

The Municipality of
Powassan
The Heart of Good Living

**Municipality of Powassan
Drinking Water System**

Financial Plan

December 9, 2015



Sharratt Water Management Ltd.
Sustainable Water Management Specialists

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1. Introduction

The Municipality of Powassan has authorized Sharratt Water Management Ltd. (SWML) to develop the Financial Plan for the Municipality's drinking water system. A renewal of the drinking water system-operating license is due in early 2016 and a financial plan must be prepared, approved by Council and submitted in late 2015, to the Ministry of Environment, in order to obtain a license 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 inflated and considered 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, connection charges and some other sundry sources of revenue. 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. The reserves were found to be sufficient to at least mid-century for all projected asset replacement and current levels of major maintenance inflated to future levels. Capital needed for growth is not projected at this stage as none is foreseen in the current five-year period to 2022. However, major water main capital renewal projects are projected for the mid-2020s.

The Financial Plan is also based on the tangible capital asset information that the Municipality generated in accordance with the Public Sector Accounting Board (PSAB) standard PS 3150 requirements. The Financial Plan includes a detailed projection of financial and non-financial tangible capital assets to the year 2022 and general capital renewal costs were projected to 2114. They are illustrated in appendix 5.

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 Ontario Ministry of the Environment (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 License and to renew the license at preset times. Five elements must be in place in order for the owner of a drinking water system to obtain a license:

- 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 licensing of a water system:

- A person who makes an application under the Act for a municipal drinking water license 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 license 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 Municipality of Powassan Water System

The Powassan water system consists of a ground water well supply system and a water distribution subsystem. The source water is from a ground water source through two (2) municipal wells which were drilled in 1981 (Well No. 1) and 2003 (Well No. 2). A water treatment facility was constructed in 2003. The water main subsystem is comprised of a piping network (of approximately 8.459 km in length). Several different water main pipe materials of varying age and diameter (100 to 200 mm) are found in the system. The Powassan water storage standpipe (11.28 m Ø x 9.75 m high) has a maximum storage capacity of 915 cubic metres (m3). This was renewed in 2009. The water rates for 2015 are set out in table 1:

Table 1. Municipality of Powassan 2015 Water Rate	
Fixed Portion of the Rate	30 Days
Meter Size	
15 mm (5/8x3/4 inch)	\$ 22.04
20 mm (.75 inch)	\$ 22.04
25 mm (1 inch)	\$ 22.04
40 mm (1.5 inch)	\$ 28.37
50 mm (2 inch)	\$ 45.70
75 mm (3 inch)	\$ 110.29
100 mm (4 inch)	\$ 173.33
Volumetric Portion of the Rate	
Cost per Cubic Metre (M3) for all Water Used - All Users	\$ 2.88
Rate Calculation - apply the fixed charge adjusted for the number of 30 day periods and add the cost for all water used. For example, someone with a 5/8x3/4 in. meter billed for three 30 day periods using 50 m3, would pay \$22.04 multiplied by 3 or \$66.12 plus 50 multiplied by \$2.88 or \$144 for a total bill of \$210.12	

2.0 Operating Plan

The operating plan details the recurring operating costs as well as the capital renewal and major maintenance investments costs required to sustain the drinking water system. These costs have been developed using assumptions that 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% 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 2114 by SWML using asset inventory data and funding needs for these costs have been considered in the user fee revenue estimates for 2016-2022. The immediate need is the renewal of a number of water mains in the 2020s. No capital for growth purposes is projected in the 2015-22 period. 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 commencing in 2016 and occurring steadily over the long term. Capital and major maintenance costs are projected to increase at 3.0% per year. The capital renewal and major maintenance needs are set out in the appendices to this Financial Plan and are set out to 2050 in appendix 2 and are illustrated in appendix 5, which projects capital renewal needs to 2114. These long-range projections provide a context for future capital renewal planning. Also, it was determined that the proposed plan with rates increased at 5% per annum, or 3% above inflation, to 2030 and 2%, or even with inflation after that, will fund most currently costed and projected capital renewal through 2114. This is shown in the surplus year-end totals in the capital renewal reserve set out in appendix 3.

2.3 Debt Servicing Costs

Currently the Municipality has a loan taken out in 2010 at 3.88% over 15 years. No other long term debt is forecast to be needed in the near future, although some short term borrowing may be needed starting in 2025, depending on the capital renewal schedule.

2.4 Lead Replacement Costs

There is no lead present in the system however, there is a requirement for lead testing in the distribution system every three years and funds have been placed in the budget to cover this cost.

2.5 Source Water Protection Costs

The Municipality has received a past grant for source protection. The source water protection costs are projected to be minimal for the Township moving forward. An amount of \$500 per year has been placed in the budget from 2015 to 2022 to cover staff advisory time and literature about source protection.

3.0 Funding Plan

The funding plan lays out a plan on how the Municipality 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, connections fees and various sundry charges. In addition, for 2016 forward, interest earned on the beginning-of-the-year reserve balances is a recommended inclusion as water revenue. If these are not included then rates may have to be increased more than is recommended. 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 forthcoming, they would be added to the reserve and help keep future rates lower than would otherwise be the case.

3.2 Debt

There is currently a 15-year long loan at 3.88% interest taken out in 2010. This will be paid off in 2025, and no further long-term debt is forecast now.

3.3 Required User Fees

Based on the current funding plan, the Powassan user fees are projected to increase at 5% in inflated dollars or about 3% per annum in 2015 dollars for the 2016-2025 periods. This is based on the need to generate adequate revenue to cover capital renewal and major maintenance projected for 2024 along with an assumption that most operating costs will inflate at 2% per annum and capital costs will be inflated at 3% per year.

