



The Municipality of Northern Bruce Peninsula
Lion's Head Drinking Water System

Financial Plan # 250-301

SUBMITTED BY

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STATEMENT OF CONFIDENTIALITY

OCWA's Report to The Municipality of Northern Bruce Peninsula for the Drinking Water System Financial Plan

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Appendix A: Ontario Regulation 453/07

1 Introduction

The Corporation of the Municipality of Northern Bruce Peninsula (the Municipality) has retained the Ontario Clean Water Agency (OCWA) to update the Financial Plan for the Lion's Head Drinking Water System (DWS) in order to comply with the Financial Plan regulation (O. Reg. 453/07) made under the Safe Drinking Water Act. The last Financial Plan was created in 2016 and this is an update to that Plan.

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 (now the 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 Lion's Head DWS based on information supplied by the Municipality and operational staff, including future capital and major maintenance projects, water system financial information, as well as tangible capital asset information that the Municipality generated in accordance with the Public Sector Accounting Board (PSAB) standard PS 3150 requirements.

The information supplied by the Municipality was used to generate a financial operating plan that forecasted future annual expenditure requirements from the year 2020 to 2026. A revenue plan, relying mostly 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 Lion's Head DWS covering a study period from 2020 to 2026 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 that must be 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 Municipality of Northern Bruce Peninsula - Drinking Water System

The Lion's Head Drinking Water System (DWS), located in the Municipality of Northern Bruce Peninsula, is owned by the Corporation of the Municipality of Northern Bruce Peninsula and is operated by the Ontario Clean Water Agency under contract. The Municipality is located in mid-western Ontario, just south of the Manitoulin Islands on the main land.

Lion's Head Drinking Water System

The DWS draws water through a raw water intake pipe from the low lift station into Isthmus Bay. One of three centrifugal low lift pumps transfers water from the low lift station to the water treatment plant (WTP).

The WTP has a rated capacity of 1351 m³/day and contains two membrane filtration package systems complete with controls and instrumentation. The membrane system has a membrane backwash and clean-in-place system including a hot water and compressed air system as well as sodium hypochlorite, acid and caustic injection capabilities. On site storage is provided by two 96 m³ chlorine contact tanks and one 487 m³ reservoir with water flowing to a common high lift well. There are five vertical turbine high lift pumps pumping water to a 384 m³ high lift well. Chlorine is added to the raw water intake mouth for zebra mussel control, at the outlet of the filters for primary disinfection and at the high lift pump discharge header for trim chlorination. The WTP is equipped with one 230 kW diesel generator for backup power and all process control and monitoring equipment for the Lion's Head DWS.

2 Financial Operating Plan

The financial operating plan includes the full costs of operating the Lion's Head 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 Lion's Head 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 any growth expected.

2.1 Operating Expenses

Recurring operating expenses for the Lion's Head DWS consist of wages for OCWA operators, utility costs, major maintenance and repair items for the upkeep of the drinking water system as well as other miscellaneous costs such as telephone bills, insurance, memberships and training costs. All operating costs are projected to increase on an annual basis at a rate of 2% per year up to the end of the study period. The total water operating expenses (excluding capital items and amortization) for the Lion's

Head DWS were \$298,027 in 2019. The projected operating expenses for the remainder of the study period fall between \$268,276 and \$304,203, fluctuating according to the variance in major maintenance costs. By the end of 2026, the operating expenses are expected to have reached \$299,524.

2.2 Capital Costs

Yearly maintenance/repair expenditures refer to the cost to upkeep certain assets to prolong their level of service. Capital expenditures are the costs involved in upgrading or acquiring an asset to be used in order to provide a service.

As part of the development of this Financial Plan, the existing capital and major maintenance plan was updated to identify future capital and maintenance needs over a 10 year (2020-2030) period.

Some of the major expenditures that are capitalized during the Financial Plan study period (2020-2026) include the following:

- Installation of hydrants in 2020 (\$20,000);
- Purchase of leak detection equipment in 2020 (\$10,000);
- Replacement of roof in 2021 (\$10,000);
- Replacement of filter backwash pumps, compressed air system & minor chemical pumps in 2021 (\$30,000);
- Replacement of supernatant pumps in 2021 (\$15,000);
- Replacement of diesel generator in 2022 (\$60,000);
- Replacement of high lift pumps in 2022 (\$50,000);
- Replacement of membrane air compressor systems in 2022 and 2023 (\$20,000);
- Replacement of membrane modules in 2024 and 2025 (\$40,000);
- Upgrades of SCADA system in 2024 & 2025 (\$60,000);

All capital and major maintenance cost estimates include a 20% contingency from the year 2020 onwards but are “Class 5” estimates (-50% to +100%) according to AACE standards based upon parametric or analogous models.

