

**FISCAL REVIEW SECTION – LEGISLATIVE REFERENCE BUREAU**  
**Executive Summary: 2005 PROPOSED BUDGET – DPW WATER WORKS**

EXPENSE CATEGORY	2003	2004	2003-2004	2005	2004-2005	2004-2005
	ACTUAL	BUDGET	%CHANGE	PROPOSED	CHANGE	%CHANGE
OPERATING	\$59,067,349	\$63,425,206	7.38%	\$65,441,601	\$2,016,395	3.18%
CAPITAL	\$11,713,229	\$22,620,000	93.11%	\$18,790,000	-\$3,830,000	-16.93%
O&M POSITIONS	342.87	372.4	8.61%	395.34	23	6.16%
TOTAL POSITIONS	382	363	-4.97%	363	0	0.00%
O&M (DLH)	593,478	648,216	9.22%	693,504	45,288	6.99%
NON O&M (DLH)	23,688	22,104	-6.69%	18,108	-3,996	-18.08%

*The Water Department is a public utility that supplies water to residents and commercial enterprises within the City of Milwaukee, and various suburbs and government entities. Water is provided through a system of purification plants, pumping stations, booster stations and a distribution system. The Department has a system capacity of 375 million gallons per day. Current average pumpage is about 127 million gallons a day (34% capacity).*

**Proposed Budget**

The total source of funds for Water Works 2005 proposed activities totals \$102,421,601: (1) \$65,441,601 in operating and non-operating revenues, (2) \$18,190,00 in deposits to Retained Earnings for Capital, (3) \$18,790,000 for capital projects using retained earnings, and (3) \$600,000 for out-of-pocket developer assessments. (Page 3)

**Position Changes**

The 2005 Proposed Budget maintains total number of positions in the department at 363, no change from 2004. The overall breakdown includes eliminating 12 positions and creating 12 new positions. The net fiscal impact is approximately \$87,228. (Pages 3 and 4)

Of those 11 positions eliminated, 1 was reclassified from auxiliary to permanent status by Common Council Resolution 031611, 10 are vacant or will be reclassified during this budget process, and, although none will result in 2005 layoffs, several incumbents are accepting voluntary demotions. (Pages 3 and 4)

**Performance Measures**

Beginning in 2005, performance measure indicators are no longer reported on budget documents. Several indicators are still tracked by the Water Works and reported in this summary. (Page 7)

**Rate of Return and Rate Increases**

The Water Works does not propose increasing water rates in 2005. (Page 8)

The rate of return is measured by asset values. Revenue growths produce higher rates of return. Between 2000 and 2002, the rate of return ranged from 4.0% to 5.79%, decreasing to 4.95% in 2003. As the ratio of revenues and asset valuations decline, the rate of return also declines. (Page 8)

### **Capital Improvements Projects**

The 2005 Proposed Budget provides \$18,790,000 for capital improvement projects, a decrease of \$3,830,000 or 16.94% from the \$22,620,000 provided in the 2004 Budget and 8.88% below the amount stated in the 2005-2010 capital plan. (Pages 9-11)

### **Water Main Improvements**

The 2005 Proposed Budget provides \$14,800,000 for the water main improvements program, a 17.28% increase from \$12.62 million in 2004. Approximately \$1.6 million is planned for main extensions. (Pages 9-11)

### **Plant and Building Improvements**

The 2005 Proposed Budget provides \$3,990,000 for plant and building improvements, a decrease of \$6,010,000 from the \$10,000,000 provided in the 2004 Budget for water projects other than water mains. (Pages 11 and 12)

No capital funding is proposed for the Water Works Distribution Facilities relocation to the Tower Automotive site project. (Pages 10 and 12)

### **Debt Service**

Debt service consists of principal and interest payments. Interest expense decreases each year as the principal amount to which the interest rate is applied goes down (also assuming no refunding). Therefore, a decrease in debt service funds, from 2004 to 2005, is expected, as there has been no refunding in 2003.

