

**WAUWATOSA
WATER UTILITY**

2018 BUDGET

WAUWATOSA WATER UTILITY
2018 BUDGET
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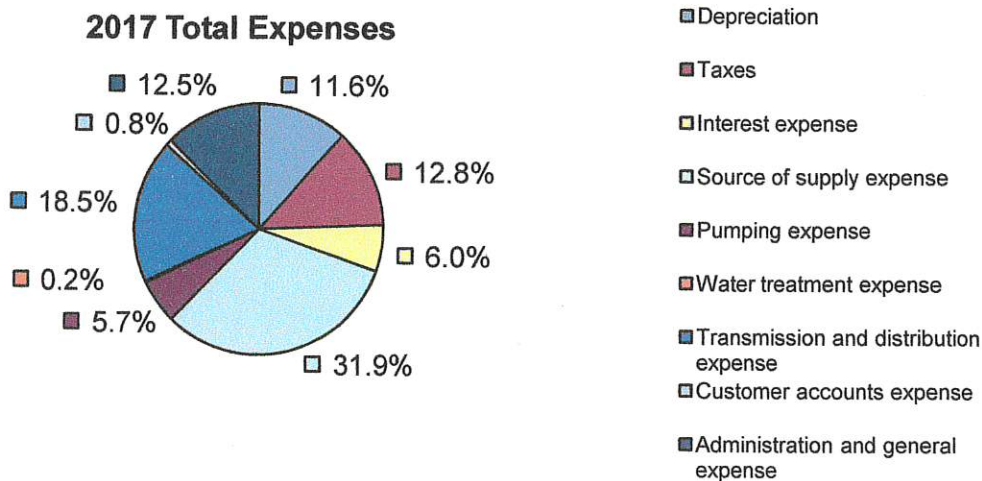
**WAUWATOSA WATER UTILITY
BUDGET SUMMARY**

	2015 Actual	2016 Actual	2017 Original	2017 Estimated	2018 Executive Review
Residential sales	3,756,578	3,917,867	4,629,000	4,447,000	4,643,000
Residential multi-family sales	501,441	539,570	599,000	630,000	635,000
Commercial sales	1,520,066	1,477,968	1,726,000	1,768,000	1,813,000
Industrial sales	270,368	344,078	321,000	339,000	392,000
Public authority sales	205,505	204,875	230,000	235,000	247,000
Total Metered Sales	6,253,958	6,484,358	7,505,000	7,419,000	7,730,000
Public fire protection	903,631	923,887	1,106,000	1,002,500	1,037,000
Other water revenues	472,051	505,522	488,114	484,895	499,958
Misc amortization	122,200	122,200	122,200	122,200	122,200
Interest income	4,309	9,752	8,000	24,800	24,600
Customer contributions	1,248,977	876,250	3,000	3,000	3,000
Total revenues	9,005,126	8,921,969	9,232,314	9,056,395	9,416,758
Depreciation	870,353	962,055	979,000	1,015,000	1,029,000
Taxes	914,415	1,056,743	1,081,876	1,067,287	1,096,463
Interest expense	440,736	559,726	502,463	597,786	552,292
Source of supply expense	2,525,796	2,590,453	2,692,360	2,625,360	2,703,360
Pumping expense	392,597	424,077	479,085	457,004	459,300
Water treatment expense	5,419	7,344	13,093	13,093	6,500
Transmission and distribution expense	1,355,971	1,309,223	1,581,481	1,503,729	1,660,823
Customer accounts expense	76,929	74,930	66,643	65,281	81,120
Administration and general expense	1,025,030	1,037,918	1,056,099	1,060,683	1,019,182
Total expenses	7,607,246	8,022,469	8,432,100	8,405,223	8,608,040
Net income (loss) - Accrual basis	1,397,880	899,500	800,214	651,172	808,718
Less -					
Revenue bond principal payments	625,000	650,000	900,000	900,000	850,000
Non-bonded capital expenditures	0	0	92,500	100,500	54,000
	772,880	249,500	-192,286	-349,328	-95,282
Adjustment for non-cash/non- income statement items	-3,097,079	2,934,619	38,018	1,084,514	535,390
Change in cash	-2,324,199	3,184,119	-154,268	735,186	440,108
Rate of return	2.20%	1.99%	4.53%	3.89%	4.23%
Coverage ratio	1.97	1.73	2.31	2.26	2.12
Average quarterly residential water bill	102.06	102.06	122.47	121.82	125.47
Amount change in quarterly water bill	2.91	0.00	20.41	19.76	3.65
Percent change in quarterly water bill	2.90%	0.00%	20.00%	19.36%	3.00%

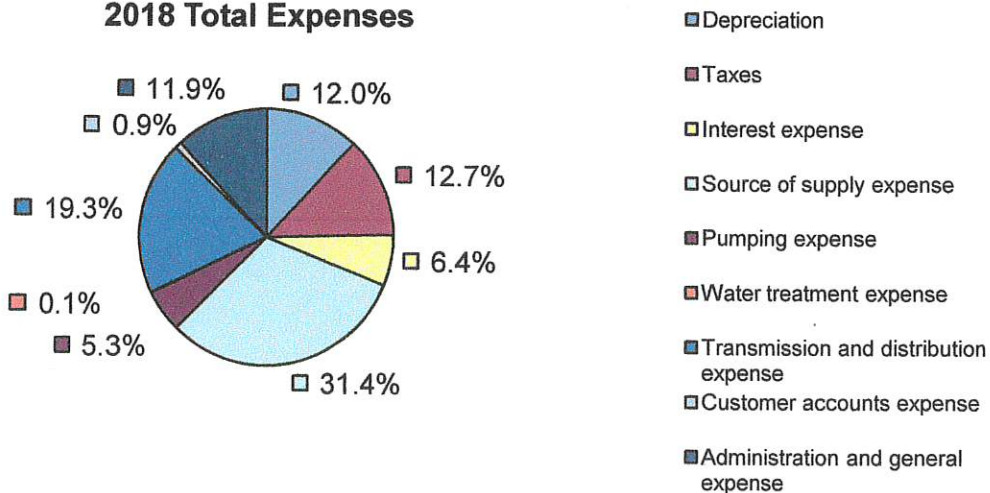
WAUWATOSA WATER UTILITY
OPERATING BUDGET SUMMARY

