

Final Report

Prepared by Hemson for the City of Brantford

City of Brantford

Water Financial Plan

March 11, 2022

Financial Plan Number: 063-301



1000 – 30 St. Patrick Street, Toronto, ON M5T 3A3
416 593 5090 | hemson@hemson.com | www.hemson.com

Contents

1. Introduction	1
2. Background	3
3. Key Inputs	6
4. Water Financial Plan	10
A. Statement of Operations – Table 1	10
B. Statement of Financial Position – Table 2	10
C. Statement of Cash Flow – Table 3	13
D. Statement of Change in Net Financial Assets/Debt – Table 4	14
5. Notes and Assumptions to Financial Plan	17
6. Overview of Results	20

1. Introduction

The City of Brantford operates and maintains the water system which includes approximately 36,000 customer connections. The City's raw water supply is drawn from the Grand River at the Holmedale Canal and treated at the Holmedale Water Treatment Plant, which is responsible for the production of Brantford's drinking water. The fee structure for water service in the City includes a flat fixed charge differentiated by meter size plus a consumption charge for each cubic metre of water consumed. When water consumption is zero or less than the minimum bill volume, then a minimum bill amount is charged to the customer. The City recovers its costs through user fees charged to its customers on the basis of a full cost recovery system.

In 2015, both a Water and Wastewater Financial Plan were completed for the City consistent with the requirements of the *Safe Drinking Water Act* (the SDWA) and its associated regulation *Ontario Regulation 453/07* (O. Reg. 453/07). The plan was prepared as part of a five submission requirement process for reviewing the municipal drinking water licence under the SDWA. The City's Drinking Water Licence was renewed in 2019 using the 2015 financial plan report as the basis for the renewal. It was intended that a new 2019 Water Financial Plan be completed using information from an updated Water and Wastewater Rate Study, although, due to some timing delays surrounding the Master Servicing Plan and by extension the DC Study, the Rate Study was put on hold until these key studies were completed. Following the completion of these studies, the COVID-19 Pandemic emerged, which further delayed the initiation of the Water and Wastewater Rate Study process. Hemson was retained in mid-2021 to undertake a comprehensive Water and Wastewater Rate Study and update both the Water and Wastewater Financial Plans.

The updated Water Financial Plan will be prepared consistent with requirements of the *Safe Drinking Water Act* (the SDWA) and its associated regulation *Ontario Regulation 453/07*. The Water Financial Plan is part of the process required for the City to renew its municipal drinking water license under the SDWA. The preparation of a financial plan requires a thorough analysis of operating and capital needs, as well as consideration of available funding sources. The financial information is based on the City's 2022 Water and Wastewater Rate Study prepared in parallel to this Financial Plan.

The financial plan includes specific statements such as: statement of operations, statement of financial position, and statement of cash flow. In addition, a statement of net financial assets/debt has been prepared. Although this statement is not required under *O. Reg. 453/07*, it does provide further information about the financial performance of the City's water system. Section two of the report explains each statement in greater detail.

As the City recently renewed its drinking water license in 2019, the financial plan would not be required until 2024 to support the next license renewal application. In accordance with the regulation, this Financial Plan will apply to the first year to which the drinking water system's existing municipal drinking water licence would expire (in 2024) and through to 2032. Therefore, the financial plan has been prepared for an eleven-year period from 2022-2032 to ensure it can be used to support the City's 2024 licence renewal requirement. The City's 2022 Water and Wastewater Rate Study was used as a key input to support the preparation of this plan.

2. Background

In May 2015, the City of Brantford approved a Water Financial Plan prepared as one of the submission requirements necessary in renewing their municipal drinking water licence under the *Safe Drinking Water Act, 2002* (SDWA). The City's Drinking Water Licence was renewed in 2019 using the 2015 financial plan report as the basis for the renewal. It was intended that a new 2019 Water Financial Plan be completed using the analysis undertaken from an updated Water and Wastewater Rate Study, although, due to some timing delays surrounding the Master Servicing Plan and by extension the completion of the DC Study, the Rate Study was put on hold until these key studies were completed. Following the completion of these studies, the COVID-19 Pandemic emerged which further delayed the Rate Study process. Hemson was retained in mid-2021 to undertake a comprehensive Water and Wastewater Rate Study and update both the Water and Wastewater Financial Plans.

Financial Plans are defined in section 30(1) of the *SDWA* as follows: Financial plans that satisfy the requirements prescribed by the Minister, in any other case, 2002, c. 32, s. 30(1).

At this time, the *Sustainable Water and Sewage Systems Act, 2002* has been repealed, however, the standards identified underpin the specific requirements of s.30 outlined in *O. Reg. 453/07*. The *SDWA* and *O. Reg. 453/07* include the following general requirements for a financial plan:

- Mandatory for all municipal water systems and recommended for wastewater systems;
- Includes a planning horizon of at least six years (commencing when the system first serves the public, for new systems);
- Must be completed and approved by the later of July 1, 2010 and the date that is six months after the first licence is issued;
- May be amended and additional information may be included beyond what is prescribed, as necessary; and
- Must be approved by Council resolution indicating that the drinking water system is financially viable.

Although the first year of the forecast is 2022 to coincide with budget information and the Rate Study completed to support this plan, in accordance with the regulation, this Financial Plan will apply to the first year to which the drinking water system's existing municipal drinking water licence would expire (in 2024).

In addition to the above noted general requirements, the following specific statements are required in the financial plan:

i. Statement of Operations

This statement includes details on the projected financial operations itemized by total revenues, total expenses, annual surplus/deficit, and the cumulative surplus/deficit for each year in which the financial plan applies. An annual surplus represents funds available to the City to fund non-operating expenses such as the acquisition of tangible capital assets, principal payments on debt, and transfers to replenish or grow the reserve and reserve funds. The Statement of Operations is discussed in more detail later in this report, and is included as Table 1.

ii. Statement of Financial Position

This statement includes details on the financial position itemized by total financial assets, total liabilities, net debt, non-financial assets, and tangible capital assets. In recording the tangible capital assets the City is able to account for its ability to provide for future benefits. A net financial asset position on this statement indicates whether the water system has the financial resources necessary to fund its future operations. The Statement of Financial Position is discussed in more detail later in this report, and is included as Table 2.

iii. Statement of Cash Flow

This statement provides information on the generation and use of cash resources. The gross cash receipts/payments are itemized by: operating; capital; investing and financial transactions. Itemizing the cash receipts and payments by category allows the reader to understand where the cash is being generated (e.g. water rates), and how the cash is being used (e.g. capital and operating expenses).

iv. **Statement of Net Financial Assets/Debt**

Although this statement is not required under *O. Reg. 453/07*, it does provide further information about the financial performance of the City's water systems. The Statement of Net Financial Assets/Debt provides information on whether the revenue generated is sufficient to support the operating and tangible capital asset costs. The statement also reconciles the difference between the annual surplus/deficit and the change in net financial assets/debt for the period.

