



FY2023 PROPOSED BUDGET - WATER FUND

City of Newport, Department of Utilities Water Division (NWD)

History

- Before 1876, Newport's water supply came from a spring located at Spring and Touro Streets or private wells
- 1876 the City of Newport accepted a proposal of George H. Norman to construct a system at North Easton Pond
- 1881 Newport Water Works Company
- 1929 Newport Water Corporation
- 1936 the City of Newport took over ownership of the water system through eminent domain

Today

- The City of Newport, Department of Utilities, Water Division (NWD) owns and operates the system
- NWD is heavily regulated by the Rhode Island Department of Health (RIDOH), Rhode Island Public Utilities Commission (RIPUC), Rhode Island Department of Environmental Management (RIDEM), Coastal Resources Management Council (CRMC) with numerous overlapping regulations
- NWD serves customers in the City of Newport and the Towns of Middletown and Portsmouth.
- NWD wholesales water to the Portsmouth Water and Fire District and Newport Naval Station

City of Newport, Department of Utilities, Water Division (NWD)

Nine Surface Water NWD Reservoirs 3.8 Billion Gallons

- Watson Reservoir in Little Compton - 1,677 Million Gallons, 40% NWD Available Supply
 - RI Dam #485, Constructed 1960
- Lawton Valley Reservoir, Portsmouth – 422 Million Gallons
 - RI Dam # 395, Constructed 1943, Limited Reconstruction
- Nonquit Pond, Tiverton – 400 Million Gallons
 - RI Dam #396, Constructed Pre-1942
- South Pond, Newport & Middletown – 375 Million Gallons
 - RI Dam #585, Constructed 1876, Major Reconstruction 1938 and 2011
- Gardiner Pond, Middletown – 290 Million Gallons
 - RI Dam #583, Constructed Unknown, Major Reconstruction 1943 and 2021
- North Pond, Newport & Middletown – 278 Million Gallons
 - RI Dam #584, Constructed 1876, Major Reconstruction 1938
- St. Mary's Pond, Portsmouth – 189 Million Gallons
 - RI Dam #581, Constructed 1878, Major Reconstruction 1943 and 1965
- Sisson Pond, Portsmouth – 117 Million Gallons
 - RI Dam #580, Constructed 1900, Major Reconstruction 1943
- Paradise Pond, Middletown – 66 Million Gallons
 - RI Dam #582, Constructed 1885, Major Reconstruction 1975 and 2021

