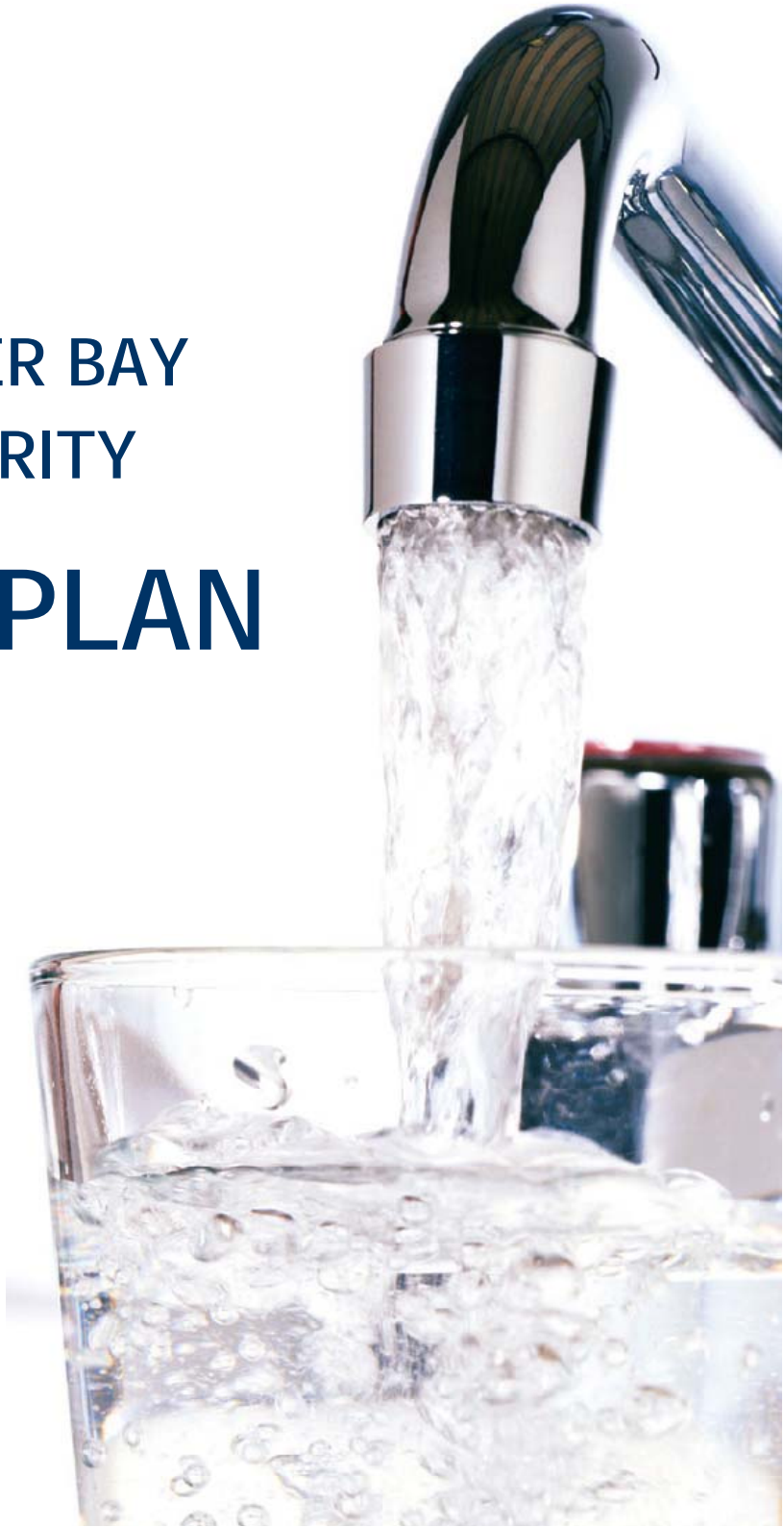


CITY OF THUNDER BAY
WATER AUTHORITY
FINANCIAL PLAN



FINANCIAL PLAN # 024-301



***This Financial Plan was approved by City Council
on February 17, 2010 and ratified on March 8, 2010.***

This Financial Plan was prepared for:



City of Thunder Bay
Environment Division - Water Authority
P.O. Box 800, 111 Syndicate Avenue S
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Prepared by:

A handwritten signature in dark ink, appearing to read "Donna Smith", is written over a horizontal line.

Donna Smith



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Date:

February 2010

**CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
FINANCIAL PLAN**

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EXECUTIVE SUMMARY

In 2007, the Ministry of Environment released Regulation 453/07 requiring all municipalities to complete a Financial Plan for their drinking water system. The City of Thunder Bay Environment Division – Water Authority encloses its Financial Plan herein. It is prepared in accordance with the MOE Financial Plans Regulation (O. Reg. 453/07).

In preparing this Financial Plan, the financial impacts of the drinking water system have been considered. Based on the Projected Financial Statements and the assumptions herein, the Water Authority will be financially viable and will provide safe drinking water for both the short term and long term.

Expected Achievements

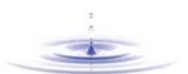
Through the process of developing this Financial Plan, the Water Authority set out to achieve the following:

- ✓ Financial viability;
- ✓ Limit overall water costs and remain affordable;
- ✓ Provide safe drinking water in short term and long term;
- ✓ Enable the long term plan for capital renewal to be realized;
- ✓ Achieve full cost recovery over the long term; and
- ✓ Maintain current services levels.

Operating Plan

The operating plan includes its day to day operations maintaining and administering the drinking water system; the capital investments that it will incur to renew and replace its existing capital infrastructure; and debt management, being the resulting debt repayments and interest charges that are incurred to achieve the above. Key highlights from the operating plan include:

- ✓ Operating costs are projected to be maintained in 2010, increased 1.5% in 2011, 2.0% in 2012 and 2013, and inflationary increases of 3.0% thereafter;
- ✓ Total capital infrastructure investment for the drinking water system up to 2030 is expected to be around \$200 million;
- ✓ Although there is a short period of time where a portion of the recommended capital renewal is deferred, this financial plan will allow for capital reinvestments to be made as recommended in the capital investment and asset management plans, ensuring that the system will be able to provide safe and sustainable drinking water for both the short term and the long term;
- ✓ The existing debt will be repaid over its twenty year term, fully repaid in 2025; and



- ✓ Total projected cash expenditures, including operating expenses, capital costs and debt repayment and interest charges will be \$30 million in the short term, increasing thereafter.

Funding Plan

The funding plan was developed to determine the most appropriate balance of operating revenues, short term one-time government funding and new debt financing. The achievements of the funding plan include:

- ✓ Through the development of a new water rate structure and new charges, operating revenues will increase over time to cover operating, capital and debt and interest costs;
- ✓ The new water rates will continue to be affordable over the long term;
- ✓ Water consumption is assumed to decline by 3%, 2% and 1% in 2010 to 2012 respectively;
- ✓ This plan does not rely on the use of municipal tax dollars to operate the Water Authority;
- ✓ One-time government funding is projected to be received in the short-term;
- ✓ Additional debt of \$21 million will be required over seven years, financing approximately 32% of total capital investments;
- ✓ There will be minimal requirement to finance annual ongoing capital renewal after seven years, however, it may be prudent to finance a portion of significant capital infrastructure investments;
- ✓ Through a combination of operating revenues, one-time government funding and new debt, it is projected that the Water Authority will achieve sufficient cash receipts to cover its annual cash expenditures of \$30 million; and
- ✓ Revenue levels will gradually increase to allow the Water Authority to invest in a reserve fund for significant future capital investments.

Financial Plan

Appendix One of this Financial Plan includes projected financial statements for the Water Authority. These statements include a projected statement of financial position, projected statement of operations and projected statement of cash flow for the periods ending from December 31, 2009 to 2030.

As required, these statements are in accordance with the new Public Sector Accounting Standards. Actual results will vary from the projections herein and the differences may be material.

This is a living document which will require continuous review and updates.



INTRODUCTION

This financial plan of the Thunder Bay's Environment Division - Water Authority ("Water Authority") was prepared in accordance with Regulation 453/07 as approved by the Ontario Ministry of Environment on August 14, 2007. The process in developing this plan was focused on the achievement of a balance between maintaining the water system in a safe and effective manner, while limiting expenditure and water rate increases. A flexible and gradual approach was utilized to achieve financial viability, recognizing that, the utilization of one-time funding sources for the purposes of sustaining the water system is limited, and the reliance on debt to support all future capital expenditures is unrealistic.

This financial plan incorporates previously written plans¹, including the City of Thunder Bay's Capital Planning Study Report – Phase I Water System, dated March 2009; and the Transportation and Works Asset Management Plan, dated July 18, 2005. Considering historic results and future needs, twenty one year financial projections to the year 2030 was prepared. These projections allow the Water Authority to achieve financial viability, while providing safe drinking water over the short and long term.

Ministry of Environment Financial Plans Regulation 453/07

Drinking water system owners are required to prepare a financial plan for their drinking water system as part of the new Municipal Drinking Water Licensing Program as set out in Part V of the Safe Drinking Water Act (SDWA). The financial plan must be prepared in accordance with the Ministry of Environment Financial Plans Regulation 453/07.

Regulation 453/07 requires the following:

- ✓ the financial plan be approved by resolution of Council that specifies that the drinking water system is financially viable;
- ✓ full-cost accounting to be utilized to determine the true cost of the drinking water system; and
- ✓ projections be at least six years, but recommends a long term plan.

There are numerous recommendations and other guidelines that have been prepared to assist the municipalities in the development of their financial plan.

Thunder Bay Water Authority

The Environment Division - Water Authority operates and maintains the water system infrastructure within the Transportation and Works department of the City of Thunder Bay.

The Water Authority's top priority is to provide a safe, sustainable supply of water, providing public health protection, fire protection and support for the local economy, all contributing to a high quality of life. Through the recent development of the Quality Management System, the Water Authority has been able to better manage risks,



identify operational efficiencies, enhance staff knowledge and create public awareness of its commitment to provide safe drinking water.

Through the development of this long term financial plan, the management team is encouraged that the Water Authority's priorities will be accomplished in a prudent manner.

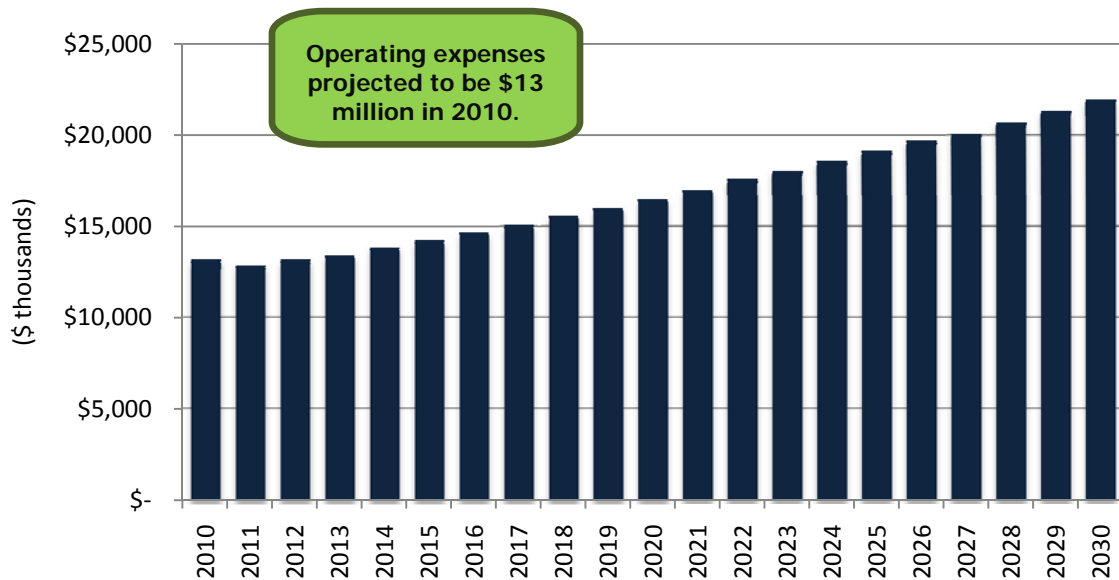
OPERATING PLAN

Through the achievement of its operating plan, the Water Authority will provide safe drinking water in the short term and long term. The Water Authority's operating plan includes its day to day operations maintaining and administering the drinking water system; the capital investments that it will incur to renew and replace its existing capital infrastructure; and debt management, being the resulting debt repayments and interest charges that are incurred to achieve the above.

Operations

The Water Authority, and its predecessors, has operated its water system without major incident, providing safe drinking water for over 100 years. Although it operates one of the oldest water systems, the Water Authority has below average operating costs for treatment of its drinking water per mega-litre, when compared to the other municipal water systems in Ontario in 2008².

Some of the Water Authority's key operating expenses include personnel costs, utilities, materials and supplies, and administrative costs. Annual operating expenses are projected to be approximately \$13 million in 2010, with only slight increases to 2014, when costs are projected to increase by 3.0% per year thereafter.



Key Assumptions in Projections

The detailed operating expenses are outlined in the projected statement of operations, included as part of Appendix One. In these projections, it is assumed that operating expenses will increase by 0%, 1.5% and 1.5% from 2010 to 2013, when they will increase by 3.0% per year thereafter.

Capital Costs

To enable the delivery of safe drinking water to all, the water system holds significant assets, including: Bare Point Water Treatment Plant; one lab; five water storage facilities; seven water pumping stations; seven water pressure zones; 721 kilometres of watermains; and, thousands of connections, fire hydrants, manholes and valves. These assets are referred to as capital.

The capital asset management plans were developed to ensure that these existing assets are maintained, renewed or upgraded as required. Over the long term, it is not believed that there will be a need for large expenditures related to expanding Thunder Bay's water system.

