**Agenda – Council – December 15, 2010**

**Report – Standing Policy Committee on Infrastructure Renewal and Public Works – November 16, 2010 adjourned to November 23, 2010**

**Item No. 2 2011 Water and Sewer Rates**

STANDING COMMITTEE RECOMMENDATION:

On December 8, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submits the following to Council:

1. That effective January 1, 2011, the water rates, based on water used, be increased as follows:

   A. To $1.34 from $1.29 per cubic metre from 0 - 272 cubic metres/quarter (Block 1)
   B. To $1.17 from $1.12 per cubic metre 272.1 – 2,720 cubic metres/quarter (Block 2)
   C. To $1.00 from $0.95 per cubic metre over 2,720 cubic metres/quarter (Block 3)

2. That effective January 1, 2011, the sewer rates, based on water used, be increased to $1.97 from $1.91 per cubic metre, which includes 22 cents per cubic metre for the Environmental Projects Reserve (18 cents in 2010).

3. That a By-Law be enacted to implement these fee changes, as shown on Appendix G of the report from the Winnipeg Public Service dated November 16, 2010.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

**Report – Standing Policy Committee on Infrastructure Renewal and Public Works – November 16, 2010 adjourned to November 23, 2010**

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On December 8, 2010, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On November 23, 2010, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

# ADMINISTRATIVE REPORT

**Title: 2011 WATER AND SEWER RATES**

**Critical Path: Standing Policy Committee on Infrastructure Renewal and Public Works - Executive Policy Committee - Council**

## AUTHORIZATION

| Author | Department Head | CFO | CAO |
|---|---|---|---|
| Darlene Capp, C.G.A.<br>Assistant Controller | B. D. MacBride, P. Eng<br>Director of Water and Waste | M Ruta | M Ruta<br>Acting CAO |

## RECOMMENDATIONS

It is recommended that

1. Effective January 1, 2011 the water rates, based on water used, be increased as follows:

   to $1.34 from $1.29 per cubic metre from 0 - 272 cubic metres/quarter (Block 1)
   to $1.17 from $1.12 per cubic metre 272.1 – 2,720 cubic metres/quarter (Block 2)
   to $1.00 from $0.95 per cubic metre over 2,720 cubic metres/quarter (Block 3)

2. Effective January 1, 2011 the sewer rates, based on water used, be increased to $1.97 from $1.91 per cubic metre, which includes 22 cents per cubic metre for the Environmental Projects Reserve (18 cents in 2010).

3. Council enact a By-Law (draft attached as Appendix G) to implement these fee changes.

## REASON FOR THE REPORT

Changes to the Water and Sewer rates require Council approval.

## IMPLICATIONS OF THE RECOMMENDATIONS

The increases recommended in this report for the 2011 rates are the same that were forecast for 2011 a year ago in the report for the 2010 rates.

Winnipeggers are embracing good conservation practices. Per capita water consumption is the lowest it's been in decades. Even with a growing population, Winnipeg is using less water every year.

Despite a steadily rising population "peak hour" and "peak day" consumptions are the lowest experienced since the 1960's.

This conservation means we have been able to avoid millions of dollars of infrastructure capital expenditures such as larger water treatment plant and quite likely a second aqueduct.

However, one consequence of lower water use is lower revenues. The cost to maintain the water and sewer systems is mostly fixed and has not changed. Minimal savings may result on chemicals and pumping costs associated with lower volumes. Consequently, water and sewer rates will have to increase to produce the necessary revenue to sustain the system. Although the rates will be higher, this does not generate higher revenue.

The Department is currently undertaking a project to review the existing rate structure. The Cost of Service study will ensure water and sewer rates are aligned with the actual cost of delivering services to each class of customer. The rate study will review alternative rate structures including declining block, inclining block, uniform, seasonal, and winter cost averaging.

**Water Rate**

Water rates are proposed to increase effective January 1, 2011:

- $1.34 for domestic from 0 - 272 cu. m/quarter (Block 1)
- $1.17 for intermediate from 272.1 – 2,720 cu. m/quarter (Block 2)
- $1.00 for industrial over 2,720 cu. m/quarter (Block 3)

**Sewer Rate**

For 2011, the Department is proposing that the sewer rate increase from $1.91 to $1.97 per cubic metre. This includes 22 cents per cubic metre for the Environmental Projects Reserve (18 cents in 2010).

The Winnipeg Public Service is working on preliminary design of wastewater upgrades at the North and South End Wastewater Pollution Control Centres.

Two major projects, Biosolids Management and Combined Sewer Overflow Control (CSO) are still in the planning stages creating uncertainty in the budget numbers.

In terms of biosolids management, the 2001 estimate that has been carried up until this report was $62 million. The estimate predated the CEC hearings and the Province's Nutrient Management Regulation that came into effect in 2008. A recent review of the impact of those events plus the ongoing construction inflation has increased the estimated cost to $150 million or higher for some options. The estimate of $150 million has been used in this rate forecast.

The combined sewer overflow mitigation cost of $450 million has not been updated since the hearings in 2003. The City has been expecting the Province to issue an environmental license for CSO mitigation but has not received one at the time of writing this report. The CSO cost projection and financial plan needs to be updated to current costs. This will be revised for next year's report once the specific requirements of the license are known and an engineering estimate is prepared.

Federal/Provincial Funding: $50 million in funding under a federal-provincial infrastructure program is being provided to the City of Winnipeg for wastewater system improvements. The agreement was finalized in 2007 and the funding incorporated into the forecast from 2007-2011.

In the 2007 throne speech, the Province announced funding of $206 million for Wastewater projects. To date no agreement has been signed, beyond the $50 million received under the Canada Strategic Infrastructure Fund (CSIF). For the purposes of this forecast, we have estimated receiving the Provincial funds over four years, 2011 to 2014. While there is the possibility of additional federal contributions, without confirmation, numbers have not been incorporated into the forecast.

