

Corporation of the Township of Havelock-Belmont-Methuen

Havelock Drinking Water System Financial Plan #140-301

SUBMITTED BY

Ontario Clean Water Agency
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STATEMENT OF CONFIDENTIALITY

OCWA's Report to the Township of Havelock-Belmont-Methuen for the Havelock Drinking Water System Financial Plan

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Appendix A: Ontario Regulation 453/07

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1 Introduction

The Corporation of the Township of Havelock-Belmont-Methuen (the Township) has retained the Ontario Clean Water Agency (OCWA) to update the Financial Plan for the Township's Drinking Water System (DWS) in order to comply with the Financial Plan regulation (O. Reg. 453/07) made under the Safe Drinking Water Act.

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

The Financial Plan was prepared for the Township's DWS based on information supplied by Township and operational staff, including future capital and major maintenance projects, water system financial information, as well as tangible capital asset information that the Township generated in accordance with the Public Sector Accounting Board (PSAB) standard PS 3150 requirements.

The information supplied by the Township and operational staff was used to generate a financial operating plan that forecasted future annual expenditure requirements from 2020 to 2025. A revenue plan relying primarily on user fees was generated to support the expenditure requirements outlined in the operating plan. The information generated in the operating and revenue plans along with the tangible capital asset information was used to develop a Financial Plan for the Township's DWS covering a study period from 2020 to 2025 in accordance with O.Reg. 453/07 requirements (minimum 6 year study period).

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 waterborne illness tragedy in Walkerton in 2000. Following this incident, 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 MECP 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 obtain a Municipal Drinking Water Licence. There are five elements that must be in place in order for the owner of a drinking water system to obtain a Licence:

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

- 5) A Financial Plan prepared and approved in accordance with the prescribed requirements in the Financial Plans Regulation.

Under section 30 of the SDWA, the Financial Plan element of the licence program must either be prepared in accordance with the Sustainable Water and Sewage System Act, 2002 (SWSSA) or in accordance with the requirements set by the Minister of the Environment. SWSSA regulations have not been published. Accordingly, the requirements set by the Minister of Environment apply as per the 2007 MECP guidelines.

Regulation 453/07 of the Safe Drinking Water Act was passed in 2007 and contains two key provisions that apply to an existing water system:

- 1) A person who makes an application under the Act for a municipal drinking water licence shall, before making the application, prepare and approve Financial Plans for the system that satisfy the requirements of Reg. 453/07. O. Reg. 453/07, S. 1(1).
- 2) As a condition in a municipal drinking water licence that is issued in response to an application made under section 33 of the Act for a municipal drinking water licence, the Director shall include a requirement that the owner of the drinking water system, by the later of July 1, 2010 and the date that is six months after the date the first licence for the system is issued, prepare and approve Financial Plans for the system that satisfy the requirements prescribed Reg. 453/07. O. Reg. 453, S. 1(3).

Several other provisions are also set out in the regulation that must be met by a municipality operating a water system:

- 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.
- The Financial Plan must be available, upon request, to members of the public at no charge and posted on the internet (if the municipality maintains a website).
- The municipality must provide notice as deemed appropriate to advise the public of the availability of the Financial Plan.

Once a system is licenced, the municipality's Financial Plan is required to be updated every five years, in conjunction with every application for license renewal. Full documentation of the Financial Plan regulation, O.Reg. 453/07 can be found in Attachment 1.

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 the assets of drinking water systems, be included in municipal financial statements. *Stat 3150* came into effect on January 1, 2009.

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 MECP 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 (2010-2012).

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

1.2 Havelock Drinking Water System

The Havelock Drinking Water System (DWS), located in the Township is owned by the Corporation of the Township of Havelock-Belmont-Methuen and is operated by the Ontario Clean Water Agency under contract. The DWS provides drinking water to the Havelock community.

The DWS is composed of three wells (#1, #3 #4), one pumphouse with treatment facilities for Wells #1 and #4, one treatment plant for Well #3, one standpipe, and approximately 10.5km of distribution water mains. The pumphouse has a rated capacity of 1,020 m³/day and an average daily flow of approximately 585 m³/day, while the treatment plant for Well #3 has a capacity of 1,313 m³/d and is used as a back-up for the pumphouse system. The pumphouse subsystem utilizes ultraviolet disinfection and sodium hypochlorite for treatment. The Well #3 treatment plant uses chemically assisted dual media (GAC/sand) gravity filtration along with ultraviolet disinfection and sodium hypochlorite for treatment. The treatment plant site also includes an on-site storage reservoir, emergency back-up power, two high lift pumps, and two fire flow pumps. The system includes off-site storage of a concrete standpipe with a storage volume of 1,527 m³.

The Township is comprised of 4,530 residents (2016 census) with the DWS also servicing commercial users. The population is anticipated to grow at a rate of 9.2% over the next 20 years, based on the Township's official plan.

2 Financial Operating Plan

The financial operating plan includes the full costs of operating the Township's DWS on an on-going basis and includes capital investments, operating costs, maintenance costs, administration costs, and other miscellaneous costs.

A financial operating plan for the Township's DWS was developed using historical financial statements, forecasted capital and major maintenance expenditures, and tangible capital asset information. These aforementioned elements were used to forecast the annual expenditure requirements while taking into account contingency costs, inflation and expected growth.

2.1 Operating Expenses

Recurring operating expenses for the Township's DWS consists of wages, contracted services and benefits for plant operations and Township staff. Operating costs also include financial expenses, program support, materials and supplies, utility costs (i.e Hydro & Gas), and expenses related to source water protection.