	Adopted 2017	2018	Percentage Change
Total revenues	9,232,314	9,416,758	
Depreciation	979,000	1,029,000	5.1%
Taxes	1,081,876	1,096,463	1.3%
Interest expense	502,463	552,292	9.9%
Source of supply expense	2,692,360	2,703,360	0.4%
Pumping expense	479,085	459,300	-4.1%
Water treatment expense	13,093	6,500	-50.4%
Transmission and distribution expense	1,561,481	1,660,823	6.4%
Customer accounts expense	66,643	81,120	21.7%
Administration and general expense	1,056,099	1,019,182	-3.5%
Total expenses	8,432,100	8,608,040	2.1%
Net income (loss)	800,214	808,718	

2017 Total Expenses



2018 Total Expenses



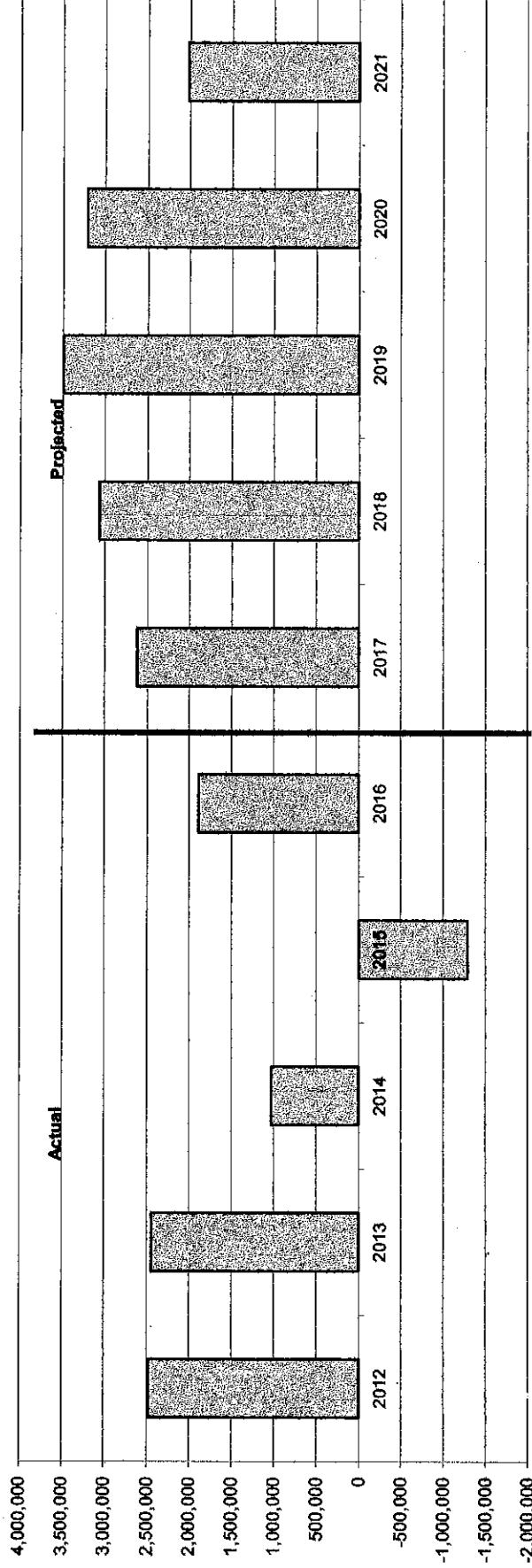
**WAUWATOSA WATER UTILITY
CASH SUMMARY**

	2015 Actual	2016 Actual	2017 Original	2017 Estimated	2018 Executive Review
General Cash					
Balance - beginning of year	1,509,776	-814,423	2,335,630	2,369,696	3,104,882
Balance - end of year	-814,423	2,369,696	2,181,362	3,104,882	3,544,990
Change in cash	<u>-2,324,199</u>	<u>3,184,119</u>	<u>-154,268</u>	<u>735,186</u>	<u>440,108</u>
Special Redemption Fund Cash					
Balance - beginning of year	1,953,750	1,968,200	2,516,964	2,516,964	2,434,798
Balance - end of year	1,968,200	2,516,964	2,434,796	2,434,796	2,426,627
Change in cash	<u>14,450</u>	<u>548,764</u>	<u>-82,168</u>	<u>-82,168</u>	<u>-8,169</u>
System Improvement Fund					
Balance - beginning of year	808,837	0	0	0	4,500,000
Balance - end of year	0	0	0	4,500,000	0
Change in cash	<u>-808,837</u>	<u>0</u>	<u>0</u>	<u>4,500,000</u>	<u>-4,500,000</u>
Total Cash					
Balance - beginning of year	4,272,363	1,153,777	4,852,594	4,886,660	10,039,678
Balance - end of year	1,153,777	4,886,660	4,616,158	10,039,678	5,971,617
Change in cash	<u>-3,118,586</u>	<u>3,732,883</u>	<u>-236,436</u>	<u>5,153,018</u>	<u>-4,068,061</u>
Non bonded capital projects funded by surplus					
	<u>0</u>	<u>0</u>	<u>92,500</u>	<u>100,500</u>	<u>54,000</u>

WAUWATOSA WATER UTILITY
Surplus Fund Analysis

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Balance - beginning of year	2,076,462	2,481,090	2,447,446	1,029,776	-1,294,423	1,889,696	2,624,882	3,064,990	3,497,846	3,212,454
Balance - end of year	2,481,090	2,447,446	1,029,776	-1,294,423	1,889,696	2,624,882	3,064,990	3,497,846	3,212,454	2,023,058
Change in surplus	404,628	-33,644	-1,417,670	-2,324,199	3,184,119	735,186	440,108	432,856	-285,392	-1,189,396

WAUWATOSA WATER UTILITY - SURPLUS FUND ANALYSIS



2014 includes painting of Glenview water tower - 1,253,019
 2015 includes contract payments which were reimbursed with 2016 bond funds
 2020 includes painting of Potter Rd tank - 650,000
 2021 includes painting of Burleigh tank - 1,650,000

ACCOUNT: 403, 426 Depreciation Expense

MISSION: To depreciate utility plant over service lives established by the Public Service Commission of Wisconsin.