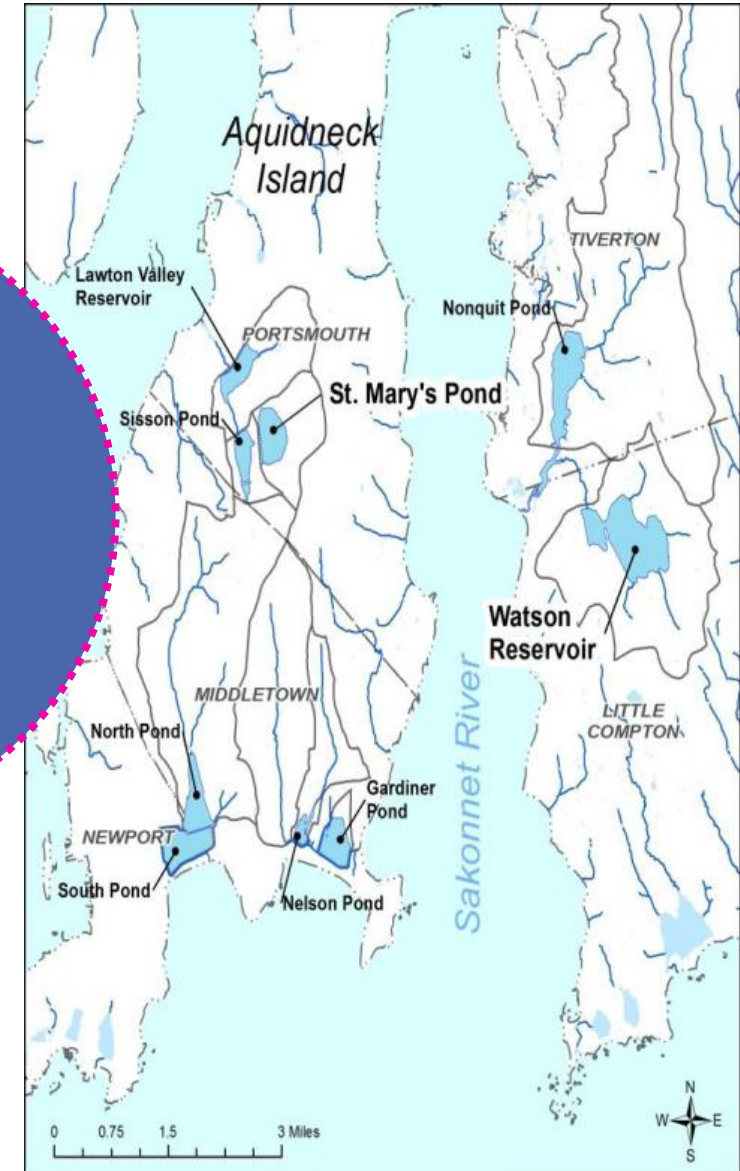
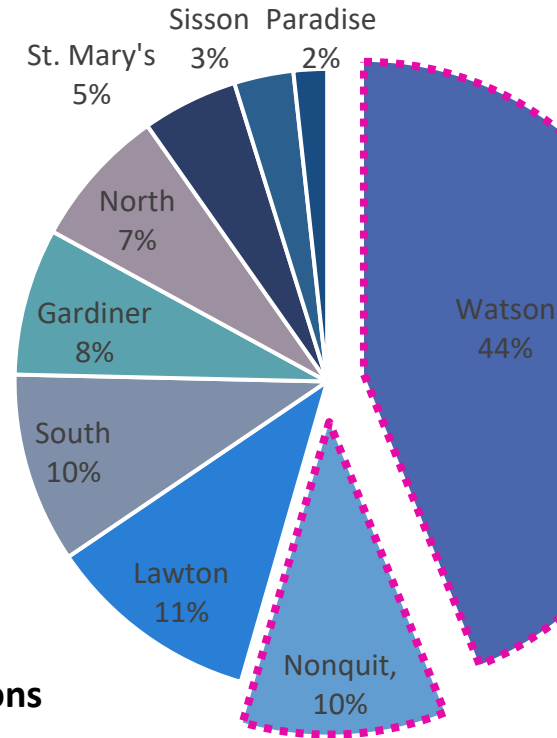
Providence Water, Scituate Reservoir 37 Billion Gallons

Two Treatment Plants: Lawton Valley (7 MGD) & Station No. 1 (9 MGD)

Five Water Storage Facilities

Nine Pump Stations – Five Raw Water & Four Finished Water

200 Miles of Distribution Piping



Water Distribution Supply Mains Underground Infrastructure

WATER MAIN TIME PERIOD & USEFUL LIFE

- 1800's – 1920's Iron
 - Typical Useful Life 100 years
- 1800's - 1960's Cast Iron
 - Typical Useful Life 65 years – Unlined
 - Typical Useful Life 120 years – Cement Lined
- 1940's -1970's Reinforced Concrete
 - Typical Useful Life 50 Years
- 1970's – Today Ductile Iron
 - Typical Useful Life 100 years
- 1990's – Today PVC
 - Typical Useful Life 75+ years