WATER SYSTEM ASSETS

AT A GLANCE

- 1 water treatment plant
- 1 lab
- 721 km watermains
- 5 reservoirs
- 7 pump stations
- 36,384 service connections
- 36,229 water meters
- 9,212 valves
- 3,402 hydrants

The renewal and rehabilitation of the City's water system had been reviewed previously and summarized in two reports: City of Thunder Bay Transportation and Works Asset Management Report, dated July 2005, and the City of Thunder Bay's Capital Planning Study Report – Phase I Water System, dated March 2009.

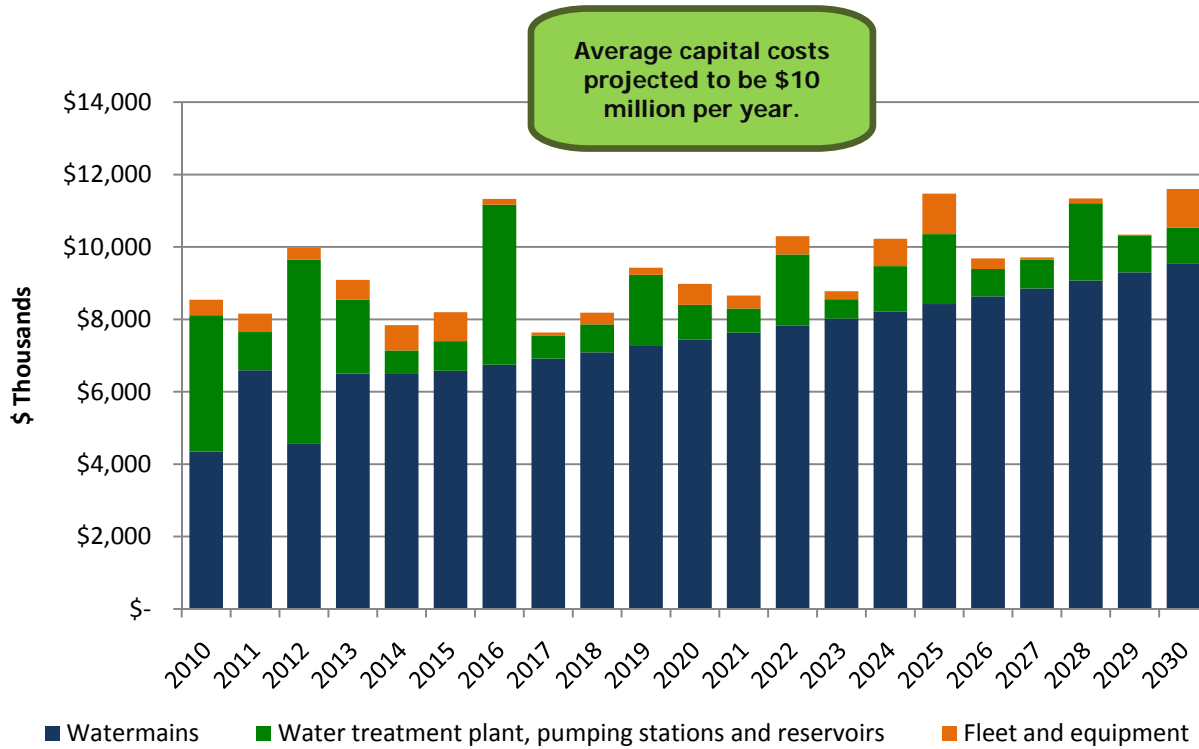
City of Thunder Bay Transportation and Works Asset Management Report, dated June 2005, was prepared as a consolidation of its long range infrastructure strategies, current technical and financial practices with a goal to maintain, upgrade and operate the City's physical assets in a cost-effective manner.³ The strategy for the water system relates directly to the replacement and / or rehabilitation of the watermains. With over 721 km of watermains, the cost-effective rehabilitation is prioritized based on the age, material type, size, soil conditions, and pressure related issues, as well as the integration with road resurfacing, road reconstruction work and other utilities' underground efforts. In this 2005 report, it was estimated that the cost to rehabilitate this aging system to ensure the safe delivery of drinking water was \$5.6 million per year. For further detail, the Asset Management Report can be found on the City of Thunder Bay website at http://www.thunderbay.ca/City_Government/Departments/Transportation_and_Works/Asset_Management_Plan.htm.

City of Thunder Bay's Capital Planning Study Report – Phase I Water System was performed between December 2008 and March 2009. In this study, a high level condition assessment was performed for the Bare Point Treatment Plant, pumping



stations, the in ground storage reservoirs and standpipes, resulting in the determination of maintenance and renewal needs up to 2028.

Over the next twenty years, there is significant capital costs required to upgrade and maintain the City’s water system. On average, approximately \$10 million of capital investments will be incurred each year. These expenditures will ensure the delivery of safe drinking water to Thunder Bay residents in the short term and the long term, and will be performed in a cost-effective manner through priority planning and integration with other City department upgrades.



Over the projected period, approximately \$200 million will be spent on capital infrastructure.

Future Significant Capital Costs

Looking beyond twenty years from now, this plan, which will be updated continuously over time, will allow the Water Authority to have the majority of its own funds available to pay for its significant capital investments, such as a new water treatment plant.

Key Assumptions in Projections

Capital costs will be incurred as set out on Schedule Two of these projections (Appendix One). Although certain costs have been deferred for a short period of time, most capital costs incurred each year are based on the plans previously developed.



Debt Management

Debt management is the ability to repay debt over time, including both principal payments and interest charges. The debt owed by the Water Authority was incurred to fund capital costs. In 2009, just over \$60 million of debt was owed by the Water Authority. Debt is projected to reach its highest level of \$65 million in 2010 and decrease thereafter.

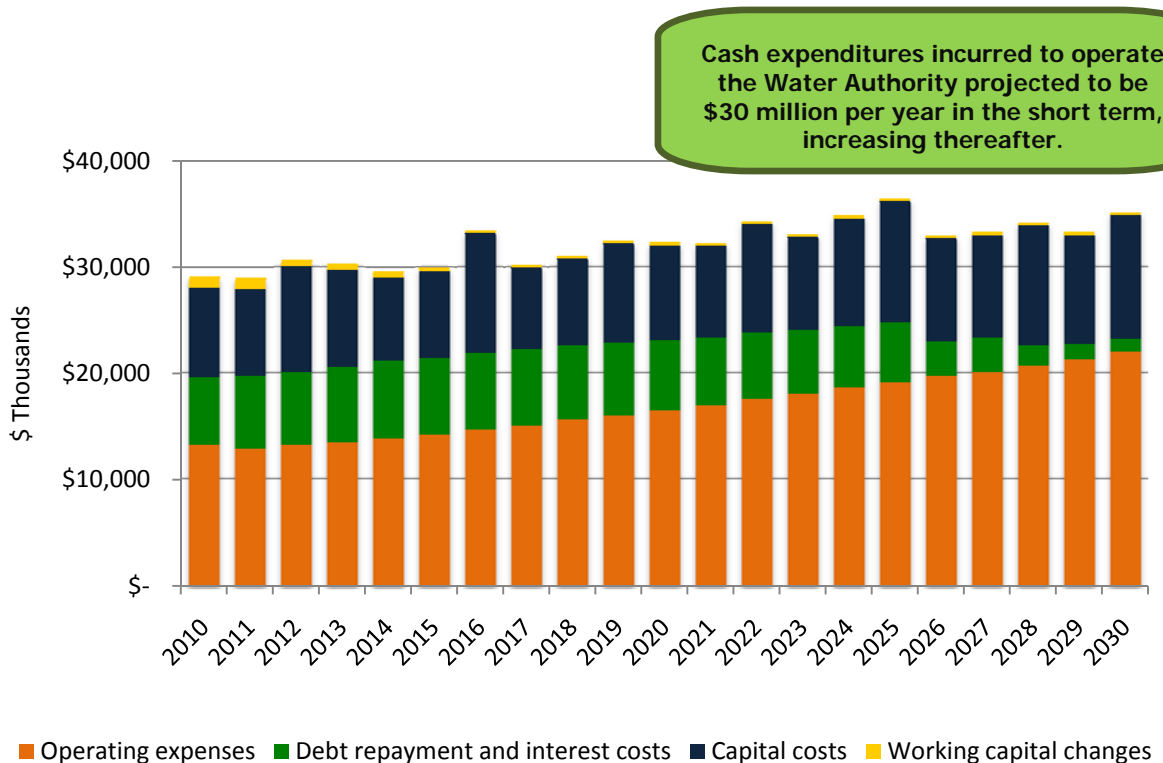
The principal payments and interest costs on this debt are estimated to be \$6 million in 2010 and \$7 million from 2011 to 2018, and then these payments are projected to decline as debt is repaid and interest charges decrease.

Key Assumptions in Projections

Schedule One, or the projected statement of liabilities and accumulated surplus, included as part of Appendix One, provides the detailed debt levels and repayments over the projected period, as well as assumptions. It is assumed that debt will be repaid semi-annually over twenty years, interest charged at 5% compounded semi-annually. Should interest rates increase, the cash expenditures would also increase.

Total Cash Expenditures

The City of Thunder Bay Water Authority has significant cash expenditures, including operating expenses, debt repayments and interest charges, and capital costs. These expenditures are projected to be \$30 million per year in the short term and then increase thereafter.



Note that the aggregate cash expenditures cannot be found on any of the projected financial statements attached in Appendix One. Rather, these cash expenditures are gathered from the various statements to illustrate the cash required to sustain a safe drinking water system.

FUNDING PLAN

As discussed previously, cash expenditures are projected to be about \$30 million per year. To fund these critical expenditures, the Water Authority will rely on a blend of operating revenues, short term one-time government funding and new debt financing.

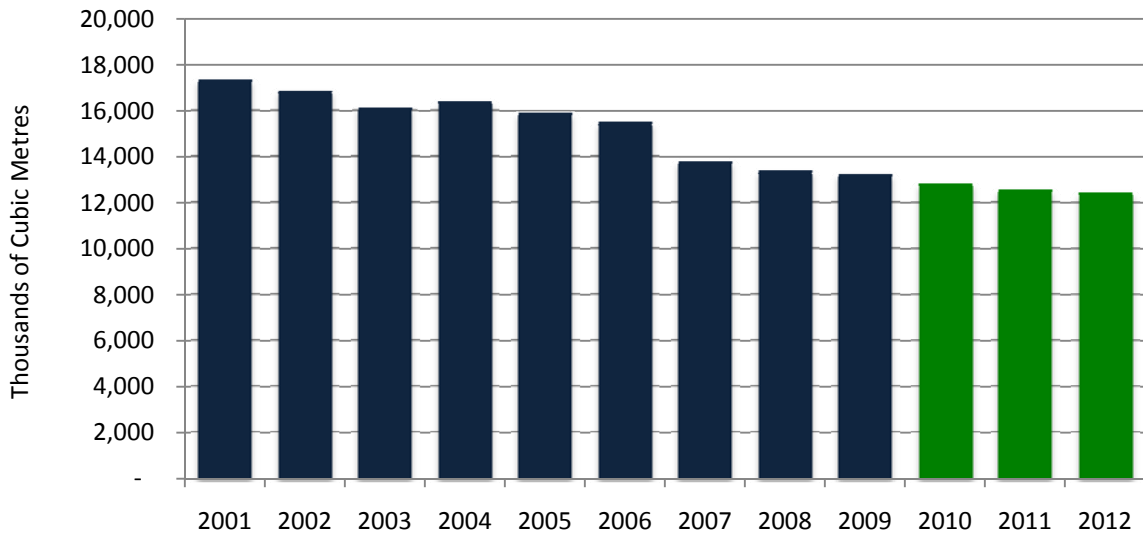
Operating Revenues

Operating revenues include water, access, fire protection fees and other charges or receipts. The majority of the operating revenues are achieved as a result of two variables: consumption and water rates.

Consumption

Since 2001, water consumption has declined 23%, from 17.3 million cubic metres to 13.4 million cubic metres. The past three year and five year average reduction in water consumption was 3.6% and 5.5% respectively.

The graph below illustrates the cubic metres (thousands) consumed annually in Thunder Bay from 2001 to 2009. As a result of these historic trends, it is anticipated that consumption will continue to decline 3%, 2% and 1% in 2010 to 2012 respectively. Beyond 2012, it is projected that consumption will remain stable at approximately 12.5 million cubic metres.



Water Rates

The proposed water rate structure is a modern, equitable user rate system, that is easy to calculate and understand; and benefits those who conserve. Overall, it is expected the annual water costs for the majority of Thunder Bay households will increase by 5%, while high consumption users will see increases of up to 29%.

For industrial, commercial and multi-residential buildings, small sized average consumption customers will see a decrease of between one to three per cent and higher consumption customers will see an approximate 12% increase.

Summary of Operating Revenues

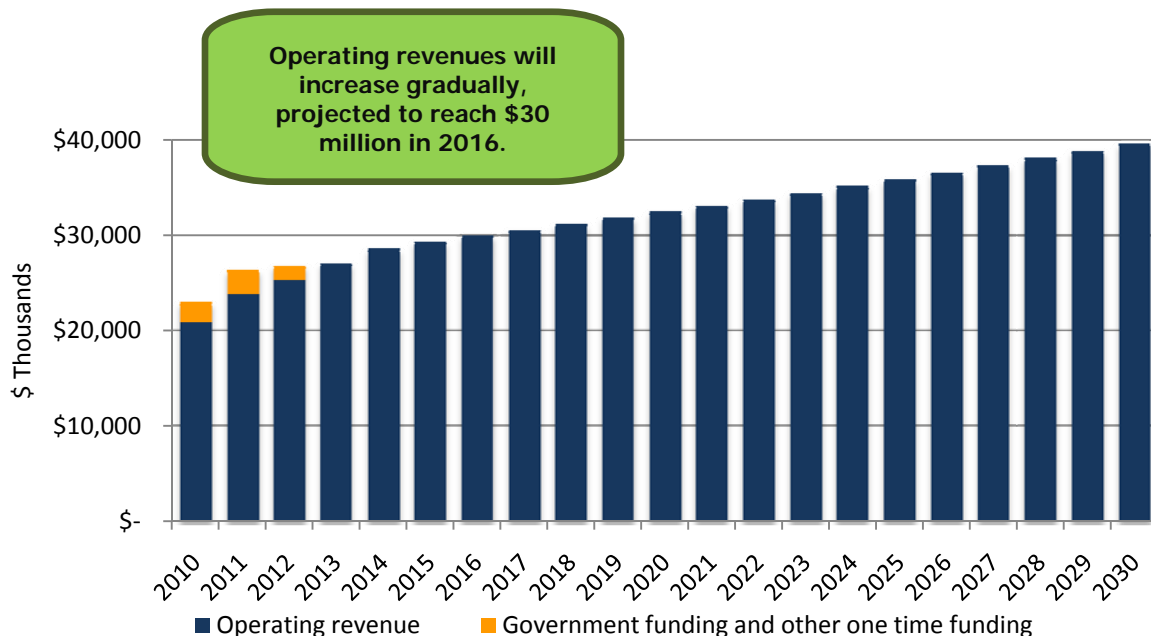
Over the projected period, operating revenues are expected to gradually increase to \$30 million (the total cash expenditure level).