The remainder of this study sets out the information and analysis upon which the statements were prepared.

Section 3 includes a discussion on the key inputs and documents used to develop the financial plan consistent with the governing legislation.

Section 4 includes the Statement of Operations, Statement of Financial Position, Statement of Cash Flows, and Statement of Change in Net Financial Assets/Debt that form the Financial Plan for Water Services.

Section 5 includes the Notes and Assumptions to the Financial Plan.

Section 6 includes an Overview of Results.

3. Key Inputs

This chapter discusses the key inputs and documents used to develop the financial plan consistent with the governing legislation. The costs, revenues and assumptions used in preparing the financial projections are based on the City's data such as the 2021 and 2022 operating budget, ten-year capital plan, the 2022 Water and Wastewater Rate Study, the 2021 Development Charges Background Study, year-end reserve continuity schedules and other relevant information provided by staff. The five key financial inputs discussed below drive the prescribed statements outlined in Section II and are described in more detail in Section IV of this report.

i. Expenditure and Revenue Forecast

The expenditure and revenue forecast is based upon the information obtained from the City's 2022 Water and Wastewater Rate Study. This forecast includes a projection of operating expenditures and revenues to 2032 with a provision for annual contributions to reserves for the purpose of asset repair and replacement. The City recovers most of its costs through user fees charged to its customers that includes a monthly fixed fee that is differentiated by meter size, with an additional consumption charge for each cubic metre of water consumed. The forecast of expenditures and revenues is included in Appendix A – Table 1 Operating Budget Forecast.

Some main assumptions used to derive the operating and revenue projections are as follows:

Expenditures and non-rate revenues will increase annually at:

- Salaries – 2.0% per annum;
- Employee Benefits – 4.0% per annum;
- Chemicals – 3.0% per annum;
- Electricity, Gas Fuel, etc. – 5.0% per annum;
- Construction Materials – 3.5% per annum;
- All other expenditures – 2.0% per annum;
- Water billing revenue – approximately 3.0% per annum; and
- Other non-rate water revenues – 2.0% per annum.

ii. **Capital Expenditures**

The City's capital budget forecast used in preparing the financial plan is outlined in Appendix A – Table 2. This table identifies the cumulative cost for all in-year capital projects over the planning period and identifies the assumed annual funding sources based on the availability of funds at the time of writing this study.

The growth-related capital expenditures over the forecast period equate to over \$84.94 million, which would need to be funded from development charges, while the non-growth program amounts to \$132.45 million. In order to smooth the financial impact these projects would have on the existing reserve funds and utility rates, debenture financing requirements are assumed to assist in carrying out the program. As a result, the City should continue to exercise caution in planning for these projects to ensure the projects can properly be funded from the water utility system. Please note, the quantum of external financing required would be determined by staff and council through the budget process at the time of expenditure. It is assumed that all growth-related infrastructure requirements are funded from development charges and not supported through the utility rates.

iii. **Reserve Fund Statements**

Water Reserves

The 2022 Water Reserve Fund opening balance was provided by municipal staff. The projected transfers to and from the Water Reserve Fund are outlined in Appendix A – Table 3, Water Reserve Fund Continuity. Please note the information outlined in this table represents the “water only” share of the City's rate reserves.

The Water Reserve Fund is used to fund non-growth related capital projects as well as the repair and replacement of water assets. Additionally, these funds can be used to address revenue shortfalls that can arise from fluctuating annual water consumption (i.e. less water is billed during wet summers).

Development Charge Reserve Fund – Water Services

The Development Charge Reserve Fund is used to fund growth-related capital projects outlined in the City's Development Charges Background Study. The 2022 opening balance was provided by municipal staff. The timing and costs of each project is subject to change based on annual capital budget reviews. Please note that the reserve funds identified in this study reflect the reserve fund balances and projects associated with the City-wide and area-specific DCs.

iv. Debt Repayment

As of December 31st, 2021, the City had an outstanding debt of \$18.95 million related to the new Water Treatment Plant and associated upgrade in 2010/2012. A summary of existing debt is illustrated in Appendix A as Table 4.

Further to the existing approved debt, an additional \$15.00 million in rate funded debenture financing and \$63.90 million in DC debenture financing is included in the Water Financial Plan to help “smooth” out the immediate cash requirements to carry-out the \$217.39 million in projected capital expenditures over the forecast period. This debt is assumed over a 20 year period at a 2.47% annual interest rate, which accounts for average long-term interest rates.

Please note, the quantum of external financing required would be determined by staff and council through the budget process at the time of expenditure and is included in this study for financial planning purposes.

v. Tangible Capital Asset Analysis (TCA)

The City’s internal TCA data was used to develop financial information related to the water systems assets. The statements included are not audited documents and contain estimates and assumptions as described below.

The following assumptions were made in regard to tangible capital assets:

- The amortization of assets is based on straight line depreciation;
- The useful life of each asset, as included in the City’s asset register, was included in the calculation of amortization;
- It is assumed that no write-offs occurred in any of the years;
- It is assumed that there were no gains or losses on the disposal of assets (assets were disposed when they had reached the end of their useful life and therefore the historic cost is equal to accumulated depreciation); and
- Contributed assets were unknown and therefore not included in the forecast.