COMMENTARY: During 2018, the utility plans to replace aged water mains associated with the Village Redevelopment Phase III and City Hall South.

Utility plant is depreciated under the straight line method at rates established by the Public Service Commission of Wisconsin.

Service lives are as follows:

Buildings and Improvements 31 Years

Improvements Other Than Buildings

Utility Distribution System 18 to 77 years

Machinery and Equipment 4 to 23 years

Water Main Improvements

Year	Utility Funded	CDBG Funded	Privately Funded	TIF	Total
2017 est	2,126,000	0	0	516,000	2,642,000
2016	938,077	0	205,468	881,697	2,025,242
2015	2,657,160	0	1,853,228	1,648,674	6,159,062
2014	524,378	0	270,980	21,827	817,185
2013	1,516,198	0	12,650	2,010,666	3,539,514
2012	2,520,837	140,704	199,672	583,888	3,445,101
2011	1,635,696	123,121	414,510	1,112,286	3,285,613
2010	1,259,294	83,683	101,681	153,930	1,598,588
2009	210,842	103,274	308,534	52,716	675,366
2008	<u>132,444</u>	<u>105,157</u>	<u>0</u>	<u>186,126</u>	<u>423,727</u>
	13,520,926	555,939	3,366,723	7,167,810	24,611,398

WATER DEPARTMENT - DEPRECIATION EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
654,702	735,841	403 Depreciation Depreciation - Utility financed plant	751,000	787,000	799,000	6.4%
215,651	226,214	426 Depreciation Depreciation - contributed plant	228,000	228,000	230,000	0.9%
<hr/> 870,353	<hr/> 962,055	Total Depreciation	<hr/> 979,000	<hr/> 1,015,000	<hr/> 1,029,000	<hr/> 5.1%

ACCOUNT: 408 Taxes

COMMENTARY: Taxes are comprised of the tax equivalent (408-2), remainder assessment (408-3), and social security taxes on employee's wages (408-1).

The tax equivalent is a charge paid to the City which is calculated using the current year assessment ratio and tax rate and applying that to the total value of utility plant, construction work in progress and inventory of materials and supplies as of January 1. Per State of Wisconsin Assembly Bill 150, the tax equivalent shall not be less than the amount calculated in 1994 and paid in 1995. The minimum amount paid to the City is \$491,637. Beginning in 2007 the calculated amount exceeded the minimum. The expense for 2016 was \$987,755. The estimate for 2018 is \$1,014,800.

The remainder assessment is a charge based on annual revenue, which is levied on all utilities to help fund the Public Service Commission of Wisconsin. The negative amounts in account 408-1 represents reimbursement of social security taxes applicable to wages charged to meter expense accounts. The negative amounts in account 408-2 represents reimbursement of the tax equivalent applicable to meter utility plant.

WATER DEPARTMENT - TAXES

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
		408-1 Social security taxes				
89,270	90,484	FICA taxes	101,376	101,376	102,937	1.5%
-10,538	-10,134	Charge to sanitary sewer	-10,000	-10,000	-10,000	0.0%
		408-2 Tax equivalent				
848,899	987,755	Tax equivalent	1,001,700	986,600	1,014,800	1.3%
-19,798	-19,038	Charge to sanitary sewer	-19,000	-19,000	-20,000	5.3%
		408-3 Remainder assessment				
<u>6,582</u>	<u>7,676</u>	PSC assessment	<u>7,800</u>	<u>8,311</u>	<u>8,726</u>	<u>11.9%</u>
914,415	1,056,743	Total Taxes	1,081,876	1,067,287	1,096,463	1.3%

ACCOUNT: 427, 428 Interest Expense

COMMENTARY: The Utility has \$15,500,000 in Waterworks System Revenue Bonds outstanding at 12-31-17. Interest expense (427) represents interest accrued on those bonds outstanding. Amortization expense (428) represents current year bond issuance expenses. Amortization expense (429) represents amortization of bond premium on the 2010, 2011, and 2016 bond issues and is amortized over the life of the debt.

In 2018, interest expense decreases 7.6% or \$45,494.

<u>Type</u>	<u>Date of Loan</u>	<u>Interest Rate</u>	<u>Principal Payable</u>	<u>Interest Payable</u>	<u>Original Amount</u>	<u>Balance 12/31/2017</u>
Waterworks System Revenue Bonds	10/5/10	3.0-4.0	1/1/11-29	1/1&7/1	7,750,000	6,175,000
	11/29/11	2.0-3.0	1/1/13-22	1/1&7/1	2,400,000	1,325,000
	11/19/13	3.0-4.125	1/1/15-34	1/1&7/1	4,575,000	4,000,000
	6/21/16	2.0-3.0	1/1/17-36	1/1&7/1	4,225,000	4,000,000
		1.25-3.25	1/1/19-37	1/1&7/1	3,000,000	<u>3,000,000</u>
						18,500,000
Less: Current portion of long-term debt						<u>850,000</u>
						<u>17,650,000</u>

WATER DEPARTMENT - INTEREST EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
		427 Interest expense				
440,300	483,068	Interest on outstanding bonds	514,269	526,592	563,832	9.6%
11,329	10,571	Interest on G O refunding debt	9,678	9,678	8,672	-10.4%
		428 Amortization expense				
0	82,879	Bond discount and expense	0	83,000	0	
		429 Amortization expense				
-10,893	-16,792	Amortization of bond premium	-21,484	-21,484	-20,212	-5.9%
440,736	559,726	Total Interest Expense	502,463	597,786	552,292	9.9%

ACCOUNT: 600 Source of Supply Expense

MISSION: Purchase high quality treated surface water from a dependable supplier that can be distributed to our customers in ample amounts that satisfy residential, industrial, and commercial demands in addition to providing adequate fire protection for the City of Wauwatosa.