	2010	2011	2012	2013	2014	2015	2016 and thereafter
% Increase in Projected Operating Revenues	14.7%	14.3%	6.1%	7.1%	5.6%	2.7%	2.0%

See the graph below for an illustration of the projected operating revenues. They are also summarized on the Projected Statement of Operations in Appendix One.

One Time Government Funding

Although receipt of certain one-time government funding is projected, long term government funding has not been assumed in creating this sustainable model. Refer to the Projected Statement of Operations in Appendix One for the details related to the government funding that is projected to be received by the Water Authority.



New Debt

While it is planned to gradually increase operating revenues, there is still monies required to cover the expenditures in the short term. In this financial plan, through careful consideration for rising debt levels and costs, as well as rate increases charged to customers, it is projected that new debt will be required.

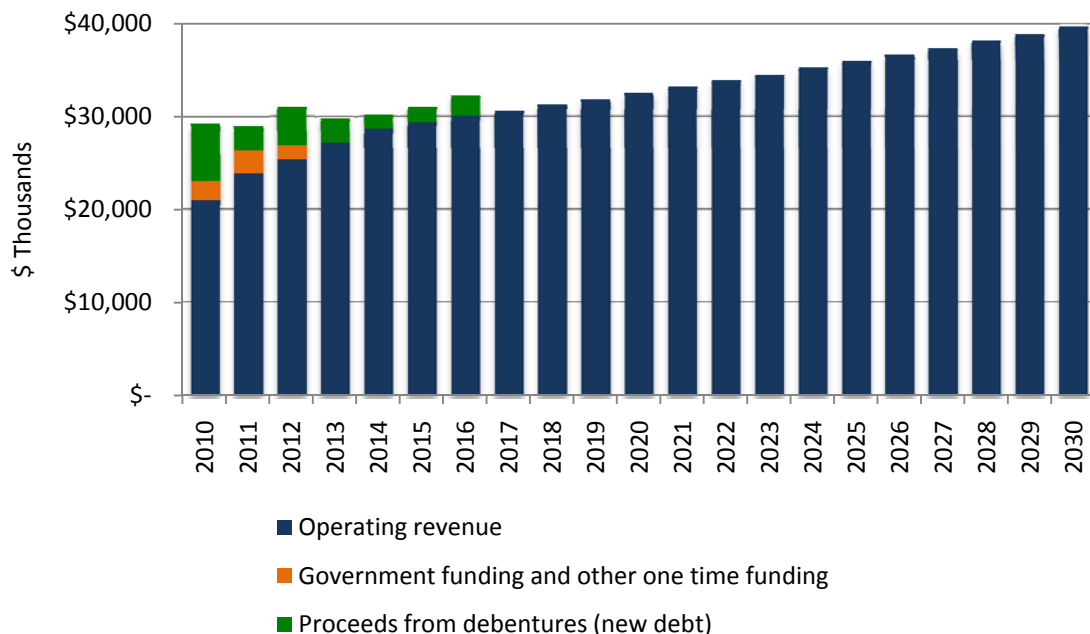
Over a seven year period from 2010 to 2016, new debt of \$21 million is projected to be required in order to finance capital costs of \$63 million. Based on these projections, there will be minimal requirement to finance annual ongoing capital renewal; however, it may be prudent to finance a portion of significant capital infrastructure investments.

Key Assumptions in Projections

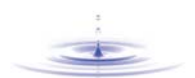
The existing and new debt is outlined on Schedule One in Appendix One. To arrive at the projections herein, it is assumed that new debt of \$21 million will be incurred over a seven year period, and debt will be repaid semi-annually over twenty years, interest charged at 5% compounded semi-annually.

Funding to Meet Cash Requirements

Recapping, the funds required to pay for the Water Authority's cash expenditures will be derived from operating revenues, one time funding and new debt incurred, as shown below:



Through accessing all of these sources, it is projected that the Water Authority will achieve sufficient available cash to meet its annual expenditures.



FINANCIAL PLAN

The financial impacts of the drinking water system have been considered through the projected financial statements for years ending December 31, 2009 to 2030, included as Appendix One, and summarized below. These financial statements are required by the Financial Plans Regulation to include a full-cost accounting, meaning that the all of the costs, whether operating, financial or capital, related to operating the drinking water system, must be included⁴.

“As a general principle, municipalities should plan to raise adequate resources for their water systems from local revenue sources, barring exceptional circumstances.”
Recommendation 48
Report of the Walkerton Inquiry

The projected financial statements include the following:

Projected Statement of Financial Position

- Financial assets and liabilities; and
- Other non-financial assets, including inventory and capital assets.
- See Schedule One and Two for supporting detail

Projected Statement of Operations

- Revenues;
- Operating expenses, and interest on long term debt; and
- Amortization.

Projected Statement of Cash Flow

- Operating transactions;
- Financing (new debt and debt repayments) transactions;
- Capital transactions (capital costs).
- All of which will increase or decrease cash held by the Water Authority

These projected financial statements are prepared to conform to new Public Sector Accounting Standards. These statements reflect the City of Thunder Bay’s new accounting policies, along with estimates and assumptions related to the operations of Water Authority, and are based on 2008 actual results, as derived from Environment Division – Water Authority internal financial statements of the City of Thunder Bay.

Actual results will vary from these projections and the differences may be material. Any future changes to accounting policies or key assumptions will impact these projected financial statements, and should be updated to reflect such changes.

New Public Sector Accounting Standards

In 2006, the Canadian Institute of Chartered Accountant’s Public Sector Accounting Board approved that municipalities will prepare annual financial statements, utilizing full accrual accounting. In simple terms, full-accrual accounting means that all



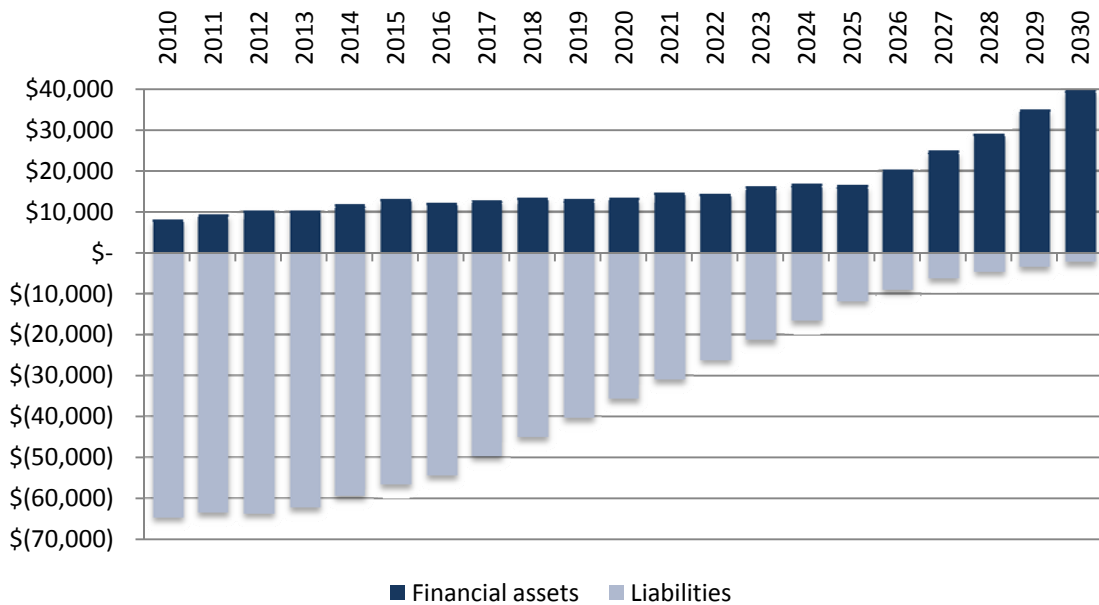
municipalities will be required to include tangible capital assets in the financial statements.

Projected Statement of Financial Position

The projected statement of financial position reflects both the financial and non-financial assets of the Water Authority.

Net Financial assets

Net financial assets are the financial assets, including cash and accounts receivable, offset by the liabilities (debt) of the Water Authority. Net financial assets are projected to be as follows:



In 2010, the Water Authority has a high level of liabilities (debt) and a lower level of cash and accounts receivable. By 2030, it is projected that the Water Authority will have reduced its liabilities significantly and begun to build a higher level of net financial assets, allowing it to save for significant future capital expenditures.

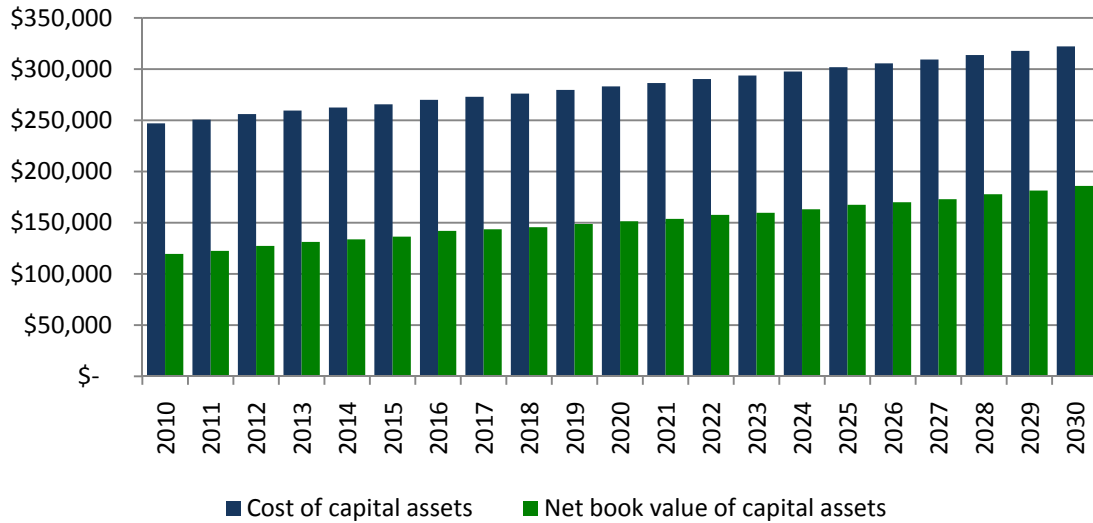
Non-Financial Assets

Non-financial assets include inventory and capital assets. The capital assets represent the infrastructure required to provide safe drinking water to the community. Capital assets are broken down as water treatment plant; pumping stations; reservoirs and taphouses; watermains and fleet (vehicles).

These capital assets are recorded at net book value, which is their original cost, less accumulated amortization. See Appendix Two for a small synopsis referred to as “Capital Assets and Amortization 101” for those unfamiliar with the concept of amortization.



Below, the cost and net book value of the capital assets has been illustrated. It is projected that in 2010, the original cost of the capital assets required to provide safe drinking water is approximately \$247 million. The net book value or the net cost remaining in the useful life, of those same assets is \$120 million.



Accumulated Surplus

The accumulated surplus is a new term in Municipal financial statements. It is essentially the accumulation of the Water Authority’s excess of revenues over expenses over time.

Projected Statement of Operations

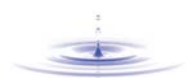
The projected statement of operations includes the revenues less the expenses, arriving at the excess or net revenues over expenses.

Revenues

Revenues include both operating revenues and one time government funding received. A chart illustrating the revenues earned over time is shown on page 11.

Expenses

Expenses include a list of detailed projected expenses, including operating expenses, interest on long term debt and amortization. Amortization is the write off of the capital assets or the water system infrastructure over their useful life. It does not represent a cash expenditure.



Projected Statement of Cash Flow

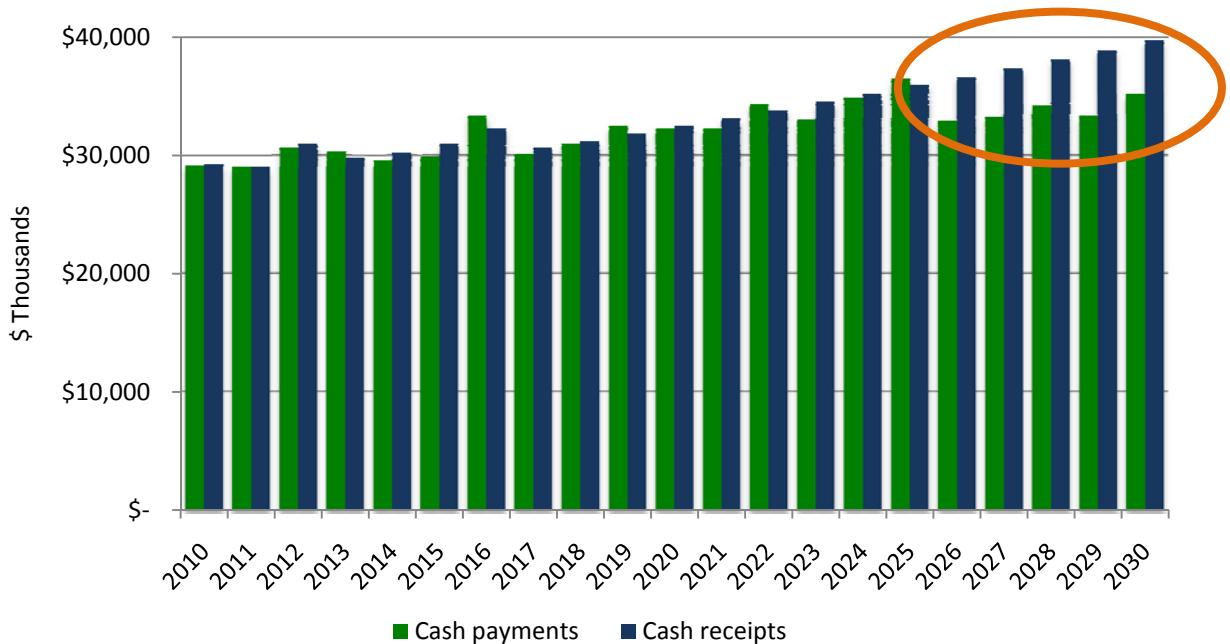
The projected statement of cash flow is a very useful statement for a capital intensive organization such as the Water Authority. This projected statement of cash flow summarizes the key transactions that either increase or decrease the organization's cash balance. It is set out in three sections: operating transactions; capital transactions and financing transactions.

