



The Township of Essa Drinking Water System

Financial Plan

October 11, 2015



Sharratt Water Management Ltd.
Sustainable Water Management Specialists

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1.0 Introduction

The Township of Essa has authorized Sharratt Water Management Ltd. (SWML) to develop the Financial Plan for the Township's drinking water system. A renewal of the drinking water system is now required and a financial plan must be prepared, approved by Council, and submitted to the provincial Ministry of Municipal Affairs and Housing in order to obtain a licence renewal.

This Financial Plan has been prepared in accordance with the Financial Plan regulation (O. Reg. 453/07) made under the Safe Drinking Water Act, as well as the provisions of the financial planning guidelines published by the Ministry of the Environment (MOE) in August 2007 entitled "Toward Financially Sustainable Drinking-Water and Wastewater Systems".

In order to develop this financial plan, water system capital needs, have been projected in current dollars and then inflated to the year 2022. In addition, operating costs have been inflated and projected to 2022. The revenue needed to support the operating and capital plan is laid out in a funding plan that relies on user fees based on rates, capital levies, connection charges and some other sundry sources of revenue. Development charges are used to fund projects that accommodated growth. User fees from rates are set so that adequate reserves are developed in order to fund future capital and major maintenance expenses to at least 2022 and to maintain reserves at a sustainable level well into the future. This projection is based on the planning assumptions concerning asset lifetimes, the future inflation and interest rates as well as the level of ongoing asset maintenance.

The Financial Plan is also based on the tangible capital asset information that the Township generated in accordance with the Public Sector Accounting Board (PSAB) standard PS 3150 requirements. The Financial Plan includes a projection of financial and non-financial tangible capital assets to the year 2022 that is more than the six-year planning horizon required by Reg. 453/07. Capital renewal costs were projected to 2115 to determine the long run sustainability of the user fees at current levels of annual increase and to determine what user fee increase levels would be fully life cycle sustainable to 2114.

1.1 Legislative Context to Financial Planning

There have been a number of legislative initiatives affecting water system management and operations over the past decade. These initiatives were a result of the water borne illness tragedy in Walkerton in 2000. Following this event, the Government of Ontario established a public inquiry chaired by the Honourable Dennis O'Connor to look into the tragedy. The Inquiry Report recommended a comprehensive approach to the delivery of safe drinking water in Ontario.

The MOE has responded to the Inquiry recommendations by making legislative changes. One change directly related to the development of this Financial Plan was the passage of the Safe Drinking Water Act, 2002 (SDWA). It requires owners of a municipal drinking water system to apply for and initially obtain a Municipal Drinking Water Licence and to renew the licence at preset times. Five elements must be in place in order for the owner of a drinking water system to obtain a licence:

- 1) A Drinking Water Works Permit to establish or alter a drinking-water system;
- 2) An accepted Operational Plan. The Drinking Water Quality Management Standard (DWQMS) is the standard upon which operational plans are based. The plan documents an operating authority's quality management system (QMS).
- 3) An Accredited Operating Authority. A third party audit of an operating authority's QMS will be the basis for accreditation.
- 4) A Permit to Take Water.
- 5) A Financial Plan that must be prepared and approved in accordance with the prescribed requirements in the Financial Plans Regulation.

Regulation 453/07 of the Safe Drinking Water Act was passed in 2007 and contains several provisions affecting the preparation of Financial Plans pertaining to the licencing of a water system:

- A person who makes an application under the Act for a municipal drinking water licence shall, before making the application, prepare and approve financial plans for the system that satisfy the requirements of O. Reg. 453/07, S. 1(1).
- The Financial Plan must be approved by a resolution that is passed by the Council of the municipality
- The Financial Plan must apply to a period of at least six years with 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.
- Once a system is licensed, the municipality's Financial Plan is required to be updated every 5 years, in conjunction with every application for license renewal.

1.2 Recent Accounting and Policy Changes

In June 2006, the Public Sector Accounting Board (PSAB) of the Canadian Institute of Chartered accountants approved new municipal financial accounting and reporting standards requiring that tangible capital assets (TCA), including components of the water

system, be included in municipal financial statements. The new accounting standard PS 3150 came into effect on January 1, 2009. This provides for a sharper focus on the depreciation of the capital asset base of the water system and the need to plan for renewal and replacement on a timely basis. This data is an integral component of the financial statements included in this Financial Plan.

The Clean Water Act 2006 targets the protection of drinking water supplies through the development of collaborative, locally driven, science and watershed based source protection plans. According to the MOE financial planning guidelines, Financial Plans should include source water protection costs related to the provision of water services. Utilities are encouraged to have, at minimum, estimates of any current source protection costs as a separate cost item by the time that their Financial Plans are required in order to effectively align with the anticipated approval timelines for source protection plans.

In June 2007, the government of Ontario proposed a lead action plan. The Financial Plans regulation contains requirements for municipalities to include in their Financial Plans, the costs associated with replacing lead service pipes that are part of the drinking water system.

1.3 Township of Essa Water System

The Township of Essa water system serves customers in the communities of Baxter, Thornton and Angus. Nearly all users are metered.

In 2014, the system served 3,954 residential and industrial/commercial/institutional users as is shown in table 1

Table 1 Township of Essa Water System Users

Angus	
Metered	3370
Not yet Connected	22
Baxter	
Metered	55
Not yet Connected	0
Thornton	
Metered	494
Not yet Connected	13
Total	
Metered	3919
Not yet Connected	35

The Township uses a two-part rate structure with a fixed or basic charge that increases for larger meter sizes. It also includes a volumetric charge that applies to all water used. The water rates for 2015 are as set out in Table 2:

Table 2 Township of Essa Water Rates (2015)

Fixed Portion of the Rate	Per Annum
Meter Size	
5/8x3/4 inch	\$ 58.08
1 inch	\$ 78.51
1.5 inch	\$ 100.94
2 inch	\$ 162.63
3 inch	\$ 626.86
Volumetric Portion of the Rate	
Cost per Cubic Metre (M3) for all Water Used	\$ 1.28
Rate Calculation - apply fixed charge adjusted for the number of months billed and add the cost for all water used. For example, someone with a 5/8x3/4 in. meter billed for 3 months using 100 m3, and , would pay \$58.08 divided by 4 or \$14.52 plus 100 x 1.28 or \$128 for a total of \$142.52 for three months.	

2.0 Operating Plan

The operating plan details the recurring minor maintenance as well as the capital renewal and major maintenance investment costs required to sustain the drinking water system. These costs are detailed in the attachments to this Financial Plan document. Some key assumptions are set out below.

2.1 Operations Expenses

Operating costs such as labour, chemicals, insurance and other costs are projected to increase at 2.0% per annum, system operator costs at 1.5% and energy is projected to increase at 5% per annum for the 2015-2022 periods.

2.2 Capital Renewal and Major Maintenance Expenses

Capital renewal and major maintenance costs have been projected to 2022 and funding needs for these costs have been included in the user fee revenue estimates for 2016-2022. The combined system is expected to add 100 new connections for each year for 2015-2022. A reservoir expansion is projected for 2021. The intent of the operating plan is to ensure that funding will be available, when needed, at least for the projected capital and major maintenance costs between 2016 and 2022, and preferably a substantial time beyond. Capital and major maintenance costs are projected to increase at 2.0% per year

to 2022. The capital renewal and major maintenance needs are set out in the appendices to this Financial Plan. Capital and major maintenance needs beyond 2022 should be considered in the next Financial Plan needed before the next licence renewal. That report will roll the time horizon forward for at least another five years for capital projects. However, in this report, in appendix 5, chart 1; future capital renewal needs are projected to 2114 to provide a context for future capital renewal planning. Inflation over this longer period was assumed 3% per annum. It was determined that the proposed plan with revenues from user fees increased at 2.38%, or .38% above projected inflation of 2.0% per annum is sustainable, and able to cover all major maintenance and projected capital replacement costs to the 2060s. A 3.4% per annum increase, or 1.4% above inflation, would sustain the system to 2114, given the study assumptions. This is shown in chart 1, appendix 5.

2.3 Debt Servicing Costs

The Township currently has two water loans outstanding and one is projected:

1. A \$1.9 million 15-year loan taken out in 2009 at 2.49%. The principal remaining as of December 31, 2014 was \$1,283,659.57.
2. A 4.13 million 15-year loan taken out in 2004 at 2.62%. The principal remaining as of December 31, 2014 was \$1,558,072.53.
3. A \$1.78 million 15 year loan is proposed for 2021 at 5.5% to help pay for the proposed water reservoir expansion.

2.4 Lead Replacement Costs

There is no lead present in the system and as a result, no funds have been set aside for lead abatement. There is only a requirement to check for lead in the distribution system every third year, and then only under the Ministry of the Environment's "reduced sampling" protocol.

2.5 Source Water Protection Costs

The Nottawasaga Valley Source Protection Authority completed all of the source protection studies through the Nottawasaga Valley Conservation Authority. The Provincial government has provided the Township with a grant of \$60 000, to establish a Risk Management Office, and to implement the source protection plan requirements. The funding agreement states that the money must be spent by March 31, 2016; however, the Township will request an extension to this date. Once the existing threat plans have been established, there should be very little cost to the Township. Applications for pre-determined higher risk activities within the protection areas should include the fee for the risk management review and report

3.0 Funding Plan

The funding plan lays out a plan on how the Township will generate the required funds to meet the expenditure requirements detailed in the operating plan. The funding plan is detailed in the appendices to this Financial Plan report. The funding plan proposed will rely primarily on user fees, with some funds provided from government grants in 2015 and 2016, capital levies, connection fees and various sundry charges. Development charges will fund projects that accommodate growth. Some key assumptions and results are presented below.

3.1 Government Grants

No allowance has been made for government grants in the 2016-2022 periods. Should grants be obtained, the funds displaced would likely be placed in the reserves.

3.2 Debt

The current debt will be serviced and a new \$1.78 million loan over 15 years at a projected 5.5% is proposed in 2021 to help fund a reservoir expansion. This loan will be serviced entirely from development charge funds.

3.3 Required User Fees

Based on this funding plan, the Essa user fees and water rates are projected to increase at 2.38% in inflated dollars or about .38% per annum above inflation for the 2016-2022 periods. This is based on the need to generate adequate revenue to cover capital renewal and major maintenance along with an assumption that most operating as well as capital and major maintenance costs will inflate at 2.0% per annum, with energy costs increasing at 5% per annum.

4.0 Continuous Improvement

Provincial regulation 453/07 requires that the Financial Plans be updated every 5 years, along with the request for the renewal of the Drinking Water Licence. This on-going update will assist in revisiting the assumptions made to develop the operating and funding plans as well as re-assessing the need for capital renewal and major maintenance expenditures.

5.0 Financial Plan Summary

This section provides a summary of principal features concerning the current and future state of the water system contained in the projected Financial Statements over 8 years (2015-2022) in compliance with O. Reg. 453. The detailed financial statements are set out in tabular form in Section 6. The notes regarding the various line entries in financial statements are presented at the end of the financial statement section.

