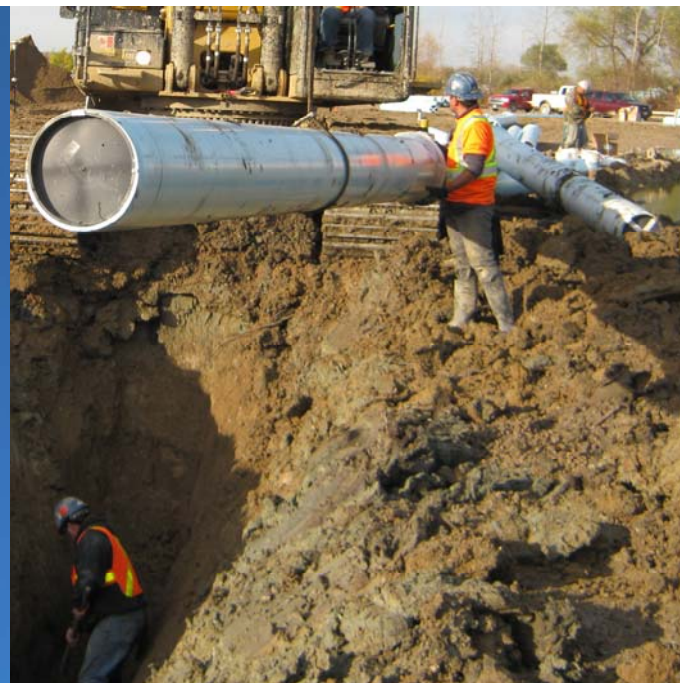


Town of Tecumseh  
2019 Water Division Financial Plan No. 040-301

As Submitted to Town Council  
March 26, 2019



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## **1. Introduction**

### **1.1 Objective**

The purpose of this document is to update the Water Division Financial Plan (FP) in order to fulfill the licence renewal requirements defined in O. Reg. 453/07.

The FP update incorporates the operating, capital and reserve fund forecasts derived from the 2019 Approved Budget and Five Year Capital Works Plans.

### **1.2 Background**

The Town of Tecumseh provides potable water to most parts of Tecumseh and a portion of Lakeshore through an extensive water distribution network. The Town owns and operates the distribution system within its boundaries which includes 223 km of watermain; 1,300 hydrants; 1,500 valves; 12 boundary meters, two water filling stations and one elevated storage facility. Water is purchased from the City of Windsor. The A.H. Weeks Water Treatment Plant (WTP), the trunk transmission mains, the pumping stations, and reservoirs in the City of Windsor are owned and operated by Enwin.

Town staff completed a 2015 Water and Wastewater Rate Study (Rate Study), which was approved by Council on December 8, 2015 (RCM-409/15). Preparation of the Rate Study involved extensive financial analysis to ensure full cost recovery of the water division. Sources of data used in the full cost calculation included: ten year operating revenues and expenditures forecast, capital cost projections, reserve balances projections, historical customer and volume data, and future customer and volume forecasts. Fixed and variable rates were directly extracted from the Rate Study in order to calculate user charge revenue for the FP.

### **1.3 Regulatory Requirements**

The Safe Drinking Water Act, 2002, O. Reg. 188/07, requires municipalities to obtain drinking water system licences as part of an overall Drinking Water Quality Management System (DWQMS). Licence renewals necessitate the preparation of a financial plan in accordance with O. Reg. 453/07.

Financial Plan requirements for licence renewals defined in O. Reg. 453/07 stipulate that financial plans must:

- Be approved by a resolution of Council.
- Apply to a period of at least six years.
- Include the year in which the licence expires as part of the forecast period.
- Incorporate details regarding the financial position of the Water Division, including changes in tangible capital assets that are additions, donations, write downs and disposals.
- Include details of the projected financial operations of the Water Division.
- Contain the projected gross cash receipts and gross cash payments of the Water Division.

- Address the financial implications of the replacement of lead service pipes.

In addition, financial plans must be:

- Made available at no charge to water customers upon request.
- Posted on the Internet if a website is maintained.
- Sent to the Ministry of Municipal Affairs.

Finally, notice must be provided advising water customers of the availability of the financial plan.

#### **1.4 Required Financial Statements**

In order to satisfy the above-noted requirements of O. Reg. 453/07, the FP contains the following financial statements:

**Statement of Financial Position** - The Statement of Financial Position provides information on the assets, liabilities, and accumulated surplus of the Town's Water Division.

The net financial assets/(debt) is the difference between financial assets and liabilities. A net financial asset position implies that the division has financial resources to fund future operations. On the other hand, a net debt position suggests that future revenues will be needed to "catch up" past transactions as well as finance future operations.

The tangible capital asset balance represents the Town's significant investment in water system infrastructure.

**Statement of Operations and Accumulated Surplus** - The Statement of Operations and Accumulated Surplus details the revenues, expenses and surplus/deficit for a given period.

The annual surplus/deficit measures whether revenues were sufficient to cover the expenses incurred. A surplus represents funds available to the Town to fund non-operating expenses such as the acquisition of tangible capital assets, debt principal payments and transfers to reserves.

**Statement of Cash Flows** - This statement provides information on the generation and use of cash resources over the forecast period. The gross cash receipts/payments are itemized by: operating, capital, investing and financial transactions. Grouping the cash receipts and payments by category allows the reader to understand where the cash is being generated (i.e. operating water rates), and how the cash is being used (i.e. capital and operating expenses).

**Statement of Changes in Net Financial Assets** - Although this statement is not required under O. Reg. 453/07, it offers additional data regarding the financial performance of the Town's Water Division. The Statement of Net Financial Assets/Debt provides information on whether the revenue generated is sufficient to support the operating and tangible capital asset costs. The statement also reconciles the difference between the annual surplus/deficit and the change in net financial assets/debt for the period.