Projected operating transactions section is a summary of the projected net revenues over expenses, adjusted for any non-cash items. Projected capital transactions show the capital additions and sale of assets, if any, while the projected financing transactions reveal if any new debt will be incurred and the amount of debt that will be repaid.

In the Operating Plan section of this financial plan, the cash expenditures, such as operating expenses, debt repayments and capital costs, were identified. In the Funding Plan section of this financial plan, the cash receipts, or funds required to cover the cash expenditures were discussed. These funds include operating revenues, one time funding and new debt.

This next chart below is a summary of those cash expenditures and receipts, which is essentially a summary of the Projected Statement of Cash Flow.

Cash Receipts > Cash Expenditures
The Water Authority will save money for future significant capital expenditures.



As shown on the Projected Statement of Cash Flow, the Water Authority will not accumulate a significant amount of cash on an annual basis until it repays the current \$60 million in debt in 2025. Upon completion of those debt repayments and based on the assumptions herein, the Water Authority will then be able to save larger amounts of cash, which may be used for significant capital costs, such as new water treatment plant (say, in 2055). Should management have any reasons to believe that significant costs will be required before the current life expectancies of existing infrastructure, these projections should be revisited.

SUMMARY

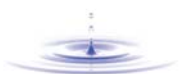
This Financial Plan has been prepared in accordance with the MOE Financial Plans Regulation (O. Reg. 453/07). The process in developing this plan has focused on the achievement of a balance between maintaining the water system in a safe and effective manner, while limiting expenditure and water rate increases. A flexible and gradual approach has been utilized to achieve financial viability.

This Financial Plan must be approved by a City Council resolution, indicating that as a result of this plan, Thunder Bay Water Authority is financially viable.

- ✓ Achieves financial viability
- ✓ Limits overall water costs to consumers
- ✓ Provides safe drinking water in short term and long term
- ✓ Develops a long term plan for capital renewal
- ✓ Achieves full cost recovery over the long term
- ✓ Maintains current service levels

FEEDBACK AND CONTINUOUS IMPROVEMENT

The financial plan must be updated every five years but it is recommended to be updated more frequently to reflect changes in operations, economic climate, financing costs, consumption and pricing.



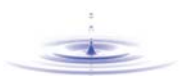
ENDNOTES

¹ City of Thunder Bay Internal Financial Reports

² Source: BMA Management Consulting Inc. Municipal Study – 2008

³ City of Thunder Bay Transportation and Works Asset Management Plan, dated June 2005.

⁴ Environmental Commissioner of Ontario. 2008. "MOE's Financial Plans Regulation for Municipal Drinking Water Systems." *Getting to K(N)ow, Eco Annual Report, 2007-08*. Toronto: The Queen's Printer for Ontario. 90-94. Retrieved from [http://www.ecoissues.ca/wiki/index.php?title=MOES%E2%80%99s Financial Plans Regulation for Municipal Drinking Water Systems](http://www.ecoissues.ca/wiki/index.php?title=MOES%E2%80%99s_Financial_Plans_Regulation_for_Municipal_Drinking_Water_Systems)



APPENDIX ONE

PROJECTED FINANCIAL STATEMENTS
OF
CITY OF THUNDER BAY
ENVIRONMENT DIVISION'S WATER AUTHORITY



**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
PROJECTED STATEMENT OF FINANCIAL POSITION**

AS AT DECEMBER 31, 2008 TO 2030

(\$ THOUSANDS)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
	(Restated- Note 1)																							
FINANCIAL ASSETS																								
Cash and cash equivalents	2	\$ -	\$ 76	\$ 174	\$ 151	\$ 542	\$ 7	\$ 723	\$ 1,818	\$ 729	\$ 1,207	\$ 1,415	\$ 822	\$ 1,024	\$ 1,907	\$ 1,407	\$ 2,873	\$ 3,232	\$ 2,709	\$ 6,402	\$ 10,512	\$ 14,444	\$ 20,058	\$ 24,610
Accounts receivable	3	6,540	7,014	8,042	9,191	9,748	10,438	11,020	11,319	11,548	11,781	12,018	12,261	12,509	12,762	13,020	13,283	13,551	13,824	14,103	14,388	14,680	14,976	15,279
		6,540	7,090	8,216	9,342	10,290	10,445	11,743	13,137	12,277	12,988	13,433	13,083	13,533	14,669	14,427	16,156	16,783	16,533	20,505	24,900	29,124	35,034	39,889
LIABILITIES (SCHEDULE ONE)																								
Long term debt		54,007	52,735	55,772	54,899	55,496	54,381	52,046	49,631	47,836	43,626	39,416	35,206	30,996	26,786	22,576	18,366	14,156	9,946	7,836	5,725	4,575	3,425	2,275
Long-term debt financed by Municipality		9,526	9,209	8,879	8,534	8,174	7,799	7,407	6,998	6,571	6,126	5,662	5,177	4,671	4,143	3,593	3,018	2,418	1,792	1,139	458	-	-	-
		63,533	61,944	64,651	63,433	63,670	62,180	59,453	56,629	54,407	49,752	45,078	40,383	35,667	30,929	26,169	21,384	16,574	11,738	8,975	6,183	4,575	3,425	2,275
NET FINANCIAL ASSETS (DEBT)		(56,993)	(54,854)	(56,435)	(54,091)	(53,380)	(51,735)	(47,710)	(43,492)	(42,130)	(36,764)	(31,645)	(27,300)	(22,134)	(16,260)	(11,742)	(5,228)	209	4,795	11,530	18,717	24,549	31,609	37,614
NON-FINANCIAL ASSETS																								
Inventory of materials	4	303	320	320	320	328	336	344	353	362	371	380	389	399	409	419	430	441	441	441	441	441	441	441
Capital work in progress	5	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		348	320	320	320	328	336	344	353	362	371	380	389	399	409	419	430	441	441	441	441	441	441	441
Capital assets (Schedule Two)																								
Water treatment plant		55,372	54,375	54,709	53,856	54,674	54,633	53,270	51,836	51,954	50,560	49,154	49,182	47,659	46,388	46,136	44,565	42,965	42,781	41,408	39,961	39,918	38,416	36,868
Pumping stations		3,916	3,816	3,686	3,737	3,894	4,021	4,039	4,203	6,363	6,117	6,067	5,748	5,861	5,477	5,111	4,817	4,460	4,118	3,708	3,370	2,965	2,880	2,504
Reservoirs and taphouses		16,867	16,132	17,293	16,841	16,477	16,066	15,655	15,300	14,890	14,496	14,038	13,563	13,150	12,670	12,417	11,944	12,245	11,788	11,374	10,955	10,524	10,129	9,913
Watermains		39,950	40,312	42,126	46,248	50,568	54,612	58,538	62,423	66,340	70,288	74,270	78,340	82,690	87,263	91,872	96,519	101,204	105,928	110,800	116,275	122,248	128,265	134,326
Fleet		1,835	1,655	1,694	1,801	1,727	1,906	2,240	2,662	2,445	2,180	2,142	1,955	2,126	2,063	2,150	1,955	2,290	2,962	2,811	2,454	2,173	1,791	2,433
		117,940	116,290	119,508	122,483	127,340	131,238	133,742	136,424	141,992	143,641	145,671	148,788	151,486	153,861	157,686	159,800	163,164	167,577	170,101	173,015	177,828	181,481	186,044
Total non-financial assets		118,288	116,610	119,828	122,803	127,668	131,574	134,086	136,777	142,354	144,012	146,051	149,177	151,885	154,270	158,105	160,230	163,605	168,018	170,542	173,456	178,269	181,922	186,485
ACCUMULATED SURPLUS (SCHEDULE ONE)		\$ 61,295	\$ 61,756	\$ 63,393	\$ 68,712	\$ 74,288	\$ 79,839	\$ 86,376	\$ 93,285	\$ 100,224	\$ 107,248	\$ 114,406	\$ 121,878	\$ 129,751	\$ 138,010	\$ 146,363	\$ 155,001	\$ 163,814	\$ 172,813	\$ 182,071	\$ 192,172	\$ 202,818	\$ 213,531	\$ 224,099

See accompanying notes and assumptions to these projected financial statements.

PROJECTED STATEMENT OF FINANCIAL POSITION

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
PROJECTED STATEMENT OF FINANCIAL POSITION**

AS AT DECEMBER 31, 2008 TO 2030

Notes and Assumptions:

Actual results achieved for the period covered will vary from this information presented. The differences may be material.

See City of Thunder Bay Annual Reports for the Year ended December 31, 2008 and 2009 (when available) for the City's accounting policies.

1. The assets and liabilities for 2008 are derived from internal financial information of the City of Thunder Bay. They have been restated to conform with new Public sector accounting standards.
2. Derived from the Projected Statement of Cash Flows.
3. Accounts receivable has been calculated based on the average historic sales turnover rate (operating revenue/accounts receivable=sales turnover rate). The five year normalized average rate was calculated to be 2.6 times.
4. Inventory of materials has been calculated based on the average historic inventory turnover rate (material purchases/inventory=turnover). The five year average inventory rate was calculated to be 3.1 times.
5. Capital work in progress represents capital projects which were started prior to the year end, but not completed. In the year in which the asset will be put into service, it will be capitalized to the appropriate capital asset account.

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
PROJECTED STATEMENT OF OPERATIONS**

FOR THE YEARS ENDING DECEMBER 31, 2008 TO 2030

(\$ THOUSANDS)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
	(Restated- Note 1)																							
REVENUES																								
Operating revenues	2	\$ 15,651	\$ 18,236	\$ 20,910	\$ 23,897	\$ 25,344	\$ 27,138	\$ 28,652	\$ 29,430	\$ 30,024	\$ 30,631	\$ 31,248	\$ 31,879	\$ 32,523	\$ 33,181	\$ 33,851	\$ 34,535	\$ 35,232	\$ 35,943	\$ 36,669	\$ 37,410	\$ 38,167	\$ 38,938	\$ 39,725
Recoveries	3	-	913	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Government funding and other one time funding	4	-	2,077	2,100	2,500	1,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		<u>15,651</u>	<u>21,226</u>	<u>23,010</u>	<u>26,397</u>	<u>26,844</u>	<u>27,138</u>	<u>28,652</u>	<u>29,430</u>	<u>30,024</u>	<u>30,631</u>	<u>31,248</u>	<u>31,879</u>	<u>32,523</u>	<u>33,181</u>	<u>33,851</u>	<u>34,535</u>	<u>35,232</u>	<u>35,943</u>	<u>36,669</u>	<u>37,410</u>	<u>38,167</u>	<u>38,938</u>	<u>39,725</u>
EXPENSES																								
Amortization	5	5,269	5,323	5,324	5,182	5,116	5,192	5,334	5,513	5,759	5,988	6,154	6,307	6,282	6,284	6,473	6,661	6,859	7,061	7,160	6,795	6,526	6,686	7,038
Fire protection services	6	503	500	500	508	518	528	544	560	577	594	612	630	649	668	688	709	730	752	775	791	815	839	864
Personnel services	6	5,774	5,985	5,985	6,075	6,197	6,321	6,511	6,706	6,907	7,114	7,327	7,547	7,773	8,006	8,246	8,493	8,748	9,010	9,280	9,466	9,750	10,043	10,344
Purchased services	6	542	598	598	607	619	631	650	670	690	711	732	754	777	800	824	849	874	900	927	946	974	1,003	1,033
Purchased services - capital carryforward	7	-	171	271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interdepartmental charges																								
Administrative	6	971	1,235	1,235	1,254	1,279	1,305	1,344	1,384	1,426	1,469	1,513	1,558	1,605	1,653	1,703	1,754	1,807	1,861	1,917	1,955	2,014	2,074	2,136
Fleet rental	6	463	633	633	642	655	668	688	709	730	752	775	798	822	847	872	898	925	953	982	1,002	1,032	1,063	1,095
Interest on long term debt	8	2,910	2,939	2,869	3,013	2,972	2,975	2,913	2,783	2,657	2,551	2,333	2,104	1,884	1,656	1,432	1,204	979	748	542	407	287	214	157
Other interest charges	9	-	36	124	52	84	54	32	32	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials and supplies																								
Utilities	6	1,218	1,241	1,241	1,260	1,285	1,311	1,350	1,391	1,433	1,476	1,520	1,566	1,613	1,661	1,711	1,762	1,815	1,869	1,925	1,964	2,023	2,084	2,147
Building insurance and maintenance	6	355	282	282	286	292	298	307	316	325	335	345	355	366	377	388	400	412	424	437	446	459	473	487
Materials, parts and supplies	6	942	884	884	897	915	933	961	990	1,020	1,051	1,083	1,115	1,148	1,182	1,217	1,254	1,292	1,331	1,371	1,398	1,440	1,483	1,527
Municipal taxes	6	317	331	331	336	343	350	361	372	383	394	406	418	431	444	457	471	485	500	515	525	541	557	574
Other	6	62	35	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	52	53	55	57	59
Utility cuts	6	542	572	572	581	593	605	623	642	661	681	701	722	744	766	789	813	837	862	888	906	933	961	990
Other																								
Innovations, programs and technical	10	-	-	351	243	255	268	345	296	311	327	421	361	379	398	513	439	462	475	487	499	512	524	537
Professional studies	10	-	-	138	105	108	110	113	116	119	122	125	128	131	134	138	141	145	148	152	156	160	164	168
		<u>19,868</u>	<u>20,765</u>	<u>21,373</u>	<u>21,077</u>	<u>21,268</u>	<u>21,587</u>	<u>22,115</u>	<u>22,520</u>	<u>23,085</u>	<u>23,607</u>	<u>24,090</u>	<u>24,407</u>	<u>24,649</u>	<u>24,922</u>	<u>25,498</u>	<u>25,897</u>	<u>26,419</u>	<u>26,944</u>	<u>27,410</u>	<u>27,309</u>	<u>27,521</u>	<u>28,226</u>	<u>29,157</u>
EXCESS REVENUES OVER EXPENSES (EXPENSES OVER REVENUES)		<u>\$ (4,217)</u>	<u>\$ 461</u>	<u>\$ 1,637</u>	<u>\$ 5,320</u>	<u>\$ 5,576</u>	<u>\$ 5,551</u>	<u>\$ 6,537</u>	<u>\$ 6,910</u>	<u>\$ 6,939</u>	<u>\$ 7,024</u>	<u>\$ 7,158</u>	<u>\$ 7,472</u>	<u>\$ 7,874</u>	<u>\$ 8,259</u>	<u>\$ 8,353</u>	<u>\$ 8,638</u>	<u>\$ 8,813</u>	<u>\$ 8,999</u>	<u>\$ 9,259</u>	<u>\$ 10,101</u>	<u>\$ 10,646</u>	<u>\$ 10,712</u>	<u>\$ 10,568</u>

See accompanying notes and assumptions to these projected financial statements.

