

PROJECT REPORT

FOR

ROCHELLE MUNICIPAL UTILITIES,
CITY OF ROCHELLE
OGLE COUNTY, ILLINOIS
WATER DIVISION

Water Rate Report
June 2019

Revised: November 21, 2019



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PURPOSE

The purpose of this Water Rate Report is to provide Rochelle Municipal Utilities (RMU) Water Division with the following analysis:

1. Evaluate the current expenses and revenues.
2. Develop a budget based on future Water Division needs.

The water rate modifications evaluated and recommended in this report will provide the Water Division the necessary revenue to be self-sufficient and not be subsidized by any utility division within RMU.

WATER DIVISION RATE SCHEDULE

The Water Division rate schedule consists of the following components:

1. Fixed Charge: Includes all contractual service administrative expenses. These services include Network Administration, Financial Administrative Services, Insurance, Customer Accounting and Collection, Administrative Expenses, laboratory services and GIS. The Fixed Charge also includes the salaries and benefits of the Superintendent, Administrative Assistant and Meter Reader.
2. Basic User Rate: Includes all the operation and maintenance expenses of the system such as personnel salaries and benefits, purchase power, chemicals, materials and supplies, and the general fund transfer.
3. Equipment Replacement: Includes the replacement costs for the well pumps, pump VFDs, SCADA RTUs, chemical feed equipment, standby generators and the water treatment plant equipment and media. This fund sets the money aside to draw on when the equipment or media has to be upgraded and/or replaced.
4. Non-Debt Funded Projects: The Non-Debt Funded Projects are the less expensive capital improvements that do not require bonding or loans to complete. They include the elevated water storage tank painting, water distribution main replacement, water transmission main improvements, meter, hydrant and valve replacements, and vehicle and smaller equipment replacement.
5. Capital Recovery Rate: Includes the payment of bonds and/or loans to finance large water system improvement projects.

CURRENT EXPENDITURES AND REVENUES

The City changed its Fiscal Year period from May 1st thru April 30th to a Calendar Year period of January 1st thru December 31st in 2017. The Fiscal Year period for 2016/17 ran from May 1, 2016 to December 31, 2016.

The Water Division had a net income of \$554,220 in FY 2016/17 and \$1,058,421 in CY 2018. The Water Division had a net loss of \$71,364 in CY 2017. The net income in FY 2016/17 and CY 2018 was due to the City receiving IEPA grant and loan reimbursement funds for the Well #12 project in FY 2016/17 and the Well #11 project in CY 2018. The Basic User Charge expenses increased significantly from CY 2017 to CY 2018 due to an increase of approximately \$180,000 in salaries and benefits and \$179,000 in Materials and Supplies. The Non-Debt Funded Projects expenses increased by \$1,458,471 from CY 2017 to CY 2018, which was due to the Well #11 water treatment plant construction expenses.

The Water Division revenues come from the sale of water to the residential, commercial and industrial customers, and from other non-water sale revenue sources. The water sale revenues have increased slightly over the last three (3) years for all customer classifications. The major non-water sale revenue sources include the fire protection fee for customers who have a private fire protection connection to the water system and the water tower lease for allowing antennas to be placed on the towers for wireless providers. The non-water sale revenue increase in CY 2018 was due to the IEPA grant and loan reimbursements for the Well #11 water treatment plant project.

A detailed analysis of the Water Division expenditures and revenues is included in Exhibit A. A summary of the expenditures and revenues is detailed in the Table 1 below.

TABLE 1
Water Division Expenditures and Revenues

	Fiscal Year (FY)/Calendar Year (CY)		
	FY 2016/17	CY 2017	CY 2018
Expenditures			
Fixed Charge Expenses	\$ 179,904	\$ 330,459	\$ 380,895
Basic User Expenses	\$ 673,495	\$1,050,907	\$1,446,015
Equipment Replacement Expenses	Included in Non-Debt Funded Projects		
Non-Debt Funded Projects Expenses	\$1,917,703	\$1,475,073	\$2,933,544
Capital Recovery Expenses – Debt Service	\$ 0	\$ 93,805	\$ 281,226
Total Expenditures	\$2,771,102	\$2,950,244	\$5,041,680
Revenues			
Water Sales	\$1,675,056	\$2,437,781	\$2,512,447
Other Revenue	\$1,650,266	\$ 441,099	\$3,587,654
Total Revenue	\$3,325,322	\$2,878,880	\$6,100,101
Net Income/(Loss)	\$ 554,220	(\$ 71,364)	\$1,058,421

WATER DIVISION BUDGET

A. FIXED CHARGE

The Fixed Charge includes the contractual services provided to the Water Division by City Administrative Services and RMU Customer Service. The services provided include meter reading and billing, scheduling appointments, answering and dispatching service calls, human resources, purchase order processing and payments, and invoicing customers for services. Also included is support for the network and computer software and hardware used to monitor the wells and distribution system.

The Fixed Charge expense budget for CY 2020 is similar to the CY 2018 budget. The Fixed Charge expense have been increased by 2.5% annually from CY 2020 to CY 2024 except for the WRD Office/Lab Rental line item. The WRD Office/Lab Rental expense will be \$48,000 per year for the next five (5) budget calendar years.

TABLE 2
Fixed Charge - Contractual Services Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Network Administration	\$ 24,000	\$ 24,600	\$ 25,215	\$ 25,845	\$ 26,492
Administrative Services	\$ 22,000	\$ 22,550	\$ 23,114	\$ 23,692	\$ 24,284
Telephone	\$ 5,000	\$ 5,125	\$ 5,253	\$ 5,384	\$ 5,519
Property and Liability Insurance	\$ 17,000	\$ 17,425	\$ 17,861	\$ 18,307	\$ 18,765
Engineering	\$ 2,000	\$ 2,050	\$ 2,101	\$ 2,154	\$ 2,208
Customer Accounting and Collection	\$105,000	\$107,625	\$110,316	\$113,074	\$115,900
Legal	\$ 2,000	\$ 2,050	\$ 2,101	\$ 2,154	\$ 2,208
Contractual Services - Laboratory	\$ 12,000	\$ 12,300	\$ 12,608	\$ 12,923	\$ 13,246
WRD Office/Lab Rental	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000
Contractual Services - Other	\$ 75,000	\$ 76,875	\$ 78,797	\$ 80,767	\$ 82,786
GIS	\$ 15,000	\$ 15,375	\$ 15,759	\$ 16,153	\$ 16,557
Transportation	\$ 28,000	\$ 28,700	\$ 29,418	\$ 30,153	\$ 30,907
Uncollectible Accounts	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Miscellaneous Expenses	\$ 10,000	\$ 10,250	\$ 10,506	\$ 10,769	\$ 11,038
Total Contractual Services	\$365,000	\$372,925	\$381,048	\$389,374	\$397,909

B. BASIC USER EXPENSES

The Basic User Expenses include all the operation and maintenance expenses of the system such as personnel expenses, purchase power, chemicals, materials and supplies and the general fund transfer.

The Water Department staff includes the equivalent of 7.75 full-time personnel. The staff includes the following positions.

Superintendent

This person is responsible for overseeing the operation of the entire Water Division. This same person is also responsible for overseeing the operation of the Water Reclamation Division and Landfill. The prorated salary of the superintendent is 50% water and 50% water reclamation (Personnel Equivalent: 0.5). The superintendent's salary and benefits are budgeted under Basic User Expenses but are included in the Fixed Charge rate calculation.

Chief Operator

Under the supervision of the Superintendent, the Lead Operator is responsible for directing the operations and maintenance of the water system. The Lead Operator oversees the field work in the distribution system and assigns and directs the work of the Water Division Operators (Personnel Equivalent: 1.0).

Operations/Maintenance B, C and D

Under the supervision of the Lead Operator, four water operators operate the water wells, water treatment, water storage and distribution system and perform the maintenance required to keep the system operating efficiently (Personnel Equivalent: 4.0).

Laboratory Manager

Under the supervision of the Superintendent, the Laboratory Manager oversees the Laboratory Technicians in analyzing the well and distribution samples and maintaining backflow prevention inspection records (Personnel Equivalent: 0.5).

Laboratory Technician A and B

One (1) full-time permanent and one (1) part-time permanent lab technicians analyze well and distribution samples and assist in maintaining backflow records (Personnel Equivalent: 0.75).

Meter Reader

This person is responsible for reading the water and electrical meters for billing purposes. The prorated salary of the Meter Reader is 50% water and 50% water reclamation (Personnel Equivalent: 0.5). The meter reader's salary and benefits are budgeted under Basic User Expenses but are included in the Fixed Charge rate calculation.

Administrative Assistant

This person is responsible for providing administrative duties for the Superintendent. The prorated salary of the Administrative Assistant is 50% water and 50% water reclamation (Personnel Equivalent: 0.5). The administrative assistant's salary and benefits are budgeted under Basic User Expenses but are included in the Fixed Charge rate calculation.

The additional staffing for the Water Division was completed in CY 2018. The recommended budgets over the next 5 calendar years account for a 2.5% annual salary and benefits increase each year and a 7.0% annual increase for health insurance as summarized in Table 3 below.