5.1 Statement of Financial Position (Table 6.1)

One important feature of a water system is a statement of its net financial assets/debt. A positive number indicates that the system has the resources to deal with future capital and other needs. A negative number indicates that past capital and other investments must be financed from future revenues. The Essa water system's net financial assets are shown in Figure 5.1:

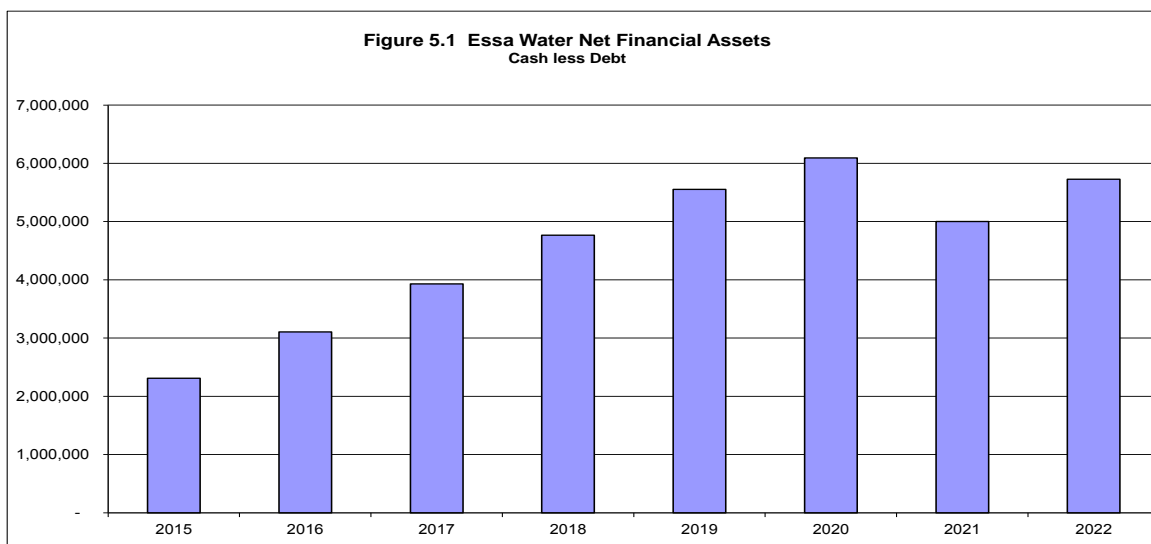
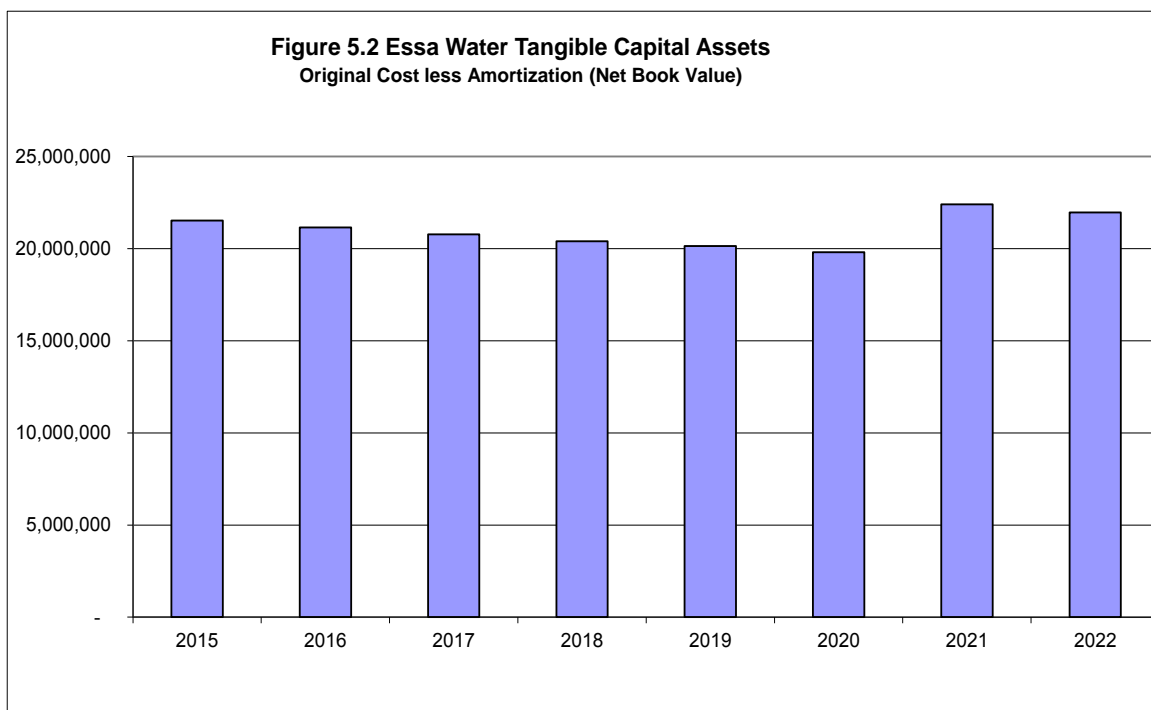


Figure 5.1 shows that that the system is projected to have a surplus in 2015, and this is projected to grow to 2022. In fact, based on Chart 1 in appendix 5, this substantial surplus will remain until the 2060s when major capital renewal will be needed, based on the current estimated lifetimes of a number of assets. The projected water system capital reserve, set out in appendix 4, will be drawn down in the 2060s, assuming that the revenue from user fees increases at .38% above the rate of inflation. All assets forming the basis for figure 5.1 are priced in inflated dollars.

A second feature is the total value of the water system's tangible capital assets such as wells, water towers, reservoirs and water lines. Consideration of the value of tangible capital assets is part of PSAB compliance. The current value of the capital assets is termed net book value (NBV). It is the original cost of an asset less the accumulated amortization. Tangible capital assets, once installed, are being used, and are immediately decreasing in value. Annual amortization is determined by dividing the original (historic) cost of an asset by its expected lifetime in years. Amortization is accumulated as the asset wears out so that by the last year of the expected life of the asset, amortization equals the original value of the asset. At that time, the asset has no net book value.

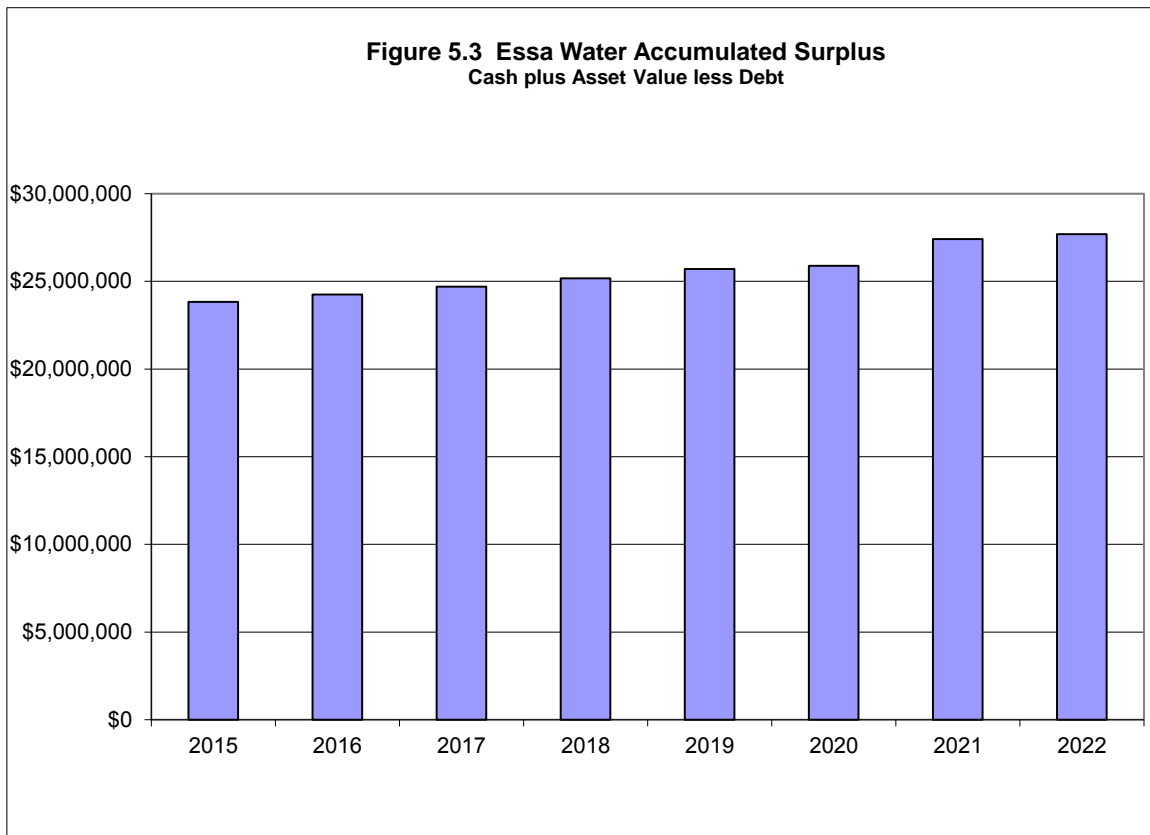
Water systems have a great deal of resources tied up in tangible capital assets and managing these assets is critical to maintaining current and future levels of service. As has been noted above, tangible capital assets, once installed, are being used and decrease in value due to amortization. An increase in tangible capital assets is an indication that assets have been renewed faster than they are used. A decrease indicates that assets are being used, or amortized, faster than they are renewed. The value of the Township's water system assets is set out in Figure 5.2.



The net book value declines slightly from 2015 to 2020. No major projects are projected in this period. The small renewal projects projected to be undertaken do not offset the overall decline in net book value. In 2021, it is proposed that a reservoir expansion be undertaken. This increases the value of the assets in that year. In 2022, they resume

their gradual decline. This is consistent with the Essa system being quite new. It is apparent from chart 1; appendix 5, that major renewal investments will be needed in the 2040s and by the 2060s to the end of the century, very substantial capital renewal and replacement will be required.

A third feature is the accumulated surplus set out in Figure 5.3. It represents cash on hand plus the net book value of tangible capital assets less debt.



From 2015 until 2022, the accumulated surplus increases. The large reserve of financial assets, shown in Figure 5.5, indicates that the Township’s proposed financial plan is sustainable for this period.

5.2 Statement of Operations (Table 6.2)

This statement summarizes the operating revenues and expenditures. The expenditures include ongoing operating costs plus asset amortization. It provides an indication of whether or not the system assets are being maintained on a year over year basis.