2.3 Debt Management

The Lion’s Head DWS had a debt principal of \$734,222 at year end in 2019. The debt principal is expected to decrease throughout the study period with a resulting principal of \$64,579 by year end 2026. No additional debt is forecasted to be added to the existing debt during the study period.

2.4 Lead Pipe Replacement Cost

There are no costs associated with lead pipe replacement for the Lion’s Head DWS.

2.5 Source Water Protection Costs

There are no costs associated with source water protection for the Lion's Head DWS.

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 on operating revenues from the direct users of the drinking water system through water rates, water hook ups and vacant lot charges in combination with an annual municipal contribution of \$63,183 to cover the remaining capital and operating costs. There are also federal and provincial grants along with insurance claims that have contributed to the funding plan in the past.

3.1 Water Rates

The Lion's Head DWS currently (in 2020) services approximately 390 connections in the Northern Bruce Peninsula area. The 390 connections are comprised of residential, industrial and commercial users (including multiple dwellings, apartments and motels) varying in size and usage. The majority of these connections, however, are residential users with 5/8" or 3/4" connections. All users of the DWS are charged a base flat rate as well as a metered rate (per m³). It has been assumed for this Financial Plan that the same rate structure will be applied for the duration of the study period.

The proposed water flat and metered rates charged to consumers can be found in Figure 3.1 & Figure 3.2, respectively. It includes historical costing from the past few years as well as the proposed rates moving forward. There were no rate increases from 2018 to 2020. After evaluation of the system's financial needs, a 2.0% rate increase from 2021 to the end of the study period is recommended. As the water rates steadily increase, the revenues generated will eventually pay off accrued expenditures and outstanding debt. Any surplus obtained through the water rates would be allocated to the Water System Reserve Fund. The water charges through direct billings were calculated by projecting forward from 2019 while assuming an increase of two units per year and a water rate increase of 2.0% on both the flat and metered rates from 2021 onward.

Table 3.1 – Water Flat Rate Charge per Year

Type of Unit	Water Rate per Year/ % Increase Over Previous Year								
	Historic			Proposed					
Residential/ Commercial	2018	2019	2020	2021	2022	2023	2024	2025	2026
		\$525.00	\$525.00	\$525.00	\$535.50	\$546.21	\$557.13	\$568.28	\$579.64
	0.0%	0.0%	0.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

Table 3.2 – Water Metered Rate Charge per Year

Type of Unit	Water Rate per Year/ % Increase Over Previous Year								
	Historic			Proposed					
Residential/ Commercial	2018	2019	2020	2021	2022	2023	2024	2025	2026
		\$2.25	\$2.25	\$2.25	\$2.30	\$2.34	\$2.39	\$2.44	\$2.48
	0.0%	0.0%	0.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

3.2 Debt and Cash Reserves

At year end 2019, the Municipality carried a debt for the water system of \$734,222. This debt was provided by OSIFA in February of 2007 with a principal amount of \$1.5M, having a loan term of 20 years and an annual interest rate of 4.84%. The Municipality will be paying off the debt semi-annually until 2027. The principal amount at the end of 2026 is expected to be \$64,579.89.

Based on the current revenue and expenditure forecasts for the study period, there will be no requirement to raise any additional funds through borrowing as any additional revenue required will be taken from the reserve. The Lion's Head DWS reserve had a balance of \$310,797 at the end of 2019 and is expected to decrease over the next several years to a final balance of \$93,093 by the end of 2026.

3.3 Government Grants

There are no grants anticipated for the remainder of the study period as it is unknown what funding programs will become available during the study period.

4 Financial Plan Summary – Northern Bruce Peninsula

This section provides a summary of the principal features concerning the current and projected future state of the Lion's Head DWS. The financial information is contained in financial statements covering at least six years (2020-2026) 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 (Table 7.1)

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 resources to deal with future capital and other needs. A negative number indicates that past capital and other investments must be financed from future revenues. The Lion’s Head DWS’s net financial assets/(Debt) are shown in Figure 4.1 below.