The total water operating expenses incurred in 2019 (excluding capital items) for the Township's DWS is estimated to be \$355,840 (refer to Statement of Financial Operations). These costs are expected to

increase by 2% - 4% annually over the course of the study period based on inflation and the increasing costs associated with energy and treatment chemicals. Based on operating expenses in previous years, expenses during the study period may fluctuate by +/-10-30% according to the variance in needs and activities in any given year. Projected expenses are based on average expenses from 2017 and 2018 that have been adjusted for inflation and forecasted to 2025. Based on these projections, by the end of the planning period in 2025, total operating costs are expected to be approximately \$406,000.

2.2 Capital Costs

Yearly maintenance expenditures refer to upkeep costs to maintain assets in service. Major maintenance refers to rehabilitation activities to extend the service life of assets. Capital expenditures are the costs involved in upgrading, acquiring, or replacing an asset used in the drinking water system.

An existing capital and major maintenance plan was updated to identify future capital and major maintenance needs over a 10 year (2020-2029) period, as part of the development of this Financial Plan. Capital expenses including major maintenance contribute to the asset value of the plant. Yearly maintenance is not factored into the value of the system's assets and is considered an operational expense. The Financial Plan covers the period 2020 to 2025 and utilizes information from the 10-year capital and major maintenance plan.

Some of the major expenditures that are capitalized during the study period (2020-2025) include the following:

- Replacement of PLCs and dialer for \$55,000
- UV reactor replacement for \$50,000
- Replacement of fire hydrants, transmission valves, and water services connections in the distribution system for \$490,000, evenly allocated over the next ten years.

All capital and major maintenance cost estimates include a 15% contingency to account for unplanned work.

2.3 Debt Management

Presently, the Township's DWS has no debt. Given the financial projections shown in Section 7, it is unlikely that debt will be incurred in the planning period unless a major capital project that has not been accounted for is undertaken in the immediate future.

2.4 Lead Pipe Replacement Cost

There are no costs associated with lead pipe replacement for the Township's DWS.

2.5 Source Water Protection Costs

Currently, the Township allocates \$17,500/year as its share for source water protection. It is one of 53 DWSs in the Trent Conservation Coalition Source Protection Region and one of four systems in the Crowe Valley Source Protection Area.

3 Funding Plan

A funding plan was developed to ensure that the annual expenditures forecasted in the financial operating plan can be sustained over the study period. The funding plan relies mainly on the revenues generated from the direct users of the DWS through water rates to cover forecasted capital and operating costs. The plan also considered potential infrastructure and federal/provincial grants that would help fund expenditures for the study period.

3.1 Water Rates

Water consumption is not metered for customers in the Township. These non-metered customers are charged a flat-rate and billed on a monthly basis. The monthly rate for residential units is \$59/month and \$69/month for commercial units.

The forecasted water rates to 2025 are shown in Table 3.1.

Table 3.1 – Recommended Water Rate Increases from 2019-2025

Year	<i>Proposed Water Rate Increases</i>						
	2019	2020	2021	2022	2023	2024	2025
Residential Water User Fees (\$/year)	\$708.00	\$736.00	\$766.00	\$796.00	\$828.00	\$845.00	\$862.00
Residential Water User Fees (\$/month)	\$59.00	\$61.36	\$63.81	\$66.37	\$69.02	\$70.40	\$71.81
% Increase (for all users)	-	4.00%	4.00%	4.00%	4.00%	2.00%	2.00%

In the Township’s 2016-2021 Financial Plan, rate increases of \$2/month/year were proposed, which would result in a 2019 rate of \$63/month. As the actual 2019 rate is \$59/month, the proposed rates were not implemented for all five years. Based on present capital and expense projections, if the future rate increases are at or below the expected 2%/year inflation rate, then the drinking water system will not be able to sustain itself.

It is recommended that water rates increase in order for the drinking water system to be financially stable in the long-term. It is proposed that the water rate increases by approximately 4% for 2020-2023 (approximately \$2.50 per year), reducing to 2% by 2024 (approximately \$1.50 per year).

As the water rates steadily increase, the revenues generated will allow the system to balance its expenses and maintain a steady reserve fund. Any yearly surplus obtained through the water rates would be allocated to the Water System Reserve Fund for future major capital works (plant, well, or main replacement).

3.2 Water System Reserve Fund

The water system reserve fund is an account dedicated for waterworks only. It is used to set aside funds to finance future expenditures in the DWS. This account determines the financial health/sustainability of the DWS. The DWS is considered to be financially healthy and/or sustainable when the balance at the end of the year is positive. This ending balance is obtained after factoring the yearly cash inflows and outflows. This account receives cash inflows through funds transferred from the Township’s operating

account, additional annual surplus from water rates, and interest accrued (if any). The cash outflows consist of expenditures on capital and major maintenance works, and any interest paid (if any).

The reserve account at the beginning of 2019 was approximately \$682,000 and is expected to become \$683,000 by the end of 2025 should all the projected capital and major maintenance works be implemented.

3.3 Government Funding

With no major capital projects identified, no government funding has been incorporated into the financial plan. However, if unforeseen work is required, the Township is advised to apply for applicable funding to reduce impact to rate payers.

Currently available funding sources include: Investing in Canada Infrastructure Program (ICIP) – Green Stream, New Building Canada Fund - Small Communities Fund (SCF), Municipal Asset Management Program (MAMP), Ontario Community Infrastructure Fund (OCIF), and the Federal Gas Tax Fund. Government funding programs range from competitive project-specific grants to automatic formula based funds.

4 Financial Plan Summary

This section provides a summary of the principal features concerning the current and projected future state of the Township's DWS. The financial information is contained in financial statements covering at least six years (2020-2025) in compliance with O. Reg. 453. Detailed financial statements are set out in tabular form in Section 7. Notes regarding the financial statements are presented at the end of the financial statement section of this report.

4.1 Statement of Financial Position

4.1.1 Net Financial Assets/(Debt)

An important feature of a water system is its net financial assets/(debt). A positive net financial asset indicates that the system has a reserve fund 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 Township's DWS's net financial assets/(debt) are shown in Figure 4.1 below.