PROJECTED STATEMENT OF OPERATIONS

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
PROJECTED STATEMENT OF OPERATIONS**

FOR THE YEARS ENDING DECEMBER 31, 2008 TO 2030

(\$ THOUSANDS)

Notes and Assumptions:

Actual results achieved for the period covered will vary from this information presented. The differences may be material.

See City of Thunder Bay Annual Reports for the Year ended December 31, 2008 and 2009 (when available) for the City's accounting policies.

1. The assets and liabilities for 2008 are derived from internal financial information of the City of Thunder Bay. They have been restated to conform with new generally accepted accounting principles.

2. Operating revenues includes waterworks fees, access charges and fire protection fees, other customer and miscellaneous charges. The water rate structure charged to customers will change during this projected period and all of these charges will be included within the new water rate structure. The majority of these charges depend on both the water rates and the billable consumption.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<i>Annual increase (decrease)</i>			-3.0%	-2.0%	-1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Projected water consumption (m3)	13,389	13,232	12,835	12,578	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452	12,452
Projected operating revenues	<u>\$ 15,651</u>	<u>\$ 18,236</u>	<u>\$ 20,910</u>	<u>\$ 23,897</u>	<u>\$ 25,344</u>	<u>\$ 27,138</u>	<u>\$ 28,652</u>	<u>\$ 29,430</u>	<u>\$ 30,024</u>	<u>\$ 30,631</u>	<u>\$ 31,248</u>	<u>\$ 31,879</u>	<u>\$ 32,523</u>	<u>\$ 33,181</u>	<u>\$ 33,851</u>	<u>\$ 34,535</u>	<u>\$ 35,232</u>	<u>\$ 35,943</u>	<u>\$ 36,669</u>	<u>\$ 37,410</u>	<u>\$ 38,167</u>	<u>\$ 38,938</u>	<u>\$ 39,725</u>
<i>Percentage increase</i>			14.7%	14.3%	6.1%	7.1%	5.6%	2.7%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

3. One time recovery of \$913 will be received in 2009.

4. One time government funding, such as the Gas Tax Rebate, will be received in 2009 to 2012.

5. Amortization is calculated on a straight-line basis at rates which reflect the estimated useful life of the asset. In the year in which the asset was purchased or disposed of, one half of the amortization will be charged. Betterments, defined as costs incurred to enhance the service potential of an already existing tangible asset, will not be subject to the half year rule. The useful life of each category of capital asset is shown on Schedule One of these projected statements.

6. Operating expenditures will increase annually as follows:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
	0.0%	1.5%	2.0%	2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	2.0%	3.0%	3.0%	3.0%	3.0%

7. In the past, City Council has approved an annual capital budget. If the monies is not spent in that year, it would be carried forward and spent in subsequent years. These amounts reflect costs approved in previous capital budgets

8. Interest on long-term debt, includes interest on the existing debentures and the debt financed by the Municipality, as well as any new debentures purchased during the projected period.

Existing long term debt	\$ 2,939	\$ 2,780	\$ 2,622	\$ 2,473	\$ 2,295	\$ 2,137	\$ 1,972	\$ 1,814	\$ 1,647	\$ 1,486	\$ 1,315	\$ 1,152	\$ 982	\$ 815	\$ 645	\$ 477	\$ 304	\$ 155	\$ 78	\$ 15	\$ -	\$ -	
New debentures	5.0%	-	89	391	499	680	776	811	843	904	847	789	732	674	617	559	502	444	387	329	272	214	157
		<u>\$ 2,939</u>	<u>\$ 2,869</u>	<u>\$ 3,013</u>	<u>\$ 2,972</u>	<u>\$ 2,975</u>	<u>\$ 2,913</u>	<u>\$ 2,783</u>	<u>\$ 2,657</u>	<u>\$ 2,551</u>	<u>\$ 2,333</u>	<u>\$ 2,104</u>	<u>\$ 1,884</u>	<u>\$ 1,656</u>	<u>\$ 1,432</u>	<u>\$ 1,204</u>	<u>\$ 979</u>	<u>\$ 748</u>	<u>\$ 542</u>	<u>\$ 407</u>	<u>\$ 287</u>	<u>\$ 214</u>	<u>\$ 157</u>

See Schedule Two for the detailed terms of the existing debentures and the assumptions related to any new debentures received.

9. Other interest charges will be incurred in the year that new debentures are purchased. The interest charged will be at a rate of 4.0% payable to the Municipality, assuming that those monies will be owing for 50% of that year.

10. Innovations, programs and technical, and professional studies were derived from the capital plan and increased by inflation of 2.5% annually.

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
PROJECTED STATEMENT OF CASH FLOWS**

FOR THE YEARS ENDING DECEMBER 31, 2009 TO 2030

(\$ THOUSANDS)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
OPERATING TRANSACTIONS																						
Projected excess of revenues over expenses	\$ 461	\$ 1,637	\$ 5,320	\$ 5,576	\$ 5,551	\$ 6,537	\$ 6,910	\$ 6,939	\$ 7,024	\$ 7,158	\$ 7,472	\$ 7,874	\$ 8,259	\$ 8,353	\$ 8,638	\$ 8,813	\$ 8,999	\$ 9,259	\$ 10,101	\$ 10,646	\$ 10,712	\$ 10,568
Deduct non-cash items:																						
Amortization	5,323	5,324	5,182	5,116	5,192	5,334	5,513	5,759	5,988	6,154	6,307	6,282	6,284	6,473	6,661	6,859	7,061	7,160	6,795	6,526	6,686	7,038
Add (deduct) working capital items																						
Accounts receivable	(474)	(1,028)	(1,149)	(557)	(690)	(582)	(299)	(229)	(233)	(237)	(243)	(248)	(253)	(258)	(263)	(268)	(273)	(279)	(285)	(292)	(296)	(303)
Inventory	(17)	-	-	(8)	(8)	(8)	(9)	(9)	(9)	(9)	(9)	(10)	(10)	(10)	(11)	(11)	-	-	-	-	-	-
Capital work in progress	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operating transactions	5,338	5,933	9,353	10,127	10,045	11,281	12,115	12,460	12,770	13,066	13,527	13,898	14,280	14,558	15,026	15,393	15,787	16,140	16,611	16,880	17,103	17,304
FINANCING TRANSACTIONS																						
Proceeds from debentures	1,800	6,200	2,600	4,200	2,700	1,600	1,600	2,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment of long-term debt	(3,389)	(3,493)	(3,818)	(3,963)	(4,190)	(4,327)	(4,424)	(4,522)	(4,655)	(4,674)	(4,695)	(4,716)	(4,738)	(4,760)	(4,785)	(4,810)	(4,836)	(2,763)	(2,792)	(1,608)	(1,150)	(1,150)
Cash provided (used) by financing transactions	(1,589)	2,707	(1,218)	237	(1,490)	(2,727)	(2,824)	(2,222)	(4,655)	(4,674)	(4,695)	(4,716)	(4,738)	(4,760)	(4,785)	(4,810)	(4,836)	(2,763)	(2,792)	(1,608)	(1,150)	(1,150)
CAPITAL TRANSACTIONS																						
Capital assets purchases																						
Water treatment plant	(603)	(1,981)	(835)	(2,516)	(1,680)	(386)	(327)	(1,908)	(429)	(429)	(1,896)	(375)	(641)	(1,692)	(403)	(385)	(1,790)	(634)	(616)	(2,016)	(600)	(600)
Pumping stations	(45)	(17)	(205)	(326)	(307)	(206)	(369)	(2,445)	(111)	(319)	(61)	(507)	(19)	(38)	(110)	(51)	(67)	-	(62)	(7)	(300)	(100)
Reservoirs	-	(1,764)	(13)	(102)	(58)	(60)	(119)	(68)	(88)	(26)	(9)	(72)	(7)	(239)	(23)	(814)	(73)	(120)	(120)	(113)	(120)	(300)
Watermain replacement and rehabilitation	(2,825)	(4,350)	(6,595)	(6,709)	(6,499)	(6,491)	(6,581)	(6,746)	(6,914)	(7,088)	(7,264)	(7,446)	(7,632)	(7,823)	(8,019)	(8,219)	(8,424)	(8,635)	(8,851)	(9,072)	(9,299)	(9,531)
Fleet and equipment	(200)	(430)	(510)	(320)	(546)	(695)	(800)	(160)	(95)	(322)	(195)	(580)	(360)	(506)	(220)	(755)	(1,120)	(295)	(60)	(132)	(20)	(1,070)
Cash used for capital transactions	(3,673)	(8,542)	(8,158)	(9,973)	(9,090)	(7,838)	(8,196)	(11,327)	(7,637)	(8,184)	(9,425)	(8,980)	(8,659)	(10,298)	(8,775)	(10,224)	(11,474)	(9,684)	(9,709)	(11,340)	(10,339)	(11,601)
PROJECTED INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS																						
	76	98	(23)	391	(535)	716	1,095	(1,089)	478	208	(593)	202	883	(500)	1,466	359	(523)	3,693	4,110	3,932	5,614	4,553
Cash and cash equivalents, beginning of the year	-	76	174	151	542	7	723	1,818	729	1,207	1,415	822	1,024	1,907	1,407	2,873	3,232	2,709	6,402	10,512	14,444	20,058
Cash and cash equivalents, end of the year	3 \$ 76	\$ 174	\$ 151	\$ 542	\$ 7	\$ 723	\$ 1,818	\$ 729	\$ 1,207	\$ 1,415	\$ 822	\$ 1,024	\$ 1,907	\$ 1,407	\$ 2,873	\$ 3,232	\$ 2,709	\$ 6,402	\$ 10,512	\$ 14,444	\$ 20,058	\$ 24,610

See accompanying notes and assumptions to these projected financial statements.

PROJECTED STATEMENT OF CASH FLOWS

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
PROJECTED STATEMENT OF CASH FLOWS**

FOR THE YEARS ENDING DECEMBER 31, 2009 TO 2030

Notes and Assumptions:

Actual results achieved for the period covered will vary from this information presented. The differences may be material.

See City of Thunder Bay Annual Reports for the Year ended December 31, 2008 and 2009 (when available) for the City's accounting policies.

1. See Schedule One for the details of the financing transactions.
2. See Schedule Two for the details of the capital transactions.
3. The balance of the cash and cash equivalents at the end of each year reflects the monies available for the future capital expenditures. Interest earned on this balance has not been calculated.