TABLE 3
Personnel Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Salaries	\$470,000	\$481,750	\$493,794	\$506,139	\$518,792
Salaries Part Time	\$ 3,000	\$ 3,075	\$ 3,152	\$ 3,231	\$ 3,311
Salaries OT/Pager Pay	\$ 30,000	\$ 30,750	\$ 31,519	\$ 32,307	\$ 33,114
Social Security Taxes	\$ 38,000	\$ 38,950	\$ 39,924	\$ 40,922	\$ 41,945
Retirement	\$ 47,000	\$ 48,175	\$ 49,379	\$ 50,614	\$ 51,879
Health Insurance	\$ 85,000	\$ 90,950	\$ 97,317	\$104,129	\$111,418
Other Employee Benefits	\$ 15,000	\$ 15,375	\$ 15,759	\$ 16,153	\$ 16,557
Workmen's Compensation	\$ 10,000	\$ 10,250	\$ 10,506	\$ 10,769	\$ 11,038
Total Personnel	\$698,000	\$719,275	\$741,350	\$764,264	\$788,054

The purchase power expense is a function of the volume of water pumped and electrical rates. The purchase power expense increased by 2.1% from CY 2017 to CY 2018. The recommended budgets in Table 4 below include a 2.5% annual increase in the Purchase Power expense.

TABLE 4
Purchase Power Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Purchase Power	\$260,000	\$266,500	\$273,163	\$279,992	\$286,991

The Water Department supplies include chemicals, materials and supplies for the operation of the water system. The Chemicals cost is for the chlorine, fluoride and phosphate chemicals, which are added to the raw water prior to distribution of the water to its customers. Also, hydrous manganese oxide (HMO) is added at the Well #11 water treatment plant and will be added when the Well #12 water treatment plant is completed in 2020 for radium removal. Material and Supplies are a variety of items that are required for the normal operation and maintenance of the system.

The Well #11 radium water treatment plant was completed and put into service in September 2018. RMU had to start purchasing HMO for Well #11 for the radium removal treatment process. The Well #12 radium water treatment plant will be completed in 2020 which will also require the use of HMO. The Water Division is also converting from gas chlorine to liquid sodium hypochlorite for disinfection at all the well sites. The Chemicals budget has been increased for the additional cost of the HMO and the change from gas chlorine to liquid sodium hypochlorite. The Materials and Supplies line item had an

abnormally high expense in CY 2018. The Material and Supplies budget expense for CY 2020 is slightly higher than the FY 2016/17 and CY 2017 actual expenses. The recommended budgets in Table 5 below also include a 2.5% annual increase in the Chemicals and Materials and Supplies expenses.

TABLE 5
Supplies Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Chemicals	\$145,000	\$200,000	\$205,000	\$210,000	\$210,000
Material and Supplies	\$130,000	\$133,250	\$136,581	\$139,996	\$143,496
Total Supplies	\$275,000	\$333,250	\$341,581	\$349,996	\$353,496

The transfer expenditure to the General Fund is based on Water Division revenue. The transfer amount to the General Fund is equal to 4.5% of the prior year's audited revenue.

TABLE 6
Transfer-General Fund Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
General Fund	\$130,000	\$133,250	\$136,581	\$139,996	\$143,496

The Basic User Rate expenses are summarized in the Table 7 below.

TABLE 7
Basic User Rate Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Personnel	\$ 698,000	\$ 719,275	\$ 741,350	\$ 764,264	\$ 788,054
Purchase Power	\$ 260,000	\$ 266,500	\$ 273,163	\$ 279,992	\$ 286,991
Supplies	\$ 275,000	\$ 333,250	\$ 341,581	\$ 349,996	\$ 353,496
Transfers - General Fund	\$ 130,000	\$ 133,250	\$ 136,581	\$ 139,996	\$ 143,496
Total Basic User Expenses	\$1,363,000	\$1,452,275	\$1,492,675	\$1,534,248	\$1,572,037

C. EQUIPMENT REPLACEMENT

The Equipment Replacement expenses will include replacement of the well pumps, pump VFD and sine wave filters, chemical feed equipment, the filter equipment and media and standby generators. The recommended annual budget for equipment replacement is summarized in Table 8 below and detailed on Exhibit B.

TABLE 8
Equipment Replacement Expenses

Equipment Items	Annual Budget
Well Pumps	\$ 69,750
Chemical Feed Equipment	\$ 12,500
Well #11 Filter Equipment	\$ 10,200
Well #12 Filter Equipment	\$ 10,200
Pump VFD/Sine Wave Filter	\$ 8,750
Standby Generators	\$ 22,000
Total Equipment Replacement	\$133,400

D. NON-DEBT FUNDED PROJECTS

The Non-Debt Funded Projects are capital improvements to the water system that do not require bonding or loans to fund. The Non-Debt Funded Projects budget has been developed for the next five (5) calendar years, and specific projects have been identified for the budget. The detailed Non-Debt Funded Projects budget is included as Exhibit C and is described and summarized below.

1. Wells

The Well #8 pump went down in January 2019. The Water Division will be performing well rehabilitation and well pump replacement for Well #8 in CY 2020. The Well #4 pump will be replaced in CY 2020 as part of the Well #4 well building replacement project.

2. Well Buildings/Water Treatment

The Well #4 well building will be replaced in CY 2020 using Non-Debt Funded Projects revenue and cash reserves. The Well #12 radium treatment plant will be constructed in CY 2019 and CY 2020. The Well #12 radium treatment plant project will be funded with an IEPA PWSRF loan and will not be included in the Non-Debt Funded Projects rate calculation.

3. Elevated Water Storage Tanks

RMU owns and operates three (3) – 500,000 gallon elevated water storage tanks and one (1) 750,000 gallon elevated water storage tank. The three (3) – 500,000 gallon elevated water storage tanks are located next to Wells #4, #8 and #11. The Well #8 (Caron Road) tower was painted in 1999, the Well #4 (Second Avenue) tower was painted in 2000 and the Well #11 (Rochelle High School) tower was painted in 2005. The 750,000 gallon elevated water storage tank is located next to Well #12 on Hayes Road and was constructed and painted in 2017. AWWA recommends repainting tanks every 20 years.

The budget includes performing tank inspections in CY 2024. The Well #4 elevated water storage tank will be rehabilitated and painted in CY 2023.

2. Water Distribution Improvements – Watermain Replacement

RMU continues to replace undersized 4” diameter watermain and aging watermains that have a history of breaks. When the watermains are replaced, new water service lines are installed from the main to the shut-off box at the property line. The budget includes performing water main replacement projects in CY 2023 and CY 2024.

3. Water Distribution Improvements – Transmission Mains

The water distribution transmission mains are the 12” and 16” watermains that loop the perimeter of the distribution system and connect the wells and elevated water storage tanks together. Many of the transmission mains constructed were done in conjunction with various developments and have been part of the development cost, and not a capital cost to the Water

Division. However, there are several transmission main improvement projects that should be completed that are within the existing water distribution system. The Water Division is going to contribute funds for the water transmission main extension along IL Route 38 from Dement Road to the east side of I-39.

4. Replacement Items

The Water Division replaces a certain number of fire hydrants, valves, service lines and customer water meters on an annual basis. The recommended Replacement Item budgets range from \$225,000 - \$293,000 per year.

5. Vehicles and Equipment

The Water Division uses the following vehicles and equipment to make daily inspections of the water system facilities and to make water system repairs when necessary.

- Pickup Truck, 3/4 Ton – 5 Each (2003, 2004, 2009, 2011, 2016 models)
- Dump Truck – 1 Each (2006 model)
- Backhoe – 2 Each (1991 and 2006 models)
- Construction Truck – 1 Each (1988 model)
- Cargo Trailers – 2 Each (2009, 2010 models)

The Water Division is planning to purchase a skid loader in CY 2020 which will be used for constructing new water mains and making water main repairs.

The Non-Debt Funded Projects Budget is detailed in Exhibit C and is summarized in the Table 9 below.

TABLE 9
Non-Debt Funded Projects Budget

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Wells	\$ 365,000	\$ 0	\$ 0	\$ 0	\$ 0
Well Bldg/Water Treatment	\$4,066,000	\$ 25,000	\$ 0	\$ 35,000	\$ 0
Elevated Water Storage Tank	\$ 0	\$ 0	\$ 12,000	\$ 750,000	\$ 45,000
Water Replacement	\$ 10,000	\$ 50,000	\$ 50,000	\$ 500,000	\$ 750,000
Water Transmission Mains	\$ 85,000	\$ 85,000	\$ 85,000	\$ 0	\$ 0
Replacement Items	\$ 273,000	\$293,000	\$293,000	\$ 225,000	\$ 225,000
Vehicles and Equipment	\$ 50,000	\$ 0	\$ 0	\$ 0	\$ 0
Subtotal	\$4,849,000	\$453,000	\$440,000	\$1,510,000	\$1,020,000
Other Funding Sources ⁽¹⁾	\$4,300,000	\$ 0	\$ 0	\$ 0	\$ 0
Non-Debt Funded Projects Budget	\$ 549,000	\$453,000	\$440,000	\$1,510,000	\$1,020,000

⁽¹⁾ Other funding sources include cash reserves and IEPA PWSRF loan funds.

E. CAPITAL RECOVERY – DEBT SERVICE

The Capital Recovery charge is for water system improvements that the City has determined are necessary and has made the decision to secure long term bonding or loan financing to complete the work. The existing Capital Recovery expense includes the IEPA PWSRF loan for the Well #12 and elevated water storage tank project completed 2017 and the IEPA PWSRF loan for the Well #11 radium treatment plant completed in 2018.

The City received a Violation Notice for exceeding the maximum contaminant level for combined radium at Well #12. An IEPA Project Plan Report was submitted for the construction of a water treatment plant for Well #12 so the project can be financed with an IEPA PWSRF loan. The Well #12 water treatment plant project will be constructed in 2019 and 2020, and the IEPA loan repayment will begin in 2020.