WATER MAIN FAILURE RATES

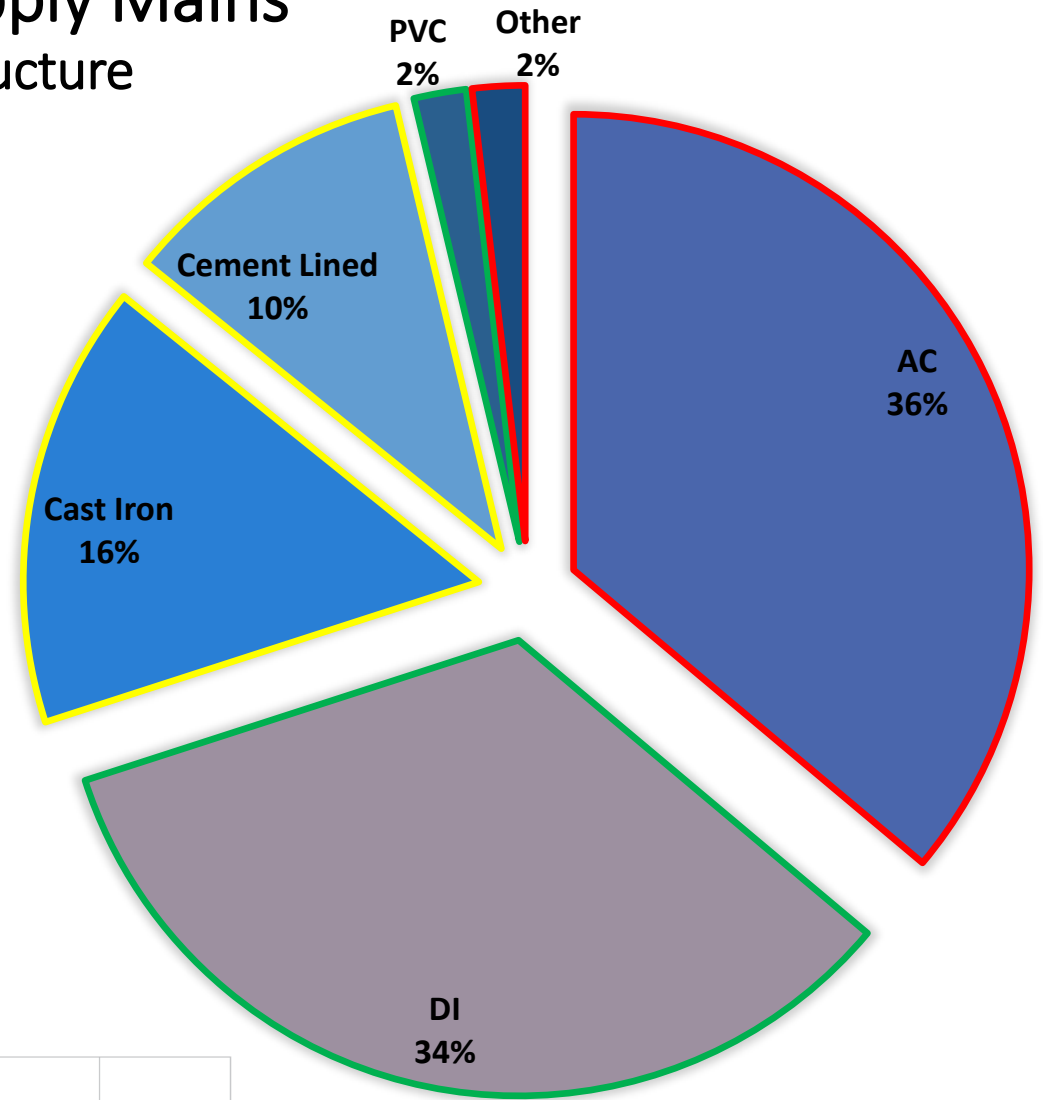
- Newport Failure Rates
 - 2017: 22 Main Breaks
 - 2018: 26 Main Breaks
 - 2019: 27 Main Breaks
 - 2020: 10 Main Breaks*
 - 2021: 18 Main Breaks*
 - * Less Construction and Traffic Due to Covid 19
- US Failure Rate 25-30 Per 100 Miles/ Year
 - (Grigg, 2007; Deb et al., 2002)
- AWWA Fully Optimized System Failure Rate 15 Per 100 Miles/ Year
 - (AWWA Partnership for Safe Water, 2011)