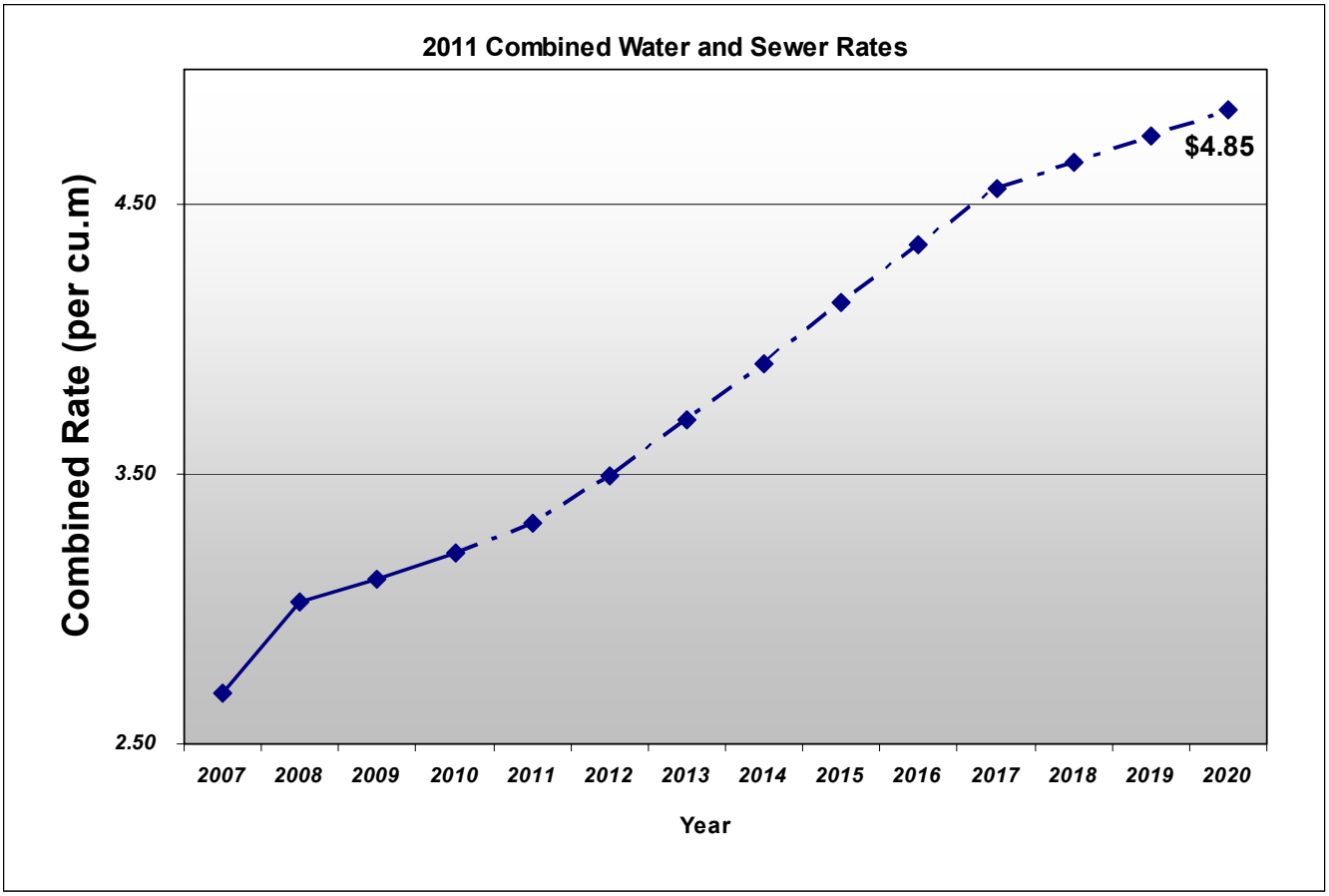
## HISTORY

**Working Capital**

Typically the Water and Sewer Utilities maintain a minimum working capital reserve of 11% of the combined Water and Sewer sales. This is to protect the Utilities' financial position, prevent significant rate fluctuations, provide medium-term stability and absorb losses in any given year that may otherwise result from a decline in consumption or major unforeseen expenditures.

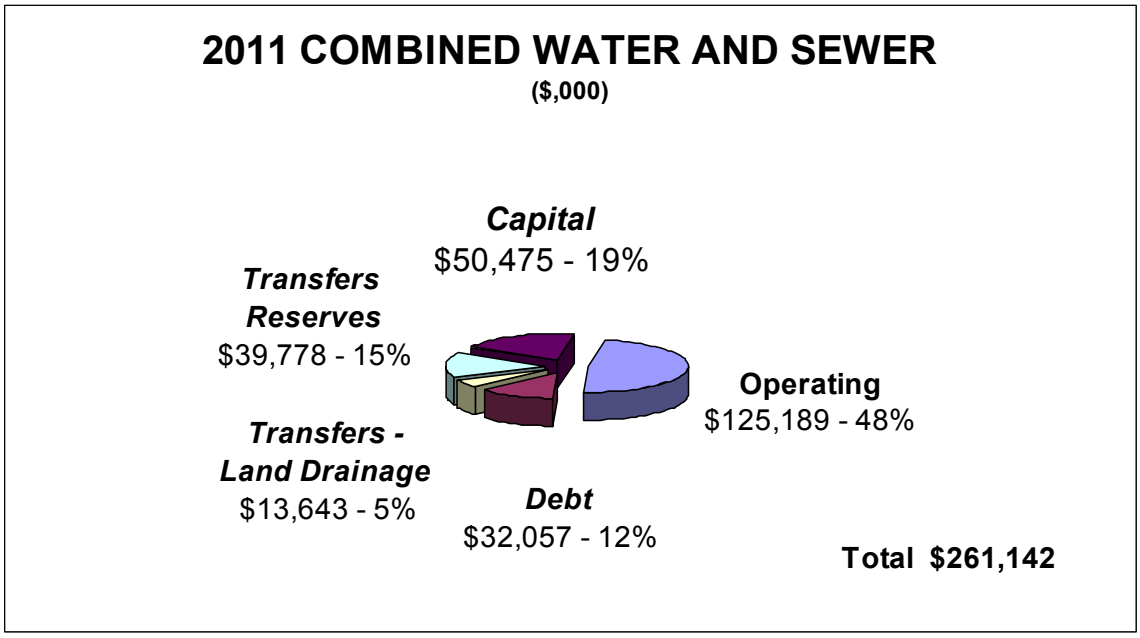
**Combined Water and Sewer Rates**

The 2011 water and sewer rate model projects an increase to the combined water and sewer rate of 3.2% for 2011. The 10 year plan forecasts rate increases to continue to be higher than inflation for several years. Increases are then forecast to decline to inflationary levels and remain there.




A typical residential customer's annual water and sewer bill will increase by $26.40 to $849.40 in 2011.

For 2011, the following represents the major cost categories contributing to the water and sewer rates. Total costs are forecast at $261 million, including $50 million for cash funded capital projects.




**Daily Basic Service Charge**

The Daily Basic Service Charge (DBSC) recovers the cost of meter reading, customer billing, accounts administration, and customer service centre support. Costs associated with the meter installation and maintenance are also recovered from the daily basic service charge. This charge is being reviewed as part of the Cost of Service study. No change is recommended for 2011 for the DBSC.

**Reserves**

**Environmental Projects Reserve:** The Environmental Projects Reserve will support the wastewater treatment improvement program as directed by Manitoba Conservation. Federal/Provincial funding of $256 million over eight years has been incorporated into the financing plan. In addition, under this rate plan, the Department will require borrowing authority for up to $452 million in order to fully fund the improvements over the next 10 years.

Contributions to the reserve will increase in 2011 from 18 cents to 22 cents per cubic metre an increase of 4.0 cents per cubic metre. The increased contribution to the reserve is part of a plan to reduce the amount of debt funding that is required to complete the wastewater treatment improvement program, therefore reducing the amount of interest and service charges being paid.