Figure 4.1 – Lion’s Head DWS Net Financial Assets/(Debt)

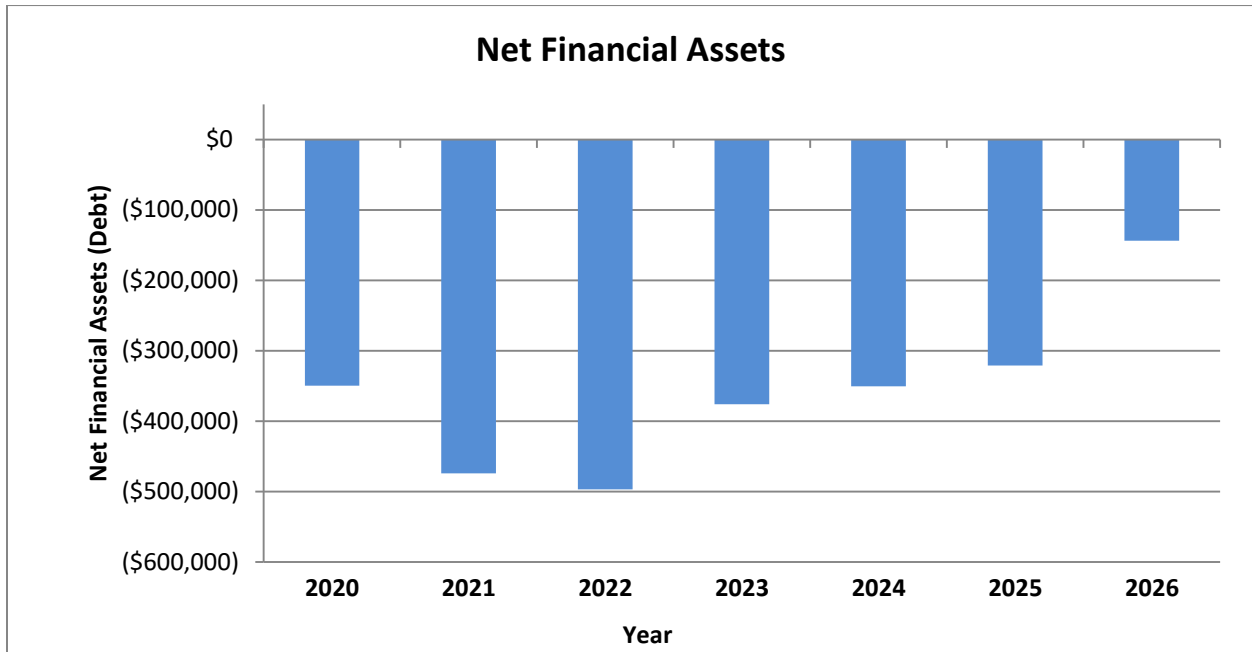


Figure 4.1 shows that the DWS’s net financial assets are in a deficit from 2020-2026. The negative financial asset position is attributed to debt originally taken in 2007. The negative, but growing net financial assets indicates that although the position of the Municipality is negative, it is improving as the debt is being repaid over time without additional debt being incurred. The DWS is expected to experience seven years in debt from 2020 to 2026 returning to a positive financial position at the end of 2027 (once the debt has been paid off). It should be noted that the water system reserve is being utilized to finance any shortcomings in terms of operating and maintenance expenses.