The 2005 Proposed budget provides for \$3.06 million for debt service for Plants South, compared to \$3.34 million in 2004. There is an additional \$4.59 million debt service listed under Plants North in 2005, compared to \$5.11 million in 2004. (Page 13)

### **Payment in Lieu of Taxes (PILOT)**

The amount is provided by the Comptroller's Office. The 2005 Proposed budget provides the City Budget \$8,441,000 for Payment in Lieu of Taxes, a \$391,000 or 4.86% increase from \$8,050,000 in 2004. This payment is provided for in the Operating Expenditures-Professional Services budget line. (Page 13)

### **Revenues**

The 2005 Proposed Budget estimates \$83,631,601 in revenue for the Water Works. The 2004 Budget projected that Water Works would receive \$85,455,206 in operating and non-operating revenues. (Page 13)

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September 28, 2004

**FISCAL REVIEW SECTION – LEGISLATIVE REFERENCE BUREAU**  
**2005 PROPOSED BUDGET SUMMARY: DPW-WATER WORKS**

EXPENSE CATEGORY	2003	2004	2003-2004	2005	2004-2005	2004-2005
	ACTUAL	BUDGET	%CHANGE	PROPOSED	CHANGE	%CHANGE
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O&M POSITIONS	342.87	372.40	8.61%	395.34	22.94	6.16%
TOTAL POSITIONS	382	363	-4.97%	363	0	0.00%
O&M (DLH)	593,478	648,216	9.22%	693,504	45,288	6.99%
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*The Water Department is a public utility that supplies water to residents and commercial enterprises within the City of Milwaukee and various suburbs and government entities. Water is provided through a system of purification plants, pumping stations, booster stations and a distribution system. The Department has a peak system capacity of 375 million gallons per day and an average daily capacity of 325 million gallons. Current average pumpage is about 127 million gallons a day (34% capacity).*

**Mission Statement**

“Maintain the highest quality of service while providing a safe, reliable, and aesthetically pleasing supply of water.”

**Pertinent Historical Information**

1. The 1995 Budget provided \$89 million in borrowing authority for five capital improvement projects resulting from the Cryptosporidium outbreak that affected more than 400,000 people and was traced to the presence of Cryptosporidium in the City's finished water supply. As of September 2000, \$86.7 million has been borrowed for these projects. This includes \$17.6 million in Revenue Bonds and \$69.1 in General Obligation (GO) bonds.  
  
Full payment of the GO Bonds is scheduled to occur in the Year 2015, while the Revenue Bond are expected to be paid off by 2018.
2. In 1999, the Public Service Commission enacted a Simplified Rate Case (SRC) Program allowing the Utility the ability to increase rates by an amount equivalent to the previous year's rate of inflation. The most recent SRC rate increase (3.4%) was implemented June 2001.
3. The 2000 Budget provided \$1.3 million for information technology services. These funds were used for upgrading the Water Works' mainframe computer system, which is used for billing, and tracking customers, and other tasks (replacing its server, software, training dollars, various other system enhancements, etc.).
4. In 2001, several reorganization and administrative shifts occurred throughout the Water Department. Beginning with the 2001 Budget, the Water Works split the north water production group from the south water production. The performance measures were divided 60% to the north plant and 40% to the south plant.

5. In 2001, the Control Center located in the Municipal Building transferred from the Distribution Unit to the Business Unit because it is primarily a customer service activity. Both units, the Control Center and Distribution, handled all customer service calls in the evenings and on weekends.
6. Meters equipped with AMR devices are read using a computer-equipped van. During years 2000 and 2001, twenty-three (23) residential meter reader positions (including auxiliary) were replaced with 1 person designated to read meters while driving the AMR van. Efficient resources allocation reduces the time required (and direct labor hours) for reading district residential meters from 1 month to 8 days.
7. The 2001 Budget eliminated 13 Meter Reader Residential positions (\$403,987), including 3 vacant positions. Ten positions were created to facilitate this change. The 10 individuals had some bumping rights to other positions. Meter-reading performance indicators showed 543,000 meters read in 2001, compared to 629,455 in 2002. No-access (meters that could not be accessed for readings) measures decreased from 105,000 in 2001 to 25,312 in 2002.
8. In June 2003, the Common Council adopted Resolution 021758 authorizing the Water Works to execute a wholesale water service agreement with the City of New Berlin.
9. The anticipated withdrawal from Retained Earnings increases from \$485,707 in 2003 to \$9,183,632 in 2004, an increase of \$8,697,925 or 1690.78%. The additional funds uses were to provide for the 2004 Distribution Buildings Replacement capital improvement project.
10. In 2003, "unaccounted for water" was calculated to be 12%. "Unaccounted for water" represents water treated/pumped but not measured or accounted for through metering, estimates or other quantifiable uses and does not reflect only system leakage. Water Works is making an effort to reduce this "unaccounted for water" by a) better quantifying water lost through flushing programs, water main breaks, etc, and b) conducting leak surveys throughout the system and repairing any identified leaks.

