



REPORT

LEGISLATIVE REFERENCE BUREAU

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27.

Water Works, 2014

Proposed Plan and Executive Budget Review

27. Water Works

I. EXECUTIVE SUMMARY.

Table 27.1. Statement of Changes in Operating Budget, 2013 to 2014.

2012 Actual Spending	\$74,779,668
2013 Adopted Budget	\$81,554,626
Personnel Costs	
Salaries & Wages	(\$199,105)
Fringe Benefits	\$22,062
Total Changes	(\$177,043)
Operating Expenditures	\$2,022,000
Equipment Purchases	\$69,000
Special Funds	\$1,060,860
Total Changes	\$2,974,817
2014 Proposed Budget	\$84,529,443

1. Water Rates. Revamped rate increase strategy promises to revitalize the fiscal strength of the Milwaukee Water Works in the next few years. The utility was awarded a simplified rate increase in June, 2013, and expects to apply for 3 more rate increases in the next 3 years.

2. Revenue/Operating Budget mismatch.

Despite recent improvements in Water Works' rate structure, the revenue increase budgeted for 2014 over 2013 lags by over \$300,000 the budgeted increase in total operating budget, suggesting the Water Works must continue to ensure water rates reflect cost changes in order to rebuild its financial strength.

3. Increased cash reserves, revised water rates and carryover authority keep borrowing in check despite increased water main replacements.

Increased cash reserves of \$1.7 million (\$4 million in 2011 to \$5.7 in 2012), revised water rates and carryover borrowing authority hold borrowing for the \$13.8 million budgeted for water main replacement to \$4 million.

4. Staffing flexibility. The Water Works continues to use the flexibility gained through Act 10 to reshuffle personnel and duties to improve productivity and contain labor costs.

II. INITIATIVES AND PROGRAMS.

1. Water Rates.

The Milwaukee Water Works' revamped rate increase strategy promises to revitalize the fiscal strength of the utility in the next few years. The utility expects to apply for 3 rate increases in the next 3 years.

Despite a nearly 2% increase in 2012, (it was an usually hot, dry summer), water sales have been trending downward for decades, and as price increases outside the City's control for purifying and distributing Milwaukee's drinking water continue, it is imperative the utility have a proactive approach for gaining water rate increases that keeps abreast of increases in per unit costs to keep the Milwaukee Water Works financially viable.

A reluctance to seek and implement regular and timely rate increases prior in 2009 depleted needed cash reserves and forced the utility to defer capital improvements. By the time the utility petitioned the Wisconsin Public Service Commission (PSC) in 2009 for a Full Rate Review there was so much pent-up demand the PSC awarded a 20.83% increase. The negative reaction to such a large rate increase, especially among the City's wholesale customers, delayed implementation of the new rate for nearly 2 years, until February, 2011.

The PSC thoroughly investigates Milwaukee Water Works' cost structure in a Full Rate Review and awards a rate that fully covers costs and grants the water utility a reasonable "rate of return" to ensure fiscal health. The PSC's target rate of return is 5.5%.

Due to the extraordinary, one-time increase in water sales, which brought in \$4.7 million in revenues above projections in 2012, and because the costs of treating and distributing drinking water are largely fixed, the Water Works' return on investment in 2012 was 4.06%, higher than it's been for decades.

Water sales for 2013 as of September 30 are down 8.6% from 2012. The resulting decline in revenues could easily eliminate the 2012 rate of return entirely and leave the utility with a zero rate of return in 2013 – perhaps even a "negative" rate of return. Water Works' rate of return 2011, with its 20.83% rate increase for 3 fiscal quarters was 2.15%. In 2010, the rate of return was -0.83%.

Milwaukee Water Works can also petition the PSC for a Simplified Rate Case (SRC). An SRC rate increase—usually fixed at 3%—is easier to apply for and requires less scrutiny by the PSC. An SRC is similar to a "cost-of-living" adjustment, and therefore, a calendar year must elapse after a Full Rate Review rate increase is awarded before the utility is eligible for SRC rate increase. The Water Works was granted a 3% SRC effective on water sales after June 1, 2013, and expects to apply for a Full Rate Review in 2014.

