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# WATER SYSTEM FINANCIAL PLAN

## O.REG. 453/07

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Waterworks of the Town of Cobourg

License #137-101



Managed by:



January 14, 2016

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## Overview

Waterworks of the Town of Cobourg (“Waterworks”) is required under Ontario Regulation 453/07, to prepare financial plans as a key step in the long-term stability for municipal drinking water systems. Regulation 453/7 requires ALL Ontario municipalities who provide water services to provide similar financial plans.

The purpose of this plan is to provide an informed view of operating and capital expenditures needed over time to maintain the integrity and health of the physical infrastructure and to accommodate growth and new environmental standards. The financial plan is also a component of the required documents to be filed as part of Waterworks obtaining its license to operate water systems. As per ss.3.1.4 of the Regulation, the financial plan for existing systems must include information on:

a) Proposed/Projected Financial Position

- Total financial assets
- Total liabilities
- Net debt
- Non-financial assets (tangible capital assets, supplies, prepaid expenses)

b) Proposed/Projected Financial Operations

- Total revenues, including water rates, user charges and other revenues
- Total expenses, including amortization expenses, interest expenses and other expenses
- Annual surplus or deficit
- Accumulated surplus or deficit

c) Proposed/Projected Cash Flow

- Cash used/generated in operating transactions
- Cash used/generated in capital transactions
- Cash used/generated in investing transactions
- Cash used/generated in financial transactions

The resolution of this report is to:

- 1) Demonstrate, through a detailed analysis, how capital and operating needs for drinking water systems can be met through available funding sources, including consideration of current and future water demand and supply; and
- 2) Present an updated financial plan in accordance with the requirements of O. Reg. 453/07 for the renewal of the license.

Waterworks recognizes the need for a long-term financial planning process to assess the financial implications. To this end, Waterworks has undertaken condition assessments, asset inventories, and capital forecasting to reflect the needs of today and in the future.

## Key Considerations

This section presents the projections for key items over the six (6) year period (2016 to 2021) and the assumptions used in order to prepare the financial plan. These include:

- Operations and Maintenance (O&M) cost projections;
- Capital budget forecasts based on the latest water rate study and asset condition assessment;
- Revenue requirements;
- Reserve projections; and
- Tangible capital asset projections

Waterworks' annual operating budget includes costs related to the following:

- Wages and benefits
- Water system operations and maintenance costs
- Administration costs
- Professional fees and dues
- Billing and collecting costs
- Interest on long-term debt (beginning in 2020)

A portion of these costs is offset by various non-rate revenues.

The assumptions used in arriving at the projection of the gross costs and non-rate revenues over the six-year period from 2016 to 2021 are as follows:

- Administration charges increase on average over the forecast period by approximately 3.0%;
- Other revenue, development charges, and interest to increase annually by approximately 3.0%;
- Debt of \$3,555,521 for the purchase of new clarifier in 2020, after using reserves. The debt is assumed to be repaid over a period of 30 years at interest of 3.52%.

Table 1 summarizes the gross operating costs to be recovered from users through the water rate charges. The annual cost increases estimated to range from 0.72% to 2.27%, with the exception being 2020 which is the result of the interest costs associated with new debt.

Table 1: OM&A Cost Projections

Details	2016	2017	2018	2019	2020	2021
Operating expenses	2,540,042	2,597,605	2,644,507	2,694,111	2,747,798	2,772,016
Interest on debt	0	0	0	0	125,260	121,706
<b>Total OM&amp;A expenses</b>	<b>2,540,042</b>	<b>2,597,605</b>	<b>2,644,507</b>	<b>2,694,111</b>	<b>2,873,058</b>	<b>2,893,722</b>
<b>Annual Percentage Change</b>	<b>-1.08%</b>	<b>2.27%</b>	<b>1.81%</b>	<b>1.88%</b>	<b>6.64%</b>	<b>0.72%</b>

## Revenue Requirements

Waterworks recovers its net costs through a monthly user fee and volumetric charged to its customers. The projection of revenues required over the six-year period from 2016 to 2021 are detailed in Table 2. The revenue requirements from the rates are projected to be approximately \$4,085,000 in 2016, increasing to approximately \$5,101,000 by 2021.