## **2005 BUDGET HIGHLIGHTS & ISSUES**

The total source of funds for Water Works 2005 proposed activities equals \$102,421,601: (1) \$65,441,601 in operating and non-operating revenues, (2) \$18,190,00 in deposits to Retained Earnings for Capital, (3) \$18,790,000 for capital projects using retained earnings, and (3) \$600,000 for out-of-pocket developer assessments.

### **PERSONNEL**

The 2005 Proposed Budget maintains the total number of positions in the department at 363, no change from 2004. The overall breakdown includes eliminating 12 positions and creating 12 new positions. The net fiscal impact is approximately \$87,228.

Of those 12 positions eliminated, 1 was reclassified from auxiliary to permanent status by Common Council Resolution 031611, 11 are vacant or will be reclassified during this budget process, and, although none will result in 2005 layoffs, several positions will be downgraded. Areas affected are discussed on pages 3 and 4.

#### ***Management Reclassifications***

The following reclassifications (job title and pay) for management positions in the Business Decision unit are included in the 2005 Proposed Budget. Adopting these proposals in the annual budget authorizes the reclassifications. Titles and pay are subject to change, pending a Department of Employee Relations job study, Civil Service approval and subsequent Common Council action.

- 1-Network Coordinator Assistant SG 2 upward to 1-Network Coordinator Associate SG 4
- 1-Water Communications Center Supervisor SG 6 down to 1-Network Coordinator Associate SG 4 (see p. 4)

#### ***Position Downgrades***

Several filled positions are proposed for downgrading in 2005, according to the Water Works. The affected service areas include Technical Services, Municipal Building Control Center, and Commercial Services. The Technical Services group supports five computer systems including a micro-computer network, a utility billing and work order system, a geographical information system (GIS) a Supervisory Control And Data Acquisition (SCADA) System, and a computerized maintenance management system. The Commercial Services (former Customer Service) group responds to customer telephone and over-the-counter inquiries at the Municipal office building. Representatives are trained to meet all customer needs ranging from resolving billing inquiries to scheduling meter appointments. The area is also responsible for the generating and collecting the utility's Municipal Services Bill.

The Water Works provided the following list of positions being eliminated and created to facilitate the position downgrades. No change in service delivery is anticipated.

- 1-Water Communications Center Supervisor (SG 6) currently working in the Municipal Building Control Center would be demoted to 1-Network Coordinator Associate (SG 4) position in Technical Services.
- 3-Program Assistant II (PR 530) currently working in the Commercial Services section would be reclassified to 2-Accounting Assistant III (PR 460) and 1-Program Assistant I (PR 460) positions, also in the Commercial Services section.

Position authority for the 2004 classifications are eliminated in the 2005 Proposed Budget. The 2005 Proposed Budget provides for creating the aforementioned new titles and pay to allow for placement of those candidates.

DER has not completed any evaluation of these changes and once the funding is included in the 2005 Adopted Budget, they will be requested to fully review and evaluate the proposed actions to ensure they are warranted and to determine any changes in compensation.

*Non-management/Non-auxiliary/Auxiliary*

The following non-management/non-auxiliary positions are being created in the 2005 Proposed budget. The department does not anticipate any layoffs or changes in service delivery.

- 1-Network Coordinator Associate to monitor North Plant maintenance activities
- 1-Water Plant Laborer (0.5 FTE) to correct year 2004 position ordinance
- 1-Engineering Technician II to increase monitoring of the distribution system
- 1-Water Distribution Laborer to meet increased workload needs

The 2005 Proposed Budget also provides for eliminating 1-Meter Shop Laborer position through a reclassification to 1-Water Meter Specialist to adjust for workload needs, and, eliminating 1-Auxiliary Accountant III (0.5 FTE) SG 6 and creating 1-Accountant III (0.5 FTE) to provide full time employment for the current part-time incumbent.