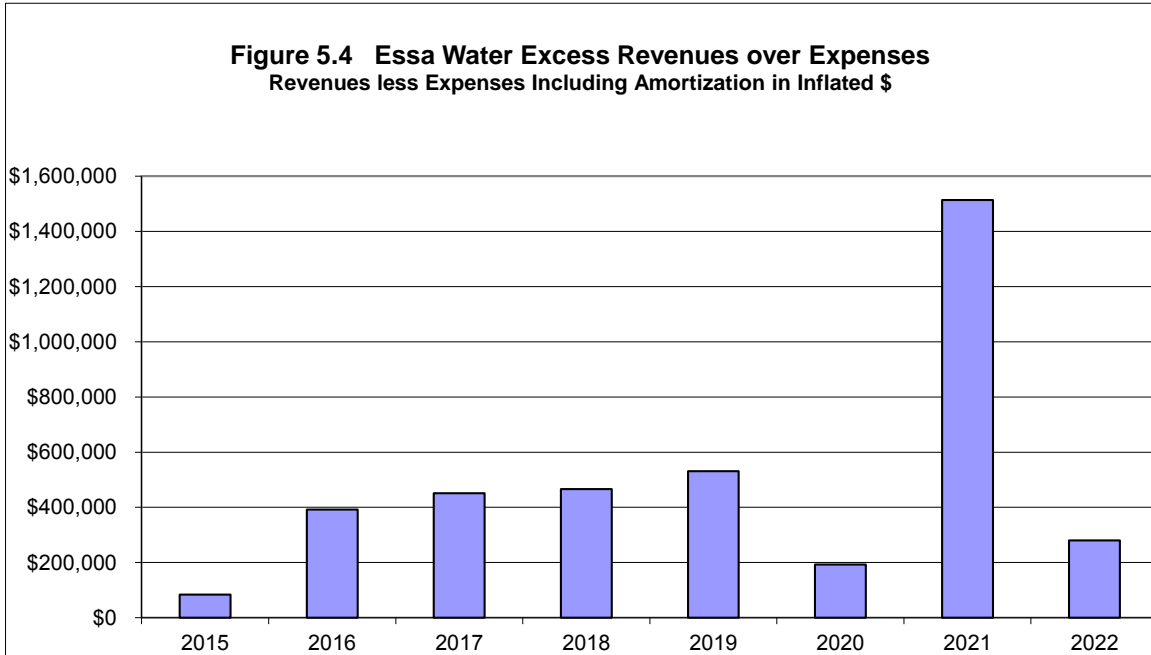


Figure 5.4 indicates that more is being spent on renewal than the decline in the value of the tangible capital assets. The Financial Plan has been designed to account for all foreseeable expenditures to 2022 and, in fact, well beyond. The financial asset capital and major maintenance reserves are projected to be maintained at a sustainable level until at least 2060s. In the meantime, there is a substantial reserve to handle unexpected emergencies such as assets failing before the projected end of their projected life, or capital expenditures to deal with future new regulations. Consequently, the system is in good shape.

5.3 Statement of Cash Flow (Table 6.3)

This fifth feature shows how revenues are generated and spent over the study period. The revenues include user fees assisted by government capital grants. The expenditures include operating expenses and capital acquisitions. These are shown in Table 6.3 and set out in Figure 5.5.

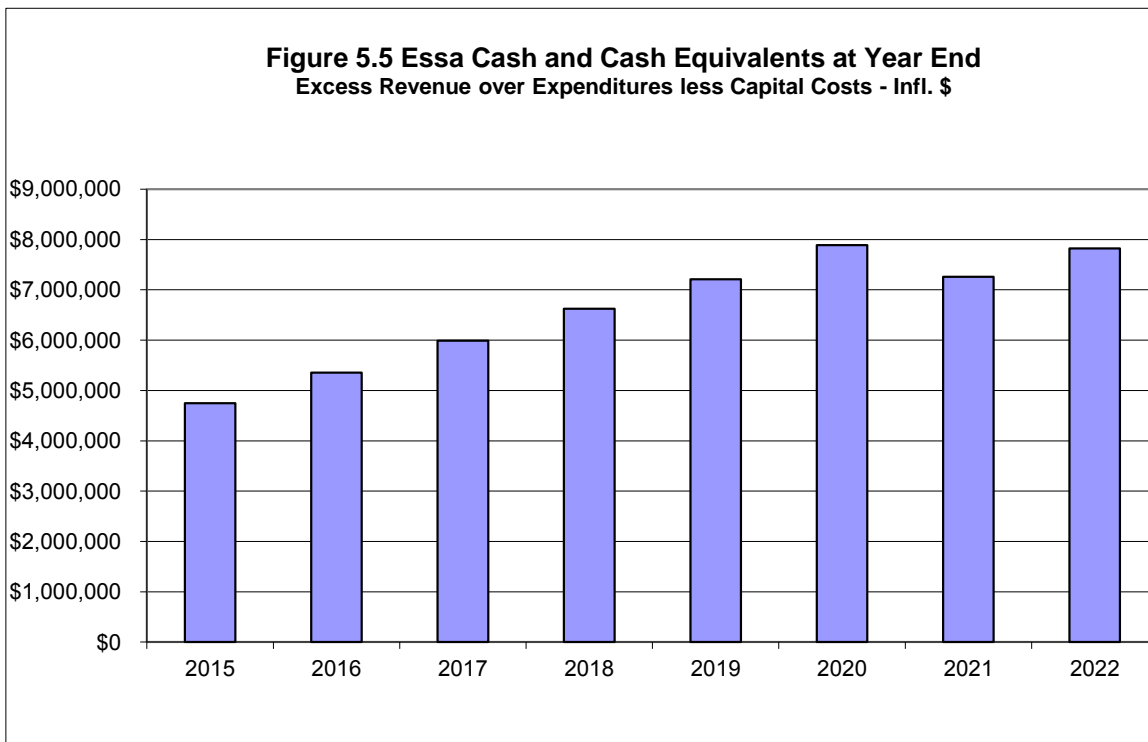


Figure 5.5 indicates that the cash equivalents, in inflated dollars, are positive throughout the study period and increasing substantially. This cash balance puts the Township in a position to fund projected needed capital renewal or major maintenance projects into the future, if user fee revenues are increased at .38% above inflation each year.

5.4 Conclusion

The Essa water system has been growing due to an increase in population. This is projected to continue. A reservoir expansion is projected for 2021 to be funded from development charges. The system has a good financial capital reserve and is undertaking a good level of maintenance and small capital renewal. This current regime is projected to be sustainable to the 2060s based on the plans assumptions about system assets, inflation and interest rates as well as annual user fee increases of .38% per annum over inflation. The detailed financial statements set out in tabular form that were the basis for the above summary charts follow in Section 6.

6.0 Financial Statements

The detailed financial statements are set out in the following tables followed by the notes that correspond to the numbers in the tables.

6.1 Statement of Financial Position

	2015	2016	2017	2018	2019	2020	2021	2022	Notes
Financial Assets									
Cash and Cash Equivalents	4,601,258	5,202,348	5,831,379	6,465,048	7,048,419	7,887,059	7,259,883	7,821,088	1
Long Term Accounts Receivable	147,803	151,701	155,702	159,808	164,022	-	-	-	2
Deposits	-	-	-	-	-	-	-	-	
Total Financial Assets	4,749,061	5,354,050	5,987,081	6,624,856	7,212,441	7,887,059	7,259,883	7,821,088	
Liabilities									
Accounts Payable (Capital)	-	-	-	-	-	-	-	-	
Debt Principal Outstanding	2,424,769	1,996,970	1,558,053	1,107,729	645,701	508,361	2,068,840	1,840,695	3
Deferred Revenue (Dev Charge Reserve Bal.)	15,308	252,399	497,861	751,747	1,014,346	1,285,962	189,500	254,479	4
Government Grant	-	-	-	-	-	-	-	-	
Other liabilities	-	-	-	-	-	-	-	-	
Total Liabilities	2,440,077	2,249,369	2,055,914	1,859,476	1,660,047	1,794,323	2,258,340	2,095,174	
Net Financial Assets (Debt)	2,308,983	3,104,681	3,931,166	4,765,381	5,552,394	6,092,736	5,001,543	5,725,914	
Non Financial Assets									
Tangible Capital Asset Cost	28,004,490	28,030,490	28,143,995	28,248,951	28,361,524	28,583,292	28,717,637	31,847,107	5
Additions to Tangible Capital Assets - Cost	26,000	113,506	104,956	112,573	221,769	134,345	3,129,470	121,853	6
Accumulated Amortization incl. Addition	6,508,718	6,995,884	7,476,111	7,956,235	8,434,253	8,915,874	9,440,337	10,006,826	7
Total Non Financial Assets	21,521,771	21,148,111	20,772,839	20,405,289	20,149,039	19,801,763	22,406,770	21,962,134	
Accumulated Surplus/(deficit)	\$23,830,755	\$24,252,792	\$24,704,006	\$25,170,670	\$25,701,433	\$25,894,499	\$27,408,313	\$27,688,048	
Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.									

6.2 Statement of Financial Operations

Table 6.2 Statement of Financial Operations - Township of Essa Water System										
	2015	2016	2017	2018	2019	2020	2021	2022	Notes	
Revenues										
User Fees	\$1,251,500	\$1,281,286	\$1,311,780	\$1,343,001	\$1,374,964	\$1,407,688	\$1,441,191	\$1,475,492	8	
Other Revenues (Excl Homeowner Loan Payment)	\$183,298	\$196,109	\$197,076	\$198,063	\$199,069	\$52,348	\$53,394	\$54,462	9	
Interest on Reserves	\$155,874	\$165,681	\$178,558	\$192,123	\$205,559	\$216,933	\$231,038	\$247,463	10	
Homeowner Loan Payment	\$167,252	\$167,252	\$167,252	\$167,252	\$167,252	\$0	\$0	\$0	11	
Earned Dev Charge Revenues	\$126,745	\$126,907	\$127,071	\$127,240	\$127,411	\$127,586	\$1,505,171	\$305,353	12	
Total Revenues	\$1,884,668	\$1,937,235	\$1,981,738	\$2,027,678	\$2,074,255	\$1,804,556	\$3,230,795	\$2,082,770		
Expenses										
Day to Day Operating Expenses	\$825,308	\$844,197	\$863,670	\$883,748	\$904,457	\$925,822	\$947,869	\$970,626	13	
Minor Maintenance	\$25,435	\$63,952	\$65,231	\$66,536	\$67,867	\$69,224	\$70,608	\$72,021	14	
Major Maintenance (non capital)	\$354,879	\$60,608	\$73,240	\$93,858	\$68,105	\$119,595	\$64,314	\$92,071	15	
Debt Interest	\$70,110	\$59,274	\$48,156	\$36,749	\$25,045	\$15,228	\$109,727	\$101,829	16	
Amortization	\$494,687	\$487,166	\$480,227	\$480,123	\$478,019	\$481,620	\$524,464	\$566,488	17	
Lead Abatement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	18	
Source Water Protection	\$30,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	19	
Total Expenses	\$1,800,419	\$1,545,198	\$1,530,524	\$1,561,014	\$1,543,493	\$1,611,489	\$1,716,982	\$1,803,035		
Excess (Deficit) of Revenues over Expenses	\$84,250	\$392,037	\$451,214	\$466,664	\$530,763	\$193,066	\$1,513,813	\$279,736		
Other										
Working Capital									20	
Government Transfers	\$30,000	\$30,000							21	
Miscellaneous	\$0									
Excess (Deficit) of Revenues over Expenses	\$114,250	\$422,037	\$451,214	\$466,664	\$530,763	\$193,066	\$1,513,813	\$279,736		
Accumulated Surplus (Deficit) Beginning of year	\$23,716,505	\$23,830,755	\$24,252,792	\$24,704,006	\$25,170,669	\$25,701,432	\$25,894,499	\$27,408,312		
Accumulated Surplus (Deficit) End of Year	\$23,830,755	\$24,252,792	\$24,704,006	\$25,170,669	\$25,701,432	\$25,894,499	\$27,408,312	\$27,688,048		
Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.										
2015 Beginning Accumulated Surplus/(Deficit) is made up of										
Working Deficit	\$114,247									
Capital Reserve Opening	3,847,187									
Rate Stabilization Reserve opening	606,345									
Development Charge Reserve opening	(209,593)									
Total Cash	4,358,186									
Less										
Debt start of year	2,841,732									
Dev Charge Res Opening (deficit\$209,593)	209,593									
Total Debt	2,632,139									
Add										
Tangible Capital Assets Adj Opening for 2015	21,990,931									
Accounting Adjustment	(473)									
Opening Balance for 2015	23,716,505									