These revenue requirements agree to the revenue to be recovered from the rates as identified in the Water Rate Study Updated, November 18, 2015.

Table 2: Revenue Projections

Details	2016	2017	2018	2019	2020	2021
Sale of water	4,085,754	4,270,110	4,452,624	4,665,585	4,882,599	5,101,442
Annual Percent Increase	4.62%	4.51%	4.27%	4.78%	4.65%	4.48%

## Tangible Capital Asset Projections

The tangible capital asset (“TCA”) projection was derived from long-term capital forecasts for Waterworks, as well as an assessment of the lifecycle replacement needs of the existing infrastructure.

Waterworks’ 2016 – 2021 capital forecast identifies \$18,580,000 in capital needs, or an average of \$3,096,667 annually.

The asset information contained in Appendix B analysis was gathered from Waterworks’ existing database and an assessment of the condition of assets. The information is used not only to describe, but also define the quantity, age and replacement value of the existing infrastructure, as follows:

- Completion of the water treatment filter (phase 2) and GAC Replacement of \$1,075,000.
- Capital projects collaboration totalling \$1,325,000 or 7% of the total capital projects associated with Town of Cobourg initiatives. Co-ordinating water management decisions across complex systems can be challenging when obtaining support from various levels of governments. If these projects are delayed, this could significantly affect recovery of costs, etc.
- Infrastructure replacement of \$4,850,000 or 28% of the total capital projects.

As noted, in fiscal 2020, the clarifier is to be replaced at a cost of approximately \$5,800,000. As a result, the cost of the clarifier of \$5,800,000 will be funded 61% by debt and 39% by a reserve. The traditional model of long-term development is to project future demand due to population growth and increased usage, and expand the capacity of the existing infrastructure to meet these demands in an anticipatory manner, with the goal of maintaining high reliability and high quality supply.

The TCA projections for the study period are presented in Table 3 and are based on the following assumptions:

- Amortization of existing assets is based on the capital asset policies and procedures, which is based on the estimated useful life of the asset. Amortization of new assets is based on straight line depreciation with half year depreciation charged in the year of acquisition;



- Historical costs, life expectancy, and remaining useful life as per PSAB 3150;
- Fully depreciated assets continue to be used in service i.e.: no asset removals;
- New assets acquired are based on the capital forecast presented in Appendix B. These are added to the TCA in the year of acquisition and depreciated over their useful life; and
- Contributed assets from new development are assumed to be nil. This is due to the uncertainty regarding the timing of new development.

As detailed in Table 3, the depreciated value of Waterworks' water system is projected to increase from \$24,591,379 at the end of 2016, increasing to \$32,578,619 at the end of 2020.

Table 3: Tangible Capital Asset Projections

Details	2016	2017	2018	2019	2020	2021
Capital cost	42,893,951	44,998,951	46,943,951	48,743,951	50,678,951	57,303,951
Additions	2,105,000	1,945,000	1,800,000	1,935,000	6,625,000	2,000,000
Accumulated amortization - beginning	19,306,080	20,407,572	21,542,109	22,710,682	23,914,312	25,299,051
Amoritzation expense	1,101,492	1,134,537	1,168,573	1,203,630	1,384,739	1,426,281
Accumulated amortization - ending	20,407,572	21,542,109	22,710,682	23,914,312	25,299,051	26,725,332
<b>Net book value</b>	<b>24,591,379</b>	<b>25,401,842</b>	<b>26,033,269</b>	<b>26,764,639</b>	<b>32,004,900</b>	<b>32,578,619</b>

## Other Capital Initiatives

The capital budget forecast used for the financial plan is presented in Appendix B. This identifies the planned projects to be undertaken between 2016 and 2021.

