



Public Utilities Commission of the City of Sault Ste. Marie

Financial Plan for Water Supply
Services

Prepared Pursuant to Ontario
Regulation 453/07
Financial Plan # 216-301

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kpmg.ca

ADVISORY SERVICES





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I Introduction

1.1 Provincial reporting requirements

Pursuant to Section 31(1) of the *Safe Drinking Water Act, 2002* (the “SDWA”), Provincial licences are required for the operation of municipal drinking water systems in Ontario. In obtaining this licence, the Sault Ste. Marie Public Utilities Commission (the “PUC”) is required to meet five conditions under Section 44(1) of the SDWA, including the preparation of a financial plan for the water system. The form and content of financial plans for municipal water systems are prescribed under Ontario Regulation 453/07 (the “Regulation”). Under the terms of the Regulation, the PUC is required to prepare a financial plan that:

- i. Is approved through a resolution of the Commissioners that indicates that the drinking water system is financially viable
- ii. Extends over a minimum of six years and includes a statement that the financial impacts of the drinking water system have been considered
- iii. For each year of the financial plan, includes details of the proposed or projected financial operations of the system itemized by:
 - Total revenues, further broken down into water rates, user charges and other revenues
 - Total expenses, further broken down into amortization expenses, interest expenses and other expenses
 - Annual surplus or deficit
 - Accumulated surplus or deficit
- iv. Includes details of the proposed or projected financial position of the system, itemized by:
 - Total financial assets
 - Total liabilities
 - Net debt
 - Non-financial assets
 - Changes in tangible capital assets
- v. Details the proposed or projected gross cash receipts and cash payments itemized by:
 - Operating transactions
 - Capital transactions
 - Investing transactions
 - Financing transactions
 - Changes in cash and cash equivalents during the year
 - Cash and cash equivalents at the beginning and end of year

The disclosure requirements prescribed in the Regulation are consistent with the financial statement requirements as outlined in the Public Sector Accounting Handbook of the Canadian Institute of Chartered Accountants, which comprise:

- A statement of operating results



- A statement of financial position
- A statement of cash flows
- A statement of changes in net financial assets

The Regulation requires a six year financial plan for water. However the financial plan for the PUC water supply has been prepared over a ten year period.

In connection with its financial plan, the PUC is also required to ensure an appropriate level of public communication by:

- Making the financial plans available, on request, to members of the public at no charge;
- Making the financial plans available to members of the public at no charge through the internet (if the municipality maintains a website); and,
- Providing notice as deemed appropriate to advise the public of the availability of the financial plans.

1.2 Financial plan methodology

In order to assist municipalities with the preparation of financial plans required under the SDWA, the Ministry of the Environment released a document entitled *Toward Financially Sustainable Drinking-Water Systems* (the "Ministry Document") that outlines suggested principles of financial sustainability for water systems as well as possible approaches to implementing these principles.

1.2.1 Sustainability principles

As outlined in the Ministry Document, financial sustainability for water systems is intended to ensure that residents enjoy safe drinking water that is provided on a reliable basis over the long-term in a manner that maintains environmental protection. The attainment of financial sustainability, which the Ministry Document recognizes does not necessarily need to occur immediately but rather can involve a transition, can be supported by the adoption of the following nine principles that can be used to inform financial plans:

1. Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.
2. An integrated approach to planning among water, wastewater and storm water systems is desirable given the inherent relationship among these services.
3. Revenues collected for the provision of water supply services should ultimately be used to meet the needs of those services.
4. Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.
5. An asset management plan is a key input to the development of a financial plan.
6. A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.
7. Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.

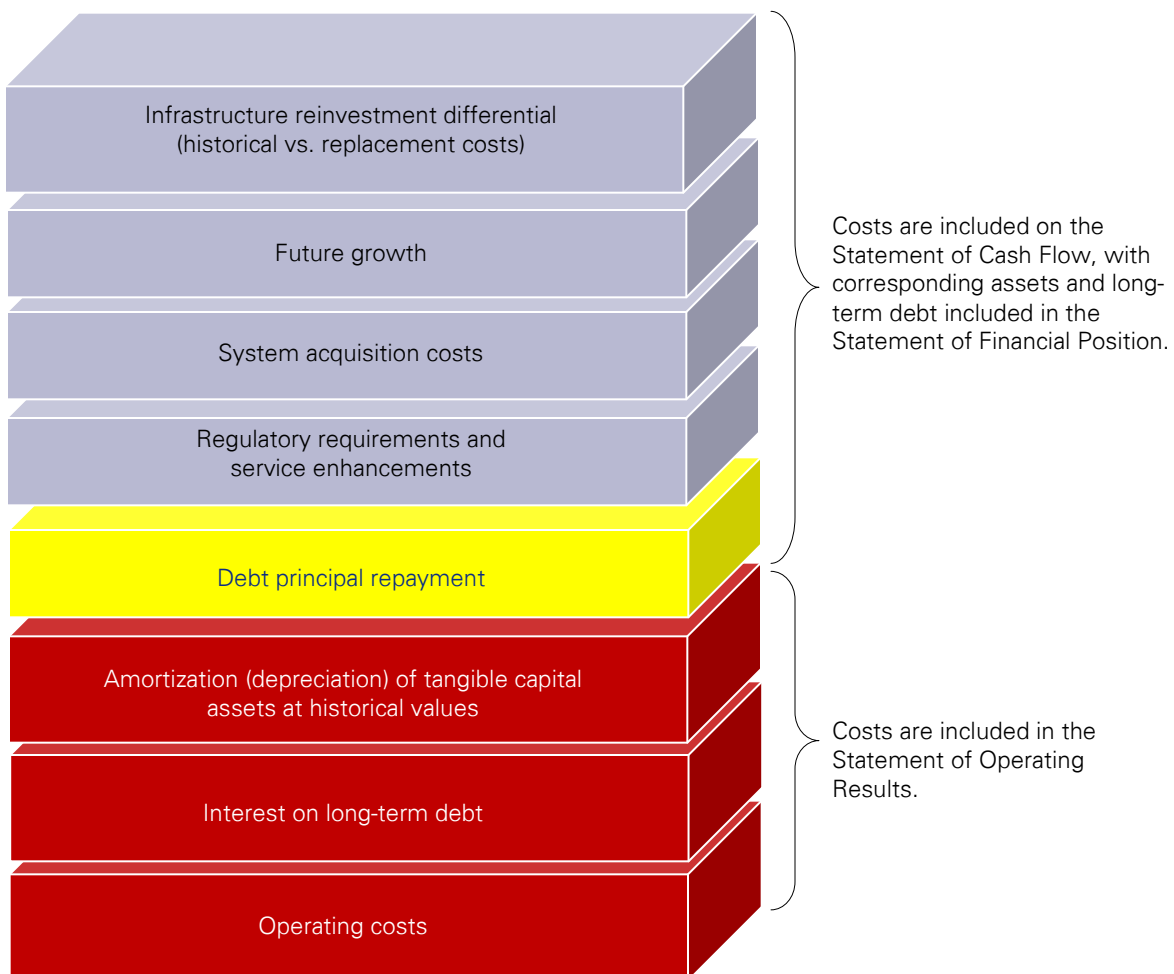
8. Financial plans are “living” documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.
9. Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff and the municipal commission.

The financial plan developed by the PUC embodies each of these principles, as further discussed in Chapter III of this report.

1.2.2 Approach to the financial plan

In developing the financial plan, the PUC has adopted the “building-block” approach outlined in the Ministry Document, which considers both the current and anticipated operating and capital funding requirements for water supply services. A graphical depiction of the building-block approach utilized in the development of the PUC’s plan is provided below.

Figure 1 – Building-block approach to developing the financial plan





1.3 Notice to reader

The financial plan outlined in this report represents a forecast of the financial performance of the PUC's water supply services under a series of assumptions that are documented within the plan. The financial plan (which has been prepared for the purposes of meeting regulatory requirements established by the Ministry) does not represent a formal, multi-year budget for water supply. The approval of operating and capital budgets for water supply is undertaken as part of the PUC's overall annual budgeting process. Accordingly, the financial performance outlined in this document is subject to change based on future decisions of the PUC with respect to operating and capital costs, rate increases, consumption changes and unforeseen revenues and expenses. It is the intention of the PUC to adjust its financial plans on an annual basis to reflect the most recent budgetary decisions made by the PUC.