Please refer to Section 3 Financial Plan for a detailed discussion on the Town’s financial statements.

### **1.5 MECP Guideline**

The Ministry of the Environment, Conservation and Parks (MECP) issued the guideline “Toward Financially Sustainable Drinking-Water and Wastewater Systems” (Guideline) to assist municipalities in the preparation of financial plans. This guide sets forth the following principles of financial sustainability:

- Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.
- Principle #2: An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.
- Principle #3: Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.
- Principle #4: Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.
- Principle #5: An asset management plan is a key input to the development of a financial plan.
- Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.
- Principle #7: Ensuring users pay for the services they are provided leads to equitable outcomes and can improve conservation. In general, metering and the use of rates can help ensure users pay for services received.
- Principle #8: Financial Plans are “living” documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.
- Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal council.

The Guideline is not required practice, but was meant to assist municipalities with financial planning. Taken together, O. Reg. 453/07 and the Guideline are good tools municipalities can use to develop a strategy to ensure the financial sustainability of water systems.

The Town’s FP was prepared in accordance with O. Reg. 453/07 and the above-noted MECP principles of financial sustainability.

### 1.6 Lead Service Pipe Removal

In 2007, the MECP implemented a Regulated Lead Testing Program which required municipalities to undertake mandatory testing for lead in drinking water to ensure lead levels met the Ontario Drinking Water Standards. Under this program, the Town of Tecumseh tested over 200 residential homes and did not have a single adverse or high reportable lead finding. Because of these results, the MECP has granted the Town relief from residential lead testing. The Town tests for lead in the distribution system twice a year as mandated by the MECP.

Generally lead services can be found where there are cast iron (CI) watermains. As identified in the 2018 Asset Management Plan, only 10% of the watermain inventory consists of CI pipes. The Town replaces any remaining lead water services to the property line during CI watermain replacement projects.

Leads services can also be identified during repairs to the Town’s water service shut-offs located at a customer’s property line or discovered from a leak on a service line. Once a lead service pipe has been identified, it is replaced by the Town.

In accordance with O. Reg. 453/07, the FP must address the financial implications of the replacement of lead service pipes. None of the projects listed in the Water Capital Budget Forecast (Appendix B) involve the replacement of CI watermains. However, it is assumed that two “one-off” lead service replacements occur annually in conjunction with repairs to the Town’s water service shut-offs. Annual estimates are summarized as follows:

#### Cost Implications of Lead Service Pipe Removal

Inflated \$

2019	2020	2021	2022	2023	2024
\$ 5,800	\$ 5,900	\$ 6,100	\$ 6,200	\$ 6,400	\$ 6,600



## **2. Financial Statement Preparation**

### **2.1 Key Inputs**

Estimates made for the Statement of Financial Position start with 2018 year-end estimates. Refer to the FP notes for detailed assumptions.

Operating, capital and reserve forecasts were used to formulate the Statement of Operations and Accumulated Surplus. The 2019 Approved Budget, which includes outlook years 2020 and 2021, formed the basis of these estimates. Fixed and variable rates were extracted from the Rate Study.

The operating, capital and reserve forecasts have been included herein for reference purposes – see Appendix B.

### **2.2 Accounting Requirements**

The forecasts found in the Rate Study were prepared on a modified accrual basis in order to determine the rates required for a full cost recovery. Using fixed and variable rates from the Rate Study, the 2019 Approved Budget was also prepared on a modified accrual basis.

The components of a financial plan per O. Reg. 453/07 requirements are consistent with the requirements for financial statement presentation as set out in section PS3150 of the CPA Canada Public Sector Accounting Handbook, i.e. full accrual. Accounting adjustments were completed to convert the FP forecasts from modified accrual to full accrual. These adjustments include amortization, employee future benefits, the reporting of capital contributions (i.e. development charges) and the elimination of interfund transfers.

### 3. Financial Plan

This section summarizes the complete FP for the Town of Tecumseh Water Division. The FP represents a forecast of the Town's future financial position. The statements included in this report are unaudited and contain estimates and assumptions as detailed in the Notes to the Water Division Financial Plan. Refer to Appendix A for the financial statements and notes.

#### 3.1 Statement of Financial Position

The Statement of Financial Position summarizes the Town's Water Division financial and non-financial assets, liabilities, and provides the net financial asset/(net debt) position and accumulated surplus for the Water Division.

Financial assets consist of cash balances in the water reserve funds and accounts receivable for year-end water billings to customers.

The Town's liabilities consist of accounts payable, employee future benefits payable and municipal debt. Capital project holdbacks, water purchases and vacation pay accrued as per Public Sector Accounting Board (PSAB) requirements make up most of the accounts payable balance. There is no deferred revenue as the water development charge reserve fund is unfunded. Employee future benefits payable are projected to increase by \$1.1 million over the forecast period. In 2024, \$8.1 million in long-term debt will be required to finance three major growth-related capital projects.

Non-financial assets include the Town's tangible capital assets, i.e. water infrastructure, facilities and vehicles. Historical costs are amortized over the asset life to arrive at the net book value. New assets are added in the year of acquisition/construction. The timing of "contributed" assets (asset transfers from developers) is uncertain and the potential dollar value (1% addition) is relatively low, so for the purposes of this FP, an estimate for "contributed" assets is not included in the forecast period. Other non-financial assets such as inventory and prepaid expenses are immaterial and are assumed to be zero.

Net financial assets (or net debt) is the difference between financial assets and liabilities. In 2018, the Town's Water Division will be in a net financial asset position of approximately \$8.6 million. By the end of the forecast period, 2024, net financial assets of \$7.5 million are expected. Year-to-year fluctuations are largely due to changes in reserve balances resulting from the financing of capital works. The healthy, overall net financial asset position indicates that financial resources are available to fund future operations.