The following non-management/auxiliary positions are being eliminated in the 2005 Proposed budget. The department does not anticipate any layoffs or changes in service delivery.

- 1-Aux. Customer Service Representative III (0.5 FTE) (PR 445)
- 2-Aux. Water Treatment Plant Operator (various less than full time FTEs)
- 1-Aux. Water Chemist II (0.5 FTE)

The Auxiliary Water Revenue Manager (SG 8) position was reclassified to Auxiliary Project Manager (SG 8) by Common Council Resolution 031611. The 2005 Proposed Budget reflects the change by eliminating and creating the appropriate titles and pay.

However, there are discrepancies in the Water Works and Budget Office tallies for FTEs related to the Aux. Water Treatment Plant Operator positions. FTEs times 1,800 determine the amount of direct labor hours charged to services. Final numbers were not available at the time of this writing.

## Budget Line Items

The year 2003 expenditure totals serve as benchmarks for forecasting year 2005 operating expenditures. The benchmarks and 2005 projected needs are reflected in the following table.

Operating Expenditure	2005 Proposed	2004 Adopted	Change	Pct Change
Net Salaries and Wages	\$17,550,064	\$15,862,484	+\$1,687,580	+10.64%
General Office Expense	\$493,000	\$389,647	+ \$103,353	+26.53%
Energy Expenditures	\$5,365,053	\$4,782,994	+ \$582,059	+12.17%
Other Operating Supplies	\$2,085,800	\$1,701,423	+ \$384,377	+22.60%
Vehicle Rental	\$5,000	\$813,137	- \$808,137	-99.39%
Vehicle Repair Services	\$778,000	\$627	+ \$777,373	+123,983%
Professional Services	\$2,977,360	\$2,677,107	+ \$300,253	-11.22%
Information Technology Svcs	\$1,458,500	\$3,803,500	- \$2,345,000	-61.66%
Property Services	\$11,255,000	\$10,975,273	+ \$279,727	+ 2.55%
Infrastructure Services	\$4,520,000	\$3,660,000	+ \$860,000	+23.50%
Equipment Purchases	\$1,731,000	\$1,473,220	+ \$267,780	+18.30%

- Of the \$1,687,580 increase in Net Salaries and Wages, \$87,228 is attributed to position changes (p. 185 of Budget Summary), \$787,000 is attributed to calculated increased Overtime Compensation, and the remaining \$813,352 is reflective of step increases, changes in personnel cost adjustments and capital improvement deductions.
- Increase in the price of postage is the main part of the increase in the General Office Expense category. In an attempt to increase revenue collections, the Water Works anticipates mailing significantly more collection letters to customers who are late paying one quarter of billable charges and fees. The standard for revenue billing requires mailing a quarterly bill, mailing collection letters for non-payment by the due date, and mailing delinquent notices when the account is past due for two consecutive quarters. Unresolved delinquent balances transfer to the tax roll in the third billing cycle. Only 1 of 3 Water Revenue Collector positions have not been eliminated through annual budgets, and in the 2005 proposed budget the position is auxiliary status. This position makes field collection calls and disconnects service for noncompliance.
- According to Water Works, Energy Expenditures for 2005 were calculated to reflect both actual year 2003 energy experience and rising industry costs. In 2003, expenditures exceeded budget authority by 7.82%. An aggregate \$4,358,786 was budgeted (p. 273, 2003 Budget) and \$4,699,636 (p. 630.1, 2005 BMD2) in total was expended on energy.
- In the past, the budgeted amounts for Vehicle Repair Services were inadvertently shown in the Vehicle Rental line along with actual expenditures, according to the Water Works. In 2005, it was changed to show the requested amount on the budget line that fits the desired type of activity or service.
- Professional Services provides for consultant, architecture and engineering, medical, surgical, lab, administrative charges for other city department services, and miscellaneous professional

services. In previous years, Department of Neighborhood inspections and DPW contract and engineering administration charges were the largest charges to this budget line.