The information contained in this report has been compiled from information provided by the PUC. KPMG have not audited, reviewed or otherwise attempted to verify the accuracy or completeness of such information. Readers are cautioned that this information may not be appropriate for their purposes.

KPMG reserves the right (but will be under no obligation) to amend this report and advise accordingly in the event that, in our opinion, new material information comes to our attention that may be contrary to or different from that which is set out in this document. Comments in this report should not be interpreted to be legal advice or opinion. The contents of this report reflect our understanding of the facts derived from the examination of documents provided to us.

This report includes or makes reference to future oriented financial information. KPMG have not audited or otherwise reviewed the financial information or supporting assumptions and as such, express no opinion as to the reasonableness of the information provided.

The individuals that prepared this report did so to the best of their knowledge, acting independently and objectively. KPMG LLP's compensation is not contingent on any action or event resulting from the use of this report.

This report, including the attached appendices, must be considered in its entirety by the reader.

II Overview of the Sault Ste. Marie Drinking Water System

2.1 Infrastructure

The Sault Ste. Marie Drinking Water System (SSM DWS) serves a population of approximately 74,000 (within the Urban Service Line area) of the City of Sault Ste. Marie and Rankin Indian Reserve. Typical annual water pumpage is in the order of 13.5 million cubic meters per year and maximum peak day is in the range of 65,000 cubic meters.

Water for the greater Sault Ste. Marie area is presently obtained from two independent sources. One source of supply is from six deep wells in 4 pumping stations located at the Steelton Pump Station, Goulais Pump Station, Shannon Pump Station and Lorna Pump Station. The well at Steelton is 25 meters deep, Goulais wells are 55 meters deep, Shannon well is 102 meters deep and Lorna wells are 53 meters deep. The water pumped from the wells is disinfected and pumped directly to the distribution system.

The second source is from Lake Superior at Gros Cap. The intake structure, located in 15 meters of water is connected to the Raw Water Pumping Station by 830 meters of 1200mm diameter polyethylene pipe. The raw water from Lake Superior is pumped to the twin control tanks on Marshall Drive and then flows by gravity through a 750mm diameter concrete watermain to the Water Treatment Plant (filtration plant).

The difference in elevation between the pumping station at Gros Cap and the control tanks at Marshall Drive is 40 meters, while the difference in elevation between the control tanks and the treatment plant inlet is 20 meters. The filtration plant is of the direct filtration type incorporating chemically assisted coagulation, flocculation and dual media filtration but with no sedimentation. The plant is located on the south side of Second Line between Town Line Road and Carpin Beach Road immediately east of the Little Carp River. The plant is rated at 40,000 m³ per day but is capable of operating at higher levels for extended periods at times of high demand, subject to contact time limitations.

The complete water supply system, including the Gros Cap Pumping Station, deep wells and filtration plant, are monitored and controlled through a SCADA system from the Control Room at the Water Treatment Plant. There is a central process controller and data logging facility along with a graphic panel indicating the plant and the distribution system components.

The distribution system is divided into two pressure zones; one below the escarpment and the second above. A 27,275 m³ reservoir located on Second Line west of Highway 17 North provides balancing storage for the pressure zone (Zone 1) below the escarpment. Pressure for Zone 2, above the escarpment, is provided by a 9,000 m³ reservoir located on Peoples Road at Coronation Drive.

Sizes of mains vary from 900 mm diameter down to 50 mm diameter to provide a total length of approximately 470 km of distribution mains. Approximate breakdown of major pipe materials includes 51 % cast iron, 26% ductile iron, 14 % PVC and 9% concrete pressure pipe.

The table below summarizes the production assets.

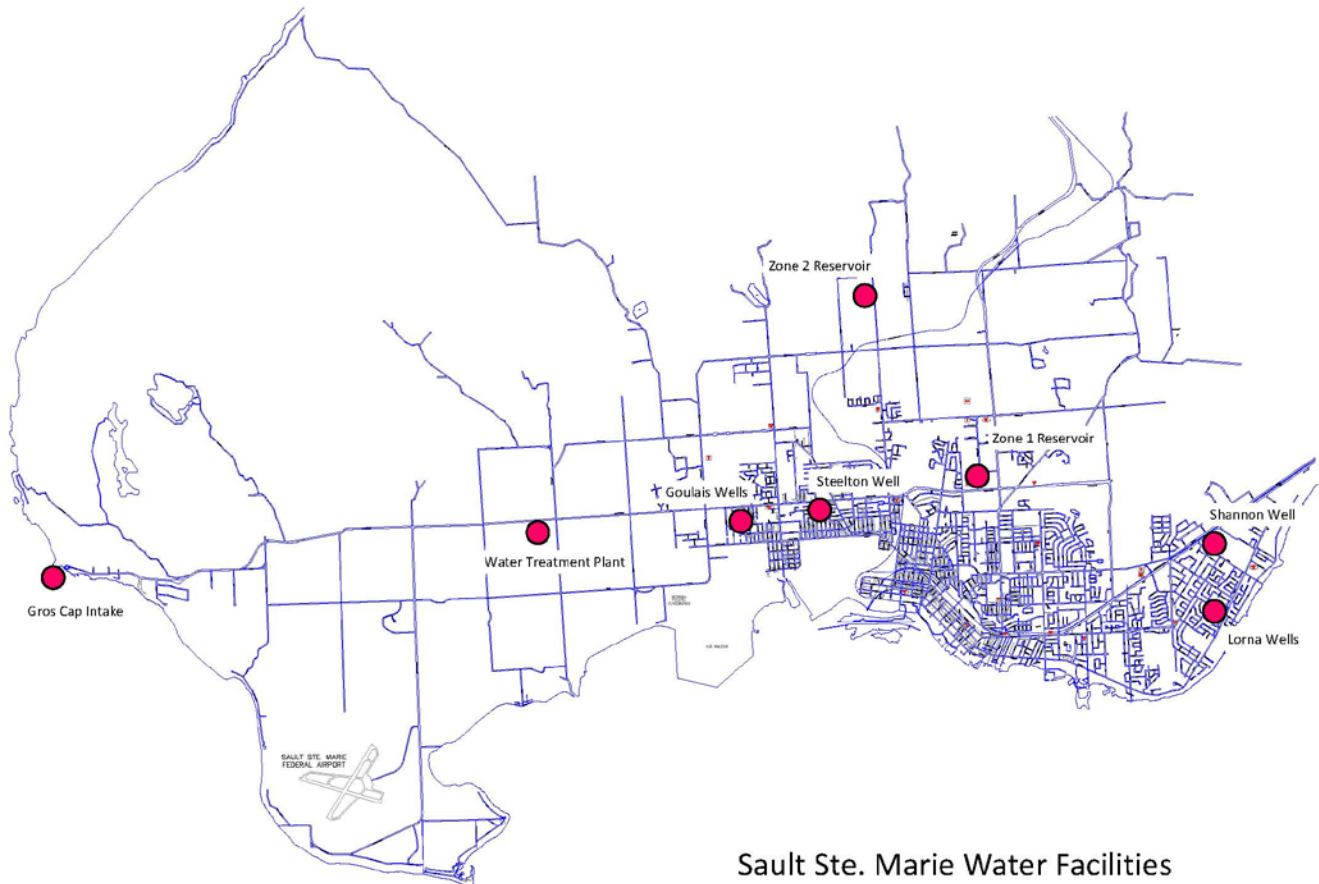
Production Assets	Associated Assets	Rated Capacity (m ³ /d)	Flow (m ³ /d)	
			Avg.*	Max.*
Water Treatment Plant	<ul style="list-style-type: none"> Gros Cap Intake Gros Cap Pump Station Marshall Drive Tanks 	40,000	18,000	32,628
Goulais Pump Station	<ul style="list-style-type: none"> Well #1 Well #2 	10,013	5,028	5,340
Steelton Pump Station	<ul style="list-style-type: none"> Steelton Well 	8,208	4,436	6,214
Shannon Pump Station	<ul style="list-style-type: none"> Shannon Well 	7,000	5,012	5,442
Lorna Pump Station	<ul style="list-style-type: none"> Well #1 Well #2 	14,558	5,041	5,435

* 2008 flow data

The table below summarizes the reservoirs and booster stations.