Well #8 is used as an emergency well because of the high iron concentration in the raw water. The long range plan is to construct a water treatment plant for Well #8 but it is not included in the Capital Recovery budget at this time.

The Capital Recovery budget is detailed in Table 10 below.

TABLE 10
Capital Recovery Budget

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
IEPA PWSRFL – Well #12/Water Tower	\$282,000	\$282,000	\$282,000	\$282,000	\$282,000
IEPA PWSRFL – Well #11 WTP	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000
IEPA PWSRFL – Well #12 WTP	\$ 48,000	\$ 96,000	\$ 96,000	\$ 96,000	\$ 96,000
Capital Recovery Budget	\$494,000	\$542,000	\$542,000	\$542,000	\$542,000

WATER RATE MODIFICATIONS

A. EXISTING USERS AND WATER USAGE

The Water Division revenues are based on the number of customers and the volume of water used, as measured through the meter. The current fixed rate charge structure is based on the same fixed charge for all customer classifications. Table 11 below details the number of users in each customer classification.

TABLE 11
Water Division Customers

Category/Meter Size	# of Users
Residential	3,571
General Service	544
Industrial	2
Lawn Irrigation	221
Total	4,338

The usage charges are based on the billable volume of water in each category of user. The total billable volume for the CY 2018 was 112,540,092 cubic feet as detailed Table 12 below. The two industrial customers use 69.5% of the total billable water volume.

TABLE 12
Water Division - Billed Volume CY 2018

	Volume Billed (cf)	% of Total Volume Billed
Residential	17,770,005	15.8
General Service	16,066,901	14.3
Industrial	78,268,263	69.5
Lawn Irrigation	434,923	0.4
Total	112,540,092	100.0

B. FIXED CHARGE

The Fixed Charge component of the water rate schedule generates revenue to cover the expenditures that are not dependent upon the quantity of water a customer uses. The Fixed Charge will cover the cost for the contractual services that support the Water Division and the administrative salaries and benefits for the superintendent, meter reader and the administrative assistant. The total Fixed Charge expenses are summarized in Table 13 below.

TABLE 13
Fixed Charge Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Fixed Charge Budget	\$365,000	\$372,925	\$381,048	\$389,374	\$397,909
Administrative Salaries and Benefits	\$103,000	\$106,100	\$109,300	\$112,600	\$116,000
Total Fixed Charge Expenses	\$468,000	\$479,025	\$490,348	\$501,974	\$513,909

The Fixed Charge is calculated by taking the total annual Fixed Charge expenses and dividing it by the total customer bills per year to get a cost per user per month charge. The total number of customers' bills per year is 50,067 as calculated below.

$$\begin{aligned} \text{Number of Customer Bills: } & (4,117 \text{ Customers} \times 12 \text{ Bills/Yr}) + (221 \text{ Lawn Irrigation Bills} \times 3 \text{ Bills/Yr}) \\ & = 50,067 \text{ Bills/Yr} \end{aligned}$$

CY 2020

$$\text{Fixed Charge: } \$468,000/\text{Yr} \div 50,067 \text{ Customer Bills/Yr} = \$9.35/\text{User/Month}$$

CY 2021

$$\text{Fixed Charge: } \$479,025/\text{Yr} \div 50,067 \text{ Customer Bills/Yr} = \$9.57/\text{User/Month}$$

CY 2022

$$\text{Fixed Charge: } \$490,348/\text{Yr} \div 50,067 \text{ Customer Bills/Yr} = \$9.80/\text{User/Month}$$

CY 2023

$$\text{Fixed Charge: } \$501,974/\text{Yr} \div 50,067 \text{ Customer Bills/Yr} = \$10.03/\text{User/Month}$$

CY 2024

$$\text{Fixed Charge: } \$513,909/\text{Yr} \div 50,067 \text{ Customer Bills/Yr} = \$10.27/\text{User/Month}$$

TABLE 14
Recommended Fixed Charge Schedule

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Fixed Charge (Per User/Month)	\$9.35	\$9.57	\$9.80	\$10.03	\$10.27

C. BASIC USER RATE

The Basic User Rate component of the water rate schedule generates revenue to cover the expenditures that are dependent upon the volume of water a customer uses. The Basic User Rate will cover the cost of the Personnel, Purchase Power, Supplies and Transfers to the General Fund. The administrative personnel expenses will be subtracted from the Basic User Rate budget.

TABLE 15
Basic User Rate Expenses

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Personnel	\$ 698,000	\$ 719,275	\$ 741,350	\$ 764,264	\$ 788,054
Purchase Power	\$ 260,000	\$ 266,500	\$ 273,163	\$ 279,992	\$ 286,991
Supplies	\$ 275,000	\$ 313,250	\$ 336,581	\$ 344,996	\$ 353,496
Transfers - General Fund	\$ 130,000	\$ 133,250	\$ 136,581	\$ 139,996	\$ 143,496
Total Basic User Expenses	\$1,363,000	\$1,432,275	\$1,487,675	\$1,529,248	\$1,572,037
Administrative Personnel Cost Allocated to Fixed Charge	(\$ 103,000)	(\$ 106,100)	(\$ 109,300)	(\$ 112,600)	(\$ 116,000)
Net Basic User Charge Expense	\$1,260,000	\$1,326,175	\$1,378,375	\$1,416,648	\$1,456,037

The current basic user rate schedule is a two tier rate system. The second tier rate reduces the rate charge per cubic foot of water used once a customer exceeds a defined threshold. The first tier rate is for all usage less than 100,000 c.f. per month, which is all of the Residential, General Service and Industrial customers. The second tier is for all usage over 100,000 c.f. per month and is used by the two Industrial customers.

The Personnel expenses will be recovered by the first tier rate for all usage less than 100,000 c.f. The Purchase Power, Supplies and Transfer to the General Fund is a function of all water usage, so it will be recovered equally by the first and second tier rate customers. However, the second tier rate will not increase after CY 2020 so the first tier rate will be paying for a portion of the Purchase Power, Supplies and Transfer to the General Fund in CY 2021 – CY 2024 as well as using some of the “Other Revenue” of the Water Division to meet the budget expenses. The first and second tier Basic User Rates for each Calendar Year are calculated below.

CY 2020

First Tier Rate (Personnel Only)

$$(\$698,000 - 103,000) \div 366,718 \text{ HCF} = \$1.63/\text{HCF}$$

First and Second Tier Rate (Purchase Power, Supplies and Transfers – General Fund)

$$\$665,000 \div 1,125,400 \text{ HCF} = \$0.59/\text{HCF}$$

CY 2021

First Tier Rate (Personnel and Other Basic User Expenses)

$$\$627,087 \div 366,718 \text{ HCF} = \$1.71/\text{HCF}$$

First and Second Tier Rate (Portion of the Purchase Power, Supplies and Transfers – General Fund)

$$\$663,986 \div 1,125,400 \text{ HCF} = \$0.59/\text{HCF}$$

“Other Revenue” Required: \$35,102

CY 2022

First Tier Rate (Personnel and Other Basic User Expenses)

$$\$660,092 \div 366,718 \text{ HCF} = \$1.80/\text{HCF}$$

First and Second Tier Rate (Portion of the Purchase Power, Supplies and Transfers – General Fund)

$$\$663,986 \div 1,125,400 \text{ HCF} = \$0.59/\text{HCF}$$

“Other Revenue” Required: \$54,297

CY 2023

First Tier Rate (Personnel and Other Basic User Expenses)

$$\$685,763 \div 366,718 \text{ HCF} = \$1.87/\text{HCF}$$

First and Second Tier Rate (Portion of the Purchase Power, Supplies and Transfers – General Fund)

$$\$663,986 \div 1,125,400 \text{ HCF} = \$0.59/\text{HCF}$$

“Other Revenue” Required: \$66,899

CY 2024

First Tier Rate (Personnel and Other Basic User Expenses)

$$\$715,100 \div 366,718 \text{ HCF} = \$1.95/\text{HCF}$$

First and Second Tier Rate (Portion of the Purchase Power, Supplies and Transfers – General Fund)

$$\$663,986 \div 1,125,400 \text{ HCF} = \$0.59/\text{HCF}$$

“Other Revenue” Required: \$76,951

TABLE 16
Basic User Rate
First and Second Tier Rates

	CY 2020		CY 2021	
	1 st Tier Rate	2 nd Tier Rate	1 st Tier Rate	2 nd Tier Rate
Personnel	\$1.63/HCF	\$0.00/HCF	\$1.71/HCF	\$0.00/HCF
Purchase Power/Supplies/Transfers - GF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF
Totals	\$2.22/HCF	\$0.59/HCF	\$2.30/HCF	\$0.59/HCF

TABLE 17
Basic User Rate
First and Second Tier Rates

	CY 2022		CY 2023	
	1 st Tier Rate	2 nd Tier Rate	1 st Tier Rate	2 nd Tier Rate
Personnel	\$1.80/HCF	\$0.00/HCF	\$1.87/HCF	\$0.00/HCF
Purchase Power/Supplies/Transfers - GF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF
Totals	\$2.39/HCF	\$0.59/HCF	\$2.46/HCF	\$0.59/HCF

TABLE 18
Basic User Rate
First and Second Tier Rates

	CY 2024	
	1 st Tier Rate	2 nd Tier Rate
Personnel	\$1.95/HCF	\$0.00/HCF
Purchase Power/Supplies/Transfers - GF	\$0.59/HCF	\$0.59/HCF
Totals	\$2.54/HCF	\$0.59/HCF

D. EQUIPMENT REPLACEMENT

The Equipment Replacement Expenses will include replacement of the well pumps, pump VFD and sine wave filters, chemical feed equipment, filter equipment and media and standby generators. The recommended budget for equipment replacement is summarized in Table 19 below and detailed on Exhibit B.