Figure 4.1 – Havelock DWS Net Financial Assets/(Debt)

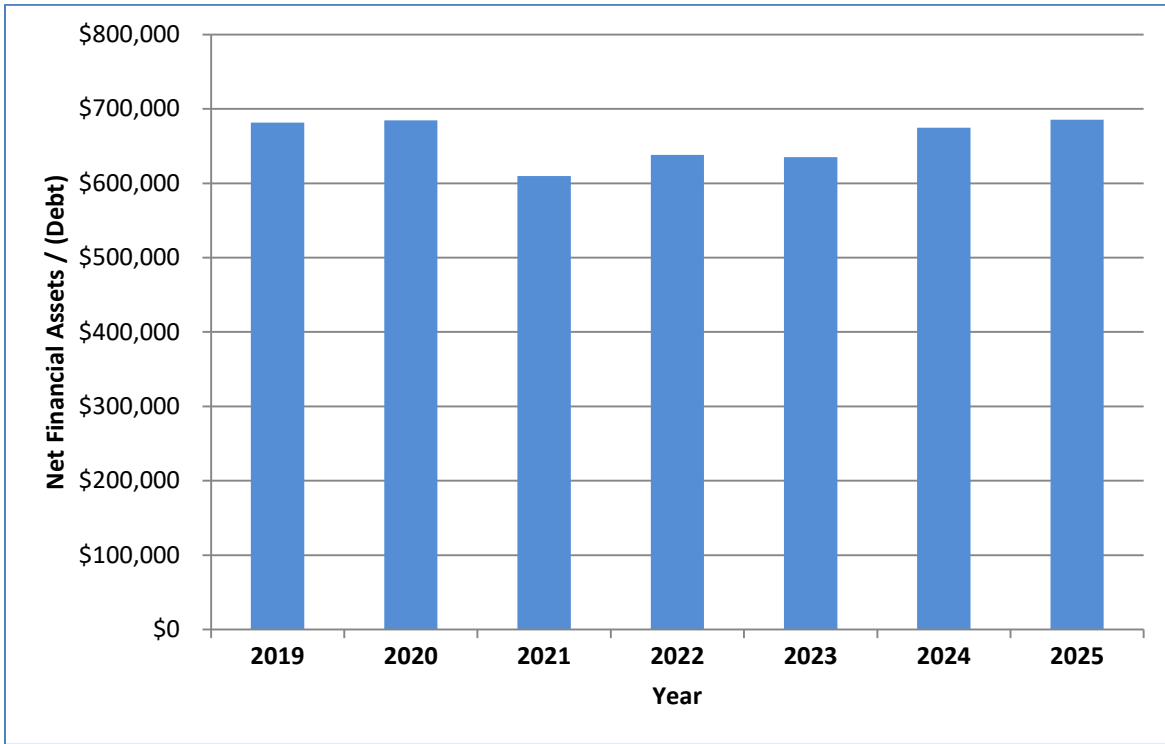


Figure 4.1 shows that the DWS’s net financial assets are presently positive and projected to be maintained during the study period of 2019-2025. This positive financial position is attributed to the steady revenues, healthy water reserve, and a lack of major capital works.

Although the water reserves are shown to be consistently positive, it should be noted that they are not growing. With Well #3’s water treatment plant in its 34th year of operation, it is likely that major capital works might be required in the medium to long-term (10-20 years) in order to maintain its long-term functionality. Major capital works would likely drain water reserve fund and may alternative funding sources.

Tables 4.1(a) and (b) below show a 10-year reserve project based on present rates. Presently, the reserve is expected to remain stable with steady growth after 2021. It should be noted that the accounting of capital works is more comprehensive in the short term than in the long term and there may be unidentified capital works that will have to be included in the capital budget at a future date.

Table 4.1(a) – Havelock DWS Projected Reserve Account (2019-2023)

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
\$684,716	\$609,470	\$637,968	\$634,976	\$674,585	\$685,507	\$681,635	\$740,223	\$720,051	\$791,753
\$186,492	\$96,170	\$141,497	\$114,018	\$147,324	\$167,050	\$109,510	\$193,248	\$106,764	\$130,232
-\$75,247	\$28,498	-\$2,993	\$39,609	\$10,922	-\$3,872	\$58,589	-\$20,172	\$71,702	\$53,391
\$609,470	\$637,968	\$634,976	\$674,585	\$685,507	\$681,635	\$740,223	\$720,051	\$791,753	\$845,144

Table 4.1(b) – Havelock DWS Projected Reserve Account (2024-2029)

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
\$1,606	\$684,716	\$609,470	\$637,968	\$634,976	\$674,585	\$685,507	\$681,635	\$740,223	\$720,051	\$791,753
\$2,770	\$186,492	\$96,170	\$141,497	\$114,018	\$147,324	\$167,050	\$109,510	\$193,248	\$106,764	\$130,232
\$3,110	-\$75,247	\$28,498	-\$2,993	\$39,609	\$10,922	-\$3,872	\$58,589	-\$20,172	\$71,702	\$53,391
\$4,716	\$609,470	\$637,968	\$634,976	\$674,585	\$685,507	\$681,635	\$740,223	\$720,051	\$791,753	\$845,144