**Sewer Utility**
**Environmental Projects and Financing Schedule $000s**

| Year | Annual Capital | Project Financing | | | | | Balance | |
|---|---|---|---|---|---|---|---|---|
| | Expenditure | Volume Rate [1] | Fed/Prov | Debt | Retained Earnings | Total | Debt | Reserve |
| to 2006 | 44,001 | 90,944 | - | - | | 90,944 | - | 46,943 |
| 2007 | 19,430 | 9,959 | 8,200 | - | | 18,159 | - | 45,672 |
| 2008 | 21,789 | 8,514 | 3,866 | - | 3,028 | 15,408 | - | 39,291 |
| 2009 | 5,529 | 9,844 | 5,195 | - | | 15,039 | - | 48,801 |
| 2010 | 8,421 | 12,524 | 19,704 | - | | 32,228 | - | 72,608 |
| 2011 | 131,342 | 13,578 | 64,035 | - | 9,536 | 87,149 | - | 28,415 |
| 2012 | 131,125 | 16,181 | 51,000 | 14,000 | 27,658 | 108,839 | 14,000 | 6,130 |
| 2013 | 222,405 | 18,875 | 52,000 | 146,000 | | 216,875 | 160,000 | 600 |
| 2014 | 191,405 | 19,265 | 52,000 | 120,000 | | 191,265 | 280,000 | 461 |
| 2015 | 155,626 | 19,184 | | 136,000 | | 155,184 | 416,000 | 19 |
| 2016 | 11,684 | 19,231 | | - | | 19,231 | 416,000 | 7,566 |
| 2017 | 32,040 | 19,150 | | 6,000 | | 25,150 | 422,000 | 676 |
| 2018 | 32,010 | 19,134 | | 13,000 | | 32,134 | 435,000 | 799 |
| 2019 | 30,724 | 21,450 | | 9,000 | | 30,450 | 444,000 | 525 |
| 2020 | 30,055 | 21,849 | | 7,681 | | 29,530 | 442,681 | - |
| 2021 | 27,000 | 21,094 | | 5,906 | | 27,000 | 448,587 | - |
| 2022 | 26,034 | 21,008 | | 5,026 | | 26,034 | 453,613 | - |
| 2023 | 21,034 | 21,116 | | - | | 21,116 | 453,613 | 82 |
| 2024 | 21,000 | 21,116 | | - | | 21,116 | 453,613 | 197 |
| 2025 | 21,000 | 21,223 | | - | | 21,223 | 453,613 | 420 |
| 2026 | 21,000 | 21,223 | | - | | 21,223 | 453,613 | 643 |
| 2027 | 21,000 | 21,223 | | - | | 21,223 | 453,613 | 865 |
| 2028 | 21,000 | 21,330 | | - | | 21,330 | 453,613 | 1,195 |
| 2029 | 21,000 | 21,437 | | - | | 21,437 | 453,613 | 1,632 |
| 2030 | 21,000 | 21,544 | | - | | 21,544 | 453,613 | 2,177 |
| Total to 2020 | 1,067,586 | 319,683 | 256,000 | 451,681 | 40,222 | 1,067,586 | 442,681 | - |
| | | | | | | | | |
| Total to 2030 | 1,288,654 | 531,996 | 256,000 | 462,613 | 40,222 | 1,290,831 | 453,613 | 2,177 |

[1] Includes Interest
[2] Project forecast inlcudes inflation and contingency

**Sewer System Rehabilitation and Watermain Renewal Reserves**: Since 2009 the Sewer System Rehabilitation and Watermain Renewal reserves, formerly frontage levy funded, are funded from water and sewer rates. Maintaining the reserves ensures the Department has a consistent funding approach and dedicated resources for infrastructure renewal. A segregated renewal funding approach allows the department to monitor funds, manage contributions and ensure long term funding availability. Based on the Department's asset management strategy and best practices, contributions to the reserves will gradually increase to begin to address the issue of infrastructure deficit. The current annual funding deficit is approximately $6M for watermains and $8M for sewer mains, per year over existing contributions. Reserve spending is approved through the capital budget process.

**Transfers to the Land Drainage Program**

In 2011, the sewer fund will transfer an estimated $13.6 million to fully support the tax-supported land drainage and flood control program, (total sewer Land Drainage transfers for 2010 $13.4 million).

The Department had received $7.5M in frontage levies for basement flood relief for tax supported Land Drainage annually. In the 2010 approved capital budget, the frontage levy contribution was reduced to $1.1M; and then eliminated in 2011 capital budget forecast while the project was not eliminated. A Land Drainage fee is being studied as part of the Cost of

Service study. A land drainage fee could only be implemented if approved by City Council. In consideration of a possible land drainage fee, the $7.5 million annual requirement has not been included in this rate model projection as presented in Appendix C.

**Transfers to Capital Program**

The water and sewer funds continue to employ a pay-as-you-go policy for ongoing infrastructure renewal programs. In 2011, the water fund will cash finance an estimated capital program of $13.9 million. The cash financed sewer fund capital program in 2011 is estimated at $36.6 million, not including the Environmental Projects Reserve.

**Financial Projection Risks**

The detailed financial projections and rate plans are contained in Appendices B (Water) and C (Sewer). There are several variables that can affect the financial projection and resulting water and sewer rates.

1. Consumption: Consumption is forecast to continue to gradually decline over the next ten years. Consumption projections are based on a five year trend analysis and incorporate, to mitigate risks, the assumptions found in a 2010 Evaluation of Water Consumption and Future Demand report including population growth offset by increased conservation and efficiencies for water usage. If actual consumption is less than plan, as is the case for 2010, this could cause a rate increase (conversely, actual consumption greater than plan could effect a rate decrease). See Appendix D for six year history.

2. Capital Investment: Capital investment is based upon the Department's early estimate of improvements that are required. Many items can influence the capital program expenditures, including escalation in market price, the introduction of new technology and availability of consultant and contractor resources.

3. Economic development: The City's economic climate can have significant impact on the financial plan. The addition or deletion of a major customer could effect a change in rates due to the consumption and sales revenue associated with large volume users.

4. New legislation: Environmental and public health concerns are driving more stringent standards in the water and wastewater industry. The Environment Act Licenses for the three water pollution control centers have required large increases in capital and operating costs. The further introduction of new legislation could cause increased rates through the operating and capital costs associated with compliance. It is expected that an environmental license will be issued for combined sewer overflow mitigation in the near future.

The funds target to maintain a minimum combined working capital position of 11% of combined water and sewer sales on an annual basis. The purpose of the working capital is to provide medium-term stability and the ability to absorb losses in any given year when consumption falls short of anticipated levels and/or unforeseen emergency funds are required. The working capital is comprised of current assets (cash and accounts receivable) net of current liabilities (current accounts payable), cash or near cash items that can readily absorb unexpected fluctuations. It is prudent to have a larger shock absorber under conditions where change is significant, costs are rapidly increasing and consumption is declining, due to increasing costs and continuing conservation programs.