The system's 420 users are fully metered and all are charged according to a fixed two-part rate with a monthly fixed charge based on meter size and a constant volumetric charge that applies to all water that passes through the meter.

4.0 Continuous Improvement

The Financial Plan regulation requires that the Financial Plans be updated every 5 years, along with the request for the renewal of the Drinking Water License. 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 the 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 Powassan water system's net financial assets are shown in Figure 5.1:

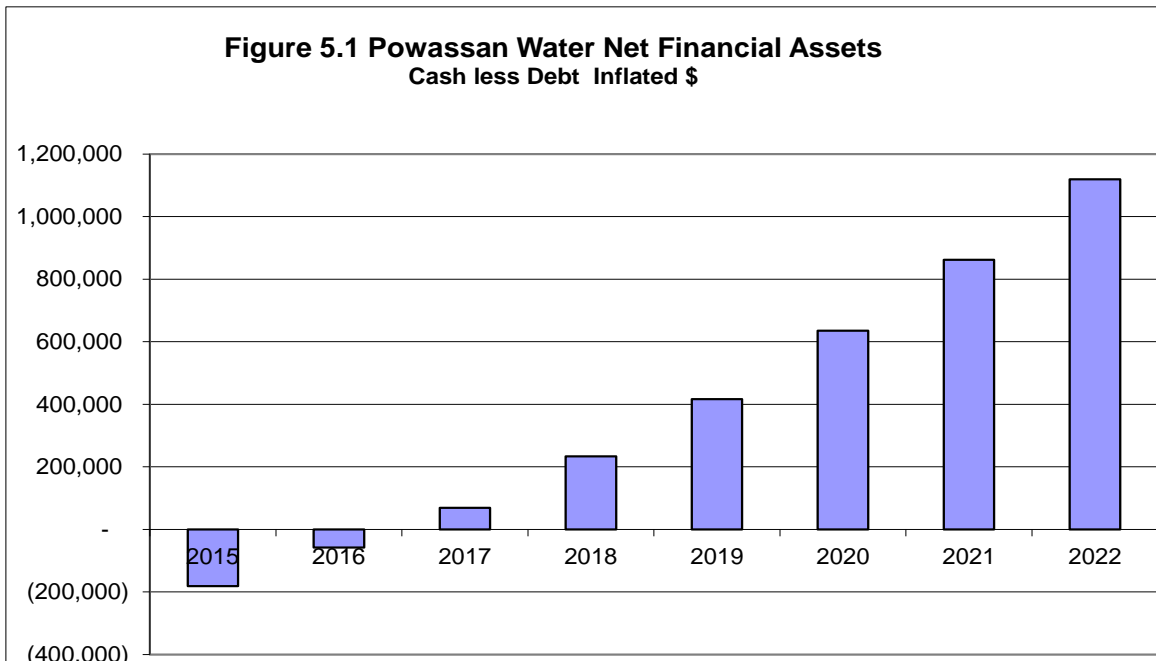
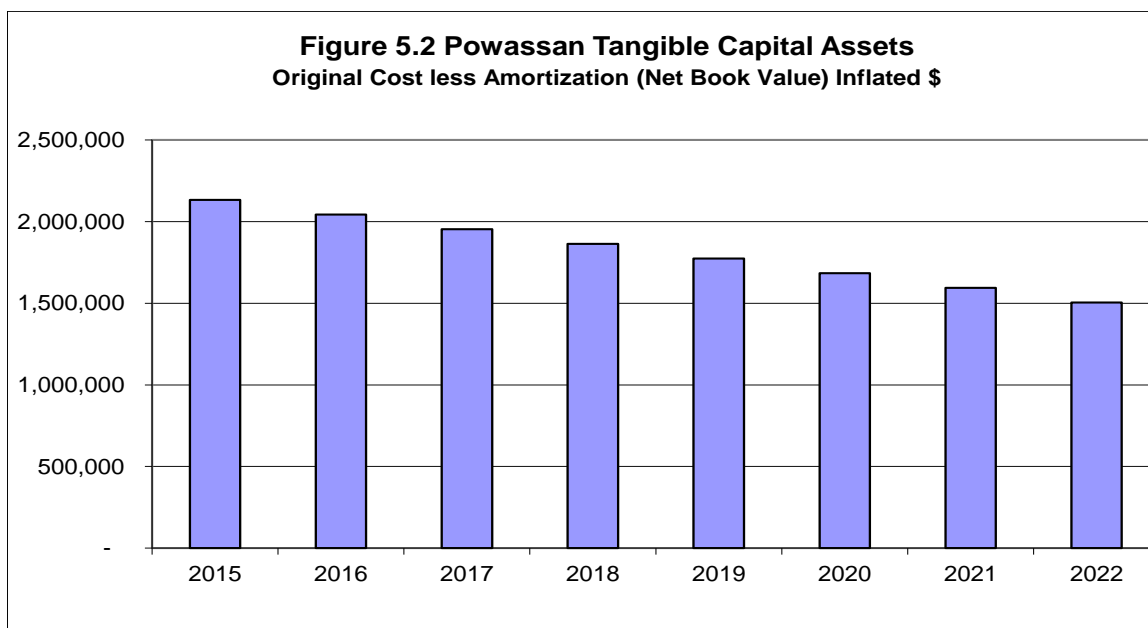


Figure 5.1 shows that that the system is steadily accumulating financial assets to deal with future renewal to 2022. In fact, based on the data in appendix 3, this substantial surplus will remain until about 2024 when it slides into a deficit until 2030. After that, it remains in surplus until the beginning of the next century, based on current estimated lifetimes of a number of assets. All assets in figure 5.1 are priced in inflated dollars.

