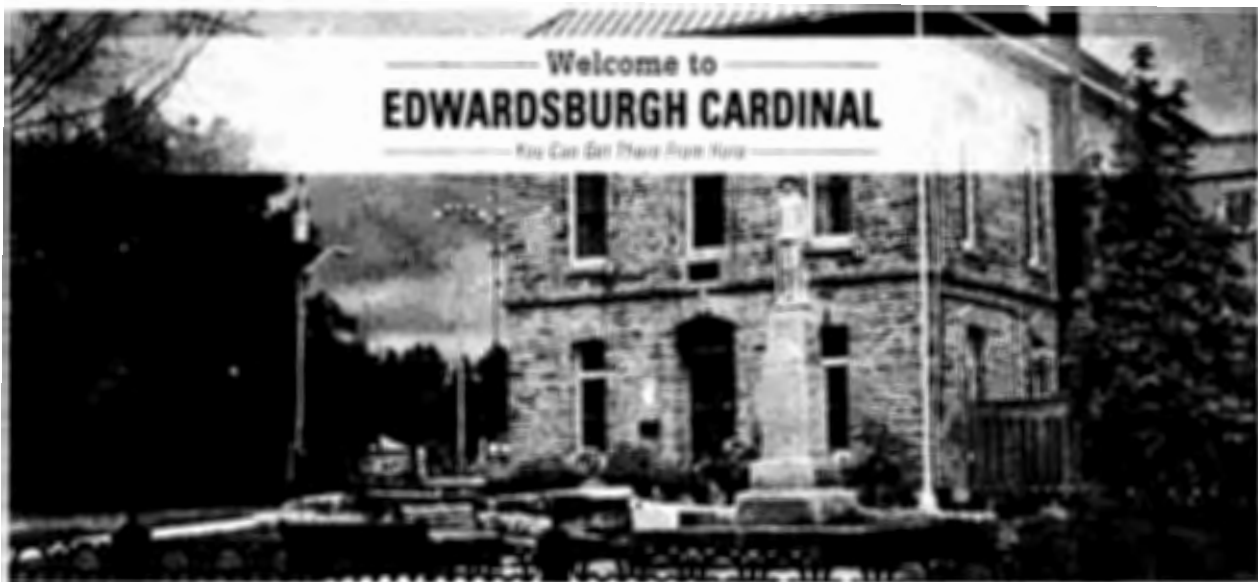


Cardinal Water System & Edwardsburgh Industrial Park Distribution System Financial Plan



November, 2015

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1. Introduction

1.1 Background

As a result of the Justice O'Connor's Part II Walkerton Inquiry Report (2000) and the passing of the Ontario's *Safe Drinking Water Act, 2002*, the Province has introduced and is implementing a new Municipal Drinking Water Licensing Program. The Ministry of the Environment has established the following licensing requirements:

- Certificate of Approval for their Drinking Water Facilities- which will be referred to in the future as a Drinking Water Works Permit
- A Permit to Take Water- mandated under the Ontario Water Resources Act
- An approved Operation Plan- in compliance with the Drinking Water Quality Management Standard (DWQMS)
- Approved Financial Plan- (O.Reg. 453/07)
- Accreditation as an Operating Authority- which required the auditing of the Operational Plan by a 3rd party Accreditation Body

This Financial Plan contains a forecast based on current and projected information, based on the current rate structure. Projections are based on the operations from the past three years and capital requirements that have been noted. This is a living document and as such will be used as a guideline for staff and Council. The regulations require updating at a minimum every five (5) years to maintain the license.

1.2 Study Area

The Township of Edwardsburgh/Cardinal is located in the Counties of Leeds and Grenville and rests on the boundaries of the Town of Prescott, Township of North Grenville, Township of South Dundas and the Township of Augusta.

There are two water systems operated by the Township, one that services the Village of Cardinal and one that services in New Wexford and Industrial Park. The components of these systems are as follows:

Cardinal Water System:

This is a surface water treatment plant that receives its source water supply from the St. Lawrence River. Treatment consists of pre-chlorination, basket screens, chemically assisted coagulation and flocculation, 4 rapid dual media filters (anthracite coal and sand) for physical removal of turbidity, ultraviolet irradiation (primary disinfection) followed by post chlorination (secondary disinfection).

The distribution system includes an elevated storage tank, 6 sample stations, 82 hydrants and a distribution system of approximately 11,280 meters.