- In 2003 and 2004, the Information Technology Services budget line included \$2 million for the Customer Information System (CIS). Fewer funds are required in 2005.
- The increase in Property Services reflects the increased PILOT payment.
- The Property Services category, among other things, includes charges for building repair and maintenance, space usage charges and costs, and PILOT payments to the city.
- According to the Water Works, the 2003 experience for pavement cut repairs done by DPW-Infrastructure Services Division was \$5,084,735. This was substantially higher than normal due to an unusually high number of water main breaks. The 2005 Proposed \$4.5 million for Infrastructure Services requests reflects activity that is more typical.
- The proposed uses for 2005 equipment purchases are summarized in the table below.

**2005 Equipment Purchase uses by decision unit**

Decision Unit	Proposed Fund Uses	Proposed for Unit in 2005
Business	Various Metering Devices, including hydrant meters Hardware and Software for monitoring computer network activity	\$528,300
North Plant	Laptop and PDA computers and printers, tools, battery backups, trucks and turbidimeters	\$248,700
Engineering	Laptop computers and radio equipments	\$14,500
Distribution	Various tools and related furnishings, testing apparatus, pumping equipment and various trucks, jeeps, and vans	\$837,300
Water Quality	Radios, computer related and testing equipments	\$24,500
South Plant	Various computer and peripheral devices, tools, metering devices, and water chemical testing and analyzing equipments	\$77,700
<b>Total Equipment Purchase for All Water Works Decision Units</b>		<b>\$1,731,000</b>



## Performance Measures

2004 and previous years' budget forms included statistics on individual performance measures, indicators of program/project successes or challenges. Those indicators could be used to determine the effectiveness and appropriateness of resource allocations to programs/projects. Several indicators are no longer tracked for various reasons. Some statistics provided by the Water Works are summarized below.

- For 2004, MWW projects approximately 45.3 billion gallons of water will be pumped and purified (based on YTD data). This represents about an 800 MG decrease from 2003. This is believed to be due to the unusually cool and wet summer this year.
- In 2005, Water Works is projecting about 46 billion gallons of water will be pumped and purified. This represents an increase of about 700 MG from the 2004 level. This represents an anticipated normal or average summer in 2005 and would be consistent with 2003 levels.
- The percentage of damages paid in 2005 is expected to follow this year's trend, i.e. slightly more than 50% of billable damages. Unpaid damages are usually the result of uninsured motorists not paying, regardless of the dollar amount billed.
- 78% of all calls were answered by Customer Service Representatives in 2003 and 74% were answered year-to-date in 2004, according to Water Works. Unanswered calls drop or hang up from the Water Works phone system. The projection for 2005 is 80%.
- Substantial equipment and personnel costs are associated with the condition of meter inventories and staff ability to read usage. The Water Works provided the following statistics.

<b>Meter Statistic</b>	<b>Type</b>	<b>2003 Actuals</b>	<b>2005 Projection</b>
In-service	Small	155,002	155,150
	Medium	4,655	4,500
	Large	1,341	1,325
Repaired	Small	6,357	6,750
	Medium	163	275
	Large	258	260
Exchanged	Small	2,076	3,100
	Medium	442	420
	Large	39	75
Read		639,839	635,000
Investigated for functionality/damage		7,400	7,100
Successfully read by the AMR van (automatic meter reading)		97%	98%
<i>Source: Milwaukee Water Works</i>			

## Rate of Return and User Rate Increases

The Public Service Commission provides the Water Works two options for increasing water rates: (1) a Simplified Rate Case Inflationary Rate Increase and (2) a Full Rate Increase. The Water Works **will not** increase water rates under either option in 2005. The current rate structure was authorized by the Public Service Commission in 2002 and authorized for implementation by the Common Council that same year.

On June 19, 2001, the Common Council, under Resolution File No. 010234, authorized the Water Works to file a petition with the Public Service Commission of Wisconsin to increase water rates. Applying a 6.5% rate of return and an 11.5% increase to the \$47.32 average urban residential quarterly water bill using 32 ccf of water resulted in a new average quarterly water bill of \$52.76, a quarterly increase of \$5.44 or an annual increase totaling \$21.76. This increase took effect June 1, 2002.

### Water Rates

The water rate for City of Milwaukee retail customers will remain constant in 2005 at \$1.18 per 100 cubic feet of water (Ccf).