TABLE 19
 Equipment Replacement Expenses

Equipment Items	Annual Budget
Well Pumps	\$ 69,750
Chemical Feed Equipment	\$ 12,500
Well #11 Filter Equipment	\$ 10,200
Well #12 Filter Equipment	\$ 10,200
Pump VFD/Sine Wave Filter	\$ 8,750
Standby Generators	\$ 22,000
Total Equipment Replacement	\$133,400

The Equipment Replacement expense will be shared equally by the First and Second Tier Rate customers. The First and Second Tier Equipment Replacement Rate is calculated below.

First and Second Tier Rate: $\$133,400 \div 1,125,400 \text{ HCF} = \$0.12/\text{HCF}$

E. NON-DEBT FUNDED PROJECTS

The Non-Debt Funded Projects will include well rehabilitation; elevated water storage tank inspection and painting; water distribution main replacement; water transmission main improvements; and meter, hydrant and valve replacements. The Non-Debt Funded Projects are capital improvements that do not require bonding or loans to complete.

The Non-Debt Funded Projects Budget lists all the Capital projects to be funded each year and is detailed in Exhibit C and is summarized in the Table 20 below. Some of the Capital projects listed will be funded with other revenue sources such as cash reserves and IEPA PWSRF loans. The Non-Debt Funded Projects rate calculation will be based on the Non-Debt Funded Projects Budget minus the other funding sources amount.

TABLE 20
Non-Debt Funded Projects Budget

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Wells	\$ 365,000	\$ 0	\$ 0	\$ 0	\$ 0
Well Bldg/Water Treatment	\$4,066,000	\$ 25,000	\$ 0	\$ 35,000	\$ 0
Elevated Water Storage Tank	\$ 0	\$ 0	\$ 12,000	\$ 750,000	\$ 45,000
Water Replacement	\$ 10,000	\$ 50,000	\$ 50,000	\$ 500,000	\$ 750,000
Water Transmission Mains	\$ 85,000	\$ 85,000	\$ 85,000	\$ 0	\$ 0
Replacement Items	\$ 273,000	\$293,000	\$293,000	\$ 225,000	\$ 225,000
Vehicles and Equipment	\$ 50,000	\$ 0	\$ 0	\$ 0	\$ 0
Subtotal	\$4,849,000	\$453,000	\$440,000	\$1,510,000	\$1,020,000
Other Funding Sources ⁽¹⁾	\$4,300,000	\$ 0	\$ 0	\$ 0	\$ 0
Non-Debt Funded Projects Budget	\$ 549,000	\$453,000	\$440,000	\$1,510,000	\$1,020,000

The Non-Debt Funded Projects budget varies significantly over the next five (5) years. The Non-Debt Funded Project rate will be increased over the next five (5) years so the revenue generated during that time period exceeds the total expenses. The second tier Non-Debt Funded Projects rate will be set at \$0.07/HCF for CY 2020 – CY 2024. This rate will generate \$54,788 per year. The first tier rate will be phased in over the next five (5) years to meet the expenses incurred during this time period as detailed in the Tables 21 and 22 below.

TABLE 21
Non-Debt Funded Projects
First and Second Tier Rate Schedule

Calendar Year	First Tier Rate	Second Tier Rate
CY 2020	\$1.35/HCF	\$0.07/HCF
CY 2021	\$2.10/HCF	\$0.07/HCF
CY 2022	\$2.18/HCF	\$0.07/HCF
CY 2023	\$2.32/HCF	\$0.07/HCF
CY 2024	\$2.46/HCF	\$0.07/HCF

TABLE 22
Non-Debt Funded Projects
1st and 2nd Tier Revenue and Expense Summary

	First Tier Revenue	Second Tier Revenue	Total Revenue	N.D.F.P. Budget	Surplus/ (Shortage)
CY 2020	\$ 495,069	\$ 54,788	\$ 549,857	\$ 549,000	\$857
CY 2021	\$ 770,107	\$ 54,788	\$ 824,895	\$ 453,000	\$371,895
CY 2022	\$ 799,445	\$ 54,788	\$ 854,233	\$ 440,000	\$414,233
CY 2023	\$ 850,785	\$ 54,788	\$ 905,573	\$1,510,000	(\$604,427)
CY 2024	\$ 902,126	\$ 54,788	\$ 956,914	\$1,020,000	(\$63,086)
Totals	\$3,817,532	\$273,940	\$4,091,472	\$3,972,000	\$119,472

F. CAPITAL RECOVERY – DEBT SERVICE

The Water Division currently has two (2) IEPA PWSRF loans for the construction of Well #12, the well building, the elevated water storage tank and the connecting water transmission main and for the construction of the Well #11 water treatment plant.

The City received a Violation Notice for exceeding the maximum contaminant level for combined radium at Well #12. An IEPA Project Plan Report was submitted for the construction of a water treatment plant for Well #12 so the project can be financed with an IEPA PWSRF loan. The Well #12 water treatment plant project will be constructed in 2019 and 2020 and the IEPA loan repayment will begin in 2020.

Well #8 is used as an emergency well because of the high iron concentration in the raw water. The long-range plan is to construct a water treatment plant for Well #8 but it is not included in the Capital Recovery budget at this time.

The debt service for the water system improvements over the next five (5) calendar year budgets is detailed in Table 23 below. Also “Other Revenue” of the Water Division will be used to pay a portion of the debt until the rates can be adjusted to fund all the debt service expenses.

TABLE 23
Capital Recovery Budget

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
IEPA PWSRFL – Well #12/Water Tower	\$282,000	\$282,000	\$282,000	\$282,000	\$282,000
IEPA PWSRFL – Well #11 WTP	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000
IEPA PWSRFL – Well #12 WTP	\$ 48,000	\$ 96,000	\$ 96,000	\$ 96,000	\$ 96,000
Capital Recovery Budget	\$494,000	\$542,000	\$542,000	\$542,000	\$542,000
Other Revenue	(\$ 48,000)	(\$ 96,000)	(\$ 57,600)	(\$ 15,200)	\$ 0
Capital Recovery Rate Budget	\$446,000	\$446,000	\$484,000	\$526,800	\$542,000

The cost allocation for the water system improvements debt detailed above is based upon the peak daily demand of the system for CY 2020. The second tier rate will remain the same for CY 2020 – CY 2024. Also “Other Revenue” of the Water Division will be used to pay a portion of the debt. The debt service cost calculations for the next five (5) years are detailed below and the following two pages.

CY 2020

TABLE 24
CY 2020
Cost Allocation for Capital Recovery Based on Peak Demand

Usage	Average Daily Demand	Peak Demand Factor	Peak Demand	% of Peak Demand	Annual P&I Payment
Residential/General Service (0 - 100,000 cf/month)	93,895 cf/d	1.75	164,316 cf/d	40.0%	\$178,400
Industrial (Over 100,000 c.f/month)	214,434 cf/d	1.15	246,599 cf/d	60.0%	\$267,600
Total	308,329 cf/d		410,915 cf/d	100%	\$446,000

First Tier Rate (0 - 100,000 cf/Month)

$$\$178,400 \div 342,716 \text{ HCF} = \$0.52/\text{HCF}$$

Second Tier Rate (Over 100,000 cf/Month)

$$\$267,600 \div 782,682 \text{ HCF} = \$0.34/\text{HCF}$$

CY 2021

TABLE 25
CY 2021 First Tier Rate Tabulation

Capital Recovery Budget	\$542,000
Second Tier Rate Revenue	(\$267,600)
Other Revenue	(\$ 96,000)
First Tier Revenue Required	\$178,400
First Tier Rate	\$0.52/HCF

CY 2022

TABLE 26
CY 2022 First Tier Rate Tabulation

Capital Recovery Budget	\$542,000
Second Tier Rate Revenue	(\$267,600)
Other Revenue	(\$ 57,600)
First Tier Revenue Required	\$216,800
First Tier Rate	\$0.52/HCF

CY 2023

TABLE 27
CY 2023 First Tier Rate Tabulation

Capital Recovery Budget	\$542,000
Second Tier Rate Revenue	(\$267,600)
Other Revenue	(\$ 15,200)
First Tier Revenue Required	\$259,200
First Tier Rate	\$0.76/HCF

CY 2024

TABLE 28
CY 2024 First Tier Rate Tabulation

Capital Recovery Budget	\$542,000
Second Tier Rate Revenue	(\$267,600)
Other Revenue	\$ 0
1 st Tier Revenue Required	\$274,400
1 st Tier Rate	\$0.88/HCF

The Capital Recovery Rates for each calendar year are summarized in the Table 29 below.

TABLE 29
Capital Recovery Rate

Calendar Year	First Tier Rate	Second Tier Rate
CY 2020	\$0.52/HCF	\$0.34/HCF
CY 2021	\$0.52/HCF	\$0.34/HCF
CY 2022	\$0.63/HCF	\$0.34/HCF
CY 2023	\$0.76/HCF	\$0.34/HCF
CY 2024	\$0.88/HCF	\$0.34/HCF

G. COST IMPACT FOR USERS

The current and recommended Water Division Fixed Charges are summarized in the Table 30 below.

