311	100
6A	Apartment	202	4,369	378,270	87	1,052
15B	Other School	5	5	728	146	102
15C	Public Property	21	21	21,425	1,020	163
15D	Church	70	70	12,285	176	117
15F	Other Exempt	34	34	48,240	1,419	134
		4,525	10,180	1,131,491	4,398	

1 Family = 1 EDU

2 Family = 1.6 EDUs

3 Family = 2.2 EDUs

4 Family = 2.8 EDUs

Seniors = 80% discount (factored into EDUs)

Apartments/Condo/Townhouse = number of EDUs based on actual number of units

All Others = number of EDUs based on number of accounts

WATER & SEWER SYSTEMS
RATE MODEL ALTERNATIVE

SCENARIO 2a: CITY OPERATIONS
WITH FLAT FEE RESIDENTIAL RATES

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

**WATER SYSTEM - ALTERNATE RATE STRUCTURE
CITY OPERATED UTILITY SYSTEMS**

2012 Existing - Recomputed						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	11	553	0.05%	\$ 2,083	\$ 189	N/A
Residential - 1 Family	4,690	467,148	40.79%	1,699,598	362	N/A
Condo/Townhouse	471	32,591	2.85%	118,751	252	N/A
Apartment	4,369	379,833	33.17%	1,382,095	316	N/A
Other Non-Residential (1)	831	265,006	23.14%	964,175	N/A	\$ 3.474
	<u>10,372</u>	<u>1,145,131</u>	<u>100.00%</u>	<u>\$4,166,702</u>		
Actual Amount Collected				<u>\$4,139,213</u>		

2014 Proposed - 15% Increase Effective 1/1/14						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	11	553	0.05%	\$ 2,395	\$ 218	N/A
Residential - 1 Family	4,690	467,148	40.79%	1,954,538	417	N/A
Condo/Townhouse	471	32,591	2.85%	136,564	290	N/A
Apartment	4,369	379,833	33.17%	1,589,409	364	N/A
Other Non-Residential (1)	831	265,006	23.14%	1,108,801	N/A	\$ 3.995
	<u>10,372</u>	<u>1,145,131</u>	<u>100.00%</u>	<u>\$4,791,707</u>		
Projected Collections				<u>\$4,760,095</u>		

2017 Proposed - 3% Increase Effective 1/1/17						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	11	553	0.05%	\$ 2,467	\$ 224	N/A
Residential - 1 Family	4,690	467,148	40.79%	2,013,174	429	N/A
Condo/Townhouse	471	32,591	2.85%	140,661	299	N/A
Apartment	4,369	379,833	33.17%	1,637,091	375	N/A
Other Non-Residential (1)	831	265,006	23.14%	1,142,065	N/A	\$ 4.115
	<u>10,372</u>	<u>1,145,131</u>	<u>100.00%</u>	<u>\$4,935,458</u>		
Projected Collections				<u>\$4,902,898</u>		

(1) - Other Non-Residential includes commercial, industrial and tax-exempt users based on existing rate structure.

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

WATER SYSTEM - 2012 CONSUMPTION BY PROPERTY CLASSIFICATION

Property Class	Property Class Description	2012				
		# of Accounts	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	Average Annual Consumption (in CCF's)	Median Consumption (in CCF's)
1	Vacant	4	4	129	32	21
1	Vacant - Condo/Townhouse	7	7	424	61	56
2	Residential - 1 Family	1,911	1,911	199,355	104	77
2	Residential - 2 Family	1,125	1,800	172,873	154	131
2	Residential - 3 Family	277	609	59,288	214	182
2	Residential - 4 Family	84	235	18,955	226	201
2	Residential - Condo/Townhouse	134	469	32,541	243	58
2	Residential - 1 Family (Senior)	78	62	10,232	131	56
2	Residential - 2 Family (Senior)	50	64	5,338	107	90
2	Residential - 3 Family (Senior)	5	9	1,107	221	190
2	Residential - Condo/Townhouse (Senior)	2	2	50	25	20
4A	Commercial	608	608	167,327	275	77
5A	Industrial	62	62	13,597	219	48
6A	Apartment	217	4,369	379,833	1,750	961
15B	Other School	5	5	728	146	102
15C	Public Property	29	29	21,425	739	98
15D	Church	80	80	12,675	158	103
15E	Cemeteries	1	1	937	937	937
15F	Other Exempt	46	46	48,317	1,050	76
		<u>4,725</u>	<u>10,372</u>	<u>1,145,131</u>	<u>6,792</u>	