Another important indicator contained in the Statement of Financial Position is the Tangible Capital Assets (TCA). Net TCAs are expected to grow by \$8.0 million over the forecast period. Further, an asset consumption ratio (note 7) consisting of accumulated amortization as a percent of historical cost is an accounting measure that represents the extent that the assets have been "used up" in terms of their estimated useful lives. An increase to this ratio may suggest higher asset replacement needs in the



future. The Town's Water Asset Consumption Ratio is expected to hover around 32%, consistent with previous FP estimates.

Accumulated surplus is another key indicator contained in the Statement of Financial Position. The accumulated surplus is predominately made up of the net TCA balance, which represents past investments in the Water Division's infrastructure, and cash reserves. The accumulated surplus is expected to increase from approximately \$51.3 million in 2019 to approximately \$59.2 million by 2024 due to a projected healthy increase in cash reserves.

### **3.2 Statement of Operations and Accumulated Surplus**

The Statement of Operations and Accumulated Surplus summarizes the annual revenues and expenses associated with the Town's Water Division. The difference between revenue and expenses is the annual surplus/(deficit).

Revenues are comprised predominantly of user charges, which are the fixed and variable rate revenues required for a full cost recovery of the Town's Water Division. The 2019 Approved Budget revenues were used as a starting point. Subsequent years assume a volume increase of 12,000 m<sup>3</sup> per year (50 homes @ average annual usage of 240 m<sup>3</sup>) with fixed and variable rates taken directly from the Rate Study.

The statement shows a total revenue increase from approximately \$5.6 million in 2019 to \$7.1 million by 2024 required to fully recover Water Division costs.

Expenses for 2019-2021 were extracted from the 2019 Approved Budget, with the exception being those that were necessary to convert the statement to full accrual (i.e. amortization). Generally, an inflationary factor of 2.5% was applied to each of the subsequent years.

Purchases for resale and wages and benefits are the two most significant expense items. Purchases were calculated using forecast volumes multiplied by the rate charged by Enwin inflated by 2.5% annually. Wages and benefits assumed status quo staffing levels and were also inflated annually.

Amortization is another large expense item shown on the Statement of Operations and Accumulated Surplus. This non-cash expense reflects the systematic distribution of the cost of a tangible capital asset over its useful life. Amortization estimates over the forecast period reflect existing assets plus additions and corresponding disposals (replacements) attributable to the capital projects detailed in Appendix B.

The surplus/(deficit) is an important indicator shown on the Statement of Operations and Accumulated Surplus. A surplus/(deficit) measures whether revenues generated in a year were sufficient to cover expenses incurred in that year. It is important to note that an annual surplus is necessary to ensure funds will be available to address non-expense items such as TCA acquisitions over and above amortization expenses and reserve fund contributions for asset replacements.

### **3.3 Statement of Cash Flows**

The Statement of Cash Flows summarizes the main cash inflows and outflows in four main areas - operations, capital, investing and financing. This statement also shows the annual changes in cash and cash equivalents.

The operating transactions begin with the surplus/(deficit) identified in the Statement of Operations. This figure is adjusted to add or subtract non-cash items that were included as revenues or expenses (e.g. amortization).

The capital transactions section indicates the amounts spent to acquire TCAs, changes in construction work in progress (WIP) balances, and funds received from the sale of assets. The FP assumes that there were no proceeds on the sale of financial assets.

For the purposes of the Town's FP, it was assumed that there were no investing activities over the forecast period.

The financing transactions section identifies the funds received from long-term debt as cash inflows and the principal payment portion of debt as cash outflows. As noted previously, debt will be required in 2024 in order to finance several large capital works projects.

The Statement of Cash Flows indicates that cash has been generated from operations, which is used in funding the acquisition of TCAs, building cash reserves, and to repay debt. The Town's cash position is projected to increase from \$11.1 million in 2019 to \$18.8 million in 2024.

### **3.4 Statement of Changes in Net Financial Assets**

The Statement of Changes in Net Financial Assets indicates whether revenue was sufficient to cover TCA costs. It also reconciles the difference between the annual surplus and the change in net financial assets.

The Town's net financial asset position is projected to decrease over the forecast period from \$9.9 million in 2019 to \$7.5 million in 2024. This is primarily due to the significant investment in new infrastructure in 2024 as evidenced by the decrease in net financial assets from \$14.1 million in 2023 to \$7.5 million in 2024. For typical years, however, the annual surplus exceeds the TCA activity resulting in an increase to net financial assets.

#### 4. Summary

The following are the key highlights of the FP:

- The annual net cost to be recovered from rates, i.e. user charges, is projected to increase from \$5.3 million in 2019 to approximately \$6.3 million in 2024. This represents an average annual increase of approximately 3.5%.
- Long-term debt of \$8.1 million will be required in 2024 to finance three major growth-related capital projects.
- The net book value of the Town's Water Division assets is projected to increase from approximately \$41.4 million in 2019 to \$51.7 million in 2024. The estimated asset consumption ratio is 31.6% in 2019 and 31.2% in 2024, varying slightly year-to-year.
- Cash and cash equivalents are expected to increase from \$11.1 million in 2019 to \$18.8 million by the end of the forecast period. However, net financial assets are expected to decrease from \$9.9 million in 2019 to \$7.5 million in 2024 with the issuance of long-term debt.

## 5. Conclusion and Recommendations

It can be concluded that the outlook over the 2019 to 2024 forecast period is overall positive. The Water Division is considered financially viable and sustainable; full cost recovery is anticipated with reasonable annual increases to user rates. Reserves are projected to increase to healthy levels. There are adequate financial assets to service the forecast \$8.1 million debt required in 2024. However, timing of future growth projects should be considered due to the unfunded Water Development Charge Reserve Fund. Although not a cause for concern at this point, the asset consumption ratio should continue to be reviewed as part of the next update.

