

# WATER UTILITY

**WATER UTILITY  
FUND 501**

**DEPARTMENT:** Public Works

**DIVISION:** Water Utility

**PROGRAM MANAGER:** Water Superintendent

**PROGRAM DESCRIPTION:**

The City of Brookfield Water Utility supplies, stores, treats and distributes potable drinking water to approximately 85% of City properties (81% of single-family residential, 95% of multi-family residential and 91% of commercial/industrial properties). The utility's system of accounts records all costs related to the operation and maintenance of the water utility's 22 wells, five towers, six reservoirs, nine booster stations and the water distribution system.

**SERVICES:**

- Pump 1.25 billion gallons of water this past year.
- Maintain and operate 22 ground water well stations.
- Responsible for maintaining over 249 miles of water main in Brookfield.
- Repair an average of 20 water main breaks per year.
- Read meters on a quarterly basis.
- Monitor and test on a regular basis for compliance with Environmental Protection Agency (EPA) and Wisconsin Department of Natural Resources (DNR) requirements.
- Hydrant flushing semi-annually.
- Exercise at least one quarter of 6,731 water main valves per year.
- Maintain records on the water system, as well as valve repairs.
- Operate three iron filters and one radium reducing filter.
- Treat the well water with chemical additions of chlorine and polyphosphate.

**STAFFING:**

<b>Positions (FTE)</b>	<b>2015 Actual</b>	<b>2016 Actual</b>	<b>2017 Actual</b>	<b>2018 Actual</b>	<b>2019 Budget</b>
<b>Water Utility Superintendent</b>	1.00	1.00	1.00	1.00	1.00
<b>Water Operations Supervisor</b>	1.00	1.00	1.00	1.00	1.00
<b>Administrative Assistant</b>	1.00	1.00	1.00	1.00	1.00
<b>Water Utility Specialist II</b>	1.00	1.00	1.00	1.00	1.00
<b>Water Utility Specialist I</b>	1.00	1.00	1.00	1.00	1.00
<b>Lead Water Operator</b>	2.00	2.00	2.00	2.00	2.00
<b>Water Utility Operator</b>	7.00	7.00	8.00	8.00	8.00
<b>Seasonal Employees</b>	0.92	0.92	0.92	0.92	0.92
<b>Total</b>	<b>14.92</b>	<b>14.92</b>	<b>15.92</b>	<b>15.92</b>	<b>15.92</b>

Note: In addition to the above, costs equal to 4.17 FTE are allocated to the Water Utility budget for support services received from the Finance, Human Resources, Information Technology and Engineering Departments. Costs equal to 0.25 FTE are allocated from the City Hall maintenance staff for Facility Maintenance Services.

## ACTIVITY MEASURES:

Activity	2015 Actual	2016 Actual	2017 Actual	2018 Projected	2019 Budgeted
Number of water main break repairs	23	13	8	10	20
Number of water valves exercised	1,992	2,199	1,657	1,700	2,000
Number of hydrants rebuilt	70	67	63	50	50
Number of hydrants replaced	5	7	14	5	5
Number of valves repaired/replaced	-	-	-	5	5
Number of hydrants flushed	5,682	5,778	5,872	5,900	6,000
Number of meters tested	1,876	2,649	2,108	2,100	2,100
Number of customers <sup>1</sup>	11,647	11,820	12,151	12,300	12,500
Number of standby customers	1,126	1,134	967	950	900
Number of gallons sold (in millions)	1,074	1,109	1,085	1,100	1,100
Average residential gallons sold per household (thousand)	63.50	64.20	59.78	62.00	62.00
Average residential charges per household <sup>2</sup>	\$245.30	\$257.44	\$227.16	\$243.23	\$243.30

<sup>1</sup> Reflects actual and projected number of customers at end of year; revenue estimates discussed in budget summary below are based on changes in average number of customers connected to the water system.

<sup>2</sup> Residential charges in 2016 reflect a simplified rate increase effective beginning of 2016.

## OBJECTIVES ACCOMPLISHED IN 2018:

\* Indicates if associated with one of the City's Comprehensive Plan short-term focus initiatives.