PROGRAM NARRATIVE: The primary expenditure is the purchase of water directly from the Milwaukee Water Works (602). The utility also reimburses the County for our residents that are serviced via the County's water main.

COMMENTARY: 2018 estimated purchased water consumption is 1,683,000 thousand gallons. This amount reflects the downward trend in residential and industrial consumption over the last few years.

Year	Gallons Purchased (in thousands)	Cost	Non-Revenue Water
2017 est.	1,662,834	\$2,625,000	15%
2016	1,699,620	2,590,063	17%
2015	1,670,858	2,525,487	16%
2014	1,632,805	2,226,667	16%
2013	1,634,919	2,126,335	11%

Effect on average quarterly residential water bill

November 2016 Wauwatosa conventional rate increase of 19.4%

June 2015 Wauwatosa simplified rate increase of 2.9 %

November 2014 Pass through Milwaukee conventional rate increase of 2.8%

June 2014 Pass through Milwaukee simplified rate increase of 0.8%

June 2013 Pass through Milwaukee simplified rate increase of 0.9%

March 2013 Wauwatosa conventional rate increase of 19.7%

WATER DEPARTMENT - SOURCE OF SUPPLY EXPENSE

2015 Actual	2018 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
		602 Purchased water				
2,525,487	2,590,063	Purchased water from Milwaukee	2,692,000	2,625,000	2,703,000	0.4%
		603 Misc expense				
<u>309</u>	<u>390</u>	Electricity	<u>360</u>	<u>360</u>	<u>360</u>	<u>0.0%</u>
2,525,796	2,590,453	Total Source of Supply Expense	2,692,360	2,625,360	2,703,360	0.4%

ACCOUNT: 620, 630 Pumping Expense

MISSION: Develop water pumping schemes, maintain surplus capacities and select the most cost efficient ways to distribute water throughout the entire city twenty-four hours a day, seven days a week to meet the demands of our customers. Maintain attractive and structurally sound water facilities and grounds.

PROGRAMS: Supervisory Control and Data Acquisition (SCADA) system operations (624), water pumping stations operational and maintenance issues (626, 631), generator power availability (621, 632).

PROGRAM NARRATIVE: The SCADA system facilitates automatic monitoring and control of the operations of the water system's remote facilities. This cost effective control system allows the utility to reduce our labor expense while automatically operating the system.

PERSONNEL:

<u>Position Title</u>	<u>2017 FTE</u>	<u>2018 FTE</u>
Control Systems Technician	1	1
Operator Technician	2	2

PERFORMANCE INDICATORS:

- Ability to deliver an adequate supply of water to meet the needs of our customers
- Generators are tested monthly and operational for use during electrical outages
- Well maintained grounds

COMMENTARY: The City currently operates four water pumping stations throughout the City in order to distribute drinking water at appropriate pressures throughout the City. All four stations have been evaluated in 2017 in order to determine what electrical and mechanical improvements or replacements are needed at this time. Much of the electrical equipment is original to the stations, which were built in 1964-65. Generators have been added to two of the stations, however, both are well past their useful life and we are in need of a generator at one of the remaining sites. Costs include Motor Control Center Replacements, Transformer Replacements, Generator Replacements or additions, and the addition of Variable Frequency Drives at all three major stations. Pumps and motors are in need of replacement or rehabilitation at all stations as well. Costs are broken down as follows and include a 30% design, administration, and contingency: 64th Street Station- \$1,001,500, Blanchard Street Station- \$741,600, Potter Road Station- \$917,750, Glenview- \$19,500. (all based on Ruekert & Mielke report, June 2017)

WATER DEPARTMENT - PUMPING EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
392	962	621 Fuel Fuel for mobil generators	900	900	900	0.0%
130,527	121,299	623 Power purchased Electricity	145,688	145,688	148,000	1.6%
180,145	174,968	624 Pumping labor & exp Wages	195,896	195,896	205,051	4.7%
6,398	13,957	Overtime	7,300	7,300	7,401	1.4%
11,217	10,459	Equipment rent	10,941	10,860	14,107	28.9%
463	1,450	Telephone	940	940	940	0.0%
7,873	7,422	Heat	14,255	14,255	12,000	-15.8%
176	881	Supplies	1,100	1,100	1,100	0.0%
3,194	3,610	626 Misc expense Lawn mowing	3,095	3,095	3,938	27.2%
2,630	2,924	Storm water charges	3,320	3,320	3,513	5.8%
3,390	4,727	631 Maint of pump buildings Contract labor and materials	4,500	4,500	4,500	0.0%
5,850	5,540	Supplies	8,700	8,700	8,700	0.0%
0	9,685	Metal door and frame replacements (4)	0	0	0	
6,052	9,629	632 Maint of power prod eq Contract labor and materials	8,150	8,150	8,150	0.0%
0	0	N 64th St Transfer Switch	22,000	0	0	-100.0%
4,615	3,410	633 Maint of pumping equip Contract labor and materials	17,800	17,800	6,000	-66.3%
24,980	0	Blanchard - DeZurik valve replacements	0	0	0	
0	44,940	Potter - pump repairs	0	0	0	
0	0	Valve replacements	32,000	32,000	30,000	-6.3%
4,695	8,214	Supplies	2,500	2,500	5,000	100.0%
392,597	424,077	Total Pumping Expense	479,085	457,004	459,300	-4.1%

ACCOUNT: 640 Water Treatment Expense

MISSION: To remain in compliance with the rules and regulations as established by the United States Environmental Protection Agency (EPA) and the Wisconsin Department of Natural Resources (DNR).