The following recommendations are made with respect to this Financial Plan:

1. The Town of Tecumseh 2019 Water Division Financial Plan No. 040-301 prepared in accordance with O. Reg. 453/07 under the Safe Drinking Water Act, 2002, be approved;
2. Notice of availability of the 2019 Water Division Financial Plan No. 040-301 be advertised to the public on the Town's website in accordance with O. Reg. 453/07, Section 3 (1) 5;
3. The 2019 Water Division Financial Plan No. 040-301 be posted to the Town's website in accordance with O. Reg. 453/07, Section 3(1) 5; and
4. The 2019 Water Division Financial Plan No. 040-301 be submitted to the Ministry of Municipal Affairs in accordance with O. Reg. 453/07, Section 3 (1) 6.

# Appendix A

2019 Water Division Financial Plan No. 040-301

**The Corporation of the Town of Tecumseh  
Water Division Financial Plan (Unaudited)  
2019-2024**

**Statement of Financial Position**

	2017 Actual	2018 Estimate	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
<b>Financial assets</b>								
Cash and cash equivalents - restricted (note 1)	\$ 9,129,491	\$ 9,714,961	\$ 11,119,653	\$ 9,125,305	\$ 10,962,823	\$ 13,579,713	\$ 16,110,308	\$ 18,767,472
Accounts receivable (note 2)	861,399	882,934	905,007	927,633	950,823	974,594	998,959	1,023,933
<b>Total financial assets</b>	<b>9,990,890</b>	<b>10,597,895</b>	<b>12,024,660</b>	<b>10,052,938</b>	<b>11,913,646</b>	<b>14,554,307</b>	<b>17,109,266</b>	<b>19,791,404</b>
<b>Liabilities</b>								
Accounts payable and accrued liabilities (note 3)	\$ 233,415	310,712	294,513	729,090	246,985	241,153	281,158	1,172,553
Deferred revenue (note 4)	-	-	-	-	-	-	-	-
Employee future benefits payable (note 5)	1,551,129	1,701,289	1,849,689	2,034,658	2,238,124	2,461,936	2,708,130	2,978,943
Municipal debt (note 6)	-	-	-	-	-	-	-	8,097,607
	1,784,544	2,012,001	2,144,202	2,763,748	2,485,109	2,703,089	2,989,288	12,249,103
<b>Net financial assets</b>	<b>8,206,346</b>	<b>8,585,894</b>	<b>9,880,459</b>	<b>7,289,190</b>	<b>9,428,537</b>	<b>11,851,218</b>	<b>14,119,978</b>	<b>7,542,301</b>
<b>Non-financial assets</b>								
Tangible capital assets (note 7)	41,268,573	41,706,561	41,375,815	45,388,110	44,585,842	43,784,293	43,333,338	51,694,852
	41,268,573	41,706,561	41,375,815	45,388,110	44,585,842	43,784,293	43,333,338	51,694,852
<b>Accumulated surplus</b>	<b>\$ 49,474,919</b>	<b>\$ 50,292,455</b>	<b>\$ 51,256,274</b>	<b>\$ 52,677,300</b>	<b>\$ 54,014,379</b>	<b>\$ 55,635,511</b>	<b>\$ 57,453,316</b>	<b>\$ 59,237,153</b>



**The Corporation of the Town of Tecumseh  
Water Division Financial Plan (Unaudited)  
2019-2024**

**Statement of Operations and Accumulated Surplus**

	2018	2019	2020	2021	2022	2023	2024
	Estimate	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
<b>Revenues</b>							
User charges	\$ 4,967,064	\$ 5,340,500	\$ 5,567,500	\$ 5,732,500	\$ 6,019,012	\$ 6,180,260	\$ 6,333,386
Capital contributions	35,429	57,900	306,465	277,150	282,693	288,346	294,113
Investment income	300,159	310,400	292,435	245,665	297,306	359,346	415,011
(Loss)/gain on disposal of tangible capital assets	-	(215,039)	(164,618)	(99,602)	-	(8,078)	-
Other	18,775	121,650	123,325	19,600	20,090	54,416	21,107
<b>Total revenues</b>	<b>5,321,427</b>	<b>5,615,411</b>	<b>6,125,107</b>	<b>6,175,312</b>	<b>6,619,100</b>	<b>6,874,290</b>	<b>7,063,617</b>
<b>Expenses</b>							
Wages & benefits	1,284,986	1,289,135	1,351,146	1,395,673	1,445,824	1,498,756	1,554,690
Interest	-	-	-	-	-	-	-
Office supplies & equipment maintenance	36,294	34,130	34,130	34,130	34,983	35,858	36,754
Memberships	945	1,900	1,948	1,997	2,047	2,098	2,151
Conventions & training	19,801	23,000	23,000	23,000	23,575	24,164	24,768
Maintenance materials & supplies	97,870	103,500	106,089	108,740	111,459	114,245	117,101
Purchases for resale	1,480,982	1,550,000	1,585,000	1,625,000	1,678,304	1,726,239	1,775,522
Maintenance	106,147	103,500	105,289	107,122	109,800	112,545	115,359
Contract services	136,883	128,700	118,075	102,700	105,268	107,899	110,597
Professional	56,039	76,700	11,700	11,700	11,993	12,292	12,600
Utilities	43,339	48,350	49,369	50,411	51,671	52,963	54,287
Insurance	41,013	42,300	43,358	44,442	45,553	46,692	47,859
Amortization (note 8)	935,632	933,857	952,772	984,286	981,389	978,227	1,042,129
Administrative charge	250,000	302,370	308,054	313,756	321,599	329,639	337,880
Other	8,037	7,750	7,750	28,877	67,944	8,142	41,192
Financial	5,923	6,400	6,400	6,400	6,560	6,724	6,892
<b>Total expenses</b>	<b>4,503,891</b>	<b>4,651,592</b>	<b>4,704,080</b>	<b>4,838,234</b>	<b>4,997,968</b>	<b>5,056,485</b>	<b>5,279,780</b>
<b>Annual surplus</b>	<b>817,536</b>	<b>963,819</b>	<b>1,421,027</b>	<b>1,337,079</b>	<b>1,621,132</b>	<b>1,817,805</b>	<b>1,783,837</b>
<b>Accumulated surplus, beginning of year</b>	<b>49,474,919</b>	<b>50,292,455</b>	<b>51,256,274</b>	<b>52,677,300</b>	<b>54,014,379</b>	<b>55,635,511</b>	<b>57,453,316</b>
<b>Accumulated surplus, end of year</b>	<b>\$ 50,292,455</b>	<b>\$ 51,256,274</b>	<b>\$ 52,677,300</b>	<b>\$ 54,014,379</b>	<b>\$ 55,635,511</b>	<b>\$ 57,453,316</b>	<b>\$ 59,237,153</b>