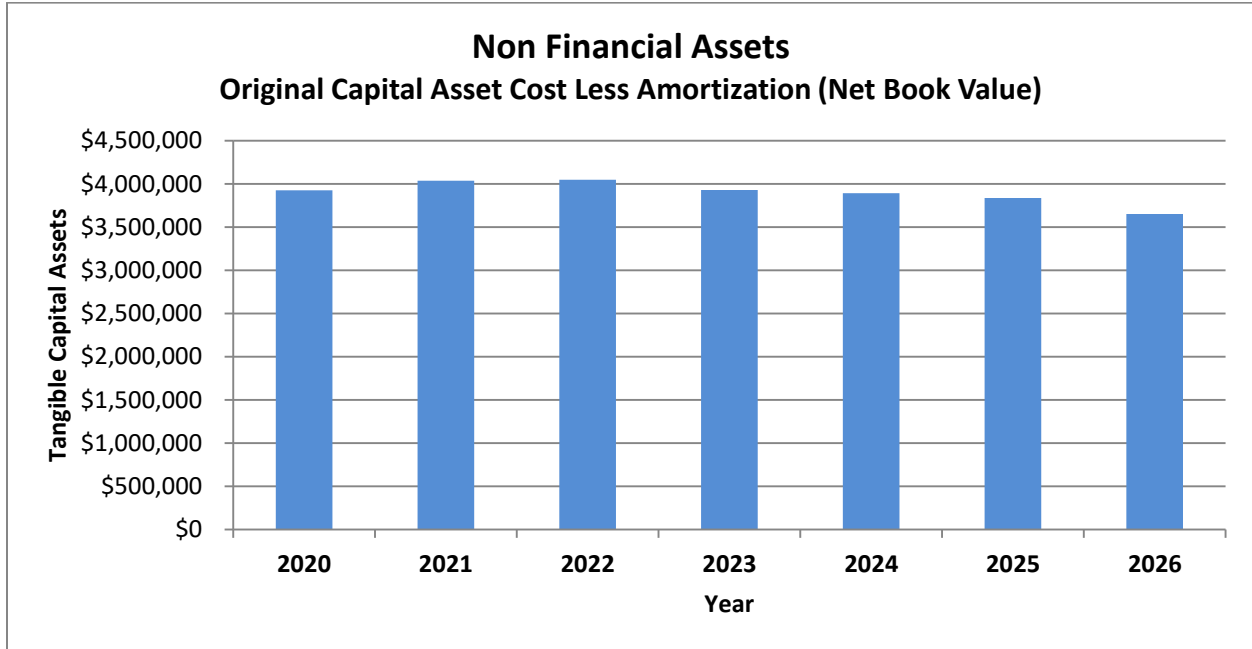
4.1.2 Tangible Capital Assets

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.

Managing 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 assets is shown in Figure 4.2. As shown, the TCA NBV slightly increases until 2022 followed by a steady decrease until 2026. The decrease is attributed to the amortization rate being greater than the replacement rate of the assets.