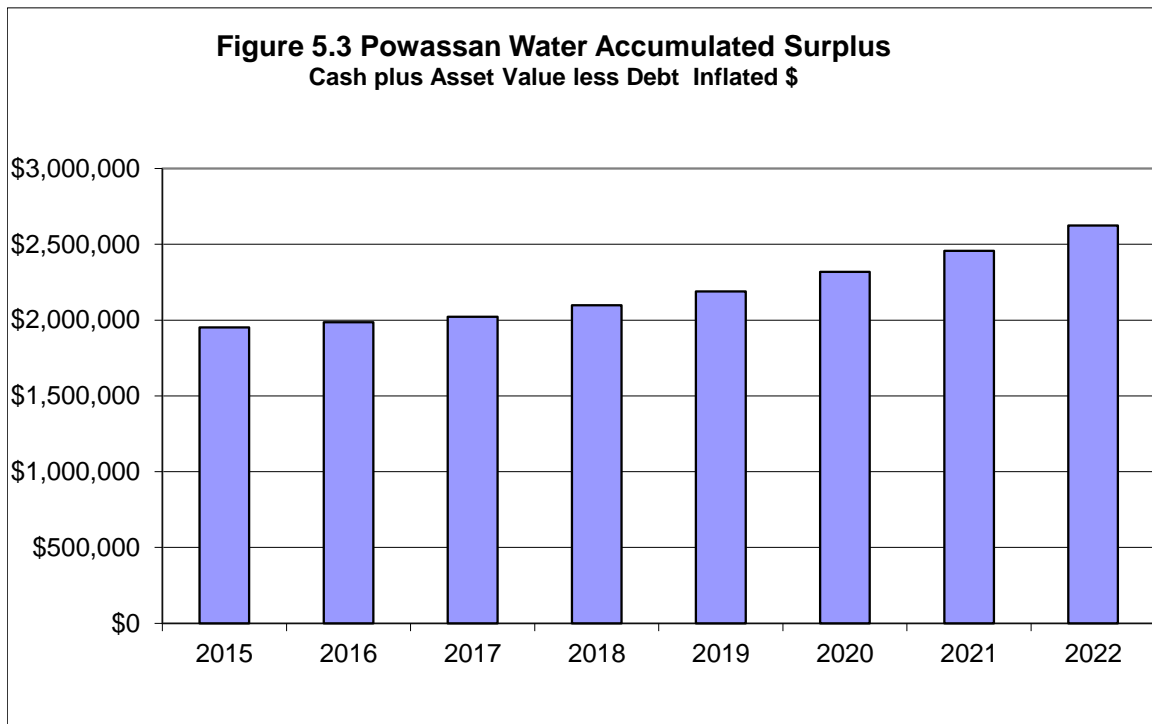
A second feature is the total value of the water system's tangible capital assets such as wells, water towers, and water lines. Consideration of the value of tangible capital assets is part of PSAB compliance. The current value of the capital assets is termed net book value (NBV). It is the original 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 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 Municipality's water system assets is set out in Figure 5.2.



The net book value declines steadily as no capital renewal is budgeted for the 2015-2022 periods. Substantial work was done in 2003 and again in 2009. Very substantial renewal will be needed in the mid-2020s and is built into the long-range financial plan. The work that is proposed in the 2015 to 2022 periods is to determine exactly how the renewal should be carried out. The needed capital over the next century is set out in appendix 5. It is apparent from appendix 5 that major renewal investments will be needed in the mid-2020s, 2040s, 2050s, 2070s, the 2090s and in the first decade of the next century.

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 steadily as the cash set aside for renewal exceeds the decline in the value of the assets. This is positive and indicates that the Municipality's proposed financial plan is sustainable for this period. It is building cash reserves to deal with the renewal projected for the mid-2020s.

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.

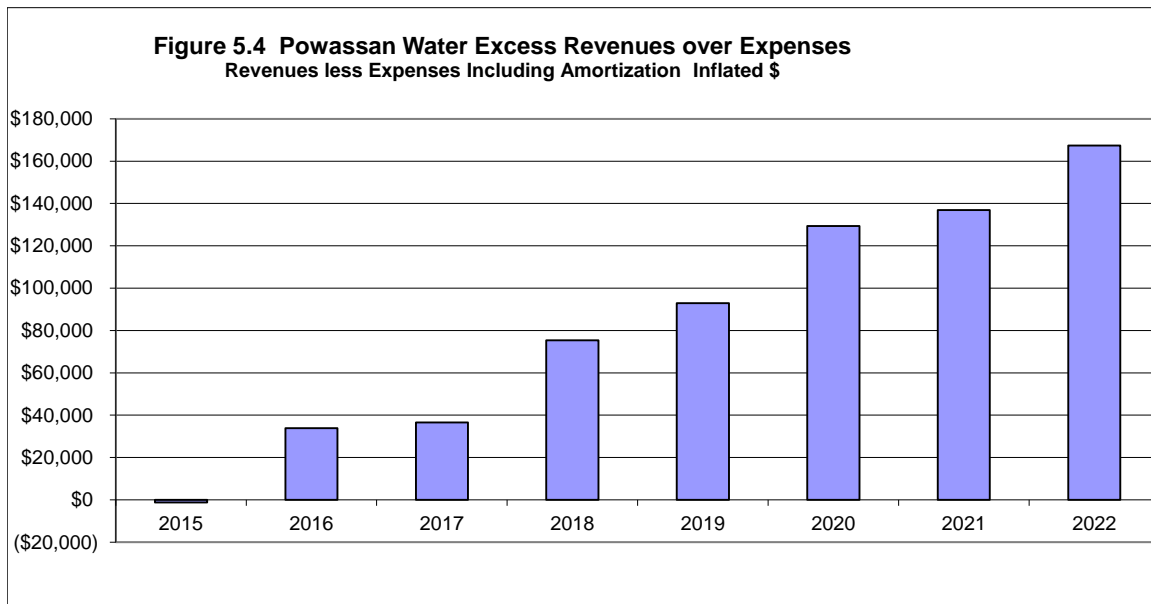


Figure 5.4 indicates that more is being saved than is the decline in the value of the tangible capital assets. Funds are being accumulated for the capital renewal needed in the mid-2020s. The Financial Plan has been designed to account for all foreseeable expenditures to 2022 and for the renewal in the mid-2020s. 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.