**The Corporation of the Town of Tecumseh  
Water Division Financial Plan (Unaudited)  
2019-2024**

**Statement of Cash Flows**

	2018 Estimate	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
Cash provided by (used in):							
<b>Operations:</b>							
Annual surplus	\$ 817,536	\$ 963,819	\$ 1,421,027	\$ 1,337,079	\$ 1,621,132	\$ 1,817,805	\$ 1,783,837
Items not involving cash:							
Amortization	935,632	933,857	952,772	984,286	981,389	978,227	1,042,129
Loss on disposal of tangible capital assets	-	215,039	164,618	99,602	-	8,078	-
Change in non-cash operating working capital:							
Financial assets	(21,535)	(22,073)	(22,626)	(23,190)	(23,771)	(24,365)	(24,974)
Liabilities	227,457	132,200	619,546	(278,638)	217,980	286,199	1,162,208
Cash provided from operating transactions	1,959,090	2,222,842	3,135,337	2,119,138	2,796,730	3,065,944	3,963,200
<b>Capital:</b>							
Acquisition of tangible capital assets	(1,382,554)	(2,115,440)	(4,320,960)	(287,170)	(55,998)	(550,350)	(10,523,529)
Change in tangible capital assets WIP	8,934	1,297,290	(808,725)	5,550	(123,842)	15,000	1,119,886
Proceeds on sale of tangible capital assets (note 9)	-	-	-	-	-	-	-
Cash used in capital transactions	(1,373,620)	(818,150)	(5,129,685)	(281,620)	(179,840)	(535,350)	(9,403,643)
<b>Financing:</b>							
Proceeds from issuance of long-term debt	-	-	-	-	-	-	8,097,607
Municipal debt principal repayment	-	-	-	-	-	-	-
Cash used in financing transactions	-	-	-	-	-	-	8,097,607
<b>Change in cash and cash equivalents</b>	585,470	1,404,692	(1,994,348)	1,837,518	2,616,890	2,530,594	2,657,164
<b>Cash and cash equivalents, beginning of year</b>	9,129,491	9,714,961	11,119,653	9,125,305	10,962,823	13,579,713	16,110,308
<b>Cash and cash equivalents, end of year</b>	\$ 9,714,961	\$ 11,119,653	\$ 9,125,305	\$ 10,962,823	\$ 13,579,713	\$ 16,110,308	\$ 18,767,472

**The Corporation of the Town of Tecumseh  
Water Division Financial Plan (Unaudited)  
2019-2024**

**Statement of Changes in Net Financial Assets**

	2018 Estimate	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
<b>Annual surplus</b>	\$ 817,536	\$ 963,819	\$ 1,421,027	\$ 1,337,079	\$ 1,621,132	\$ 1,817,805	\$ 1,783,837
Acquisition of tangible capital assets	(1,382,554)	(2,115,440)	(4,320,960)	(287,170)	(55,998)	(550,350)	(10,523,529)
Change in tangible capital assets WIP	8,934	1,297,290	(808,725)	5,550	(123,842)	15,000	1,119,886
Amortization of tangible capital assets	935,632	933,857	952,772	984,286	981,389	978,227	1,042,129
Loss/(gain) on disposal of tangible capital assets	-	215,039	164,618	99,602	-	8,078	-
	(437,988)	330,746	(4,012,295)	802,268	801,549	450,955	(8,361,514)
<b>Change in net financial assets</b>	379,548	1,294,565	(2,591,268)	2,139,347	2,422,681	2,268,760	(6,577,677)
<b>Net financial assets, beginning of year</b>	8,206,346	8,585,894	9,880,459	7,289,190	9,428,537	11,851,218	14,119,978
<b>Net financial assets, end of year</b>	\$ 8,585,894	\$ 9,880,459	\$ 7,289,190	\$ 9,428,537	\$ 11,851,218	\$ 14,119,978	\$ 7,542,301

**The Corporation of the Town of Tecumseh  
Notes to the Water Division Financial Plan  
2019-2024**

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**1. Cash and Cash Equivalents - Restricted**

Cash balances were estimated for each year as follows:

Prior Year Cash Balance
Less: Accounts Receivable Change Over Prior Year Balance
Plus: Accounts Payable Change Over Prior Year Balance
Plus: Employee Future Benefits Payable Change Over Prior Year
Plus: New Debt Issued
Less: Tangible Capital Asset Acquisitions
Plus: Amortization
Plus: Net Book Value Capital Asset Disposals
Plus: Change in WIP
<u>Plus: Annual Surplus</u>
= Approximate Ending Cash and Cash Equivalents Balance

**2. Accounts Receivable**

Annual increases of 2.5% were assumed, with 2017 actuals as the starting point.