6.3 Statement of Cash Flow

Table 6.3 Statements of Change in Cash Flow - Township of Essa Water System									
	2015	2016	2017	2018	2019	2020	2021	2022	Notes
Operating Transactions									
Total Operating Revenues	\$1,561,542	\$1,604,301	\$1,635,928	\$1,668,303	\$1,701,444	\$1,587,622	\$2,999,757	\$1,835,307	22
Homeowner Loan Repayment	\$167,252	\$167,252	\$167,252	\$167,252	\$167,252	\$0	\$0	\$0	23
Total Cash for Operating Expenses	\$1,800,419	\$1,545,198	\$1,530,524	\$1,561,014	\$1,543,493	\$1,611,489	\$1,716,982	\$1,803,035	24
Interest from Cash Reserves (Excl DC Reserve)	\$155,874	\$165,681	\$178,558	\$192,123	\$205,559	\$216,933	\$231,038	\$247,463	10
Development Charge Proceeds (Net)	\$224,901	\$237,090	\$245,463	\$253,885	\$262,600	\$271,616	(\$1,096,462)	\$64,979	25
Excess of Revenues Over Expenses	\$309,151	\$629,127	\$696,677	\$720,549	\$793,363	\$464,682	\$417,351	\$344,715	
Deduct Non Cash Charges to Operations									
Amortization	\$494,687	\$487,166	\$480,227	\$480,123	\$478,019	\$481,620	\$524,464	\$566,488	26
Loss on the Disposal of Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$494,687	\$487,166	\$480,227	\$480,123	\$478,019	\$481,620	\$524,464	\$566,488	
Working Capital Items									
Accounts Receivable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Working Capital Items	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Capital Work in Progress	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash provided/used in Operating Transactions	\$803,838	\$1,116,293	\$1,176,904	\$1,200,672	\$1,271,381	\$946,302	\$941,815	\$911,203	
Capital Transactions									
Acquisition of TCAs	\$26,000	\$113,506	\$104,956	\$112,573	\$221,769	\$134,345	\$3,129,470	\$121,853	5
Proceeds on Disposal of TCA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash provided/used in Capital Transactions	\$26,000	\$113,506	\$104,956	\$112,573	\$221,769	\$134,345	\$3,129,470	\$121,853	
Investing Transactions									
Proceeds from Investments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash (used in) Provided by Investing Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash Provided/used in Investing Transactions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Financing Transactions									
Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Proceeds from Debentures/Loans	\$0	\$0	\$0	\$0	\$0	\$0	\$1,780,727	\$0	27
Debt Principal Repayment	\$416,963	\$427,799	\$438,917	\$450,324	\$462,028	\$137,340	\$220,247	\$228,145	28
Proceeds from Government Grants	\$30,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	19
Working Surplus	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash Provided by/(used) in Financing Activities	(\$386,963)	(\$397,799)	(\$438,917)	(\$450,324)	(\$462,028)	(\$137,340)	\$1,560,480	(\$228,145)	
Increase (decrease) in Cash Equivalents	\$390,875	\$604,988	\$633,031	\$637,775	\$587,585	\$674,617	(\$627,176)	\$561,205	
Cash and Cash Equivalents at the beginning of the Year:	\$4,358,186	\$4,749,061	\$5,354,049	\$5,987,080	\$6,624,856	\$7,212,441	\$7,887,058	\$7,259,882	
Cash and Cash Equivalents at the End of the Year	\$4,749,061	\$5,354,049	\$5,987,080	\$6,624,856	\$7,212,441	\$7,887,058	\$7,259,882	\$7,821,087	
Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.									
2015 Opening Cash and Cash Equivalents Calculation									
Opening Capital Reserve	\$3,847,187								
Opening Rate Stabilization Reserve	\$606,345								
Opening Dev Charge Reserve Angus	-\$235,916								
Opening Dev Charge Reserve Thornton	\$26,323								
Working Capital Surplus from 2014	\$114,247								
Total	\$4,358,186								

6.4 Notes on the Essa Water System Financial Plan

1. Cash and cash equivalent is represented by the funds in short term bank investments drawn from the capital and major maintenance reserve, the rate stabilization reserve and the development charges reserve. The interest on the funds in the development charge reserve are shown within the reserve and are set out in appendix 8. The interest from the capital reserves and the rate stabilization reserve is set at 3.5% per annum based on the previous year closing balance. This interest is shown in the financial statement. These reserves are set out in appendices 6 and 7.
2. The long-term accounts receivable are the proceeds from a loan repayment agreement undertaken by homeowners that allowed them to be connected to the water system in 2004. These homeowners opted to pay the cost of connecting to the system over time and were responsible for 78.7% of the cost of the loan taken out by the municipality. These annual principal payments represent their share of the loan cost that they pay to the Township.
3. The system has two 15-year loans outstanding in as of December 31, 2014. One of these was taken out in 2004 and the other in 2009. It is proposed that another loan be utilized in 2021 that would be 100% funded by development charge funds. The debt situation is set out in appendix 9.
4. Deferred revenue represents funding that is held in cash pending events that gave rise to the payment of these funds. The Township is often receiving development charge funds in advance of building facilities to accommodate growth or to pay debt charges on past growth oriented projects. The funds will be considered as expenditures in the year when a liability that facilitates growth is incurred, such as the year that a new reservoir is built, or the years when the Township is searching for a new well site to accommodate growth. The Township has two accounts for development charge funds. One is the Angus water system development charges reserve. As of December 31, 2014, it had a deficit of \$235,916. The second is the Thornton development charge reserve. As of December 31, 2014, it had a balance of \$26,323. The projected reserve transactions for 2015 to 2022 are set out in appendix 8.
5. The Township valued tangible capital assets acquired to the end of 2014. This project has extended the valuation of new capital assets and capital asset replacement to 2022. Capital works are assumed to have no residual value when they have reached the end of their projected life set out in the capital appendices to this report. Current capital works costs, based on historic cost, and are inflated to future cost at an inflation rate of 2% per annum for the 2015 to 2022 period. Amortization was determined using the straight-line method. All works are assumed to have been constructed or disposed of on January 1.
6. These are capital projects according to the PSAB definition of capital.
7. Amortization was determined using the straight-line method. All works are assumed to have been constructed or disposed of on January 1. A full year of amortization was provided for in the first year. The cumulative amortization of each asset was summed to produce this total. The original historic costs, additions to the system, amortization and closing net present values is set out in appendix 10.
8. This user fee revenue from the fixed and variable portion of the water charges paid by the systems approximately 3,950 users.

9. This revenue comes from connection fees, final reading charges, sale of water permits, late payment penalties and miscellaneous revenues. They are shown in appendix 3.
10. This is the interest at 3.5% per annum earned on the beginning of the year water capital reserve and rate stabilization reserve balance.
11. These are the loan payments from homeowners to the Township for their share of the 2004 loan incurred in large part to bring them on the water system. See note 2.
12. Earned development charge revenues are funds taken from the DC reserve to pay for principal and interest on past projects that facilitated growth, and for current projects that support growth.
13. Day to day operating costs cover wages, office supplies, chemicals, energy and other features needed to run a water system. Most are projected to increase at 2.0% per and the figure is 5% per annum for energy. They are set out in appendix 3.
14. Minor maintenance are small day-to-day repairs and regular equipment replacement.
15. Major maintenance represent substantial one-time preventive maintenance repair projects that will maintain the life of an asset, but did not meet the Township's PSAB definition of capital.
16. Debt interest is on the debt set out in note 3 above.
17. This is the annual amortization of each water system asset determined by dividing original (historic) acquisition value of the asset by the number of years it is expected to be in service. The amortization of each asset is summed to yield an annual figure that is shown here as a non-financial expense.
18. There is no lead present in the system and as a result, no funds have been set aside for lead abatement, and only limited testing is required every three years.
19. The Nottawasaga Valley Source Protection Authority completed all of the source protection studies through the Nottawasaga Valley Conservation Authority. The Provincial government has provided the Township with a grant of \$60 000, to establish a Risk Management Office, and to implement the source protection plan requirements. The funding agreement states that the money must be spent by March 31, 2016; however, the Township will request an extension to this date. Once the existing threat plans have been established, there should be very little cost to the Township. Applications for pre-determined higher risk activities within the protection areas should include the fee for the risk management review and report.
20. The 2014 end of year working capital surplus of \$114,247 was brought into the financial statement in early 2015.
21. Ontario government grants provided assistance to support the creation of a source protection risk management office described in note 19 above. It is projected that \$30,000 will be spent in 2015 and an equal amount in 2016.
22. Revenues from user fees and miscellaneous sources are summarized on this line.
23. These revenues are the payments made by homeowners to the Township for their portion of the loan that provided water treatment facilities enabling them to join the water system in 2004.
24. Operating expenses on this line include amortization.
25. These are net development charges. Total development charges are \$3,637 per dwelling established by Development Charges Background Study executed for the Township dated August 20, 2013. That study projected that 100 new dwellings will be connected per year from 2016 to 2022, yielding \$363,700 per year. Interest will be earned on the reserve balances. Net revenue is the total revenue less

expenditures that facilitate growth undertaken during the year. The reserve is shown in appendix 8.

26. Amortization, a non-financial cost, was included in the operating expenses listed above, and therefore this line shows the addition of amortization to total system cash flows.
27. It is proposed that a loan of \$1.78 million over 15 years projected at 5.5% be utilized to help pay for a proposed reservoir at the Angus Mill Street Reservoir site with future principal and interest payments covered from the development charge reserve fund. The balance of the project funding would come from drawing down development charge cash reserves in 2021.
28. This is the past principal owing on the outstanding debt now held by the Township and projected for the future. The debt situation is set out in appendix 9.