### **Water Meters**

Included in the capital budget for 2016 to 2021 is the replacement of water meters at \$125,000 annually. Water meters are an important component of the water system. Every residential customer is equipped with a water meter to track consumption, ensuring that each individual customer is being billed for the water they consume.

The budget of \$125,000 in 2016 includes replacing, installing, and testing water meters throughout the service area.

The new water meters will improve the reliability of the meter reading and billing process and will allow Waterworks to read water consumption data remotely via radio frequency technology. The significant benefits of the meter change-out are:

- Improved Customer Service: Better meters and meter reading technology improves accuracy, allowing Waterworks to provide customers with water bills based on actual rather than estimated consumption.
- Business Efficiencies: Reductions in staffing requirements to resolve customer inquiries due to billing inaccuracies and to manually read water meter data.
- Maintenance reductions: The existing water meters are reaching the end of their lifecycle which is resulting in increased meter failure and maintenance.

In order to cycle through the residential water meter replacement project efficiently as possible, focused areas of the town will be targeted. Within the enhanced meter replacement areas, Waterworks is prioritizing meters based on those that are at end of life and meters that need to be replaced from gallons to cubic meters.

Customers needing their water meter replaced will receive a notification and the typical water meter replacement should take less than 15 minutes but may vary depending on the circumstances.

### **SCADA (Supervisory Control and Data Acquisition)**

Although Waterworks' SCADA system is online and operational, there are continued enhancements so that the system can be operated and monitored remotely. The SCADA system is a computer-based control systems that allows operators and facility personnel to monitor and control a facility's equipment either locally or remotely. Typically, a SCADA system will automate much of the control process such that operators can focus on other tasks. The systems give the operator flexibility to manually control the equipment where desired. SCADA systems are also installed to collect and store information for reporting, troubleshooting, maintenance indications, and much more.

There are a number of advantages to having a SCADA system installed such as:

- Ability to significantly reduce operating costs, while improving system performance and reliability;
- Costly after-hours alarm call-outs can often be avoided since a SCADA system will indicate the nature and degree of a problem;
- Since data is continuously recorded, operators do not have to manually read and record meter readings on a daily basis;
- Operators do not have to keep track of hundreds of log sheets as any data recorded on the SCADA system can be downloaded and accessed at their convenience;
- SCADA systems can often be accessed remotely through an internet connect on an office computer or laptop, and cell phone or tablet.

## Reserve Balances

The projected transfers to and from Waterworks' reserve fund and the balances is presented in Table 4. Contributions from the Capital Reserve Fund are used in funding proposed projects contained in the water capital forecast. Contributions to the reserve fund are derived from projected development charge receipts.

Table 4: Capital Reserve Fund

Details	2016	2017	2018	2019	2020	2021
Opening balance	803,385	845,801	710,389	787,216	866,347	3,130
Interest	7,416	7,638	7,868	8,104	8,104	8,347
Development charges	65,000	66,950	68,959	71,027	73,158	75,353
Transfer to capital	(30,000)	(210,000)	0	0	(944,479)	0
<b>Closing balance</b>	<b>845,801</b>	<b>710,389</b>	<b>787,216</b>	<b>866,347</b>	<b>3,130</b>	<b>86,830</b>

## Long-Term Debt

In fiscal 2020, the clarifier is to be replaced at a cost of approximately \$5,800,000. As a result of the cost of the significant cost, the original objectives was that the cost of the clarifier was to be funded 50% through debt and 50% by a reserve.

As a result of the expected decline in future development charges and subsequent underfunded reserve account, Waterworks will use \$1,300,000 from the 2020 capital to fund the purchase of the clarifier.

The consequence of the above is that the clarifier will be funded 61% by debt and 39% by reserve.