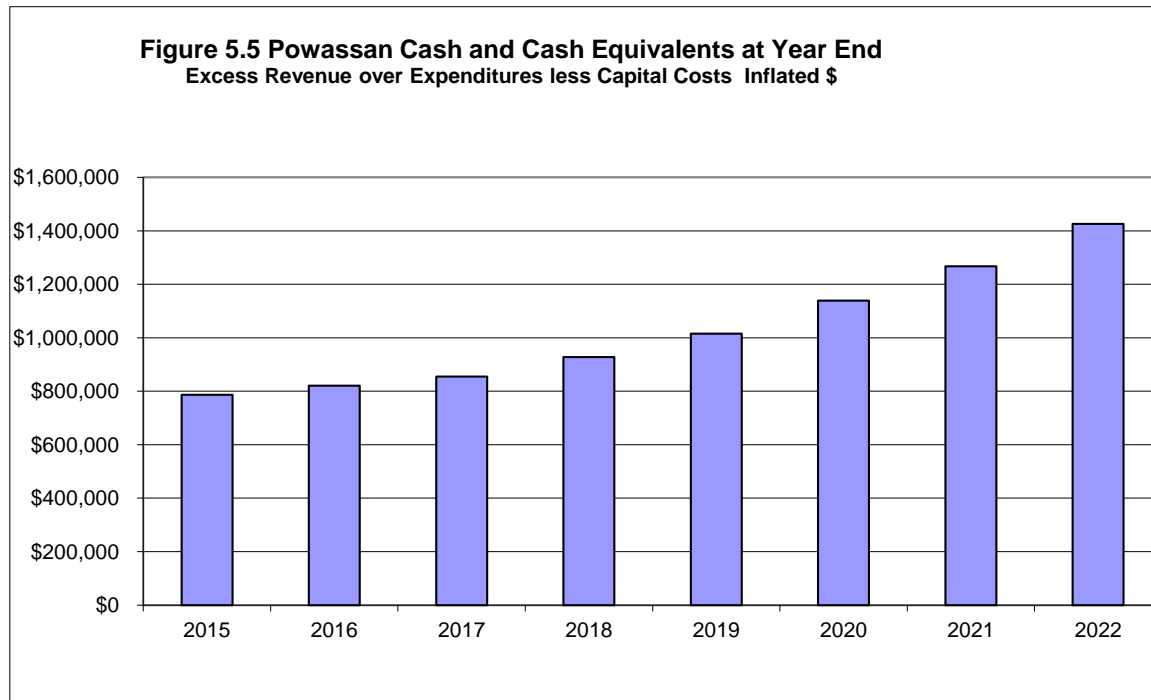


Figure 5.5 indicates that the cash equivalents, in inflated dollars, are in surplus throughout the study period and are growing. The value of the cash equivalents is projected to be 80% higher in 2022 than 2015. This cash balance, according to this simple projection, puts the Municipality in a position to fund much of the needed capital renewal projects in the middle 2020s. As time goes on, more detailed estimates of the cost of this renewal, based on engineering assessment, which will result in a more sophisticated capital needs and financing projection.

5.4 Conclusion

The Powassan water system has undertaken some major capital projects over the 2003 to 2010 periods. The system's debts are being paid down. The system is building up cash reserves to deal with the large water main capital renewal needed in the mid-2020s. This sound financial condition will persist, if the Municipality follows the projected rates and the long-range capital renewal and major maintenance plan proposed in the appendices to this Financial Plan report. It is important to note that the Plan is based on the assumption that interest earned on water reserves, both capital and contingency, are kept within the water account. If this is not done, then rates need to be raised and a larger loan will be needed in the 2020s. The detailed financial statements set out in tabular form, that were the basis for the above 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 - Capital Reserve	672,660	706,244	740,945	813,034	901,133	1,024,140	1,153,201	1,311,232	1
Contingency Reserve (Non DC)	114,332	114,332	114,332	114,332	114,332	114,332	114,332	114,332	2
Accounts Receivable	-	-	-	-	-	-	-	-	
Deposits	-	-	-	-	-	-	-	-	
Total Financial Assets	786,992	820,576	855,277	927,366	1,015,465	1,138,472	1,267,533	1,425,564	
Liabilities									
Accounts Payable (Capital)	-	-	-	-	-	-	-	-	
Debt Principal	968,324	878,242	786,660	693,577	598,995	502,912	405,330	306,247	3
Working Deficit	-	-	-	-	-	-	-	-	
Other liabilities	-	-	-	-	-	-	-	-	
Total Liabilities	968,324	878,242	786,660	693,577	598,995	502,912	405,330	306,247	
Net Financial Assets (Debt)	(181,332)	(57,666)	68,618	233,789	416,471	635,560	862,204	1,119,317	
Non Financial Assets									
Tangible Capital Asset Cost	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	4
Additions to Tangible Capital Assets - Cost	-	-	-	-	-	-	-	-	5
Accumulated Amortization incl. Addition	890,801	980,585	1,070,369	1,160,153	1,249,937	1,339,721	1,429,505	1,519,290	6
Total Non Financial Assets	2,132,721	2,042,937	1,953,153	1,863,369	1,773,584	1,683,800	1,594,016	1,504,232	
Accumulated Surplus/(deficit)	\$1,951,389	\$1,985,271	\$2,021,771	\$2,097,158	\$2,190,055	\$2,319,360	\$2,456,220	\$2,623,549	