A summary of the tangible capital asset balances for the City’s water system is as follows:

City of Brantford
Summary of Tangible Capital Asset Balances – Water Systems
(in \$000's)

Item	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Opening Tangible Capital Assets	\$281,766	\$304,029	\$325,364	\$364,452	\$412,129	\$430,591	\$446,923	\$483,601	\$489,430	\$492,389	\$497,176	\$506,602
Plus: Acquisitions - Repair/Replacement	\$21,396	\$17,967	\$20,298	\$24,482	\$8,259	\$7,600	\$18,137	\$5,104	\$2,627	\$4,446	\$9,074	\$14,458
Plus: Acquisitions - Growth Related	\$866	\$3,368	\$18,790	\$23,196	\$10,203	\$8,733	\$18,541	\$726	\$331	\$341	\$351	\$362
Less: Disposals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Closing Tangible Capital Assets	\$304,029	\$325,364	\$364,452	\$412,129	\$430,591	\$446,923	\$483,601	\$489,430	\$492,389	\$497,176	\$506,602	\$521,421
Opening Accumulated Amortization	\$97,435	\$103,028	\$108,570	\$116,548	\$124,956	\$133,775	\$142,689	\$152,434	\$162,214	\$171,897	\$181,515	\$191,338
Plus: Amortization Expense	\$5,593	\$5,542	\$7,978	\$8,408	\$8,819	\$8,913	\$9,746	\$9,779	\$9,683	\$9,618	\$9,823	\$9,866
Less: Amortization of Disposals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Closing Accumulated Amortization	\$103,028	\$108,570	\$116,548	\$124,956	\$133,775	\$142,689	\$152,434	\$162,214	\$171,897	\$181,515	\$191,338	\$201,204
Net Book Value	\$201,000	\$216,794	\$247,904	\$287,173	\$296,816	\$304,235	\$331,166	\$327,217	\$320,492	\$315,661	\$315,264	\$320,217

Note: Amounts are unaudited for planning purposes only. Actual results will differ from the above.
Source: 2021 opening balance based on City's 2020 FIR.

4. Water Financial Plan

This section summarizes the complete financial plan for the City of Brantford's water system, which represents a forecast or projection of the City's future financial position. The statements included in this study are not audited documents and contain estimates and assumptions as described in Section V of this report.

A. Statement of Operations – Table 1

The Statement of Operations provides information on the revenues and expenses generated from the water system in each year. An annual surplus will be generated where annual revenues exceed annual expenses for the year. Conversely, where the expenses exceed the revenues, an annual deficit will result. The annual surplus is available to fund non-operating expenses such as the acquisition of tangible capital assets, principal payments on debt, and transfers to replenish or grow the reserve funds.

In 2022, the projected revenue is \$29.46 million with expenditures of \$22.38 million. As revenues exceed expenses, an annual surplus is projected of approximately \$7.08 million. The beginning period accumulated surplus of \$210.95 million is equal to the opening reserve fund balances, plus tangible capital assets, and less any debt obligations and deferred revenue. A reconciliation of this amount can be found in Table 5. The City's forecasted Statement of Operations indicates an annual surplus in each of the years projected, with the accumulated surplus growing by approximately \$95.50 million. This supports the City's need to grow its reserve funds to pay for the repair and replacement of the City's capital assets.

B. Statement of Financial Position – Table 2

The Statement of Financial Position provides information on the assets and liabilities of the City's water system. Net Financial Assets/ (Debt) is the difference between assets and liabilities. A position of net financial assets occurs when assets are greater than liabilities. Conversely, net financial debt occurs when liabilities exceed their assets. A net financial assets position implies that the system has the financial resources required to fund its future operations. A net financial debt position indicates that future revenues will be required to pay for past transactions.

Table 1
City of Brantford
Statement of Operations
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues											
Water Sales											
Metered	\$26,213	\$26,999	\$27,810	\$28,647	\$29,511	\$30,415	\$31,349	\$32,312	\$33,306	\$34,332	\$35,383
Non-Rate Revenue	\$2,146	\$2,189	\$2,233	\$2,277	\$2,323	\$2,369	\$2,417	\$2,465	\$2,514	\$2,565	\$2,616
Interest Earned	\$727	\$658	\$433	\$498	\$599	\$345	\$549	\$858	\$1,127	\$1,316	\$1,348
Earned DC Revenue	\$368	\$2,477	\$2,313	\$3,100	\$11,935	\$9,143	\$4,715	\$4,320	\$4,330	\$4,340	\$4,351
<i>Total Revenue</i>	<u>\$29,455</u>	<u>\$32,324</u>	<u>\$32,789</u>	<u>\$34,522</u>	<u>\$44,368</u>	<u>\$42,272</u>	<u>\$39,029</u>	<u>\$39,955</u>	<u>\$41,277</u>	<u>\$42,553</u>	<u>\$43,697</u>
Expenditures											
Amortization Expense	\$5,542	\$7,978	\$8,408	\$8,819	\$8,913	\$9,746	\$9,779	\$9,683	\$9,618	\$9,823	\$9,866
Interest on Debt Expense	\$769	\$772	\$1,289	\$1,918	\$2,024	\$1,876	\$2,035	\$1,866	\$1,691	\$1,528	\$1,418
Operating Expense	\$16,069	\$16,646	\$17,239	\$17,849	\$18,477	\$19,123	\$19,787	\$20,471	\$21,176	\$21,900	\$22,647
<i>Total Expenditures</i>	<u>\$22,380</u>	<u>\$25,396</u>	<u>\$26,935</u>	<u>\$28,586</u>	<u>\$29,414</u>	<u>\$30,745</u>	<u>\$31,602</u>	<u>\$32,020</u>	<u>\$32,484</u>	<u>\$33,252</u>	<u>\$33,931</u>
Annual Surplus/(Deficit)	<u>\$7,075</u>	<u>\$6,927</u>	<u>\$5,854</u>	<u>\$5,936</u>	<u>\$14,954</u>	<u>\$11,527</u>	<u>\$7,427</u>	<u>\$7,935</u>	<u>\$8,793</u>	<u>\$9,301</u>	<u>\$9,766</u>
Annual Surplus/(Deficit)	\$7,075	\$6,927	\$5,854	\$5,936	\$14,954	\$11,527	\$7,427	\$7,935	\$8,793	\$9,301	\$9,766
Accumulated Surplus, Beginning of Period	\$210,949	\$218,024	\$224,951	\$230,805	\$236,741	\$251,695	\$263,222	\$270,648	\$278,583	\$287,376	\$296,677
Accumulated Surplus, End of Period	<u>\$218,024</u>	<u>\$224,951</u>	<u>\$230,805</u>	<u>\$236,741</u>	<u>\$251,695</u>	<u>\$263,222</u>	<u>\$270,648</u>	<u>\$278,583</u>	<u>\$287,376</u>	<u>\$296,677</u>	<u>\$306,444</u>