**3. Accounts Payable and Accrued Liabilities**

Accounts payable consists of: water purchases, water testing services, capital project holdbacks, vacation pay accrued as per PSAB requirements, and an outstanding invoice for water meters. Water purchases and water testing services accounts payable estimates are based on December 2017 payables, inflated annually by a factor of 2.5%. Capital project holdbacks are assumed to be 10% of the annual capital infrastructure project expenditures. In order to estimate vacation pay, hours were based on the 2017 accrual and assumed constant, while rates were increased by an inflation factor of 2.5%. The water meters billing was assumed constant.

**4. Deferred Revenue**

Deferred revenue consists of water development charge reserve fund balances which are recorded as a liability for financial statement reporting purposes. The reserve fund is unfinanced over the forecast period and as such there is no deferred revenue.

**5. Employee Future Benefits Payable**

Employee future benefits payable represents the future cost of extending health benefits to existing current employees and retirees. The liability is based on an actuarial valuation prepared by an independent firm. Total employee future benefits payable was assumed to increase by a factor of 10% based on the most recent actuarial valuation. The Water Division portion was allocated proportionately based on the number of Water employees to the total number of employees. It was assumed that the employee ratio remained constant over the forecast period.

**6. Municipal Debt**

It is forecast that debentures would be required in 2024 in order to finance the following growth-related construction works: Zone 2 Booster Station (\$2.2 million), Water Storage Facility (\$4.4 million) and the West Tecumseh Trunk Watermain (\$1.5 million). Debentures would be issued for the portion of these projects that is Development Charge

**The Corporation of the Town of Tecumseh  
Notes to the Water Division Financial Plan  
2019-2024**

(DC) eligible only. The ‘Benefit to Existing’ (i.e. not DC recoverable) balance of \$1.3 million would be funded from the Watermain Reserve Fund.

**7. Tangible Capital Assets**

Tangible capital asset balance estimates over the forecast period reflect asset additions and corresponding disposals (replacements) attributable to the capital projects scheduled over the forecast period as detailed in the Public Works and Environmental Services Five Year Capital Works Plan. It was assumed that no write-offs occurred over the forecast period. There were no contributed assets included in the forecast period as there is no reasonable basis for estimating asset contributions. A summary of the tangible capital asset balances is as follows:

**Tangible Capital Assets - \$ millions**

	2017 actual	2018 estimate	2019 forecast	2020 forecast	2021 forecast	2022 forecast	2023 forecast	2024 forecast
<b>Opening Cost</b>	56.55	57.15	58.44	60.05	63.90	64.01	64.06	64.53
Plus: Acquisitions	0.79	1.38	2.11	4.32	0.29	0.05	0.55	10.52
Less: Disposals	0.16	0.09	0.50	0.47	0.18	0.00	0.08	0.02
Less: Transfers	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Closing Cost</b>	<b>57.15</b>	<b>58.44</b>	<b>60.05</b>	<b>63.90</b>	<b>64.01</b>	<b>64.06</b>	<b>64.53</b>	<b>75.03</b>
<b>Opening Accumulated Amortization</b>	16.67	17.47	18.31	18.96	19.61	20.50	21.48	22.39
Plus: Amortization Expense	0.92	0.93	0.93	0.95	0.98	0.98	0.98	1.04
Less: Amortization of Disposals	0.09	0.09	0.28	0.30	0.09	0.00	0.07	0.02
Less: Amortization of Transfers	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Closing Accumulated Amortization</b>	<b>17.47</b>	<b>18.31</b>	<b>18.96</b>	<b>19.61</b>	<b>20.50</b>	<b>21.48</b>	<b>22.39</b>	<b>23.41</b>
<b>Net Book Value</b>	<b>39.68</b>	<b>40.13</b>	<b>41.09</b>	<b>44.29</b>	<b>43.51</b>	<b>42.58</b>	<b>42.14</b>	<b>51.62</b>
<b>Opening WIP</b>	0.56	1.59	1.58	0.29	1.10	1.08	1.20	1.19
Plus: WIP Additions	1.51	0.07	0.18	1.00	0.00	0.12	0.00	0.00
Less: WIP Capitalized	0.48	0.08	1.47	0.19	0.02	0.00	0.01	1.12
<b>Ending WIP</b>	<b>1.59</b>	<b>1.58</b>	<b>0.29</b>	<b>1.10</b>	<b>1.08</b>	<b>1.20</b>	<b>1.19</b>	<b>0.07</b>
<b>Tangible Capital Assets</b>	<b>41.27</b>	<b>41.71</b>	<b>41.38</b>	<b>45.39</b>	<b>44.59</b>	<b>43.78</b>	<b>43.33</b>	<b>51.69</b>
<b>Asset Consumption Ratio</b> (Closing Accumulated Amortization/Closing Cost)	<b>30.57%</b>	<b>31.34%</b>	<b>31.58%</b>	<b>30.68%</b>	<b>32.04%</b>	<b>33.54%</b>	<b>34.70%</b>	<b>31.21%</b>

**8. Amortization**

Estimates over the forecast period reflect amortization of existing assets plus calculated amortization for additions and corresponding disposals (replacements) attributable to capital projects scheduled over the forecast period. It was assumed that there were no write-offs or contributed assets.

**9. Proceeds on Sale of Tangible Capital Assets**

It was assumed that there were no proceeds on the sale of tangible capital assets as the amounts are generally immaterial.