Appendix 1 Ontario Regulation 453/07

ONTARIO REGULATION 453/07 FINANCIAL PLANS

Consolidation Period: From April 1, 2008 to the [e-Laws currency date](#).

Last amendment: O. Reg. 69/08.

This is the English version of a bilingual regulation.

Requirement to prepare financial plans

1. (1) A person who makes an application under clause 32 (1) (b) of the Act for a municipal drinking water licence shall, before making the application, prepare and approve financial plans for the system that satisfy the requirements prescribed under section 2. O. Reg. 453/07, s. 1 (1).

(2) A person who makes an application under subsection 32 (4) of the Act for the renewal of a municipal drinking water licence shall, before making the application, prepare and approve financial plans for the system that satisfy the requirements prescribed under section 3. O. Reg. 453/07, s. 1 (2).

(3) As a condition in a municipal drinking water licence that is issued in response to an application made under section 33 of the Act for a municipal drinking water licence, the Director shall include a requirement that the owner of the drinking water system, by the later of July 1, 2010 and the date that is six months after the date the first licence for the system is issued, prepare and approve financial plans for the system that satisfy the requirements prescribed under section 3. O. Reg. 453/07, s. 1 (3).

(4) The Director shall include, as a condition in a municipal drinking water licence, the requirement set out in subsection (3) in any amendments to a license made after the application, if the condition is not satisfied at the time when the amendment is made. O. Reg. 453/07, s. 1 (4).

Financial plan requirements; new systems

2. 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 (1) to satisfy the requirements of this section:

1. The financial plans must be approved by a resolution that indicates that the drinking water system is financially viable and 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,
 - i. must include a statement that the financial impacts of the drinking water system have been considered, and
 - ii. must apply for a period of at least six years.
3. The first year to which the financial plan must apply is the year in which the drinking water system is expected to first serve the public.
4. For each year in which the financial plans apply, the financial plans must include details of the proposed or projected financial operations of the drinking water system itemized by,
 - i. total revenues, further itemized by water rates, user charges and other revenues,
 - ii. total expenses, further itemized by amortization expenses, interest expenses and other expenses,
 - iii. annual surplus or deficit, and
 - iv. accumulated surplus or deficit.
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. 2.

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).

Alternative requirements for two or more drinking water systems

4. If section 3 applies to the financial plans of two or more drinking water systems that are solely owned by the same owner, the requirements prescribed by the section may, as an alternative, be satisfied by financial plans that comply with the section but treat those systems as if they were one drinking water system. O. Reg. 453/07, s. 4.

Amendment of financial plans

5. Sections 2 and 3 do not prevent financial plans from being amended. O. Reg. 453/07, s. 5.

Additional information

6. The requirements of this Regulation do not prevent a person from providing additional information in financial plans prepared for the purpose of meeting the requirements of the Act. O. Reg. 453/07, s.

Appendix 2 Capital Replacement and Major Maintenance 2015-22 1/4

Action Area	2015	2016	2017	2018	2019	2020	2021	2022	Total
Baxter									
High Lift Pumps				\$11,037					11,037
High Lift Pumps									-
Sodium Hypochlorite Addition					\$7,880				7,880
Sodium Hypochlorite Tank									-
Chlorine Analyzer									-
Flow Meter			\$5,410						5,410
Pumphouse building									-
Diesel Generator			\$8,115						8,115
Diesel Tank									-
Emergency Repairs	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629	\$5,741	\$5,856	\$5,973	44,631
Above Grade Water Storage Tank				\$5,518					5,518
Piping									-
Subtotal Baxter	\$5,200	\$5,304	\$18,935	\$22,073	\$13,509	\$5,741	\$5,856	\$5,973	82,592
Brownley									
Brownley Well No. 4	\$5,200					\$11,482			16,682
Brownley Well No. 5	\$5,200					\$11,482			16,682
Brownley Well No. 6	\$5,200					\$11,482			16,682
High Lift Pump No. 1					\$16,886				16,886
High Lift Pump No. 2							\$17,568		17,568
High Lift Pump No. 3								\$17,919	17,919
Sodium Silicate						\$4,019			4,019
Sodium Silicate									-
Sodium Hypochlorite (Pre-reservoir)			\$3,787		\$3,940				7,727
Sodium Hypochlorite (Pre-reservoir)									-
Sodium Hypochlorite (Post Reservoir)									-
Sodium Hypochlorite (Post Reservoir)									-
Chlorine Analyzer	\$2,288					\$5,741			8,029
Chlorine Analyzer	\$2,288					\$5,741			8,029
High Lift Pump Station									-
Well Pump Pumphouse									-
Diesel Generator									-
Emergency Repairs	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629	\$5,741	\$5,856	\$5,973	44,631
In-ground Reservoir		\$5,304					\$5,856		11,160
Equipment									-
Piping System									-
Brownley Subtotal	\$25,376	\$10,608	\$9,197	\$5,518	\$26,455	\$55,690	\$29,280	\$23,893	186,017



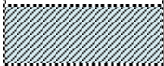



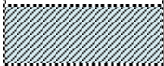



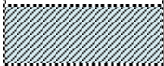

Appendix 2 Capital Replacement and Major Maintenance 2015-22 2/4

Thornton (Glen Avenue)	2015	2016	2017	2018	2019	2020	2021	2022	Total
Well No.1				\$5,518					5,518
Well No. 1								\$5,973	5,973
Well No.2				\$5,518					5,518
Well No.2							\$5,856		5,856
Well No.3		\$10,608		\$5,518					16,126
Well No.3				\$5,518					5,518
Well No.4		\$10,608		\$5,518					16,126
Well No.4						\$5,741			5,741
All Wells					\$84,430				84,430
Monitoring Well									-
High Lift Pump No. 1	\$10,400								10,400
High Lift Pump No. 2									-
High Lift Pump No. 3									-
Sodium Hypochlorite Addition									-
Sodium Hypochlorite Tank									-
Chlorine Analyzer (Pre-treatment)				\$2,380				\$5,973	8,354
Chlorine Analyzer (Treated Water)				\$5,410				\$2,628	8,038
Turbidimeter						\$5,741			5,741
Computer	\$1,040								1,040
Pumphouse Building									-
Diesel Generator Set									-
Fuel Tank									-
Emergency Repairs	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629	\$5,741	\$5,856	\$5,973	44,631
Standpipe No. 1									-
Standpipe No. 2									-
Watermains	\$2,600	\$2,652	\$2,705	\$2,759	\$2,814	\$2,871	\$2,928	\$2,987	22,316
Subtotal Thornton	\$19,240	\$29,172	\$15,906	\$35,869	\$92,873	\$20,094	\$14,640	\$23,534	251,328
Angus (McGeorge Water Treatment Plant)	2015	2016	2017	2018	2019	2020	2021	2022	Total
McGeorge Well No. 1	\$5,200					\$5,741			10,941
McGeorge Well No. 2	\$5,200					\$5,741			10,941
High Lift Pump No. 1		\$5,304							5,304
High Lift Pump No. 2			\$10,820						10,820
Sodium Silicate									-
Sodium Silicate									-
Sodium Hypochlorite	\$7,280								7,280
Sodium Hypochlorite Storage									-
Sodium Hypochlorite Storage									-
Flow Meters							\$5,856	\$5,973	11,829
Chlorine Analyzer				\$2,380				\$5,973	8,354
Chlorine Analyzer	\$5,200					\$2,526			7,726
Turbidimeter				\$5,518					5,518
Storage Room									-
Pump Station Building									-
Diesel Generator									-
Diesel Tank									-
Emergency Repairs	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629	\$5,741	\$5,856	\$5,973	44,631
On-Site Storage	\$5,200					\$5,741			10,941
Piping System	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	20,000
Piping System		\$2,652	\$2,705	\$2,759	\$2,814	\$2,871	\$2,928	\$2,987	19,716
Subtotal McGeorge WTP	\$35,780	\$15,760	\$23,816	\$16,296	\$10,943	\$30,862	\$17,140	\$23,406	174,002

Appendix 2 Capital Replacement and Major Maintenance 2015-22 ¾

Mill Street Water System	2015	2016	2017	2018	2019	2020	2021	2022	Total
Mill Street Well No. 1					\$22,515				22,515
Mill Street Well No. 1							\$11,712		11,712
High Lift Pump No. 1	\$15,600								15,600
High Lift Pump No. 2				\$16,555					16,555
High Lift Pump No. 3							\$17,568		17,568
High Lift Pump No. 4									-
Sodium Silicate	\$7,280								7,280
Sodium Silicate									-
Sodium Hypochlorite (into Mill Street									-
Sodium Hypochlorite (into Mill Street									-
Sodium Hypochlorite (feeding incoming		\$7,426				\$4,019			11,444
Sodium Hypochlorite (feeding incoming									-
Chlorine Analyzer			\$2,380					\$5,973	8,354
Chlorine Analyzer					\$11,257				11,257
Turbidimeter								\$5,973	5,973
Flow Meter								\$5,973	5,973
SCADA									-
Diesel Generator									-
Pumphouse Building									-
Large singer valve									-
Emergency Repairs	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629	\$5,741	\$5,856	\$5,973	44,631
Underground Reservoir	\$10,400					\$11,482			21,882
In-ground Concrete Reservoir	\$10,400					\$11,482			21,882
Piping System									-
Mill Street Subtotal	48,880	12,730	7,791	22,073	39,401	32,725	35,136	23,893	222,628

Appendix 2 Capital Replacement and Major Maintenance 2015-22 4/4

All Systems Measures	2015	2016	2017	2018	2019	2020	2021	2022	Total								
Water Meter Replacement		92,290	94,135	96,018	97,938	99,897	101,895	103,933	686,107								
Energy Efficiency Measure (Honeywell)	238,314	0	0	0	0	0	0	0	238,314								
Subtotal All Syst Measures	238,314	92,290	94,135	96,018	97,938	99,897	101,895	103,933	924,421								
Accommodate Growth - Angus	2015	2016	2017	2018	2019	2020	2021	2022	Total								
In-ground Storage Facility at Mill Street Reservoir Site (Angus)	0	0	0	0	0	0	2,980,727	0	2,980,727								
An Water Supply Drilling Program (Angus)	8,089	8,251	8,416	8,584	8,756	8,931	9,109	9,292	69,427								
Subtotal Growth	8,089	8,251	8,416	8,584	8,756	8,931	2,989,836	9,292	3,050,153								
Total All Projects	380,879	174,114	178,195	206,431	289,874	253,940	3,193,784	213,924	4,891,140								
<p>Note: The following color coding has been used</p> <table border="0"> <tr> <td>Capital Projects placed in Asset Inventory</td> <td></td> </tr> <tr> <td>Major Maintenance</td> <td></td> </tr> <tr> <td>Growth Oriented Capital Inventory</td> <td></td> </tr> <tr> <td>Growth Oriented Maj Maint.</td> <td></td> </tr> </table>										Capital Projects placed in Asset Inventory		Major Maintenance		Growth Oriented Capital Inventory		Growth Oriented Maj Maint.	
Capital Projects placed in Asset Inventory																	
Major Maintenance																	
Growth Oriented Capital Inventory																	
Growth Oriented Maj Maint.																	
Project Type and Funding Source																	
	2015	2016	2017	2018	2019	2020	2021	2022	Total								
Total Capital	26,000	113,506	104,956	112,573	221,769	134,345	3,129,470	121,853	3,964,470								
Total Major Maint	354,879	60,608	73,240	93,858	68,105	119,595	64,314	92,071	926,670								
Total Expenditure	380,879	174,114	178,195	206,431	289,874	253,940	3,193,784	213,924	4,891,140								
Financing Source									0								
Reserves	380,879	165,863	169,780	197,847	281,118	245,009	203,948	204,632	1,849,076								
Debt							1,780,727										
Dev. Charges		8,251	8,416	8,584	8,756	8,931	1,209,109	9,292	1,261,338								
Total Revenues	380,879	174,114	178,195	206,431	289,874	253,940	3,193,784	213,924	4,891,140								