Reservoirs and Booster Stations	
WTP Reservoir	15,000 m ³
Zone 1 Reservoir	27,275 m ³
Zone 2 Reservoir	9,000 m ³
Zone 2 Booster	
Coronation Drive Booster	
Crimson Ridge Booster	

Figure 2 - Municipal water facilities



Sault Ste. Marie Water Facilities



2.2 Water rates

One of the most critical factors in shaping water use is the price. Are we giving the correct price signals that encourage consumers to use the water prudently?

The first objective is to recover the full cost of service. Rates have increased significantly over the past ten years and will continue to increase primarily to cover the cost of replacing the aging distribution system. The second objective is to encourage consumers to conserve water use. The third objective is to not unfairly shift the cost of supply from one group of customers to another.

The PUC rate structure contains a basic monthly charge and a three tiered block of rates. The monthly charge applies regardless of the amount of water used, reflecting the fact that a portion of the cost to operate the system is fixed. In fact, the majority of costs are fixed. Figure 3 indicates the variable and fixed components of the PUC's water rates.

The block structure provides a significant incentive primarily to the residential and small commercial consumer to keep their consumption below 15 m³/month. Water consumption above that level is significantly more expensive. The rate decrease in the third block is for very large water consumers, recognizing that simply being a large user does not mean they are using water inefficiently. Large water consumers should not have to carry an unreasonable cost burden that may affect their competitive position. The rate for the third block is still significantly above that of the first block. The rate structure provides a clear incentive to reduce consumption to all but the lowest water users.

Figure 3–water rates

Year	Water Rate			
	Variable 1 st Block 15m ³ (per m ³)	Variable 2 nd Block 250m ³ (per m ³)	Variable Balance Block (per m ³)	Fixed (monthly)
2007	\$ 0.294	\$0.821	\$0.621	\$11.94
2008	\$ 0.306	\$0.854	\$0.646	\$12.78
2009	\$ 0.310	\$0.863	\$0.653	\$13.55
2010	\$ 0.341	\$0.950	\$0.719	\$14.91
2011	\$ 0.372	\$1.093	\$0.791	\$16.41
2012	\$ 0.410	\$1.203	\$0.871	\$18.06

On an annual basis, a residential customer with a monthly consumption of 17 cubic meters (representing the average monthly consumption for residential customers in 2010) would pay \$319.44 for water supply in 2012 compared to \$215.90 in 2007, representing an average annual increase of 8.18% (see Figure 4).

Figure 4– Annual water costs for typical residential customers (17 cubic meters consumption)

Year	Water Costs			Annual Increase
	Variable	Fixed	Total	
2007	\$72.62	\$143.28	\$215.90	
2008	\$75.58	\$153.36	\$228.94	6.04%
2009	\$76.51	\$162.60	\$239.11	4.45%
2010	\$84.18	\$178.92	\$263.10	10.03%
2011	\$93.19	\$196.92	\$290.11	10.27%
2012	\$102.72	\$216.72	\$319.44	10.11%



2.3 Sustainable capital asset management

In order to ensure long term viability of the water supply on a full user pay basis, the PUC reviewed its capital asset management practices to ensure its funding for capital expenditures would be gradually increased to approximately 1.5% of the estimated replacement value of water assets. This level of funding was considered necessary to support the continuous replacement and rehabilitation of the PUC's water infrastructure at the end of its useful life (overall system average of approximately 70 years)¹.

Funding increases commenced in 2002 based on an estimated replacement value of \$450 million for water distribution assets only. Annual capital funding increased from approximately \$1.7 million in 2001 to almost \$5.0 million in 2012 with the intent to continue increasing rates and capital expenditure levels into the future.

With the completion of the implementation of tangible capital asset accounting in 2009, the PUC has estimated the replacement value of its water infrastructure to be in the order of \$580 million, which would require \$12 million in annual capital funding under a sustainable model as compared to the 2012 budgeted capital funding of \$5.0 million. This level of capital funding will provide for the replacement of current infrastructure and the traditional level of additions, extension and system reliability improvements.

¹ In determining the level of capital funding required to achieve sustainability, the financial plan considers a number of factors, including the replacement value and useful lives of the PUC's water assets, the potential impacts of growth and regulatory changes on capital investment requirements, the traditional practice of funding some infrastructure-related operating costs through capital envelopes and the potential for grant revenues to offset some portion of capital expenditures. After consideration of these items, the calculated financial requirement for sustainability in the financial plan is 1.5% of the replacement value of tangible capital assets.

III Key Financial Plan Assumptions

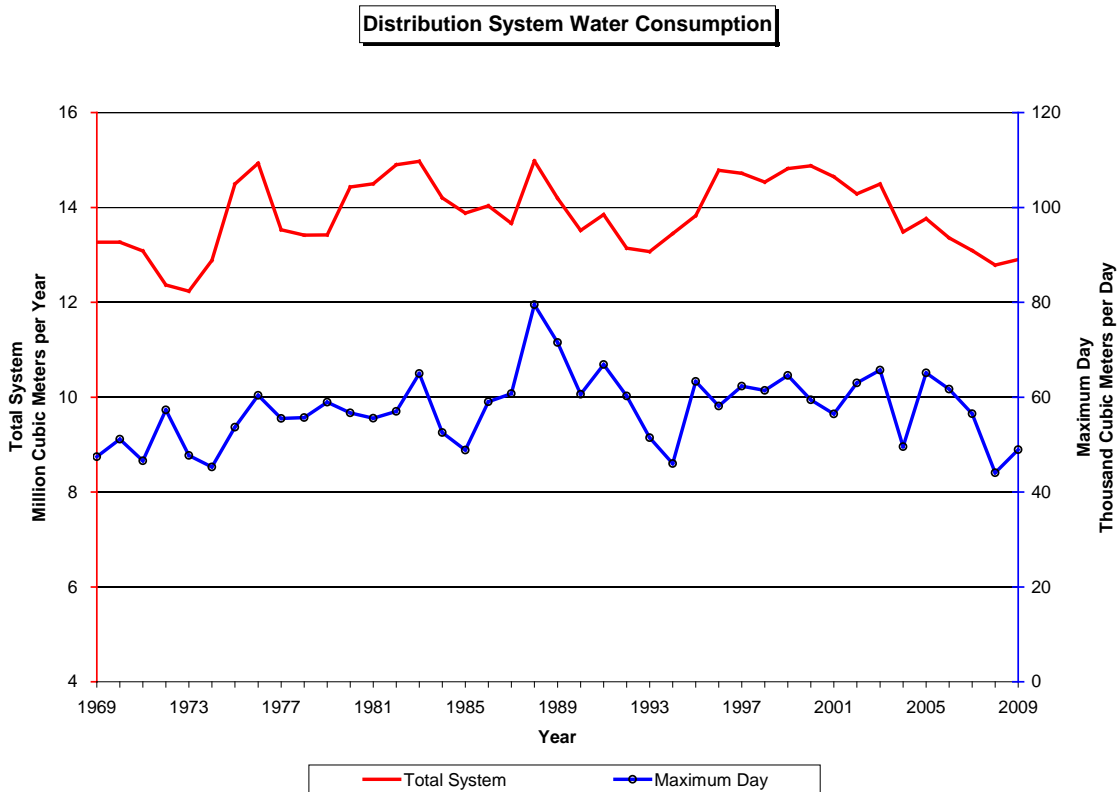
The preparation of a 10-year financial plan for water supply necessarily requires the use of assumptions concerning future events. This chapter highlights the key assumptions that have formed the basis of the forecasted financial performance of the PUC's water supply.

3.1 Water consumption

Figure 5 provides a summary of annual total system consumption and peak day demand since 1969. The highest annual and peak day water consumption occurred in 1988. That year annual consumption was 14.98 million m³ and the peak day was 79,482 m³/D. However the 1988 numbers are not representative of true consumer demand as there was extensive hydrant testing done that year combined with significant watermain breaks resulting in the unusually high numbers.