Figure 4.2 – Lion’s Head DWS Tangible Capital Assets

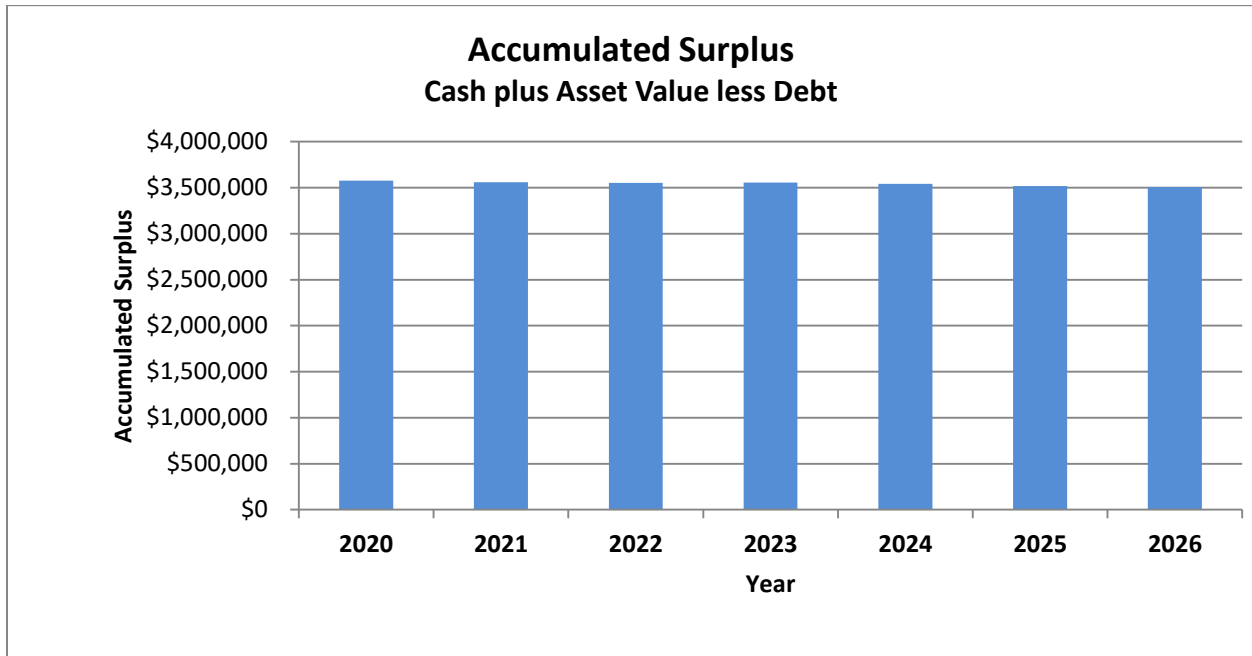


4.1.3 Accumulated Surplus

A third feature of the water system is the accumulated surplus, which represents the cash on hand plus the net book value of tangible capital assets less debt. In other words, the accumulated surplus is calculated by adding the net financial asset and non-financial assets. The accumulated surplus serves as a metric to quantify the municipality’s ability to maintain the current value of the current DWS assets.

The Municipality’s DWS is projected to experience a slight decline in accumulated surplus throughout the study period. This decrease is attributed to the amortization rate being greater than the rate at which the net financial assets is increasing.

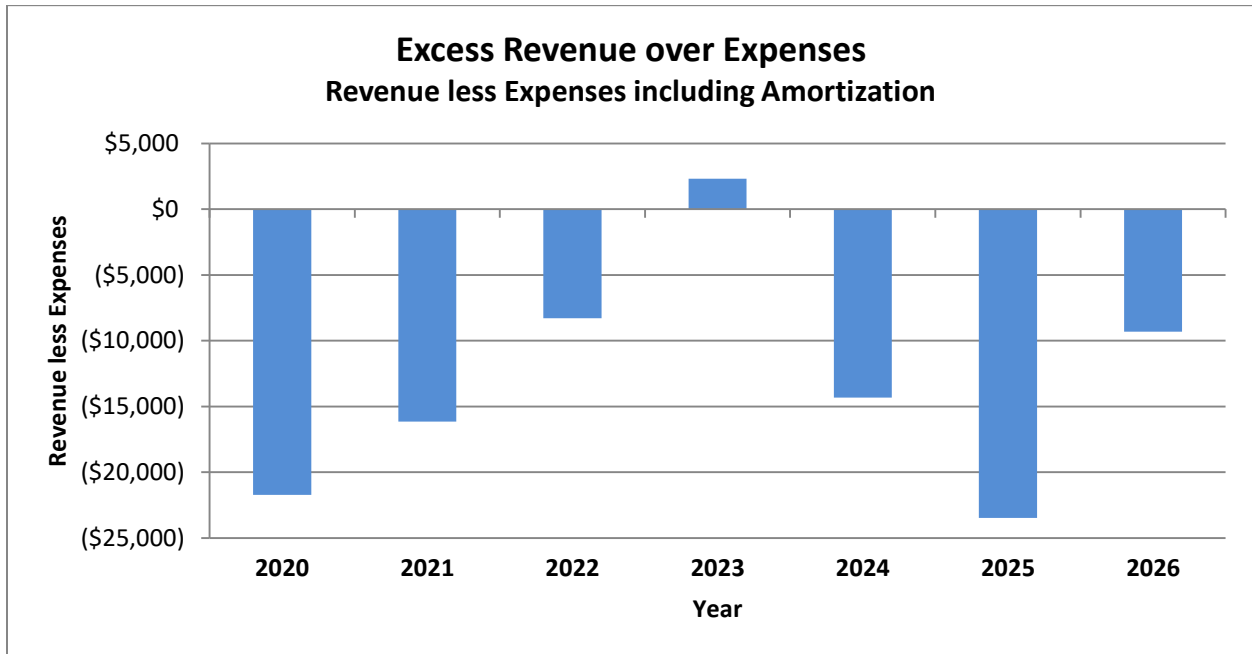
Figure 4.3 – Lion’s Head DWS Accumulated Surplus



4.2 Statement of Financial Operation (Table 7.2)

The statement of financial operations summarizes the Municipality’s DWS revenues and expenditures over the study period. The majority of the revenue collected in the DWS comes from water user fees (residential and commercial). Revenues also include government grants and contributions from general revenue. Expenditures include operating costs, major maintenance costs, debt payment and annual asset amortization. A surplus is realized when yearly revenues exceed yearly expenses. Conversely, a deficit is realized when yearly expenses exceed yearly revenues. A surplus is desirable as additional funds would be available for the purchase of capital assets and other financial activities such as debt payment and the growth of the DWS’s Reserve Fund. Figure 4.4 below shows the system’s revenues over expenses, including amortization.