FAILURE VERSUS AGE

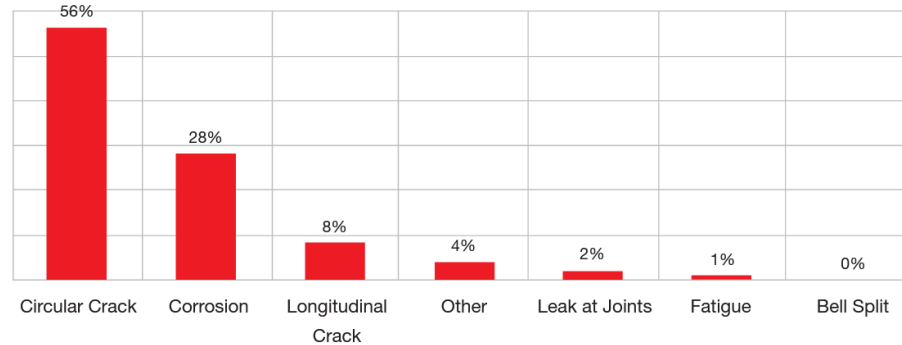
Reinforced Concrete Failures

- Installed 1960's - 60% *
- Installed 1970's - 28%
- Installed 1980's - 12%

*32% Increase Signals End of Useful Life



Common Failure Mode



**WATER FUND BUDGET
FY2023 PROPOSED
SUMMARY**

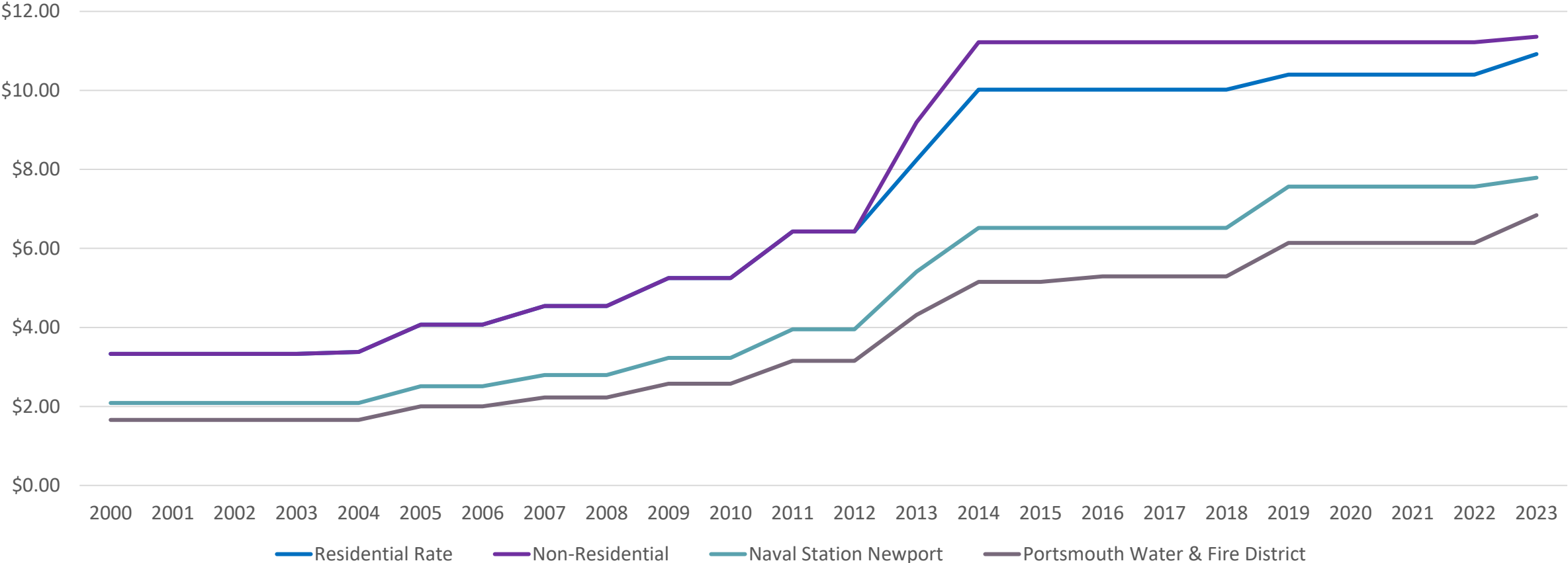
	2020-2021 ACTUAL	2021-2022 ADOPTED	2021-2022 PROJECTED	2022-2023 PROPOSED
EXPENDITURES				
Operating Expenditures	\$ 12,529,847	\$ 13,294,743	\$ 13,294,743	\$ 13,221,181
Interest Expense	2,416,628	2,280,890	2,280,890	2,148,247
Operating Expenditures	14,946,475	15,575,633	15,575,633	15,369,428
OTHER CASH OUTLAYS				
Capital Outlay	560,341	6,190,000	6,190,000	3,011,500
Principal Debt Repayment	4,200,123	4,753,028	4,753,028	4,882,330
Other Cash Outlays	4,760,464	10,943,028	10,943,028	7,893,830
TOTAL EXPENDITURES & CASH OUTLAYS	19,706,939	26,518,661	26,518,661	23,263,258
LESS: NON-CASH ITEMS				
Depreciation	3,145,363	2,850,000	2,850,000	2,850,000
TOTAL CASH NEEDED	\$16,561,576	\$23,668,661	\$23,668,661	\$20,413,258