Current water rates were implemented per PSC Docket 3720-WR-104 effective June 1, 2002 according to the following schedules:

#### **Water Rates - Retail**

Water Consumption - Retail	Milwaukee	West Milwaukee	Other Suburbs
First 100 CCF (hundred cubic ft.)	\$1.180	\$.671	\$1.475
Next 4,900 CCF	1.090	.637	1.363
Next 15,000 CCF	.680	.501	.850
Next 20,000 CCF	.630	.490	.788

#### **Water Rates - Wholesale**

Water Consumption - Wholesale	All Wholesale Customers
Each 100 CCF (hundred cubic ft.)	\$0.44
General Service Charge	\$8500 to \$190,750
Fire Protection (include demand charges)	\$ 0 to \$35,600

Four suburban retail customers receive full water service from the Water Works, including customer billing and distribution system maintenance. Those customers include Greenfield, Hales Corners, St. Francis, and a portion of Franklin. In a unique arrangement, West Milwaukee receives billing services from Milwaukee Water Works but maintains their own distribution system, warranting a unique rate structure.

### Rate of Return and Revenue Projection

The rate of return is measured by the assets of the Water Works. Revenue growths produce higher rates of return. Between 2000 and 2002, the rate of return ranged from 3.98% to 5.79%, decreasing to 4.95% in 2003. As the ratio of revenues and asset valuations decline, the rate of return also declines.

## **New Water Service Customers**

Potential markets for water sales are limited due to federal and international waterways legislation that prohibits water distribution beyond areas that will allow those waters to flow back into their origin. Since the Water Works provides its product from Lake Michigan, water may only be distributed to communities within the Great Lakes Basin and inside the subcontinental divide.

The Common Council established guidelines that must be followed before the Water Works can sell water to other communities. The Common Council approved file 980871 on April 20, 1999, by a 17-0 vote, which authorized the Water Works and the Legislative Reference Bureau to investigate and evaluate the impact that the sale of water to other communities will have on the City of Milwaukee and to report their findings to the Common Council. This file was adopted in part due to inquiries concerning availability of Milwaukee water for sale to other communities.

In June 2003, the Common Council adopted Resolution 021758 authorizing the Water Works to execute a wholesale water service agreement with the City of New Berlin. The portion of City of New Berlin that lies east of the subcontinental divide (within the Great Lakes Basin) will begin receiving Milwaukee Water in 2005.

The Water Works has had preliminary discussions with the City of Brookfield, the Village of Elm Grove, and the Village of Germantown. However, only the portions of those communities that lie within the Great Lakes Basin are eligible.

## **Capital Improvements Projects**

The 2005-2010 City of Milwaukee Capital Improvements Plan projected a \$20,620,000 total capital need for all Water Works capital projects in 2005. However, the 2005 Proposed Budget provides \$18,790,000 for capital improvement projects, a decrease of \$3,830,000 or 16.94% from the \$22,620,000 provided in the 2004 Budget and 8.88% below the amount stated in the plan. Lower capital budgets result in less fund deposits to retained earnings for future years debt service. Included in the 2005 Proposed budget are:

- \$14,800,000 for the water main improvements program, a 17.28% increase from \$12.62 million in 2004. Approximately \$1.6 million is planned for main extensions.
- \$2,800,000 for Linnwood and Howard plant improvements, a 194.74% increase from \$950,000 in 2004.
- \$1,050,000 for facilities improvements, a 40% increase from \$750,000 in 2004.
- \$140,000 for Meter Shop repairs, a 45.67% decrease from \$300,000 in 2004.

According to Resolution 040025, adopted May 2004, the estimated acquisition and development capital cost of relocating DPW Traser Yard and Water Works distribution facilities to the Tower site is \$24 million (\$14.1 million and \$9.9 million, respectively), to be supported by both the tax levy and enterprise funds. As stipulated in the resolution, to supplement its year-2004 \$8 million capital authority, the Water Works required \$1.7 million in 2005 capital authority to complete its funding portion of the relocation project.

The 2005 Proposed Budget **does not** include funds for fulfilling capital needs related to **relocating the distribution facilities to the Tower Automotive site**. According to the Water Works and Common Council Resolution 040258 adopted in June 2004, the turnkey agreement is being negotiated by the Redevelopment Authority. The Water Works will guarantee the contract, and make required payment bases on final project costs in 2006, thereby postponing the obligation.