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 - Powassan Water System Inflated \$									
	2015	2016	2017	2018	2019	2020	2021	2022	Notes
Revenues									
User Fees	\$386,832	\$406,174	\$426,482	\$447,806	\$470,197	\$493,707	\$518,392	\$544,311	
Other Revenues	\$4,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	7
Interest on Capital/Contingency Reserve	\$0	\$15,740	\$16,412	\$17,106	\$18,547	\$20,309	\$22,769	\$25,351	8
Capital Levy	NA	NA	NA	NA	NA	NA	NA	NA	
Total Revenues	\$390,832	\$424,913	\$445,894	\$467,912	\$491,744	\$517,016	\$544,161	\$572,662	
Expenses									
Operating	\$195,200	\$199,104	\$203,086	\$207,148	\$211,291	\$215,517	\$219,827	\$224,223	9
Major Maintenance	\$51,000	\$52,593	\$68,474	\$43,737	\$52,722	\$38,860	\$50,011	\$50,776	10
Debt Interest	\$50,550	\$49,050	\$47,550	\$46,050	\$44,550	\$43,050	\$41,550	\$40,050	11
Amortization	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	12
Loss on Disposal of Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Lead Abatement	\$5,000	\$0	\$0	\$5,306	\$0	\$0	\$5,631	\$0	13
Source Water Protection	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	14
Total Expenses	\$392,034	\$391,031	\$409,394	\$392,524	\$398,847	\$387,710	\$407,302	\$405,333	
Excess (Deficit) of Revenues over Expenses	(\$1,202)	\$33,883	\$36,500	\$75,388	\$92,897	\$129,306	\$136,859	\$167,329	
Other									
Government Transfers Related to Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Hydro Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Misc.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Excess (Deficit) of Revenues over Expenses	(\$1,202)	\$33,883	\$36,500	\$75,388	\$92,897	\$129,306	\$136,859	\$167,329	
Accumulated Surplus (Deficit) Beginning of year	\$1,952,590	\$1,951,389	\$1,985,271	\$2,021,771	\$2,097,159	\$2,190,056	\$2,319,362	\$2,456,221	
Accumulated Surplus (Deficit) End of Year	\$1,951,389	\$1,985,271	\$2,021,771	\$2,097,159	\$2,190,056	\$2,319,362	\$2,456,221	\$2,623,550	

Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.

6.3 Statement of Cash Flow

Table 6.3 Statements of Change in Cash Flow - Powassan Water System Inflated \$

	2015	2016	2017	2018	2019	2020	2021	2022	Notes
Operating Transactions									
Total Operating Revenues	\$390,832	\$409,174	\$429,482	\$450,806	\$473,197	\$496,707	\$521,392	\$547,311	15
Interest from Capital and Contingency Reserve	\$0	\$15,740	\$16,412	\$17,106	\$18,547	\$20,309	\$22,769	\$25,351	7
Total Cash for Operating Expenses	\$341,034	\$338,438	\$340,920	\$348,787	\$346,124	\$348,850	\$357,292	\$354,557	16
Total Cash for Major Maintenance	\$51,000	\$52,593	\$68,474	\$43,737	\$52,722	\$38,860	\$50,011	\$50,776	9
Excess of Revenues Over Expenses	(\$1,202)	\$33,883	\$36,500	\$75,388	\$92,897	\$129,306	\$136,859	\$167,329	
Deduct Non Cash Charges to Operations									
Amortization	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	17
Loss on the Disposal of Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	\$89,784	
Working Capital Items									
Accounts Receivable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Inventory	\$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	\$88,582	\$123,667	\$126,284	\$165,172	\$182,682	\$219,090	\$226,643	\$257,113	
Capital Transactions									
Acquisition of TCAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Proceeds on Disposal of TCA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash provided/used in Capital Transactions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Investing Transactions									
Proceeds from Investments	\$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									
Debt Principal Repayment	\$88,583	\$90,082	\$91,582	\$93,082	\$94,582	\$96,082	\$97,582	\$99,082	18
Hydro Proceeds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Proceeds from Debentures/Loans	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Proceeds from Government Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Misc.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash Provided by/(used) in Financing Activities	(\$88,583)	(\$90,082)	(\$91,582)	(\$93,082)	(\$94,582)	(\$96,082)	(\$97,582)	(\$99,082)	
Increase (decrease) in Cash Equivalents	(\$0)	\$33,584	\$34,701	\$72,089	\$88,099	\$123,007	\$129,061	\$158,031	
Cash and Cash Equivalents at the beginning of the Year	\$786,992	\$786,992	\$820,576	\$855,278	\$927,367	\$1,015,466	\$1,138,473	\$1,267,534	
Cash and Cash Equivalents at the End of the Year	\$786,992	\$820,576	\$855,278	\$927,367	\$1,015,466	\$1,138,473	\$1,267,534	\$1,425,565	

Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.