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
SCHEDULE OF PROJECTED LIABILITIES AND ACCUMULATED SURPLUS**

FOR THE YEARS ENDING DECEMBER 31, 2009 TO 2030

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LIABILITIES	1																					
Existing debentures	2																					
Opening	\$54,007	\$50,935	\$47,862	\$44,789	\$41,716	\$38,641	\$35,581	\$32,521	\$29,461	\$26,401	\$23,341	\$20,281	\$17,221	\$14,161	\$11,101	\$8,041	\$4,981	\$1,921	\$961	\$-	\$-	\$-
Repayments on existing debt	(3,072)	(3,073)	(3,073)	(3,073)	(3,075)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(3,060)	(960)	(961)	-	-	-
	<u>\$50,935</u>	<u>\$47,862</u>	<u>\$44,789</u>	<u>\$41,716</u>	<u>\$38,641</u>	<u>\$35,581</u>	<u>\$32,521</u>	<u>\$29,461</u>	<u>\$26,401</u>	<u>\$23,341</u>	<u>\$20,281</u>	<u>\$17,221</u>	<u>\$14,161</u>	<u>\$11,101</u>	<u>\$8,041</u>	<u>\$4,981</u>	<u>\$1,921</u>	<u>\$961</u>	<u>\$-</u>	<u>\$-</u>	<u>\$-</u>	<u>\$-</u>
New debentures	3																					
Opening	\$-	\$1,800	\$7,910	\$10,110	\$13,780	\$15,740	\$16,465	\$17,110	\$18,375	\$17,225	\$16,075	\$14,925	\$13,775	\$12,625	\$11,475	\$10,325	\$9,175	\$8,025	\$6,875	\$5,725	\$4,575	\$3,425
Repayments	-	(90)	(400)	(530)	(740)	(875)	(955)	(1,035)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)	(1,150)
New debentures	1,800	6,200	2,600	4,200	2,700	1,600	1,600	2,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<u>\$1,800</u>	<u>\$7,910</u>	<u>\$10,110</u>	<u>\$13,780</u>	<u>\$15,740</u>	<u>\$16,465</u>	<u>\$17,110</u>	<u>\$18,375</u>	<u>\$17,225</u>	<u>\$16,075</u>	<u>\$14,925</u>	<u>\$13,775</u>	<u>\$12,625</u>	<u>\$11,475</u>	<u>\$10,325</u>	<u>\$9,175</u>	<u>\$8,025</u>	<u>\$6,875</u>	<u>\$5,725</u>	<u>\$4,575</u>	<u>\$3,425</u>	<u>\$2,275</u>
Total																						
Opening	\$54,007	\$52,735	\$55,772	\$54,899	\$55,496	\$54,381	\$52,046	\$49,631	\$47,836	\$43,626	\$39,416	\$35,206	\$30,996	\$26,786	\$22,576	\$18,366	\$14,156	\$9,946	\$7,836	\$5,725	\$4,575	\$3,425
Repayments	(3,072)	(3,163)	(3,473)	(3,603)	(3,815)	(3,935)	(4,015)	(4,095)	(4,210)	(4,210)	(4,210)	(4,210)	(4,210)	(4,210)	(4,210)	(4,210)	(4,210)	(2,110)	(2,111)	(1,150)	(1,150)	(1,150)
New debentures	1,800	6,200	2,600	4,200	2,700	1,600	1,600	2,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<u>\$52,735</u>	<u>\$55,772</u>	<u>\$54,899</u>	<u>\$55,496</u>	<u>\$54,381</u>	<u>\$52,046</u>	<u>\$49,631</u>	<u>\$47,836</u>	<u>\$43,626</u>	<u>\$39,416</u>	<u>\$35,206</u>	<u>\$30,996</u>	<u>\$26,786</u>	<u>\$22,576</u>	<u>\$18,366</u>	<u>\$14,156</u>	<u>\$9,946</u>	<u>\$7,836</u>	<u>\$5,725</u>	<u>\$4,575</u>	<u>\$3,425</u>	<u>\$2,275</u>
Long term debt financed by Municipality	4																					
Opening	\$9,526	\$9,209	\$8,879	\$8,534	\$8,174	\$7,799	\$7,407	\$6,998	\$6,571	\$6,126	\$5,662	\$5,177	\$4,671	\$4,143	\$3,593	\$3,018	\$2,418	\$1,792	\$1,139	\$458	\$-	\$-
Repayments	(317)	(330)	(345)	(360)	(375)	(392)	(409)	(427)	(445)	(464)	(485)	(506)	(528)	(550)	(575)	(600)	(626)	(653)	(681)	(458)	-	-
	<u>\$9,209</u>	<u>\$8,879</u>	<u>\$8,534</u>	<u>\$8,174</u>	<u>\$7,799</u>	<u>\$7,407</u>	<u>\$6,998</u>	<u>\$6,571</u>	<u>\$6,126</u>	<u>\$5,662</u>	<u>\$5,177</u>	<u>\$4,671</u>	<u>\$4,143</u>	<u>\$3,593</u>	<u>\$3,018</u>	<u>\$2,418</u>	<u>\$1,792</u>	<u>\$1,139</u>	<u>\$458</u>	<u>\$-</u>	<u>\$-</u>	<u>\$-</u>
ACCUMULATED SURPLUS																						
Opening	\$61,295	\$61,756	\$63,393	\$68,712	\$74,288	\$79,839	\$86,376	\$93,285	\$100,224	\$107,248	\$114,406	\$121,878	\$129,751	\$138,010	\$146,363	\$155,001	\$163,814	\$172,813	\$182,071	\$192,172	\$202,818	\$213,531
Excess revenues over expenses	461	1,637	5,320	5,576	5,551	6,537	6,910	6,939	7,024	7,158	7,472	7,874	8,259	8,353	8,638	8,813	8,999	9,259	10,101	10,646	10,712	10,568
Closing	<u>\$61,756</u>	<u>\$63,393</u>	<u>\$68,712</u>	<u>\$74,288</u>	<u>\$79,839</u>	<u>\$86,376</u>	<u>\$93,285</u>	<u>\$100,224</u>	<u>\$107,248</u>	<u>\$114,406</u>	<u>\$121,878</u>	<u>\$129,751</u>	<u>\$138,010</u>	<u>\$146,363</u>	<u>\$155,001</u>	<u>\$163,814</u>	<u>\$172,813</u>	<u>\$182,071</u>	<u>\$192,172</u>	<u>\$202,818</u>	<u>\$213,531</u>	<u>\$224,099</u>

See accompanying notes and assumptions to these projected financial statements.

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
SCHEDULE OF PROJECTED LIABILITIES AND ACCUMULATED SURPLUS**

FOR THE YEARS ENDING DECEMBER 31, 2009 TO 2030

(\$ THOUSANDS)

Notes and Assumptions :

Actual results achieved for the period covered will vary from this information presented. The differences may be material.

See City of Thunder Bay Annual Reports for the Year ended December 31, 2008 and 2009 (when available) for the City's accounting policies.

1 Accounts payable and accrued liabilities related directly to the Water Authority are integrated into the City's accounts payable system and can not be easily identified. For the purposes of these projections, it is assumed that expenses are paid immediately.

2 Currently, the Waterworks division holds three debentures with the following principal payments owing from 2009 to 2024.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<i>Financed in 2003, maturity 2013</i>	\$ 66	\$ 54	\$ 42	\$ 28	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	12	13	13	13	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<u>\$ 54</u>	<u>\$ 41</u>	<u>\$ 29</u>	<u>\$ 15</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

The terms of this debenture include: variable interest rate, compounded semi-annually, set principal and interest payment, payable semi-annually over ten years.

<i>Financed in 2005, maturity 2025</i>	\$ 35,700	\$ 33,600	\$ 31,500	\$ 29,400	\$ 27,300	\$ 25,200	\$ 23,100	\$ 21,000	\$ 18,900	\$ 16,800	\$ 14,700	\$ 12,600	\$ 10,500	\$ 8,400	\$ 6,300	\$ 4,200	\$ 2,100	\$ -	\$ -	\$ -	\$ -	\$ -
	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	-	-	-	-	-	-
	<u>\$ 33,600</u>	<u>\$ 31,500</u>	<u>\$ 29,400</u>	<u>\$ 27,300</u>	<u>\$ 25,200</u>	<u>\$ 23,100</u>	<u>\$ 21,000</u>	<u>\$ 18,900</u>	<u>\$ 16,800</u>	<u>\$ 14,700</u>	<u>\$ 12,600</u>	<u>\$ 10,500</u>	<u>\$ 8,400</u>	<u>\$ 6,300</u>	<u>\$ 4,200</u>	<u>\$ 2,100</u>	<u>\$ 2,100</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

The terms of this debenture include: interest rate of 4.61%, compounded semi-annually, principal payment of \$1,050 plus interest payable semi-annually over twenty years.

<i>Financed in 2007, maturity 2027</i>	\$ 18,241	\$ 17,281	\$ 16,321	\$ 15,361	\$ 14,401	\$ 13,441	\$ 12,481	\$ 11,521	\$ 10,561	\$ 9,601	\$ 8,641	\$ 7,681	\$ 6,721	\$ 5,761	\$ 4,801	\$ 3,841	\$ 2,881	\$ 1,921	\$ 961	\$ -	\$ -	\$ -
	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	961	-	-	-
	<u>\$ 17,281</u>	<u>\$ 16,321</u>	<u>\$ 15,361</u>	<u>\$ 14,401</u>	<u>\$ 13,441</u>	<u>\$ 12,481</u>	<u>\$ 11,521</u>	<u>\$ 10,561</u>	<u>\$ 9,601</u>	<u>\$ 8,641</u>	<u>\$ 7,681</u>	<u>\$ 6,721</u>	<u>\$ 5,761</u>	<u>\$ 4,801</u>	<u>\$ 3,841</u>	<u>\$ 2,881</u>	<u>\$ 1,921</u>	<u>\$ 961</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

The terms of this debenture include: interest rate of 5.06%, compounded semi-annually, annual principal payment of \$480 plus interest, payable semi-annually over twenty years.

<i>Total</i>	\$ 54,007	\$ 50,935	\$ 47,863	\$ 44,789	\$ 41,716	\$ 38,641	\$ 35,581	\$ 32,521	\$ 29,461	\$ 26,401	\$ 23,341	\$ 20,281	\$ 17,221	\$ 14,161	\$ 11,101	\$ 8,041	\$ 4,981	\$ 1,921	\$ 961	\$ -	\$ -	\$ -
	3,072	3,073	3,073	3,073	3,075	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	3,060	960	960	961	-	-	-
	<u>\$ 50,935</u>	<u>\$ 47,862</u>	<u>\$ 44,790</u>	<u>\$ 41,716</u>	<u>\$ 38,641</u>	<u>\$ 35,581</u>	<u>\$ 32,521</u>	<u>\$ 29,461</u>	<u>\$ 26,401</u>	<u>\$ 23,341</u>	<u>\$ 20,281</u>	<u>\$ 17,221</u>	<u>\$ 14,161</u>	<u>\$ 11,101</u>	<u>\$ 8,041</u>	<u>\$ 4,981</u>	<u>\$ 4,021</u>	<u>\$ 961</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

3 The Waterworks division will require new debt to pay for some of its future capital costs. All new debt will be sought in the form of debentures from external sources. The interest rate on the debentures will be: 5.00%

The terms of the new debentures will be payable semi-annually over twenty years, interest compounded semi-annually.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Cumulative new debentures	\$ 1,800	\$ 8,000	\$ 10,600	\$ 14,800	\$ 17,500	\$ 19,100	\$ 20,700	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000	\$ 23,000

4 Currently, the Waterworks division holds two long-term debts financed by the Municipality.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<i>Financed in 2007, maturity 2027</i>	\$ 3,219	\$ 3,107	\$ 2,990	\$ 2,867	\$ 2,739	\$ 2,606	\$ 2,467	\$ 2,322	\$ 2,170	\$ 2,012	\$ 1,847	\$ 1,675	\$ 1,496	\$ 1,308	\$ 1,113	\$ 909	\$ 696	\$ 474	\$ 242	\$ -	\$ -	\$ -
	113	117	123	128	133	139	145	152	158	165	172	180	187	195	204	213	222	232	242	-	-	-
	<u>\$ 3,106</u>	<u>\$ 2,990</u>	<u>\$ 2,867</u>	<u>\$ 2,739</u>	<u>\$ 2,606</u>	<u>\$ 2,467</u>	<u>\$ 2,322</u>	<u>\$ 2,170</u>	<u>\$ 2,012</u>	<u>\$ 1,847</u>	<u>\$ 1,675</u>	<u>\$ 1,495</u>	<u>\$ 1,309</u>	<u>\$ 1,113</u>	<u>\$ 909</u>	<u>\$ 696</u>	<u>\$ 474</u>	<u>\$ 242</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

The terms of this debenture include: nominal interest rate of 4.3%, compounded semi-annually, annual principal and interest payment of \$250, payable semi-annually over twenty years.

<i>Financed in 2008, maturity 2028</i>	\$ 6,307	\$ 6,103	\$ 5,890	\$ 5,667	\$ 5,435	\$ 5,193	\$ 4,940	\$ 4,676	\$ 4,401	\$ 4,114	\$ 3,814	\$ 3,502	\$ 3,176	\$ 2,835	\$ 2,480	\$ 2,109	\$ 1,723	\$ 1,319	\$ 898	\$ 458	\$ -	\$ -
	204	213	222	232	242	253	264	275	287	300	313	326	340	355	371	387	404	421	439	458	-	-
	<u>\$ 6,103</u>	<u>\$ 5,890</u>	<u>\$ 5,668</u>	<u>\$ 5,435</u>	<u>\$ 5,193</u>	<u>\$ 4,940</u>	<u>\$ 4,676</u>	<u>\$ 4,401</u>	<u>\$ 4,114</u>	<u>\$ 3,814</u>	<u>\$ 3,501</u>	<u>\$ 3,176</u>	<u>\$ 2,836</u>	<u>\$ 2,480</u>	<u>\$ 2,109</u>	<u>\$ 1,722</u>	<u>\$ 1,319</u>	<u>\$ 898</u>	<u>\$ 459</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

The terms of this debenture include: nominal interest rate of 4.3%, compounded semi-annually, annual principal and interest payment of \$473 payable semi-annually over twenty years.