Edwardsburgh Industrial Park Distribution System:

The Edwardsburgh Industrial Park distribution system is a standalone system receiving all its treated water from the Town of Prescott. The distribution system is approximately 3945 meters. There is no re-chlorination, booster or elevated storage associated with this system.

1.3 Study Objective

The objective of this report is to present the Financial Plan for both the Cardinal Drinking Water System and the Edwardsburgh Industrial Park Distribution System, which meets the requirements of the Financial Plan Regulations (O.Reg.453/07) under the *Safe Drinking Water Act, 2002*.

2. Financial Plan Requirements and Guidelines

2.1 Financial Plan Regulation

The key points of the Financial Plan Regulation (O.Reg. 453/07) are described in the following subsections.

2.1.1 General Requirements

The following general requirements are outlined O.Reg. 453/07 and apply to both new and existing systems:

- **Declaration:** The Financial Plan must include a statement that the financial impacts of the drinking water system have been considered.
- **Projection Length:** The Financial Plan shall be for a period of at least six years.
- **Public Transparency:** The Financial Plan must be made available, on request and without charge, to the members of the public that are serviced by the water system. If the system owner maintains a website, the Financial Plan must be made available on the website without charge. The owner must provide a notice informing the public of the availability of the Financial Plan, in a manner that the owner deems fit to bring the notice to the attention of the members of the public that are served by the water system.
- **Approval:** The Financial Plan must be approved by a council resolution that indicates that the drinking water system is financially viable.
- **Submission:** A copy of the Financial Plan, along with the resolution must be submitted to the Ministry of Municipal Affairs and Housing.

2.1.2 New System Requirements

In addition to the general requirements, the Financial Plan must include details of the projected financial operations itemized by:

- Total revenues (water rates, user charges, and other revenues)
- Total expenses (amortization expenses, interest expenses, and other expenses)
- Annual surplus or deficit
- Accumulated surplus or deficit

2.1.3 Existing System Requirements

In addition to the above requirements, the Financial Plan of an existing system must include the following details:

- Details of the Projected financial position, 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
 - e) Changes in tangible capital assets that are additions, donations, write downs, and disposals

Items a, b and c apply only if the information is known to the owner at the time when the Financial Plan is prepared.

If two or more drinking water systems are solely owned by the same owner, then the Financial Plan can be prepared by treating those systems together as if they were one drinking system. However, in order to be completely transparent to the users of each system the Township has presented the financial plans separately for each system.

2.2 Financial Plan Guidelines

To assist municipalities in preparing the Financial Plan under O.Reg. 453/07, the Ministry of the Environment released a document titled "Toward Financially Sustainable Drinking Water and Wastewater systems" (August 2007). This document applies to wastewater systems as well. However, a Financial Plan for a wastewater system is only encouraged and not mandatory.

2.3 Public Sector Accounting Board (PSAB) Requirements

The Public Sector Accounting Board (PSAB) of the Canadian Institute of Chartered Accountants (CICA) approved a new municipal financial accounting and reporting standards in June 2006. The new standards require full accrual accounting for 2009 and future years, as well as accounting of tangible capital assets in the financial statements.

3. Funding Approach

The funding plan was developed to determine the most appropriate balance of operating revenues, short term one-time government funding and new debt financing. The achievements of the funding plan include:

- ✓ Through the development of new water rate structure and new charges; operating revenues will increase over time to cover operating and capital;
- ✓ The new water rates will continue to be affordable over the long term;
- ✓ Through a combination of operating revenues and one-time government funding, it is projected that the Cardinal water System and The Edwardsburgh Industrial Park Distribution system will achieve sufficient cash receipts to cover their annual cash expenditures and;
- ✓ Revenue levels will gradually increase to allow the Township of Edwardsburgh/Cardinal to invest in reserve funds for significant future capital investments.

4. Revenues

Appendixes A-1 to A-6 of this Financial Plan include projected financial statements for the Cardinal Water System as well as the Edwardsburgh Industrial Park Distribution System. These statements include a projected statement of financial position, projected statement of operations and projected statement of cash flow for the periods of 2016 to 2021.

As required, these statements are in accordance with the new Public Sector Accounting Standards. Actual results will vary from projections herein and the differences may be material. Any future changes to accounting principles or key assumptions will impact these projected financial statements, and should be updated to reflect such changes.