1. Continue with various electrical upgrades to the Utility's electrical components such as Variable Frequency Drives (VFD) installs, station and booster power supplies, Transient Voltage Surge Suppressors (TVSS) and surge suppressors.
  - The following electrical/Supervisory Control and Data Acquisition (SCADA) upgrades will be completed by the end of the year:
    - Sunnyslope water tower
    - Imperial well station
    - Tanglewood booster station
    - Hawkes Ridge booster station
  - In addition the Utility will install an emergency outlet to the Imperial Station to allow connection of our emergency generator in the event of a power failure.
2. Begin a focus on valve replacement as well as hydrant replacement – review valve repair list, prioritize valve replacement/repair and repair/replace valves.
  - The Utility is finalizing the valve and hydrant replacement list. Two hydrants have already been replaced. The remaining work will be complete by the end of fall 2018.
3. Continue cross-connection control program; begin to use Utility staff to inspect low priority sites.
  - Utility staff are reviewing the list of low risk commercial sites in Brookfield. The current plan is to begin performing cross-connection inspection of these sites in fall 2018 as part

of the Utility's meter replacement program. Aqua Backflow will provide additional training.

4. Assist Engineering to complete the painting of the Burleigh water tower.
  - Painting of the tower to be completed fall 2018.
5. Initiate study of the City's water meter reading system – discuss the feasibility of moving from an Automatic Meter Reading (AMR) system to an Advanced Metering Infrastructure (AMI) system.
  - Utility staff have conducted initial research regarding the feasibility of implementing an AMI system. Staff will engage a water consultant to conduct an in-depth evaluation of the City's water system and current AMI technology.
6. Begin process of planning for general rate case filing to be effective in 2019.
  - The City will retain a consultant to begin the rate case filing process.

#### **OBJECTIVES TO BE ACCOMPLISHED IN 2019:**

\* Indicates if associated with one of the City's Comprehensive Plan short-term focus initiatives.

1. Continue with various electrical upgrades to the Utility's electrical components such as VFD installs, station and booster power supplies, TVSS and surge suppressors.
2. Remove and replace filter media and make repairs/upgrades to existing filter at the Chadwick Green well station.
3. Work with consultant to conduct bi-annual cross-connection inspection of high risk commercial and industrial sites. Continue refining low risk commercial cross-connection inspections with Utility staff.
4. Conduct update to existing Water Master Plan.

#### **BUDGET SUMMARY:**

- 1). The 2018 revenue budget is based upon an estimated increase of 203 new customers (191 residential, 4 multi-family, 8 commercial) and sales of 1.116 billion gallons of water. Although the number of customers continues to increase, conservation efforts and consumer product innovations tend to offset most of the increase in customers resulting in flat water sales. A general rate case filing is currently being pursued by the City to recover increased operating costs since the last filing, including the water tower painting completed in 2018. In addition, there are projects included in the capital improvement program that will be reflected in rates. The 2019 budget reflects a 3% increase in rates as that has been the customary increase amount in recent years. Rents from water property show a slight increase in accordance with the lease agreements with the wireless carriers.
- 2). Salary budgets include estimated salary adjustments for non-represented staff as per the 2019 salary ordinance adopted by the Human Resources and Public Safety Committee and Common Council, including a 2.5% general salary increase. Actual salary amounts for individual employees and the impact on department salary budgets depend on the position in salary grades, including the impact of step increases for eligible employees, and determination of satisfactory performance. Total water utility salaries charged to expense accounts and capital projects are budgeted to decrease approximately \$2,726 for 2019, or 0.3% lower than 2018.

- 3). The change in the pension budget includes the impact of employer pension contribution rates from the Wisconsin Retirement System (WRS) applied to budgeted wages for eligible employees, reflecting a slight decrease in the contribution rate for general and elected employees as established by WRS. Changes in contribution rates are shared between the City and all employees.
- 4). Group insurance – health reflects an overall 2.5% change from the premium contribution charges in the 2018 budget. 2019 estimated rates were derived based on projections from the City’s insurance consultant reflection somewhat better recent health claims experience and projection of health care cost trend. Budgets also reflect any changes in plan coverage elections for staff assigned to the utility.
- 5). Purchased power expense (623000) – electricity budgets have been developed utilizing the WE Energies forecasting tool. Estimates for these budgets are based upon historical consumption and WE Energies pricing predictions.
- 6). Maintenance of pumping equipment (633000) continues increased funding to address maintenance/rehabilitation activities at the Brookfield Square and Brookfield Academy wells.
- 7). The decrease in treatment operating expenses (642000) results from completion of mandated UCMR testing in 2018 (\$40,000), offset by higher radium treatment costs (\$25,000).
- 8). The decrease in transmission and distribution operating expenses (662000) is due to the continued effects of upgrades at transfer stations in 2017, along with a decrease in anticipated fuel and labor expenses on vehicles allocated to the Water utility.
- 9). Maintenance of distribution reservoirs (672000) includes \$450,000 for the 2019 painting of the Sunnyslope water tower. Due to a change in accounting procedures indicated by the City’s auditors, the cost of the water tower painting project will be recognized in its entirety in the year the project occurs.
- 10). The increase in outside services employed (923000) results from a scheduled project to review the Water utility’s asset management plan regarding future maintenance and upgrades to existing water facilities.
- 11). The following capital purchases are proposed for funding from utility reserves for 2019:

<b>Item</b>	<b>Cost</b>
Water meters (large & small)	\$350,000
Hydrants	45,000
Water Utility vehicles	27,500
Electrical upgrades / pump replacement for wells & booster stations	75,000
Chadwick Green filter upgrade and media replacement	400,000
Bishop’s Woods well radionuclide treatment	150,000
Mission Hills pump house removal	15,000
Carriage Hills well pump replacement and access road paving	38,000
<b>Total</b>	<b>\$1,100,500</b>

**CITY OF BROOKFIELD**  
**2019 Water Utility Summary Budget**

WATER UTILITY FUND - 501		2017 Actual	2018 Adopted	2018 YTD 08/31/18	2018 Estimated	2019 Budgeted	Percent Change
<b>OPERATING REVENUES</b>							
METERED WATER SALES	100	3,986,123	4,132,458	1,816,988	4,093,453	4,282,198	
FIRE PROTECTION	100	1,167,368	1,168,413	740,644	1,168,413	1,196,485	
OTHER INCOME	100	493,618	485,804	314,614	524,532	497,999	
<b>TOTAL OPERATING REVENUE</b>		<b>5,647,109</b>	<b>5,786,675</b>	<b>2,872,246</b>	<b>5,786,398</b>	<b>5,976,682</b>	<b>3.3%</b>
<b>OPERATING EXPENSES</b>							
SOURCE OF SUPPLY	910	-	15,000	-	6,000	15,000	
PUMPING	920	1,123,942	1,174,549	648,027	1,141,652	1,172,187	
WATER TREATMENT	930	352,592	457,664	238,127	391,051	436,286	
TRANSMISSION & DISTRIBUTION	940	677,779	712,922	418,306	1,097,426	1,127,141	
CUSTOMER ACCOUNTS	950	108,148	114,085	72,400	102,687	111,825	
ADMINISTRATION & GENERAL	960	836,791	797,145	533,024	791,775	871,868	
Sub-total Operations and Maintenance		3,099,252	3,271,365	1,909,884	3,530,591	3,734,307	14.2%
DEPRECIATION/TAXES	970	3,127,537	3,186,936	1,591,052	3,156,952	3,315,065	
<b>TOTAL OPERATING EXPENSES</b>		<b>6,226,789</b>	<b>6,458,301</b>	<b>3,500,936</b>	<b>6,687,543</b>	<b>7,049,372</b>	<b>9.2%</b>
<b>NET OPERATING INCOME (LOSS)</b>		<b>(579,680)</b>	<b>(671,626)</b>	<b>(628,690)</b>	<b>(901,145)</b>	<b>(1,072,690)</b>	<b>59.7%</b>
<b>NON- OPERATING REVENUE/EXPENSES:</b>							
PLUS - INTEREST INCOME	100	193,014	212,300	52,728	216,732	232,500	
LESS - INTEREST EXPENSE	970	410,017	402,181	233,385	398,237	424,702	
<b>WATER UTILITY NET INCOME (LOSS)</b>		<b>(796,683)</b>	<b>(861,507)</b>	<b>(809,347)</b>	<b>(1,082,650)</b>	<b>(1,264,892)</b>	<b>46.8%</b>
SPECIAL ASSESSMENTS/CAPITAL CONTRIBUTIONS		1,994,058	2,034,000	58,744	2,034,000	1,746,000	
<b>TOTAL NET POSITION, JANUARY 1</b>		<b>56,653,369</b>	<b>57,850,744</b>		<b>57,850,744</b>	<b>58,802,094</b>	
<b>TOTAL NET POSITION, DECEMBER 31</b>		<b>57,850,744</b>	<b>59,023,237</b>		<b>58,802,094</b>	<b>59,283,202</b>	
<b>CASH FLOW ADJUSTMENTS</b>							
<b>PLUS:</b>							
DEPRECIATION		1,827,105	1,901,693		1,901,693	1,955,118	
AMORTIZATION OF EXPENSES		51,430	63,306		63,306	62,707	
ASSESSMENTS COLLECTED		2,334,936	1,600,000		1,600,000	1,600,000	
<b>LESS:</b>							
NON-BONDED CAPITAL OUTLAY		470,115	675,200		675,200	1,150,500	
DEBT REDUCTION		2,490,000	2,300,000		2,300,000	2,530,000	
<b>NET CHANGE IN CASH</b>		<b>456,673</b>	<b>(271,708)</b>		<b>(492,851)</b>	<b>(1,327,567)</b>	
<b>RETURN ON RATE BASE COMPUTATION</b>							
AVERAGE NET RATE BASE		20,915,253	21,275,000		21,275,000	21,650,000	
ADJUSTED NET OPERATING INCOME		326,232	259,510		29,991	(101,977)	
RATE OF RETURN		1.6%	1.2%		0.1%	-0.5%	