## Appendix B

### Operating, Capital, Reserve Fund Forecasts

**Town of Tecumseh**  
**Water Division Operating Budget Forecast**  
 Inflated \$

Description	Budget 2019	Forecast					Total
		2020	2021	2022	2023	2024	
<b>Expenditures</b>							
<b>Operating Costs</b>							
Payroll Related Expenses	866,486	885,981	905,915	928,563	951,777	975,571	5,514,293
Benefits	274,249	280,196	286,292	293,449	300,786	308,305	1,743,277
Office Supplies & Equip Mtnce	34,130	34,130	34,130	34,983	35,858	36,754	209,985
Memberships	1,900	1,948	1,997	2,047	2,098	2,151	12,141
Professional Development	23,000	23,000	23,000	23,575	24,164	24,768	141,508
Maint. Materials & Supplies	103,500	106,089	108,740	111,459	114,245	117,101	661,134
Water Purchases	1,550,000	1,585,000	1,625,000	1,678,304	1,726,239	1,775,522	9,940,064
Maint. Services	103,500	105,289	107,122	109,800	112,545	115,359	653,615
Contract Services	106,200	102,700	102,700	105,268	107,899	110,597	635,363
Professional Services	76,700	11,700	11,700	11,993	12,292	12,600	136,984
Utilities	48,350	49,369	50,411	51,671	52,963	54,287	307,051
Insurance	42,300	43,358	44,442	45,553	46,692	47,859	270,204
Other	7,750	7,750	7,750	7,944	8,142	8,346	47,682
Bad Debt Expense	6,400	6,400	6,400	6,560	6,724	6,892	39,376
Administration Charge	302,370	308,054	313,756	321,599	329,639	337,880	1,913,299
<b>Total Operating Costs</b>	<b>3,546,835</b>	<b>3,550,964</b>	<b>3,629,355</b>	<b>3,732,767</b>	<b>3,832,064</b>	<b>3,933,992</b>	<b>22,225,977</b>
<b>Capital Related</b>							
Existing Debt - Recoverable from Landowners	-	-	-	-	-	-	-
Existing Debt - Other	-	-	-	-	-	-	-
New Non-Growth Related Debt	-	-	-	-	-	-	-
New Growth Related Debt	-	-	-	-	-	-	-
Transfer to General Fund (re: fleet)	60,000	60,000	60,000	60,000	60,000	60,000	360,000
Transfer to Watermain Reserve Fund	1,593,715	1,793,861	1,857,745	2,017,335	2,055,788	2,083,501	11,401,945
Transfer to Water Facilities Reserve Fund	129,000	152,000	175,000	199,000	223,000	247,000	1,125,000
Transfer to Water Rate Stabilization Reserve Fund	30,000	30,000	30,000	30,000	30,000	30,000	180,000
<b>Total Capital Related</b>	<b>1,812,715</b>	<b>2,035,861</b>	<b>2,122,745</b>	<b>2,306,335</b>	<b>2,368,788</b>	<b>2,420,501</b>	<b>13,066,945</b>
<b>Total Expenditures</b>	<b>5,359,550</b>	<b>5,586,825</b>	<b>5,752,100</b>	<b>6,039,102</b>	<b>6,200,852</b>	<b>6,354,493</b>	<b>35,292,922</b>
<b>Revenues</b>							
<b>Operating Revenue</b>							
Taxation - Watermains 10yr	-	-	-	-	-	-	-
Water Sales Lakeshore - Fixed	5,000	5,000	5,000	5,000	5,100	5,300	30,400
Water Oasis Revenue	30,000	30,000	30,000	30,750	31,519	32,307	184,575
Hydrant Rental	2,500	2,500	2,500	2,563	2,627	2,692	15,381
Work Orders	20,000	20,000	20,000	20,500	21,013	21,538	123,050
Miscellaneous Revenue	13,000	13,000	13,000	13,325	13,658	14,000	79,983
Interfunctional Revenue	19,050	19,325	19,600	20,090	20,592	21,107	119,764
<b>Total Operating Revenue</b>	<b>89,550</b>	<b>89,825</b>	<b>90,100</b>	<b>92,228</b>	<b>94,508</b>	<b>96,943</b>	<b>553,154</b>
<b>Reserve Transfers</b>							
Transfer from Dev. Charges Reserve Fund	-	-	-	-	-	-	-
Transfer from Watermain Reserve Fund	-	-	-	-	-	-	-
Transfer from Water Facilities Reserve Fund	-	-	-	-	-	-	-
Transfer from Water Rate Stabilization Reserve Fund	-	-	-	-	-	-	-
<b>Total Reserve Transfers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Rate Revenue</b>							
Water Fixed Rate Recovery	1,696,000	1,803,000	1,916,000	2,072,361	2,193,074	2,321,629	12,002,064
Water Variable Rate Recovery	3,574,000	3,694,000	3,746,000	3,874,513	3,913,270	3,935,921	22,737,704
<b>Total Rate Revenue Required for Full Cost Recovery</b>	<b>5,270,000</b>	<b>5,497,000</b>	<b>5,662,000</b>	<b>5,946,874</b>	<b>6,106,344</b>	<b>6,257,550</b>	<b>34,739,768</b>
<b>Total Revenues</b>	<b>5,359,550</b>	<b>5,586,825</b>	<b>5,752,100</b>	<b>6,039,102</b>	<b>6,200,852</b>	<b>6,354,493</b>	<b>35,292,922</b>