4.1.2 Tangible Capital Assets

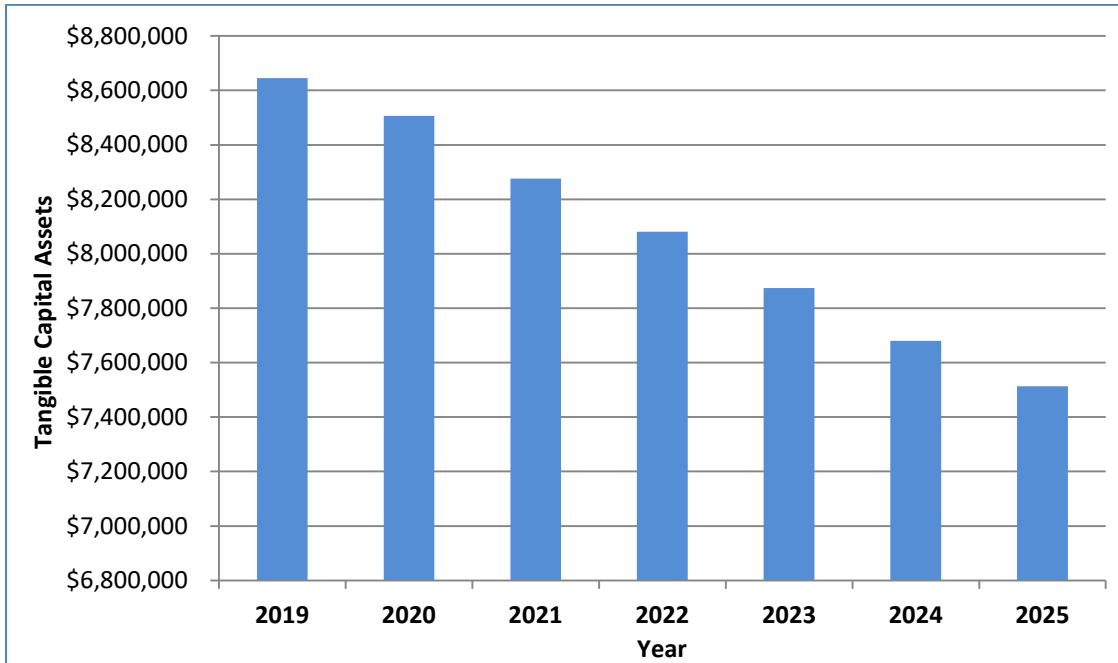
A second feature of the water system is the total value of the system’s tangible capital assets (building, equipment, and water mains). Consideration of the value of tangible capital assets (TCA) is part of PSAB compliance. The current value of the capital assets is termed net book value (NBV). NBV is the difference between the original cost of an asset less its accumulated amortization.

Monitoring the state of the system’s TCAs is critical to maintaining current and future levels of service. TCAs begin amortizing once they are installed, in other words, they start to decrease in value. A decrease in the NBV indicates that assets are being used or amortized faster than they are renewed.

Conversely, an increase in the NBV of the TCAs indicates that assets are being renewed faster than are used.

The net book value of the DWS’s tangible capital assets is shown in Figure 4.2. As shown in the figure, the TCA steadily decreases throughout the study period. The decrease is attributed to a high amortization rate that is greater than the replacement rate of the assets. The assets that are being added, contribute to the tangible capital asset value, but this is occurring at a slower rate than the amortization of the assets.

Figure 4.2 – Havelock DWS Net Book Value of Tangible Capital Assets

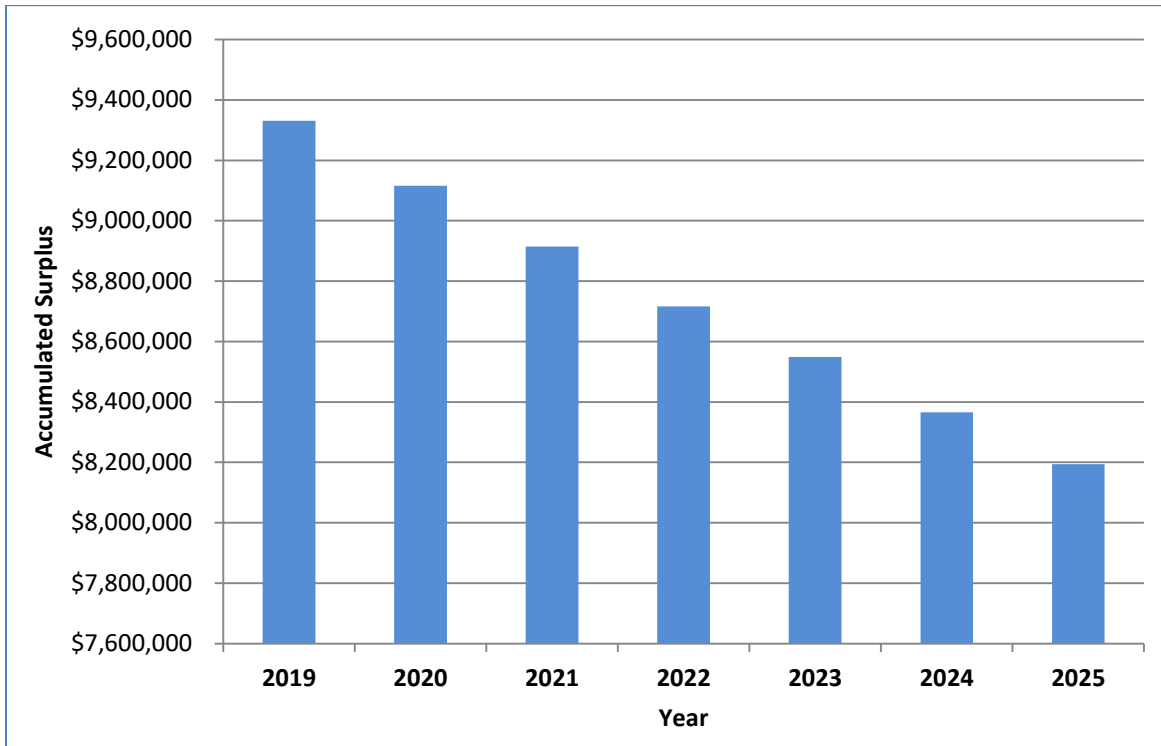


4.1.3 Accumulated Surplus

A third feature of the DWS finances is the accumulated surplus, which represents the cash on hand less debt plus the net book value of tangible capital assets. In other words, the accumulated surplus is calculated by adding net financial assets (Figure 4.1) and tangible capital assets (Figure 4.2). The accumulated surplus serves as a metric to quantify the municipality’s ability to maintain the current value of the current DWS. With a flat projection of the reserve fund and a steady decrease in the NBV, the Township’s DWS is projected to experience a steady decrease in accumulated surplus throughout 2019-2025 study period.