WATER UTILITY FUND - 501		2017 Actual	2018 Adopted	2018 YTD 08/31/18	2018 Estimated	2019 Budgeted	Percent Change
<b>OPERATING REVENUES</b>							
<b>OPERATING INCOME - 100</b>							
<b>METERED WATER SALES</b>							
RESIDENTIAL	501455 461100	2,622,198	2,766,128	1,200,899	2,716,020	2,847,705	
COMMERCIAL	501455 461200	1,020,369	1,032,484	444,505	1,025,814	1,067,204	
INDUSTRIAL	501455 461300	20,137	18,161	9,829	18,757	19,337	
MULTI-FAMILY	501455 461500	249,586	229,408	134,503	256,269	268,993	
PUBLIC AUTHORITY	501455 463000	73,833	86,277	27,252	76,593	78,959	
Total Metered Water Sales		3,986,123	4,132,458	1,816,988	4,093,453	4,282,198	3.6%
<b>FIRE PROTECTION</b>							
PRIVATE FIRE PROTECTION	501456 462000	232,307	233,352	117,270	233,352	233,372	
PUBLIC FIRE PROTECTION	501456 462500	935,061	935,061	623,374	935,061	963,113	
Total Fire Protection		1,167,368	1,168,413	740,644	1,168,413	1,196,485	2.4%
<b>OTHER INCOME</b>							
LATE CHARGES	501460 464000	32,571	33,000	14,626	33,519	34,000	
RENTS FROM WATER PROPERTY	501460 464100	368,528	369,284	260,621	369,284	387,749	
OTHER REVENUES	501460 464200	92,519	83,520	39,367	121,729	76,250	
Total Other Income		493,618	485,804	314,614	524,532	497,999	2.5%
<b>TOTAL OPERATING REVENUE</b>		<b>5,647,109</b>	<b>5,786,675</b>	<b>2,872,246</b>	<b>5,786,398</b>	<b>5,976,682</b>	<b>3.3%</b>
<b>OPERATING EXPENSES</b>							
<b>SOURCE OF SUPPLY - 910</b>							
<b>MAINTENANCE EXPENSES</b>							
MAINTENANCE OF WELLS	50191023 634000	-	15,000	-	6,000	15,000	
Sub-total		-	15,000	-	6,000	15,000	0.0%
<b>TOTAL SOURCE OF SUPPLY</b>		<b>-</b>	<b>15,000</b>	<b>-</b>	<b>6,000</b>	<b>15,000</b>	<b>0.0%</b>
<b>PUMPING - 920</b>							
<b>OPERATING SALARIES</b>							
OPERATIONS SUPERVISION	50192020 620100	83,107	92,990	58,648	83,169	96,285	
PUMPING LABOR	50192020 624100	105,104	97,708	72,189	107,254	111,352	
MISCELLANEOUS LABOR	50192020 626100	74,611	71,533	39,130	59,289	72,958	
Sub-total		262,822	262,231	169,967	249,712	280,595	7.0%
<b>OPERATING EXPENSES</b>							
FUEL OR POWER PURCHASED	50192021 623000	603,901	592,819	357,886	592,635	618,733	
PUMPING	50192021 624000	25,082	24,304	14,137	27,450	25,829	
MISCELLANEOUS	50192021 626000	29,535	22,076	11,260	19,984	21,973	
Sub-total		658,518	639,199	383,283	640,069	666,535	4.3%
<b>MAINTENANCE SALARIES</b>							
MAINTENANCE SUPERVISION	50192022 630100	19,528	22,506	9,443	20,303	22,275	
MAINTENANCE OF STRUCTURES - LABOR	50192022 631100	10,640	15,635	6,779	15,402	12,570	
MAINTENANCE PUMPING EQUIP. - LABOR	50192022 633100	58,046	86,366	32,896	67,554	75,812	
Sub-total		88,214	124,507	49,118	103,259	110,657	-11.1%
<b>MAINTENANCE EXPENSES</b>							
MAINTENANCE OF STRUCTURES	50192023 631000	9,781	13,500	10,280	13,500	15,500	
MAINTENANCE PUMPING EQUIPMENT	50192023 633000	104,607	135,112	35,379	135,112	98,900	
Sub-total		114,388	148,612	45,659	148,612	114,400	-23.0%
<b>TOTAL PUMPING</b>		<b>1,123,942</b>	<b>1,174,549</b>	<b>648,027</b>	<b>1,141,652</b>	<b>1,172,187</b>	<b>-0.2%</b>