Notes on the Powassan Water System Financial Plan

1. Cash and cash equivalent is year-end balance in the water system capital renewal reserve. The funds are kept in short-term investments.
2. This is the year-end balance in contingency reserve fund established to deal with unexpected events such as a cool dry summer or a major repair to a component of the water system.
3. This is the principal owing on a loan taken out in 2010 to fund the water tower renewal. The interest rate is 3.88% over a 15-year term.
4. The Municipality valued tangible capital assets acquired in the past showing original costs and amortization. This project has extended the valuation of capital assets and capital asset replacement to 2022. These figures represent the original cost of the asset when it was put into service
5. No capital assets have been identified as being added to the system in the 2015-22 periods.
6. Amortization was determined using the straight-line method. All works are assumed to have been constructed or disposed of on July 1. A half year of amortization was provided for in the first year.
7. These include connection charges and interest on late payments.
8. This revenue is represented by the interest at 2% per annum earned on the beginning of the year total for both the capital and the contingency water reserve. It is strongly recommended that this interest be kept in the water account otherwise higher water rates will be needed in order to make the overall plan sustainable.
9. Operating costs cover the day-to-day costs of operating the system such as wages repairs, chemicals, energy etc. and are projected to inflate at 2% per annum for all items.
10. Major maintenance represents substantial one-time preventive maintenance repair projects that will extend the life of an asset, but did not meet the Municipality's PSAB definition of capital.
11. Debt interest is the annual interest payment on the loan taken out in 2010 to fund the water tower renewal as described in note 3 above.
12. This is the total annual amortization of the water system capital investments determined by dividing the original acquisition value of each asset by the number of year it is expected to be in service. It remains the same throughout the 2015-22 periods as no capital assets are added or disposed of.
13. There is no lead present in the system and as a result, no funds have been set aside for lead abatement, however, a distribution lead test is required by regulation every three years.
14. The Municipality has received a past grant for source protection. The source water protection costs are projected to be minimal for the Township moving forward. An amount of \$500 per year has been placed in the budget from 2015 to 2022 to cover staff advisory time and literature about source protection.
15. Revenues from all sources are summarized on this line including user fees and other user charges. Interest earned on funds kept in water reserves is not included on this line and is shown below.
16. Operating expenses on this line include amortization, a non-financial cost.
17. Amortization was included in the operating expenses listed above and this line adds this back so that only financial revenues and charges are represented in this table.
18. This is the principal due on the loan set out in note 3 above.

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 license 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 license 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 license that is issued in response to an application made under section 33 of the Act for a municipal drinking water license, 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 license 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 license, 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; license 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 license 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 license would otherwise expire.
 - ii. If the financial plans are required 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.
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 3 Capital and Major Maintenance Reserve 2015-2056 Infl. \$

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Opening Value	672,660	672,660	706,244	740,945	813,034	901,133	1,024,140	1,153,201	1,311,232	1,528,214	(1,739,033)	(1,582,970)	(1,274,258)	(945,776)	(668,830)	(300,842)	(270,907)	32,767	452,919	741,306	1,206,681
User Fee Contribution	-	33,584	34,701	72,089	88,099	123,007	129,061	158,031	177,386	200,842	225,624	372,031	379,452	387,021	394,742	402,616	410,649	418,842	427,198	435,722	444,417
Capital	0	0	0	0	0	0	0	0	0	3,529,217	0	0	0	72,244	0	360,647	96,139	0	156,929	0	66,639
Interest (note 1)	0	0	0	0	0	0	0	0	52,449	61,129	-69,561	-63,319	-50,970	-37,831	-26,753	-12,034	-10,836	1,311	18,117	29,652	48,267
Close in Inflated \$	672,660	706,244	740,945	813,034	901,133	1,024,140	1,153,201	1,311,232	1,528,214	(1,739,033)	(1,582,970)	(1,274,258)	(945,776)	(668,830)	(300,842)	(270,907)	32,767	452,919	741,306	1,206,681	1,632,726
Close in 2010\$	672,660	685,674	698,412	744,041	800,645	883,432	965,788	1,066,152	1,206,386	(1,332,824)	(1,177,879)	(920,551)	(663,348)	(455,441)	(198,892)	(173,885)	20,419	274,024	435,439	688,153	904,001

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
Opening Value	1,632,726	2,151,320	2,386,661	2,953,685	3,552,801	4,185,481	3,589,822	1,204,048	1,017,925	1,589,567	2,194,672	2,834,792	3,511,544	4,211,933	4,966,490	5,111,561	5,752,103	6,594,899	7,342,685	8,282,588	9,273,786
User Fee Contribution	453,285	462,331	471,558	480,969	490,568	500,359	510,347	520,534	530,924	541,523	552,333	563,360	574,607	586,079	597,781	609,716	621,891	634,309	646,975	659,894	673,072
Capital	-	313,043	-	-	-	1,263,438	3,039,713	754,819	-	-	-	-	14,679	-	651,369	173,637	9,179	150,318	779	-	-
Interest	65,309	86,053	95,466	118,147	142,112	167,419	143,593	48,162	40,717	63,583	87,787	113,392	140,462	168,477	198,660	204,462	230,084	263,796	293,707	331,304	370,951
Close in Inflated \$	2,151,320	2,386,661	2,953,685	3,552,801	4,185,481	3,589,822	1,204,048	1,017,925	1,589,567	2,194,672	2,834,792	3,511,544	4,211,933	4,966,490	5,111,561	5,752,103	6,594,899	7,342,685	8,282,588	9,273,786	10,317,809
Close in 2010\$	1,156,441	1,245,581	1,496,608	1,747,743	1,999,009	1,664,582	542,049	444,911	674,527	904,176	1,133,880	1,363,662	1,588,009	1,817,958	1,816,564	1,984,662	2,209,179	2,388,033	2,615,256	2,842,942	3,070,869