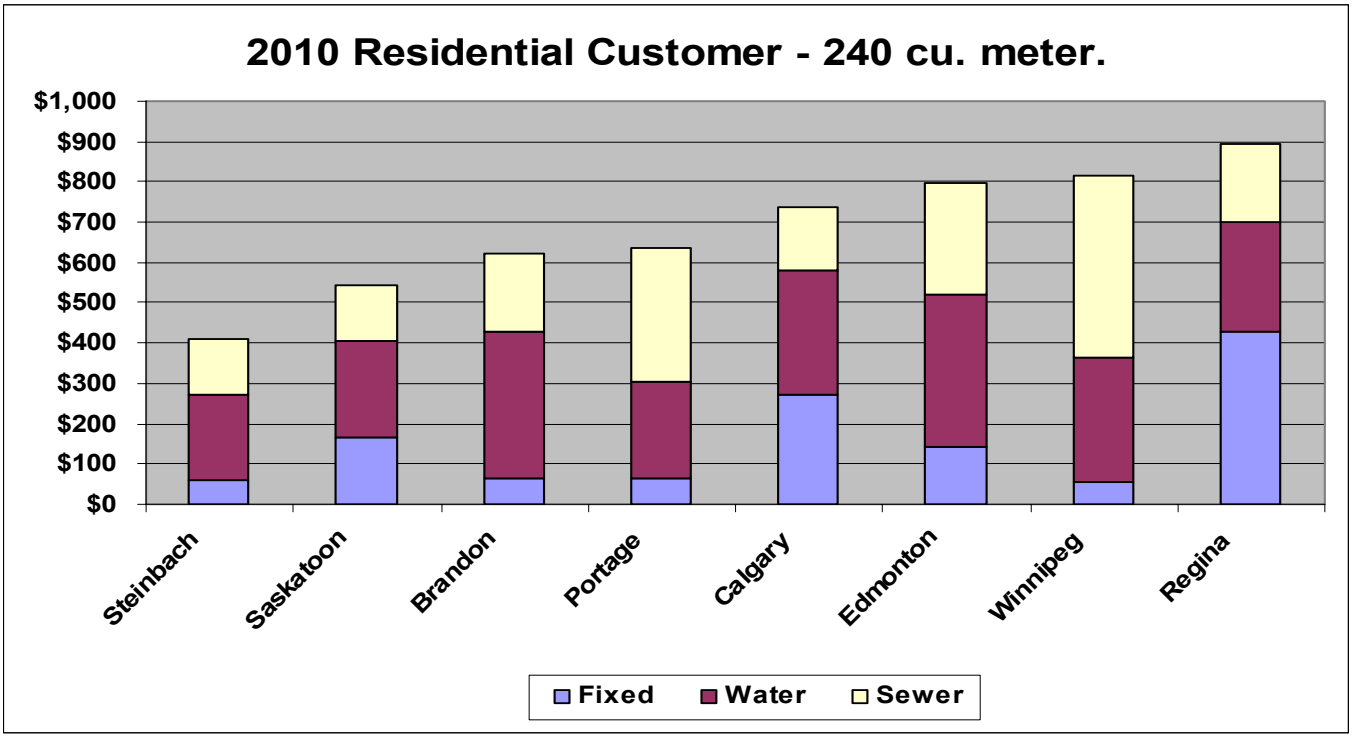
The Water and Sewer Funds adhere to a set of operating principles that can be found in Appendix E. Appendix F illustrates the impact of the rate strategy on various sample customers.

**Competitiveness**

Winnipeg's combined water and sewer rate remains competitive to other cities of similar size. Rates have increased across cities surveyed. The following tables illustrate costs for residential customers (Block 1 rates, consumption of 240 cubic metres), commercial customers (Block 1 and 2 rates, consumption of 1,600 cubic metres) and large users (Block 1, 2 and 3 rates consumption of 254,500 cubic metres) each in 2010 rates.

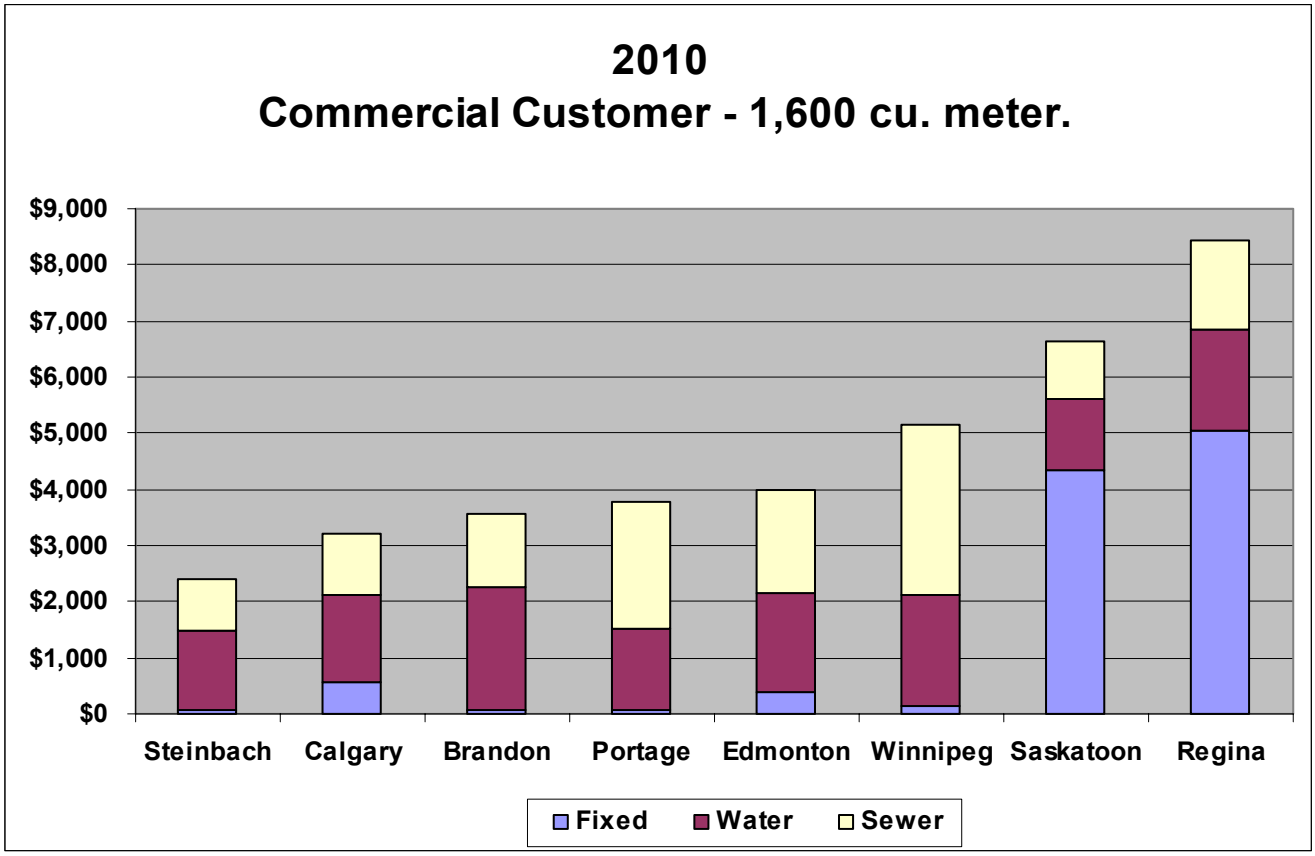
**Residential Customers**

| | Winnipeg | Regina | Saskatoon | Calgary | Edmonton | PLAP | Brandon | Steinbach |
|---|---|---|---|---|---|---|---|---|
| Fixed | 55.00 | 427.05 | 165.36 | 270.00 | 141.84 | 63.60 | 64.00 | 61.00 |
| Water | 309.60 | 271.16 | 240.74 | 310.81 | 377.49 | 239.64 | 363.93 | 211.70 |
| Sewer | 458.40 | 197.00 | 136.58 | 156.39 | 276.59 | 334.86 | 192.67 | 137.96 |
| Total 2010 | $823.00 | $895.21 | $542.69 | $737.21 | $795.91 | $638.10 | $620.60 | $410.66 |
| Total 2009 | 801.95 | 821.74 | 518.65 | 708.24 | 761.56 | 603.89 | 597.57 | 403.52 |
| Variance | $ 21.05 | $ 73.47 | $ 24.04 | $ 28.97 | $ 34.35 | $ 34.20 | $ 23.03 | $ 7.14 |
| Percent | 2.6% | 8.9% | 4.6% | 4.1% | 4.5% | 5.7% | 3.9% | 1.8% |