PROGRAMS: Annually publish the Consumer Confidence Report, monthly water samples. Establish a baseline of water quality purchased through the use of on-line monitoring panels at our pumping stations.

PROGRAM NARRATIVE: The EPA requires each water provider publish and distribute a Consumer Confidence Report annually (643).

PERFORMANCE INDICATORS:

- Publish and distribute the Consumer Confidence Report before July 1, 2018.
- Establish baseline water quality data for supply entering the pumping stations through the use of water distribution monitoring panels.
- Lead and Copper testing in compliance with EPA requirements.

COMMENTARY: During 2018, the Water Utility will continue to monitor water quality by performing required monthly bacteriological samples throughout the water distribution system.

WATER DEPARTMENT - WATER TREATMENT EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
		643 Misc water treatment exp				
0	0	Water sample testing	6,500	6,500	0	-100.0%
943	233	Publish & distribute water quality report	1,500	1,500	1,500	0.0%
4,476	4,749	Distribution monitor panels	5,093	5,093	5,000	-1.8%
0	2,362	ph probes (3)	0	0	0	
<hr/>	<hr/>		<hr/>	<hr/>	<hr/>	<hr/>
5,419	7,344	Total Water Treatment Expense	13,093	13,093	6,500	-50.4%

ACCOUNT: 660, 670 Transmission & Distribution Expense

MISSION: Supply our customers with an adequate volume of high quality water. Ensure our water quality is safe for consumption. Repair and maintain the utility's water distribution system and water storage facilities with minimal interruption of services. Accurately meter and document water usage by our customers in accordance with the Public Service Commission guidelines.

PROGRAMS: Preventative maintenance prior to paving, repair broken water mains, gate valve maintenance, repair service laterals and curb stops, Digger's Hotline marking, meter services, meter testing and repair, distribution system records, water storage facilities maintenance, conduct hydrant inspections, repair or replace defective fire hydrants, hydrant painting, seasonal hydrant flushing, leak survey and other construction related activities. Our Operator Technicians collect over fifty water samples each month as mandated by the DNR for bacteriological testing.

PROGRAM NARRATIVE: The Water Maintenance staff provides valuable services to maintain the integrity of the water distribution system. The staff develops expertise in repairs and maintenance of the water distribution system when responding to broken water mains (673), service lateral failures (675), and fire hydrant maintenance (677).

Our clerical staff schedules appointments for the Meter Service staff to upgrade and exchange water meters with our new Advanced Metering Infrastructure (AMI) technology. Our water meter testing program remains in compliance with the PSC standard guidelines.

The Utility preventative maintenance program evolves around the City's annual street paving and sealing program. Leak surveying (662) identifies existing non-surfacing water leaks so repairs can be made prior to the start of paving. Standard practices include having our Water Maintenance staff locate, mark and make operable all water main valves, hydrant valves, fire hydrants and service line valves to insure they are available for emergency use prior to paving.

PERSONNEL:

<u>Position Title</u>	<u>2017 FTE</u>	<u>2018 FTE</u>
Water Maintenance Worker	7	7
Water Maintenance II	2	2
Meter Service Person	2	1
Meter Repair Person	1	1
Seasonal Laborer	.38	.38

PERFORMANCE INDICATORS:

- Repair and maintain water distribution system in a timely manner to ensure system reliability for our customers
- Preventative maintenance completed prior to paving
- Fire hydrant inspections on a two year cycle per DNR regulations
- Gate valve operations once every five years per DNR regulations
- Meter testing program compliance with PSC guidelines
- Dead end hydrant flushing program meeting DNR recommendations
- 100% compliance with the EPA and DNR requirements for water sampling

WATER DEPARTMENT - TRANSMISSION & DISTRIBUTION EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
3,600	3,621	661 Storage facilities exp				
		Operate aviation lights on Burleigh and Feerick tanks and electric heaters in valve vaults	4,424	4,424	4,000	-9.6%
		662 Trans & dist line exp				
50,125	14,581	Wages	95,950	95,950	39,000	-59.4%
531	242	Overtime	3,369	3,369	3,417	1.4%
2,964	2,887	Equipment rent	3,530	3,344	3,381	-4.2%
7,964	8,412	Supplies	5,675	5,675	8,000	41.0%
4,490	1,911	Electricity	1,760	1,760	1,760	0.0%
1,537	1,625	Water sample tests	9,500	9,500	9,500	0.0%
16,786	5,601	GRAEF modeling	5,000	5,000	5,000	0.0%
2,003	3,056	GIS field internet access/phone	2,250	2,250	5,000	122.2%
2,057	3,374	Diggers hotline expense	9,040	9,040	10,000	10.6%
		663 Meter expense				
60,372	63,849	Wages	58,880	58,880	63,284	7.5%
13,690	16,074	Equipment rent	13,959	15,081	17,983	28.8%
13,062	18,983	Contract large meter testing	17,000	17,000	17,340	2.0%
5,902	0	Supplies	5,000	5,000	5,000	0.0%
-46,513	-49,453	Charge to sanitary sewer	-47,420	-47,981	-51,804	9.2%
		664 Customer installation exp				
1,823	2,042	Equipment rent	1,726	1,821	1,830	6.0%
0	0	Supplies	160	160	100	-37.5%
10,405	0	Contract services - cross connection	14,500	34,500	14,500	0.0%
		665 Misc expense				
0	1,627	Wages	4,000	4,000	38,923	873.1%
3,000	4,429	GIS	3,000	3,000	3,000	0.0%
		666 Rent - public works				
17,172	14,861	Rent	14,935	14,935	15,757	5.5%
		672 Reservoir maintenance				
2,200	2,300	Cathodic protection	5,225	5,225	5,330	2.0%
8,659	16,338	Reservoir maintenance	19,000	19,000	19,000	0.0%
		Amortization of painting -				
251,418	251,161	Glenview tank	252,000	252,000	252,000	0.0%
		Tank inspections -				
2,800	0	N 64th Street	0	0	0	
0	3,000	Alice Street	0	0	0	
0	0	Feerick elevated tower	9,000	0	9,000	0.0%
0	0	Potter Rd	3,000	3,050	0	-100.0%
0	0	County elevated tower	0	2,825	0	
0	0	Burleigh elevated tower	0	0	3,450	
0	4,500	Potter Rd - power wash exterior	0	0	0	
0	0	Alice St - power wash exterior	0	0	6,000	