WATER UTILITY FUND - 501		2017 Actual	2018 Adopted	2018 YTD 08/31/18	2018 Estimated	2019 Budgeted	Percent Change	
<b>WATER TREATMENT - 930</b>								
OPERATING SALARIES								
OPERATION SUPERVISION	50193020	640100	22,898	19,487	14,794	18,233	23,099	
OPERATION LABOR	50193020	642100	64,958	64,460	41,517	60,967	70,704	
Sub-total			87,856	83,947	56,311	79,200	93,803	11.7%
OPERATING EXPENSES								
CHEMICALS	50193021	641000	135,000	185,000	91,068	140,000	170,000	
OPERATION	50193021	642000	108,869	160,770	78,196	146,770	145,803	
MISCELLANEOUS	50193021	643000	1,478	3,250	628	3,250	3,250	
Sub-total			245,347	349,020	169,892	290,020	319,053	-8.6%
MAINTENANCE SALARIES								
MAINTENANCE SUPERVISION	50193022	650100	3,654	3,272	2,184	2,266	3,579	
MAINT. TREATMENT EQUIP. - LABOR	50193022	652100	9,671	13,925	6,599	12,065	12,351	
Sub-total			13,325	17,197	8,783	14,331	15,930	-7.4%
MAINTENANCE EXPENSES								
MAINTENANCE TREATMENT EQUIPMENT	50193023	652000	6,064	7,500	3,141	7,500	7,500	
Sub-total			6,064	7,500	3,141	7,500	7,500	0.0%
TOTAL WATER TREATMENT			352,592	457,664	238,127	391,051	436,286	-4.7%
<b>TRANSMISSION &amp; DISTRIBUTION - 940</b>								
OPERATING SALARIES								
OPERATION SUPERVISION	50194020	660100	10,634	7,667	3,168	8,186	9,993	
STORAGE FACILITIES - LABOR	50194020	661100	5,923	7,795	5,311	5,885	8,731	
TRANSMISSION & DISTRIBUTION - LABOR	50194020	662100	92,473	106,118	46,262	103,382	107,003	
CUSTOMER INSTALLATIONS - LABOR	50194020	664100	15,954	12,903	15,571	18,889	15,548	
MISCELLANEOUS LABOR	50194020	665100	46,654	50,355	36,016	36,990	51,822	
Sub-total			171,638	184,838	106,328	173,332	193,097	4.5%
OPERATING EXPENSES								
STORAGE FACILITIES	50194021	661000	5,128	6,250	3,968	6,350	6,500	
TRANSMISSION & DISTRIBUTION	50194021	662000	33,159	33,711	16,418	28,711	30,228	
CUSTOMER INSTALLATIONS	50194021	664000	3,978	5,600	3,216	5,600	5,600	
MISCELLANEOUS	50194021	665000	4,829	5,990	3,162	5,990	5,190	
Sub-total			47,094	51,551	26,764	46,651	47,518	-7.8%
MAINTENANCE SALARIES								
MAINTENANCE SUPERVISION	50194022	670100	18,438	8,600	15,983	16,142	12,970	
MAINT. DISTR. RESERVOIRS - LABOR	50194022	672100	10,009	13,467	9,672	12,659	13,742	
MAINT. TRANSMISSION & DISTR. - LABOR	50194022	673100	35,966	51,750	22,047	31,312	49,992	
MAINTENANCE OF SERVICES - LABOR	50194022	675100	22,844	33,300	28,119	33,809	29,514	
MAINTENANCE OF METERS - LABOR	50194022	676100	26,126	31,778	30,575	33,164	32,897	
MAINTENANCE OF HYDRANTS - LABOR	50194022	677100	44,813	41,108	28,274	42,127	48,081	
Sub-total			158,196	180,003	134,670	169,213	187,196	4.0%
MAINTENANCE EXPENSES								
MAINTENANCE DISTR. - RESERVOIRS	50194023	672000	170,145	202,860	81,510	612,860	606,460	
MAINT. TRANSMISSION & DISTR. MAINS	50194023	673000	74,173	54,370	41,208	54,370	54,370	
MAINTENANCE OF SERVICES	50194023	675000	10,464	10,300	10,447	12,000	7,500	
MAINTENANCE OF METERS	50194023	676000	3,625	5,500	581	5,500	7,000	
MAINTENANCE OF HYDRANTS	50194023	677000	42,444	23,500	16,798	23,500	24,000	
Sub-total			300,851	296,530	150,544	708,230	699,330	135.8%
TOTAL TRANSMISSION & DISTRIBUTION			677,779	712,922	418,306	1,097,426	1,127,141	58.1%