Annual consumption is influenced primarily by population and the type of industry in the community. Peak day consumption is most heavily influenced by summer weather conditions. Historically, total system consumption has fluctuated between 12 and 15 million m³ annually and peak day has been in the range of 65,000 m³/D.

Figure 5– Distribution system water consumption

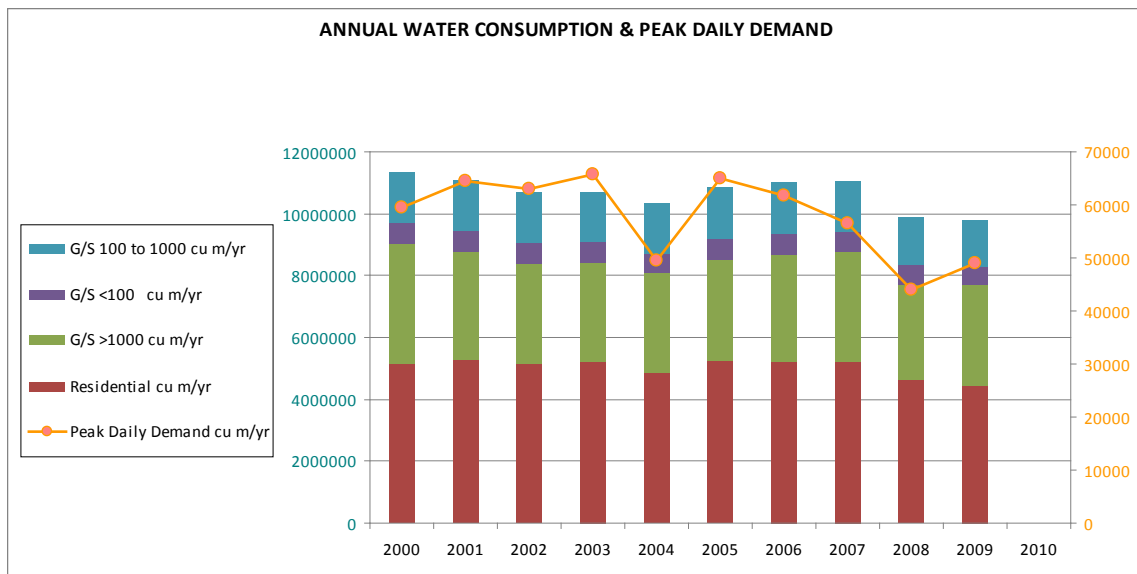


The most recent 10 years are of greatest relevance for trends in water consumption. The population served has stabilized and has begun to grow again. Many water conserving fixtures

and appliances, such as low flush toilets and low water use washers, have been available for a number of years and are gaining market share.

The water consumption chart of Figure 6 shows annual consumption of the four customer billing groups for the period 2000 to 2009. Approximately half of water use is by residential consumers. The next largest consumer group is commercial/industrial activities whose monthly consumption exceeds 1,000 m³/month, followed by those with monthly consumption between 100 m³ and 1,000 m³ and lastly by commercial customers consuming less than 100 m³/month. During the past ten years annual consumption has fluctuated by 18%; peak day consumption, however, has fluctuated by 48%. The relatively hot summer of 2003 generated the highest peak consumption of 65,727 m³/D and the cool wet summer of 2008 saw the lowest peak of 44,044 m³/D.

Figure 6– Annual water consumption and peak daily demand



Consumption during winter months gives an indication of what the internal residential and commercial water use is. The table below indicates that average internal use per customer per winter month has declined in every category over the past 10 years. The biggest factor for the residential sector is likely due to a decrease in the number of residents per household.

Customer Category	2000	2009
Residential	18 m ³	15 m ³
>1,000 m ³ /month	6,162 m ³	4,447 m ³
100-1,000 m ³ /month	310 m ³	272 m ³
<100 m ³ /month	29 m ³	25 m ³



The average monthly customer consumption over the months of June, July and August for the four customer categories in 2000 and 2009 is contained in the following table.

Customer Category	2000	2009
Residential	24 m ³	19 m ³
>1,000 m ³ /month	6995 m ³	5910 m ³
100-1,000 m ³ /month	352 m ³	301 m ³
<100 m ³ /month	31 m ³	27 m ³

Although the highest peak day demand in the ten year period occurred in 2003 the highest residential monthly consumption occurred in July 2005 at 29.82 m³. The highest monthly consumption for the greater than 1,000 m³/month customer category was in May 2000 at 6,971m³. For the 100 – 1,000 m³/month customer category a monthly high of 396 m³ occurred in August 2001. The highest monthly consumption for the less than 100 m³/month customer category was recorded in 2005 at 32 m³.

The difference between the winter and summer average residential customer use in 2000 was 33%. The difference between winter and summer use in the other customer categories ranged from 6.9% to 13.6% in that same year. In 2005 the difference between winter and summer average residential use was 71.1%. For the other categories the variation in the year of highest summer consumption with the winter average ranged from 21% to 33%. Every customer type is influenced by summer weather conditions but none more so than the residential customer.

Records over the past ten years indicate a slight decline in overall consumption. Water use is highly variable depending on summer weather and the greatest amount of variation is by the residential consumer.

PUC conservation strategy

The trend over the past ten years has been a decrease in per capita consumption reflecting the impact of higher water rates, the replacement of older appliances with more water efficient models and the installation of low flush toilets in new homes.

Nevertheless the PUC water supply is still vulnerable to periods of drought and hot weather when there is a loss in diversity in consumption due to the perceived need for lawn watering.

In 2011 the PUC passed a by-law to implement restrictions during the summer months when water capacity is being stressed. PUC's water conservation strategy is aimed at delaying the need for additional capacity where possible by promoting prudent use of water.

Losses and unaccounted for

Nearly all PUC customers are metered. In addition, PUC monitors the distribution system continuously for leaks that would otherwise go undetected. Also, meters are used on hydrants that are used for bulk water loading where city and contractor trucks fill up with water. These measures will reduce the amount of water that is lost or unaccounted for.

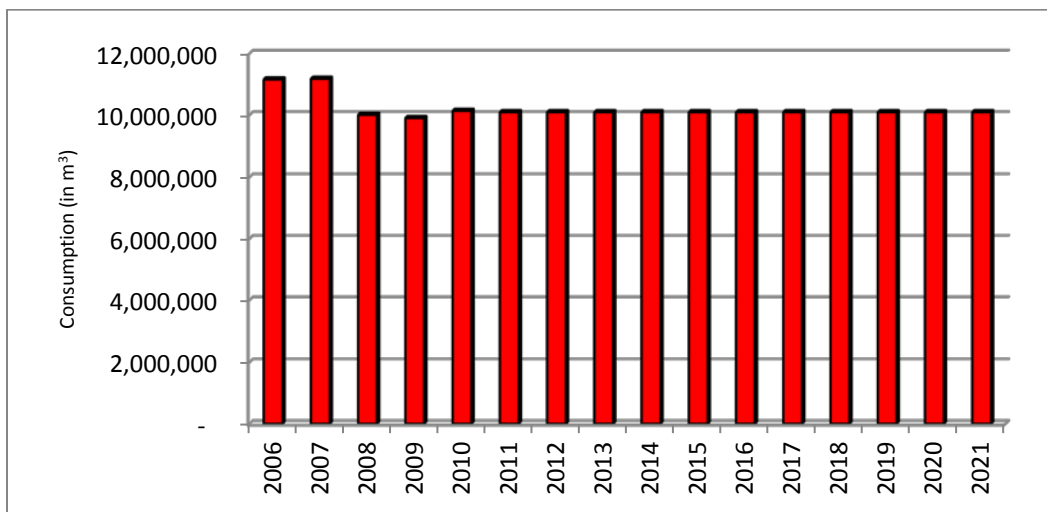
The decrease in water consumption likely reflects a combination of factors, including:

- price elasticity (i.e. reduced consumption in response to higher water rates)
- continued focus on conservation, including the increased use of water saving technologies (e.g. low flow showerheads, low flush toilets)

- increased levels of rainfall during summer months, which would reduce water demand associated with lawn watering

The 2011 budget and financial plan assume that this historical declining trend in water consumption will continue during the projection period, although at a decreasing rate as opportunities for conservation are fully realized and the PUC increases the level of its meter inspection and enforcement activities. The projected water consumption levels considered in the financial plan are calculated on a twelve-month basis with consideration given to the historical trend in decreasing consumption (see Figure 7). Overall, the financial plan considers a decrease in consumption from 2012 to 2021 from existing customers coupled with an increased customer base. This is expected to net out to consistent consumption levels over the forecasted period.