ACCOUNT: 660, 670 Transmission & Distribution Expense (continued)

Account	Description	Unit	2013	2014	2015	2016
	Water main - total system	Feet	1,069,258	1,070,228	1,073,811	1,074,644
	Water main - replaced	Feet	7,450	0	7,925	6,608
	Water main - new	Feet	9,711	970	3,511	0
673	Water main breaks*	Each	77	147	63	42
673	Valves repaired	Each	19	15	10	10
673	Valves replaced	Each	6	9	9	5
675	Water service repairs	Each	24	27	30	47
677	Fire hydrants - total	Each	2,163	2,166	2,192	2,197
677	Fire hydrants - replaced	Each	7	6	9	18
677	Fire hydrants - repaired	Each	38	24	14	46
677	Fire hydrants - flushed	Each	294	264	264	265
	Water service laterals	Each	15,513	15,515	15,514	15,507
	Read-o-Matic registers	Each	11,322	8,387	4,726	1,777
	Orion radio read registers	Each	4,112	6,848	10,694	13,732
663/676	Service calls	Each	3,298	4,897	5,491	4,649

* Ten year average annual water main breaks - 84

COMMENTARY: The Utility's preventative maintenance program continues to focus on compliance with the DNR's "Requirements for the Operation and Design of Community Water Systems" related to fire hydrant inspections once every two years and the operations of distribution valves once every five years. The Utility remains committed to performing leak surveys where the utility reduces the amount of unaccounted for water lost through broken water mains, defective service laterals, leaking valves and fire hydrants that may be leaking prior to street restorations. Dead end hydrant flushing is performed in spring and fall each year.

The utility's use of the Read-o-Matic registers improved the meter reading efficiency but as these units age, labor expenses increase and utility revenue declines may be attributed to inaccurate readings. Badger Meter has discontinued production of our existing ROM's thereby forcing Water Utilities to commit to automated meter infrastructure (AMI). Through July 31st, the Utility has installed 14,848 Badger Meter Orion SE endpoints as part of our upgrade program.

The fifth year amortization of the Glenview Ave tank painting is included in next year's expenses. Water utility staff continued marking the City's sewer mains as part of the Digger's Hotline program.

Lead within the City's water system continues to be a concern and the 2018 budget will allow staff to implement a policy that deals with lead laterals during maintenance activities as well as continuing to replace lead laterals during water main relay work. Lead laterals have the greatest risk of leaching into water during and shortly after construction activities disturb them. Because of this the City will now be replacing the entire City owned portion of a lead lateral if a leak occurs instead of just repairing the leak. In conjunction with these replacements we will educate the homeowner and provide information relating to how they can replace their portion of the lead lateral if they wish. Research has shown that most lead laterals will stabilize to their preconstruction condition within sixty days of construction activities so staff has been and will continue to offer lead filtering pitchers free of charge to homes that have had the public side of the lateral replaced. Full replacement of lead laterals when leaks are detected will increase our expenditures within the Service Maintenance Budget therefore the Contract Labor and Materials line item has increased to \$80,000 for 2018.

WATER DEPARTMENT - TRANSMISSION & DISTRIBUTION EXPENSE (continued)

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
673 Main maintenance						
262,786	260,803	Wages	219,865	219,865	271,761	23.6%
40,868	48,281	Overtime	71,616	71,616	72,619	1.4%
63,039	65,789	Labor - other departments	83,274	83,274	92,093	10.6%
107,390	99,776	Equipment rent	122,091	121,866	127,744	4.6%
82,947	61,297	Materials	82,682	82,682	83,000	0.4%
1,038	2,041	Lawn repairs	2,000	2,000	2,000	0.0%
22,156	27,738	Gravel & stone	39,000	31,000	39,000	0.0%
106,870	24,428	Contract labor and materials	60,400	52,400	60,000	-0.7%
30,479	45,115	Pavement materials	52,000	32,000	52,000	0.0%
5,832	0	Paving contractors	40,848	10,848	40,000	-2.1%
0	0	Equipment and tools (see detail) STIHL Cutquik cut-off machine	1,050	864	0	-100.0%
675 Services maintenance						
20,743	47,115	Wages	48,480	48,480	53,000	9.3%
3,696	2,303	Overtime	2,915	2,915	2,956	1.4%
13,122	11,441	Equipment rent	12,519	12,464	12,640	1.0%
26,074	80,558	Contract labor and materials	30,826	30,826	80,000	159.5%
18,061	7,570	Materials	19,600	19,600	20,000	2.0%
588	-1,004	Paving contractors	9,500	9,500	9,500	0.0%
0	0	Equipment and tools Metrotech line locator	3,490	0	3,490	0.0%
676 Meter maintenance						
113,111	107,500	Wages	97,162	97,162	71,123	-26.8%
4,259	1,479	Overtime	1,150	1,150	1,166	1.4%
200	200	Clothing allowance	100	200	200	100.0%
4,955	5,230	Equipment rent	5,470	5,684	5,793	5.9%
9,958	7,821	Supplies	7,900	7,900	8,058	2.0%
0	0	Equipment and tools Supplemental tools	500	0	500	0.0%
-66,242	-61,115	Charge to sanitary sewer	-56,141	-56,048	-43,420	-22.7%
677 Hydrant maintenance						
13,198	20,905	Wages	54,077	54,077	38,800	-28.3%
12,686	12,406	Equipment rent	13,144	13,596	16,549	25.9%
20,033	36,525	Repair parts & supplies	19,000	19,000	28,000	47.4%
2,077	0	Equipment and tools Hydrant diffusers	2,500	0	2,500	0.0%
1,355,971	1,309,223	Total Transmission & Distrib Exp	1,561,481	1,503,729	1,660,823	6.4%