**Town of Tecumseh  
Water Division Capital Budget Forecast  
Inflated \$**

Description	2019	2020	2021	2022	2023	2024
<b>Expenditures</b>						
Fleet & Equipment	\$ 162,600	\$ 164,000	\$ 38,873		\$ 93,824	\$ 27,154
Building		\$ 15,375				
Water & Wastewater Master Plan Update (2016)	\$ 7,500					
Water Tower Internal Lining Replacement	\$ 470,000					
Water Loss Audit	\$ 15,000					
CR42 & CR43 Advanced Engineering	\$ 25,000					
Hwy#3/Walker Rd Watermain Replacement	\$ 74,600	\$ 1,981,735				
CR46/Webster/Laval Sanitary Sewer Exten. (LRPCP)	\$ 80,400	\$ 1,158,660				
Delduca Drive Sanitary Sewer (LRPCP)	\$ 5,550		\$ 72,020			
Manning Road/ETLD Drain Relocation - Phase 2		\$ 427,958				
Westlake Drive - San, Stm, Water		\$ 113,263				
CR42 / CR19 Roundabout - Water & Sanitary		\$ 288,025				
Zone 2 Booster Station (W-9)		\$ 369,513				\$ 2,598,833
Zone 2 Water Storage Facility (W-10)		\$ 626,531				\$ 5,150,691
CR19 @ CR46 Advanced Construction			\$ 170,727			
West Tecumseh Trunk Watermain (W-1A) - Phase 1 (to Intersection Rd)				\$ 123,842		\$ 1,626,965
CR19 @ CR34 Advanced Construction				\$ 55,998		
CR42: Lesperance to CR19 - Watermain					\$ 441,525	
<b>Total Capital Expenditures</b>	\$ 840,650	\$ 5,145,059	\$ 281,620	\$ 179,841	\$ 535,349	\$ 9,403,643
<b>Revenues</b>						
Provincial/Federal Grants						
Developer Contributions						
Non-Growth Related Debenture Requirements						
Growth Related Debenture Requirements						\$ 8,097,607
Interfunctional Revenue (Transfer from General Fund)	\$ 162,600	\$ 164,000	\$ 38,873		\$ 93,824	\$ 27,154
Transfer from Development Charges Reserve Fund		\$ 841,952		\$ 117,772		
Transfer from Watermain Reserve Fund	\$ 208,050	\$ 3,969,641	\$ 242,747	\$ 62,069	\$ 441,525	\$ 1,278,882
Transfer from Facilities Reserve Fund	\$ 470,000	\$ 169,467				
Transfer from Rate Stabilization Reserve Fund						
Transfer from 'New Infrastructure' Reserve Fund						
<b>Total Capital Financing</b>	\$ 840,650	\$ 5,145,059	\$ 281,620	\$ 179,841	\$ 535,349	\$ 9,403,643
(Surplus) / Deficit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Town of Tecumseh  
Water Division Reserve Funds Forecast**

**Water Development Charges Reserve Fund Continuity**

Year	2018 est.	2019	2020	2021	2022	2023	2024
Opening Balance	(1,038,985)	(1,003,556)	(945,656)	(1,481,143)	(1,203,994)	(1,039,073)	(750,726)
DC Proceeds	35,429	57,900	306,465	277,150	282,693	288,346	294,113
Loan from Watermain RF	-	-	-	-	-	-	-
Transfer to Capital	-	-	841,952	-	117,772	-	-
Transfer to Operating	-	-	-	-	-	-	-
Net of Transfers	(1,003,556)	(945,656)	(1,481,143)	(1,203,994)	(1,039,073)	(750,726)	(456,613)
Interest	-	-	-	-	-	-	-
Closing Balance	(1,003,556)	(945,656)	(1,481,143)	(1,203,994)	(1,039,073)	(750,726)	(456,613)

**Watermain Reserve Fund Continuity**

Year	2018 est.	2019	2020	2021	2022	2023	2024
Opening Balance	2,709,716	2,984,123	4,460,388	2,396,118	4,071,019	6,128,061	7,895,525
Transfer from Operating	1,634,470	1,593,715	1,793,861	1,857,745	2,017,335	2,055,788	2,083,501
Transfer to Capital	1,413,790	208,050	3,969,641	242,747	62,069	441,525	1,278,882
Transfer to Operating	26,260	-	-	-	-	-	-
Net of Transfers	2,904,136	4,369,788	2,284,609	4,011,116	6,026,285	7,742,324	8,700,144
Interest	79,987	90,600	111,510	59,903	101,775	153,202	197,388
Closing Balance	2,984,123	4,460,388	2,396,118	4,071,019	6,128,061	7,895,525	8,897,532

**Water Facilities Reserve Fund Continuity**

Year	2018 est.	2019	2020	2021	2022	2023	2024
Opening Balance	7,038,247	7,324,583	7,203,283	7,365,899	7,725,046	8,117,172	8,543,101
Transfer from Operating	107,000	129,000	152,000	175,000	199,000	223,000	247,000
Transfer to Capital	28,423	470,000	169,467	-	-	-	-
Transfer to Operating	-	-	-	-	-	-	-
Net of Transfers	7,116,824	6,983,583	7,185,816	7,540,899	7,924,046	8,340,172	8,790,101
Interest	207,759	219,700	180,082	184,147	193,126	202,929	213,578
Closing Balance	7,324,583	7,203,283	7,365,899	7,725,046	8,117,172	8,543,101	9,003,679

**Water Rate Stabilization Reserve Fund Continuity**

Year	2018 est.	2019	2020	2021	2022	2023	2024
Opening Balance	420,513	3,626	33,726	64,569	96,183	128,588	161,803
Transfer from Operating	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Transfer to Capital	-	-	-	-	-	-	-
Transfer to Operating	459,300	-	-	-	-	-	-
Net of Transfers	(8,787)	33,626	63,726	94,569	126,183	158,588	191,803
Interest	12,413	100	843	1,614	2,405	3,215	4,045
Closing Balance	3,626	33,726	64,569	96,183	128,588	161,803	195,848