Figure 4.4 – Lion’s Head DWS Revenues less Expenses



As shown in the Figure 4.4 above, it is projected that the system’s excess of revenues over expenses, including amortization, has negative values throughout the study period. It must be noted that there is an annual municipal contribution of \$63,183 to assist in ongoing operating and capital costs. With annual amortization expenses over \$140,000 each year, the system continuously has higher expenses compared to revenues from 2020 to 2026. It is not yet known whether funding can be obtained through a funding program for some of the major capital works. Without the municipal contribution or some assistance from government funding, the DWS will not be able to sustain itself based on the projected capital and major maintenance items.

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 will be in a deficit position until 2026, after which the DWS is expected to be in a surplus position. This financial statement also shows a steady decrease in TCAs, meaning that assets are amortizing faster than they are being renewed.

The Statement of Financial Operations analysis shows that the DWS’s excess revenue over expenses will be in a negative position until 2026. Based on Lion’s Head Drinking Water System’s existing financial

position, forecasting capital works, municipal contribution, and rate increases, the DWS will be not financially sustainable by the end of 2026 without a further increase in the water rates beyond the 2% increase to account for inflation.

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

Reg.	Statement of Financial Position	2020	2021	2022	2023	2024	2025	2026	Notes
	Financial Assets								
	Cash/Cash Equivalents								
	System Reserve (Beginning of Year)	\$310,797	\$302,689	\$92,098	\$0	\$5,192	\$0	\$0	1
	System Reserve (End Year)	\$302,689	\$92,098	\$0	\$5,192	\$0	\$0	\$0	
	Working Deficit	\$0	\$0	(\$20,774)	\$0	(\$68,758)	(\$145,245)	(\$78,934)	
	Total Cash/Cash Equivalents	\$302,689	\$92,098	(\$20,774)	\$5,192	(\$68,758)	(\$145,245)	(\$78,934)	
	Investments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Accounts Receivable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
A	Total Financial Assets	\$302,689	\$92,098	(\$20,774)	\$5,192	(\$68,758)	(\$145,245)	(\$78,934)	
	Liabilities								
	Accounts Payable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Debt Principal	\$652,262	\$566,218	\$475,890	\$381,069	\$281,534	\$175,650	\$64,580	2
	Other liabilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
B	Total Liabilities	\$652,262	\$566,218	\$475,890	\$381,069	\$281,534	\$175,650	\$64,580	
C	Net Financial Assets (Debt)	(\$349,573)	(\$474,120)	(\$496,664)	(\$375,876)	(\$350,292)	(\$320,895)	(\$143,514)	
	Non Financial Assets								
D	Tangible Capital Asset Cost (Closing)	\$7,316,680	\$7,574,638	\$7,745,680	\$7,785,794	\$7,920,881	\$8,059,995	\$8,065,401	3,4
E	Changes in Tangible Capital Assets - Additions	\$48,000	\$257,958	\$171,042	\$40,114	\$135,088	\$139,114	\$5,406	5
	Changes in Tangible Capital Assets - Betterments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
D	Changes in Tangible Capital Assets - Disposals	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Accumulated Amortization (closing)	\$3,389,966	\$3,539,524	\$3,696,298	\$3,854,868	\$4,029,872	\$4,221,862	\$4,413,960	4
	Non Financial Assets	\$3,926,714	\$4,035,114	\$4,049,382	\$3,930,925	\$3,891,010	\$3,838,134	\$3,651,441	
	Accumulated Surplus(deficit)	\$3,577,142	\$3,560,994	\$3,552,718	\$3,555,049	\$3,540,717	\$3,517,238	\$3,507,927	