Table 2
City of Brantford
Statement of Financial Position
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Financial Assets											
Cash	\$27,424	\$26,592	\$22,397	\$26,755	\$23,762	\$14,192	\$22,234	\$33,382	\$43,428	\$51,240	\$54,440
Total Assets	\$27,424	\$26,592	\$22,397	\$26,755	\$23,762	\$14,192	\$22,234	\$33,382	\$43,428	\$51,240	\$54,440
Liabilities											
Debt	\$20,275	\$42,413	\$69,168	\$74,805	\$70,242	\$78,132	\$72,795	\$67,287	\$61,605	\$57,495	\$53,632
Deferred Revenue	\$5,918	\$7,131	\$9,598	\$12,024	\$6,059	\$4,004	\$6,008	\$8,003	\$10,108	\$12,331	\$14,582
Total Liabilities	\$26,193	\$49,544	\$78,766	\$86,829	\$76,302	\$82,137	\$78,802	\$75,290	\$71,713	\$69,826	\$68,213
Net Financial Assets/(Debt)	\$1,231	(\$22,952)	(\$56,369)	(\$60,075)	(\$52,540)	(\$67,945)	(\$56,568)	(\$41,909)	(\$28,285)	(\$18,587)	(\$13,773)
Non-Financial Assets											
Tangible Capital Assets	\$216,794	\$247,904	\$287,173	\$296,816	\$304,235	\$331,166	\$327,217	\$320,492	\$315,661	\$315,264	\$320,217
Accumulated Surplus/(Deficit)	\$218,024	\$224,951	\$230,805	\$236,741	\$251,695	\$263,222	\$270,648	\$278,583	\$287,376	\$296,677	\$306,444

In 2022, liabilities total \$26.19 million due to debt and deferred revenues, while financial assets are approximately \$27.42 million, which leaves the City in a net financial asset position of \$1.23 million. However, the City's net financial position is expected to be in a debt position over the planning period as significant debenture financing is required in order to carry-out the capital program. Despite the debt position, the City's reserves remain positive throughout the period and the deficit position improves as reserves are accumulated and the City's outstanding debt position improves over time (Appendix A - Table 3).

The Statement of Financial Position also provides information on the City's tangible capital assets. The reporting of tangible capital assets is a requirement under PS3150 of the Public Sector Accounting Board. Prior to 2009, the costs to acquire or construct capital assets were expensed in the year in which they occur. As of 2009 municipalities are required to capitalize their assets and account for their ability to provide future benefits. An increase in the tangible capital asset balance suggests that new assets have been acquired, and a decrease in the balance indicates the disposal, write down or use of assets. The City's tangible capital assets are valued at \$216.79 million in 2022 and are anticipated to grow to \$320.22 million by the end of the period.

C. Statement of Cash Flow – Table 3

The Statement of Cash Flow provides information on the generation and use of cash resources in the following categories: operating; capital; investments; and financing activities. The statement describes how the cash from operations (\$13.76 million) will be used to support the 2022 capital transactions (\$21.34 million). Added to this will be cash derived from investments (\$0.7 million) and financing transaction of \$1.32 million. The difference between the total cash generated and cash used results in an increase or decrease in cash and cash equivalents. The beginning of period cash and cash equivalents is equal to the water reserve funds on hand at the start of the period.

In 2022, the City will see a \$5.52 million decrease in cash equivalents. The City's cash position improves from \$32.95 million in 2022 to \$54.44 million in 2032 despite some intervening years in which a decrease in cash position is realized in order to carry out the capital program.

D. Statement of Change in Net Financial Assets/Debt – Table 4

The Statement of Change in Net Financial Assets/Debt provides information on whether the revenue generated is sufficient to support the operating and tangible capital asset costs. The statement also reconciles the difference between the annual surplus/deficit and the change in net financial assets/debt for the period. The statement outlines that the surplus \$7.08 million and amortization (\$5.54 million) does not exceed the forecasted capital expenditures of \$21.34 million, resulting in a net decrease in net financial assets for 2022. Net financial assets remain negative for some of the early years of the forecast as the City carries-out the \$217.39 million capital program. The change in net financial assets improves to a positive position toward the latter end of the planning period.

Table 3
City of Brantford
Statement of Cash Flow
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Operating Transactions											
Annual Surplus/(Deficit)	\$7,075	\$6,927	\$5,854	\$5,936	\$14,954	\$11,527	\$7,427	\$7,935	\$8,793	\$9,301	\$9,766
Add: Amortization of TCA's	\$5,542	\$7,978	\$8,408	\$8,819	\$8,913	\$9,746	\$9,779	\$9,683	\$9,618	\$9,823	\$9,866
Less: DC Revenue	(\$368)	(\$2,477)	(\$2,313)	(\$3,100)	(\$11,935)	(\$9,143)	(\$4,715)	(\$4,320)	(\$4,330)	(\$4,340)	(\$4,351)
Add: Development Charge Proceeds	\$2,241	\$3,691	\$4,780	\$5,526	\$5,970	\$7,088	\$6,718	\$6,315	\$6,435	\$6,563	\$6,602
Less: Interest Proceeds	(\$727)	(\$658)	(\$433)	(\$498)	(\$599)	(\$345)	(\$549)	(\$858)	(\$1,127)	(\$1,316)	(\$1,348)
Cash Provided by Operating:	\$13,762	\$15,461	\$16,295	\$16,684	\$17,304	\$18,873	\$18,661	\$18,755	\$19,389	\$20,032	\$20,536
Capital Transactions											
Proceeds on Sale of Tangible Capital Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Less: Used to Acquire Tangible Capital Assets	(\$21,335)	(\$39,089)	(\$47,677)	(\$18,461)	(\$16,332)	(\$36,677)	(\$5,830)	(\$2,959)	(\$4,787)	(\$9,426)	(\$14,820)
Cash Applied to Capital	(\$21,335)	(\$39,089)	(\$47,677)	(\$18,461)	(\$16,332)	(\$36,677)	(\$5,830)	(\$2,959)	(\$4,787)	(\$9,426)	(\$14,820)
Investing Transactions											
Proceeds from Investments	\$727	\$658	\$433	\$498	\$599	\$345	\$549	\$858	\$1,127	\$1,316	\$1,348
Less: Cash Used to Acquire Investments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cash Provided by Investing	\$727	\$658	\$433	\$498	\$599	\$345	\$549	\$858	\$1,127	\$1,316	\$1,348
Financing Transactions											
Proceeds from Debt Issues	\$3,000	\$24,000	\$29,600	\$9,700	\$0	\$12,600	\$0	\$0	\$0	\$0	\$0
Less: Debt Repayment (principal only)	(\$1,679)	(\$1,863)	(\$2,844)	(\$4,063)	(\$4,563)	(\$4,710)	(\$5,338)	(\$5,507)	(\$5,682)	(\$4,110)	(\$3,864)
Cash Applied for Financing	\$1,321	\$22,137	\$26,756	\$5,637	(\$4,563)	\$7,890	(\$5,338)	(\$5,507)	(\$5,682)	(\$4,110)	(\$3,864)
Increase/(Decrease) in Cash and Cash Equivalents	(\$5,524)	(\$832)	(\$4,194)	\$4,357	(\$2,993)	(\$9,570)	\$8,042	\$11,147	\$10,046	\$7,812	\$3,200
Cash and Cash Equivalents											
Beginning of Period	\$32,948	\$27,424	\$26,592	\$22,397	\$26,755	\$23,762	\$14,192	\$22,234	\$33,382	\$43,428	\$51,240
Increase/(Decrease)	(\$5,524)	(\$832)	(\$4,194)	\$4,357	(\$2,993)	(\$9,570)	\$8,042	\$11,147	\$10,046	\$7,812	\$3,200
End of Period	\$27,424	\$26,592	\$22,397	\$26,755	\$23,762	\$14,192	\$22,234	\$33,382	\$43,428	\$51,240	\$54,440