4.1 Operating Revenues

Operating revenues include water, connection fees and other charges or receipts. The majority of the operating revenues are achieved as a result of two variables: consumption and fixed base water rates. In the Cardinal Water as of April 2015, consumption water billing commenced using a split of 52% of revenue being the fixed base rate and 48% of revenue being variable consumption rate. Due to the billing changing from a full fixed rate to a blend of fixed and variable it is expected that consumption will decline in the first few years of billing. In the Edwardsburgh Industrial Park Distribution System, consumption billing is based on a split of 15 % of revenue being the fixed base rate and 85 % of revenue being variable consumption rate.

The actual operating revenues from 2013-2014, and the budgeted operating revenues for 2015 are shown in table 4-1 for Cardinal and Table 4-2 for Edwardsburgh Industrial Park.

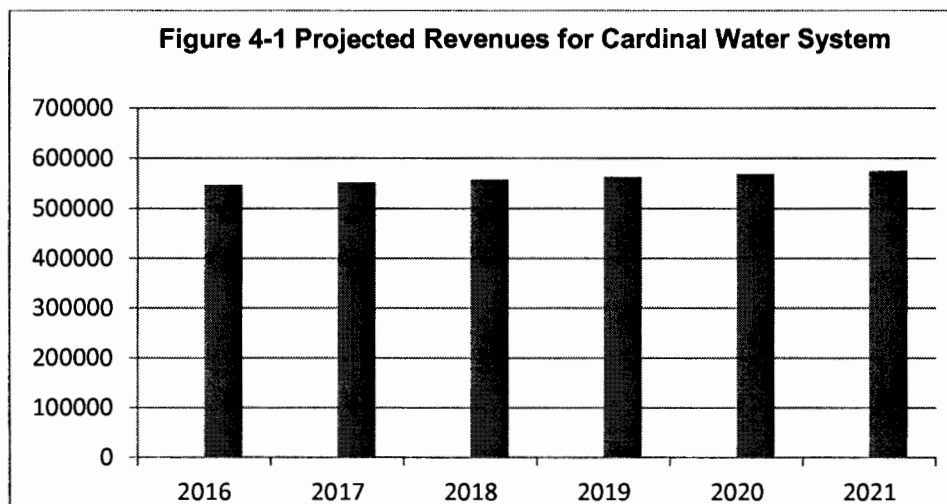
Item	Amount
Actual 2013	\$567,062.00
Actual 2014	\$467,601.00
Budget 2015	\$540,000.00

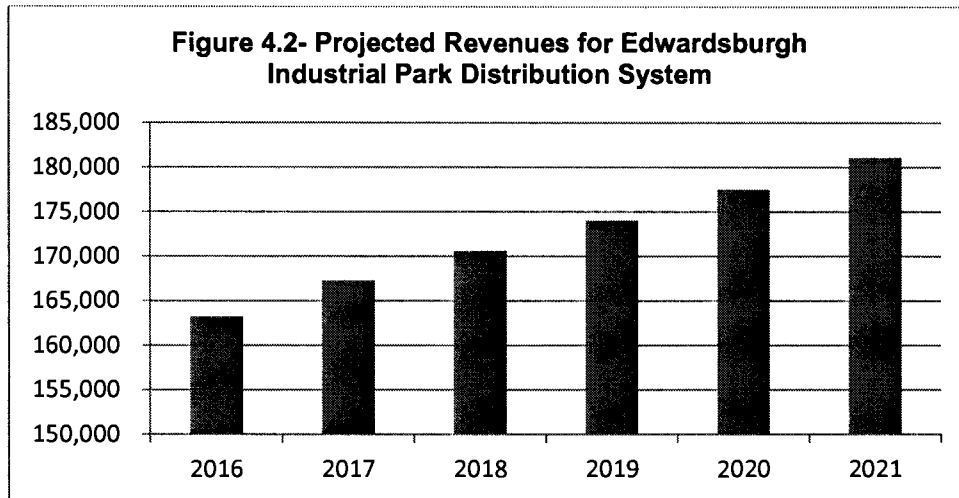
Item	Amount
Actual 2013	\$138,599.00
Actual 2014	\$148,797.00
Budget 2015	\$160,000.00

4.2 Projected Revenues

In order to show some growth and to keep up with inflation the projected revenue will be based on a 1% to 2% increase. The projected revenues based on the 1% growth will be assessed in Section 5 to determine if the percent increase in revenues is adequate to sustain viability.