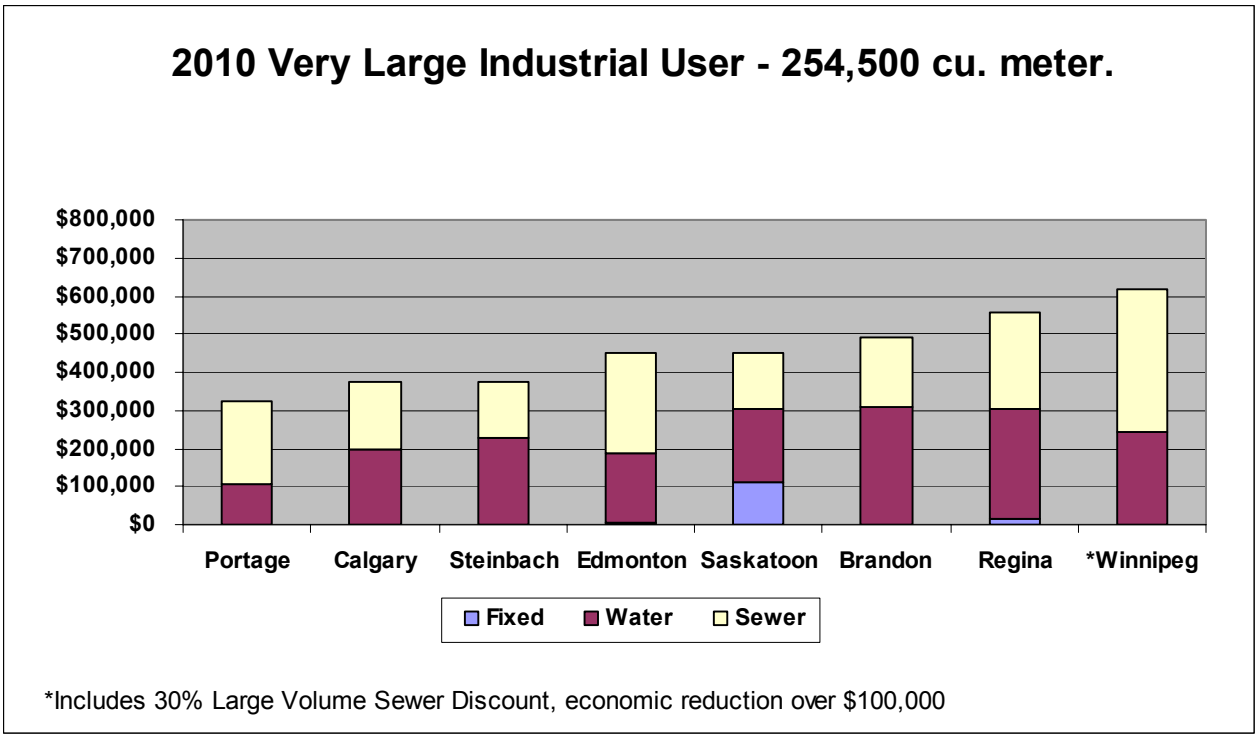
**Commercial Customers**

| | Winnipeg | Regina | Saskatoon | Calgary | Edmonton | PLAP | Brandon | Steinbach |
|---|---|---|---|---|---|---|---|---|
| Fixed | 127.20 | 5,047.95 | 4,324.80 | 576.84 | 372.48 | 63.60 | 64.00 | 61.00 |
| Water | 1,976.85 | 1,807.75 | 1,282.53 | 1,557.68 | 1,767.54 | 1,466.61 | 2,209.32 | 1,411.31 |
| Sewer | 3,056.00 | 1,569.57 | 1,020.99 | 1,091.15 | 1,843.90 | 2,232.41 | 1,284.45 | 919.73 |
| Total 2010 | $5,160.05 | $8,425.27 | $6,628.32 | $3,225.67 | $3,983.92 | $3,762.63 | $3,557.78 | $2,392.04 |
| Total 2009 | 5,019.30 | 7,592.97 | 6,060.56 | 3,157.39 | 3,798.78 | 3,543.12 | 3,407.20 | 2,312.76 |
| Variance | $140.75 | $832.30 | $567.76 | $68.28 | $185.14 | $219.51 | $150.58 | $79.28 |
| Percent | 2.8% | 11.0% | 9.4% | 2.2% | 4.9% | 6.2% | 4.4% | 3.4% |



## Very Large Industrial Users

| | Winnipeg | Regina | Saskatoon | Calgary | Edmonton | PLAP | Brandon | Steinbach |
|---|---|---|---|---|---|---|---|---|
| Fixed | 1,142.80 | 12,734.85 | 110,714.88 | 2,275.32 | 7,508.16 | 63.60 | 64.00 | 61.00 |
| Water | 243,809.56 | 290,111.18 | 191,890.83 | 195,565.84 | 182,343.67 | 105,967.46 | 309,257.03 | 226,490.31 |
| Sewer | 370,266.50 | 251,887.76 | 149,921.54 | 175,110.09 | 260,517.35 | 219,537.82 | 184,308.12 | 147,600.43 |
| Total 2010 | $615,218.86 | $554,733.80 | $452,527.24 | $372,951.25 | $450,369.18 | $325,568.88 | $493,629.15 | $374,151.74 |
| Total 2009 | 596,078.03 | 510,788.71 | 409,320.80 | 358,397.74 | 430,177.56 | 292,857.87 | 456,064.62 | 361,427.57 |
| Variance | $19,140.83 | $43,945.09 | $43,206.44 | $14,553.51 | $20,191.62 | $32,711.01 | $37,564.53 | $12,724.17 |
| Percent | 3.2% | 8.6% | 10.6% | 4.1% | 4.7% | 11.2% | 8.2% | 3.5% |




**COMMUNICATION:**

The Water and Waste Department will communicate the water and sewer rates to customers as follows:

| Strategy | Timeline |
|---|---|
| Briefing session for Water Billing Representatives | December 2010 |
| Ads in the business section of both daily newspapers | December 2010 |
| Web site updated with new rates | December 2010 |
| Presentation on water and sewer rates at the annual Customer Seminar | January 2011 |
| Message imprinted on each water/sewer bill | January – March 2011 |

## FINANCIAL IMPACT

**Financial Impact Statement** **Date:** October 12, 2010

**Project Name:** 2011 WATER AND SEWER RATES

The 2011 rates and financial plans for water and sewer funds are contained in Appendices B and C. These plans are reflected in the current and capital estimates and as such, a financial impact statement has not been prepared.