Appendix 3 Capital/Maj. Maintenance Financial Statement 2015-24 Infl. \$

Essa Water System Operating Plan 2013-2022 Inflated \$											
EXPENDITURES	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Infl.
1 Salaries/Wages	69,705	71,128	76,666	78,199	79,763	81,359	82,986	84,645	86,338	88,065	2%
2 Salaries/Wages Part Time	1,903	1,404	2,913	2,971	3,031	3,091	3,153	3,216	3,281	3,346	2%
3 Salaries/Wages Full Time Overtime	35	88	-	-	-	-	-	-	-	-	2%
4 WATERWORK-Wages & Benefits Transfer	22,500	22,500	22,500	22,950	23,409	23,877	24,355	24,842	25,339	25,845	2%
5 Employee Benefits Full Time	4,184	4,287	4,398	4,486	4,576	4,667	4,761	4,856	4,953	5,052	2%
6 Employee Benefits Part Time	131	93	100	102	104	106	108	110	113	115	2%
7 Extended Health Benefits	7,565	9,424	9,828	10,225	10,225	10,430	10,638	10,851	11,068	11,289	2%
8 Employee Health Tax	1,411	1,420	1,552	1,583	1,615	1,647	1,680	1,714	1,748	1,783	2%
9 Employee Assistance Plan	50	51	57	58	59	60	62	63	64	65	2%
10 OMERS	6,767	6,898	6,924	7,062	7,204	7,348	7,495	7,645	7,798	7,953	2%
11 WSIB	1,609	1,616	2,259	2,304	2,350	2,397	2,445	2,494	2,544	2,595	2%
12 Mileage	365	329	400	408	416	424	433	442	450	459	2%
13 Conferences	-	-	-	-	-	-	-	-	-	-	NA
14 Continuing Education	-	-	800	816	832	849	866	883	901	919	2%
15 Memberships & Subscriptions	-	-	-	-	-	-	-	-	-	-	2%
16 Office Supplies	861	113	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	2%
17 Advertising	775	844	1,200	1,224	1,248	1,273	1,299	1,325	1,351	1,378	2%
18 Insurance	3,656	4,453	4,600	4,692	4,786	4,882	4,979	5,079	5,180	5,284	2%
19 Interest on Borrowing	90,966	80,672	70,110	59,274	48,156	36,749	25,045	15,228	109,727	101,829	2%
20 Contract Services	470,168	475,810	491,613	498,987	506,472	514,069	521,780	529,607	537,551	545,614	1.5%
21 Trsf to Water Rate Stab. Reserve	-	-	-	-	-	-	-	-	-	-	2%
22 Transfer to Reserve from Water Revenues	332,963	342,952	661,099	533,761	557,348	581,737	606,103	648,011	673,234	700,858	NA
23 Water Loan Principle Payment	396,107	406,401	416,963	427,799	438,917	450,324	462,028	473,940	486,069	498,415	NA
24 Hydro	-	-	-	-	-	-	-	-	-	-	2%
25 Other Write-offs	496	198	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	2%
26 Gasoline	-	-	-	-	-	-	-	-	-	-	2%
27 Meter Reads	9,098	9,294	9,425	9,614	9,806	10,002	10,202	10,406	10,614	10,826	2%
28 WATERWORK-Pipeline Consumption Fee	26,568	26,670	26,700	27,234	27,779	28,334	28,901	29,479	30,069	30,670	2%
29 Postage - Angus Water	9,055	10,643	10,825	11,366	11,935	12,531	13,158	13,816	14,507	15,232	5%
30 Hydro	99,406	140,597	129,094	135,549	142,326	149,442	156,915	164,760	172,998	181,648	5%
31 Miscellaneous Expense - Angus Water	65,446	94,350	137,000	88,296	90,985	95,073	129,008	172,530	3,116,602	126,596	NA
32 Angus Water - Minor Maintenance	-	-	18,875	40,947	41,766	42,602	43,454	44,323	45,209	46,113	
33 Angus Water - Major Maintenance	-	-	102,525	47,348	38,399	35,916	46,153	93,760	43,818	62,563	
34 Angus Water - Capital	-	-	15,600	-	10,820	16,555	39,401	34,447	3,027,575	17,919	
35 Capital/Major Maintenance Post 2022	-	-	-	-	-	-	-	-	-	-	2%
36 Postage - Thornton Water	1,394	1,574	1,520	1,596	1,676	1,760	1,848	1,940	2,037	2,139	5%
37 Hydro	15,268	16,916	16,529	17,355	18,223	19,134	20,091	21,096	22,150	23,258	5%
38 Miscellaneous Expense - Thornton Water	37,423	66,310	20,000	41,503	28,483	48,698	105,958	33,442	28,255	37,421	NA
39 Thornton Water - Minor Maintenance	-	-	760	12,331	12,578	12,829	13,086	13,348	13,614	13,887	
40 Thornton Water - Major Maintenance	-	-	8,840	7,956	15,906	35,869	8,443	20,094	14,640	23,534	
41 Thornton Water - Capital	-	-	10,400	21,216	-	-	84,430	-	-	-	
42 Postage - Baxter Water	151	168	160	168	176	185	194	204	214	225	5%
43 Hydro	3,873	4,178	3,245	3,407	3,578	3,756	3,944	4,142	4,349	4,566	5%
44 Miscellaneous Expense - Baxter Water	12,206	32,514	11,000	15,978	29,822	33,178	24,836	17,295	17,647	17,993	NA
45 Baxter Water - Minor Expense	-	-	5,800	10,674	10,887	11,105	11,327	11,553	11,785	12,020	
46 Baxter Water - Major Maintenance	-	-	5,200	5,304	18,935	22,073	13,509	5,741	5,856	5,973	
47 Baxter Water - Capital	-	-	-	-	-	-	-	-	-	-	
48 All Systems - Major Maintenance	-	-	238,314	-	-	-	-	-	-	-	
49 All Systems-Capital	-	-	-	92,290	94,135	96,018	97,938	99,897	101,895	103,933	
50 Source Protection	-	-	30,000	30,000	-	-	-	-	-	-	
51 INCOME	-	-	-	-	-	-	-	-	-	-	NA
52 Water Penalty	(12,940)	(13,655)	(13,650)	(13,923)	(14,201)	(14,485)	(14,775)	(15,071)	(15,372)	(15,680)	2%
53 Miscellaneous Revenue	(13,821)	(16,609)	(16,400)	(16,728)	(17,063)	(17,404)	(17,752)	(18,107)	(18,469)	(18,838)	2%
54 Loan Authorized Interest	(66,239)	(58,151)	(60,000)	(50,000)	(40,000)	(30,000)	(20,000)	(10,000)	-	-	2%
55 Water Permits	(6,900)	(11,700)	(7,500)	(7,650)	(7,803)	(7,959)	(8,118)	(8,281)	(8,446)	(8,615)	2%
56 Final Water Reading Certificate	(2,550)	(2,880)	(3,000)	(3,060)	(3,121)	(3,184)	(3,247)	(3,312)	(3,378)	(3,446)	2%
57 Connection Fees	(7,983)	(6,613)	-	(7,000)	(7,140)	(7,283)	(7,428)	(7,577)	(7,729)	(7,883)	2%
58 Frontage Fees	-	-	-	-	-	-	-	-	-	-	NA
59 Rate Stabilization Fees	-	-	-	-	-	-	-	-	-	-	NA
60 Loan	-	-	-	-	-	-	-	-	(1,780,727)	-	NA
61 Deferred Charge	-	-	-	-	-	-	-	-	-	-	NA
65 Total User Service Fees	(1,229,010)	(1,243,470)	(1,251,500)	(1,281,286)	(1,311,780)	(1,343,001)	(1,374,964)	(1,407,688)	(1,441,191)	(1,475,492)	NA
66 Principle Loan Instalment	(244,862)	(253,505)	(250,000)	(265,000)	(275,000)	(285,000)	(305,000)	-	-	-	NA
67 Capital Reserve Interest	-	-	(134,652)	(144,459)	(157,336)	(170,901)	(184,337)	(195,711)	(209,816)	(226,241)	NA
68 Rate Stabilization Reserve Interest	-	-	(21,222)	(21,222)	(21,222)	(21,222)	(21,222)	(21,222)	(21,222)	(21,222)	NA
69 Government of Ontario Source Prot Grant	-	-	(30,000)	(30,000)	-	-	-	-	-	-	
70 WATERWORKS-R-Contribution from Reserves	(45,875)	(69,613)	(380,879)	(165,863)	(169,780)	(197,847)	(281,118)	(245,009)	(203,948)	(204,632)	NA
71 WATERWORKS-R-Development Charges Ear	(128,661)	(121,029)	(126,745)	(126,907)	(127,071)	(127,240)	(127,411)	(127,586)	(1,505,171)	(305,353)	NA
72 Contribution From User Rates	-	-	-	-	-	-	-	-	-	-	NA
73 Inclusion of Prev Year Working Surplus	-	-	(114,247)	-	-	-	-	-	-	-	
74 Total	(66,735.57)	36,669.27	0.00	0.15	0.15	0.16	0.16	0.16	0.16	0.17	NA
Net Surplus	(150,916)	(114,247)	-	-	-	-	-	-	-	-	