ACCOUNT: 900 Customer Accounts Expense

MISSION: Accurately read all water meters and complete reading to enable timely billing to customers. Submit accurate records for mail of water billing statements to our customers in a timely manner.

PROGRAMS: Meter reading (902), audit and review of customer readings, investigation of out of range readings, generating the billing for water, sewer, and storm water utilities, processing customer payments, and answer customer inquiries (903).

PROGRAM NARRATIVE: Our Water Meter Reader (902) provides the data for the amount of water used at a property. This information along with sewer user and storm water charges make up the data required on the water billing system. The remainder of the expenses (903) includes clerical staff payroll, mailing services, Treasurers Office labor, deposit charges, and supplies.

PERSONNEL:

<u>Position Title</u>	<u>2017 FTE</u>	<u>2018 FTE</u>
Meter Reader	1	1
Administrative Support Specialist	.65	.65
Office Assistant	.65	.65

PERFORMANCE INDICATORS:

- All meters are read accurately and timely to facilitate bill processing
- Water, sewer and storm water bills are generated and mailed according to Public Service Commission rules and regulations

COMMENTARY: Our Advanced Metering Infrastructure upgrade program is designed to reduce labor costs, improve meter reading efficiency, and provide exceptional customer service when helping customers with billing questions. The goal of the AMI program is to ensure our customer's meter usage information is delivered in a timely manner back to City Hall.

The negative amounts in accounts 902 and 903 represent reimbursement of meter reading and billing costs by the sanitary and storm sewer departments.

WATER DEPARTMENT - CUSTOMER ACCOUNTS EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
		902 Meter reading expense				
44,752	36,134	Wages	18,000	18,000	25,887	43.8%
100	100	Clothing allowance	100	100	100	0.0%
2,917	3,267	Equipment rent	2,762	2,913	2,929	6.0%
986	788	Auto allowance	690	690	600	-13.0%
77	0	Postage	450	450	300	-33.3%
584	597	Electricity	648	648	648	0.0%
0	0	Air Monitors	0	0	0	
7,899	7,014	Hand held maint and support	8,700	8,700	7,400	-14.9%
-28,658	-23,950	Charge to sanitary sewer	-15,675	-15,751	-18,932	20.8%
		903 Customer records exp				
54,030	56,297	Wages	56,773	56,773	60,644	6.8%
10,655	10,317	Treasurer's department labor	9,821	9,821	5,348	-45.5%
40,675	40,016	Mailing service	44,675	41,800	42,400	-5.1%
7,560	7,560	Deposit charges	7,560	7,560	31,200	312.7%
2,527	1,845	Supplies	1,170	1,170	2,000	70.9%
702	0	Scanner repair/replacement	0	0	0	
0	3,378	Copy machine	0	0	3,378	
-19,605	-17,453	Charge to storm sewer	-18,062	-18,062	-20,593	14.0%
-48,272	-50,980	Charge to sanitary sewer	-50,969	-49,531	-62,189	22.0%
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
76,929	74,930	Total Customer Accounts Expense	66,643	65,281	81,120	21.7%

ACCOUNT: 920, 930 Administrative and General Expenses

MISSION: Properly account for all administrative functions of the Utility and efficiently manage the resources of the Utility.

PERSONNEL:

<u>Position Title</u>	<u>2017 FTE</u>	<u>2018 FTE</u>
Water Superintendent	1	1
Accountant / Business Manager	1	1
Water Operations Manager	1	1
Administrative Support Specialist	.35	.35
Office Assistant	.35	.35

COMMENTARY: These expenses include management salaries (920), office expenses (921), municipal charges (923), property insurance (924), workmen's compensation and liability insurance (925), employee insurance benefits (926-1), employee pensions (926-2), training (930), and office rent for City Hall office areas (931).

Insurance Account (926-1) and Pension Account (926-2) reflect employee contributions towards expenses for 2016 and 2017.