Table 5 below details the clarifier cost, the transfer from the reserve and operating bank account and subsequent repayments and interest on long-term debt.

Table 5: Long-Term Debt Schedule

Details	2016	2017	2018	2019	2020	2021
Clarifier cost	-	-	-	-	5,800,000	
Transfer from reserve	-	-	-	-	(944,479)	-
Transfer from 2020 capital	-	-	-	-	(1,300,000)	-
<b>Debt - beginning balance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,555,521</b>	<b>3,489,322</b>
Repayment	-	-	-	-	(191,459)	(191,459)
Interest	-	-	-	-	125,260	121,706
<b>Debt - ending balance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,489,322</b>	<b>3,419,569</b>

## Financial Statements

The financial plan involves the review, analysis and assessment of financial information relevant to Waterworks' water system, including costs, revenues, debt, cash transactions, and Tangible Capital Assets ("TCA") to prepare the following three financial statements covering the period 2016 to 2021 as required under O.Reg. 453/07:

- 1) Statement of Financial Position;
- 2) Statement of Operations; and
- 3) Statement of Cash Flow.

### **Statement of Financial Position**

The Statement of Financial Position is presented in Table 6. This statement summarizes Waterworks water-related financial and non-financial assets and liabilities, and provides the net financial asset/ (net debt) position and accumulated surplus related to managing the water system. The financial assets are primarily cash balances in the water reserve funds. Liabilities consist of accounts payable and accrued liabilities and long-term debt.

The non-financial assets (TCA) include the water infrastructure and facilities. The historical costs are amortized over the asset life to arrive at the net book value each year from 2016 to 2021. New assets are added in the years acquired, developed, or built. Contributed assets are primarily new infrastructure and facilities that would be transferred to Waterworks ownership and control by developers as they are completed. However this is assumed to be nil.

Contained within the Statement of Financial Position are important indicators, the first being net financial assets (net debt) which is defined as the difference between financial assets and liabilities. This indicator provides an indication of a water system's future revenue requirement. Table 6 indicates that in 2016, the water system will be in a net financial asset position of \$635,747. At the end of this six year projection, this will decrease to a net debt position of \$3,248,789 by 2021, which primarily the result of \$3,555,521 of new debt incurred in 2020 to fund 61% of the \$5,800,000 clarifier purchase.

The next important indicator contained in the Statement of Financial Position is the net book value of TCA. Table 6 shows that net TCA re expected to grow from \$24.6 million to \$32.6 million. This indicates that Waterworks has plans to invest in tangible capital assets in excess of the depreciation of existing assets.

Another important indicator in the Statement of Financial Position is the accumulated surplus. This indicator provides an indication of the resources available to Waterworks for managing its water system. The accumulated surplus is projected to increase from approximately \$25.3 million in 2016 to approximately \$29.4 million by 2021. The accumulated surplus is further detailed in Table 7.