Table 4
City of Brantford
Statement of Change in Net Financial Assets (Debts)
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Annual Surplus/(Deficit)	\$7,075	\$6,927	\$5,854	\$5,936	\$14,954	\$11,527	\$7,427	\$7,935	\$8,793	\$9,301	\$9,766
Amortization of Tangible Capital Assets	\$5,542	\$7,978	\$8,408	\$8,819	\$8,913	\$9,746	\$9,779	\$9,683	\$9,618	\$9,823	\$9,866
Less: Acquisition of Tangible Capital Assets	(\$21,335)	(\$39,089)	(\$47,677)	(\$18,461)	(\$16,332)	(\$36,677)	(\$5,830)	(\$2,959)	(\$4,787)	(\$9,426)	(\$14,820)
Change in Net Financial Assets/(Debt)	(\$8,718)	(\$24,183)	(\$33,416)	(\$3,706)	\$7,535	(\$15,405)	\$11,376	\$14,659	\$13,624	\$9,698	\$4,813
Net Financial Assets/(Debt)											
Beginning of Period	\$9,949	\$1,231	(\$22,952)	(\$56,369)	(\$60,075)	(\$52,540)	(\$67,945)	(\$56,568)	(\$41,909)	(\$28,285)	(\$18,587)
Increase/(Decrease)	(\$8,718)	(\$24,183)	(\$33,416)	(\$3,706)	\$7,535	(\$15,405)	\$11,376	\$14,659	\$13,624	\$9,698	\$4,813
End of Period	\$1,231	(\$22,952)	(\$56,369)	(\$60,075)	(\$52,540)	(\$67,945)	(\$56,568)	(\$41,909)	(\$28,285)	(\$18,587)	(\$13,773)

5. Notes and Assumptions to Financial Plan

Section 3(2) of *O. Reg. 453/07* states that the information is required only if the information is known to the owner at the time the financial plan is prepared. The assumptions used in preparing the financial plan are noted below.

i. **Cash**

The beginning of period Cash and Cash equivalents contained in the Statement of Cash Flows is the total of the opening balance of reserve funds. The opening balances were unaudited at the time the Financial Plan was prepared and may change.

ii. **Receivables and Payables**

It is assumed that the water receivables and payables are not significant and therefore have not been identified.

iii. **Debt**

As of December 31st, 2021, the City had an outstanding debt of \$18.95 million related to the Water Treatment Plant and Water Treatment Plant Upgrades.

Further to the existing approved debt, an additional \$15.00 million in rate funded debenture financing and \$63.90 million in DC debenture financing is included in the Water Financial Plan to help “smooth” out the immediate cash requirements to carry-out the \$217.39 million in projected capital expenditures over the forecast period. This debt is assumed over a 20 year period at a 2.47% annual interest rate, which accounts for estimated average long-term interest rates.

iv. **Deferred Revenue**

Deferred revenue represents the development charge reserve fund balance. For financial reporting purposes, development charges are deemed a liability until they are used to acquire or construct the infrastructure for which they were collected.

v. **Accumulated Surplus**

The accumulated surplus for all years in the forecast period is contained in Table 5.

Table 5
City of Brantford
Reconciliation of Accumulated Surplus
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Opening Reserve Balance											
Development Charges	\$4,045	\$5,918	\$7,131	\$9,598	\$12,024	\$6,059	\$4,004	\$6,008	\$8,003	\$10,108	\$12,331
Water Reserves	\$28,903	\$21,506	\$19,460	\$12,799	\$14,730	\$17,702	\$10,188	\$16,226	\$25,378	\$33,320	\$38,909
Total Reserve Balance	\$32,948	\$27,424	\$26,592	\$22,397	\$26,755	\$23,762	\$14,192	\$22,234	\$33,382	\$43,428	\$51,240
Less: Debt Obligations and Deferred Revenue	(\$22,999)	-	-	-	-	-	-	-	-	-	-
Add: Tangible Capital Assets	\$201,000	\$216,794	\$247,904	\$287,173	\$296,816	\$304,235	\$331,166	\$327,217	\$320,492	\$315,661	\$315,264
Total Opening Balance	\$210,949	\$218,024	\$224,951	\$230,805	\$236,741	\$251,695	\$263,222	\$270,648	\$278,583	\$287,376	\$296,677
Add: Contributions To/(From) Reserves (excl. DC)											
Water Reserve	(\$7,397)	(\$2,046)	(\$6,661)	\$1,931	\$2,972	(\$7,515)	\$6,039	\$9,152	\$7,941	\$5,589	\$950
Total Change in Reserve	(\$7,397)	(\$2,046)	(\$6,661)	\$1,931	\$2,972	(\$7,515)	\$6,039	\$9,152	\$7,941	\$5,589	\$950
Add: Changes in TCA during the year											
Capital Assets Acquired/(Disposed)	\$21,335	\$39,089	\$47,677	\$18,461	\$16,332	\$36,677	\$5,830	\$2,959	\$4,787	\$9,426	\$14,820
Amortization of Capital Assets	(\$5,542)	(\$7,978)	(\$8,408)	(\$8,819)	(\$8,913)	(\$9,746)	(\$9,779)	(\$9,683)	(\$9,618)	(\$9,823)	(\$9,866)
Total Change in Tangible Capital Assets	\$15,793	\$31,110	\$39,270	\$9,642	\$7,419	\$26,932	(\$3,950)	(\$6,724)	(\$4,831)	(\$398)	\$4,953
Subtract Changes in Debt Position											
New Debt	(\$3,000)	(\$24,000)	(\$29,600)	(\$9,700)	\$0	(\$12,600)	\$0	\$0	\$0	\$0	\$0
Debt Repayment (Principal Only)	\$1,679	\$1,863	\$2,844	\$4,063	\$4,563	\$4,710	\$5,338	\$5,507	\$5,682	\$4,110	\$3,864
Total Change in Debt	(\$1,321)	(\$22,137)	(\$26,756)	(\$5,637)	\$4,563	(\$7,890)	\$5,338	\$5,507	\$5,682	\$4,110	\$3,864
Total Ending Balance	\$218,024	\$224,951	\$230,805	\$236,741	\$251,695	\$263,222	\$270,648	\$278,583	\$287,376	\$296,677	\$306,444