Figure 7 – Forecasted annual water consumption levels (2006 to 2021)



3.2 Capital funding

The financial plan phases in increases to capital funding over a ten year planning period to a level sufficient to provide for:

- Sustainable reinvestment in the PUC’s water infrastructure
- Anticipated growth in the PUC’s water system
- A provision for future capital needs arising from regulatory changes or unavoidable service level enhancements

Overall, funding for infrastructure requirements should increase from the 2011 budgeted level of \$4.3 million to \$12.9 million in 2021, at which point capital expenditures will approximate 1.5% of the projected replacement value of the PUC’s water assets (see Figure 8). This increase will reduce its replacement cycle (i.e. the number of years required to fully replace its infrastructure) from the current 137 years to 66 years.



Figure 8 – Projected replacement value of water infrastructure and annual capital funding (in millions)

Year	Replacement Value of Capital Assets	Forecasted Capital Funding	Funding Percentage	Replacement Cycle (in years)
2011	\$592	\$4.3	0.7%	137
2012	\$603	\$4.9	0.8%	124
2013	\$616	\$6.0	1.0%	103
2014	\$634	\$6.1	1.0%	104
2015	\$653	\$6.8	1.0%	96
2016	\$673	\$7.4	1.1%	91
2017	\$706	\$10.7	1.5%	66
2018	\$742	\$11.0	1.5%	68
2019	\$779	\$11.3	1.4%	69
2020	\$818	\$12.6	1.5%	65
2021	\$858	\$12.9	1.5%	66

The replacement values of the water assets at December 31, 2010 are inflated annually by 2% in 2011, 2012 and 2013, 3% in 2014 to 2016 and 5% in 2017 to 2021, consistent with the inflation assumptions made on operating costs.

The significant increase in capital spending required to achieve sustainability reflects in large part the current infrastructure deficit facing the PUC and the magnitude of change required to close the gap between infrastructure requirements and available funding.

3.3 Capital expenditures

Recently the PUC has begun the process of developing a master plan for water supply that will identify and quantify infrastructure requirements over the mid to long term. Until such time as the master plan is completed, the quantification of forecasted capital investments based on specific projects for the ten year projection period is speculative and possibly subject to material fluctuation. Future updates of the financial plan will reflect projected capital expenditures identified upon completion of the master plan for water supply, as well as master plan updates thereafter.

The financial plan assumes that all funds for capital projects raised through user fees will be expended by the PUC in the year that they are collected. Based on this assumption, the financial plan does not consider an accumulation of capital funding in reserves or reserve funds, although in reality reserves will be accumulated as projects are prefunded under the PUC's pay-as-you-go strategy.

3.4 Lead pipe replacement

The PUC has included approximately \$100,000 annually as part of the capital spending for the replacement of lead service pipes for residential customers.

3.5 Operating cost increases

Planned operating costs are based on the 2011 budget with provisions for future inflationary increases. Additional costs associated with new requirements; including source water protection for water supply has been included in the financial plan. In 2013, it is anticipated that the PUC will move its operations to a new facility and additional costs have been factored in commencing in 2013.



A summary of the inflation rates used in the financial plan is included as Figure 9. Generally, inflation is expected to be 2 to 5% per annum for water costs as illustrated below.

Figure 9 – Projected annual inflation rates for operating costs

Year	Inflation
2012	2%
2013 to 2016	3%
2017 to 2021	5%

3.6 Contingencies

In addition to the key assumptions noted above, there are a number of other variables that have not been reflected in the financial plan. In the event that these variables materialize, whether in whole or in part, the potential exists for significant impacts (either positive or negative) on the projected financial plan.

Contingencies that were identified but not incorporated into the financial plan due to uncertainty as to quantum or probability of occurrence include:

- The acquisition of private water systems currently in operation.
- Potential operating savings resulting from the projected increase in capital spending. For example, the frequency and cost of repairing water main breaks may decrease as capital funding increases and reduces the overall age of the water main system.
- Potential operating savings related to on-going process reviews and technology enhancements.
- Senior government grant revenues for operating and/or capital purposes above the level of grant revenue noted in the financial plan.
- Unforeseen capital expenditure projects such as water extensions and development of cost sharing initiatives that exceed the financial resources identified in this plan.
- New Ministry regulations that would have a significant impact on operating costs in excess of cost increases provided for in the financial plan.

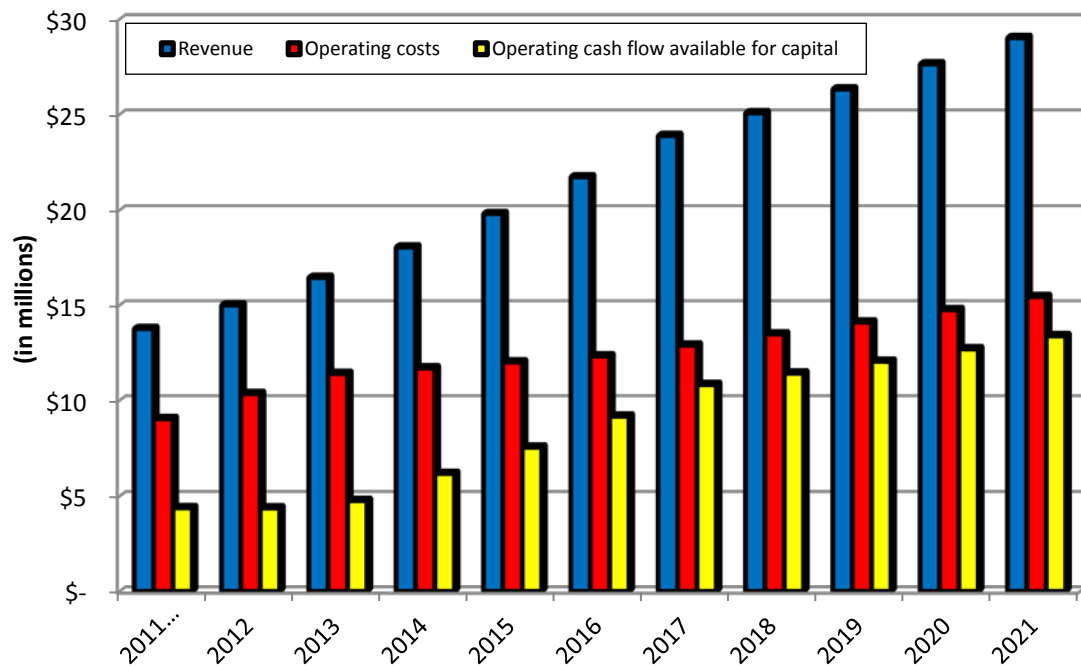
IV Financial Plan Highlights

Included as Appendix A is the consolidated financial plan for water supply, which provides a financial forecast of water supply from 2012 to 2021, based on the proposed 2011 budget. The financial plan is comprised of:

- A Statement of Projected Operating Results
- A Statement of Projected Financial Position
- A Statement of Cash Flow
- A Statement of Changes in Net Financial Assets
- Explanatory notes outlining key assumptions

As noted in the financial plan, total revenues are projected to increase from the budgeted level of \$13.8 million in 2011 to \$29 million in 2021, providing \$13.4 million in operating cash flows to support debt servicing obligations and infrastructure renewal (see Figure 10). The level of revenue projected at the end of the forecast period is considered sufficient to attain sustainability of the water supply.

Figure 10 – Projected revenues, operating costs (excluding amortization) and operating cash flow available for capital



4.1 Projected water rates

In order to moderate increases in water rates, the financial model reflects a transitional approach to items such as capital reinvestment whereby changes are phased in over time. However, other factors such as consumption decreases and operating cost elements have not been phased in but rather projected based on the anticipated timing of their occurrence. The projected water rate increases, as indicated in Figure 11 have been smoothed over a number of years to reach the funding level necessary to replace capital assets at the target rate.