The steady decrease in the accumulated surplus shows that the DWS is not financially sound in the long term. To reverse the trend shown in Figure 4.3, a major increase in water rates would be required, otherwise, the DWS would have to rely on government grants to conduct major asset renewals/ replacements.

Figure 4.3 – Havelock DWS Accumulated Surplus

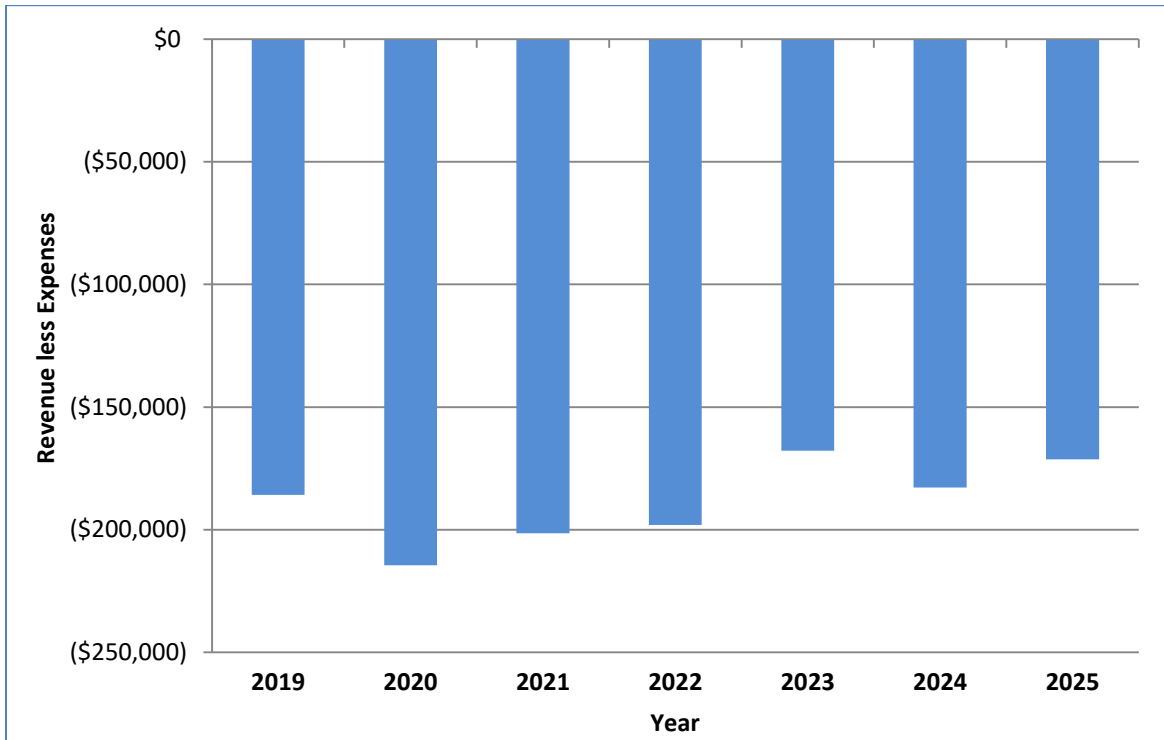


4.2 Statement of Financial Operation

The statement of financial operations summarizes the Township’s DWS revenues and expenditures over the study period. The majority of the revenue collected in the DWS comes from water user fees, both residential and commercial. Revenue also includes interest earned on the reserve account and any other income sources. Expenditures include operating costs, major maintenance costs, debt payment and annual asset amortization.

A positive position occurs when yearly revenues exceed yearly expenses, indicates that the system is financially sustainable in the long term and has a rate structure sufficient to provide for future capital and operational expenses. Conversely, a negative position is indicative of an unsustainable system, which may encounter difficulties in funding future upgrades and may have to rely on government funding or accrue municipal debt. A sustainable system is preferable as it allows for greater independence from government funding and provides security from requiring large amounts of debt for capital works. Figure 4.4 below shows the system’s excess revenues over expenses, including amortization.

Figure 4.4 – Havelock DWS Revenues less Expenses



As shown in Figure 4.4., expenditures incurred in the DWS are greater than revenues during the study period and the DWS is presently not sustainable in the long term. The negative position in the system’s Revenue less Expenses can be primarily associated with the high rate of asset amortization. Based on the trend seen in Figure 4.4, there is no indication that the system will become sustainable in the long term.

It is important to note that amortization expense is a financial write-off of the capital assets and it is not a cash expenditure itself. Amortization is included in financial statements to represent the loss in value of the resources required to operate the drinking water system.

5 Continuous Improvement

The SDWA requires the Municipal Drinking Water Licence to be renewed every five (5) years. The Financial Plan regulation requires the preparation and approval of a Financial Plan before making an application for renewal of a Drinking Water Licence. Thus each Financial Plan will require updating at a minimum frequency of every five years. This on-going update will assist in re-visiting the assumptions made in the original Financial Plan, to develop the operating and funding plans as well as re-assessing the need for capital renewal and major maintenance expenditures.

6 Conclusion

The Statement of Financial Position provides a snapshot of the financial health of the DWS. It was shown that the DWS is projected to remain out of debt over the study period, as forecasted revenues will be higher than forecasted expenses. This financial statement also shows a steady decrease in Total Capital

Assets, meaning that the drinking water system's assets are amortizing faster than they are being renewed.