DOCKET 4933 COMPLIANCE FILING – STEP TWO INCREASE COVID-19 CREDIT CARD FEE RECOVERY FILING

Docket 4933 RIPUC Approved multi-year rate plan pursuant to R.I.G.L. §39-15.1-4

- First phase (“Step One”) of the increase Fiscal Year 2020
 - Decreased Consumption
 - Operation & Maintenance Expenses
 - Cost-of-Service Based Rates (Implemented Gradually, Avoid Rate Shock)
- Second Phase (“Step Two”) Subject to Compliance Filing
 - Proposed Rates are 2% to 3% less than originally approved by the RIPUC
 - Deferred From Fiscal Year 2022 to 2023
 - Required Debt Service
- COVID 19 – Cost Recovery
 - RIPUC COVID-19 Orders - Credit & Debit Card Fee Cost Recovery
 - Proposed Rates Effective on July 1, 2022

Rate History



Proposed Rates FY 2023 – True Cost of Service Rates

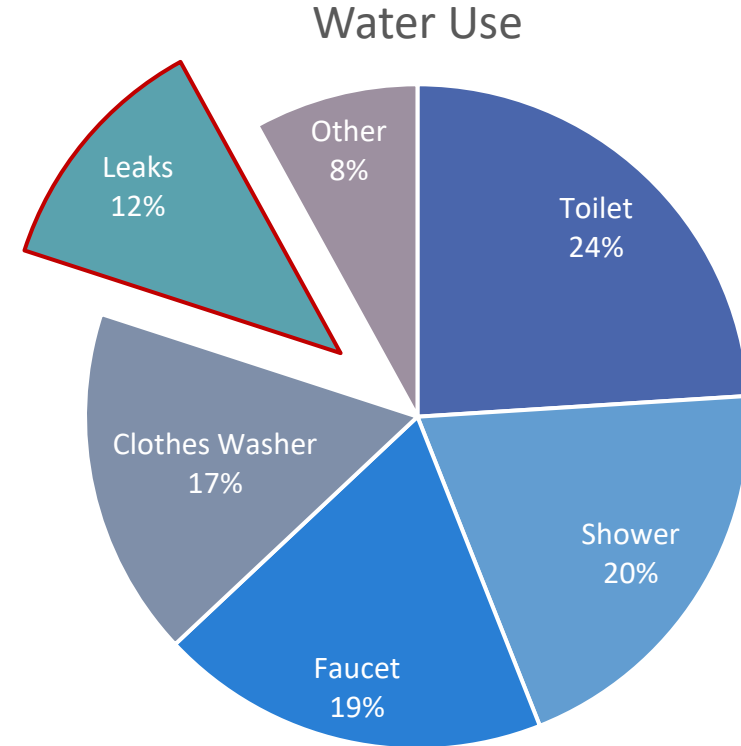
- Residential Rate: \$10.91 Per 1,000 gallons – 5% Increase
- Non- Residential Rate: \$11.36 Per 1,000 gallons – 1% Increase
- Portsmouth Water & Fire District Rate: \$6.8419 Per 1,000 gallons – 11% Increase (PWFD Bills In Addition to this Rate)
- Naval Station Newport Rate: \$7.7866 Per 1,000 gallons – 3% Increase