The projected revenues for Cardinal's Drinking water System are shown in Figure 4.1 and the projected revenues for the Edwardsburgh Industrial Park Distribution System are shown in Figure 4.2.





5. Expenses

The current period operating expenses were determined from the Township's 2015 budget. Also reported are the actual operating expenses from 2013 and 2014.

The actual operating expenses from 2013-2014 and the budgeted operating expenses for 2015 are shown in Table 5-1 for Cardinal and Table 5-2 for Edwardsburgh Industrial Park.

Table 5-1 Cardinal - 2013-2015 Expenses

Item	Amounts
Actual 2013	\$295,481.00
Actual 2014	\$335,504.00
Budget 2015	\$400,500.00

Table 5-2 Edwardsburgh Industrial Park - 2013-2015 Expenses

Item	Amounts
Actual 2013	\$111,477.00
Actual 2014	\$138,313.00
Budget 2015	\$145,650.00

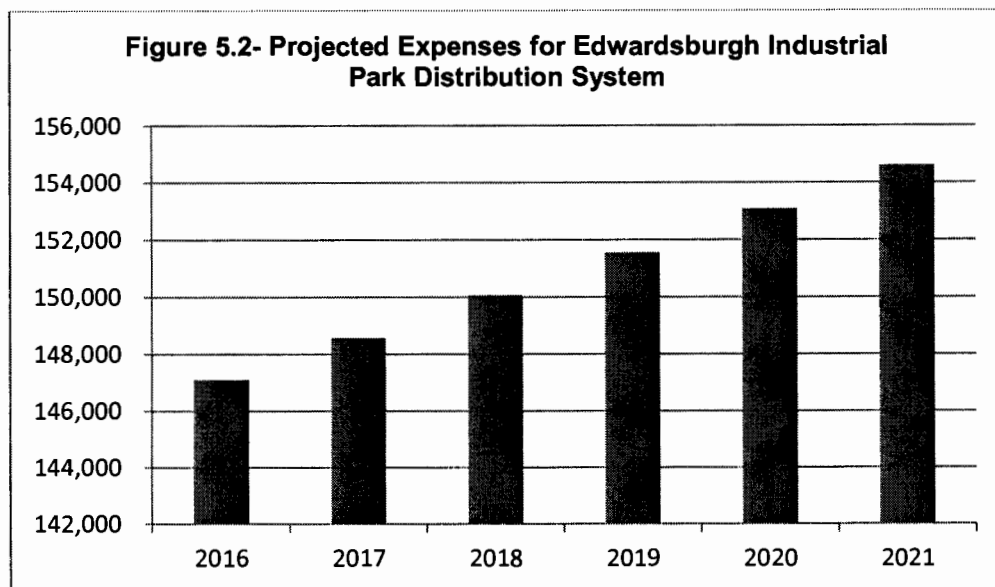
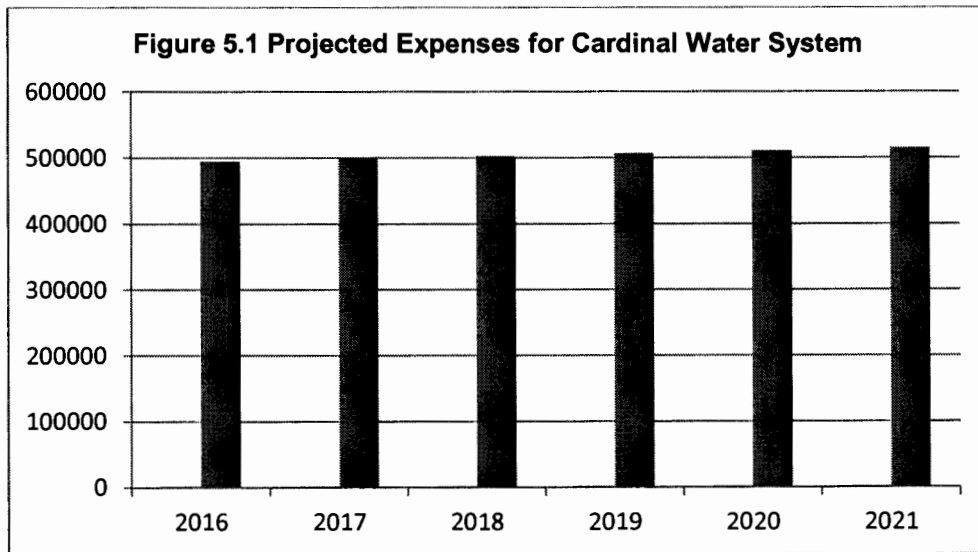
The future period operating expenses were assumed to increase by the current rate of CPI which is approximately 1% as of October, 2015.