As indicated in the Introduction, the financial plan (which has been prepared for the purposes of meeting regulatory requirements established by the Ministry) does not represent a formal, multi-year budget for water services. The approval of operating and capital budgets for water services is undertaken as part of the PUC's overall annual budgeting process. Accordingly, the financial performance outlined in this document is subject to change based on future decisions of the PUC with respect to operating and capital costs, rate increases, consumption changes and unforeseen revenues and expenses. It is the intention of the PUC to update the financial plan on a regular basis to reflect budgetary decisions made by the PUC.

Figure 11 summarizes the actual variable and fixed water rates for 2011 and as budgeted for 2012, as well as the projected rates for 2013 to 2021. These rates reflect the anticipated total cost of water services, other revenue sources and projected consumption levels, as well as the continuation of the PUC's past policy of escalating fixed and variable water rates by the same percentage increase.

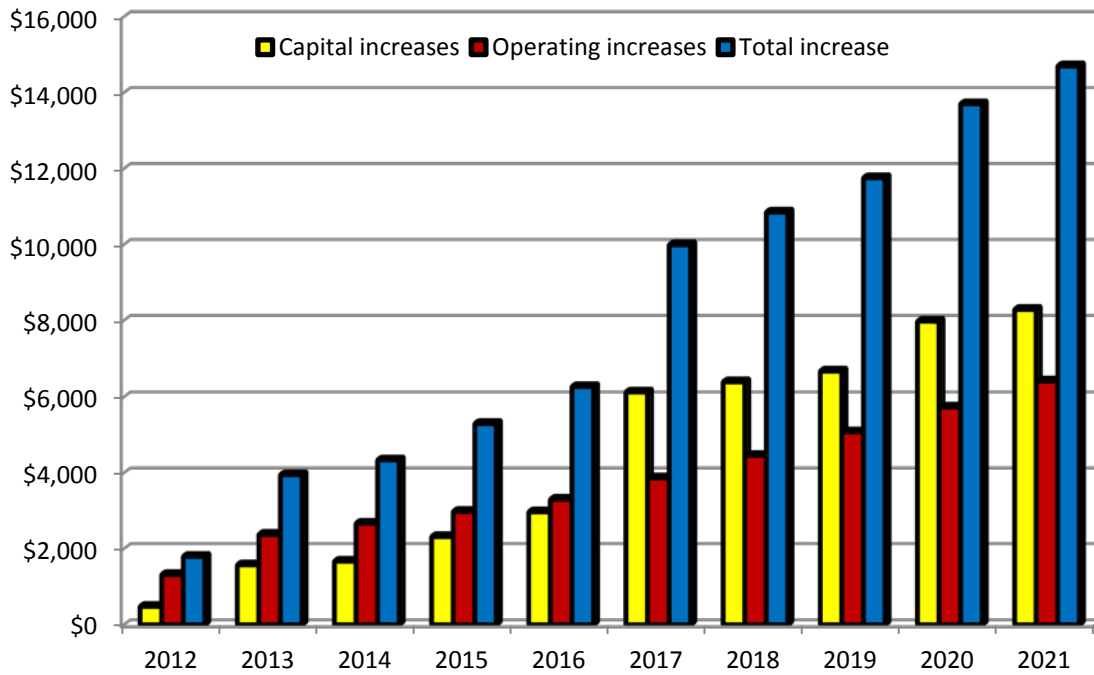
Figure 11 – Residential projected water rates

Year	Water Rates		Average Residential Cost (Annual)	Percentage Increase from Prior Year
	Variable (per m ³)	Fixed (monthly)		
2011 actual	\$0.46	\$16.41	\$290.11	
2012 (budget)	\$0.50	\$18.06	\$319.44	10%
2013	\$0.55	\$20.03	\$352.23	10%
2014	\$0.60	\$22.03	\$387.45	10%
2015	\$0.66	\$24.24	\$426.20	10%
2016	\$0.73	\$26.66	\$468.82	10%
2017	\$0.80	\$29.33	\$515.70	10%
2018	\$0.84	\$30.79	\$541.48	5%
2019	\$0.89	\$32.33	\$568.56	5%
2020	\$0.93	\$33.95	\$596.99	5%
2021	\$0.98	\$35.65	\$626.83	5%
Average annual increase				8%

The annual increases in water user fees are forecasted to increase over the projection period with the phase-in of capital expenditures to the level required to achieve sustainability. The major components of the annual water user fee increases are presented in Figure 12 and reflect the following:

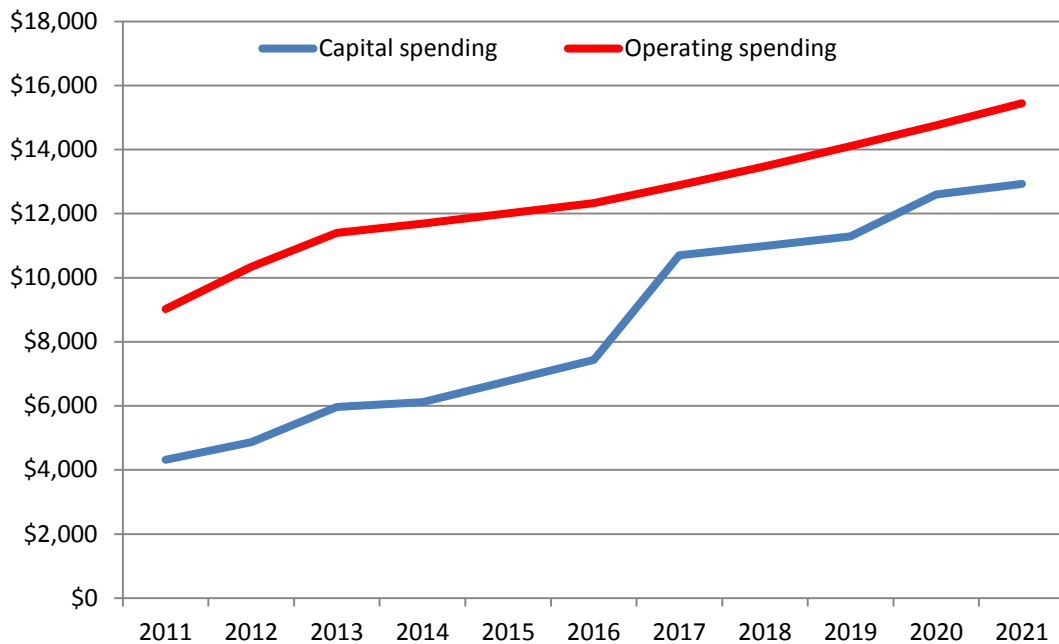
- Increases in water operating costs in 2013 due to the PUC move to a new facility
- Increasing levels of infrastructure reinvestment over the projection period

Figure 12 – Annual increases in cumulative expenditures component (in thousands)



As summarized in Figure 13, the total amount of capital expenditures (excluding debt servicing) is projected to increase from \$5.0 million in 2012 to \$12.9 million in 2021, an average annual increase of 12.2%. Additionally, operating costs are projected to increase from \$9 million in 2012 to \$15.4 million in 2021, an average annual increase of 5.6%, including new building expenditures commencing in 2013.

Figure 13 – Annual capital and operating cost (in thousands)



4.2 Comparison to other municipalities

In the past, the PUC has undertaken a comparison of its water rates against other Ontario municipalities for the purposes of assessing the reasonableness of proposed rate increases. While the preparation of financial plans for water services would appear to afford the opportunity for a detailed comparison of the PUC's operations from a financial perspective, the ability to undertake this type of analysis is limited by a number of factors:

- Municipalities are in different stages with respect to their financial plans, with the timing for completion depending on their specific licensing situation. As a result, certain municipalities have not yet been required to commence work on their financial plans.
- The Ministry disclosure requirements are relatively high level and as such, municipalities are not required to provide detailed information concerning water rates, consumption levels or operating cost categories.
- Certain municipalities have limited their financial plans to the six year minimum established by the Ministry as opposed to the 10 year projection period adopted by the PUC. As such, projected rate information beyond 2015 is not available for all municipalities.
- The financial plans for municipalities with high rates of population growth do not form reasonable comparisons given significant increases in consumption and capital investment, both of which impact on revenues, rates and operating costs.