Residential Customer 4,100 Gallons Per Month Efficient Water Customer - 45 GPD

Customer Base Charge		= \$6.01
Water Charges	4.1000 x \$10.91 per 1,000 G	= \$44.73
WQP Charge	41.000 x \$.0292 per 100 G	= \$1.20
Monthly Water Bill		= \$51.94
Sewer Charge	4.1000 x \$19.80 per 1,000 G	= \$81.18
CSO Fixed Fee Charge		= \$16.00
Monthly Sewer Bill		= \$97.18
Monthly Bill Total		= \$149.12
Yearly Water Bill = \$623.28		
Yearly Sewer Bill = \$1,166.16		
Yearly Total = \$1,789.44		

Residential Customer 7,700 Gallons Per Month Average Water Customer - 85 GPD

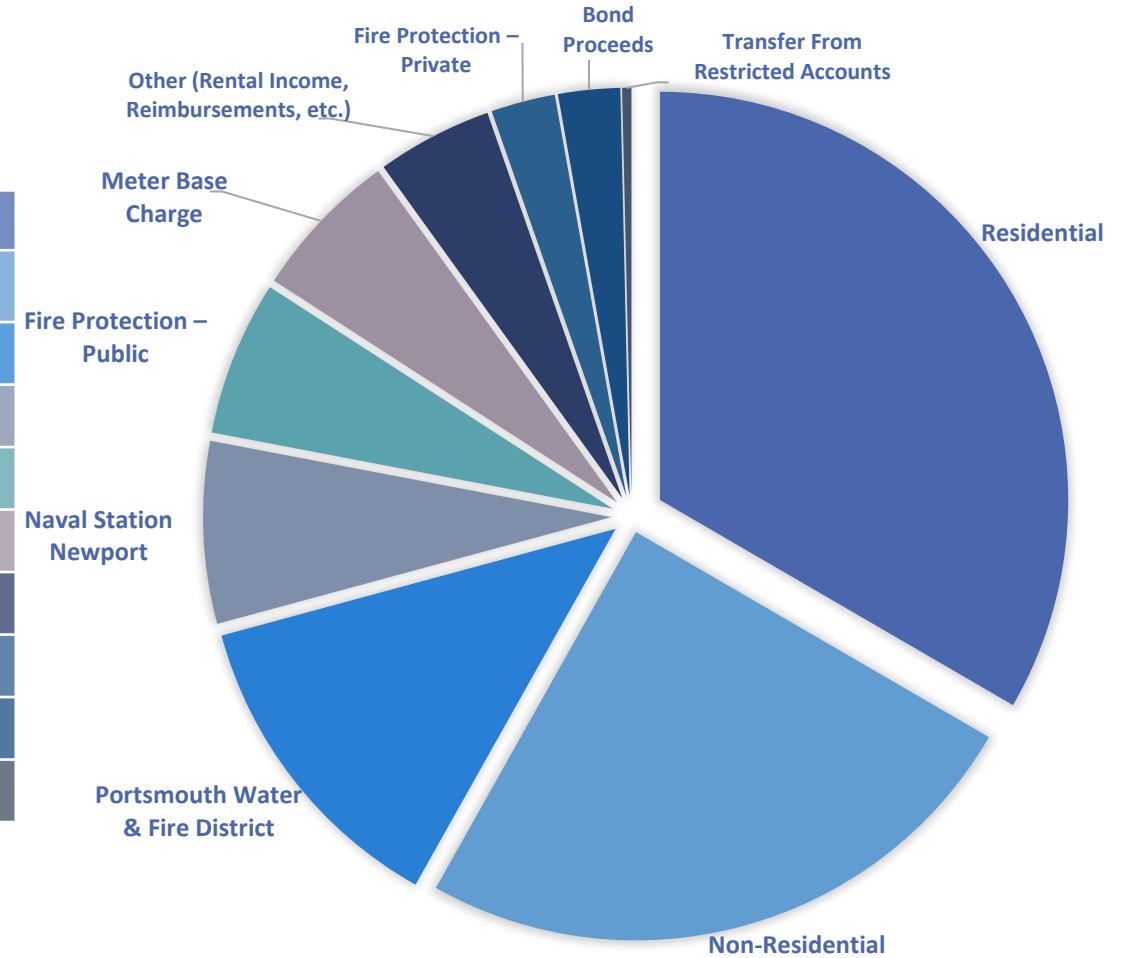
Customer Base Charge		= \$6.01
Water Charges	7.7000 x \$10.91 per 1,000 G	= \$84.01
WQP Charge	77.000 x \$.0292 per 100 G	= \$2.25
Monthly Water Bill		= \$92.27
Sewer Charge	7.7000 x \$19.80 per 1,000 G	= \$152.46
CSO Fixed Fee Charge		= \$16.00
Monthly Sewer Bill		= \$168.46
Monthly Bill Total		= \$260.73
Yearly Water Bill = \$1,107.24		
Yearly Sewer Bill = \$2,021.52		
Yearly Total = \$3,128.76		