TABLE 30
Water Division - Fixed Charge

Customer Classification	Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Residential	\$10.45	\$9.35	\$9.57	\$9.80	\$10.03	\$10.27
General Service	\$10.45	\$9.35	\$9.57	\$9.80	\$10.03	\$10.27
Industrial	\$10.45	\$9.35	\$9.57	\$9.80	\$10.03	\$10.27
Lawn Irrigation	\$10.45	\$9.35	\$9.57	\$9.80	\$10.03	\$10.27
General Service Bulk Purchase	*	*	*	*	*	*

* See Water Division Rate Schedule

The current and recommended usage rates for the Water Division are summarized in Tables 31 – 33 below.

TABLE 31
Water Division - Usage Rates

Charge	Current		CY 2020	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$1.56/HCF	\$0.40/HCF	\$2.22/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.09/HCF	\$0.09/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$0.98/HCF	\$0.25/HCF	\$1.35/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.43/HCF	\$0.30/HCF	\$0.52/HCF	\$0.34/HCF
Total	\$3.06/HCF	\$1.04/HCF	\$4.21/HCF	\$1.12/HCF

TABLE 32
Water Division - Usage Rates

Charge	CY 2021		CY 2022	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$2.30/HCF	\$0.59/HCF	\$2.39/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$2.10/HCF	\$0.07/HCF	\$2.18/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.52/HCF	\$0.34/HCF	\$0.63/HCF	\$0.34/HCF
Total	\$5.04/HCF	\$1.12/HCF	\$5.32/HCF	\$1.12/HCF

TABLE 33
Water Division - Usage Rates

Charge	CY 2023		CY 2024	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$2.46/HCF	\$0.59/HCF	\$2.54/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$2.32/HCF	\$0.07/HCF	\$2.46/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.76/HCF	\$0.34/HCF	\$0.88/HCF	\$0.34/HCF
Total	\$5.66/HCF	\$1.12/HCF	\$6.00/HCF	\$1.12/HCF

The cost impact to the customers will vary based on their water usage. The tables below summarize the current water bill amount, the water bill amount for the recommended CY 2020 – CY 2024 rate modifications and the dollar and percentage increase for a typical residential user, a small and large general service user and the two (2) industrial users.

1. Residential User (Based on Usage of 414 c.f./month)

	Fixed Charge	Usage Charges	Total	(\$ Change)	(%) Change
Current	\$10.45	\$12.67	\$23.12		
2020	\$ 9.35	\$17.43	\$26.78	\$3.66	15.8%
2021	\$ 9.57	\$20.87	\$30.44	\$3.66	13.7%
2022	\$ 9.80	\$22.02	\$31.82	\$1.38	4.5%
2023	\$10.03	\$23.43	\$33.46	\$1.64	5.2%
2024	\$10.27	\$24.84	\$35.11	\$1.65	4.9%

2. General Service (Based on Usage of 3,500 c.f./month)

	Fixed Charge	Usage Charges	Total	(\$ Change)	(%) Change
Current	\$10.45	\$107.10	\$117.55		
2020	\$ 9.35	\$147.35	\$156.70	\$39.15	33.3%
2021	\$ 9.57	\$176.40	\$185.97	\$29.27	18.7%
2022	\$ 9.80	\$186.20	\$196.00	\$10.03	5.4%
2023	\$10.03	\$198.10	\$208.13	\$12.13	6.2%
2024	\$10.27	\$210.00	\$220.27	\$12.14	5.8%

3. General Service (Based on Usage of 40,000 c.f./month)

	Fixed Charge	Usage Charges	Total	(\$) Change	(%) Change
Current	\$10.45	\$1,224.00	\$1,234.45		
2020	\$ 9.35	\$1,684.00	\$1,693.35	\$458.90	37.2%
2021	\$ 9.57	\$2,016.00	\$2,025.57	\$332.22	19.6%
2022	\$ 9.80	\$2,128.00	\$2,137.80	\$132.23	6.5%
2023	\$10.03	\$2,264.00	\$2,274.03	\$136.23	6.4%
2024	\$10.27	\$2,400.00	\$2,410.27	\$136.24	6.0%

4. Industrial User (Based on Usage of 2,321,000 c.f./month)

	Fixed Charge	Usage Charges	Total	(\$) Change	(%) Change
Current	\$10.45	\$26,158.40	\$26,168.85		
2020	\$ 9.35	\$29,085.20	\$29,094.55	\$2,925.70	11.2%
2021	\$ 9.57	\$29,915.20	\$29,924.77	\$ 830.22	2.9%
2022	\$ 9.80	\$30,195.20	\$30,205.00	\$ 280.23	0.9%
2023	\$10.03	\$30,535.20	\$30,545.23	\$ 340.23	1.1%
2024	\$10.27	\$30,875.20	\$30,885.47	\$ 340.24	1.1%

5. Industrial User (Based on Usage of 4,201,000 c.f./month) and two (2) – 8” Private Fire Protection Connections)

	Fixed Charge	Usage Charges	Fire Protection	Total	(\$) Change	(%) Change
Current	\$10.45	\$45,710.40	\$181.86	\$45,902.71		
2020	\$ 9.35	\$50,141.20	\$181.86	\$50,332.41	\$4,429.70	9.7%
2021	\$ 9.57	\$50,971.20	\$181.86	\$51,162.63	\$ 830.22	1.6%
2022	\$ 9.80	\$51,251.20	\$181.86	\$51,442.86	\$ 280.23	0.5%
2023	\$10.03	\$51,591.20	\$181.86	\$51,783.09	\$ 340.23	0.7%
2024	\$10.27	\$51,931.20	\$181.86	\$52,123.33	\$ 340.24	0.7%

CONCLUSIONS AND RECOMMENDATIONS

1. Water Division Expenditures and Revenues

The Water Division’s expenditures and revenues based on the recommended budget and rates for calendar years 2020 – 2024 are summarized in the Table 34 below. The detailed budget expenditures and revenues are shown on Exhibit A. The CY 2020 has a higher than normal budget expenditures because of the Well No. 4 building replacement project and the Well No. 12 water treatment plant projects. The budget in CY 2020 is balance using IEPA loan reimbursements to pay for the Well No. 12 water treatment plant project and cash reserves for the Well No. 4 building replacement project. The net income generated each year should increase the cash reserves for the Water Division by approximately \$510,421 by the end of CY 2024.

TABLE 34
Water Division Expenditures and Revenues

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Expenditures					
Fixed Charge Expenses	\$ 365,000	\$ 372,925	\$ 381,048	\$ 389,374	\$ 397,909
Basic User Expenses	\$1,363,000	\$1,452,275	\$1,487,675	\$1,529,246	\$1,572,038
Equipment Replacement Expenses	\$ 133,400	\$ 133,400	\$ 133,400	\$ 133,400	\$ 133,400
Non-Debt Funded Projects Expenses	\$4,849,000	\$ 453,000	\$ 440,000	\$1,572,038	\$1,020,000
Capital Recovery Expenses – Debt Service	\$ 494,000	\$ 542,000	\$ 542,000	\$ 542,000	\$ 542,000
Total Expenditures	\$7,204,400	\$2,953,600	\$2,989,123	\$4,109,020	\$3,665,346
Revenues					
Water Sales	\$2,861,732	\$3,177,122	\$3,291,319	\$3,427,518	\$3,564,219
Other Revenue	\$ 162,000	\$ 162,000	\$ 162,000	\$ 162,000	\$ 162,000
IEPA Loan Reimbursements	\$2,850,000	\$ 0	\$ 0	\$ 0	\$ 0
Cash Reserves	\$1,450,000	\$ 0	\$ 0	\$ 0	\$ 0
Total Revenue	\$7,323,732	\$3,339,122	\$3,453,319	\$3,589,518	\$3,726,219
Net Income/(Loss)	\$ 119,332	\$ 385,522	\$ 464,196	(\$ 519,502)	\$ 60,873

2. The Water Division needs to make a major improvement to the water system, which will be funded with an IEPA Public Water Supply Revolving Fund Loan. The water system improvement project includes the construction of a radium removal plant for Well No. 12 which will be completed in CY 2020. The capital recovery budget for CY 2020 – CY 2024 is summarized in Table 35 on the following page.

TABLE 35
Capital Recovery Budget

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
IEPA PWSRFL – Well #12/Water Tower	\$282,000	\$282,000	\$282,000	\$282,000	\$282,000
IEPA PWSRFL – Well #11 WTP	\$164,000	\$164,000	\$164,000	\$164,000	\$164,000
IEPA PWSRFL – Well #12 WTP	\$ 48,000	\$ 96,000	\$ 96,000	\$ 96,000	\$ 96,000
Capital Recovery Budget	\$494,000	\$542,000	\$542,000	\$542,000	\$542,000

The Capital Recovery Rates for each calendar year are summarized in the Table 36 below.

TABLE 36
Capital Recovery Rate

Calendar Year	First Tier Rate	Second Tier Rate
CY 2020	\$0.52/HCF	\$0.34/HCF
CY 2021	\$0.52/HCF	\$0.34/HCF
CY 2022	\$0.63/HCF	\$0.34/HCF
CY 2023	\$0.76/HCF	\$0.34/HCF
CY 2024	\$0.88/HCF	\$0.34/HCF

3. The recommended budget for the Fixed Charge expenses shows a normal annual increase based on historical trends. The recommended Fixed Charge for CY 2020 – CY 2024 are summarized in Table 37 below.

TABLE 37
Recommended Fixed Charge Rates

CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
\$9.35/User/Mo.	\$9.57/User/Mo.	\$9.80/User/Mo.	\$10.03/User/Mo.	\$10.27/User/Mo.

4. The recommended Basic User Charge budget increased significantly due to the hiring of additional personnel to get the Water Division staff back up to its normal staff size and an increase in chemical costs associated with the HMO chemical required for the radium treatment plants and changing from gas to liquid chlorine at all of the well sites. The recommended Basic User Rates for CY 2020 – CY 2024 are summarized in Table 38 below.