WATER UTILITY FUND - 501			2017 Actual	2018 Adopted	2018 YTD 08/31/18	2018 Estimated	2019 Budgeted	Percent Change
<b>CUSTOMER ACCOUNTS - 950</b>								
OPERATING SALARIES								
SUPERVISION	50195020	901100	20,345	20,422	11,946	19,070	20,871	
METER READING LABOR	50195020	902100	6,963	7,642	5,710	2,148	8,255	
CUSTOMER RECORDS - LABOR	50195020	903100	55,877	60,336	39,807	56,636	62,427	
Sub-total			83,185	88,400	57,463	77,854	91,553	3.6%
OPERATING EXPENSES								
METER READING	50195021	902000	2,412	4,852	1,631	4,000	2,297	
CUSTOMER RECORDS	50195021	903000	20,518	20,833	13,306	20,833	17,975	
UNCOLLECTABLE ACCOUNTS	50195021	904000	2,033	-	-	-	-	
Sub-total			24,963	25,685	14,937	24,833	20,272	-21.1%
TOTAL CUSTOMER ACCOUNTS			108,148	114,085	72,400	102,687	111,825	-2.0%
<b>ADMINISTRATION &amp; GENERAL - 960</b>								
OPERATING SALARIES								
ADMINISTRATION & GENERAL SALARIES	50196020	920100	196,695	196,608	129,088	193,623	205,831	
Sub-total			196,695	196,608	129,088	193,623	205,831	4.7%
OPERATING EXPENSES								
OFFICE SUPPLIES & EXPENSES	50196021	921000	26,340	34,118	28,465	34,118	37,049	
OUTSIDE SERVICES EMPLOYED	50196021	923000	11,055	22,000	6,434	22,000	32,000	
PROPERTY INSURANCE	50196021	924000	49,112	52,070	34,713	52,070	58,339	
FICA TAX	50196021	926000	80,243	86,486	58,283	82,402	89,133	
PENSION	50196021	926100	158,716	76,236	51,701	86,748	77,124	
GROUP INSURANCE-OTHER	50196021	926200	15,912	15,882	11,075	16,329	19,355	
RHS PAYMENTS	50196021	926300	50,519	53,224	35,602	51,218	52,926	
GROUP INSURANCE-HEALTH	50196021	926700	211,466	220,933	152,620	215,051	261,860	
REGULATORY COMMISSION	50196021	928000	2,235	-	-	-	-	
MISCELLANEOUS GENERAL	50196021	930000	10,381	8,187	7,027	8,187	6,826	
Sub-total			615,979	569,136	385,920	568,123	634,612	11.5%
MAINTENANCE SALARIES								
MAINTENANCE OF GEN PLANT - LABOR	50196022	932100	6,123	7,332	4,158	5,929	7,885	
Sub-total			6,123	7,332	4,158	5,929	7,885	7.5%
MAINTENANCE EXPENSES								
MAINTENANCE OF GEN PLANT	50196023	932000	17,994	24,069	13,858	24,100	23,540	
Sub-total			17,994	24,069	13,858	24,100	23,540	-2.2%
TOTAL ADMINISTRATION & GENERAL			836,791	797,145	533,024	791,775	871,868	9.4%