<i>Total</i>	\$ 9,526	\$ 9,209	\$ 8,879	\$ 8,534	\$ 8,174	\$ 7,799	\$ 7,407	\$ 6,998	\$ 6,571	\$ 6,126	\$ 5,661	\$ 5,176	\$ 4,670	\$ 4,143	\$ 3,593	\$ 3,018	\$ 2,418	\$ 1,792	\$ 1,139	\$ 458	\$ -	\$ -
	317	330	345	360	375	392	409	427	445	465	485	506	527	550	575	600	626	653	681	709	738	767
	<u>\$ 9,209</u>	<u>\$ 8,879</u>	<u>\$ 8,534</u>	<u>\$ 8,174</u>	<u>\$ 7,799</u>	<u>\$ 7,407</u>	<u>\$ 6,998</u>	<u>\$ 6,571</u>	<u>\$ 6,126</u>	<u>\$ 5,661</u>	<u>\$ 5,176</u>	<u>\$ 4,670</u>	<u>\$ 4,143</u>	<u>\$ 3,593</u>	<u>\$ 3,018</u>	<u>\$ 2,418</u>	<u>\$ 1,792</u>	<u>\$ 1,139</u>	<u>\$ 458</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
SCHEDULE OF PROJECTED CAPITAL ASSET ACQUISITIONS, DISPOSALS AND ACCUMULATED AMORTIZATION
FOR THE YEARS ENDING DECEMBER 31, 2008 TO 2030**

(\$ THOUSANDS)	2008 (Actual- Note 1)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capital assets - Cost (Page 2)																							
Water treatment plant	\$ 62,243	\$ 62,846	\$ 64,827	\$ 65,662	\$ 68,178	\$ 68,833	\$ 68,983	\$ 69,110	\$ 69,854	\$ 70,021	\$ 70,188	\$ 70,927	\$ 71,073	\$ 71,323	\$ 71,982	\$ 72,139	\$ 72,289	\$ 72,987	\$ 73,234	\$ 73,474	\$ 74,260	\$ 74,494	\$ 74,728
Pumping stations	7,338	7,356	7,363	7,443	7,570	7,690	7,770	7,914	8,867	8,910	9,034	9,058	9,256	9,263	9,278	9,321	9,341	9,367	9,367	9,391	9,394	9,511	9,550
Reservoirs	20,839	20,839	21,526	21,531	21,571	21,594	21,617	21,663	21,690	21,724	21,734	21,738	21,766	21,769	21,862	21,871	22,188	22,216	22,263	22,310	22,354	22,401	22,518
Watermains	146,062	147,163	148,858	151,428	154,043	156,576	159,106	161,671	164,300	166,995	169,757	172,588	175,490	178,464	181,513	184,638	187,841	191,124	194,489	197,938	201,474	205,098	208,813
Fleet	4,377	4,425	4,527	4,648	4,724	4,854	5,019	5,209	5,247	5,270	5,347	5,393	5,531	5,617	5,737	5,789	5,969	6,235	6,305	6,319	6,350	6,355	6,610
	<u>\$240,859</u>	<u>\$242,629</u>	<u>\$247,101</u>	<u>\$250,712</u>	<u>\$256,086</u>	<u>\$259,547</u>	<u>\$262,495</u>	<u>\$265,567</u>	<u>\$269,958</u>	<u>\$272,920</u>	<u>\$276,060</u>	<u>\$279,704</u>	<u>\$283,116</u>	<u>\$286,436</u>	<u>\$290,372</u>	<u>\$293,758</u>	<u>\$297,628</u>	<u>\$301,929</u>	<u>\$305,658</u>	<u>\$309,432</u>	<u>\$313,832</u>	<u>\$317,859</u>	<u>\$322,219</u>
Capital assets - Accumulated amortization (Page 3)																							
Water treatment plant	\$ 6,871	\$ 8,471	\$ 10,118	\$ 11,806	\$ 13,504	\$ 14,200	\$ 15,713	\$ 17,274	\$ 17,900	\$ 19,461	\$ 21,034	\$ 21,745	\$ 23,414	\$ 24,935	\$ 25,846	\$ 27,574	\$ 29,324	\$ 30,206	\$ 31,826	\$ 33,513	\$ 34,342	\$ 36,078	\$ 37,860
Pumping stations	3,422	3,540	3,677	3,706	3,676	3,669	3,731	3,711	2,504	2,793	2,967	3,310	3,395	3,786	4,167	4,504	4,881	5,249	5,659	6,021	6,429	6,631	7,046
Reservoirs	3,972	4,707	4,233	4,690	5,094	5,528	5,962	6,363	6,800	7,228	7,696	8,175	8,616	9,099	9,445	9,927	9,943	10,428	10,889	11,355	11,830	12,272	12,605
Watermains	106,112	106,851	106,732	105,180	103,475	101,964	100,568	99,248	97,960	96,707	95,487	94,248	92,800	91,201	89,641	88,119	86,637	85,196	83,689	81,663	79,226	76,833	74,487
Fleet	2,542	2,770	2,833	2,847	2,997	2,948	2,779	2,547	2,802	3,090	3,205	3,438	3,405	3,554	3,587	3,834	3,679	3,273	3,494	3,865	4,177	4,564	4,177
	<u>\$122,919</u>	<u>\$126,339</u>	<u>\$127,593</u>	<u>\$128,229</u>	<u>\$128,746</u>	<u>\$128,309</u>	<u>\$128,753</u>	<u>\$129,143</u>	<u>\$127,966</u>	<u>\$129,279</u>	<u>\$130,389</u>	<u>\$130,916</u>	<u>\$131,630</u>	<u>\$132,575</u>	<u>\$132,686</u>	<u>\$133,958</u>	<u>\$134,464</u>	<u>\$134,352</u>	<u>\$135,557</u>	<u>\$136,417</u>	<u>\$136,004</u>	<u>\$136,378</u>	<u>\$136,175</u>
Capital assets - Net book value																							
Water treatment plant	\$ 55,372	\$ 54,375	\$ 54,709	\$ 53,856	\$ 54,674	\$ 54,633	\$ 53,270	\$ 51,836	\$ 51,954	\$ 50,560	\$ 49,154	\$ 49,182	\$ 47,659	\$ 46,388	\$ 46,136	\$ 44,565	\$ 42,965	\$ 42,781	\$ 41,408	\$ 39,961	\$ 39,918	\$ 38,416	\$ 36,868
Pumping stations	3,916	3,816	3,686	3,737	3,894	4,021	4,039	4,203	6,363	6,117	6,067	5,748	5,861	5,477	5,111	4,817	4,460	4,118	3,708	3,370	2,965	2,880	2,504
Reservoirs	16,867	16,132	17,293	16,841	16,477	16,066	15,655	15,300	14,890	14,496	14,038	13,563	13,150	12,670	12,417	11,944	12,245	11,788	11,374	10,955	10,524	10,129	9,913
Watermains	39,950	40,312	42,126	46,248	50,568	54,612	58,538	62,423	66,340	70,288	74,270	78,340	82,690	87,263	91,872	96,519	101,204	105,928	110,800	116,275	122,248	128,265	134,326
Fleet	1,835	1,655	1,694	1,801	1,727	1,906	2,240	2,662	2,445	2,180	2,142	1,955	2,126	2,063	2,150	1,955	2,290	2,962	2,811	2,454	2,173	1,791	2,433
	<u>\$117,940</u>	<u>\$116,290</u>	<u>\$119,508</u>	<u>\$122,483</u>	<u>\$127,340</u>	<u>\$131,238</u>	<u>\$133,742</u>	<u>\$136,424</u>	<u>\$141,992</u>	<u>\$143,641</u>	<u>\$145,671</u>	<u>\$148,788</u>	<u>\$151,486</u>	<u>\$153,861</u>	<u>\$157,686</u>	<u>\$159,800</u>	<u>\$163,164</u>	<u>\$167,577</u>	<u>\$170,101</u>	<u>\$173,015</u>	<u>\$177,828</u>	<u>\$181,481</u>	<u>\$186,044</u>

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
SCHEDULE OF PROJECTED CAPITAL ASSET ACQUISITIONS, DISPOSALS AND ACCUMULATED AMORTIZATION
FOR THE YEARS ENDING DECEMBER 31, 2008 TO 2030**

Capital Cost																							
(\$ THOUSANDS)	2008 (Actual)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Treatment Plant																							
Opening	\$ 59,285	\$ 62,243	\$ 62,846	\$ 64,827	\$ 65,662	\$ 68,178	\$ 68,833	\$ 68,983	\$ 69,110	\$ 69,854	\$ 70,021	\$ 70,188	\$ 70,927	\$ 71,073	\$ 71,323	\$ 71,982	\$ 72,139	\$ 72,289	\$ 72,987	\$ 73,234	\$ 73,474	\$ 74,260	\$ 74,494
2	2,958	-	768	835	386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	603	1,213	-	2,130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	(1,025)	(236)	(200)	(1,164)	(262)	(262)	(1,157)	(229)	(391)	(1,033)	(246)	(235)	(1,092)	(387)	(376)	(1,230)	(366)	(366)
Closing	\$ 62,243	\$ 62,846	\$ 64,827	\$ 65,662	\$ 68,178	\$ 68,833	\$ 68,983	\$ 69,110	\$ 69,854	\$ 70,021	\$ 70,188	\$ 70,927	\$ 71,073	\$ 71,323	\$ 71,982	\$ 72,139	\$ 72,289	\$ 72,987	\$ 73,234	\$ 73,474	\$ 74,260	\$ 74,494	\$ 74,728
Pumping stations																							
Opening	\$ 7,212	\$ 7,338	\$ 7,356	\$ 7,363	\$ 7,443	\$ 7,570	\$ 7,690	\$ 7,770	\$ 7,914	\$ 8,867	\$ 8,910	\$ 9,034	\$ 9,058	\$ 9,256	\$ 9,263	\$ 9,278	\$ 9,321	\$ 9,341	\$ 9,367	\$ 9,367	\$ 9,391	\$ 9,394	\$ 9,511
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	126	45	17	205	326	307	206	369	2,445	111	319	61	507	19	38	110	51	67	-	62	7	300	100
Disposals	-	(27)	(10)	(125)	(199)	(187)	(126)	(225)	(1,492)	(68)	(195)	(37)	(309)	(12)	(23)	(67)	(31)	(41)	-	(38)	(4)	(183)	(61)
Closing	\$ 7,338	\$ 7,356	\$ 7,363	\$ 7,443	\$ 7,570	\$ 7,690	\$ 7,770	\$ 7,914	\$ 8,867	\$ 8,910	\$ 9,034	\$ 9,058	\$ 9,256	\$ 9,263	\$ 9,278	\$ 9,321	\$ 9,341	\$ 9,367	\$ 9,367	\$ 9,391	\$ 9,394	\$ 9,511	\$ 9,550
Reservoirs and taphouses																							
Opening	\$ 20,818	\$ 20,839	\$ 20,839	\$ 21,526	\$ 21,531	\$ 21,571	\$ 21,594	\$ 21,617	\$ 21,663	\$ 21,690	\$ 21,724	\$ 21,734	\$ 21,738	\$ 21,766	\$ 21,769	\$ 21,862	\$ 21,871	\$ 22,188	\$ 22,216	\$ 22,263	\$ 22,310	\$ 22,354	\$ 22,401
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	21	-	1,053	13	102	58	60	119	68	88	26	9	72	7	239	23	814	73	120	120	113	120	300
Disposals	-	-	(1,077)	(8)	(62)	(35)	(37)	(73)	(41)	(54)	(16)	(5)	(44)	(4)	(146)	(14)	(497)	(45)	(73)	(73)	(69)	(73)	(183)
Closing	\$ 20,839	\$ 20,839	\$ 21,526	\$ 21,531	\$ 21,571	\$ 21,594	\$ 21,617	\$ 21,663	\$ 21,690	\$ 21,724	\$ 21,734	\$ 21,738	\$ 21,766	\$ 21,769	\$ 21,862	\$ 21,871	\$ 22,188	\$ 22,216	\$ 22,263	\$ 22,310	\$ 22,354	\$ 22,401	\$ 22,518
Watermains																							
Opening	\$ 144,027	\$ 146,062	\$ 147,163	\$ 148,858	\$ 151,428	\$ 154,043	\$ 156,576	\$ 159,106	\$ 161,671	\$ 164,300	\$ 166,995	\$ 169,757	\$ 172,588	\$ 175,490	\$ 178,464	\$ 181,513	\$ 184,638	\$ 187,841	\$ 191,124	\$ 194,489	\$ 197,938	\$ 201,474	\$ 205,098
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	1,079	1,393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	2,538	1,746	2,957	6,595	6,709	6,499	6,491	6,581	6,746	6,914	7,088	7,264	7,446	7,632	7,823	8,019	8,219	8,424	8,635	8,851	9,072	9,299	9,531
Disposals	(503)	(1,724)	(2,655)	(4,025)	(4,094)	(3,966)	(3,961)	(4,016)	(4,117)	(4,219)	(4,326)	(4,433)	(4,544)	(4,658)	(4,774)	(4,894)	(5,016)	(5,141)	(5,270)	(5,402)	(5,536)	(5,675)	(5,816)
Closing	\$ 146,062	\$ 147,163	\$ 148,858	\$ 151,428	\$ 154,043	\$ 156,576	\$ 159,106	\$ 161,671	\$ 164,300	\$ 166,995	\$ 169,757	\$ 172,588	\$ 175,490	\$ 178,464	\$ 181,513	\$ 184,638	\$ 187,841	\$ 191,124	\$ 194,489	\$ 197,938	\$ 201,474	\$ 205,098	\$ 208,813
Fleet and equipment																							
Opening	\$ 4,541	\$ 4,377	\$ 4,425	\$ 4,527	\$ 4,648	\$ 4,724	\$ 4,854	\$ 5,019	\$ 5,209	\$ 5,247	\$ 5,270	\$ 5,347	\$ 5,393	\$ 5,531	\$ 5,617	\$ 5,737	\$ 5,789	\$ 5,969	\$ 6,235	\$ 6,305	\$ 6,319	\$ 6,350	\$ 6,355
2	-	25	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	32	175	412	510	320	546	695	800	160	95	322	195	590	360	506	220	755	1,120	295	60	132	20	1,070
Disposals	(196)	(152)	(328)	(389)	(244)	(416)	(530)	(610)	(122)	(72)	(245)	(149)	(442)	(274)	(386)	(168)	(575)	(854)	(225)	(46)	(101)	(15)	(815)
Closing	\$ 4,377	\$ 4,425	\$ 4,527	\$ 4,648	\$ 4,724	\$ 4,854	\$ 5,019	\$ 5,209	\$ 5,247	\$ 5,270	\$ 5,347	\$ 5,393	\$ 5,531	\$ 5,617	\$ 5,737	\$ 5,789	\$ 5,969	\$ 6,235	\$ 6,305	\$ 6,319	\$ 6,350	\$ 6,355	\$ 6,610
Total																							
Opening	\$ 235,883	\$ 240,859	\$ 242,629	\$ 247,101	\$ 250,712	\$ 256,086	\$ 259,547	\$ 262,495	\$ 265,567	\$ 269,958	\$ 272,920	\$ 276,060	\$ 279,704	\$ 283,116	\$ 286,436	\$ 290,372	\$ 293,758	\$ 297,628	\$ 301,929	\$ 305,658	\$ 309,432	\$ 313,832	\$ 317,859
2	2,958	-	768	835	386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	1,707	3,335	-	2,130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	2,717	1,966	4,439	7,323	7,457	9,090	7,838	8,196	11,327	7,637	8,184	9,425	8,980	8,659	10,298	8,775	10,224	11,474	9,684	9,709	11,340	10,339	11,601
Disposals	(699)	(1,903)	(4,070)	(4,547)	(4,599)	(5,629)	(4,890)	(5,124)	(6,936)	(4,675)	(5,044)	(5,781)	(5,568)	(5,339)	(6,362)	(5,389)	(6,354)	(7,173)	(5,955)	(5,935)	(6,940)	(6,312)	(7,241)
TOTAL	\$ 240,859	\$ 242,629	\$ 247,101	\$ 250,712	\$ 256,086	\$ 259,547	\$ 262,495	\$ 265,567	\$ 269,958	\$ 272,920	\$ 276,060	\$ 279,704	\$ 283,116	\$ 286,436	\$ 290,372	\$ 293,758	\$ 297,628	\$ 301,929	\$ 305,658	\$ 309,432	\$ 313,832	\$ 317,859	\$ 322,219