Table 6: Statement of Financial Position

Details	2016	2017	2018	2019	2020	2021
Cash - operations	342,974	342,614	435,100	559,123	468,559	701,055
Cash - reserve	845,801	710,389	787,216	866,347	3,130	86,830
Accounts Receivable	342,321	352,590	363,168	374,063	385,285	396,843
Unbilled revenue	472,077	486,239	500,827	515,851	531,327	547,267
<b>Total Financial Assets</b>	<b>2,003,173</b>	<b>1,891,833</b>	<b>2,086,310</b>	<b>2,315,384</b>	<b>1,388,301</b>	<b>1,731,995</b>
Accounts payable and accrued liabilities	354,845	365,491	376,455	387,749	399,382	411,363
Long-term debt (principal only)	0	0	0	0	3,489,323	3,419,570
Due to related party	733,627	755,636	778,305	801,654	825,704	850,475
Employee future benefits	278,953	265,992	273,972	282,191	290,657	299,376
<b>Total Liabilities</b>	<b>1,367,426</b>	<b>1,387,119</b>	<b>1,428,732</b>	<b>1,471,594</b>	<b>5,005,065</b>	<b>4,980,784</b>
<b>Net Financial Assets (net debt)</b>	<b>635,747</b>	<b>504,714</b>	<b>657,578</b>	<b>843,790</b>	<b>(3,616,764)</b>	<b>(3,248,789)</b>
Tangible capital assets	24,591,379	25,401,842	26,033,269	26,764,639	32,004,900	32,578,619
Inventory of supplies	91,520	94,266	97,094	100,006	103,007	106,097
Prepaid expenses	2,575	2,652	2,732	2,814	2,898	2,985
<b>Total non-financial assets</b>	<b>24,685,474</b>	<b>25,498,760</b>	<b>26,133,095</b>	<b>26,867,459</b>	<b>32,110,805</b>	<b>32,687,701</b>
<b>Accumulated surplus/(deficit)</b>	<b>25,321,221</b>	<b>26,003,474</b>	<b>26,790,672</b>	<b>27,711,249</b>	<b>28,494,041</b>	<b>29,438,912</b>

Table 7: Accumulated Surplus Details

Details	2016	2017	2018	2019	2020	2021
<b>Beginning balance</b>	<b>24,736,000</b>	<b>25,321,221</b>	<b>26,003,473</b>	<b>26,790,672</b>	<b>27,711,249</b>	<b>28,494,040</b>
Cash: Operations	(453,004)	(360)	92,486	124,023	(90,564)	232,496
Cash: Reserve	42,416	(135,412)	76,827	79,131	(863,217)	83,700
<b>Total change in cash</b>	<b>(410,588)</b>	<b>(135,772)</b>	<b>169,313</b>	<b>203,154</b>	<b>(953,781)</b>	<b>316,196</b>
Accounts receivable	9,971	10,270	10,578	10,895	11,222	11,559
Unbilled revenue	13,750	14,162	14,587	15,025	15,476	15,940
<b>Total change in financial assets</b>	<b>23,720</b>	<b>24,432</b>	<b>25,165</b>	<b>25,920</b>	<b>26,697</b>	<b>27,498</b>
Accounts payable	(10,335)	(10,645)	(10,965)	(11,294)	(11,632)	(11,981)
Long-term debt (principal only)					(3,489,323)	69,753
Due to related party	(21,368)	(22,009)	(22,669)	(23,349)	(24,050)	(24,771)
Employee future benefits	19,737	12,961	(7,980)	(8,219)	(8,466)	(8,720)
<b>Total change in financial liabilities</b>	<b>(11,966)</b>	<b>(19,693)</b>	<b>(41,614)</b>	<b>(42,862)</b>	<b>(3,533,471)</b>	<b>24,281</b>
Prepaid expenses	75	77	80	82	84	87
Inventory	(19,529)	2,746	2,828	2,913	3,000	3,090
<b>Total change in non-financial assets</b>	<b>(19,454)</b>	<b>2,823</b>	<b>2,908</b>	<b>2,995</b>	<b>3,085</b>	<b>3,177</b>
Capital assets: Purchased	2,105,000	1,945,000	1,800,000	1,935,000	6,625,000	2,000,000
Capital assets: Amortization	(1,101,492)	(1,134,537)	(1,168,573)	(1,203,630)	(1,384,739)	(1,426,281)
<b>Total change in capital assets</b>	<b>1,003,508</b>	<b>810,463</b>	<b>631,427</b>	<b>731,370</b>	<b>5,240,261</b>	<b>573,719</b>
<b>Total ending balance</b>	<b>25,321,221</b>	<b>26,003,473</b>	<b>26,790,672</b>	<b>27,711,249</b>	<b>28,494,040</b>	<b>29,438,911</b>

### Statement of Operations

The Statement of Operations summarizes the revenues and operating expenses associated with the water operations. These are typically outlays that need to be made to keep operations running on a day-to-day basis. The Statement of Operations is presented in Table 8. It summarizes the annual revenues and expenses associated with management of the water system. It provides a report on the transactions and events that have an influence on the accumulated surplus. The main revenue items included are:

- Revenues from water rate charges;
- Other revenues associated with customer administration, non-payment of account, and connection charges;



- Development charges;
- Interest income.