*"original signed by Lucy Szkwarek, C.G.A."*
Lucy Szkwarek, C.G.A.
Acting Manager of Finance and Administration

## CONSULTATION

**In preparing this report there was consultation with:**

Internal Consultation With and Concurrence By:
Legal Services Department

## SUBMITTED BY

Water and Waste Department
Finance and Administration Division
Prepared by: Darlene Capp CGA
Date: November 16, 2010
File No. 010-08-20-01-00
010-08-20-01-01

**APPENDICES:**

The following appendices are attached as additional information:

| | |
|---|---|
| APPENDIX A | Water and Sewer Rates - Ten Year History |
| APPENDIX B | Waterworks System Fund - Ten year financial projection of revenue, expenditures and working capital based on the recommendations contained in this report |
| APPENDIX C | Sewage Disposal System Fund - Ten year financial projection of revenue, expenditures and working capital based on the recommendations contained in this report |
| APPENDIX D | Water Consumption Five Year Historical Summary 2003 - 2008 |
| APPENDIX E | Water and Sewer - Principles of Operation |
| APPENDIX F | Impact of the Water and Sewer recommendations on sample customers January 1st, 2010 |
| APPENDIX G | Water Works System By-law Amendment |

**Appendix A**

**History of Water and Sewer Rates**
**2001 - 2010**

## History of Water and Sewer Utility Rates

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Water Rates (per cu m)** | | | | | | | | | | |
| Block 1 (< 272 cu.m ) | **$0.97** | **$0.97** | **$0.97** | **$0.97** | **$0.97** | **$0.97** | **$1.11** | **$1.22** | **$1.25** | **$1.29** |
| Block 2 (272 - 2720 cu.m) | **$0.80** | **$0.80** | **$0.80** | **$0.80** | **$0.80** | **$0.80** | **$0.94** | **$1.05** | **$1.08** | **$1.12** |
| Block 3 (> 2720 cu.m) | **$0.63** | **$0.63** | **$0.63** | **$0.63** | **$0.63** | **$0.63** | **$0.77** | **$0.88** | **$0.91** | **$0.95** |
| **Sewer Rates (per cu m)** | | | | | | | | | | |
| Volume Rate | **$0.96** | **$0.96** | **$0.96** | **$1.10** | **$1.20** | **$1.37** | **$1.57** | **$1.81** | **$1.86** | **$1.91** |
| Total Water and Sewer Rate (Block 1) | **$1.94** | **$1.94** | **$1.94** | **$2.07** | **$2.17** | **$2.34** | **$2.69** | **$3.03** | **$3.11** | **$3.20** |

**Appendix B**

**WATERWORKS SYSTEM FUND**
**Financial Projection 2011-2020 ($000s)**

O:\Fa\DCAPP\Rates\Rate Model W&S\2011\2011RTS_02\[2011RTS_02.xls]WATER_REPORT Values

| Waterworks System | 2010 Budget | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Revenue** | | | | | | | | | | | |
| Sales Revenue | 89,431 | 88,091 | 90,344 | 93,369 | 96,764 | 99,971 | 102,073 | 104,005 | 106,147 | 108,136 | 110,702 |
| Non Rate Revenue | 4,175 | 3,935 | 4,179 | 4,289 | 3,975 | 3,433 | 3,220 | 3,431 | 3,652 | 3,882 | 4,122 |
| **Total Revenue** | **93,606** | **92,026** | **94,523** | **97,658** | **100,739** | **103,404** | **105,293** | **107,436** | **109,799** | **112,018** | **114,824** |
| *% Change in Rate Revenue* | | *-1.5%* | *2.6%* | *3.3%* | *3.6%* | *3.3%* | *2.1%* | *1.9%* | *2.1%* | *1.9%* | *2.4%* |
| **Expenditures** | | | | | | | | | | | |
| Operating | 62,070 | 58,912 | 61,329 | 62,932 | 64,265 | 65,624 | 67,011 | 68,425 | 69,868 | 71,339 | 72,840 |
| Fire Hydrant Maintenance Expense | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 | 3,708 |
| Debt Service | 17,994 | 18,259 | 18,551 | 18,220 | 16,690 | 14,230 | 12,400 | 12,585 | 12,780 | 12,982 | 13,195 |
| Transfer to Watermain Renewal Reserve | 10,500 | 13,000 | 14,000 | 15,000 | 16,000 | 17,000 | 17,000 | 17,000 | 17,000 | 17,000 | 17,000 |
| **Total Expenditures** | **94,272** | **93,879** | **97,588** | **99,860** | **100,663** | **100,562** | **100,119** | **101,718** | **103,356** | **105,029** | **106,743** |
| Surplus(Deficit) for the year | (666) | (1,853) | (3,065) | (2,202) | 77 | 2,842 | 5,174 | 5,718 | 6,442 | 6,989 | 8,081 |
| Opening Working Capital | | 59,674 | 44,872 | 28,479 | 13,386 | 6,274 | 3,224 | 4,154 | 4,872 | 6,314 | 8,303 |
| Appropriated to Capital | | (13,899) | (13,328) | (12,891) | (7,340) | (6,285) | (5,000) | (5,000) | (5,000) | (5,000) | (5,000) |
| Other Changes in Working Capital | | 950 | 0 | 0 | 151 | 393 | 756 | 0 | 0 | 0 | 0 |
| Ending Working Capital | | 44,872 | 28,479 | 13,386 | 6,274 | 3,224 | 4,154 | 4,872 | 6,314 | 8,303 | 11,384 |
| **Working Capital as a % of Sales** | | **51%** | **32%** | **14%** | **6%** | **3%** | **4%** | **5%** | **6%** | **8%** | **10%** |
| **Water Rate Block 1 ($dollars)** | **1.29** | **1.34** | **1.40** | **1.45** | **1.51** | **1.57** | **1.61** | **1.64** | **1.68** | **1.71** | **1.75** |
| **Rate Change Block 1** | **2.9%** | **3.9%** | **4.5%** | **3.6%** | **4.1%** | **4.0%** | **2.5%** | **1.9%** | **2.4%** | **1.8%** | **2.3%** |
| **Long-Term Debt Summary** | | | | | | | | | | | |
| **New debt, Water Treatment Plant** | | | | | | | | | | | |
| **Debt outstanding, closing year end balance** | **167,160** | **161,012** | **154,571** | **148,045** | **142,009** | **136,933** | **132,853** | **128,588** | **124,128** | **119,466** | **114,591** |

## Appendix C

**SEWAGE DISPOSAL SYSTEM FUND**
**Financial Projection 2011-2020 ($000s)**

O:\Fa\DCAPP\Rates\Rate Model W&S\2011\2011RTS_02\[2011RTS_02.xls]SEWAGE_REPORT Values