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
SCHEDULE OF PROJECTED CAPITAL ASSET ACQUISITIONS, DISPOSALS AND ACCUMULATED AMORTIZATION
FOR THE YEARS ENDING DECEMBER 31, 2008 TO 2030**

Accumulated Amortization																								
(\$ THOUSANDS)	Useful Life (Years)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Water Treatment Plant																								
Opening	36.26	\$ 5,279	\$ 6,871	\$ 8,471	\$ 10,118	\$ 11,806	\$ 13,504	\$ 14,200	\$ 15,713	\$ 17,274	\$ 17,900	\$ 19,461	\$ 21,034	\$ 21,745	\$ 23,414	\$ 24,935	\$ 25,846	\$ 27,574	\$ 29,324	\$ 30,206	\$ 31,826	\$ 33,513	\$ 34,342	\$ 36,078
Amortization for the year		5 1,592	1,600	1,647	1,687	1,698	1,721	1,749	1,760	1,790	1,823	1,835	1,867	1,898	1,912	1,944	1,974	1,984	1,974	2,007	2,063	2,058	2,102	2,148
Disposals		6 -	-	-	-	-	(1,025)	(236)	(200)	(1,164)	(262)	(262)	(1,157)	(229)	(391)	(1,033)	(246)	(235)	(1,092)	(387)	(376)	(1,230)	(366)	(366)
Closing		\$ 6,871	\$ 8,471	\$ 10,118	\$ 11,806	\$ 13,504	\$ 14,200	\$ 15,713	\$ 17,274	\$ 17,900	\$ 19,461	\$ 21,034	\$ 21,745	\$ 23,414	\$ 24,935	\$ 25,846	\$ 27,574	\$ 29,324	\$ 30,206	\$ 31,826	\$ 33,513	\$ 34,342	\$ 36,078	\$ 37,860
Pumping stations																								
Opening	17.57	\$ 3,294	\$ 3,422	\$ 3,540	\$ 3,677	\$ 3,706	\$ 3,676	\$ 3,669	\$ 3,731	\$ 3,711	\$ 2,504	\$ 2,793	\$ 2,967	\$ 3,310	\$ 3,395	\$ 3,786	\$ 4,167	\$ 4,504	\$ 4,881	\$ 5,249	\$ 5,659	\$ 6,021	\$ 6,429	\$ 6,631
Amortization for the year		5 128	145	147	154	169	180	188	205	285	357	369	380	394	403	404	404	408	409	410	400	412	385	476
Disposals		6 -	(27)	(10)	(125)	(199)	(187)	(126)	(225)	(1,492)	(68)	(195)	(37)	(309)	(12)	(23)	(67)	(31)	(41)	-	(38)	(4)	(183)	(61)
Closing		\$ 3,422	\$ 3,540	\$ 3,677	\$ 3,706	\$ 3,676	\$ 3,669	\$ 3,731	\$ 3,711	\$ 2,504	\$ 2,793	\$ 2,967	\$ 3,310	\$ 3,395	\$ 3,786	\$ 4,167	\$ 4,504	\$ 4,881	\$ 5,249	\$ 5,659	\$ 6,021	\$ 6,429	\$ 6,631	\$ 7,046
Reservoirs and taphouses																								
Opening	25.38	\$ 3,213	\$ 3,972	\$ 4,707	\$ 4,233	\$ 4,690	\$ 5,094	\$ 5,528	\$ 5,962	\$ 6,363	\$ 6,800	\$ 7,228	\$ 7,696	\$ 8,175	\$ 8,616	\$ 9,099	\$ 9,445	\$ 9,927	\$ 9,943	\$ 10,428	\$ 10,889	\$ 11,355	\$ 11,830	\$ 12,272
Amortization for the year		5 759	735	603	465	466	469	471	474	478	482	484	484	485	487	492	496	513	530	534	539	544	515	516
Disposals		6 -	-	(1,077)	(8)	(62)	(35)	(37)	(73)	(41)	(54)	(16)	(5)	(44)	(4)	(146)	(14)	(497)	(45)	(73)	(73)	(69)	(73)	(183)
Closing		\$ 3,972	\$ 4,707	\$ 4,233	\$ 4,690	\$ 5,094	\$ 5,528	\$ 5,962	\$ 6,363	\$ 6,800	\$ 7,228	\$ 7,696	\$ 8,175	\$ 8,616	\$ 9,099	\$ 9,445	\$ 9,927	\$ 9,943	\$ 10,428	\$ 10,889	\$ 11,355	\$ 11,830	\$ 12,272	\$ 12,605
Watermains																								
Opening	50.00	\$ 104,102	\$ 106,112	\$ 106,851	\$ 106,732	\$ 105,180	\$ 103,475	\$ 101,964	\$ 100,568	\$ 99,248	\$ 97,960	\$ 96,707	\$ 95,487	\$ 94,248	\$ 92,800	\$ 91,201	\$ 89,641	\$ 88,119	\$ 86,637	\$ 85,196	\$ 83,689	\$ 81,663	\$ 79,226	\$ 76,833
Amortization for the year		5 2,404	2,463	2,536	2,473	2,389	2,455	2,565	2,696	2,829	2,966	3,106	3,194	3,096	3,059	3,214	3,372	3,534	3,700	3,763	3,376	3,099	3,282	3,470
Disposals		6 (394)	(1,724)	(2,655)	(4,025)	(4,094)	(3,966)	(3,961)	(4,016)	(4,117)	(4,219)	(4,326)	(4,433)	(4,544)	(4,658)	(4,774)	(4,894)	(5,016)	(5,141)	(5,270)	(5,402)	(5,536)	(5,675)	(5,816)
Closing		\$ 106,112	\$ 106,851	\$ 106,732	\$ 105,180	\$ 103,475	\$ 101,964	\$ 100,568	\$ 99,248	\$ 97,960	\$ 96,707	\$ 95,487	\$ 94,248	\$ 92,800	\$ 91,201	\$ 89,641	\$ 88,119	\$ 86,637	\$ 85,196	\$ 83,689	\$ 81,663	\$ 79,226	\$ 76,833	\$ 74,487
Fleet and equipment																								
Opening	10.92	\$ 2,343	\$ 2,542	\$ 2,770	\$ 2,833	\$ 2,847	\$ 2,997	\$ 2,948	\$ 2,779	\$ 2,547	\$ 2,802	\$ 3,090	\$ 3,205	\$ 3,438	\$ 3,405	\$ 3,554	\$ 3,587	\$ 3,834	\$ 3,679	\$ 3,273	\$ 3,494	\$ 3,865	\$ 4,177	\$ 4,564
Amortization for the year		5 386	380	391	403	394	367	361	378	377	360	360	382	409	423	419	415	420	448	446	417	413	402	428
Disposals		6 (187)	(152)	(328)	(389)	(244)	(416)	(530)	(610)	(122)	(72)	(245)	(149)	(442)	(274)	(386)	(168)	(575)	(854)	(225)	(46)	(101)	(15)	(815)
Closing		\$ 2,542	\$ 2,770	\$ 2,833	\$ 2,847	\$ 2,997	\$ 2,948	\$ 2,779	\$ 2,547	\$ 2,802	\$ 3,090	\$ 3,205	\$ 3,438	\$ 3,405	\$ 3,554	\$ 3,587	\$ 3,834	\$ 3,679	\$ 3,273	\$ 3,494	\$ 3,865	\$ 4,177	\$ 4,564	\$ 4,177
Total																								
Opening		\$ 118,231	\$ 122,919	\$ 126,339	\$ 127,593	\$ 128,229	\$ 128,746	\$ 128,309	\$ 128,753	\$ 129,143	\$ 127,966	\$ 129,279	\$ 130,389	\$ 130,916	\$ 131,630	\$ 132,575	\$ 132,686	\$ 133,958	\$ 134,464	\$ 134,352	\$ 135,557	\$ 136,417	\$ 136,004	\$ 136,378
Amortization for the year		5 5,269	5,323	5,324	5,182	5,116	5,192	5,334	5,513	5,759	5,988	6,154	6,307	6,282	6,284	6,473	6,661	6,859	7,061	7,160	6,795	6,526	6,686	7,038
Disposals		6 (581)	(1,903)	(4,070)	(4,547)	(4,599)	(5,629)	(4,890)	(5,124)	(6,936)	(4,675)	(5,044)	(5,781)	(5,568)	(5,339)	(6,362)	(5,389)	(6,354)	(7,173)	(5,955)	(5,935)	(6,940)	(6,312)	(7,241)
Closing		\$ 122,919	\$ 126,339	\$ 127,593	\$ 128,229	\$ 128,746	\$ 128,309	\$ 128,753	\$ 129,143	\$ 127,966	\$ 129,279	\$ 130,389	\$ 130,916	\$ 131,630	\$ 132,575	\$ 132,686	\$ 133,958	\$ 134,464	\$ 134,352	\$ 135,557	\$ 136,417	\$ 136,004	\$ 136,378	\$ 136,175

**THE CORPORATION OF THE CITY OF THUNDER BAY
ENVIRONMENT DIVISION - WATER AUTHORITY
SCHEDULE TWO**

FOR THE YEARS ENDING DECEMBER 31, 2008 TO 2024

Notes and Assumptions:

Actual results achieved for the period covered will vary from this information presented. The differences may be material.

See City of Thunder Bay Annual Reports for the Year ended December 31, 2008 and 2009 (when available) for the City's accounting policies.

1. The actual capital assets costs, additions, disposals, accumulated amortization have been provided by the City of Thunder Bay finance department.
2. Betterments are defined as those capital outlays incurred that will increase the future benefits for an existing capital asset beyond its previously assessed standard of performance.
3. Additions are defined as capital outlays, valued at cost, which have been put into service to provide future benefits.

The projected additions are based on the City of Thunder Bay Environment Divisions Capital Asset Management Plan (2005) and Capital Planning Study Report (2009).

The additions - capital carryforwards reflected capital outlays which will be incurred but have already been approved by City Council in previous years' capital budget.

4. If a capital outlay is incurred, it is assumed that it will be replacing an existing asset. The cost of the disposed asset is based on the purchase price of the new asset, discounted at 2.5%, assuming it was purchased a number of years ago depending on the asset category, as follows:

	Purchased Years Ago
Water treatment plant*	20
Pumping stations	15
Reservoirs	20
Watermains	20
Fleet	11

* Any capital outlays for the water treatment plan incurred up to 2013 will be considered new assets, not replacing any existing assets.

5. Amortization is calculated on a straight-line basis at rates which reflect the estimated useful life of the asset. In the year in which the asset was purchased or disposed of, one half of the amortization will be charged. Betterments, defined as costs incurred to enhance the service potential of an already existing tangible asset, will not be subject to the half year rule. The useful life of each category of capital asset is set out on page 3, the Accumulated Amortization table.
6. It is assumed that any capital asset that has been replaced was fully amortized at the time of disposition.
- 7 This is the useful life for additions to the pumping stations and the reservoirs. The useful life of the existing pumping station and reservoir assets is broken down by building, piping, process, electrical, instrumentation, site, and HVAC and lighting. These assets are estimated to have a useful life of 60, 50, 60, 30, 5, 25 and 15 years respectively.

APPENDIX TWO

CAPITAL ASSETS AND AMORTIZATION 101



CAPITAL ASSETS AND AMORTIZATION 101

Being introduced to the public sector for the first time, the concept of recording capital assets on the statement of financial position and the amortization on the statement of operations can be a difficult concept to digest. Below we have set out a very simple example to illustrate the methodology.

John needs to buy pencils for his business. He purchases a package of 10 pencils for \$10. John will use 2 pencils each year and the package will last him 5 years.

Using previous accounting standards, John would have written off \$10, or the cost of the entire package of pencils, in the year that he purchased the package, even though those pencils would be used over a longer period of time.

Using the new accounting standards, the concept is that the cost of the pencils will be written off over the period in which they are used. The total cost of the pencils is \$10; this cost will be recorded on the statement of financial position. Each year, when John has used two pencils, he will write off or amortize \$2, the cost of those two pencils. The annual cost of \$2 will be shown on the statement of operations, reflecting the true costs of the pencils used. After five years, the pencils will all be used and the entire cost of the pencils will have been amortized, showing \$0 of pencils on the statement of financial position.

	Year 1	Year 2	Year 3	Year 4	Year 5
<i>Number of pencils left to use</i>	8	6	4	2	0
<i>Statement of Financial Position</i>					
Cost of pencils	\$10	\$10	\$10	\$10	\$10
Accumulated amortization	<u>(2)</u>	<u>(4)</u>	<u>(6)</u>	<u>(8)</u>	<u>(10)</u>
	<u>\$ 8</u>	<u>\$ 6</u>	<u>\$ 4</u>	<u>\$ 2</u>	<u>\$ 0</u>
<i>Statement of Operations</i>					
Amortization	<u>\$ 2</u>	<u>\$ 2</u>	<u>\$ 2</u>	<u>\$ 2</u>	<u>\$ 2</u>