The main expense items are:

- The annual cost of operating and maintaining the water system; and
- Amortization expense on existing and added TCA.

The operating surplus is an important indicator contained in the Statement of Operations. An operating surplus measures whether operating revenues generated in a year are sufficient to cover operating expenses incurred in that year. It is important to note that an annual surplus is necessary to ensure funds will be available to address non-expense items such as TCA acquisitions over and above amortization expenses, reserve fund contributions for asset replacement, rate stabilization, and repayment of outstanding debt principal.

Table 8: Statement of Operations

Details	2016	2017	2018	2019	2020	2021
Sale of water	4,085,754	4,270,110	4,452,624	4,665,585	4,882,599	5,101,442
Other revenue	63,000	63,945	64,904	67,500	70,200	73,008
Development charges	65,000	66,950	68,959	71,027	73,158	75,353
Interest income	13,000	13,390	13,792	14,205	14,632	15,071
<b>Total revenues</b>	<b>4,226,754</b>	<b>4,414,395</b>	<b>4,600,278</b>	<b>4,818,318</b>	<b>5,040,589</b>	<b>5,264,874</b>
Operating expenses	2,540,042	2,597,605	2,644,507	2,694,111	2,747,798	2,772,016
Interest on debt	0	0	0	0	125,260	121,706
Amortization	1,101,492	1,134,537	1,168,573	1,203,630	1,384,739	1,426,281
<b>Total expenses</b>	<b>3,641,534</b>	<b>3,732,142</b>	<b>3,813,080</b>	<b>3,897,741</b>	<b>4,257,797</b>	<b>4,320,003</b>
<b>Annual surplus/(deficit)</b>	<b>585,220</b>	<b>682,253</b>	<b>787,198</b>	<b>920,577</b>	<b>782,791</b>	<b>944,871</b>
<b>Accumulated surplus/(deficit), beginning of year</b>	<b>24,736,001</b>	<b>25,321,221</b>	<b>26,003,474</b>	<b>26,790,673</b>	<b>27,711,249</b>	<b>28,494,041</b>
<b>Accumulated surplus/(deficit), end of year</b>	<b>25,321,221</b>	<b>26,003,474</b>	<b>26,790,673</b>	<b>27,711,249</b>	<b>28,494,041</b>	<b>29,438,911</b>

## Statement of Cash Flow

The Statement of Cash Flow is presented in Table 9. This statement summarizes the main cash inflows and outflows related to the water system in four (4) main areas:

1. Operating;
2. Capital;
3. Investing;
4. Financing.

The operating cash transactions begin with the surplus or deficit identified in the Statement of Operations. This figure is adjusted to add or subtract non-cash items that were included as revenues or expenses (e.g. amortization expenses). It is assumed that there were no investing activities over the period. The capital section indicates the amounts spent to acquire capital assets and it is assumed that there are no assets to be sold to generate cash. The financing section identifies the funds received from long-term debt and the portion of debt repaid as a cash outflow.

Table 9 indicates that cash has been generated from operations, which is used in funding the acquisition of TCA, towards building internal reserves, and to repay debt over the forecast period. Waterworks' cash position is projected to be \$1,188,775 in 2016 and declined to \$787,884 in 2021. The decrease is primarily the result of the debt associated with the purchase of the clarifier in 2020 and the utilization of the cash reserve.