After the difficulties encountered with its last Full Rate Review awarded in 2011, and mindful of how critical regular rate increases that consider the utility's full cost structure are to its financial wellbeing, the Water Works has hired nationally renowned rate experts Raftelis Financial Consulting and local facilitator, Trilogy Consulting, to help in the effort.

Water Works also expects to request rate increases in both 2015 and 2016, but has not determined if these will be Full Rate Reviews or SRCs.

2. Revenue/Operating Budget Mismatch.

Despite recent improvements in Water Works' rate structure, the revenue increase budgeted for 2014 over 2013 of \$2,664,000 is still over \$300,000 less than the budgeted \$2,974,817 increase in total operating budget, suggesting the utility must continue to be vigilant concerning both rate increases and cost containment. Of course, before increasing the PILOT paid by the Water Works to the City, projected revenue exceeds projected total operating budget by \$489,183.

In 2012, actual revenues were \$4.7 million or 5.5% above projections due mainly to out-sized water sales resulting from a hot, dry summer, and the actual total operating budget was \$4.03 million for a total change of \$8.73 million. Profits, i.e. the increase in Net Position in funds accounting, effectively doubled in 2012 to \$10.4 million from \$5.2 million in 2011.

Both the 600 million-gallon water sale gain and the decline in total operating budget in 2012 were due to irregular circumstances that should not be considered in 2014 projections.

3. Ozonation—Useful Life Extension.

Although the Water Works' entire ozonation system which is designed to prevent cryptosporidium cost approximately \$51 million, the utility expects to spend only \$325,000 over 2013 and 2014 to significantly extend the system's useful life by replacing the dielectrics, the devices that generate the ozone through electrical discharge which is infused into the water to destroy the bacteria and micro-organisms that can cause cryptosporidium.

See also ISSUES TO CONSIDER, Section VIII.

III. EXPENDITURES.

Table 27.2. Changes in Expenditure Amounts by Account.

Expenditure Account	2012 Actual	2013 Adopted Budget	% Change	2014 Proposed Budget	% Change
Salaries and Wages	\$16,658,007	\$18,419,347	10.57%	\$18,220,242	-1.08%
Fringe Benefits	\$7,506,640	\$9,976,579	32.90%	\$9,998,641	0.22%
Operating Expenditures	\$43,513,998	\$44,426,000	2.10%	\$46,448,000	4.55%
Equipment Purchases	\$831,879	\$1,898,000	128.16%	\$1,967,000	3.64%
Special Funds	\$6,269,144	\$6,834,700	9.02%	\$7,895,560	15.52%
Total Operating Budget	\$74,779,668	\$81,554,626	9.06%	\$84,529,443	3.65%

1. Budget Summary.

The 2014 Proposed Budget for Water Works of \$84,529,443 is up \$2,974,817, or 3.65% from the 2013 Adopted Budget of \$84,554,626. Disregarding a small (0.62%) decline in salaries and fringe benefits, 97.81% of the increase comes from Operating Expenditures (\$2,022,000 or 64.15%) and Special Funds (\$1,060,860 or 33.66%). Both areas are discussed in greater detail below.

2. Personnel Costs.

A 1.08% (\$199,905) decline in payroll costs, excluding fringe benefits, belies significant staffing changes at the utility. Authorized positions increased by one, while base salaries increase only \$27,974 or 0.16%. Water Works reorganizes its workforce, effectively reclassifying the duties of 23 positions and adding one additional position, increasing base salaries a total of \$125,060. Much of this increase is offset by a net \$97,102 decrease in salaries paid for 28 other positions. Much of this reorganization is made possible by work rule changes through the recent Wisconsin Act 10 legislation and has increased productivity.

Changes in payroll costs excluding fringe benefits are rounded out with a reduction in overtime and a deduction for Water Works salaries paid on capital improvement funded activities. Table 27.3 below summarizes the \$199,105 decline in payroll costs before fringes. Projected fringe benefit costs are down \$22,062 (0.22%) consistent with the decline in other payroll costs.

Table 27.3. Changes in Payroll Costs Excluding Fringe Benefits.