WATER UTILITY FUND - 501				2017 Actual	2018 Adopted	2018 YTD 08/31/18	2018 Estimated	2019 Budgeted	Percent Change
<b>OTHER EXPENSES - 970</b>									
OTHER EXPENSES									
DEPRECIATION - PLT FINANCED BY UTILITY	50197036	940000		921,193	970,557	485,296	970,557	984,405	
DEPRECIATION - PLT FINANCED BY CONTR	50197036	943000		905,912	931,136	465,574	931,136	970,713	
TAXES	50197036	941000		1,300,432	1,285,243	640,182	1,255,259	1,359,947	
Sub-total				3,127,537	3,186,936	1,591,052	3,156,952	3,315,065	4.0%
TOTAL OTHER EXPENSES				3,127,537	3,186,936	1,591,052	3,156,952	3,315,065	4.0%
TOTAL OPERATING EXPENSES				6,226,789	6,458,301	3,500,936	6,687,543	7,049,372	9.2%
NET OPERATING INCOME				(579,680)	(671,626)	(628,690)	(901,145)	(1,072,690)	59.7%
<b>NON-OPERATING REVENUE/EXPENSES:</b>									
OTHER INCOME - 100									
OTHER INCOME									
INTEREST INCOME ON INVESTMENTS	501460	466000		62,250	65,300	49,050	78,590	82,500	
INTEREST INCOME ON ASSESSMENTS	501460	466500		130,764	147,000	3,678	138,142	150,000	
Sub-total				193,014	212,300	52,728	216,732	232,500	9.5%
<b>NON-OPERATING EXPENSES - 970</b>									
NON-OPERATING EXPENSES									
AMORTIZATION OF DEBT	50197036	944000		51,430	63,306	63,947	63,306	62,707	
AMORTIZATION OF PREMIUM ON DEBT	50197036	944500		(22,279)	(19,980)	(9,990)	(23,924)	(23,924)	
INTEREST ON DEBT TO MUNICIPALITY	50197036	945000		380,866	358,855	179,428	358,855	385,919	
Sub-total				410,017	402,181	233,385	398,237	424,702	5.6%
WATER UTILITY NET INCOME (LOSS)				(796,683)	(861,507)	(809,347)	(1,082,650)	(1,264,892)	46.8%

City of Brookfield, WI  
*Capital Improvement Program*  
 2019 thru 2023

**FUNDING SOURCE SUMMARY**

Source	2019	2020	2021	2022	2023	Total
2019 Water bond proceeds	3,390,000					3,390,000
2020 Water Bond proceeds		3,910,000				3,910,000
2021 Water Bond proceeds			2,630,000			2,630,000
2022 Water Bond proceeds				3,350,000		3,350,000
2023 Water Bond proceeds					3,100,000	3,100,000
Water fund balance	1,100,500	431,000	442,000	454,000	465,000	2,892,500
<b>GRAND TOTAL</b>	<b>4,490,500</b>	<b>4,341,000</b>	<b>3,072,000</b>	<b>3,804,000</b>	<b>3,565,000</b>	<b>19,272,500</b>

City of Brookfield, WI  
*Capital Improvement Program*  
 2019 thru 2023

**PROJECTS BY CATEGORY AND DEPARTMENT**

Department Category	2019	2020	2021	2022	2023	Total	Future
<b>Water</b>							
<i><u>Water mains as needed</u></i>							
Replace failing water main	1,400,000	950,000	1,000,000	1,050,000	1,100,000	5,500,000	1,150,000
El Rancho Heights / Greenview Acres subd.	950,000					950,000	
Midland, Newberry Ct., Glen Echo Ct., Pilgrim Rd.	515,000					515,000	
Willow Ridge subdivision water main		1,050,000				1,050,000	
Cumberland Tr and Bradee Rd		500,000				500,000	
Lone Oak Circle East and West water main		410,000				410,000	
Hillsdale and Brook Springs subds. water main			1,050,000			1,050,000	
Wilderness Way area & Quail Hollow Dr water main			580,000			580,000	
Town & Country subd. Water main				2,300,000		2,300,000	
Columbia Gardens / Brookview subds. Water main					1,600,000	1,600,000	
Woodridge subd. Water main					400,000	400,000	
<i>Sub-Total</i>	<i>2,865,000</i>	<i>2,910,000</i>	<i>2,630,000</i>	<i>3,350,000</i>	<i>3,100,000</i>	<i>14,855,000</i>	<i>1,150,000</i>
<i><u>Water mains prior to road work</u></i>							
North Ave. & Morningview Ct.	475,000					475,000	
North Avenue/Hollyhock water main	50,000					50,000	
<i>Sub-Total</i>	<i>525,000</i>					<i>525,000</i>	
<i><u>Water Utility - other</u></i>							
Water Utility vehicles/equipment	27,500	35,000	35,000	36,000	36,000	169,500	37,000
Water - meters	350,000	360,000	370,000	380,000	390,000	1,850,000	400,000
Water - hydrants / valves	45,000	36,000	37,000	38,000	39,000	195,000	40,000
<i>Sub-Total</i>	<i>422,500</i>	<i>431,000</i>	<i>442,000</i>	<i>454,000</i>	<i>465,000</i>	<i>2,214,500</i>	<i>477,000</i>
<i><u>Water Utility - wells/supply source</u></i>							
Well house facility/equipment repairs	453,000					453,000	
Radionuclide treatment - Bishop's Woods well	150,000	1,000,000				1,150,000	
Electrical upgrades - wells / booster stations	20,000					20,000	
Brookfield Square pump and VFD	55,000					55,000	
<i>Sub-Total</i>	<i>678,000</i>	<i>1,000,000</i>				<i>1,678,000</i>	
<b>Department Total:</b>	<b>4,490,500</b>	<b>4,341,000</b>	<b>3,072,000</b>	<b>3,804,000</b>	<b>3,565,000</b>	<b>19,272,500</b>	<b>1,627,000</b>
<b>GRAND TOTAL</b>	<b>4,490,500</b>	<b>4,341,000</b>	<b>3,072,000</b>	<b>3,804,000</b>	<b>3,565,000</b>	<b>19,272,500</b>	<b>1,627,000</b>