The annual amortization expenses were based on the historical cost of assets, which was apportioned over the useful life of the asset using the straight-line depreciation method.

5.1 Operating Expenses

Operating expenses are generally ongoing expenses related to providing services. These are items that are needed to keep the operation running on a day-to-day basis. Items included in operating expenses typically include salaries, benefits, materials, supplies, maintenance, equipment, fuel, utilities, mileage, etc.

The projected operating expenses are shown in Figure 5.1 for Cardinal Water System and Figure 5.2 for Edwardsburgh Industrial Park Distribution System. As previously mentioned, the operating expenses have been projected based on an annual CPI inflation per year.



6. Capital Expenditures

At the time the Financial Plan was prepared, it was assumed that there are no significant inventories of supplies and no pre-paid expenses.

6.1 Future Capital Needs

The future capital needs of the Cardinal Drinking Water System are shown in Figure 6-1. Figure 6-1 provides general details on the main assets anticipated to be acquired or replaced in the capital expenditure plan. The estimated amounts shown in the table are in current dollars adjusted for inflation for the proposed year. No projections beyond 2022.

In order to fund the planned capital expenditures, long-term financing of \$1.5 million may be required to be amortized over 20-25 years. The current reserve fund balance and the current budgeted transfers into reserve fund are not adequate to meet the funding needs for the planned capital expenditures over the next six years.

Year	Asset	Amount
2016	James Street	\$219,450
2017	Water Tower Exterior Painting	\$154,000
2018	Walker Street	\$330,000
2020	County Rd # 2	\$823,900

There are no immediate future capital needs for the Edwardsburgh Industrial Park Distribution system due to the age of the distribution pipes. An annual contribution to the reserve fund is suggested to build a fund over time to address replacement of assets at the end of their life and for the potential growth in the Industrial Park.

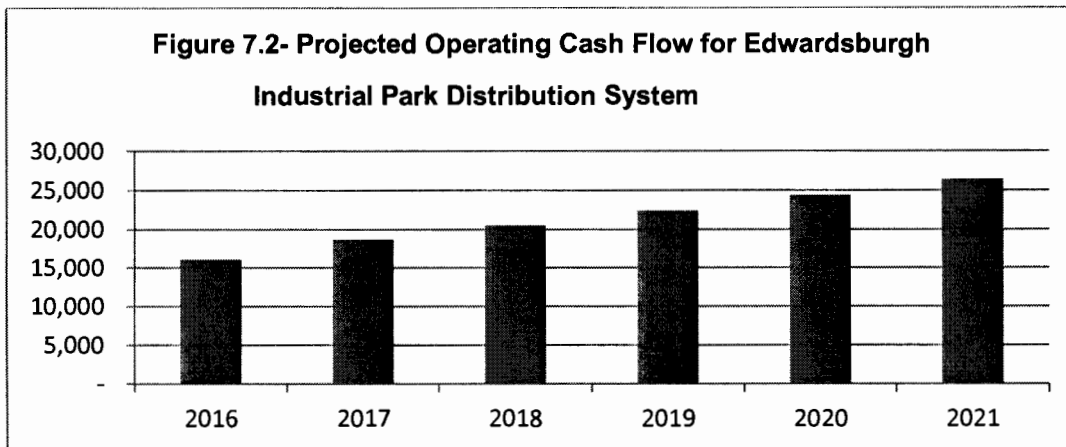
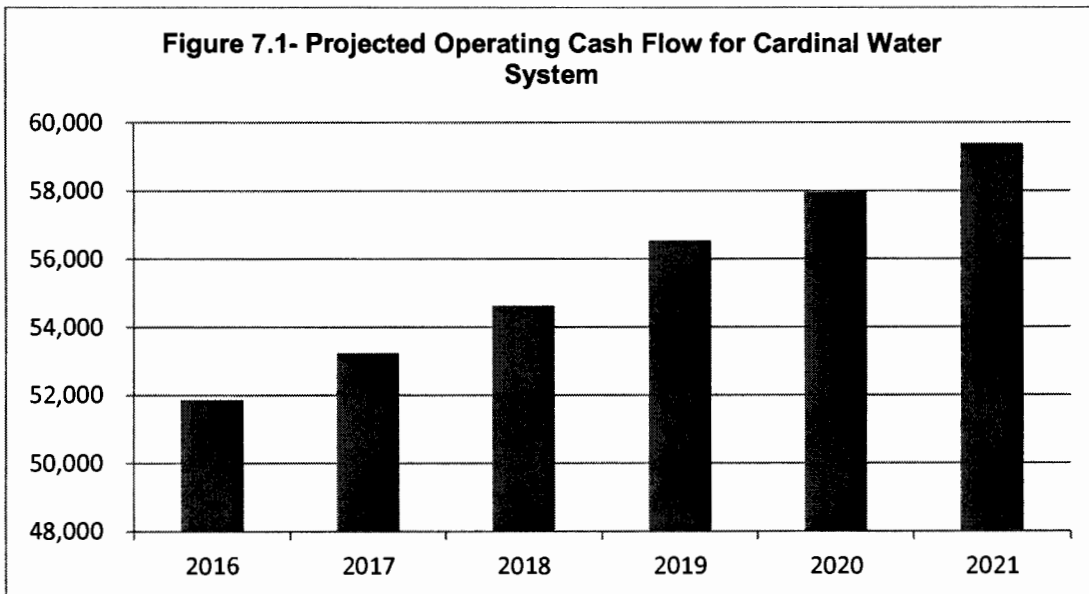
7. Operating Cash Flow