The Statement of Financial Operations analysis shows that the DWS will be in surplus through most of the study period. The DWS is expected to slowly grow its Water Reserve Fund after 2020 with yearly surpluses increasing at a steady rate.

Based on the current DWS financial position, projected water rate increases, and planned capital expenditures, the financial position is expected to be steady for the foreseeable future. Given the unsustainable decrease in tangible capital assets, the water system will have to be reliant on government funds or accrue debt in the event of any significant capital works.

In reviewing these statements, it is important to keep in mind that a number of assumptions were made concerning inflation, interest rates and growth projections. Actual numbers may significantly deviate from these over time. In addition, capital and major maintenance cost estimates and schedules may vary from current projections. Therefore, there is a need to monitor the progress of this plan and make adjustments as needed.

This Financial Plan has been prepared in accordance to O.Reg. 453/07 under the Safe Drinking Water Act, 2002.

7 Financial Statements

The detailed financial statements are set out in the following tables. Section 8 details the notes that correspond to the "notes" numbers on the right side of the tables.

Table 7.1 – Statement of Financial Position

Statement of Financial Position	2019	2020	2021	2022	2023	2024	2025	Notes
Financial Assets								
Cash/Cash Equivalents								
System Reserve - Beginning of Year	\$ 681,606.23	\$ 684,716.48	\$ 609,469.83	\$ 637,968.05	\$ 634,975.55	\$ 674,584.52	\$ 685,506.61	1
System Reserve - End of Year	\$ 684,716.48	\$ 609,469.83	\$ 637,968.05	\$ 634,975.55	\$ 674,584.52	\$ 685,506.61	\$ 681,634.56	
Total Financial Assets								
Liabilities								
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Debt Principal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2
Working Deficit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Other Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Financial Assets/(Debt)	\$ 681,606.23	\$ 684,716.48	\$ 609,469.83	\$ 637,968.05	\$ 634,975.55	\$ 674,584.52	\$ 685,506.61	
Non Financial Assets								
Tangible Capital Asset Cost (Opening)	\$ 17,398,133.64	\$ 17,510,903.64	\$ 17,681,837.74	\$ 17,756,832.32	\$ 17,866,224.24	\$ 17,968,062.11	\$ 18,084,081.63	3
Capital Works (TCA-Additions)	\$ 112,770.00	\$ 170,934.10	\$ 74,994.58	\$ 109,391.92	\$ 101,837.87	\$ 116,019.52	\$ 149,872.45	4
Disposals (TCA)								
Accumulated Amortization (Closing)	\$ (8,865,093.98)	\$ (9,175,275.27)	\$ (9,480,238.42)	\$ (9,784,690.65)	\$ (10,093,971.59)	\$ (10,403,762.89)	\$ (10,721,019.21)	5
Total Non Financial Assets	\$ 8,645,809.66	\$ 8,506,562.47	\$ 8,276,593.90	\$ 8,081,533.59	\$ 7,874,090.52	\$ 7,680,318.73	\$ 7,512,934.87	
Accumulated Surplus / (Deficit), End of Year	\$ 9,330,526.14	\$ 9,116,032.30	\$ 8,914,561.96	\$ 8,716,509.14	\$ 8,548,675.04	\$ 8,365,825.35	\$ 8,194,569.44	

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

Table 7.2 – Statement of Financial Operations

Statement of Financial Operations	2019	2020	2021	2022	2023	2024	2025	Notes
Total Revenues								
Revenue from Users								
Water user fees - Residential (with 0.02% population growth)	\$ 426,216.00	\$ 439,671.81	\$ 459,270.62	\$ 479,743.07	\$ 501,128.10	\$ 513,399.72	\$ 525,971.86	6
Water user fees - Commercial	\$ 43,056.00	\$ 50,011.12	\$ 52,240.41	\$ 54,569.08	\$ 57,001.55	\$ 58,397.41	\$ 59,827.44	6
Total Revenue from users	\$ 469,272.00	\$ 489,682.93	\$ 511,511.04	\$ 534,312.16	\$ 558,129.65	\$ 571,797.13	\$ 585,799.30	
Government Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	8
Interest Earned on Reserve	\$ 2,448.21	\$ 3,127.55	\$ 3,141.82	\$ 2,796.55	\$ 2,927.32	\$ 2,913.59	\$ 3,095.33	7
Total Revenues	\$ 471,720.21	\$ 492,810.48	\$ 514,652.86	\$ 537,108.71	\$ 561,056.97	\$ 574,710.72	\$ 588,894.63	
Expenses								
Total Operating Expenses	\$ 355,839.97	\$ 381,564.97	\$ 389,984.80	\$ 398,604.56	\$ 407,429.53	\$ 416,465.10	\$ 425,716.87	9
Total Maintenance Expenses	\$ -	\$ 15,558.06	\$ 21,175.26	\$ 32,104.73	\$ 12,180.61	\$ 31,304.00	\$ 17,177.36	10
Expenses before Interest and Amortization	\$ 355,839.97	\$ 397,123.03	\$ 411,160.06	\$ 430,709.29	\$ 419,610.13	\$ 447,769.11	\$ 442,894.23	
Interest paid on debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Amortization	\$ 301,634.59	\$ 310,181.30	\$ 304,963.14	\$ 304,452.24	\$ 309,280.93	\$ 309,791.31	\$ 317,256.31	5
Total Expenses	\$ 657,474.56	\$ 707,304.32	\$ 716,123.20	\$ 735,161.53	\$ 728,891.07	\$ 757,560.41	\$ 760,150.54	
Excess of Revenues over Expenses	\$ (185,754.35)	\$ (214,493.84)	\$ (201,470.34)	\$ (198,052.82)	\$ (167,834.10)	\$ (182,849.70)	\$ (171,255.91)	
Accumulated Surplus / (Deficit), Beginning of year	\$ 9,516,280.49	\$ 9,330,526.14	\$ 9,116,032.30	\$ 8,914,561.96	\$ 8,716,509.14	\$ 8,548,675.05	\$ 8,365,825.35	
Accumulated Surplus / (Deficit), End of Year	\$ 9,330,526.14	\$ 9,116,032.30	\$ 8,914,561.96	\$ 8,716,509.14	\$ 8,548,675.05	\$ 8,365,825.35	\$ 8,194,569.44	