| Sewage Disposal System | 2010 Budget | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenue | | | | | | | | | | | |
| Sales Revenue | 123,741 | 113,118 | 116,175 | 121,957 | 131,067 | 140,816 | 151,707 | 162,356 | 167,251 | 168,588 | 171,585 |
| Non Rate Revenue | 7,088 | 7,343 | 7,872 | 6,432 | 4,761 | 4,848 | 5,210 | 5,867 | 6,832 | 8,128 | 9,782 |
| Environmental Projects Reserve | 11,993 | 13,578 | 16,181 | 18,875 | 19,265 | 19,184 | 19,156 | 19,150 | 19,133 | 21,849 | 21,848 |
| **Total Revenue** | **142,822** | **134,039** | **140,228** | **147,264** | **155,093** | **164,848** | **176,073** | **187,373** | **193,216** | **198,565** | **203,215** |
| *% Change in Rate Revenue* | | *-6.7%* | *4.5%* | *6.4%* | *6.7%* | *6.4%* | *6.8%* | *6.2%* | *2.7%* | *2.2%* | *1.6%* |
| Expenditures | | | | | | | | | | | |
| Operating | 60,820 | 62,569 | 63,749 | 66,456 | 72,785 | 80,340 | 87,130 | 92,158 | 92,392 | 92,639 | 92,899 |
| Debt Service | 13,683 | 13,798 | 14,255 | 14,453 | 17,587 | 25,613 | 32,232 | 33,016 | 34,597 | 36,705 | 38,952 |
| Transfer to Environmental Projects Reserve | 11,993 | 13,578 | 16,181 | 18,875 | 19,265 | 19,184 | 19,156 | 19,150 | 19,134 | 21,849 | 21,849 |
| Land Drainage | 13,441 | 13,643 | 13,711 | 13,709 | 13,846 | 13,985 | 14,124 | 14,266 | 14,408 | 14,552 | 14,698 |
| Transfer to Sewer System Rehabilitation Reserve | 9,000 | 13,200 | 13,900 | 14,600 | 15,300 | 16,100 | 16,900 | 16,900 | 16,900 | 16,900 | 16,900 |
| **Total Expenditures** | **108,937** | **116,788** | **121,796** | **128,093** | **138,783** | **155,222** | **169,542** | **175,490** | **177,431** | **182,645** | **185,298** |
| Surplus(Deficit) for the year | 33,885 | 17,251 | 18,432 | 19,171 | 16,310 | 9,626 | 6,531 | 11,883 | 15,785 | 15,920 | 17,917 |
| Opening Working Capital | | 97,956 | 78,615 | 61,060 | 43,922 | 25,259 | 11,627 | 4,928 | 5,810 | 10,496 | 15,209 |
| Appropriated to Capital | | (36,576) | (36,000) | (36,000) | (35,000) | (22,800) | (11,000) | (11,000) | (11,000) | (11,000) | (11,000) |
| Other Changes in Working Capital | | (16) | 13 | (309) | 27 | (459) | (2,230) | (0) | (99) | (208) | (147) |
| Ending Working Capital | | 78,615 | 61,060 | 43,922 | 25,259 | 11,627 | 4,928 | 5,810 | 10,496 | 15,209 | 21,979 |
| **Working Capital as a % of Sales** | | **69%** | **53%** | **36%** | **19%** | **8%** | **3%** | **4%** | **6%** | **9%** | **13%** |
| **Sewer Rate** | **$1.91** | **$1.97** | **$2.10** | **$2.24** | **$2.40** | **$2.57** | **$2.75** | **$2.92** | **$2.98** | **$3.04** | **$3.10** |
| **Rate Change** | **2.8%** | **3.1%** | **6.6%** | **6.7%** | **7.1%** | **7.1%** | **7.0%** | **6.2%** | **2.1%** | **2.0%** | **2.0%** |
| **Long-Term Debt Summary** | | | | | | | | | | | |
| **New debt, Environmental Projects** | **0** | **0** | **14,000** | **146,000** | **120,000** | **136,000** | **0** | **6,000** | **13,000** | **9,000** | **7,681** |
| **Debt outstanding, closing year end balance** | **28,282** | **21,366** | **28,197** | **168,005** | **281,432** | **408,591** | **395,148** | **387,039** | **384,767** | **376,793** | **365,554** |

**Note:** The sewer rates in this report do not include any possible reduction resulting from a potential Land drainage fee currently being studied

**Appendix D**

WATER CONSUMPTION HISTORICAL SUMMARY - 000s CUBIC METERS
Consumption for volume sales (excludes standpipe)

| | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|
| **B-1 Sales** | **04/05** | **05/06** | **06/07** | **07/08** | **08/09** |
| **October** | 3,401 | 4,425 | 4,036 | 3,875 | 3,489 |
| **November** | 2,893 | 3,142 | 3,156 | 2,994 | 2,584 |
| **December** | 3,720 | 3,805 | 3,785 | 3,352 | 3,366 |
| **January** | 4,045 | 3,658 | 3,817 | 3,785 | 3,526 |
| **February** | 3,172 | 2,900 | 3,009 | 2,991 | 2,923 |
| **March** | 3,601 | 3,481 | 3,525 | 3,483 | 3,310 |
| **April** | 3,674 | 3,572 | 3,569 | 3,724 | 3,282 |
| **May** | 2,907 | 2,977 | 3,066 | 2,733 | 2,672 |
| **June** | 3,742 | 3,543 | 3,635 | 3,197 | 3,382 |
| **July** | 4,011 | 3,952 | 3,465 | 3,623 | 3,774 |
| **August** | 3,328 | 3,716 | 2,984 | 3,131 | 3,216 |
| **September** | 3,602 | 4,363 | 3,797 | 4,019 | 3,751 |
| **Total** | **42,096** | **43,534** | **41,844** | **40,906** | **39,275** |
| **B-2 Sales** | **04/05** | **05/06** | **06/07** | **07/08** | **08/09** |
| **October** | 1,141 | 1,737 | 1,650 | 1,537 | 1,452 |
| **November** | 1,496 | 1,496 | 1,607 | 1,644 | 1,471 |
| **December** | 1,288 | 1,149 | 1,114 | 1,034 | 1,008 |
| **January** | 1,571 | 1,395 | 1,411 | 1,372 | 1,354 |
| **February** | 1,645 | 1,418 | 1,592 | 1,658 | 1,538 |
| **March** | 1,144 | 1,207 | 1,059 | 1,044 | 1,037 |
| **April** | 1,377 | 1,271 | 1,157 | 1,410 | 1,138 |
| **May** | 1,420 | 1,484 | 1,590 | 1,399 | 1,399 |
| **June** | 1,093 | 1,056 | 1,100 | 1,010 | 1,071 |
| **July** | 1,392 | 1,447 | 1,361 | 1,253 | 1,377 |
| **August** | 1,727 | 1,746 | 1,498 | 1,621 | 1,685 |
| **September** | 1,479 | 1,106 | 1,139 | 1,202 | 1,254 |
| **Total** | **16,774** | **16,513** | **16,277** | **16,184** | **15,783** |
| **B-3 Sales** | **04/05** | **05/06** | **06/07** | **07/08** | **08/09** |
| **October** | 499 | 1,824 | 1,038 | 993 | 708 |
| **November** | 1,247 | 986 | 1,333 | 1,061 | 1,071 |
| **December** | 830 | 467 | 930 | 690 | 803 |
| **January** | 737 | 576 | 1,965 | 800 | 750 |
| **February** | 1,326 | 921 | (46) | 1,031 | 915 |
| **March** | 797 | 976 | 1,149 | 578 | 838 |
| **April** | 737 | 1,748 | 386 | 823 | 627 |
| **May** | 1,146 | (3) | 922 | 968 | 726 |
| **June** | 847 | 604 | 1,891 | 578 | 521 |
| **July** | 875 | 1,109 | 341 | 659 | 763 |
| **August** | 1,631 | 2,456 | 1,122 | 1,231 | 1,094 |
| **September** | 980 | (861) | 813 | 1,019 | 984 |
| **Total** | **11,650** | **10,802** | **11,845** | **10,432** | **9,798** |
| **TOTAL B1-B3** | **70,521** | **70,850** | **69,966** | **67,522** | **64,857** |

**Appendix E**

WATER AND SEWER UTILITY
PRINCIPLES OF OPERATION

1. Self-Supporting Utilities: The Utilities do not receive subsidies from the mill rate.

2. Cost of Service Rates: Customers pay water and sewer rates, which represent the operating and capital costs of providing the utility services.