Category	Change
Base Salary Change	\$27,974
Overtime Compensated	(\$160,000)
Personnel Cost Adjustment	\$1,592
Furlough	\$449
Capital Improvements Deduction	(\$69,120)
Total Change	(\$199,105)

3. Operating Expenditures.

Projected 2014 Operating Expenditures of \$46,448,000 are up \$2,022,000, or 4.55% from the 2013 Adopted Budget of \$44,426,000. These increased expenditures are experienced in most spending categories as shown in Table 27.4, indicating, especially following a 8.45% increase in actual 2012 spending over actual 2011 spending, that upward pressure on operating costs persists.

Table 27.4. 2014 Operating Expenditure Changes.

Category	Change	% Change
Infrastructure Services	\$1,175,000	36.54%
Property Services	\$612,000	4.00%
Information Technology Services	\$450,000	29.96%
Professional Services	(\$508,000)	-10.73%
Energy	\$210,000	3.38%
Tools & Machinery Parts	\$199,000	10.41%
Construction Supplies	\$103,000	3.02%
General Office Expense	(\$160,000)	-17.51%
Other Operating Supplies	\$9,000	0.22%
Non-Vehicle Equipment Rent	\$9,000	13.04%
Other Operating Services	(\$77,000)	-13.56%
Total Changes	\$2,022,000	4.55%

Infrastructure Services up \$1,175,000.

Nearly this entire increase, \$1,036,000 (87%) stems from realigning 2014 projections so they are more in line with historic actual expenditures. The budget for 2013 was \$3.2 million while 2012's actual spending was \$5.1 million and 2011 was \$4.1 million. Total infrastructure services for 2014 are budgeted for \$4.4 million.

The remaining \$145,000 of the increase is for private contractors to replace 10 large, difficult-to-reach meters.

Property Services up \$612,000.

- \$151,000 to operate 2 meter shops that improve efficiency.
- \$200,000 reflecting increased activity by the distribution division in replacing water mains.
- \$261,000 increased PILOT payment to the City. It should be noted Water Works budgeted for slightly higher PILOT payments in both 2013 and 2014 than projected by the Comptroller.

Information Technology Services up \$450,000; Professional Services down \$508,000.

A budgeting change moved \$448,000 from Professional Services to Information Technology Services, effectively canceling out 90% of the decrease in Professional Services and all but \$2,000 of the increase in Information Technology Services. The remaining \$50,000 decrease in Professional Services stems from miscellaneous service reductions and the \$2,000 in Information Technology Services also comes from various small changes.

Energy up \$210,000. This increase anticipates rate increases by energy providers.

Tools & Machinery Parts up \$199,000.

The utility continues its AMR Project to replace 161,000 water meters with automatic meter readers which make “drive-by” meter readings possible and save labor costs. The increase is to purchase electronic transmitter devices so meters can be read as meter readers drive down the street. The AMR Project is now 90%-staffed and operating around the clock and on Saturdays.

Construction Supplies up \$103,000.

The increase is to purchase small and medium-sized meters needed for the automatic meter replacement referenced in Tools & Machinery Parts directly above.

General Office Supplies down \$160,000.

The 2014 budget for mailing, postage and paper is down from budget for 2013 because the utility budgeted for a switch from quarterly to monthly billing for residential customers in 2013, but has since abandoned the initiative after failing to gain Common Council approval. The Common Council was not convinced water customers wanted the change, or that payment delinquencies would decrease enough to justify the added costs on monthly billing.

Other Operating Supplies up \$9,000.

The increase is the result of miscellaneous, non-computer expenditures by the technology section to facilitate operations.

Non-vehicle Rent up \$9,000.

The increase is the result of renting of 2 pressure testing machines to replace worn-out older machines.

Other Operating Services down \$77,000.

This is the result of a reduction in temporary service employees.

4. Equipment Purchases.

Proposed equipment purchases for 2014 of \$1,967,000 are up a modest \$69,000 (3.64%) over 2013's Adopted Budget of \$1,898,000, indicating the utility is maintaining its usual equipment budgeting level despite having actually purchased only \$831,879 in equipment in 2012, 39% less than budgeted.