In light of these factors, the comparison of the PUC's financial plan is limited to:

- Municipalities that have relatively low rates of projected population increases
- An analysis of the projected increase in water user fee revenue from 2010 to 2015, representing the minimum planning time frame required by the Ministry. An analysis of water user fee revenue, as opposed to water rates, was undertaken as municipalities are not required to disclose projected water rates.

As noted in Figure 14, the PUC is projecting an average annual increase in total water user fee revenue of 11.9% from 2010 to 2015, compared to other municipalities which are forecasting increases of 6.7% to 9.9%.

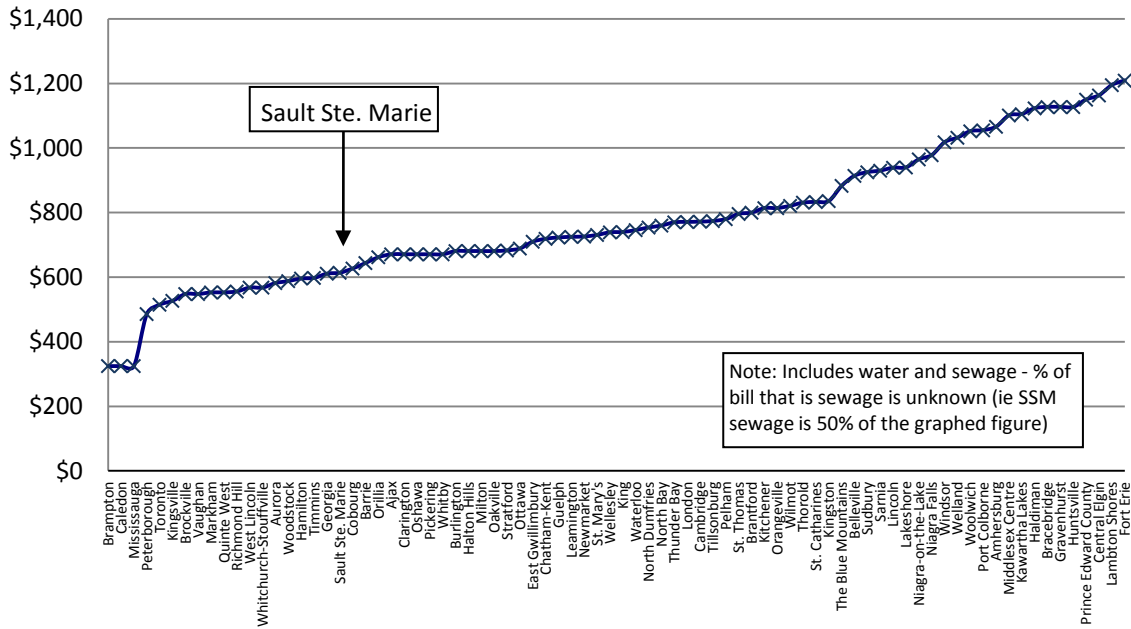
Figure 14 – Comparison of water user fee revenue increases as outlined in financial plans (thousands of dollars)

Community	Projected User Fee Revenue		2010-2015 Change		
	2010	2015	Amount	Total	Annual*
Kingston	\$16,102	\$24,058	\$7,956	49.41%	9.9%
Thunder Bay	\$20,910	\$29,430	\$8,520	40.75%	8.1%
Guelph	\$17,363	\$24,138	\$6,775	39.02%	7.8%
Ottawa	\$117,188	\$160,561	\$43,373	37.01%	7.4%
London	\$55,451	\$74,463	\$19,012	34.29%	6.9%
Greater Sudbury	\$24,495	\$32,691	\$8,196	33.46%	6.7%
Sault Ste. Marie	\$11,318	\$18,056	\$6,737	59.53%	11.9%

* The annual change is a simple average calculated by dividing the total increase percentage by the number of years. For Sault Ste. Marie, the annual user fee revenue increase on a year over year basis is 10%.

The PUC is a low cost provider of water services when compared to other service providers in the Province of Ontario. As noted in figure 15, the average cost to a household in Sault Ste. Marie for water and wastewater services is approximately \$614 per annum which places Sault Ste. Marie in the bottom quartile for costs. The average cost for 2010 was \$775 per year and the median cost was \$740 per year.

Figure 15 – 2010 Actual water and wastewater costs (per annum based on 250 m³ of consumption)



4.3 Congruence with sustainability principles

At the onset of the financial plan, the nine sustainability principles developed by the Ministry were outlined. Figure 16 provides an indication as to the degree of congruence between the PUC’s financial plan and the guidance provided by the Ministry.

Figure 16 – Congruence with suggested sustainability principles

Principle	How Addressed	Conclusion
1. Public engagement and transparency	<ul style="list-style-type: none"> ▪ Financial plan was presented at a public PUC meeting and will be presented to the members of council of the City of Sault Ste. Marie as an information item ▪ Public access to financial plan will be provided consistent with the Regulation 	Achieved
2. Integrated approach to planning	<ul style="list-style-type: none"> ▪ Financial plan for capital expenditures is integrated with the City of Sault Ste. Marie planned capital projects for road reconstruction that includes replacement of sanitary and storm sewers. 	Achieved
3. Revenues should be used to meet water needs	<ul style="list-style-type: none"> ▪ Financial model is full user pay 	Achieved
4. Life cycle planning with mid-course corrections is preferable	<ul style="list-style-type: none"> ▪ Planning is a long-term forecast based on the useful life of infrastructure assets 	Achieved
5. Asset management plan is a key input	<ul style="list-style-type: none"> ▪ The PUC has initiated asset management planning with consideration given to the useful life of assets 	Achieved
6. Sustainable level of revenue considers operating and capital requirements	<ul style="list-style-type: none"> ▪ Revenue is sufficient to fund all operating costs as well as ongoing capital asset replacement, growth and regulatory changes 	Achieved
7. Users pay for services they receive	<ul style="list-style-type: none"> ▪ No subsidization of water services by non-users 	Achieved
8. Financial plans are living documents	<ul style="list-style-type: none"> ▪ PUC intends to regularly update the financial plan 	Achieved
9. Financial plans benefit from close collaboration	<ul style="list-style-type: none"> ▪ Preparation included involvement from infrastructure and finance groups, as well as external advisors 	Achieved



APPENDIX A

Financial Plan
Water Supply Services



PUBLIC UTILITIES COMMISSION OF THE CITY OF SAULT STE. MARIE
Water Operations

Statement A

Statement of Projected Operating Results
 For the Years Ending December 31

	2011	2012	2013	2014	2015	2016	----- Projected -----		2018	2019	2020	2021
							2017					
Revenues												
Residential	7,218,678	7,866,232	8,652,855	9,518,141	10,469,955	11,516,951	12,668,646	13,302,078	13,967,182	14,665,541	15,398,818	
General	5,206,799	5,699,237	6,269,161	6,896,077	7,585,685	8,344,254	9,178,679	9,637,613	10,119,494	10,625,469	11,156,742	
Hydrant	717,000	793,000	872,300	959,530	1,055,483	1,161,031	1,277,134	1,340,991	1,408,041	1,478,443	1,552,365	
Other revenues	546,291	503,965	514,004	529,364	545,185	561,480	589,454	618,827	649,669	682,052	716,155	
Developer contributions	70,000	140,000	142,800	145,656	150,026	154,527	159,163	167,121	175,477	184,251	193,464	
Total revenues	13,758,768	15,002,434	16,451,120	18,048,768	19,806,334	21,738,243	23,873,076	25,066,630	26,319,863	27,635,756	29,017,544	
Expenses:												
Operating expenses	6,755,159	7,211,076	7,355,298	7,575,957	7,803,236	8,037,333	8,439,200	8,861,160	9,304,218	9,769,429	10,257,900	
General and administration expenses	2,270,886	3,132,311	4,046,761	4,117,641	4,201,698	4,288,716	4,451,521	4,620,142	4,797,928	4,985,336	5,182,830	
Interest on long-term debt	285,000	150,000	150,000	150,000	125,000	100,000	-	-	-	-	-	
Amortization of tangible capital assets	1,800,000	1,800,000	1,856,000	1,931,680	2,019,630	2,120,219	2,326,230	2,542,542	2,769,669	3,028,152	3,148,152	
Total expenses	11,111,045	12,293,387	13,408,059	13,775,278	14,149,564	14,546,268	15,216,951	16,023,844	16,871,815	17,782,917	18,588,882	
Gain on sale of building	-	-	1,500,000	-	-	-	-	-	-	-	-	-
Annual surplus (deficit)	2,647,723	2,709,047	4,543,061	4,273,490	5,656,770	7,191,975	8,656,125	9,042,786	9,448,048	9,852,839	10,428,662	
Accumulated surplus (deficit), beginning of year	68,246,061	70,893,784	73,602,831	78,145,892	82,419,382	88,076,152	95,268,127	103,924,252	112,967,038	122,415,086	132,267,925	
Accumulated surplus (deficit), end of year	70,893,784	73,602,831	78,145,892	82,419,382	88,076,152	95,268,127	103,924,252	112,967,038	122,415,086	132,267,925	142,696,587	