**Water Main Improvements**

1. All funding provided in the capital program is for new or replacement mains. Main repairs are budgeted in the Water Department's operating budget. The approximate cost to replace 1-mile of distribution main is \$1 million and to replace 1-mile of feeder main is \$5 million.
2. The budget provides resources to replace approximately 10-12 miles of main each year. Water Works seeks to reduce main breaks by 70 breaks per year and to reduce by 20 the number of feeders repaired each year.
3. It costs approximately \$5,000 to repair a typical distribution main break. Leaking connectors causes most repairs on feeders. Feeder breaks themselves are relatively rare.
4. As of August 2004, there have been 492 water main breaks compared to 659 recorded during the same time last year. Included are 251 6" water main breaks and 199 8" water main breaks. In 2003, there were 659 water main breaks, or an average of 54 per month. Based on a five-year average, main break projections for 2005 are 710.

<b>WATER MAIN BREAKS EXPERIENCE - 1994-2003 SMALL MAINS-DISTRIBUTION DECISION UNIT</b>	
<u>YEAR</u>	<u>ACTUAL</u>
1994	960
1995	831
1996	774
1997	886
1998	784
1999	710
2000	667
2001	651
2002	629
2003	659

**Distribution Water Main Project – \$13,200,000**

This program includes \$13,200,000 to replace defective water main sections that have a history of failure. The purpose of the program is to reduce the dilapidation of the water main infrastructure. This authority represents non-assessable projects.

Budgeting for assessable distribution water main capital projects in this line was discontinued in 2004.

**Non-Assessable Feeder Main Program – \$1,000,000**

In 2005, this program uses \$1,000,000 to replace deficient feeder mains. It is anticipated that funding requests for this ongoing capital project will increase in \$20,000 increments annually.

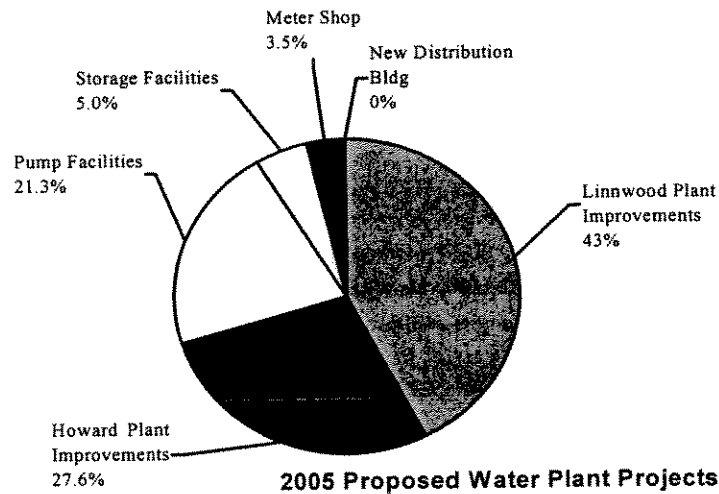
**Developer Out-of-Program Agreement at various locations – \$600,000**

Funding is based on anticipated developer needs that provide the cost for installing new water mains in new developments in accordance with the Milwaukee Code of Ordinances.

**2004 Plant and Buildings Improvements**

The 2005 Proposed Budget provides \$3,990,000 for plant and building improvements, a decrease of \$6,010,000 from the \$10,000,000 provided in the 2004 Budget for water projects other than water mains.

The chart on this page illustrates the 2005 proposed funding uses.



**Linnwood Plant Building Improvement – Control Center and Security Upgrades – \$700,000**

This budget line provides for a \$500,000 Control Center project and a \$200,000 Security Upgrade project for the Linnwood Plant. The Control Center project involves installing preliminary monitoring equipment and systems before implementing the new SCADA (Supervisory Control And Data Acquisition) plant automation system. The security upgrades are mandated by the Department of Homeland Security.

**Linnwood Plant Treatment Improvement – SCADA and Flocculator Systems Upgrades – \$1,000,000**

The \$1 million proposed budget authority would provide \$600,000 for the SCADA upgrades and \$400,000 for multi-year flocculator system upgrades. The SCADA project entails upgrading computer software and the Flocculator Systems project involves replacing mechanical Flocculator (oar-shaped equipment) bearings and shafts.