1 Family = 1 EDU

2 Family = 1.6 EDUs

3 Family = 2.2 EDUs

4 Family = 2.8 EDUs

Seniors = 80% discount (factored into EDUs)

Apartments/Condo/Townhouse = number of EDUs based on actual number of units

All Others = number of EDUs based on number of accounts

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

SEWER SYSTEM - ALTERNATE RATE STRUCTURE
CITY OPERATED UTILITY SYSTEMS

2012 Existing - Recomputed						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	9	542	0.05%	\$ 1,825	\$ 203	N/A
Residential	4,634	459,958	40.65%	1,483,742	320	N/A
Condo/Townhouse	469	32,585	2.88%	105,121	224	N/A
Apartment	4,369	378,270	33.43%	1,220,209	279	N/A
Other Non-Residential (1)	699	260,136	22.99%	839,145	N/A	\$ 3.117
	<u>10,180</u>	<u>1,131,491</u>	<u>100.00%</u>	<u>\$ 3,650,042</u>		
Actual Amount Collected				<u>\$ 3,760,936</u>		

2014 Proposed - 6% Increase Effective 1/1/14						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	9	542	0.05%	\$ 1,935	\$ 215	N/A
Residential - 1 Family	4,634	459,958	40.65%	1,572,767	339	N/A
Condo/Townhouse	469	32,585	2.88%	111,428	238	N/A
Apartment	4,369	378,270	33.43%	1,293,422	296	N/A
Other Non-Residential (1)	699	260,136	22.99%	889,493	N/A	\$ 3.304
	<u>10,180</u>	<u>1,131,491</u>	<u>100.00%</u>	<u>\$ 3,869,045</u>		
Projected Collections				<u>\$ 3,830,355</u>		

2017 Proposed - 3% Increase Effective 1/1/17						
<u>Property Class Description</u>	<u># of Equivalent Dwelling Units</u>	<u>Annual Consumption (in CCF's)</u>	<u>% of Total Consumption</u>	<u>Allocated Billings</u>	<u>Annual Flat Fee per Unit</u>	<u>Rate per ccf</u>
Vacant	9	542	0.05%	\$ 1,993	\$ 221	N/A
Residential - 1 Family	4,634	459,958	40.65%	1,619,950	350	N/A
Condo/Townhouse	469	32,585	2.88%	114,771	245	N/A
Apartment	4,369	378,270	33.43%	1,332,225	305	N/A
Other Non-Residential (1)	699	260,136	22.99%	916,177	N/A	\$ 3.403
	<u>10,180</u>	<u>1,131,491</u>	<u>100.00%</u>	<u>\$ 3,985,116</u>		
Projected Collections				<u>\$ 3,945,265</u>		

(1) - Other Non-Residential includes commercial, industrial and tax-exempt users based on existing rate structure.

**CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY**

SEWER SYSTEM - 2012 CONSUMPTION BY PROPERTY CLASSIFICATION

Property Class	Property Class Description	2012				
		# of Accounts	# of Equivalent Dwelling Units	Annual Consumption (in CCF's)	Average Annual Consumption (in CCF's)	Median Consumption (in CCF's)
1	Vacant	3	3	118	39	29
1	Vacant - Condo/Townhouse	6	6	424	71	56
2	Residential - 1 Family	1,880	1,880	193,450	103	77
2	Residential - 2 Family	1,116	1,786	171,941	96	134
2	Residential - 3 Family	273	601	59,033	98	193
2	Residential - 4 Family	83	232	18,901	81	208
2	Residential - Condo/Townhouse	131	469	32,585	69	60
2	Residential - 1 Family (Senior)	77	62	10,188	164	56
2	Residential - 2 Family (Senior)	50	64	5,338	83	90
2	Residential - 3 Family (Senior)	5	9	1,107	123	190
4A	Commercial	526	526	164,076	312	109
5A	Industrial	43	43	13,382	311	100
6A	Apartment	202	4,369	378,270	87	1,052
15B	Other School	5	5	728	146	102
15C	Public Property	21	21	21,425	1,020	163
15D	Church	70	70	12,285	176	117
15F	Other Exempt	34	34	48,240	1,419	134
		<u>4,525</u>	<u>10,180</u>	<u>1,131,491</u>	<u>4,398</u>	