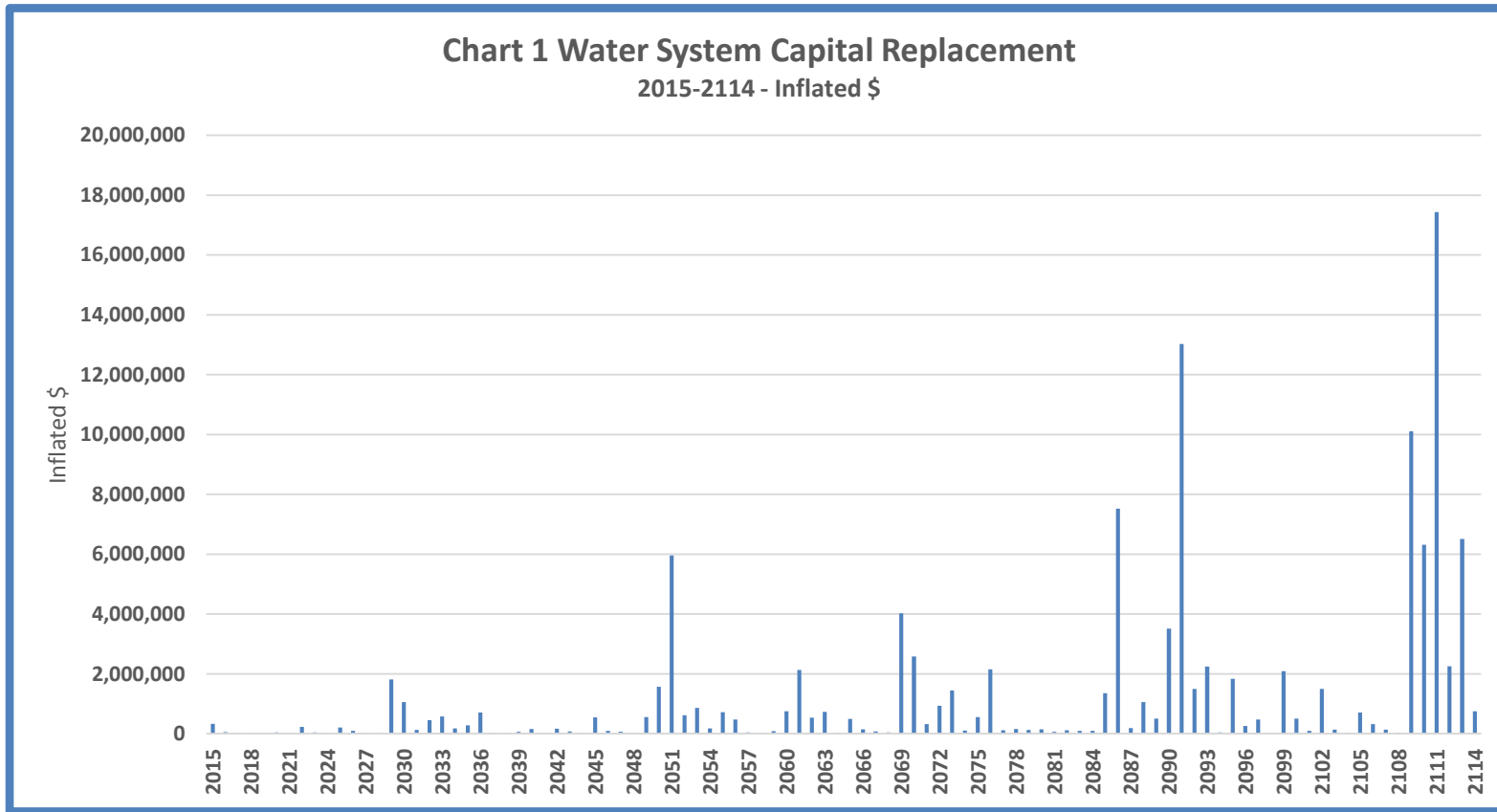
Note: 2014 working surplus added to 2015 revenues.

Appendix 4 Miscellaneous Expenses Calculations 2016-2022 Inflated \$

Miscellaneous expenses in the Township financial statement are a mixture of ongoing routine maintenance, occasional major maintenance and capital renewal according to the PSAB definition. The miscellaneous expenses category was broken down in this study into minor maintenance, major maintenance and capital. The methodology used to determine minor maintenance each year 2013-2015 was to take the miscellaneous expense total and subtract the capital and major maintenance portion. The balance is assumed minor maintenance. This was averaged and entered as the base number for 2016. For 2017 and each year thereafter, this number was inflated at 2% per annum. The capital and major maintenance were determined from the numbers shown in appendix 2. The sum was miscellaneous expenses. The totals and the individual items are shown the financial statement.

Miscellaneous Expense - Actual 2013-5 and Projected 2016-2022									
	2015	2016	2017	2018	2019	2020	2021	2022	Comments
Baxter									
Capital	-	-	-	-	-	-	-	-	From Cap/Major Maint
Major Maint.	5,200	5,304	18,935	22,073	13,509	5,741	5,856	5,973	From Cap/Major Maint
Subtotal	5,200	5,304	18,935	22,073	13,509	5,741	5,856	5,973	
Minor Maint	5,800	10,674	10,887	11,105	11,327	11,553	11,785	12,020	2% Inflation per annum
Total	11,000	15,978	29,822	33,178	24,836	17,295	17,641	17,993	Entered in Financial Statement
Thornton									
Capital	10,400	21,216	-	-	84,430	-	-	-	From Cap/Major Maint
Major Maint.	8,840	7,956	15,906	35,869	8,443	20,094	14,640	23,534	From Cap/Major Maint
Subtotal	19,240	29,172	15,906	35,869	92,873	20,094	14,640	23,534	
Minor Maint	760	12,331	12,578	12,829	13,086	13,347	13,614	13,887	2% Inflation per annum
Total	20,000	41,503	28,483	48,698	105,958	33,442	28,254	37,421	Entered in Financial Statement
Angus									
Capital	15,600	-	10,820	16,555	39,401	34,447	3,027,575	17,919	From Cap/Major Maint
Major Maint.	102,525	47,348	38,399	35,916	46,153	93,760	43,818	62,563	From Cap/Major Maint
Subtotal	118,125	47,348	49,219	52,471	85,554	128,207	3,071,393	80,483	
Minor Maint	18,875	40,947	41,766	42,602	43,454	44,323	45,209	46,113	2% Inflation per annum
Total	137,000	88,296	90,985	95,073	129,008	172,530	3,116,602	126,596	Entered in Financial Statement
All Systems									
Capital	-	92,290	94,135	96,018	97,938	99,897	101,895	103,933	From Cap/Major Maint
Major Maint.	238,314	-	-	-	-	-	-	-	From Cap/Major Maint
Subtotal	238,314	92,290	94,135	96,018	97,938	99,897	101,895	103,933	
Minor Maint	-	-	-	-	-	-	-	-	
Total	238,314	92,290	94,135	96,018	97,938	99,897	101,895	103,933	
Total									
Capital	26,000	113,506	104,956	112,573	221,769	134,345	3,129,470	121,853	
Major Maint.	354,879	60,608	73,240	93,858	68,105	119,595	64,314	92,071	
Subtotal	380,879	174,114	178,195	206,431	289,874	253,940	3,193,784	213,924	
Minor Maint	25,435	63,952	65,231	66,536	67,866	69,224	70,608	72,020	
Total	406,314	238,066	243,426	272,967	357,740	323,164	3,264,392	285,944	

Appendix 5 Essa Projected Capital Replacement 2015-2114 Infl. \$



Note: The capital replacement estimates were obtained by projecting the life of each of the Township’s listed water assets forward for 100 years, or full life cycle, to 2114. As each reached the end of its life, each listed asset was replaced at the original cost inflated to the date when it was replaced. Some assets with short life expectancies were replaced more than once during the 2015-2114 periods. All asset costs were projected forward with an inflation rate of 3% in consideration of the longer time frame of this projection and historic inflation levels.

Appendix 6 Water Capital Reserve Fund 2015-2078 Inflated \$

	2015	2016	2017	2018	2019	2020	2021	2022	2025	2026	2027	2028	2029	2030
Opening Value	3,847,187	4,127,407	4,495,305	4,882,874	5,266,764	5,591,749	5,994,751	6,464,038	7,842,774	8,514,144	8,575,074	9,325,333	9,730,957	10,442,877
Contribution from Operations	661,099	533,761	557,348	581,737	606,103	648,011	673,234	700,858	527,127	538,653	550,202	561,757	573,303	584,822
Transfer to Ops for Capital/Major Maint.	380,879	165,863	169,780	197,847	281,118	245,009	203,948	204,632	130,255	775,718	100,071	482,519	201,968	951,396
Interest on Prev. Yr. End Balance*	134,652	144,459	157,336	170,901	184,337	195,711	209,816	226,241	274,497	297,995	300,128	326,387	340,584	365,501
Close in Inflated \$	4,127,407	4,495,305	4,882,874	5,266,764	5,591,749	5,994,751	6,464,038	6,960,264	8,514,144	8,575,074	9,325,333	9,730,957	10,442,877	10,441,804
Close in 2015\$	4,127,407	4,407,162	4,693,266	4,962,989	5,165,912	5,429,631	5,739,880	6,059,329	6,984,563	6,896,615	7,352,961	7,522,346	7,914,395	7,758,414
*Note: Interest on opening value balance for 2015 to 2022 was shown in the financial statement and is not added to the closing number for 2015-22. For 2023 onwards, the interest shown is included in the closing total.														
	2031	2032	2033	2034	2035	2036	2037	2038	2041	2042	2043	2044	2045	2046
Opening Value	10,441,804	11,313,689	12,195,595	13,220,484	13,610,825	14,537,610	14,490,857	15,321,221	16,614,921	17,324,341	18,140,081	19,063,229	19,568,076	20,724,709
User Fee Contribution	596,295	607,701	619,019	630,225	641,293	652,196	662,907	673,393	703,164	712,400	721,222	729,587	737,444	744,742
Capital/Major Maint. Exp.	89,874	121,775	20,975	702,601	190,887	1,207,766	339,723	1,297,577	575,266	503,012	432,977	891,952	265,693	4,515,405
Interest on Prev. Yr. End Balance	365,463	395,979	426,846	462,717	476,379	508,816	507,180	536,243	581,522	606,352	634,903	667,213	684,883	725,365
Close in Inflated \$	11,313,689	12,195,595	13,220,484	13,610,825	14,537,610	14,490,857	15,321,221	15,233,280	17,324,341	18,140,081	19,063,229	19,568,076	20,724,709	17,679,411
Close in 2010\$	8,241,409	8,709,637	9,256,446	9,342,889	9,783,395	9,560,717	9,910,364	9,660,274	10,352,667	10,627,585	10,949,433	11,019,024	11,441,508	9,568,910
	2047	2048	2049	2050	2051	2052	2053	2054	2057	2058	2059	2060	2061	2062
Opening Value	17,679,411	18,882,510	18,724,290	19,418,583	20,109,391	21,280,438	20,529,272	21,267,935	23,239,868	24,107,037	24,831,659	25,866,971	26,177,524	16,690,167
User Fee Contribution	751,428	757,441	762,721	767,202	770,814	773,483	775,130	775,673	769,761	764,946	758,529	750,392	740,411	728,454
Capital/Major Maint. Exp.	167,108	1,576,549	723,778	756,045	303,596	2,269,464	754,992	1,018,595	715,987	884,071	592,325	1,345,183	11,143,983	701,450
Interest on Prev. Yr. End Balance	618,779	660,888	655,350	679,650	703,829	744,815	718,525	744,378	813,395	843,746	869,108	905,344	916,212	584,156
Close in Inflated \$	18,882,510	18,724,290	19,418,583	20,109,391	21,280,438	20,529,272	21,267,935	21,769,391	24,107,037	24,831,659	25,866,971	26,177,524	16,690,167	17,301,327
Close in 2010\$	10,019,689	9,740,914	9,904,024	10,055,251	10,432,163	9,866,593	10,021,179	10,056,331	10,493,893	10,597,376	10,822,760	10,737,937	6,712,013	6,821,366
	2063	2064	2065	2066	2067	2068	2069	2070	2073	2074	2075	2076	2077	2078
Opening Value	17,301,327	17,930,564	15,378,080	14,914,448	9,002,984	7,457,601	1,470,807	610,878	(24,915,523)	(26,040,029)	(31,010,697)	(32,110,805)	(38,758,432)	(45,222,795)
User Fee Contribution	714,381	698,044	679,289	657,950	633,852	606,813	576,637	543,119	420,283	371,103	317,369	258,797	195,085	125,919
Capital/Major Maint. Exp.	690,690	3,878,098	1,681,154	7,091,419	2,494,339	6,854,623	1,488,043	5,259,793	672,744	4,430,371	332,103	5,782,546	5,302,903	3,232,035
Interest on Prev. Yr. End Balance	605,546	627,570	538,233	522,006	315,104	261,016	51,478	21,381	(872,043)	(911,401)	(1,085,374)	(1,123,878)	(1,356,545)	(1,582,798)
Close in Inflated \$	17,930,564	15,378,080	14,914,448	9,002,984	7,457,601	1,470,807	610,878	(4,084,415)	(26,040,029)	(31,010,697)	(32,110,805)	(38,758,432)	(45,222,795)	(49,911,710)
Close in 2010\$	6,930,837	5,827,653	5,541,133	3,279,274	2,663,117	514,928	209,674	(1,374,423)	(8,257,175)	(9,640,541)	(9,786,804)	(11,581,258)	(13,247,891)	(14,334,800)
Note 1 : User Fee Contributions are funds transferred on line 22 from the operations plan to the capital reserves														
Note 2: Capital/Major Maint. Exp. is a transfer to the operations plan to fund identified capital renewal and major maintenance expenses set out in appendix 1 of this report. All costs were inflated at 2% per annum commencing in 2014 based on the OCWA forecast carried out in 2013.														
Note 3: For capital projections beyond 2022, the needs were identified by taking each asset and extending then to 2114. Any replacements occurring from 2023 to 2114 were costed by inflating the original cost by 3% per annum.														
Some assets were replaced more than once.														
Note 4: Interest charges on the reserve balance were set at 3.5%, the same as the DC Background Study carried out for the Township in August, 2013.														