**CITY OF BROOKFIELD**  
**Water Utility Fund**  
**CIP Project Descriptions**

	<u>Project Name/Funding Source</u>	<u>Project Description</u>
<b>Water Mains, etc.</b>		
	Replace failing water main (utility borrowing)	Replace water main in areas where excessive break history exists. 2019 anticipates work on water main on Lisa Lane and Chapel Road, as well as \$500,000 in additional funding for lining the main adjacent to Rivendell Drive.
	El Rancho Heights/Greenview Acres subdivision (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Midland, Newberry Court, Glen Echo Court, and Pilgrim Road (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Willow Ridge subdivision (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Cumberland Trail and Bradee Road (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Lone Oak Circle East and West (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Hillsdale Drive and Brook Spring subdivision (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Wilderness Way area and Quail Hollow Drive (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Town and Country subdivision (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	Columbia Gardens/Brookview subdivisions (utility borrowing – assessed)	Install new water main in Golf Parkway east of Elm Grove Road and Columbia Boulevard. This will serve as a second source of supply for retail development on Bluemound Road near 124th St.
	Woodridge subdivision (utility borrowing – assessed)	Install new water main in these roads to fill in gaps in the system.
	North Avenue - Hillsdale Drive West to East and Morningview Court (utility borrowing – assessed)	Install new water main in conjunction with County project to widen North Avenue and in Morningview Court in advance of the Calhoun Road widening project.
	North Avenue/Hollyhock (utility borrowing)	Extend 16 inch water main across North Avenue for future Elm Grove water main in advance of Waukesha County widening North Avenue.
<b>Water Utility – other and wells/supply source</b>		
	Water Utility – vehicles/equipment (utility fund balance)	2019 request includes funding for a replacement trailer to tow the utility backhoe.
	Water – meters (utility fund balance)	Provides funding for new meters to be installed with radio read meters.
	Water – hydrants/valves (utility fund balance)	Annual funding for hydrant replacement. Program has been modified to provide funding for ten hydrants and valves every year to accelerate replacement of older facilities and reduce leaks/lost water.

	Well house facility/equipment repairs (utility fund balance)	Projects include Chadwick Greens iron filter rehabilitation to include replacement of filter media, valves and other repairs as needed (\$400,000); Carriage Hills auxiliary well - replace pump and motor (\$20,000) and repaving of driveway (\$18,000); and removal of abandoned Mission Hills well pump house and tank (\$15,000).
	Radionuclide treatment – Bishop’s Woods well (utility fund balance or utility borrowing)	Provide radionuclide (radium and gross alpha) treatment of Bishop's Woods well. Project scope will depend on results of testing being performed in 2018.
	Electrical upgrades - wells/booster stations (utility fund balance)	Funding for various equipment and electrical upgrades as noted above in the utility budget summary. Upgrades improve safety, system operations, and improve to current technology.
	Brookfield Square pump and VFD (utility fund balance)	Replace pump and refurbish motor for Brookfield Square No. 2, and replace variable frequency drives for both Brookfield Square booster pumps.