FUNDING SOURCES BY CATEGORY

Where The Money Comes From

	Projected Revenue	
Residential	\$6,813,295	33.38%
Non-Residential	\$5,057,472	24.78%
Portsmouth Water & Fire District	\$2,579,396	12.64%
Naval Station Newport	\$1,470,908	7.21%
Fire Protection – Public	\$1,253,276	6.14%
Meter Base Charge	\$1,209,719	5.93%
Other (Rental Income, Reimbursements, etc.)	\$935,564	4.58%
Fire Protection – Private	\$519,172	2.54%
Bond Proceeds	\$500,000	2.45%
Transfer From Restricted Accounts	\$74,456	.35%
Total	\$20,413,258	

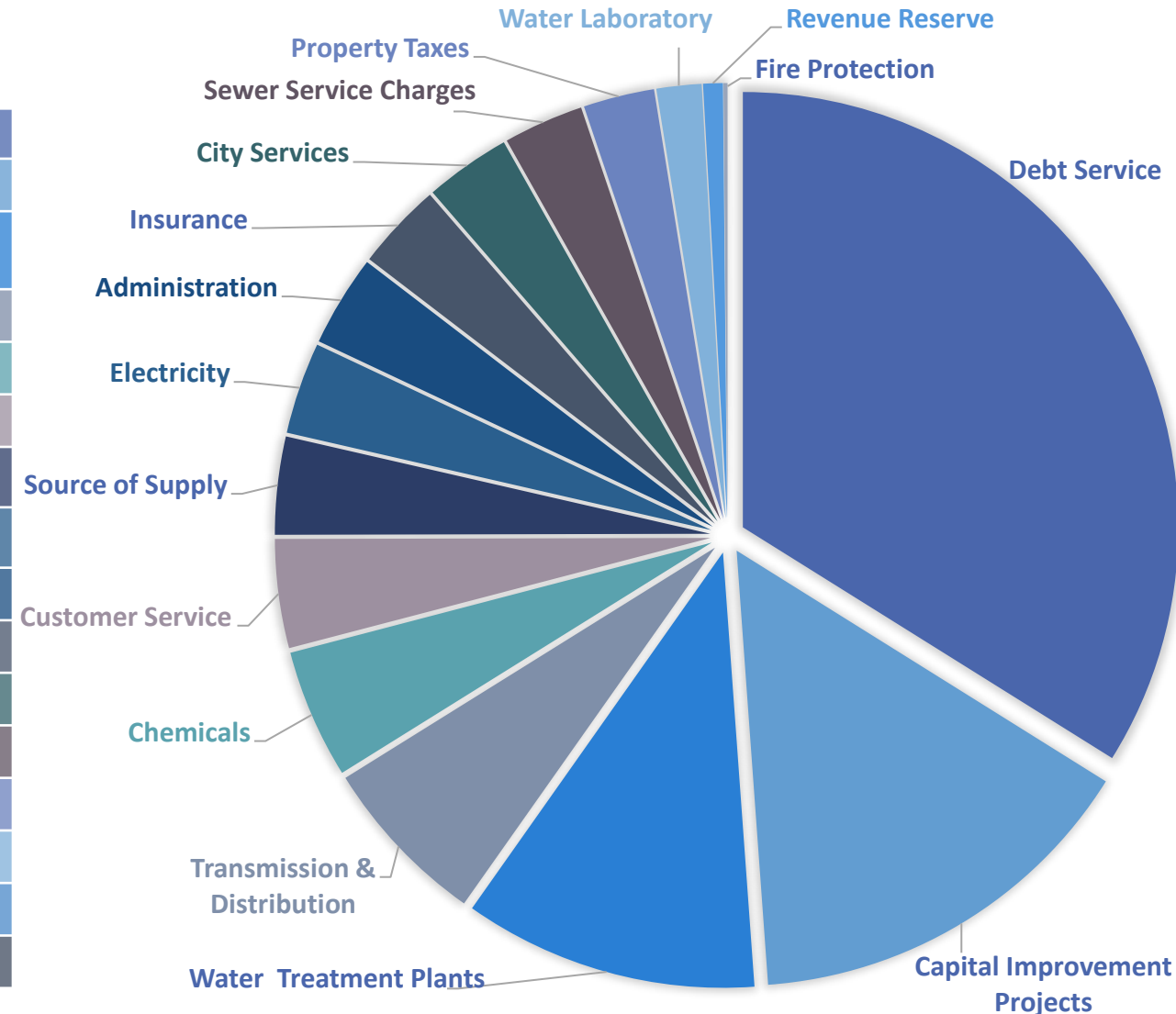


FUNDING USES BY CATEGORY

Where The Money Goes

Debt Service (Principal \$4,882,330, Interest \$2,148,247)	\$7,030,577	34.44%
Capital Improvement Projects	\$3,011,500	14.75%
Water Treatment (Station No. 1 \$1,192,865 LV \$1,074,253)	\$2,267,118	11.11%
Transmission & Distribution	\$1,176,596	5.76%
Chemicals	\$994,956	4.87%
Customer Service	\$814,565	3.99%
Source of Supply (9 - Reservoirs)	\$735,464	3.60%
Electricity	\$707,137	3.46%
Administration	\$705,210	3.45%
Insurance (Retiree, W/C, Fire & Liability, Etc.)	\$672,437	3.30%
City Services	\$661,699	3.24%
Sewer Service Charges	\$559,609	2.74%
Property Taxes	\$547,231	2.70%
Water Laboratory	\$346,289	1.70%
Revenue Reserve	\$151,570	.74%
Fire Protection – Hydrant Repairs & Maintenance	\$31,300	.15%

Total \$20,413,258



Revenue Shortfall = Deferred Capital Improvements