**Howard Plant Building Improvement – Control Center Upgrades – \$500,000**

The Control Center project involves installing preliminary monitoring equipment and systems before implementing the new SCADA (Supervisory Control And Data Acquisition) plant automation system.

**Howard Plant Treatment Improvement–SCADA and Chemical Mixing System Upgrades – \$700,000**

This budget line provides for a \$400,000 SCADA upgrade and a \$200,000 Chemical Mixing Systems upgrades. The SCADA upgrade involves replacing computer software, and the Chemical Mixing Systems project involves replacing the chemical induction system with a mechanical propeller mixer and chemical drip feed system.

**Pump Facilities Improvement Upgrades – Security and Switchgear Substation Upgrades – \$850,000**

This budget line provides \$150,000 to upgrade security at the Riverside pumping station and \$700,000 to replace and relocate an aging switchgear substation building currently located at the Florist Avenue pumping station.

**Storage Facilities Improvements – Security Upgrades – \$200,000**

The project provides for updating security at booster stations.

**Meter Shop Repair – Various Replacements – \$140,000**

This budget line provides \$100,000 to build 3 bulk-fill sites and \$40,000 to replace and relocate an aging gate controls at the meter shop parking lot. Bulk carriers such as landscape and construction companies and swimming pool agents would fill their tanks at these metered sites. The metered bulk-fill stations would eliminate the need for those carriers to obtain hydrant permits. Smaller consumers, such as neighborhood gardening groups and emergency hookups would not be affected.

**Distribution Buildings Replacement – No Capital in 2005**

Details were discussed on page 10.

**Debt Service**

Debt service consists of principal and interest payments. Interest expense decreases each year as the principal amount to which the interest rate is applied goes down (also assuming no refunding). Therefore, a decrease in debt service funds, from 2004 to 2005 is expected, as there has been no refunding in 2003.

The 2005 Proposed budget provides for \$3.06 million for debt service for Plants South, compared to \$3.34 million in 2004. There is an additional \$4.59 million debt service listed under Plants North in 2005, compared to \$5.01 million in 2004.

**Payment in Lieu of Taxes (PILOT)**

The amount is provided by the Comptroller's Office. The 2005 Proposed budget provides the City Budget \$8,441,000 for Payment in Lieu of Taxes, a \$391,000 or 4.86% increase from \$8,050,000 in 2004. This payment is provided for in the Operating Expenditures-Professional Services budget line.

**Revenues**

The 2005 Proposed Budget estimates \$83,631,601 in revenue for the Water Works. The 2004 Budget projected that Water Works would receive \$85,455,206 in operating and non-operating revenues.

Budgeted anticipated withdrawal from Retained Earnings increased from \$485,707 in 2003 to \$9,183,632 in 2004, an increase of \$8,697,925 or 1690.78%. The additional funds will be used to provide for the 2004 Distribution Buildings Replacement capital improvement project.

2005 PROPOSED REVENUES - WATER WORKS					
	2003	2004	%	2005	%
REVENUES	ACTUAL	ADOPTED	CHANGE	PROPOSED	CHANGE
OPERATING	\$ 73,814,123	\$ 69,611,574	-5.69%	\$ 70,765,322	1.66%
NON-OPERATING	\$ 2,888,563	\$ 6,660,000	130.56%	\$ 7,259,000	8.99%
WITHDRAWAL-RETAINED EARNINGS	\$ -	\$ 9,183,632	N.A.	\$ 5,607,279	-38.94%
<b>TOTAL REVENUES</b>	<b>\$ 76,702,686</b>	<b>\$ 85,455,206</b>	<b>11.41%</b>	<b>\$ 83,631,601</b>	<b>-2.13%</b>

**Municipal Services Bill**

The Water Works maintains statistics for Municipal billing service fees and charges. The current computer system reports in \$1000 increments but cannot distinguish the revenue by type (water, sewer maintenance fee, MMSD, solid waste, snow and ice fee).

- **Water** service charges are billed based on meter size and consumption
- **MMSD Sewer Treatment Charge** is billed, based on the size of the meter, on behalf of the Milwaukee Metropolitan Sewerage District (MMSD) for treating wastewater.
- **Solid Waste Fee**, established 2001
- **Snow & Ice Fee** (Snow and Ice Cost Recovery Charge), established in 2002

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