1 Family = 1 EDU

2 Family = 1.6 EDUs

3 Family = 2.2 EDUs

4 Family = 2.8 EDUs

Seniors = 80% discount (factored into EDUs)

Apartments/Condo/Townhouse = number of EDUs based on actual number of units

All Others = number of EDUs based on number of accounts

WATER & SEWER SYSTEMS
2012 COST ALLOCATION SUPPORT

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2012 REVENUES AND EXPENDITURES

	Water	Sewer	2012 Total
REVENUES			
Rents	\$ 4,139,213	\$ 3,760,936	\$ 7,900,149
Interest on Investments	1,000	1,000	2,000
Miscellaneous	43,888		43,888
Total Revenues	4,184,101	3,761,936	7,946,037
EXPENDITURES			
<u>Operating</u>			
United Water O&M Fee	(1) 983,752	377,465	1,361,217
United Water - Repair/Replacement (Subcontractors)	(1) 522,745	200,568	723,313
United Water - Water Connection Fees	48,870		48,870
United Water - Hydrant Replacement Charges	38,289		38,289
United Water - NJ American Water Pass-Thru	17,365		17,365
Passaic Valley Sewerage Commission		2,653,675	2,653,675
Second River Joint Meeting		22,689	22,689
Gas & Electric	(2) 406,893	83,280	490,173
Professional Services - Engineering	(1) 101,258	38,853	140,111
<u>Real Estate Taxes</u>			
Township of Maplewood	5,106		5,106
Township of West Orange	29,359		29,359
Township of Millburn	8,763		8,763
State Permits and Fees	18,150		18,150
Police S&W Outside Duty for Repairs	(1) 11,534	4,425	15,959
Refund Consumer Overpayments			-
Debt Service Administrative Fees	(1) 8,315	3,190	11,505
Office Material & Supplies			-
Total Operating Expenditures	2,200,399	3,384,145	5,584,544
Gross Profit Before Debt	1,983,702	377,791	2,361,493
<u>Debt Service</u>			
<u>Series 2003A</u>			
Bond Interest	(3) 276,373	72,407	348,780
<u>Series 2003B</u>			
Bond Principal	(4) 925,000	-	925,000
Bond Interest	(4) 739,265	-	739,265
NJEIT Loan Principal & Interest	(1) 368,989	141,581	510,570
Total Debt Service Expenditures	2,309,627	213,988	2,523,615
Total Expenditures	4,510,026	3,598,133	8,108,159
Excess/(Deficit) Revenues over Expenditures	\$ (325,925)	\$ 163,803	\$ (162,122)

- (1) - Allocation based on relative portion of repair/replacement expenses (72.27% Water, 27.73% Sewer)
(2) - Allocated based on relative portion of gas & electric costs determined by location (83.01% Water, 16.99% Sewer)
(3) - Allocated based on relative portion of projects funded by bond issue (79.24% Water, 20.76% Sewer)
(4) - Allocated based on relative portion of projects funded by bond issue (100% Water, 0% Sewer)

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

2012 ACTUAL EXPENDITURES

	2012 Expenditures		
	Paid in 2012	Paid in 2013	Total
OPERATING			
United Water O&M Fee	\$ 1,131,785	\$ 229,432	\$ 1,361,217
United Water - Repair/Replacement (Subcontractors)	670,158	53,155	723,313
United Water - Water Connection Fees	48,870		48,870
United Water - Hydrant Replacement Charges	28,503	9,786	38,289
United Water - NJ American Water Pass-Thru	17,365		17,365
United Water November 2010 O&M Fee (1)	109,953		109,953
United Water November 2011 Repair/Replacement (1)	656		656
United Water December 2011 Connection Fee (1)	26,941		26,941
Passaic Valley Sewerage Commission	2,653,675		2,653,675
Second River Joint Meeting	22,689		22,689
Gas & Electric	322,580	102,835	425,415
Professional Services - Engineering	89,054	51,057	140,111
<u>Real Estate Taxes</u>			
Township of Maplewood	5,098	8	5,106
Township of West Orange	29,359		29,359
Township of Millburn	8,740	23	8,763
State Permits and Fees	18,150		18,150
Police S&W Outside Duty for Repairs	15,959		15,959
Refund Consumer Overpayments	13,857		13,857
Debt Service Administrative Fees	11,505		11,505
Office Material & Supplies	59		59
	5,224,956	446,296	5,671,252
Total Operating Expenditures			
DEBT SERVICE			
<u>Series 2003A</u>			
Bond Interest	348,780		348,780
<u>Series 2003B</u>			
Bond Principal	925,000		925,000
Bond Interest	739,265		739,265
NJFIT Loan Principal & Interest	510,570		510,570
	2,523,615	-	2,523,615
Total Debt Service Expenditures			
Subtotal Expenditures	7,748,571	446,296	8,194,867
Less:			
Prior Year Expenses (1)	(137,550)	-	(137,550)
Unallocated Consumer Overpayments	(13,857)		(13,857)
Unallocated Office Material & Supplies	(59)		(59)
Add:			
Dec 2012 PSEG bill charged to 2013 budget		64,758	64,758
Total Expenditures	\$ 7,597,105	\$ 511,054	\$ 8,108,159

