

CITY OF THOROLD

WATER FINANCIAL PLAN

ONTARIO REGULATION 453/07

FINANCIAL PLAN # 075-301-A

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PREPARED BY: Maria J. Mauro, CPA, CMA
Director of Finance

BACKGROUND

Following the recommendations made by the Walkerton Inquiry, the Safe Drinking Water Act (SDWA) was passed in December 2002. Regulation 188/07 under the SDWA requires Ontario municipal water providers to apply for and obtain Drinking Water System Licences. One of the key requirements to maintain this license is to prepare and submit a financial plan.

REGULATORY REQUIREMENTS/GUIDELINES

Ontario Regulation 453/07

Financial plan requirements; licence renewal

3. (1) For the purposes of clause (b) of the definition of "financial plans" in subsection 30 (1) of the Act, the following requirements are prescribed for financial plans that are required by subsection 1 (2) or a condition that is included in a municipal drinking water licence under subsection 1 (3) to satisfy the requirements of this section:

1. The financial plans must be approved by a resolution that is passed by,
 - i. the council of the municipality, if the owner of the drinking water system is a municipality, or
 - ii. the governing body of the owner, if the owner of the drinking water system has a governing body and is not a municipality.
2. The financial plans must apply to a period of at least six years.
3. The first year to which the financial plans must apply must be the year determined in accordance with the following rules:
 - i. If the financial plans are required by subsection 1 (2), the first year to which the financial plans must apply must be the year in which the drinking water system's existing municipal drinking water licence would otherwise expire.
 - ii. If the financial plans are required by a condition that was included in a municipal drinking water licence under subsection 1 (3), the first year to which the financial plans must apply must be the later of 2010 and the year in which the first licence for the system was issued.

4. Subject to subsection (2), for each year to which the financial plans apply, the financial plans must include the following:

i. Details of the proposed or projected financial position of the drinking water system itemized by,

A. total financial assets,

B. total liabilities,

C. net debt,

D. non-financial assets that are tangible capital assets, tangible capital assets under construction, inventories of supplies and prepaid expenses, and

E. changes in tangible capital assets that are additions, donations, write downs and disposals.

ii. Details of the proposed or projected financial operations of the drinking water system itemized by,

A. total revenues, further itemized by water rates, user charges and other revenues,

B. total expenses, further itemized by amortization expenses, interest expenses and other expenses,

C. annual surplus or deficit, and

D. accumulated surplus or deficit.

iii. Details of the drinking water system's proposed or projected gross cash receipts and gross cash payments itemized by,

A. operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges,

B. capital transactions that are proceeds on the sale of tangible capital assets and cash used to acquire capital assets,

C. investing transactions that are acquisitions and disposal of investments,

D. financing transactions that are proceeds from the issuance of debt and debt repayment,

E. changes in cash and cash equivalents during the year, and

F. cash and cash equivalents at the beginning and end of the year.

iv. Details of the extent to which the information described in subparagraphs i, ii and iii relates directly to the replacement of lead service pipes as defined in section 15.1- 3 of Schedule 15.1 to Ontario Regulation 170/03 (Drinking Water Systems), made under the Act.

5. The owner of the drinking water system must,

i. make the financial plans available, on request, to members of the public who are served by the drinking water system without charge,

ii. make the financial plans available to members of the public without charge through publication on the Internet, if the owner maintains a website on the Internet, and

iii. provide notice advising the public of the availability of the financial plans under subparagraphs i and ii, if applicable, in a manner that, in the opinion of the owner, will bring the notice to the attention of members of the public who are served by the drinking water system.

6. The owner of the drinking water system must give a copy of the financial plans to the Ministry of Municipal Affairs and Housing. O. Reg. 453/07, s. 3 (1).

(2) Each of the following sub-subparagraphs applies only if the information referred to in the sub-subparagraph is known to the owner at the time the financial plans are prepared:

1. Sub-subparagraphs 4 i A, B and C of subsection (1).

2. Sub-subparagraphs 4 iii A, C, E and F of subsection (1). O. Reg. 453/07, s. 3 (2).

Ministry of the Environment Guideline

In addition the MOE released a guideline which introduces nine principles to help develop Financial Plans and to inform the transition toward financial sustainability.

Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.

Principle #2: An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.

Principle #3: Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.