Table 9: Statement of Cash Flow

Details	2016	2017	2018	2019	2020	2021
<b>Cash provided by (used in):</b>						
<b>Operations</b>						
Annual surplus	585,220	682,253	787,198	920,577	782,791	944,871
Add: Amortization	1,101,492	1,134,537	1,168,573	1,203,630	1,384,739	1,426,281
Employee future benefits	(19,737)	(12,961)	7,980	8,219	8,466	8,720
Change in non-cash working capital items	27,437	5,399	5,561	5,728	5,900	6,077
<b>Cash used/generated in operating transactions</b>	<b>1,694,412</b>	<b>1,809,228</b>	<b>1,969,312</b>	<b>2,138,154</b>	<b>2,181,896</b>	<b>2,385,948</b>
<b>Capital Activities</b>						
Acquisition of tangible capital assets	(2,105,000)	(1,945,000)	(1,800,000)	(1,935,000)	(6,625,000)	(2,000,000)
<b>Financing Activities</b>						
Long-term debt issuance	0	0	0	0	3,555,521	0
Long-term debt repayment (net of interest)	0	0	0	0	(66,198)	(69,753)
<b>Cash used/generated in financing activity</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,489,323</b>	<b>(69,753)</b>
<b>Net change in cash during the year</b>	<b>(410,588)</b>	<b>(135,772)</b>	<b>169,312</b>	<b>203,154</b>	<b>(953,781)</b>	<b>316,195</b>
<b>Cash position - beginning of year</b>	<b>1,599,363</b>	<b>1,188,775</b>	<b>1,053,003</b>	<b>1,222,316</b>	<b>1,425,470</b>	<b>471,689</b>
<b>Cash position - end of year</b>	<b>1,188,775</b>	<b>1,053,003</b>	<b>1,222,316</b>	<b>1,425,470</b>	<b>471,689</b>	<b>787,884</b>

## Conclusions and Recommendations

The following are the main conclusions and recommendations:

- The annual net cost to be recovered from rates is projected to increase from \$3.6 million in 2016 to approximately \$4.3 million by 2021. This represents an annual increase of approximately 0.72% to 2.27% over the 6-year period;
- Debt is required in 2020 for the purchase of a new clarifier;
- The net book value of Waterworks water system is projected to increase from approximately \$24.5 million in 2016 to approximately \$32.5 million 2021. This increase in value is due mainly to the addition of new assets over the next six years based on the capital program forecast;
- The reserve fund balance over the period is projected to decrease from \$845,801 in 2016 to \$86,830 in 2021. This is the result of the utilization of the reserve for the purchase of the clarifier in 2020;
- Based on the financial statements, the financial outlook to 2021 remains positive and the financial resources sufficient to meet the needs of the water system;
- That the financial plan including the financial statements presented herein be approved and submitted to the Ministry of Municipal Affairs and Housing (MMAH) in accordance with the Drinking Water System Licence renewal requirements and O. Reg. 453/07; and
- That a copy of the Waterworks Financial Plan will be posted on the Town of Cobourg's and Lakefront Utility Services Inc. websites.

## Index to Appendices

The following are appended to and form part of this Financial Plan;

Appendix A: Requirements of Ontario Regulation 453/07

Appendix B: Waterworks Capital Forecast – 2016 to 2021

Appendix C: Sustainable Financial Planning

## Appendix A: Requirements of Ontario Regulation 453/07

Requirements		How Requirements are Met
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.	The Financial Plan was approved at Council on January 25, 2016.
	ii. The governing body of the owner, if the owner of the drinking water system has a governing body and is not a municipality.	N/A
2.	The financial plans must apply to a period of at least six years.	The Financial Plan applies for 6 years from 2016 to 2021 inclusive.
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 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 license would otherwise expire.	The license expires July 31, 2016. Therefore, the first year of the Financial Plan is 2016.
	ii. If the financial plans are queried by a condition that was included in a municipal drinking water license 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 license for the system was issued.	N/A
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	Table 6: Statement of Financial Position
	b. Total liabilities	Table 6: Statement of Financial Position
	c. Net financial assets (debt)	Table 6: Statement of Financial Position
	d. Non-financial assets that are tangible capital assets, tangible capital assets under construction, inventories of supplies and prepaid expenses.	Table 6: Statement of Financial Position