Table 7.2 – Statement of Financial Operations

Statement of Financial Operations		2020	2021	2022	2023	2024	2025	2026	
Total Revenues									
	Revenue from Users								
	Transfer from LH Marina	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	6
	Transfer from Campground	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	7
	Water Charges - Direct Billings	\$332,302	\$340,677	\$349,255	\$358,039	\$367,035	\$376,248	\$385,682	8
	Water Hookups	\$0	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	9
	Municipal Contribution	\$68,183	\$68,183	\$68,183	\$68,183	\$68,183	\$68,183	\$68,183	10
	Other	\$13,350	\$13,350	\$13,350	\$13,350	\$13,350	\$13,350	\$13,350	11
	Total Revenue from Users	\$433,835	\$448,210	\$456,788	\$465,572	\$474,568	\$483,781	\$493,215	
	Interest								
	System Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1
	Grants								
	Provincial Funding	\$8,037	\$0	\$0	\$0	\$0	\$0	\$0	
	Federal Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Total Grants	\$8,037	\$0	\$0	\$0	\$0	\$0	\$0	
	Total Revenues	\$441,872	\$448,210	\$456,788	\$465,572	\$474,568	\$483,781	\$493,215	
Expenses									
	OCWA Service Agreement	\$247,000	\$251,940	\$256,979	\$262,118	\$267,361	\$272,708	\$278,162	12
	Telephone	\$3,770	\$3,845	\$3,845	\$3,845	\$3,845	\$3,845	\$3,845	13
	Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Propane	\$7,000	\$7,140	\$7,283	\$7,428	\$7,577	\$7,729	\$7,883	
	Engineering Fees	\$3,770	\$3,845	\$3,922	\$4,001	\$4,081	\$4,162	\$4,246	14
	Insurance	\$5,710	\$5,824	\$5,941	\$6,059	\$6,181	\$6,304	\$6,430	15
	Other	\$7,500	\$7,648	\$7,799	\$7,953	\$8,110	\$8,270	\$8,434	16
	Major Maintenance and Service Rebate	(\$25,000)	(\$25,000)	(\$25,000)	(\$25,000)	(\$25,000)	(\$25,000)	(\$23,466)	17
	Major Maintenance	\$35,730	\$29,101	\$21,349	\$16,587	\$24,777	\$25,230	\$18,060	18
	Expenses before interest and amortization	\$285,480	\$284,344	\$282,118	\$282,992	\$296,931	\$303,249	\$303,595	
	Debt Interest	\$34,540	\$30,456	\$26,172	\$21,679	\$16,965	\$12,021	\$6,834	2
	Amortization	\$143,581	\$149,558	\$156,774	\$158,570	\$175,003	\$191,990	\$192,098	4
	Total Expenses	\$463,601	\$464,358	\$465,065	\$463,241	\$488,900	\$507,260	\$502,527	
	Excess of Revenues over Expenses	(\$21,729)	(\$16,147)	(\$8,277)	\$2,331	(\$14,332)	(\$23,479)	(\$9,312)	
	Excess of Revenues over Expenses	(\$21,729)	(\$16,147)	(\$8,277)	\$2,331	(\$14,332)	(\$23,479)	(\$9,312)	
	Annual Surplus (Deficit) Beginning of year	\$3,598,871	\$3,577,142	\$3,560,994	\$3,552,718	\$3,555,049	\$3,540,717	\$3,517,238	
	Accumulated Surplus (Deficit) End of Year	\$3,577,142	\$3,560,994	\$3,552,718	\$3,555,049	\$3,540,717	\$3,517,238	\$3,507,927	

Table 7.3 – Statement of Cash Flow

Statement of Cash Flow	2020	2021	2022	2023	2024	2025	2026	
Operating Transactions								
Cash received from Revenues	\$441,872	\$448,210	\$456,788	\$465,572	\$474,568	\$483,781	\$493,215	
Cash paid for Operating Expenses	\$285,480	\$284,344	\$282,118	\$282,992	\$296,931	\$303,249	\$303,595	
Cash paid for Financing Charges (Debt Interest)	\$34,540	\$30,456	\$26,172	\$21,679	\$16,965	\$12,021	\$6,834	2
Excess of Operating Revenues Over Operating Expenses	\$121,852	\$133,411	\$148,498	\$160,901	\$160,672	\$168,511	\$182,787	
Working Capital Items								
Accounts Receivable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Capital Work in Progress	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash provided by Operating Transactions	\$121,852	\$133,411	\$148,498	\$160,901	\$160,672	\$168,511	\$182,787	
Capital								
Acquisition of TCAs	\$48,000	\$257,958	\$171,042	\$40,114	\$135,088	\$139,114	\$5,406	5
Proceeds on Disposal of TCA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash used in Capital Transactions	\$48,000	\$257,958	\$171,042	\$40,114	\$135,088	\$139,114	\$5,406	
Investing								
Cash (used in)/Provided by Investing Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	1
Increase (decrease) Cash Provided by Investing Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Financing								
Forecasted deficit contributions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Repayment of Long Term Debt (principal)	(\$81,960)	(\$86,044)	(\$90,328)	(\$94,821)	(\$99,535)	(\$105,884)	(\$111,070)	2
Cash Provided by (used) in Financing Activities	(\$81,960)	(\$86,044)	(\$90,328)	(\$94,821)	(\$99,535)	(\$105,884)	(\$111,070)	
Increase (decrease) in Cash Equivalents	(\$8,108)	(\$210,591)	(\$112,872)	\$25,966	(\$73,951)	(\$76,486)	\$66,310	
Cash and Cash Equivalents at the beginning of the Year	\$310,797	\$302,689	\$92,098	(\$20,774)	\$5,192	(\$68,759)	(\$145,245)	
Cash and Cash Equivalents at the End of the Year	\$302,689	\$92,098	(\$20,774)	\$5,192	(\$68,759)	(\$145,245)	(\$78,935)	