TABLE 38
Recommended Basic User Rates

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
0-100,000 CF	\$2.22/HCF	\$2.30/HCF	\$2.39/HCF	\$2.46/HCF	\$2.54/HCF
Over 100,000 CF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF	\$0.59/HCF

5. The Equipment Replacement budget was increased to include the replacement of the filter media, valves, blowers and HMO equipment at the Well #11 and Well #12 water treatment plant sites and the standby generators at the Well #11 and Well #12 sites. The recommended Equipment Replacement Rate is \$0.12/HCF.
6. The recommended Non-Debt Funded Projects budget over the next five (5) years will fund the rehabilitation and painting of the Well #4 tower, water main replacements and replacement items such as water meters, valves and fire hydrants. The budget will vary from year to year but the recommended rates will generate enough revenue over the five (5) year period to pay for all the planned projects and equipment expenses. The recommended Non-Debt Funded Project rates are summarized in Table 39 below.

TABLE 39
Recommended Non-Debt Funded Project Rates

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
0-100,000 CF	\$1.35/HCF	\$2.10/HCF	\$2.18/HCF	\$2.32/HCF	\$2.46/HCF
Over 100,000 CF	\$0.07/HCF	\$0.07/HCF	\$0.07/HCF	\$0.07/HCF	\$0.07/HCF

7. The recommended usage rates for CY 2020 – CY 2024 is summarized in Table 40 below.

TABLE 40
Recommended Usage Rates

	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
0-100,000 CF	\$4.21/HCF	\$5.04/HCF	\$5.32/HCF	\$5.66/HCF	\$6.00/HCF
Over 100,000 CF	\$1.12/HCF	\$1.12/HCF	\$1.12/HCF	\$1.12/HCF	\$1.12/HCF

8. No changes are being recommended to the fire protection rate. The fire protection rate will be charged to all customers that have a private connection that feeds a fire suppression system, and the charge will be based on the size of the fire protection main connection.
9. The bulk water rate from a fire hydrant will be increased each year based on the new usage rate. The cost per gallon for bulk water is summarized in Table 41 on the following page.

TABLE 41
Recommended Bulk Water Rates

CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
\$0.0113/Gallon	\$0.0135/Gallon	\$0.0142/Gallon	\$0.0151/Gallon	\$0.0160/Gallon

10. The recommended rate increase will have the following cost impact on various types of users.

TABLE 42
Cost Impact for Users

	Residential User ⁽¹⁾		General Service ⁽²⁾		General Service ⁽³⁾	
	Monthly Bill	% Increase	Monthly Bill	% Increase	Monthly Bill	% Increase
Current	\$23.12		\$117.55		\$1,234.45	
CY 2020	\$26.78	15.8%	\$156.70	33.3%	\$1,693.35	37.2%
CY 2021	\$30.44	13.7%	\$185.97	18.7%	\$2,025.57	19.6%
CY 2022	\$31.82	4.5%	\$196.00	5.4%	\$2,137.80	6.5%
CY 2023	\$33.46	5.2%	\$208.13	6.2%	\$2,274.03	6.4%
CY 2024	\$35.11	4.9%	\$220.27	5.8%	\$2,410.27	6.0%

- (1) Based on Usage of 414 c.f./month
- (2) Based on Usage of 3,500 c.f./month
- (3) Based on Usage of 40,000 c.f./month

TABLE 43
Cost Impact for Users

	Industrial ⁽¹⁾		Industrial ⁽²⁾	
	Monthly Bill	% Increase	Monthly Bill	% Increase
Current	\$26,168.85		\$45,902.71	0%
CY 2019	\$29,094.55	11.2%	\$50,332.41	9.7%
CY 2020	\$29,924.77	2.9%	\$51,162.63	1.6%
CY 2021	\$30,205.00	0.9%	\$51,442.86	0.5%
CY 2022	\$30,545.23	1.1%	\$51,783.09	0.7%
CY 2023	\$30,885.47	1.1%	\$52,123.33	0.7%

- (1) Based on Usage of 2,321,000 c.f./month
- (2) Based on Usage of 4,201,000 c.f./month and (2) – 8” Fire Connections

WATER DIVISION RATES SCHEDULE

There are five (5) water user categories for billing water. The water user categories are Residential, General Service, Industrial, Lawn Irrigation and General Service Bulk Purchase. The definition of each user category and the current and recommended rate structure are detailed below.

A. RESIDENTIAL

1. Definition

The Residential rate is available to customers residing in a metered one-family dwelling unit, usually physically separate. Customers outside the Rochelle City corporate boundaries will be charged two times the charges.

2. Rate Schedule

The rate charge has a fixed charge and a variable usage charge component. The current fixed charge is the same charge regardless of customer classification or meter size and is a fixed dollar amount charge per month per user. The current and recommended fixed charges are detailed below.

Fixed Charge

Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
\$10.45/User/Mo.	\$9.35/User/Mo.	\$9.57/User/Mo.	\$9.80/User/Mo.	\$10.03/User/Mo.	\$10.27/User/Mo.

The variable charge is based on the metered volume used. The current and recommended basic user charges are summarized below.

Usage Charge Rates

Charge	Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Basic User Rate	\$1.56/HCF	\$2.22/HCF	\$2.30/HCF	\$2.39/HCF	\$2.46/HCF	\$2.54/HCF
Equipment Replacement Rate	\$0.09/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$0.98/HCF	\$1.35/HCF	\$2.10/HCF	\$2.18/HCF	\$2.32/HCF	\$2.46/HCF
Capital Recovery Rate	\$0.43/HCF	\$0.52/HCF	\$0.52/HCF	\$0.63/HCF	\$0.76/HCF	\$0.88/HCF
Total	\$3.06/HCF	\$4.21/HCF	\$5.04/HCF	\$5.32/HCF	\$5.66/HCF	\$6.00/HCF

B. GENERAL SERVICE

1. Definition

The General Service rate is available to customers not qualifying as Residential rate and having a monthly usage less than 500,000 cubic feet (3,740,000 gallons) during the current month or in any of the previous 11 billing months. Customers outside the Rochelle City corporate boundaries will be charged two times the charges.

2. Rate Schedule

The rate charge has a fixed charge and a variable usage charge component. The current fixed charge is the same charge regardless of customer classification or meter size and is a fixed dollar amount charge per month per user. The current and recommended fixed charges are detailed below and the following page.

Fixed Charge

Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
\$10.45/User/Mo.	\$9.35/User/Mo.	\$9.57/User/Mo.	\$9.80/User/Mo.	\$10.03/User/Mo.	\$10.27/User/Mo.

The variable charge is based on the metered volume used. The current and recommended basic user charge is summarized below.

Usage Charge Rates

Charge	Current		CY 2020	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$1.56/HCF	\$0.40/HCF	\$2.22/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.09/HCF	\$0.09/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$0.98/HCF	\$0.25/HCF	\$1.35/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.43/HCF	\$0.30/HCF	\$0.52/HCF	\$0.34/HCF
Total	\$3.06/HCF	\$1.04/HCF	\$4.21/HCF	\$1.12/HCF

Usage Charge Rates

Charge	CY 2021		CY 2022	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$2.30/HCF	\$0.59/HCF	\$2.39/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$2.10/HCF	\$0.07/HCF	\$2.18/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.52/HCF	\$0.34/HCF	\$0.63/HCF	\$0.34/HCF
Total	\$5.04/HCF	\$1.12/HCF	\$5.32/HCF	\$1.12/HCF

Usage Charge Rates

Charge	CY 2023		CY 2024	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$2.46/HCF	\$0.59/HCF	\$2.54/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$2.32/HCF	\$0.07/HCF	\$2.46/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.76/HCF	\$0.34/HCF	\$0.88/HCF	\$0.34/HCF
Total	\$5.66/HCF	\$1.12/HCF	\$6.00/HCF	\$1.12/HCF

C. INDUSTRIAL

1. Definition

The Industrial rate is available to Industrial water customers that have a monthly usage of 500,000 cubic feet (3,740,000 gallons) during the current billing month or in any of the previous 11 billing months. The variable charge is based on the higher of the current billing month's usage or 40% of the highest usage recorded in the previous 11 billing months. Customers outside the Rochelle City corporate boundaries will be charged two times the charges.

2. Rate Schedule

The rate charge has a fixed charge and a variable usage charge component. The current fixed charge is the same charge regardless of customer classification or meter size and is a fixed dollar amount charge per month per user. The current and recommended fixed charges are detailed below and the following page.

Fixed Charge

Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
\$10.45/User/Mo.	\$9.35/User/Mo.	\$9.57/User/Mo.	\$9.80/User/Mo.	\$10.03/User/Mo.	\$10.27/User/Mo.

The variable charge is based on the metered volume used. The current and recommended basic user charges are summarized below.