vi. **Lead Pipes**

Ontario Regulation 453/07 regulation contains a requirement for municipalities to include in the Financial Plan the cost associated with replacing lead pipes that are part of the drinking water system. The City currently does not have to replace any lead pipes and does not expect to replace any in the future. Therefore, no provision for lead pipe replacement is required for this plan.

6. Overview of Results

The main purpose of this report is intended to illustrate the financial viability of the water system over an 11-year planning period to 2032. The financial plan contained in this document outlines that the City's drinking water systems are financially viable, although, some important items should be considered.

- In developing this Water Financial Plan, the City recognizes that this is a living document and it is expected to be reviewed again during the City's next Water and Wastewater Rate Study update or earlier if deemed necessary by staff.
- In addition to annual operating, maintenance and debt servicing costs, water infrastructure will require periodic rehabilitation and eventual replacement. When assets require rehabilitation or are due for replacement, the source of funds are essentially limited to reserves or contributions from operating. In maintaining a user-pay approach, it is important for the City to continue to build sufficient reserves for the scheduled replacement of infrastructure through contributions from operating. As the City's water infrastructure ages, maintaining assets in a state of good repair will ensure these assets continue to maintain service levels and the services are operated in accordance with Provincial legislation that guarantees safety, quality and reliability. The contribution requirements are intended to be informed through the City's Asset Management Plan which will continue to be refined over the coming years.
- The City does expect to experience significant growth and non-growth related capital pressures over the next few years to expand the capacity of the existing system to facilitate development over the long-term (i.e. new watermains, watermain upgrades, high lift pump upgrades, booster pump station, etc.). This means that these projects will require careful monitoring to continue to ensure financial sustainability.
 - The growth-related capital expenditures over the forecast period equate to over \$84.94 million, which would need to be funded from development charges while the non-growth program amounts to \$132.45 million. In order to smooth the financial impact these projects would have on the existing reserve funds and utility rates, debenture financing requirements are assumed to assist in carrying out the program. As a result, the City should continue to exercise caution in planning for these projects to ensure the projects can properly be funded from the water utility system and development charges for the growth-related infrastructure. Please note, the quantum of external financing required would be determined by

staff and council through the budget process at the time of expenditure and is included in this study for financial planning purposes.

It is fiscally prudent the City continue to monitor their water operations to compare the accuracy of the financial projections with the actual results, as this will lead to improved planning in the future.

Appendix A Supporting Tables

Appendix A - Table 1
City of Brantford
Operating Budget Forecast
(in \$000's)

Item	Budget	Forecast										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Expenditures												
Operating Costs												
Environmental Services Admin	\$1,851	\$1,892	\$1,934	\$1,977	\$2,021	\$2,066	\$2,112	\$2,160	\$2,208	\$2,258	\$2,309	\$2,361
Water Administration	\$2,795	\$2,852	\$2,910	\$2,970	\$3,031	\$3,093	\$3,157	\$3,221	\$3,288	\$3,355	\$3,424	\$3,495
Water Treatment Oper Admin	\$2,987	\$3,059	\$3,133	\$3,209	\$3,287	\$3,367	\$3,449	\$3,534	\$3,621	\$3,710	\$3,801	\$3,896
Treatment Operations	\$2,836	\$2,946	\$3,061	\$3,181	\$3,306	\$3,436	\$3,572	\$3,714	\$3,861	\$4,015	\$4,176	\$4,343
Water Treatment Maintenance	\$1,187	\$1,211	\$1,235	\$1,260	\$1,285	\$1,311	\$1,337	\$1,364	\$1,391	\$1,419	\$1,447	\$1,476
Water Distribution General	\$3,243	\$3,320	\$3,400	\$3,482	\$3,566	\$3,652	\$3,740	\$3,831	\$3,924	\$4,020	\$4,118	\$4,219
Water Distribution Maintenance	\$721	\$739	\$758	\$777	\$797	\$817	\$838	\$859	\$881	\$904	\$928	\$951
Debt Payments (Existing)	\$2,448	\$2,448	\$2,448	\$2,448	\$2,448	\$2,448	\$2,448	\$2,448	\$2,448	\$2,448	\$713	\$356
Debt Payments (Future)	\$0	\$0	\$0	\$468	\$936	\$936	\$936	\$936	\$936	\$936	\$936	\$936
Debt Payments (Future DC)	\$0	\$0	\$187	\$1,217	\$2,597	\$3,202	\$3,202	\$3,989	\$3,989	\$3,989	\$3,989	\$3,989
Provision For Service Enhancements	\$0	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
Provision For Service Enhancements	\$0	\$0	\$165	\$334	\$507	\$685	\$868	\$1,055	\$1,247	\$1,445	\$1,647	\$1,855
Total Operating Cost	\$18,066	\$18,517	\$19,281	\$21,372	\$23,830	\$25,063	\$25,709	\$27,160	\$27,844	\$28,548	\$27,538	\$27,928
Capital Related Costs												
Growth-Related Capital	\$0	\$3,368	\$18,790	\$23,196	\$10,203	\$8,733	\$18,541	\$726	\$331	\$341	\$351	\$362
Non-Growth Capital	\$0	\$17,967	\$20,298	\$24,482	\$8,259	\$7,600	\$18,137	\$5,104	\$2,627	\$4,446	\$9,074	\$14,458
Future Debt Financing - Non-Growth	\$0	\$0	(\$7,500)	(\$7,500)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Future Debt Financing - Growth	\$0	(\$3,000)	(\$16,500)	(\$22,100)	(\$9,700)	\$0	(\$12,600)	\$0	\$0	\$0	\$0	\$0
Total Capital Related Cost	\$0	\$18,335	\$15,089	\$18,077	\$8,761	\$16,332	\$24,077	\$5,830	\$2,959	\$4,787	\$9,426	\$14,820
Reserve Contribution												
Contributions to/(from) Water Reserve	\$8,337	\$9,843	\$10,095	\$9,888	\$9,691	\$9,973	\$10,278	\$10,594	\$10,921	\$11,261	\$13,347	\$14,059
Contributions from DC Water Reserve Fund	\$0	(\$368)	(\$2,290)	(\$1,096)	(\$503)	(\$8,733)	(\$5,941)	(\$726)	(\$331)	(\$341)	(\$351)	(\$362)
Total Reserve Contribution	\$8,337	\$9,475	\$7,805	\$8,792	\$9,188	\$1,240	\$4,337	\$9,868	\$10,590	\$10,919	\$12,996	\$13,697
Total Expenditures	\$26,404	\$46,326	\$42,174	\$48,242	\$41,780	\$42,636	\$54,124	\$42,858	\$41,393	\$44,255	\$49,960	\$56,445