5. Special Funds.

The 2014 Proposed Budget for Special Funds of \$7,895,560 is up \$1,060,860, or 15.5% from 2013's Adopted Budget amount of \$6,834,700. The increase comes from a \$970,000 (18.48%) increase in debt service, and \$90,860 (6.56%) increase in pension contribution.

The 2014 \$970,000 increase in debt service comes on the heels of a \$958,000 decrease in debt service projected for 2013. The 2014 projection is more consistent with the utility's actual historic debt service cost.

Pension contributions are up despite base salary reductions because pension contributions lag actual liabilities by 1-2 years and are not directly linked to salary changes.

IV. PERSONNEL.**Table 27.5. Changes in Full-Time Equivalent (FTE) and Authorized Positions.**

Position Category	2012 Actual	2013 Adopted Budget	Change	2014 Proposed Budget	Change
O&M FTEs	346.70	343.72	-2.98	344.07	0.35
Non-O&M FTEs	5.46	8.95	3.49	10.60	1.65
Total Authorized Positions	352.16	352.67	-0.51	354.67	2

Personnel Changes.

The 2014 Proposed Budget increases the utility's position authority from 369 to 370, by adding 24 positions and eliminating 23. Total FTEs as noted in Table 27.5 are up 2, indicating a net increase of part-time vs. full-time positions.

V. SPECIAL PURPOSE ACCOUNTS (SPA).

None.

VI. REVENUES.

Projected revenues for 2014 of \$87.4 million are up \$2.7 million or 3.1% above projected revenues for 2013 of \$84.7 million. This increase appears consistent with projected declining water sales and implementation of a 3% rate increase on June 1, 2013. Actual water sales in 2012 were up \$4.7 million from 2012 based on a 600,000,000 gallon increase in water sales resulting from a hot, dry summer and should be disregarded as an outlier for budget purposes.

Table 27.6. Changes in Revenue by Category.

Revenue Category	2012 Actual	2013 Adopted Budget	% Change	2014 Proposed Budget	% Change
Water Sales					
Residential	\$33,543,915	\$31,076,000	-7.4%	\$32,365,000	4.1%
Commercial - Industrial	\$25,517,112	\$23,728,000	-7.0%	\$24,635,000	3.8%
Other Communities	\$10,437,314	\$9,751,000	-6.6%	\$10,095,000	3.5%
Other	\$11,015,264	\$10,731,000	-2.6%	\$10,663,000	-0.6%
Total Water Sales	\$80,513,605	\$75,286,000	-6.5%	\$77,758,000	3.3%
Other Revenues	\$3,417,687	\$3,200,000	-6.4%	\$3,450,000	7.8%
Other Income	\$5,494,165	\$6,250,000	13.8%	\$6,192,000	-0.9%
TL Gen Purpose Revenues	\$89,425,457	\$84,736,000	-5.2%	\$87,400,000	3.1%

As discussed in Section II, Initiatives and Programs, above, Water Works' revenues are being sustained by the utility's more proactive strategy for seeking water rate increases to compensate for generally declining water sales and increasing operating costs.

VII. CAPITAL PROJECTS.

The 2014 Proposed Budget includes \$13,825,000 for 7 capital projects, a decrease of \$25,000 (0.2%) from the 2013 Budget. Capital projects for 2014 are summarized in Table 27.7 and the discussion that follows.

Table 27.7. Expenditures for Primary Capital Programs.

Program	2010 Actual	2011 Actual	2012 Actual	2013 Budget	2014 Proposed
Distribution System Replacement	\$9,734,531	\$3,743,287	\$2,558,228	\$7,600,000	\$11,100,000
Plant Building Improvements	\$814,375	\$340,116	\$1,095,148	\$250,000	\$100,000
Plant Treatment Improvements	\$681,969	\$249,533	\$535,906	\$400,000	\$925,000
Pump Facilities Improvements	\$2,254,680	\$754,183	\$5,350,759	\$0	\$100,000
Storage Facilities Improvements	\$1,373,128	\$1,088,150	\$32,809	\$1,400,000	\$0
Backup Power Generation	\$1,070,043	\$5,744,796	\$646,741	\$3,800,000	\$0
Meter Shop Improvements	\$902,823	\$84,110	\$13,100	\$0	\$700,000
Contingencies					\$500,000
Total	\$15,929,267	\$11,920,065	\$9,270,000	\$13,450,000	\$13,425,000