Usage Charge Rates

Charge	Current		CY 2020	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$1.56/HCF	\$0.40/HCF	\$2.22/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.09/HCF	\$0.09/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$0.98/HCF	\$0.25/HCF	\$1.35/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.43/HCF	\$0.30/HCF	\$0.52/HCF	\$0.34/HCF
Total	\$3.06/HCF	\$1.04/HCF	\$4.21/HCF	\$1.12/HCF

Usage Charge Rates

Charge	CY 2021		CY 2022	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$2.30/HCF	\$0.59/HCF	\$2.39/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$2.10/HCF	\$0.07/HCF	\$2.18/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.52/HCF	\$0.34/HCF	\$0.63/HCF	\$0.34/HCF
Total	\$5.04/HCF	\$1.12/HCF	\$5.32/HCF	\$1.12/HCF

Usage Charge Rates

Charge	CY 2023		CY 2024	
	0-100,000 CF	Over 100,000 CF	0-100,000 CF	Over 100,000 CF
Basic User Rate	\$2.46/HCF	\$0.59/HCF	\$2.54/HCF	\$0.59/HCF
Equipment Replacement Rate	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$2.32/HCF	\$0.07/HCF	\$2.46/HCF	\$0.07/HCF
Capital Recovery Rate	\$0.76/HCF	\$0.34/HCF	\$0.88/HCF	\$0.34/HCF
Total	\$5.66/HCF	\$1.12/HCF	\$6.00/HCF	\$1.12/HCF

D. LAWN IRRIGATION

1. Definition

The Lawn Irrigation rate is available to customers who install a separate meter with a shut-off valve and check valve for the inlet side, installed by a licensed plumber and approved by the Rochelle Water Division. This rate may be used only for non-sanitary sewer related uses, i.e. lawn irrigation. The usage registered on this meter will not be subject to sewer charges. Abuse may result in the termination of application of this rate to the customer.

The Rochelle Water Division reserves the right to periodically inspect plumbing whenever it deems it necessary and appropriate to do so.

The fixed charge is applicable only to bills for meter readings on or after June 30 until and including September 30 (usage during the months of June, July and August).

Customers outside the Rochelle City corporate boundaries will be charged two times the charges.

2. Rate Schedule

The current fixed charge is based on the water meter size and is a fixed dollar amount charge per month per user. The current fixed charge is the same charge regardless of customer classification or meter size and is a fixed dollar amount charge per month per user. The current and recommended fixed charges are detailed below.

Fixed Charge

Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
\$10.45/User/Mo.	\$9.35/User/Mo.	\$9.57/User/Mo.	\$9.80/User/Mo.	\$10.03/User/Mo.	\$10.27/User/Mo.

The variable charge is based on the metered volume used. The current and recommended basic user charge is summarized below.

Usage Charge Rates

Charge	Current	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
Basic User Rate	\$1.56/HCF	\$2.22/HCF	\$2.30/HCF	\$2.39/HCF	\$2.46/HCF	\$2.54/HCF
Equipment Replacement Rate	\$0.09/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF	\$0.12/HCF
Non-Debt Funded Projects Rate	\$0.98/HCF	\$1.35/HCF	\$2.10/HCF	\$2.18/HCF	\$2.32/HCF	\$2.46/HCF
Capital Recovery Rate	\$0.43/HCF	\$0.52/HCF	\$0.52/HCF	\$0.63/HCF	\$0.76/HCF	\$0.88/HCF
Total	\$3.06/HCF	\$4.21/HCF	\$5.04/HCF	\$5.32/HCF	\$5.66/HCF	\$6.00/HCF

E. GENERAL SERVICE BULK PURCHASE

1. Definition

The General Service Bulk Purchase rate is available to customers for temporary or short-term purchases from the WRP or a fire hydrant meter. The customer is required to obtain a temporary meter and backflow preventer from the Water Division.

The Rochelle Water Division reserves the right to periodically inspect attachments and proper meter readings. Water misuse or bypassing the meter may result in discontinuing water service to the customer or prosecution.

2. Rate Schedule

The rate charge has a fixed charge and a variable usage charge component. The fixed charge is for all or a portion of the month.

a. Bulk Water at WRP

Usage Charge Rates

	Rate
First 5,000 Gallons	\$0.02/Gallon
Over 5,000 Gallons	\$0.01/Gallon

If the customer wants to be billed, then there is a \$35.00 processing fee.

b. Bulk Water From Hydrant

Fixed Charges

	Rates
Meter Deposit	\$500.00
Meter and RPZ Deposit	\$1,000.00
Hydrant Meter Handling Fee	\$75.00
Hydrant Meter Rental Fee	\$35.00/Month
Hydrant Meter and RPZ Rental Fee	\$60.00/Month

Usage Charges

Current	CY 2020	CY2021	CY2022	CY2023	CY2024
\$0.0082/Gallon	\$0.0113/Gallon	\$0.0135/Gallon	\$0.0142/Gallon	\$0.0151/Gallon	\$0.0160/Gallon

F. FIRE PROTECTION

1. Definition

The private fire protection connection rate was established in June 2011 and was not changed in the current revisions. A private fire protection rate is charged to all users that have a private connection that feeds a fire protection system inside a building or a fire loop around a building. The charge will be based on the size of the fire protection main connection. The user will be charged for each private fire protection line connection to the system if there is more than one connection. There is no rate charge for the volume of water used during a fire event.

2. Rate Schedule

The Private Fire Protection charge is a fixed monthly charge for any user with a fire protection connection to the water system. The fixed monthly charge is based on the size of the fire protection line connection. A Private Fire Protection user must also pay the Public Fire Protection charge below.

Private Fire Protection Charge

Fire Protection Line Connection Size	Rate
2"	\$4.27/Connection/Month
3"	\$6.89/Connection/Month
4"	\$14.69/Connection/Month
6"	\$42.67/Connection/Month
8"	\$90.93/Connection/Month
10"	\$163.52/Connection/Month