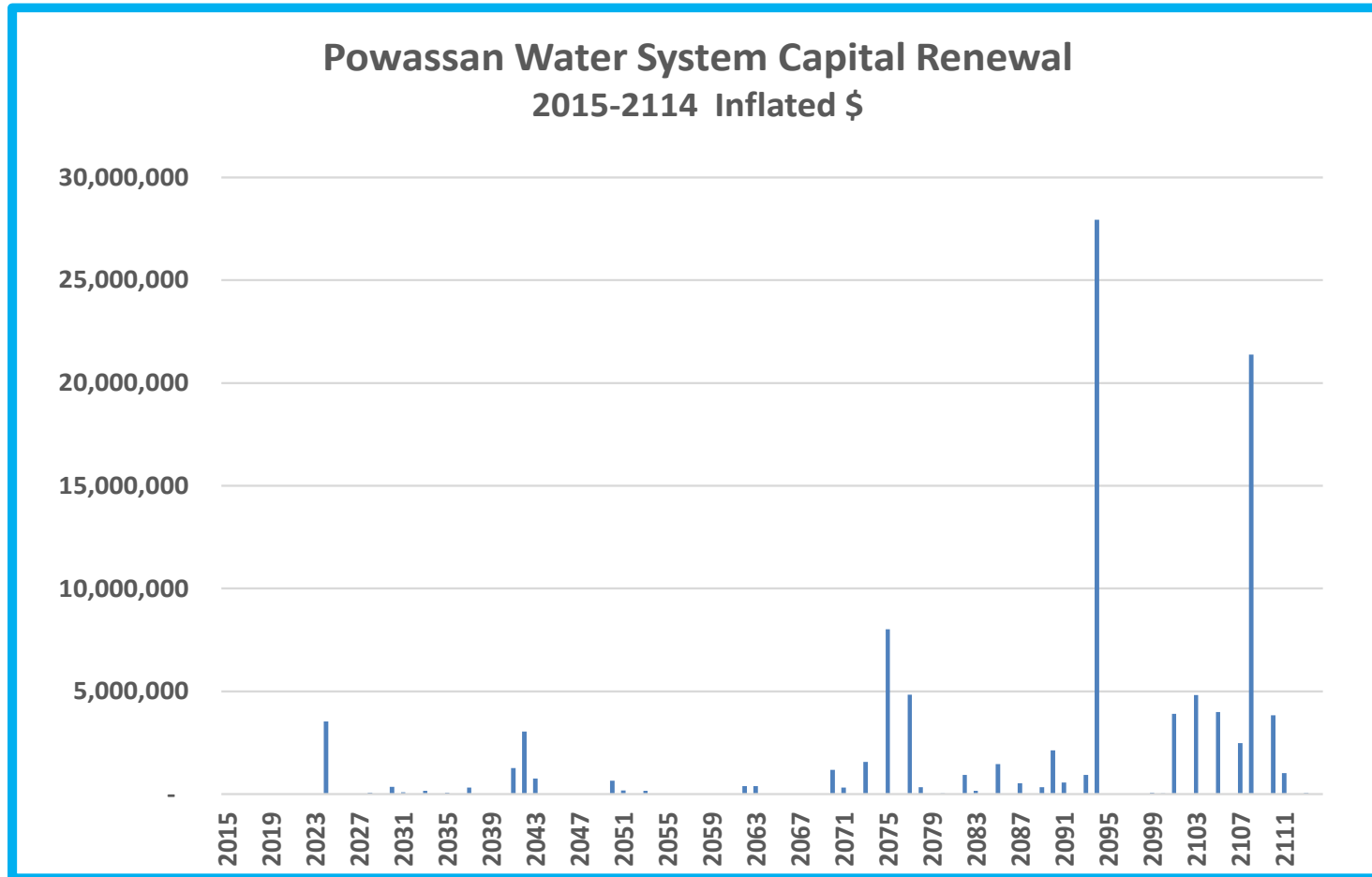
Note 1 : Interest on this reserve is shown on the financial statement on line 8 and set out in appendix 6.

Note 2: Capital/Major Maint. Exp. are the expenditures on capital and major maintenance projects as shown in appendix 7, lines 11 and 12

Appendix 4 Contingency Reserve Fund 2015-2022 Infl. \$

	2015	2016	2017	2018	2019	2020	2021	2022
Opening Value	114,332	114,332	114,332	114,332	114,332	114,332	114,332	114,332
User Fee Contribution (Note 1)	-	-	-	-	-	-	-	-
Contingency Payments	-	-	-	-	-	-	-	-
Interest (Note 2)	-	-	-	-	-	-	-	-
Close in Inflated \$	114,332	114,332	114,332	114,332	114,332	114,332	114,332	114,332
Close in 2010\$	112,091	109,893	107,738	105,625	103,554	101,524	99,533	97,582
Note 1	The reserve is stable at current levels and will be added to only if it is drawn down							
Note 2:	interest is shown on line 8 of the water financial statement set out in appendix 6							

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



Note: The capital replacement estimates were obtained by projecting the life of each of the Municipality’s listed water assets forward for 100 years 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. In the case of the water mains, they were costed at \$480/metre (2015\$) for 150 mm mains and \$497 (2015\$) for a 200 mm main including valve and hydrant replacement but not including road and sidewalk restoration. Some assets with life expectancies less than 100 years were replaced more than once during the 2015-2114 periods.