The delay in the settlement of the rate case that was applied for in 2009 depleted the utility's cash reserves. Anticipating the cash-flow issues, the Water Works began in 2010 to delay many capital projects and in 2012 began to finance capital programs with borrowing. As revenues have increased, budgeted funding for capital projects has increased and the utility's reliance on debt financing has decreased. In 2014, the Water Works anticipates using \$4.0 million of debt financing for its water main program compared to \$8 million in 2013.

In 2012, the utility focused on other components of the water system instead of water mains because water mains have a longer life, more redundancy in the system and are less prone to catastrophic failure than other components of the system. Funding for 2013 returned much of the emphasis to the replacement of water mains. Nearly 85% of the capital funding proposed for 2014 is allocated to the replacement of water mains.

1. Currently-Funded Projects.

Water Main Program, \$11,500,000.

The 2014 Proposed Budget includes \$11,500,000 for the water main program, an increase of \$3.5 million (43.8%) from the 2013 Budget.

Since 2001, the Water Works has received an average of \$12.3 million in funding for its distribution system. Between 2001 and 2009, the Water Works has expended, on average, 78% of its appropriation annually. Because of revenue losses in 2010, the Water Works began to scale back its capital program. A total of \$9.7 million was expended in 2010 for water main replacement. In 2011 and 2012 the Water Works expended \$3.7million and \$2.6 million respectively on water main replacement.

Because of continuing cash-flow constraints in 2011 the Water Works chose to defer additional projects and expended only \$4.1 million, replacing approximately 4 miles of water main. The remaining \$11.7 million was available to fund projects in 2012. The Water Works replaced approximately 5 miles of water main in 2012. The \$8 million budgeted for water mains in 2013 increased the anticipated water main replacement by approximately 40% from 2012. Capital requests for water mains increase incrementally until 2017 when they reach historically-budgeted levels.

The Water Works continues to expend the majority of its water main replacement funding on water mains that were constructed between 1946 and 1963. These water mains represent the majority of water main breaks in the system.

It is difficult to measure the impact of the reduced budget allocations for water mains from 2010 through 2012 because the primary metric for analyzing the condition of the water main system is the number of main breaks. The number of main breaks can be highly variable and is much more closely related to weather patterns than to short-term annual maintenance expenditures.

Linnwood Plant Treatment Improvements, \$775,000.

Since 2001, \$8.5 million has been budgeted for this program. \$300,000 was budgeted for this program in 2013 to assess and mitigate deficiencies of various steel pipelines associated with the water treatment process. Funding for 2014 will be used to design replacements for 2 motor control centers.

Howard Plant Building Improvements, \$100,000.

Since 2001, this program has received just over \$2.2 million in funding. The average budgeted amount is \$167,000 per year. \$100,000 was budgeted for this program in 2013 to upgrade aging electrical systems. Proposed funding in 2014 will be used to upgrade access controls and to improve perimeter protection.

Howard Plant Treatment Improvements, \$150,000.

Since 2001, this program has received \$3.1 million in funding. \$100,000 was budgeted for this program in 2013 to replace the effluent valves that control the flow of water through the plant's 8 filters.

Proposed funding in 2014 will replace dielectric tubes in one of the plants' ozone generators. The project is expected to add between 5 and 10 years to the life of the generator. Howard Avenue is a newer treatment plant and has not needed extensive upgrades in recent years. Annual funding for this program typically has not exceeded \$500,000.

Pump Facilities Improvements, \$100,000.

This program provides funding to upgrade or replace various aspects of the pumping facilities that aid in the efficient distribution of water throughout the system. Since 2001, this program has received \$22.9 million in funding. Annual funding is highly variable.

In 2012, \$2,250,000 was budgeted for this program to perform a physical inspection of the treated water tunnel between the Linnwood Plant and the Riverside pumping station. The last complete inspection of this 7,200-foot tunnel was in 1986. No projects were scheduled for 2013. Proposed funding in 2014 will replace portions of the electrical equipment at the Texas Avenue pumping station.