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

GAS & ELECTRIC COST ALLOCATION

	Description	Water	Sewer	Total
PSE&G				
<u>Location</u>				
Cherry Lane	Well 6 - Orange Reservoir	20,641.15	-	20,641.15
Gist Place	Well 8 - Treatment Plant	74,241.87	-	74,241.87
Winding Way	Walker Road Storage Tank	250.66	-	250.66
Chesnut Street	Water Treatment Facility/Pump Station	65,983.30	-	65,983.30
Beach Street	Old Plant - Administrative Building (1)	11,136.97	11,136.97	22,273.94
Valley Street	Old Plant - Administrative Building (1)	72,144.41	72,144.40	144,288.81
Oakwood Avenue	Well 7 - Orange Park	91,782.58	-	91,782.58
		336,180.94	83,281.37	419,462.31
JCP&L	Wells 2,3,4,5	70,710.29	-	70,710.29
Total		406,891.23	83,281.37	490,172.60
Allocation %		83.01%	16.99%	100.00%

(1) - Allocation for administrative function based on 50/50 split

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

SOURCES & USES - \$30,000,000 WATER/SEWER UTILITY BONDS DATED JUNE 1, 2003

	Series 2003A	Series 2003B	Total
<u>SOURCES</u>			
Par Amount of Bonds	\$ 7,865,000.00	\$ 22,135,000.00	\$30,000,000.00
Funds Held by the Trustee	4,392,606.29		4,392,606.29
City Funds		235,543.95	235,543.95
Accrued Interest	(1) 8,733.68	24,579.79	33,313.47
Total Sources	<u>\$ 12,266,339.97</u>	<u>\$ 22,395,123.74</u>	<u>\$34,661,463.71</u>
<u>USES</u>			
Deposit to 1997 Series A Bonds Escrow Account	\$ 1,993,955.63	\$ 21,892,294.37	\$23,886,250.00
Deposit to 1997 Series B Bonds Escrow Account	4,352,180.24		4,352,180.24
Deposit to City Capital Improvement Fund	5,887,220.00		5,887,220.00
Deposit to City for Procurement Costs		410,000.00	410,000.00
Accrued Interest	8,733.68	24,579.79	33,313.47
Costs of Issuance	(1) 24,250.42	68,249.58	92,500.00
Total Uses	<u>\$ 12,266,339.97</u>	<u>\$ 22,395,123.74</u>	<u>\$34,661,463.71</u>

(1) - Allocation based on relative portion of par amount of bonds (26.22% Series 2003A, 73.78% Series 2003B)

CITY OF ORANGE TOWNSHIP
WATER & SEWER RATE STUDY

DEBT SERVICE ALLOCATION - SERIES 2003A BONDS

	Water	Sewer	Total
Capital Improvements to Systems	(1) \$ 4,254,693.89	\$ 1,632,526.11	\$ 5,887,220.00
Advance Refund 1997A Bonds - Net	1,977,780.00		1,977,780.00
Total Par Amount - Series 2003A Bonds	\$ 6,232,473.89	\$ 1,632,526.11	\$ 7,865,000.00
Allocation %	79.24%	20.76%	100.00%

DEBT SERVICE ALLOCATION - SERIES 2003B BONDS

	Water	Sewer	Total
Advance Refund 1997A Bonds	\$ 22,135,000.00	\$ -	\$22,135,000.00
Total Par Amount - Series 2003B Bonds	\$ 22,135,000.00	\$ -	\$22,135,000.00
Allocation %	100.00%	0.00%	100.00%

(1) - Allocation based on relative portion of repair/replacement expenses (72.27% Water, 27.73% Sewer)