The operating cash flow shows that current period operations can generate either a surplus or deficit from a cash perspective, depending on the balance between revenues and cash expenses. The operating cash flow equation is as follows:

$$\text{Operating Cash Flow} = \text{Revenues} - \text{Operating Expenses} - \text{Debt Service}$$

It is important to note that the amortization expenses are not included in the equation above, since the operating cash flow offers a cash perspective and the amortization expenses are non-cash expenses.

The operating cash flows are shown for each water system in Figure 7.1 and 7.2 respectively. It can be seen from both figures that the operating cash flow remains positive for the projection horizon.



8. Financial Plan

The Financial Plan for both systems is shown in Appendices A-1 to A-6 to this document include the following projected statements for each system:

- Projected Statement of Financial Position
- Projected Statement of Operations
- Projected Statement of Cash Flows

9. Conclusions

The financial impacts of the Cardinal Water and Edwardsburgh Industrial Park Distribution systems have been considered in the financial plan. The main conclusions of the financial plan are as follows:

- The revenues generated are sufficient for meeting operating expenses for the projected horizon.
- With the use of reserve funds, debt and government funding, there is sufficient cash available for the planned capital expenditures for the projected horizon.
- There is an annual surplus for the entirety of the projected period.
- There is a positive reserve fund balance throughout the projected horizon.
- The net financial assets value is positive throughout the projected horizon.

10. Council Resolution

Date of Motion:

Moved by:

Seconded by:

That the Council of the Municipality of Edwardsburgh Cardinal approve the Cardinal Water and Edwardsburgh Industrial Park Distribution Water Financial Plan, which has been prepared in accordance with Provincial Regulation 453/07;

And further that the Water Financial Plan be submitted to the Ministry of Municipal Affairs and Housing (MMAH) as prescribed by Ontario Regulation 453/07 under the Safe Drinking Water Act, 2002 and posted on the Municipal website and made available at no charge to any person requesting the plan.

Cardinal Water System
Projected Statment of Financial Position

Net Financial Assets	2016	2017	2018	2019	2020	2021
Assets						
Cash and Cash Equivalents	1,890,651	1,852,095	1,638,431	1,707,973	955,536	1,024,934
Accounts Receivables			"N/A" *			
Long Term Investments						
Gross Financial Assets	1,890,651	1,852,095	1,638,431	1,707,973	955,536	1,024,934
Liabilities						
Accounts Payable						
Long-Term Debt			"N/A" *			
Deferred Revenue						
Total Liabilities						
Net Financial Assets	1,890,651	1,852,095	1,638,431	1,707,973	955,536	1,024,934
Non-Financial Assets						
Tangible Capital Assets	4,709,732	4,671,644	4,804,055	4,606,467	5,219,048	5,007,728
Inventory						
Prepaid Expenses						
Total Non-Financial Assets	4,709,732	4,671,644	4,804,055	4,606,467	5,219,048	5,007,728
Accumulated Surplus	6,600,383	6,523,738	6,442,486	6,314,441	6,174,584	6,032,662