Principle #4: Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.

Principle #5: An asset management plan is a key input to the development of a financial plan.

CITY OF THOROLD

In Thorold, the City is responsible for the water distribution and billing, with the Region responsible for water supply, treatment, storage and transmission of drinking water to the Local Area Municipalities (LAM)

The City's existing Drinking Water License expires in April 2020, therefore, this Financial Plan (Plan) will serve to meet this requirement, and must be approved by Council by way of resolution no later than April 12, 2020.

Region

Presently, the Regional billing model to the LAMs is based on a 25% fixed charge apportioned with the LAM's proportional share of the Regional 3-year water flow historical rolling average. The balance, ie. 75% is allocated on a variable charge per cubic metre basis.

Regional treatment costs represent 42% of the costs of the City's water budget presently.

The Financial Plan also assumes an average annual increase from the Region of 3.8% over the study period.

Infrastructure

The City of Thorold currently maintains approximately 101 kilometers of watermain, with a total system replacement value of \$70.7 million. In addition, there are 23 km due to be assumed for new subdivisions, valued at \$16.5 million, during the study period. Presently 39.0 kilometers are due for replacement due to age (mainly cast/duct iron pipes). At an average replacement cost of \$700,000 per kilometer, there exists a \$27.3 million dollar rehabilitation backlog.

The following table provides a summary of the pipes, by material, life expectancy, length and approximate age, for both assumed and to be assumed pipes. The bulk of the system, ie. 61% is comprised of PVC pipes, with the balance being Cast Iron (15%), Ductile Iron (16%), Asbestos Cement (6%), and Other (1%)

Given that material type and age, are indicators of condition, it suggests that there is a need to focus planning on the replacement the Cast Iron Pipes. Over 75% of the Cast Iron pipes are planned for replacement in the Financial Plan study period of 7 years.

Pipe Material	Expected Life (Years)	Length of Pipe (m)	Approximate Age	% of System by Material	To be replaced in the 7 year plan period	% of total pipe to be replaced in 7 year plan period
AC	60	7,953	38-52	6.41%	-	-
CI	60	19,001	>76	15.32%	14251	11.5%
Cu	60	474	<18	0.38%	-	-
DI	50	20,206	38-45	16.29%	15,154	12.3%
HDPE	75	658	<42	0.53%	592	0.5%
PVC	75	75,296	<46	60.72%	-	-
TOTAL		123,588		100%	29,998	24.3%

The City has established an annual capital replacement funding model based on a system-wide expected life target of 67 years or 1.5% of the total system value. This is consistent with the City's Asset Management Plan recommendations, which the City follows.

We are presently funding at a rate of 74 years and will achieve the targeted replacement levels during the Financial Plan study period.

Water Meters

The City measures water consumption by way of water meters. Many of the water meters were installed in the early 1990's, and require replacement. The original cost of the meters was/is borne as a direct charge to the customer. The replacement of the meters will be a City responsibility, and has been included in the Financial Plan.

Accordingly, we anticipate a cost of \$4.5 Million spread equally over 2021, 2022, 2023. From a funding perspective, we propose:

Water Meter Reserve \$1.0 Million

Water Capital Reserve \$1.5 Million

Debt Financing \$2.0 Million (15 year financing period)

Full Cost Recovery Methodology

The City's current water rate structure has a fixed charge per customer plus a uniform consumption charge to fully recover the costs for water services, with 2019 rates based on:

- Fixed Charge per Customer per quarter: \$50.45
- Uniform Consumption Rate per Cubic Metre: \$1.372

The Financial Plan assumes a required annual consumer rate increase of 3.4% for 2020, and 5% for the balance of the study period, due to the financing costs of the Water Meters.

In future, it is recommended that a review be undertaken to move the Fixed Charge to be allocated on size of the water meter rather than on a per-user basis. This is based on using American Water Works (AWWA) factors, which is consistent with current industry best practices. At the same time, a phase-in plan to gradually increase the fixed charge recovery should be developed.

Water Financial Plan

Appendices 1,2,3 provides the required Statements of Operations, Financial Position and Cash Flow which demonstrate the viability of Water System and billings over the study period.

The City is covering not only the operational costs, including amortization, but also providing funding for replacement value of the assets; and reserve/reserve fund transfers; ie. to ensure asset and water system sustainability.