RMU Water Division
Expenses and Revenue Summary and Recommended Budgets

	Past Expenses and Revenues			Projected Budgets				
	2016/17	2017	2018	2020	2021	2022	2023	2024
FIXED CHARGE								
CONTRACTUAL SERVICES								
Network Administration	\$ 14,287	\$ 30,799	\$ 17,857	\$ 24,000	\$ 24,600	\$ 25,215	\$ 25,845	\$ 26,492
Administrative Services	\$ 13,880	\$ 20,329	\$ 28,815	\$ 22,000	\$ 22,550	\$ 23,114	\$ 23,692	\$ 24,284
Telephone	\$ 2,355	\$ 3,765	\$ 4,607	\$ 5,000	\$ 5,125	\$ 5,253	\$ 5,384	\$ 5,519
Property and Liability Insurance	\$ 9,066	\$ 12,374	\$ 16,155	\$ 17,000	\$ 17,425	\$ 17,861	\$ 18,307	\$ 18,765
Engineering	\$ -	\$ -	\$ -	\$ 2,000	\$ 2,050	\$ 2,101	\$ 2,154	\$ 2,208
Customer Accounting and Collection	\$ 53,477	\$ 105,000	\$ 105,000	\$ 105,000	\$ 107,625	\$ 110,316	\$ 113,074	\$ 115,900
Legal	\$ -	\$ -	\$ 5,291	\$ 2,000	\$ 2,050	\$ 2,101	\$ 2,154	\$ 2,208
Contractual Services - Laboratory	\$ 5,807	\$ 14,078	\$ 10,677	\$ 12,000	\$ 12,300	\$ 12,608	\$ 12,923	\$ 13,246
WRD Office/Lab Rental	\$ 32,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000
Contractual Services - Other	\$ 13,268	\$ 62,992	\$ 84,108	\$ 75,000	\$ 76,875	\$ 78,797	\$ 80,767	\$ 82,786
GIS	\$ 16,143	\$ 1,492	\$ 15,862	\$ 15,000	\$ 15,375	\$ 15,759	\$ 16,153	\$ 16,557
Transporatation	\$ 16,245	\$ 25,868	\$ 27,685	\$ 28,000	\$ 28,700	\$ 29,418	\$ 30,153	\$ 30,907
Uncollectable Accounts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Expense	\$ 3,376	\$ 5,762	\$ 16,838	\$ 10,000	\$ 10,250	\$ 10,506	\$ 10,769	\$ 11,038
Total	\$ 179,904	\$ 330,459	\$ 380,895	\$ 365,000	\$ 372,925	\$ 381,048	\$ 389,374	\$ 397,909
BASIC USER CHARGE								
PERSONNEL								
Salaries	\$ 212,050	\$ 390,500	\$ 462,796	\$ 470,000	\$ 481,750	\$ 493,794	\$ 506,139	\$ 518,792
Salaries Part Time	\$ 1,168	\$ 2,216	\$ 2,776	\$ 3,000	\$ 3,075	\$ 3,152	\$ 3,231	\$ 3,311
Salaries OT/Pager Pay	\$ 10,482	\$ 14,860	\$ 64,715	\$ 30,000	\$ 30,750	\$ 31,519	\$ 32,307	\$ 33,114
Social Security Taxes	\$ 18,009	\$ 28,657	\$ 36,522	\$ 38,000	\$ 38,950	\$ 39,924	\$ 40,922	\$ 41,945
Retirement	\$ 25,244	\$ 13,755	\$ 45,098	\$ 47,000	\$ 48,175	\$ 49,379	\$ 50,614	\$ 51,879
Health Insurance	\$ 37,950	\$ 67,883	\$ 81,489	\$ 85,000	\$ 90,950	\$ 97,317	\$ 104,129	\$ 111,418
Other Employee Benefits	\$ 3,755	\$ 6,522	\$ 13,805	\$ 15,000	\$ 15,375	\$ 15,759	\$ 16,153	\$ 16,557
Workmen's Compensation	\$ 7,116	\$ 11,080	\$ 8,257	\$ 10,000	\$ 10,250	\$ 10,506	\$ 10,769	\$ 11,038
CONTRACTUAL SERVICES - Purchase Power	\$ 179,960	\$ 248,228	\$ 253,453	\$ 260,000	\$ 266,500	\$ 273,163	\$ 279,992	\$ 286,991
SUPPLIES								
Chemicals	\$ 36,276	\$ 38,737	\$ 47,764	\$ 145,000	\$ 200,000	\$ 205,000	\$ 210,000	\$ 210,000
Materials & Supplies	\$ 70,408	\$ 121,111	\$ 300,068	\$ 130,000	\$ 133,250	\$ 136,581	\$ 139,996	\$ 143,496
TRANSFERS - GENERAL FUND	\$ 71,077	\$ 107,358	\$ 129,272	\$ 130,000	\$ 133,250	\$ 136,581	\$ 139,996	\$ 143,496
Total	\$ 673,495	\$ 1,050,907	\$ 1,446,015	\$ 1,363,000	\$ 1,452,275	\$ 1,492,675	\$ 1,534,246	\$ 1,572,038
EQUIPMENT REPLACEMENT	\$ -	\$ -	\$ -	\$ 133,400	\$ 133,400	\$ 133,400	\$ 133,400	\$ 133,400
NON-DEBT FUNDED PROJECTS	\$ 1,917,703	\$ 1,475,073	\$ 2,933,544	\$ 4,849,000	\$ 453,000	\$ 440,000	\$ 1,510,000	\$ 1,020,000
CAPITAL RECOVERY EXPENSE								
IEPA Revolving Fund Loan (Well No. 12/Tower)	\$ -	\$ 93,805	\$ 281,226	\$ 282,000	\$ 282,000	\$ 282,000	\$ 282,000	\$ 282,000
IEPA PWSRF Loan (Well No. 12 Radium Treatment)	\$ -	\$ -	\$ -	\$ 48,000	\$ 96,000	\$ 96,000	\$ 96,000	\$ 96,000
IEPA PWSRF Loan (Well No. 11 Radium Treatment)	\$ -	\$ -	\$ -	\$ 164,000	\$ 164,000	\$ 164,000	\$ 164,000	\$ 164,000
IEPA PWSRF Loan Loan (Well No. 8 Iron Treatment)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ 93,805	\$ 281,226	\$ 494,000	\$ 542,000	\$ 542,000	\$ 542,000	\$ 542,000
TOTAL EXPENDITURES	\$ 2,771,102	\$ 2,950,244	\$ 5,041,680	\$ 7,204,400	\$ 2,953,600	\$ 2,989,123	\$ 4,109,020	\$ 3,665,346
REVENUES								
WATER SALES								
Residential	\$ 636,508	\$ 944,370	\$ 936,976	\$ 1,167,451	\$ 1,327,085	\$ 1,387,706	\$ 1,459,176	\$ 1,531,080
Commercial	\$ 499,862	\$ 724,481	\$ 712,752	\$ 743,293	\$ 879,124	\$ 925,974	\$ 982,538	\$ 1,039,169
Industrial	\$ 538,686	\$ 768,930	\$ 862,719	\$ 950,988	\$ 970,913	\$ 977,639	\$ 985,804	\$ 993,970
Total	\$ 1,675,056	\$ 2,437,781	\$ 2,512,447	\$ 2,861,732	\$ 3,177,122	\$ 3,291,319	\$ 3,427,518	\$ 3,564,219
OTHER								
Water Tower Lease	\$ 56,715	\$ 87,825	\$ 91,254	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Fire Protection Fee	\$ 27,453	\$ 41,194	\$ 41,211	\$ 41,000	\$ 41,000	\$ 41,000	\$ 41,000	\$ 41,000
Miscellaneous	\$ 8,319	\$ 6,482	\$ 21,696	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
Penalties	\$ 23,104	\$ 34,426	\$ 23,845	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Interest Income	\$ 1,987	\$ 7,577	\$ 47,065	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Grants	\$ 1,290,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
IEPA Loan	\$ 242,688	\$ 263,595	\$ 2,862,583	\$ 2,850,000	\$ -	\$ -	\$ -	\$ -
Construction Contribution - Developers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Reserves	\$ -	\$ -	\$ -	\$ 1,450,000	\$ -	\$ -	\$ -	\$ -
Total	\$ 1,650,266	\$ 441,099	\$ 3,587,654	\$ 4,462,000	\$ 162,000	\$ 162,000	\$ 162,000	\$ 162,000
TOTAL REVENUES	\$ 3,325,322	\$ 2,878,880	\$ 6,100,101	\$ 7,323,732	\$ 3,339,122	\$ 3,453,319	\$ 3,589,518	\$ 3,726,219
NET INCOME/LOSS	\$ 554,220	\$ (71,364)	\$ 1,058,421	\$ 119,332	\$ 385,522	\$ 464,196	\$ (519,502)	\$ 60,873

RMU Water Division
Equipment Replacement Budget

	Total Cost	Schedule	Cost Per Year
WELL PUMPS			
Well #4 (Serviced in 2015)	\$ 110,000	8 Yrs	\$ 13,750
Well #8 (Serviced in 2000)	\$ 110,000	10 Yrs	\$ 11,000
Well #10 (Serviced in 2006)	\$ 110,000	8 Yrs	\$ 13,750
Well #11 (Serviced in 2015)	\$ 140,000	8 Yrs	\$ 17,500
Well #12 (New In 2016)	\$ 110,000	8 Yrs	\$ 13,750
Total	\$ 580,000		\$ 69,750
CHEMICAL FEED EQUIPMENT			
Well #4	\$ 25,000	10 Yrs	\$ 2,500
Well #8	\$ 25,000	10 Yrs	\$ 2,500
Well #10	\$ 25,000	10 Yrs	\$ 2,500
Well #11	\$ 25,000	10 Yrs	\$ 2,500
Well #12	\$ 25,000	10 Yrs	\$ 2,500
Total			\$ 12,500
Well #11 Filter Equipment			
Media	\$ 30,000	15 Yrs	\$ 2,000
Valve and Actuators	\$ 84,000	20 Yrs	\$ 4,200
Blower	\$ 20,000	20 Yrs	\$ 1,000
HMO Equipment	\$ 30,000	10 Yrs	\$ 3,000
Total			\$ 10,200
Well #12 Filter Equipment			
Media	\$ 30,000	15 Yrs	\$ 2,000
Valve and Actuators	\$ 84,000	20 Yrs	\$ 4,200
Blower	\$ 20,000	20 Yrs	\$ 1,000
HMO Equipment	\$ 30,000	10 Yrs	\$ 3,000
Total			\$ 10,200
VFD/Sine Wave Filter			
Well #4	\$ 35,000	20 Yrs	\$ 1,750
Well #8	\$ 35,000	20 Yrs	\$ 1,750
Well #10	\$ 35,000	20 Yrs	\$ 1,750
Well #11	\$ 35,000	20 Yrs	\$ 1,750
Well #12	\$ 35,000	20 Yrs	\$ 1,750
Total			\$ 8,750
WELL STANDBY POWER			
Portable Generator (Wells #8 and #10) (Purchased in 2007)	\$ 110,000	20 Yrs	\$ 5,500
Well #4 (New In 2020)	\$ 110,000	20 Yrs	\$ 5,500
Well #11 (New In 2018)	\$ 110,000	20 Yrs	\$ 5,500
Well #12 (New In 2015)	\$ 110,000	20 Yrs	\$ 5,500
Total	\$ 440,000		\$ 22,000
TOTAL EQUIPMENT REPLACEMENT			\$ 133,400

RMU Water Division
Non-Debt Funded Projects Budget

PROJECT	CALENDAR YEAR					
	2019	2020	2021	2022	2023	2024
WELL PUMPS						
Well #4	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
Well #8	\$ -	\$ 165,000	\$ -	\$ -	\$ -	\$ -
Well #10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Well #11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Well #12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WELL BUILDING/WATER TREATMENT						
SCADA Upgrade	\$ -	\$ -	\$ -	\$ -	\$ 35,000	\$ -
Arc Flash Study	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ -
Well #4	\$ -	\$ 1,216,000	\$ -	\$ -	\$ -	\$ -
Well #8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Well #10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Well #11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Well #12	\$ 230,000	\$ 2,850,000	\$ -	\$ -	\$ -	\$ -
ELEVATED WATER STORAGE TANKS						
Tank Inspections	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,000
Well #4	\$ -	\$ -	\$ -	\$ -	\$ 750,000	\$ -
Well #8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Well #11	\$ -	\$ -	\$ -	\$ 12,000	\$ -	\$ -
Well #12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WATER MAIN REPLACEMENT	\$ -	\$ 10,000	\$ 50,000	\$ 50,000	\$ 500,000	\$ 750,000
WATER TRANSMISSION MAINS						
IL Route 38 East Water Transmission Main	\$ -	\$ 85,000	\$ 85,000	\$ 85,000	\$ -	\$ -
REPLACEMENT ITEMS						
Distribution Meters	\$ 100,000	\$ 118,000	\$ 118,000	\$ 118,000	\$ 50,000	\$ 50,000
Water Maintenance Blanket	\$ 150,000	\$ 155,000	\$ 175,000	\$ 175,000	\$ 175,000	\$ 175,000
Main Repair 251/I-88	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -
VEHICLES AND EQUIPMENT						
Pickup Truck - 3/4 Ton (4 Each)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Dump Truck (2 Each)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Backhoe (2)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Skid Loader	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -
Construction Truck	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 505,000	\$ 4,849,000	\$ 453,000	\$ 440,000	\$ 1,510,000	\$ 1,020,000
OTHER FUNDING SOURCES	\$ 230,000	\$ 4,300,000	\$ -	\$ -	\$ -	\$ -
NON-DEBT FUNDED PROJECTS	\$ 275,000	\$ 549,000	\$ 453,000	\$ 440,000	\$ 1,510,000	\$ 1,020,000