8 Notes on the Lion's Head DWS Financial Plan

The Lion's Head 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 2026. 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 DWS had a reserve balance of \$310,797 at the end of 2019. The reserve decreased throughout most of the study period with a final negative balance of \$78,934 by the end of 2026.
2. The DWS had a debt principal of approximately \$734,222 at year end 2019. The debt principle decreases each year until 2026 when it reaches a value of \$64,579.
3. Tangible Capital Assets Cost (Closing) includes changes (additions, betterments, disposals, write-downs) in tangible capital assets during the year.
4. Tangible Capital Assets (TCA) 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 20% contingency for items occurring in 2020 or later. Amortization was determined using the straight line method. The calculation of Amortization begins the year that the asset is put into service.
5. TCA Additions – There are ten major capital projects, including installation of hydrants, purchase of leak detection equipment, replacement of filter backwash pumps, replacement of supernatant pumps, replacement of the diesel generator, roof replacement, replacement of membrane modules, replacement of high lift pumps, replacement of membrane air compressor systems, and upgrades of SCADA system.
6. Transfer from LH Marina – Annual revenue of \$10,000 from the Marina that is expected to stay constant throughout the study period.
7. Transfer from Campground – Annual revenue of \$10,000 from a local Campground that is expected to stay constant throughout the study period.
8. Water Charges – Direct Billings – Water Meters – There are 390 connections that are comprised of residential, industrial and commercial users varying in size and usage. The majority of these connections however are residential users with 5/8" or 3/4" connections. All users of the DWS are charged a base flat rate as well as a metered rate (per m³).

9. Water Hookups – A flat rate of \$3,000 is charged for each new connection to the DWS. Two (2) new hookups have been assumed for each year between 2021 and 2026
10. Municipal Contribution – The DWS receives an annual municipal contribution in the amount of \$63,183 to help fund ongoing operating costs and is expected to continue throughout the study period.
11. Other – Miscellaneous revenue for the DWS including water certificates, turn water on/off charges, water meter charges, water repair fees, vacant lot charges and OCWA telephone charges. Miscellaneous revenue was assumed constant throughout the study period.
12. OCWA Service Agreement – OCWA’s service agreement is estimated to increase at 2% per year.
13. Telephone – Telephone costs are anticipated to be \$3,770 in 2020, based on an average value from 2016, 2017, 2018 and 2019, and expected to increase at 2% per year.
14. Engineering Fees – Miscellaneous engineering fees for the DWS are anticipated to be \$3,770 in 2020, based on an average value from 2016, 2017, 2018 and 2019, and projected to increase at 2% per year.
15. Insurance – Insurance costs are anticipated to be \$5,710 in 2020, based on an average value from 2016, 2017, 2018 and 2019, and expected to increase at 2% per year for any future increase in insurance costs.
16. Other – Includes municipal wages, memberships, training, and machine time, and road wages.
17. Major Maintenance and Service Rebate – According to OCWA’s Service Agreement, OCWA is to pay first \$20K of capital (it is assumed that OCWA will use the full \$20K each year), and first \$5K of Service breaks and all routine maintenance (it is assumed that OCWA will use the full \$5K each year) for a total of a \$25,000 rebate each year.
18. Major Maintenance – From 2020 onward, major maintenance costs are derived from the capital and major maintenance plan that was created by OCWA and the municipality.

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.