Note: This financial statement is part of the requirements by the Financial Plan Reulation (435/07). The regulation recognized that some financial information may be consolidated on a municipal level across numerous departments and it may be difficult for that information to be allocated to the drinking water system. "N/A" is left intentionally due to the fact that the financial system in the Township of Edwardsburgh/Cardinal currently doesn't facilitate further breakdowns.

Cardinal Water System
Projected Statement of Operations

Line	Item	2016	2017	2018	2019	2020	2021
1	Revenue	(546,370)	(551,794)	(557,272)	(563,304)	(568,892)	(574,536)
2	Expenses						
a	Operating Expenses	494,505	498,550	502,636	506,762	510,930	515,139
b	Amortization	188,238	192,088	197,588	197,588	211,320	211,320
c	Interest	0	0	0	0	0	0
d	Total expenses	682,743	690,638	700,224	704,350	722,249	726,459
3	Annual Surplus (deficit)	(136,373)	(138,844)	(142,952)	(141,046)	(153,357)	(151,922)
4	Accumulated surplus, beginning of period	6,600,383	6,523,738	6,442,486	6,314,441	6,174,584	6,032,662
5	Accumulated surplus, end of period	6,464,010	6,384,894	6,299,534	6,173,395	6,021,227	5,880,739

The Statement of Operations summarizes the revenues and expenses generated by the water system for a given period.

The annual surplus/deficit measures whether the revenues generated were sufficient to cover expenses incurred and in turn, whether net financial assets have been maintained or depleted. Annual surplus is required ensure funding is available to non-expense costs such as tangible capital asset acquisitions, reserve fund transfers, and debt repayments.

Cardinal Water System
Projected Statement of Cash Flow

Line	Item	2016	2017	2018	2019	2020	2021
1	Revenue	596,570	613,994	618,972	576,304	582,392	584,536
Cash Paid For:							
2	Operating Expenses	623,955	616,550	796,636	472,762	477,930	484,139
3	Finance Charges	90,000	90,000	90,000	90,000	90,000	90,000
4	Total Costs	713,955	706,550	886,636	562,762	567,930	574,139
Cash provided From:							
5	Operating Transactions	(117,385)	(92,556)	(267,664)	13,542	14,463	10,398
Capital Transactions							
6	Tangible Capital Assets	219,450	154,000	330,000	0	823,900	0
7	Cash Applied to capital transactions		54,000	54,000	56,000	57,000	59,000
Finance Transactions							
8	Proceeds from debt Issues	1,500,000	0	0	0	0	0
9	Debt Repayment						
10	Cash applied to financing transactions	1,500,000	0	0	0	0	0
11	Increase/(decrease) in cash and cash equivalents	1,382,615	(38,556)	(213,664)	69,542	71,463	69,398
12	Cash and cash equivalents, beginning of period	508,036	1,890,651	1,852,095	1,638,431	1,707,973	955,536
13	Cash and cash equivalents, end of period	1,890,651	1,852,095	1,638,431	1,707,973	1,779,436	1,024,934

- Line 1: Revenues increase at a rate of 1% per year
Line 2: Operating expenses increase at a rate of 1 % per year
Line 3: Interest on Debts
Line 4: Total costs = Line 2 + Line 3
Line 5: Operating transactions is the operating cash flow i.e. Line 1 + Line 4
Line 6: The value of assets acquired
Line 7: Cash used for the capital expenditure
Line 8: Debt incurred
Line 9: Debt repayments
Line 10: Cash applied to financing transactions = Line 8 + Line 9
Line 11: Increase (decrease) in cash = Line 5 + Line 7 + Line 10
Line 12: Cash beginning of period is the reserve fund balance
Line 13: Cash end of period = Line 11 + Line 12

Edwardburgh Industrial Park Distribution System
Projected Statement of Financial Position