Item	Budget	Forecast										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenues												
Non-User Rate Revenue	\$2,104	\$2,146	\$2,189	\$2,233	\$2,277	\$2,323	\$2,369	\$2,417	\$2,465	\$2,514	\$2,565	\$2,616
Water Billing Revenue	\$24,300	\$26,213	\$26,999	\$27,810	\$28,647	\$29,511	\$30,415	\$31,349	\$32,312	\$33,306	\$34,332	\$35,383
Contribution from DC Reserves (Debt)	\$0	\$0	\$187	\$1,217	\$2,597	\$3,202	\$3,202	\$3,989	\$3,989	\$3,989	\$3,989	\$3,989
Transfer from Water Reserve (non-growth) for Capital	\$0	\$17,967	\$12,798	\$16,982	\$8,259	\$7,600	\$18,137	\$5,104	\$2,627	\$4,446	\$9,074	\$14,458
Total Revenue	\$26,404	\$46,326	\$42,174	\$48,242	\$41,780	\$42,636	\$54,124	\$42,858	\$41,393	\$44,255	\$49,960	\$56,445

Appendix A –Table 2
City Of Brantford
Capital Budget Forecast
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Capital Program											
Growth Related	\$3,368	\$18,790	\$23,196	\$10,203	\$8,733	\$18,541	\$726	\$331	\$341	\$351	\$362
Non-Growth Related	\$17,967	\$20,298	\$24,482	\$8,259	\$7,600	\$18,137	\$5,104	\$2,627	\$4,446	\$9,074	\$14,458
Total	\$21,335	\$39,089	\$47,677	\$18,461	\$16,332	\$36,677	\$5,830	\$2,959	\$4,787	\$9,426	\$14,820
Debt Financing	\$0	(\$7,500)	(\$7,500)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Revised Total	\$21,335	\$31,589	\$40,177	\$18,461	\$16,332	\$36,677	\$5,830	\$2,959	\$4,787	\$9,426	\$14,820
Funding Sources											
Transfer from Water Reserve	\$17,967	\$12,798	\$16,982	\$8,259	\$7,600	\$18,137	\$5,104	\$2,627	\$4,446	\$9,074	\$14,458
Transfer from Development Charges Reserve	\$368	\$2,290	\$1,096	\$503	\$8,733	\$5,941	\$726	\$331	\$341	\$351	\$362
Non-Growth Debenture Requirements	\$0	\$7,500	\$7,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Growth-Related Debenture Requirements	\$3,000	\$16,500	\$22,100	\$9,700	\$0	\$12,600	\$0	\$0	\$0	\$0	\$0
Total Funding	\$21,335	\$39,089	\$47,677	\$18,461	\$16,332	\$36,677	\$5,830	\$2,959	\$4,787	\$9,426	\$14,820

Appendix A –Table 3
City of Brantford
Reserve and Reserve Fund Continuity
(in \$000's)

Item	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Water Reserves											
Opening Balance	\$28,903	\$21,506	\$19,460	\$12,799	\$14,730	\$17,702	\$10,188	\$16,226	\$25,378	\$33,320	\$38,909
Transfer from Operating	\$9,843	\$10,095	\$9,888	\$9,691	\$9,973	\$10,278	\$10,594	\$10,921	\$11,261	\$13,347	\$14,059
Transfer to Capital	(\$17,967)	(\$12,798)	(\$16,982)	(\$8,259)	(\$7,600)	(\$18,137)	(\$5,104)	(\$2,627)	(\$4,446)	(\$9,074)	(\$14,458)
Interest Earned	\$727	\$658	\$433	\$498	\$599	\$345	\$549	\$858	\$1,127	\$1,316	\$1,348
Ending Balance	\$21,506	\$19,460	\$12,799	\$14,730	\$17,702	\$10,188	\$16,226	\$25,378	\$33,320	\$38,909	\$39,858
Debenture Requirements	\$0	\$7,500	\$7,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Development Charge Reserve											
Opening Balance	\$4,045	\$5,918	\$7,131	\$9,598	\$12,024	\$6,059	\$4,004	\$6,008	\$8,003	\$10,108	\$12,331
Revenue	\$2,041	\$3,450	\$4,455	\$5,120	\$5,765	\$6,953	\$6,515	\$6,045	\$6,093	\$6,146	\$6,108
Transfer to Capital	(\$3,368)	(\$18,790)	(\$23,196)	(\$10,203)	(\$8,733)	(\$18,541)	(\$726)	(\$331)	(\$341)	(\$351)	(\$362)
Transfer to Operating Existing	\$3,000	\$16,500	\$22,100	\$9,700	\$0	\$12,600	\$0	\$0	\$0	\$0	\$0
Transfer to Operating Future	\$0	(\$187)	(\$1,217)	(\$2,597)	(\$3,202)	(\$3,202)	(\$3,989)	(\$3,989)	(\$3,989)	(\$3,989)	(\$3,989)
Interest	\$200	\$241	\$325	\$407	\$205	\$135	\$203	\$271	\$342	\$417	\$493
Ending Balance	\$5,918	\$7,131	\$9,598	\$12,024	\$6,059	\$4,004	\$6,008	\$8,003	\$10,108	\$12,331	\$14,582
Debenture Requirements	\$3,000	\$16,500	\$22,100	\$9,700	\$0	\$12,600	\$0	\$0	\$0	\$0	\$0

Appendix A –Table 4a
City of Brantford
Debenture Schedule
(in \$000's)

Note: Appendix A – Table 4 has been divided into two parts (a and b) for accessibility. The division was based on continuance of years.