WATER DEPARTMENT - ADMINISTRATIVE & GENERAL EXPENSE

2015 Actual	2016 Actual	Account / Function	2017 Original	2017 Estimated	2018 Executive Review	% Change
920 Admin & general salaries						
284,707	282,701	Wages	290,767	290,767	300,497	3.3%
0	0	Pay for performance	17,323	17,323	17,229	-0.5%
921 Office expense						
5,431	8,594	Equipment rent	9,025	9,041	5,394	-40.2%
653	672	Telephone	1,800	1,800	700	-61.1%
10,505	11,376	Supplies and postage	13,350	13,350	13,350	0.0%
6,467	6,551	Dues & periodicals	6,267	6,267	6,267	0.0%
0	1,448	Copy machine	0	0	1,448	
923 Outside services						
102,745	89,217	Municipal charges	68,820	68,820	57,440	-16.5%
11,850	60,729	Outside services	22,500	22,500	20,000	-11.1%
6,136	4,987	Audit of utility accounts	5,830	5,830	5,950	2.1%
28,879	39,793	Information Technology charges	43,389	43,389	48,465	11.7%
26,000	26,000	Milw County MOA fee	26,000	26,000	26,000	0.0%
924 Property insurance						
10,883	8,982	Insurance on Utility property	11,000	11,000	11,000	0.0%
925 Injuries and damages						
27,198	9,867	Workers comp insurance	15,814	15,814	10,067	-36.3%
4,852	11,069	Liability insurance	5,254	5,254	6,932	31.9%
926-1 Insurance						
453,327	460,348	Employee health & life insurance	488,418	447,294	442,364	-9.4%
-50,612	-51,652	Employee contribution	-49,477	-43,463	-41,754	-15.6%
-46,388	-45,878	Charge to sanitary sewer	-43,000	-40,000	-40,000	-7.0%
926-2 Pensions						
167,755	169,231	Employee pensions	180,254	180,254	180,962	0.4%
42,646	0	Amortization of pension related past service cost	0	0	0	
-85,388	-88,591	Employee contribution	-90,127	-90,127	-90,481	0.4%
-9,367	-8,832	Charge to sanitary sewer	-9,000	-9,000	-9,000	0.0%
928 Regulatory expense						
375	5,928	PSC expenses related to rate increase application or other PSC related issues	3,000	3,000	3,000	0.0%
930-1 Misc expense						
0	0	Bond redemption expense	1,000	0	0	-100.0%
775	842	Miscellaneous	1,000	1,000	1,000	0.0%
930-2 Training						
5,083	9,892	Continuing education and training	9,322	9,000	9,000	-3.5%
931 Rent - office						
16,028	13,907	Rent - Municipal complex	14,046	14,046	10,216	-27.3%
2,328	2,014	Rent - Public Works	2,024	2,024	2,136	5.5%
932-3 Maint of telemetering eq						
2,162	8,723	Repairs to telemetering equipment and control system software maint	11,500	11,500	10,000	-13.0%
0	0	UPS back up supply power	0	0	1,000	
0	0	SCADA upgrades for new acquisitions	0	38,000	10,000	
1,025,030	1,037,918	Total Administrative & General Exp	1,056,099	1,060,683	1,019,182	-3.5%

WAUWATOSA WATER UTILITY
2018 CAPITAL BUDGET SUMMARY
NON-BONDED CAPITAL EXPENDITURES

<u>ACCOUNT NUMBER</u>	<u>ITEM</u>	<u>AMOUNT</u>	<u>JUSTIFICATION</u>
50-154-1000-900	Fire hydrants	45,000	Required for full fire hydrant replacements when staff is unable to repair damaged hydrants.
50-101-3940-700	Double axle utility trailer with equipment storage box	9,000	Utility trailer used to transport equipment and shoring box for safe entry into excavation for water main repair. Replaces an eighteen year old failing unit.
		<u>54,000</u>	

WAUWATOSA WATER UTILITY
2018 CAPITAL BUDGET SUMMARY
CAPITAL EXPENDITURES

ACCOUNT NUMBER	ITEM	AMOUNT	JUSTIFICATION
PROJECTS PAID OUT OF FUTURE BONDED FUNDS			
WATER MAIN REPLACEMENT PRIOR TO STREET REPAVING			
50-101-3431-900	Replace water main in Underwood Ave from Milwaukee Ave to Rogers Ave	475,000	6" water main installed 1922, located within a large roadway and storm sewer project
50-101-3431-900	Replace water main Woodland Ave from Wauwatosa Ave to 81st St	470,000	6" water main installed 1922, located within a large roadway and storm sewer project
50-101-3431-900	Replace water main State St from 72nd St to 74th St	280,000	8" water main installed 1897, located within a large roadway and storm sewer project in the Village area. Water main will be upsized to 16".
50-101-3431-900	Replace water main Center St from 68th St to 70th St	200,000	6" water main installed 1960, located within a roadway project. There have been 12 failures on this stretch of main with 7 occurring since 2009.
		<u>1,405,000</u>	
OTHER WATER MAIN REPLACEMENT			
50-101-3431-900	Relocate water main in 119th St at the intersection of 119th St and Walnut Rd	<u>50,000</u>	Located within the right-of-way terrace that had 2 failures in 2017. The layout of this main is not ideal and can be relocated to our standard water main location under the roadway on 119th St.
OTHER PROJECTS			
50-101-3250-100	Electrical and Mechanical Rehabilitation of all Water Utility Pumping Stations	2,680,350	The City currently operates four water pumping stations throughout the City in order to distribute drinking water at appropriate pressures throughout the City. All four stations have been evaluated in 2017 in order to determine what electrical and mechanical improvements or replacements are needed at this time. Much of the electrical equipment is original to the stations, which were built in 1964-65. Generators have been added to two of the stations, however, both are well past their useful life and we are in need of a generator at one of the remaining sites. Costs include motor control center replacements, transformer replacements, generator replacements or additions, and the addition of variable frequency drives at all three major stations. Pumps and motors are in need of replacement or rehabilitation at all stations as well. Costs are broken down as follows and include a 30% design, administration, and contingency: 64th Street Station - 1,001,500, Blanchard Street Station - 741,600, Potter Road Station - 917,750, Glenview - 19,500. (all based on Ruekert & Mielke report, June 2017)
50-101-3461-900	Advanced Metering Infrastructure (AMI) program	200,000	Replacement of meters where parts are no longer available along with installation of AMI equipment in a fixed based network with two way communication capabilities.
50-101-3431-900	Repair, renovate, or replace water main as needed	150,000	Water main alterations related to construction activities and/or unanticipated water main replacement.
50-101-3210-100	Renovate exterior of Blanchard Street pumping station	80,000	The roof is beginning to leak and is well past its useful life. The roof will be replaced in 2018 and the exterior of the building will be tuck-pointed and painted in 2019.
		<u>3,110,350</u>	
	Total projects paid out of future bonded funds	<u><u>4,565,350</u></u>	