Appendix 6 Summary Water System Operating Plan 2011-2022 Inflated \$

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1 Revenues												
2 Provincial Grant OSWAP	36,824	36,824	-	-	-	-	-	-	-	-	-	-
3 Water Rates-Residential/Comm	388,135	351,943	382,872	386,185	386,832	406,174	426,482	447,806	470,197	493,707	518,392	544,311
4 Commercial Water Rates	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5 Connection Fees	2,400	60	90	-	2,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
6 Transfer From Reserves	-	-	-	-	-	-	-	-	-	-	-	-
7 Penalties	5,915	1,316	2,337	15,553	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
8 Reserve Interest	-	-	-	-	-	15,740	16,412	17,106	18,547	20,309	22,769	25,351
9 Total Water Revenues	433,274	390,143	385,300	401,739	390,832	424,913	445,894	467,912	491,744	517,016	544,161	572,662
10												
11 Total Water Expenditures												
12 Admin Labour	12,292	11,301	16,153	17,000	20,000	20,400	20,808	21,224	21,649	22,082	22,523	22,974
13 Admin Materials and Supplies	10,269	7,745	9,814	8,530	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487
14 Personnel Training	2,802	1,138	3,567	1,372	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743
15 Contingency Reserve	5,000	5,000	5,000	5,000	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743
16 Consulting Fees	-	-	-	-	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149
17 Pumphouse labour	181	417	592	357	1,200	1,224	1,248	1,273	1,299	1,325	1,351	1,378
18 Pumphouse Materials and Supplies	14,088	25,053	30,824	16,764	25,000	25,500	26,010	26,530	27,061	27,602	28,154	28,717
19 Distribution Materials and Supplies	10,005	11,491	19,592	5,813	18,000	18,360	18,727	19,102	19,484	19,873	20,271	20,676
20 Distribution Labour	7,581	3,963	12,366	6,555	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487
21 Operations Contractor	92,140	102,353	94,161	92,371	100,000	102,000	104,040	106,121	108,243	110,408	112,616	114,869
22 MOE Lead Testing	2,175	654	806	-	5,000	-	-	5,306	-	-	5,631	-
23 Source Protection	-	-	-	-	500	500	500	500	500	500	500	500
24 Major Maintenance (OCWA)	-	-	-	-	51,000	52,593	68,474	43,737	52,722	38,860	50,011	50,776
25 Total	156,534	169,115	192,875	153,762	251,700	252,197	272,060	256,691	264,513	254,876	275,969	275,499
26												
27 Financial Transfers												
28 Loan Payment Interest	60,954	57,103	53,889	47,079	50,550	49,050	47,550	46,050	44,550	43,050	41,550	40,050
29 Loan Payment Principal	78,179	82,030	85,243	92,053	88,583	90,082	91,582	93,082	94,582	96,082	97,582	99,082
30 Transfer to Capital	53,884	1,570	10,408	5,303	-	All surplus funds from 2016-24 were transferred to the capital reserve						
31 Transfer to Cap Ren. Reserve	83,724	80,326	42,883	103,541	-	33,584	34,701	72,089	88,099	123,007	129,061	158,031
32 Capital Growth Reserve	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
33 Total Transfers	276,740	221,028	192,424	247,976	139,132	172,716	173,833	211,221	227,231	262,139	268,193	297,163
34												
35 Total Operating Expenses	433,274	390,142	385,299	401,739	390,832	424,913	445,893	467,912	491,744	517,015	544,162	572,662
36												
37 Net Operating	1	1	0	-	(0)	0	0	0	0	0	(0)	(0)

Appendix 7 Capital Plan 2011-2022 Infl. \$ after 2015

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Revenues												
1 Transfer from Operating	53,884	1,570	10,408	5,303	-	-	-	-	-	-	-	-
2 Federal Ostar	-	-	-	-	-	-	-	-	-	-	-	-
3 Provincial Ostar	-	-	-	-	-	-	-	-	-	-	-	-
4 Capital Financing - Homeowners	-	-	-	-	-	-	-	-	-	-	-	-
5 Reserve Capital	-	-	-	-	-	-	-	-	-	-	-	-
6 Reserves NC	-	-	-	-	-	-	-	-	-	-	-	-
7 Misc.	-	-	-	-	-	-	-	-	-	-	-	-
8 Total Capital Revenues	53,884	1,570	10,408	5,303	-	-	-	-	-	-	-	-
9												
Expenditures												
11 Capital Labour	364	178	205	-	-	-	-	-	-	-	-	-
12 Capital	61	1,392	10,203	5,303	-	-	-	-	-	-	-	-
13 Meter Capital	53,459	-	-	-	-	-	-	-	-	-	-	-
14 Total Capital Expenses	53,884	1,570	10,408	5,303	-	-	-	-	-	-	-	-
15												
16 Net Surplus (Deficit)	(0)	-	-	-	-	-	-	-	-	-	-	-

Appendix 8 Water System Debt

The system has a loan taken out in 2010 at 3.88%

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Principal	78,179	82,030	85,243	92,053	88,583	90,082	91,582	93,082	94,582	96,082	97,582	99,082	100,582	102,082	103,582
Interest	60,954	57,103	53,889	47,079	50,550	49,050	47,550	46,050	44,550	43,050	41,550	40,050	38,550	37,050	35,550
Principal Outstanding	1,316,233	1,234,204	1,148,960	1,056,907	968,324	878,242	786,660	693,577	598,995	502,912	405,330	306,247	205,665	103,582	(0)

Appendix 9 Tangible Capital Asset Amortization 2015-22 Infl. \$

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Opening NBV	\$2,222,505	2,132,721	2,042,937	1,953,153	1,863,369	1,773,585	1,683,800	1,594,016.30
Original Cost	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,521.59
Additions	-	-	-	-	-	-	-	-
Write Down	-	-	-	-	-	-	-	-
Closing Cost	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,522	3,023,521.59
Opening Amort	801,016	890,801	980,585	1,070,369	1,160,153	1,249,937	1,339,721	1,429,505.29
Annual Amortization	89,784	89,784	89,784	89,784	89,784	89,784	89,784	89,784.13
Deletions	-	-	-	-	-	-	-	0.00
Accumulated Amortization	890,801	980,585	1,070,369	1,160,153	1,249,937	1,339,721	1,429,505	1,519,289.42
Closing NBV	2,132,721	2,042,937	1,953,153	1,863,369	1,773,585	1,683,800	1,594,016	1,504,232.17