	e. Changes in tangible capital assets that are additions, donations, write downs and disposals.	Table 3: Tangible Capital Asset Projections Table 6: Statement of Financial Position
	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.	Table 8: Statement of Operations
	b. Total expenses, further itemized by amortization expenses, interest expenses and other expenses.	Table 8: Statement of Operations
	c. Annual surplus or deficit, and	Table 8: Statement of Operations
	d. Accumulated surplus or deficit	Table 8: Statement of Operations
	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, - done in full cost report.	Table 9: Statement of Cash Flow
	b. Capital transactions that are proceeds on the sale of tangible capital assets and cash used to acquire capital assts.	Table 9: Statement of Cash Flow
	c. Investing transactions that are acquisitions and disposal of investments.	Table 9: Statement of Cash Flow
	d. Financing transactions that are proceeds from the issuance of debt and debt repayment.	Table 10: Statement of Cash Flow
	e. Changes in cash and cash equivalents during the year.	Table 9: Statement of Cash Flow
	f. Cash and cash equivalents at the beginning and end of year.	Table 9: Statement of Cash Flow
	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.	There are no lead service pipes to be changed in the Town of Cobourg and therefore the Financial Plan does not included lead services pipe replacement.

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.	The Financial Plan will be included on the Town of Cobourg's website following council approval.
	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.	The Financial Plan will be included on the Town of Cobourg's website following council approval.
	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.	A notice will be issued following Council approval.



## Appendix B: Waterworks Capital Forecast (2016 to 2021)

Description	2016	2017	2018	2019	2020	2021
Filters - Phase 2	1,075,000					
Correlators	25,000					
Refurbish LL Pump #1 and Motor	20,000					
Refurbish HL Pump #1 and Motor	25,000					
IT Hardware and Software	15,000	15,000	15,000	15,000	15,000	15,000
Residential Water Meter Replacement Project	125,000	125,000	125,000	125,000	125,000	125,000
Tools	15,000	15,000	15,000	15,000	15,000	15,000
James St. (College to Division)	375,000					
Alexandria Drive	400,000					
Water Tower Painting		440,000				
Harden Crecent/Harden St. and Sinclair St. (segment)		590,000				
Spencer St. West (Division St. to George St.)		325,000				
Albert St. (3rd to Hibernia)		225,000				
Perry Street (D'Arcy St. to Church St.)			835,000			
Monroe St. Watermain Replacement			270,000			
Campbell St. Watermain Replacement			540,000			
Burke, Blake, and Matthew Street				580,000		
Henry Street (Phase 1 and Phase 2)				1,200,000		
Clarifier replacement	30,000	210,000			5,800,000	
Walton St. Renovations					670,000	
GAC Replacement						400,000
Repaint Tower #1						450,000
Margaret and University Ave. East						525,000
Watermains						2,640,000
Deferred capital		543,090	1,056,269	1,327,358	(2,926,717)	
<b>Total</b>	<b>2,105,000</b>	<b>2,488,090</b>	<b>2,856,269</b>	<b>3,262,358</b>	<b>3,698,283</b>	<b>4,170,000</b>

## Appendix C: Sustainable Financial Planning

In general, sustainability refers to the ability to maintain a certain position over time. The Ministry of the Environment released a guideline (“Towards Financially Sustainable Drinking-Water and Wastewater Systems”) that provides possible approaches to achieving sustainability. The Province’s Principles of Financial Sustainable Water and Wastewater Services are provided below:

- Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system 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: Lifecycle planning with mid-course corrections is preferable to planning over the short timer, or not planning at all.
- Principle #5: An asset management plan is a key input to the development of a financial plan.
- Principle #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.
- Principle #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.
- Principle #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.
- Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, staff and municipal Council.