3. Debt Servicing: The Utilities' revenues are sufficient to service the Utilities' long-term debt.

4. Working Capital Reserves: Water and Sewer Utilities. The Water and Sewer Utilities maintain working capital reserves to protect the Utilities' financial position and prevent significant rate fluctuations that may otherwise result from a decline in consumption or major unforeseen expenditures. On an annual basis, the Utilities strive to maintain a minimum combined working capital position of 11% of the combined Water and Sewer sales.

5. Ten Year Financial Plan: Water and Sewer Utilities. Rates in the Water and Sewer Utilities are planned over a ten-year time frame to mitigate the effects of year over year fluctuations and to coincide with the longer term infrastructure development and renewal planning.

6. Infrastructure Renewal: The Watermain Renewal and Sewer System Rehabilitation Reserves were established to provide a consistent approach to financing infrastructure renewal. Maintaining the reserves ensures this approach continues. Reserve contributions by the Utilities are based on an asset management strategy developed by the Utilities and approved through the capital and operating budget processes.

7. Transfers to the General Revenue Fund: The Water and Sewer Utilities transfer funds to the General Revenue Fund in the form of support to the Land Drainage program which funds 100% of the costs of this program.

8. Capital Reserve Funds: The Utilities establish reserves to fund major capital projects. The pay-as-you-go capital program is more economical than traditional debt financing, which equates to lower rates for our customers. In addition, for specific and cost intensive projects, the Department has developed a strategy whereby a portion of the project is funded through reserves and a portion through debt financing. This strategy facilitates an equitable approach for short and long term funding support

# Appendix F

## CUSTOMER IMPACT ANALYSIS
### Annual Basis

O:\Fa\DCAPP\Rates\Rate Model W&S\2011\2011RTS_02\[2011RTS_02.xls]customer impact calculation

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Residential 5/8" meter** | | | | | | | | | | | |
| **240** cu.m. Water | 1.29 | 1.34 | 1.40 | 1.45 | 1.51 | 1.57 | 1.61 | 1.64 | 1.68 | 1.71 | 1.75 |
| Sewer | 1.91 | 1.97 | 2.10 | 2.24 | 2.40 | 2.57 | 2.75 | 2.92 | 2.98 | 3.04 | 3.10 |
| Total Volume Rate | **3.20** | **3.31** | **3.50** | **3.69** | **3.91** | **4.14** | **4.36** | **4.56** | **4.66** | **4.75** | **4.85** |
| Daily Basic Service Charge [(1)] | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** | **13.75** |
| | $823.00 | $849.40 | $895.00 | $940.60 | $993.40 | $1,048.60 | $1,101.40 | $1,149.40 | $1,173.40 | $1,195.00 | $1,219.00 |
| Overall $ Change | 21.23 | 26.40 | 45.60 | 45.60 | 52.80 | 55.20 | 52.80 | 48.00 | 24.00 | 21.60 | 24.00 |
| Overall % Change | 2.67% | 3.21% | 5.37% | 5.09% | 5.61% | 5.56% | 5.04% | 4.36% | 2.09% | 1.84% | 2.01% |
| **Commercial 2" meter** | | | | | | | | | | | |
| **1,600** cu.m. Water | 1.12 | 1.17 | 1.23 | 1.28 | 1.34 | 1.40 | 1.44 | 1.47 | 1.51 | 1.54 | 1.58 |
| Sewer | 1.91 | 1.97 | 2.10 | 2.24 | 2.40 | 2.57 | 2.75 | 2.92 | 2.98 | 3.04 | 3.10 |
| Total Volume Rate | **3.03** | **3.14** | **3.33** | **3.52** | **3.74** | **3.97** | **4.19** | **4.39** | **4.49** | **4.58** | **4.68** |
| Daily Basic Service Charge [(1)] | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** | **31.80** |
| | $5,160.05 | $5,336.16 | $5,640.16 | $5,944.16 | $6,296.16 | $6,664.16 | $7,016.16 | $7,336.16 | $7,496.16 | $7,640.16 | $7,800.16 |
| **Large Restaurant 3" meter** | | | | | | | | | | | |
| **17,700** cu.m. Water | 0.95 | 1.00 | 1.06 | 1.11 | 1.17 | 1.23 | 1.27 | 1.30 | 1.34 | 1.37 | 1.42 |
| Sewer | 1.91 | 1.97 | 2.10 | 2.24 | 2.40 | 2.57 | 2.75 | 2.92 | 2.98 | 3.04 | 3.10 |
| Total Volume Rate | **2.86** | **2.97** | **3.16** | **3.35** | **3.57** | **3.80** | **4.02** | **4.22** | **4.32** | **4.41** | **4.52** |
| Daily Basic Service Charge [(1)] | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** | **109.45** |
| | $53,180.28 | $55,041.36 | $58,404.36 | $61,767.36 | $65,661.36 | $69,732.36 | $73,626.36 | $77,166.36 | $78,936.36 | $80,529.36 | $82,367.56 |
| **Foundry 8" meter** | | | | | | | | | | | |
| **254,500** cu.m. Water | 0.95 | 1.00 | 1.06 | 1.11 | 1.17 | 1.23 | 1.27 | 1.30 | 1.34 | 1.37 | 1.42 |
| Sewer | 1.91 | 1.97 | 2.10 | 2.24 | 2.40 | 2.57 | 2.75 | 2.92 | 2.98 | 3.04 | 3.10 |
| Total Volume Rate | **2.86** | **2.97** | **3.16** | **3.35** | **3.57** | **3.80** | **4.02** | **4.22** | **4.32** | **4.41** | **4.52** |
| Daily Basic Service Charge [(1)] | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** | **285.70** |
| | $731,047.36 | $759,042.36 | $807,397.36 | $855,752.36 | $911,742.36 | $970,277.36 | $1,026,267.36 | $1,077,167.36 | $1,102,617.36 | $1,125,522.36 | $1,153,408.56 |

**Appendix G**

**THE CITY OF WINNIPEG**

**BY-LAW NO.**

A By-law of THE CITY OF WINNIPEG to amend the Water Works By-law

**THE CITY OF WINNIPEG**, in Council assembled, enacts as follows:

*1 Section 1 of Schedule A of the Water Works By-law No. 504/73 is repealed and the following is substituted:*

Domestic $1.34 per cubic metre from 0 to 272 cubic metres per quarter

Intermediate $1.17 per cubic metre from 272.1 to 2,720 cubic metres per quarter

Industrial $1.00 per cubic metre over 2,720 cubic metres per quarter

*2. This By-law comes into force on January 1, 2011.*

**DONE AND PASSED**, this day of , 2010.

_____
Mayor

_____
City Clerk

Approved as to content:

_____
Director of Water and Waste

Approved as to form:

_____
For City Solicitor/Director of
Legal Services