Appendix 7 Water Rate Stabilization Reserve 2015-2022 Inflated \$

	2015	2016	2017	2018	2019	2020	2021	2022
Opening Value	606,345	606,345	606,345	606,345	606,345	606,345	606,345	606,345
Contribution from Operations	-	-	-	-	-	-	-	-
Transfre to Ops for Capital/Major Maint.	-	-	-	-	-	-	-	-
Close in Inflated \$	606,345	606,345	606,345	606,345	606,345	606,345	606,345	606,345
Close in 2015\$	606,345	594,456	582,800	571,373	560,169	549,186	538,417	527,860

Note; Interest earned on the yearly opening totals are shown in the financial statement. Funds surplus in the operating plan were transferred to the capital reserves.

Appendix 8 Water System Development Charge Reserves 2015-22 Infl. \$

Angus Service Area								
	2015	2016	2017	2018	2019	2020	2021	2022
Opening Value	(235,916)	(11,936)	224,201	468,677	721,541	983,083	1,253,605	156,010
DC Charges Collected	363,700	363,700	363,700	363,700	363,700	363,700	363,700	363,700
Capital/Major Maint. Exp.	8,089	8,251	8,416	8,584	8,756	8,931	1,209,109	9,292
Transfer to Current Fund	118,656	118,656	118,656	118,656	118,656	118,656	296,062	296,062
Interest on Opening Bal.	(12,975)	(656)	7,847	16,404	25,254	34,408	43,876	5,460
Close in Inflated \$	(11,936)	224,201	468,677	721,541	983,083	1,253,605	156,010	219,817
Thornton Service Area								
	2015	2016	2017	2018	2019	2020	2021	2022
Opening Value	26,323	27,244	28,198	29,185	30,206	31,263	32,357	33,490
DC Charges Collected	-	-	-	-	-	-	-	-
Capital/Major Maint. Exp.	-	-	-	-	-	-	-	-
Transfer to Current Fund	-	-	-	-	-	-	-	-
Interest on Opening Bal.	921	954	987	1,021	1,057	1,094	1,133	1,172
Close in Inflated \$	27,244	28,198	29,185	30,206	31,263	32,357	33,490	34,662
Total Close in Inflated \$	15,308	252,399	497,861	751,747	1,014,346	1,285,962	189,500	254,479

Appendix 9 Essa Water System Debt – 2014-22 Infl. \$

Essa Water System Debt 2015-2022 Inflated \$													
Amount	Start	Finish	Interest Rate	Type	2014	2015	2016	2017	2018	2019	2020	2021	2022
Loan 1													
\$ 1,900,000	2009	2024	2.49%	Principal	118,390.00	\$ 121,356.26	\$ 124,396.84	\$ 127,513.61	\$ 130,708.47	\$ 133,983.37	\$ 137,340.32	\$ 140,781.38	\$ 144,308.67
				Interest	34,178.62	\$ 31,212.37	\$ 28,171.98	\$ 25,055.01	\$ 21,860.08	\$ 18,585.25	\$ 15,228.22	\$ 11,787.24	\$ 8,259.66
				Total	152,568.62	\$ 152,568.63	\$ 152,568.82	\$ 152,568.62	\$ 152,568.55	\$ 152,568.62	\$ 152,568.54	\$ 152,568.62	\$ 152,568.33
				DC Share	77.8%	\$ 118,655.76	\$ 118,655.76	\$ 118,655.91	\$ 118,655.76	\$ 118,655.70	\$ 118,655.76	\$ 118,655.69	\$ 118,655.53
				User Fees	22.2%	\$ 33,912.86	\$ 33,912.87	\$ 33,912.91	\$ 33,912.86	\$ 33,912.85	\$ 33,912.86	\$ 33,912.86	\$ 33,912.80
				Total	100.0%	152,568.62	152,568.63	152,568.82	152,568.62	152,568.55	152,568.62	152,568.54	152,568.33
				Principal Balance Year End		1,283,659.57	1,162,303.31	1,037,906.47	910,392.86	779,684.39	645,701.02	508,360.70	367,579.32
				Note: DC share payments appear as earned development charge revenue in operating plan financial statement.									
Loan 2													
\$ 4,127,000	2004	2019	2.62%	Principal	288,011.34	295,606.64	303,402.27	311,403.48	319,615.68	328,044.46	-	-	-
				Interest	46,493.20	38,897.88	31,102.25	23,101.04	14,888.84	6,460.05	-	-	-
				Total	334,504.54	334,504.52	334,504.52	334,504.52	334,504.52	334,504.51	-	-	-
				DC Share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-	-	-
				User Fees	50.0%	167,252.27	167,252.26	167,252.26	167,252.26	167,252.26	-	-	-
				Homeowner Repayment	50.0%	167,252.27	167,252.26	167,252.26	167,252.26	167,252.26	-	-	-
				Total	100.0%	334,504.54	334,504.52	334,504.52	334,504.52	334,504.52	-	-	-
				Principal Balance		1,558,072.53	1,262,465.89	959,063.62	647,660.14	328,044.46	-	-	-
				Note: Homeowner loan repayments are shown as revenue in the operating plan									
Loan 3 Proposed													
\$ 1,780,727	2021	2035	5.50%	Principal	-	-	-	-	-	-	-	79,466.01	83,836.64
				Interest	-	-	-	-	-	-	-	97,939.99	93,569.35
				Total	-	-	-	-	-	-	-	177,405.99	177,405.99
				DC Share	100.0%	-	-	-	-	-	-	177,405.99	177,405.99
				User Fees	0.0%	-	-	-	-	-	-	-	-
				Total	100.0%	-	-	-	-	-	-	177,405.99	177,405.99
				Principal Balance		-	-	-	-	-	-	1,701,260.99	1,617,424.36
Essa Water System - Debt Summary					2014	2015	2016	2017	2018	2019	2020	2021	2022
				Principal	406,401.34	416,962.90	427,799.11	438,917.09	450,324.15	462,027.83	137,340.32	220,247.39	228,145.30
				Interest	80,671.82	70,110.25	59,274.23	48,156.05	36,748.92	25,045.30	15,228.22	109,727.23	101,829.01
				Total	487,073.16	487,073.15	487,073.34	487,073.14	487,073.07	487,073.13	152,568.54	329,974.61	329,974.32
				DC Share	118,655.76	118,655.76	118,655.91	118,655.76	118,655.70	118,655.76	118,655.69	296,061.75	296,061.52
				User Fees	201,165.13	201,165.13	201,165.17	201,165.12	201,165.11	201,165.12	33,912.85	33,912.86	33,912.80
				Homeowner Loan Repayment	167,252.27	167,252.26	167,252.26	167,252.26	167,252.26	167,252.26	-	-	-
				Total	487,073.16	487,073.15	487,073.34	487,073.14	487,073.07	487,073.13	152,568.54	329,974.61	329,974.32
				Principal Balance All Debt	2,841,732.10	2,424,769.20	1,996,970.09	1,558,053.00	1,107,728.85	645,701.02	508,360.70	2,068,840.31	1,840,695.01

Appendix 10 Essa Tangible Capital Assets 2015-2022 Inflated \$

	2015	2016	2017	2018	2019	2020	2021	2022
Opening NBV	\$21,990,931	21,521,771	21,148,111	20,772,839	20,405,289	20,149,039	19,801,763	\$22,406,770
Original Cost	\$28,004,490	\$28,030,490	\$28,143,995	\$28,248,951	\$28,361,524	\$28,583,292	28,717,637	\$31,847,107
Additions	\$26,000	\$113,506	\$104,956	\$112,573	\$221,769	\$134,345	3,129,470	\$121,853
Write Down	0	0	0	0	0	0	0	\$0
Closing Cost	\$28,030,490	\$28,143,995	\$28,248,951	\$28,361,524	\$28,583,292	\$28,717,637	31,847,107	\$31,968,960
Opening Amort	\$6,014,032	\$6,508,718	\$6,995,884	\$7,476,111	\$7,956,235	\$8,434,253	8,915,874	\$9,440,337
Annual Amortization	\$494,687	\$487,166	\$480,227	\$480,123	\$478,019	\$481,620	524,464	\$566,488
Deletions	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0
Accumulated Amortization	\$6,508,718	\$6,995,884	\$7,476,111	\$7,956,235	\$8,434,253	\$8,915,874	9,440,337	\$10,006,826
Closing NBV	\$21,521,771	\$21,148,111	\$20,772,839	\$20,405,289	\$20,149,039	\$19,801,763	22,406,770	\$21,962,134