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

Table 7.3 – Statement of Cash Flow

Statement of Cash Flow	2019	2020	2021	2022	2023	2024	2025	Notes
Operating Transactions								
Cash received from Revenues	\$ 469,272.00	\$ 489,682.93	\$ 511,511.04	\$ 534,312.16	\$ 558,129.65	\$ 571,797.13	\$ 585,799.30	
Cash paid for Operating Expenses	\$ 355,839.97	\$ 381,564.97	\$ 389,984.80	\$ 398,604.56	\$ 407,429.53	\$ 416,465.10	\$ 425,716.87	9
Cash paid for Financing Charges (Debt Interest)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Working Capital Items								
Accounts Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Capital Work in Progress	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Cash provided by Operating Transactions	\$ 113,432.03	\$ 108,117.96	\$ 121,526.24	\$ 135,707.59	\$ 150,700.13	\$ 155,332.03	\$ 160,082.43	
Capital								
Capital Works (TCA Additions)	\$ 112,770.00	\$ 170,934.10	\$ 74,994.58	\$ 109,391.92	\$ 101,837.87	\$ 116,019.52	\$ 149,872.45	4
Total Maintenance Expenses	\$ -	\$ 15,558.06	\$ 21,175.26	\$ 32,104.73	\$ 12,180.61	\$ 31,304.00	\$ 17,177.36	10
Proceeds on Disposal of TCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Cash used in Capital Transactions	\$ (112,770.00)	\$ (186,492.16)	\$ (96,169.84)	\$ (141,496.65)	\$ (114,018.48)	\$ (147,323.52)	\$ (167,049.81)	
Investing								
Cash Provided By / (Used In) Investing Activities	\$ 2,448.21	\$ 3,127.55	\$ 3,141.82	\$ 2,796.55	\$ 2,927.32	\$ 2,913.59	\$ 3,095.33	
Financing								
Repayment of Long Term Debt (Principal)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Cash Provided By / (Used In) Financing Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Increase / (Decrease) in Cash Equivalents	\$ 3,110.25	\$ (75,246.64)	\$ 28,498.22	\$ (2,992.50)	\$ 39,608.97	\$ 10,922.10	\$ (3,872.05)	
Cash and Cash Equivalents at the Beginning of the Year	\$ 681,606.23	\$ 684,716.48	\$ 609,469.83	\$ 637,968.05	\$ 634,975.55	\$ 674,584.52	\$ 685,506.61	
Cash and Cash Equivalents at the End of the Year	\$ 684,716.48	\$ 609,469.83	\$ 637,968.05	\$ 634,975.55	\$ 674,584.52	\$ 685,506.61	\$ 681,634.56	

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

8 Notes on the Havelock DWS Financial Plan

The Havelock Drinking Water System Financial Plan represents a forecast of the financial performance of the drinking water system over a study period starting in the year 2020 to the year 2025. The following notes are intended to document and/or clarify some of the assumptions made in generating the financial information contained in the tables. The reader is cautioned that the Financial Plan contains un-audited financial information and is subject to change.

- 1) The Township sets aside reserve funds for waterworks capital projects that might take place in the future. The reserve fund has at a balance of approximately \$682,000 at the end of 2018. This account accrues interest whenever the ending year balance is positive, a 0.46% interest rate was assumed in this report. When the ending year balance is negative, interest would be paid with an assumed rate of 2.51%.
- 2) There is no principal debt as of the end of 2019. No additional debt was forecasted to be added during the study period.
- 3) Tangible Capital Assets Cost (Opening) is the value in tangible capital assets at the beginning of the year.
- 4) Tangible Capital Assets (TCA) Additions include various capital projects that were carried out during the study period.
- 5) TCAs are assumed to have no residual value when they have reached the end of their projected useful life. The projected future costs of capital items include a contingency that is 15% of the average capital expenditure over the next ten years. Amortization was determined using the straight-line method. Assets are assumed to be put into service at the beginning of the year. Amortization is therefore added as soon as the asset is put into service.
- 6) Water user fees (Residential & Commercial), and all other user fees – revenue received from users.
- 7) Interest earned on the water system reserve at the assumed rate of 0.046%.
- 8) Expected provincial grants already included in the cost of various capital expenditures in the 'Capital and Major Maintenance Plan. Government funding is represented by a 33% grant for all individual projects greater than \$100,000.
- 9) Total Operating Expense – expenditures (Wages & Benefits, Materials, Utilities and Contracted Services) related to the DWS.
- 10) Total Maintenance Expenses – maintenance expenditures related to the drinking water system (e.g. annual part replacement, inspections, etc.).

APPENDIX A

Ontario Regulation 453/07

Safe Drinking Water Act, 2002
ONTARIO REGULATION 453/07
FINANCIAL PLANS

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

Last amendment: O. Reg. 69/08.

This is the English version of a bilingual regulation.

Requirement to prepare financial plans

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

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

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

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

Financial plan requirements; new systems

2. For the purposes of clause (b) of the definition of “financial plans” in subsection 30 (1) of the Act, the following requirements are prescribed for financial plans that are required by subsection 1 (1) to satisfy the requirements of this section:

1. The financial plans must be approved by a resolution that indicates that the drinking water system is financially viable and that is passed by,
 - i. the council of the municipality, if the owner of the drinking water system is a municipality, or
 - ii. the governing body of the owner, if the owner of the drinking water system has a governing body and is not a municipality.
2. The financial plans,
 - i. must include a statement that the financial impacts of the drinking water system have been considered, and
 - ii. must apply for a period of at least six years.
3. The first year to which the financial plan must apply is the year in which the drinking water system is expected to first serve the public.