Net Financial Assets	2016	2017	2018	2019	2020	2021
Assets						
Cash and Cash Equivalents	72,148	91,770	113,262	136,686	162,101	189,559
Accounts Receivables			"N/A" *			
Long Term Investments						
Gross Financial Assets	72,148	91,770	113,262	136,686	162,101	189,559
Liabilities						
Accounts Payable						
Long-Term Debt			"N/A" *			
Deferred Revenue						
Total Liabilities	0	0	0	0	0	0
Net Financial Assets	72,148	91,770	113,262	136,686	162,101	189,559
Non-Financial Assets						
Tangible Capital Assets	406,507	398,435	390,363	382,291	374,219	366,147
Inventory						
Prepaid Expenses						
Total Non-Financial Assets	406,507	398,435	390,363	382,291	374,219	366,147
Accumulated Surplus	478,655	490,205	503,625	518,977	536,319	555,706

Note: This financial statement is part of the requirements by the Financial Plan Reulation (435/07). The regulation recognized that some financial information may be consolidated on a municipal level across numerous departments and it may be difficult for that information to be allocated to the drinking water system. "N/A" is left intentionally due to the fact that the financial system in the Township of Edwardsburgh/Cardinal currently doesn't facilitate further breakdowns.

Edwardsburgh Industrial Park Distribution System
Projected Statement of Operations

Line	Item	2016	2017	2018	2019	2020	2021
1	Revenue	163,200	167,280	170,626	174,038	177,519	181,069
2	Expenses						
a	Operating Expenses	147,107	148,578	150,063	151,564	153,080	154,610
b	Amortization	8,072	8,072	8,072	8,072	8,072	8,072
c	Interest	0	0	0	0	0	0
d	Total expenses	155,179	156,650	158,135	159,636	161,152	162,683
3	Annual Surplus (deficit)	8,021	10,630	12,490	14,402	16,367	18,387
4	Accumulated surplus, beginning of period	478,655	490,205	503,625	518,977	536,319	555,706
5	Accumulated surplus, end of period	486,676	500,835	516,115	533,379	552,686	574,093

The Statement of Operations summarizes the revenues and expenses generated by the water system for a given period. The annual surplus/deficit measures whether the revenues generated were sufficient to cover expenses incurred and in turn, whether net financial assets have been maintained or depleted. Annual surplus is required ensure funding is available to non-expense costs such as tangible capital asset acquisitions, reserve fund transfers, and debt repayments.

APPENDIX A-6

Edwardsburgh Industrial Park Distribution System
Projected Statement of Cash Flow

Line	Item	2016	2017	2018	2019	2020	2021
1	Revenue	163,200	167,280	170,626	174,038	177,519	181,069
	Cash Paid For:						
2	Operating Expenses	147,107	148,578	150,063	151,564	153,080	154,610
3	Finance Charges	0	0	0	0	0	0
4	Total Costs	147,107	148,578	150,063	151,564	153,080	154,610
	Cash provided From:						
5	Operating Transactions	16,094	18,702	20,562	22,474	24,439	26,459
	Capital Transactions						
6	Tangible Capital Assets	0	0	0	0	0	0
	Cash Applied to capital						
7	transactions	0	0	0	0	0	0
	Finance Transactions						
8	Proceeds from debt Issues	0	0	0	0	0	0
9	Debt Repayment	0	0	0	0	0	0
	Cash applied to financing						
10	transactions	0	0	0	0	0	0
	Increase/(decrease) in cash						
11	and cash equivalents	16,094	18,702	20,562	22,474	24,439	26,459
	Cash and cash equivalents,						
12	beginning of period	55,144	72,148	91,770	113,262	136,686	162,101
	Cash and cash equivalents,						
13	end of period	71,238	90,850	112,332	135,736	161,126	188,559

- Line 1: Revenues increase at a rate of between 1% -2% per year
Line 2: Operating expenses increase at a rate of 1% per year
Line 3: Interest on Debts
Line 4: Total costs = Line 2 + Line 3
Line 5: Operating transactions is the operating cash flow i.e. Line 1 + Line 4
Line 6: The value of assets acquired
Line 7: Cash used for the capital expenditure
Line 8: Debt incurred
Line 9: Debt repayments
Line 10: Cash applied to financing transactions = Line 8 + Line 9
Line 11: Increase (decrease) in cash = Line 5 + Line 7 + Line 10
Line 12: Cash beginning of period is the reserve fund balance
Line 13: Cash end of period = Line 11 + Line 12