Item	2022		2023		2024		2025		2026		2027	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
Water Treatment Plant 2010	\$1,190	\$545	\$1,242	\$493	\$1,297	\$438	\$1,354	\$381	\$1,414	\$321	\$1,476	\$259
Water Treatment Plant Upgrade 2012	\$489	\$224	\$507	\$205	\$526	\$186	\$546	\$167	\$566	\$146	\$588	\$125
Future Assumed Rate Funded Debt (\$7,500,000) 2023	\$0	\$0	\$0	\$0	\$283	\$185	\$290	\$178	\$297	\$171	\$304	\$164
Future Assumed Rate Funded Debt (\$7,500,000) 2024	\$0	\$0	\$0	\$0	\$0	\$0	\$283	\$185	\$290	\$178	\$297	\$171
City-wide excl ASDC (\$600,000) 2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Northern Boundary (\$3,00,000) 2022	\$0	\$0	\$113	\$74	\$116	\$71	\$119	\$68	\$122	\$66	\$125	\$62
Northern Boundary (\$16,500,000) 2023	\$0	\$0	\$0	\$0	\$622	\$408	\$638	\$392	\$654	\$376	\$670	\$360
Northern Boundary (\$22,000,000) 2024	\$0	\$0	\$0	\$0	\$0	\$0	\$830	\$543	\$850	\$523	\$871	\$502
Northern Boundary (\$7,200,000) 2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$272	\$178	\$278	\$171
Northern Boundary (\$12,000,000) 2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tutela Heights (\$100,000) 2024	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$2	\$4	\$2	\$4	\$2
Tutela Heights (\$2,500,000) 2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$94	\$62	\$97	\$59
Total	\$1,679	\$769	\$1,863	\$772	\$2,844	\$1,289	\$4,063	\$1,918	\$4,563	\$2,024	\$4,710	\$1,876

Appendix A –Table 4b
City of Brantford
Debenture Schedule
(in \$000's)

Item	2028		2029		2030		2031		2032		Total	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
Water Treatment Plant 2010	\$1,541	\$194	\$1,609	\$126	\$1,680	\$55	\$0	\$0	\$0	\$0	\$12,803	\$2,813
Water Treatment Plant Upgrade 2012	\$610	\$103	\$632	\$80	\$656	\$57	\$681	\$32	\$350	\$6	\$6,151	\$1,332
Future Assumed Rate Funded Debt (\$7,500,000) 2023	\$312	\$156	\$320	\$149	\$328	\$141	\$336	\$133	\$344	\$124	\$2,813	\$1,401
Future Assumed Rate Funded Debt (\$7,500,000) 2024	\$304	\$164	\$312	\$156	\$320	\$149	\$328	\$141	\$336	\$133	\$2,469	\$1,276
City-wide excl ASDC (\$600,000) 2027	\$23	\$15	\$23	\$14	\$24	\$14	\$24	\$13	\$25	\$12	\$119	\$68
Northern Boundary (\$3,00,000) 2022	\$128	\$59	\$131	\$56	\$134	\$53	\$138	\$50	\$141	\$46	\$1,266	\$607
Northern Boundary (\$16,500,000) 2023	\$686	\$344	\$703	\$327	\$721	\$309	\$738	\$292	\$757	\$273	\$6,189	\$3,081
Northern Boundary (\$22,000,000) 2024	\$893	\$480	\$915	\$458	\$938	\$436	\$961	\$413	\$984	\$389	\$7,243	\$3,744
Northern Boundary (\$7,200,000) 2025	\$285	\$164	\$292	\$157	\$299	\$150	\$307	\$143	\$314	\$135	\$2,048	\$1,098
Northern Boundary (\$12,000,000) 2027	\$453	\$296	\$464	\$285	\$475	\$274	\$487	\$262	\$499	\$250	\$2,378	\$1,367
Tutela Heights (\$100,000) 2024	\$4	\$2	\$4	\$2	\$4	\$2	\$4	\$2	\$4	\$2	\$33	\$17
Tutela Heights (\$2,500,000) 2025	\$99	\$57	\$101	\$55	\$104	\$52	\$107	\$50	\$109	\$47	\$711	\$381
Total	\$5,338	\$2,035	\$5,507	\$1,866	\$5,682	\$1,691	\$4,110	\$1,528	\$3,864	\$1,418	\$44,222	\$17,186

Appendix A – Table 5
City of Brantford
Summary of Tangible Capital Asset Balances – Water Systems
(in \$000's)

Item	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Opening Tangible Capital Assets	\$281,766	\$304,029	\$325,364	\$364,452	\$412,129	\$430,591	\$446,923	\$483,601	\$489,430	\$492,389	\$497,176	\$506,602
Plus: Acquisitions - Repair/Replacement	\$21,396	\$17,967	\$20,298	\$24,482	\$8,259	\$7,600	\$18,137	\$5,104	\$2,627	\$4,446	\$9,074	\$14,458
Plus: Acquisitions - Growth Related	\$866	\$3,368	\$18,790	\$23,196	\$10,203	\$8,733	\$18,541	\$726	\$331	\$341	\$351	\$362
Less: Disposals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Closing Tangible Capital Assets	\$304,029	\$325,364	\$364,452	\$412,129	\$430,591	\$446,923	\$483,601	\$489,430	\$492,389	\$497,176	\$506,602	\$521,421
Opening Accumulated Amortization	\$97,435	\$103,028	\$108,570	\$116,548	\$124,956	\$133,775	\$142,689	\$152,434	\$162,214	\$171,897	\$181,515	\$191,338
Plus: Amortization Expense	\$5,593	\$5,542	\$7,978	\$8,408	\$8,819	\$8,913	\$9,746	\$9,779	\$9,683	\$9,618	\$9,823	\$9,866
Less: Amortization of Disposals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Closing Accumulated Amortization	\$103,028	\$108,570	\$116,548	\$124,956	\$133,775	\$142,689	\$152,434	\$162,214	\$171,897	\$181,515	\$191,338	\$201,204
Net Book Value	\$201,000	\$216,794	\$247,904	\$287,173	\$296,816	\$304,235	\$331,166	\$327,217	\$320,492	\$315,661	\$315,264	\$320,217

Note: Amounts are unaudited for planning purposes only. Actual results will differ from the above.
Source: 2021 opening balance based on City's 2020 FIR.