PUBLIC UTILITIES COMMISSION OF THE CITY OF SAULT STE. MARIE

Statement B

Water Operations

Statement of Projected Financial Position
As at December 31

	2011	2012	2013	2014	2015	Projected		2018	2019	2020	2021
						2016	2017				
Financial Assets											
Cash	\$ 713,349	\$ 210,446	\$ 497,318	\$ 59,864	\$ 314,213	\$ 41,694	\$ 163,191	\$ 594,618	\$ 1,350,739	\$ 1,447,054	\$ 1,899,958
Accounts receivable	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821	1,861,821
Unbilled service revenue	553,558	553,558	553,558	553,558	553,558	553,558	553,558	553,558	553,558	553,558	553,558
Local improvement receivable	121,503	121,503	121,503	-	-	-	-	-	-	-	-
Total financial assets	3,250,231	2,747,328	3,034,200	2,475,243	2,729,592	2,457,073	2,578,570	3,009,997	3,766,118	3,862,433	4,315,337
Financial Liabilities											
Line of credit	3,000,000	3,000,000	3,000,000	2,500,000	2,000,000	-	-	-	-	-	-
Accounts payable and accrued liabilities	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270
Total financial liabilities	5,056,270	5,056,270	5,056,270	4,556,270	4,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270	2,056,270
Net financial assets	(1,806,039)	(2,308,942)	(2,022,070)	(2,081,027)	(1,326,678)	400,803	522,300	953,727	1,709,848	1,806,163	2,259,067
Non-Financial Assets											
Inventory	244,900	244,900	244,900	244,900	244,900	244,900	244,900	244,900	244,900	244,900	244,900
Tangible capital assets	72,454,923	75,666,873	79,923,062	84,255,509	89,157,930	94,622,424	103,157,052	111,768,411	120,460,338	130,216,862	140,192,620
Total non-financial assets	72,699,823	75,911,773	80,167,962	84,500,409	89,402,830	94,867,324	103,401,952	112,013,311	120,705,238	130,461,762	140,437,520
Accumulated surplus (deficit)	\$ 70,893,784	\$ 73,602,831	\$ 78,145,892	\$ 82,419,382	\$ 88,076,152	\$ 95,268,127	\$ 103,924,252	\$ 112,967,038	\$ 122,415,086	\$ 132,267,925	\$ 142,696,587

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PUBLIC UTILITIES COMMISSION OF THE CITY OF SAULT STE. MARIE

Statement C

Water Operations

Statement of Projected Cash Flows
For the Years Ending December 31

	2011	2012	2013	2014	2015	Projected		2017	2018	2019	2020	2021
						2016						
Cash provided by (used in) operating activities:												
Annual surplus (deficit)	\$ 2,647,723	\$ 2,709,047	\$ 4,543,061	\$ 4,273,490	\$ 5,656,770	\$ 7,191,975	\$ 8,656,125	\$ 9,042,786	\$ 9,448,048	\$ 9,852,839	\$ 10,428,662	
Items not involving cash:												
Amortization of tangible capital assets	1,800,000	1,800,000	1,856,000	1,931,680	2,019,630	2,120,219	2,326,230	2,542,542	2,769,669	3,028,152	3,148,152	
Developers contribution	(70,000)	(140,000)	(142,800)	(145,656)	(150,026)	(154,527)	(159,163)	(167,121)	(175,477)	(184,251)	(193,464)	
Gain on sale of building	-	-	(1,500,000)	-	-	-	-	-	-	-	-	
Changes in working capital	-	-	-	121,503	-	-	-	-	-	-	-	
Net change in cash from operating activities	4,377,723	4,369,047	4,756,261	6,181,017	7,526,374	9,157,667	10,823,192	11,418,207	12,042,240	12,696,740	13,383,350	
Cash provided by (used in) financing activities:												
Debt financing obtained	-	-	-	-	-	-	-	-	-	-	-	
Principal repayments on net long-term liabilities	(1,000,000)	-	-	(500,000)	(500,000)	(2,000,000)	-	-	-	-	-	
Net change in cash from financing activities	(1,000,000)	-	-	(500,000)	(500,000)	(2,000,000)	-	-	-	-	-	
Capital activities:												
Cash used to acquire tangible capital assets	(4,323,633)	(4,871,950)	(5,969,389)	(6,118,471)	(6,772,025)	(7,430,186)	(10,701,695)	(10,986,780)	(11,286,119)	(12,600,425)	(12,930,446)	
Proceeds from disposal of tangible capital assets	-	-	1,500,000	-	-	-	-	-	-	-	-	
Net change in cash from capital activities	(4,323,633)	(4,871,950)	(4,469,389)	(6,118,471)	(6,772,025)	(7,430,186)	(10,701,695)	(10,986,780)	(11,286,119)	(12,600,425)	(12,930,446)	
Net change in cash	(945,910)	(502,903)	286,872	(437,454)	254,349	(272,519)	121,497	431,427	756,121	96,315	452,904	
Cash and cash equivalents, beginning of year	1,659,259	713,349	210,446	497,318	59,864	314,213	41,694	163,191	594,618	1,350,739	1,447,054	
Cash and cash equivalents, end of year	\$ 713,349	\$ 210,446	\$ 497,318	\$ 59,864	\$ 314,213	\$ 41,694	\$ 163,191	\$ 594,618	\$ 1,350,739	\$ 1,447,054	\$ 1,899,958	

PUBLIC UTILITIES COMMISSION OF THE CITY OF SAULT STE. MARIE
Water Operations

Statement D

Statement of Projected Changes in Net Financial Assets
For the Years Ending December 31

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
						----- Projected -----					
Annual surplus (deficit)	\$ 2,647,723	\$ 2,709,047	\$ 4,543,061	\$ 4,273,490	\$ 5,656,770	\$ 7,191,975	\$ 8,656,125	\$ 9,042,786	\$ 9,448,048	\$ 9,852,839	\$ 10,428,662
Acquisition of tangible capital assets	(4,393,633)	(5,011,950)	(6,112,189)	(6,264,127)	(6,922,051)	(7,584,713)	(10,860,858)	(11,153,901)	(11,461,596)	(12,784,676)	(13,123,910)
Amortization of tangible capital assets	1,800,000	1,800,000	1,856,000	1,931,680	2,019,630	2,120,219	2,326,230	2,542,542	2,769,669	3,028,152	3,148,152
Loss on disposal of tangible capital assets	-	-	-	-	-	-	-	-	-	-	-
	54,090	(502,903)	286,872	(58,957)	754,349	1,727,481	121,497	431,427	756,121	96,315	452,904
Change in inventory	-	-	-	-	-	-	-	-	-	-	-
Change in net financial assets	54,090	(502,903)	286,872	(58,957)	754,349	1,727,481	121,497	431,427	756,121	96,315	452,904
Net financial assets (net debt), beginning of year	(1,860,129)	(1,806,039)	(2,308,942)	(2,022,070)	(2,081,027)	(1,326,678)	400,803	522,300	953,727	1,709,848	1,806,163
Net financial assets (net debt), end of year	\$ (1,806,039)	\$ (2,308,942)	\$ (2,022,070)	\$ (2,081,027)	\$ (1,326,678)	\$ 400,803	\$ 522,300	\$ 953,727	\$ 1,709,848	\$ 1,806,163	\$ 2,259,067