Meter Shop Improvements, \$700,000.

This program provides funding for improvements to the operations associated with the Milwaukee Water Works Business Section's Water Meter Services. This program first received funding in 2004. Since that time, \$1.3 million has been budgeted. The recent requests for this program have been intermittent. No funding was provided in 2012 or 2013. Proposed funding for 2014 will be used for roof replacement.

2. Unfunded Capital Requests.

None.

3. Project Updates.

None.

Table 27.8. Capital Program Summary, 2014.

Program	2014 Proposed Budget	2013 Actual	Increase (decrease)	% Chng.	6-year Request
Water Main Program	\$11,500,000	\$8,000,000	\$3,500,000	43.8%	\$91,000,000
Linnwood Plant					
Building Improvements	\$0	\$150,000	(\$150,000)	-100%	\$2,185,000
Treatment Improvements	\$775,000	\$300,000	\$475,000	158.5%	\$5,350,000
Howard Plant					
Building Improvements	\$100,000	\$100,000	\$0	0%	\$1,350,000
Treatment Improvements	\$150,000	\$100,000	\$50,000	50%	\$3,650,000
Pump Facilities Improvements	\$100,000	\$0	\$100,000		\$30,200,000
Storage Facilities Improvements	\$0	\$1,400,000	(\$1,400,000)	-100%	\$7,500,000
Meter Shop Improvements	\$700,000	\$0	\$700,000		\$700,000
Backup Power Generation	\$	\$3,800,000	(\$3,800,000)	-100%	\$6,600,000
Capital Project Contingencies	\$500,000	\$0	\$500,000		\$500,000
Total	\$13,825,000	\$13,850,000	\$4,530,000	-0.2%	\$149,035,000

4. Future Capital Requests.

Linnwood Plant Building Improvements.

Since 2001 this program has received \$9.4 million in funding. Funding has been highly variable. \$1,040,000 was budgeted for this program in 2012. Funding in 2013 (\$150,000) was provided to install skylight filters that will reduce algae growth on treatment filters. The department anticipates requesting additional funding each year from 2015 through 2019. The 6 year capital request is \$2,185,000.

Storage Facilities Improvements.

This program provides funding for the evaluation, elimination or enhancement of the system's water storage capacity. Since 2001, this program has received \$10.8 million in funding. \$200,000 was budgeted for this program in 2012. Funding in 2013 (\$1,400,000) was provided to replace the roof over the Linnwood South Clearwell. The department anticipates requesting additional funding in 2015, 2016 and 2018. The 6 year capital request is \$7,500,000.

Backup Power Generation.

In response to a regional power outage in the Northeast in 2003, the City retained the consulting firm of Black & Veatch to perform an evaluation of the reliability of the MWW's electrical power. The study had several objectives including providing benchmarking data and developing conceptual designs for critical facilities. The study determined that the electrical feeds to MWW's critical facilities are generally reliable. The study strongly recommended, however, that the City consider implementing emergency power at each of its critical facilities. See CC file 061500 for the full report.

This program was first funded in the 2008 Budget when it received \$12.5 million. Since then it has received \$9.25 million in additional funding. \$3.8 million in 2013 provided for the upgrade of the Grange Pumping Station to include backup power generation and the replacement of aging switchgear. The department anticipates requesting additional funding in 2016 and 2017. The 6-year capital request is \$6,600,000.

VIII. ISSUES TO CONSIDER.

1. Whether City should pursue only Full Rate Reviews which review the full impact of increasing operating costs and declining revenues rather than Simplified Rate Costs which effectively sets the net impact of sales declines and cost increases at 3%.
2. Whether there are reasonable alternatives to operating 2 treatment plants in an era of declining water consumption.
3. The ability of the Water Works to effectively maintain its infrastructure, which includes the water mains, the treatment plants, and pumping facilities, is directly tied to the development of a rate structure that will generate enough revenue to allow investment in the utility's assets. It is also tied to the utility's ability to successfully get its rate structure approved by the Public Service Commission.

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