4. For each year in which the financial plans apply, the financial plans must include details of the proposed or projected financial operations of the drinking water system itemized by,
 - i. total revenues, further itemized by water rates, user charges and other revenues,
 - ii. total expenses, further itemized by amortization expenses, interest expenses and other expenses,
 - iii. annual surplus or deficit, and
 - iv. accumulated surplus or deficit.
5. The owner of the drinking water system must,
 - i. make the financial plans available, on request, to members of the public who are served by the drinking water system without charge,
 - ii. make the financial plans available to members of the public without charge through publication on the Internet, if the owner maintains a website on the Internet, and
 - iii. provide notice advising the public of the availability of the financial plans under subparagraphs i and ii, if applicable, in a manner that, in the opinion of the owner, will bring the notice to the attention of members of the public who are served by the drinking water system.
6. The owner of the drinking water system must give a copy of the financial plans to the Ministry of Municipal Affairs and Housing. O. Reg. 453/07, s. 2.

Financial plan requirements; licence renewal

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

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

4. Subject to subsection (2), for each year to which the financial plans apply, the financial plans must include the following:
 - i. Details of the proposed or projected financial position of the drinking water system itemized by,
 - A. total financial assets,
 - B. total liabilities,
 - C. net debt,
 - D. non-financial assets that are tangible capital assets, tangible capital assets under construction, inventories of supplies and prepaid expenses, and
 - E. changes in tangible capital assets that are additions, donations, write downs and disposals.
 - ii. Details of the proposed or projected financial operations of the drinking water system itemized by,
 - A. total revenues, further itemized by water rates, user charges and other revenues,
 - B. total expenses, further itemized by amortization expenses, interest expenses and other expenses,
 - C. annual surplus or deficit, and
 - D. accumulated surplus or deficit.
 - iii. Details of the drinking water system's proposed or projected gross cash receipts and gross cash payments itemized by,
 - A. operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges,
 - B. capital transactions that are proceeds on the sale of tangible capital assets and cash used to acquire capital assets,
 - C. investing transactions that are acquisitions and disposal of investments,
 - D. financing transactions that are proceeds from the issuance of debt and debt repayment,
 - E. changes in cash and cash equivalents during the year, and
 - F. cash and cash equivalents at the beginning and end of the year.
 - iv. Details of the extent to which the information described in subparagraphs i, ii and iii relates directly to the replacement of lead service pipes as defined in section 15.1- 3 of Schedule 15.1 to Ontario Regulation 170/03 (Drinking Water Systems), made under the Act.
5. The owner of the drinking water system must,
 - i. make the financial plans available, on request, to members of the public who are served by the drinking water system without charge,

- ii. make the financial plans available to members of the public without charge through publication on the Internet, if the owner maintains a website on the Internet, and
- iii. provide notice advising the public of the availability of the financial plans under subparagraphs i and ii, if applicable, in a manner that, in the opinion of the owner, will bring the notice to the attention of members of the public who are served by the drinking water system.

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

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

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

Alternative requirements for two or more drinking water systems

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

Amendment of financial plans

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

Additional information

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

APPENDIX B

Capital and Major Maintenance Expense Projections (2020-2029)

Havelock-Belmont-Metheun Water System
Capital and Major Maintenance Expense Projections

Distribution System	Valves	Transmission Valves installed in the distribution system are listed as either 150mm or 200mm and were installed as early as 1958	Replace 32 transmission valves at end of life is condition is poor (\$2,500/valve). Budget replacement over next 10-20 years	1958-->		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$45,000
	Service Connection	20 of 144 water service connections are 60 years old.	Maintain a budget for complete for replacement of service connections (\$635,000). Replace as needed or when convenient over the next twenty years.	1958-->	31,750	31,750	31,750	31,750	31,750	31,750	31,750	31,750	31,750	31,750	31,750	\$317,500
	Water Distribution Mains	150mm to 200mm water distribution mains, installed from 1958 onwards.	Begin to conduct intermittent leak detection and water main condition assessment (15k)	1958->			15,000									\$15,000
	Distribution Equipment	Chlorine Analyzer, Portable Chlorine Analyzer, Portable Turbidity Analyzer, Pressure Transmitters (2)	Replace as needed						3,000						3,000	\$6,000
Sub-total - Major Maintenance and Capital Costs Distribution - Water Distribution (B)						76,250	54,850	64,750	49,750	57,850	49,750	49,750	54,850	49,750	52,750	\$560,300
Other Works																
Source Water Protection			\$17,500 each year (included directly into financial plan)													\$0
Equipment Inspections/Calibrations		Annual Inspection for lifting devices and backflow preventers Annual Flow meter and UV system calibrations			5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	\$55,800
Sub-total - Other Works (C)						5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	5,580	\$55,800
Total Major Maintenance and Capital Costs for the Drinking Water System (A+B+C)						166,503	76,103	117,003	89,003	117,103	132,003	79,003	148,603	73,003	90,503	\$1,088,830
Contingency (15%)						16,332	16,332	16,332	16,332	16,332	16,332	16,332	16,332	16,332	16,332	\$163,325
Total Major Maintenance and Capital Costs for the Drinking Water System (A+B+C) plus 15% contingency						182,835	92,435	133,335	105,335	133,435	148,335	95,335	164,935	89,335	106,835	\$1,252,155

Coloured Prices denote Capital Works

Colourless Prices denote maintenance works

All values are in 2019 dollars, inflation is factored into the financial plan the Financial plan tables