



 **Watson
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ECONOMISTS LTD.

Water Ontario Regulation 453/07 Financial Plan

Town of Grand Valley

Financial Plan #101-101

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List of Acronyms and Abbreviations

| Acronym | Full Description of Acronym |
|----------------|---|
| MECP | Ministry of the Environment, Conservation and Parks |
| MMAH | Ministry of Municipal Affairs and Housing |
| O. Reg. | Ontario Regulation |
| PSAB | Public Sector Accounting Board |
| S.D.W.A. | Safe Drinking Water Act |
| T.C.A. | Tangible Capital Assets |
| W.O.A. | Water Opportunities Act |



Report



Chapter 1

Introduction



1. Introduction

1.1 Study Purpose

Watson & Associates Economists Ltd. (Watson) was retained by the Town of Grand Valley (Town) to update its 2015 Water and Wastewater Rate Study. Part of this undertaking was to prepare an Ontario Regulation 453/07 (O.Reg. 453/07) Water Financial Plan to address the submission requirements for maintaining a municipal drinking water license, as per the *Safe Drinking Water Act* (S.D.W.A.). In general, a Water Financial Plan requires a forecast of the Municipality's financial statements for water services (i.e. statements of financial position, operations, changes in net financial assets/debts, and cashflow). The S.D.W.A. requires that municipalities prepare the plan for a forecast period spanning at least 6 years, and that this plan be submitted to the Ministry of Environment every 5 years. As per these requirements, a municipality's Water Financial Plan must be approved by Council and submitted to the Ministry of Environment.

Watson prepared the 2020 Water and Wastewater Rate Study (Rate Study), dated April 23, 2020. One of the recommendations of the Rate Study is “that Council approve the Water and Wastewater Rate Study and direct staff to prepare the Water Financial Plan in the format required under O.Reg. 453/07, and submit the plan to the Province to maintain the Town’s Municipal Drinking Water License”. Watson presented the Rate Study report to Town Council on April 28, 2020, and this recommendation was adopted by Council resolution.

The objective of the report provided herein is to convert the findings of the Rate Study into the prescribed reporting requirements for a Water Financial Plan as defined by Ontario Regulation 453/07 (O. Reg. 453/07), and for the Town to submit this report to the Province as per Council’s resolution.

1.2 Background

The (S.D.W.A.), “the Act,” was passed in December 2002 in order to address the recommendations made by the Walkerton Inquiry Part II report. Note that S.D.W.A. has



been amended several times since 2002. One of the main requirements of the Act is the mandatory licensing of municipal water providers. Section 31 (1) specifically states:

“No person shall,

- a) establish a new municipal drinking water system or replace or carry out an alteration to a municipal drinking water system except under the authority of and in accordance with an approval under this Part or a drinking water works permit; or
- b) use or operate a municipal drinking water system that was established before or after this section comes into force except under the authority of and in accordance with an approval under this Part or municipal drinking water licence.”

In order to become licensed, a municipality must satisfy five key requirements as per section 44(1):

1. Obtain a drinking water works permit.
2. Acceptance of the operational plan for the system based on the Drinking Water Quality Management Standard.
3. Accreditation of the Operating Authority.
4. Prepare and provide a financial plan.
5. Obtain permit to take water.

For licence renewals, the application must be accompanied by proof that the financial plan meets the prescribed requirements as per the Act s. 32 (5) 2.ii.

The preparation of a financial plan is a key requirement for licensing and as such, must be undertaken by all municipal water providers.

1.2.1 Water Financial Plan Defined

Subsection 30 of the Act provides the following definition of financial plans:

"financial plans" means financial plans that satisfy the requirements prescribed by the Minister. 2017, c. 2, Sched. 11, s. 6 (3).

As of time of writing, the Sustainable Water and Sewage Systems Act, 2002 has been repealed (see section 2.2 of this report); however, the standards that it directs underpin the specific requirements of s. 30 as they are outlined in O. Reg. 453/07 and which will be examined in detail below.



1.2.2 Water Financial Plan Requirements – Existing System

The O. Reg. 453/07 provides details with regards to the financial plans for existing water systems. The requirements for existing systems are summarized as follows:

- Financial plans must be approved by resolution of Council (or governing body);
- Financial plans must include a statement that the financial impacts have been considered and apply for a minimum six-year period (commencing in the year of licence expiry);
- Financial plans must include detail regarding proposed or projected financial operations itemized by total revenues, total expenses, annual surplus/deficit and accumulated surplus/deficit (i.e. the components of a “Statement of Operations” as per the PSAB) for each year in which the financial plans apply;
- Financial plans must present financial position itemized by total financial assets, total liabilities, net debt, non-financial assets, and tangible capital assets (i.e. the components of a “Statement of Financial Position” as per PSAB) for each year in which the financial plans apply;
- Gross cash receipts/payments itemized by operating transactions, capital transactions, investing transactions and financial transactions (i.e. the components of a “Statement of Cash Flow” as per PSAB) for each year in which the financial plans apply;
- Financial plans applicable to two or more solely-owned drinking water systems can be prepared as if they are for one drinking water system;
- Financial plans are to be made available to the public upon request and at no charge;
- If a website is maintained, financial plans are to be made available to the public through publication on the Internet at no charge;
- Notice of the availability of the financial plans is to be given to the public;
- Financial plan is to be submitted to the Ministry of Municipal Affairs and Housing; and
- The resolution of Council approving the Financial Plan be submitted to the Ministry of the Environment, Conservation and Parks (MECP).



1.2.3 Water Financial Plan Requirements – General

Given that the requirements for a financial plan is legislated under the Act, a financial plan is mandatory for water systems. The financial plans shall be for a forecast period of at least six years but longer planning horizons are encouraged. The ten-year forecast goes above and beyond the minimum requirement. The financial plan is to be completed and approved by resolution of Council or the governing body in accordance with subsection 3(1)1 of O. Reg. 453/07. Confirmation of approval of the financial plan must be submitted at the time of municipal drinking water license renewal (i.e. six months prior to license expiry).

A copy of the financial plan will be submitted to the Ministry of Municipal Affairs and Housing (MMAH) and not the MECP; however, MECP may request it in the course of review of the licence renewal. Financial plans may be amended and additional information beyond what is prescribed can be included if deemed necessary. The financial plan must contain on the front page, the appropriate financial plan number as set out in Schedule A of the Municipal Drinking Water Licence.

1.2.4 Public Sector Accounting Board (PSAB) Requirements

The components of the financial plans indicated by the regulation are consistent with the requirements for financial statement presentation as set out in section PS1200 of the Canadian Institute of Chartered Accountants Public Sector Accounting Handbook:

“Financial statements should include a Statement of Financial Position, a Statement of Operations, a Statement of Change in Net Debt, and a Statement of Cash Flow.”

The format required is to conform to the requirements of PS1200 and PS3150. The financial statements are to be reported on a full accrual accounting basis. The accrual accounting method recognizes revenues and expenses in the same period as the activities that give rise to them regardless of when they are actually paid for. Since an exchange of cash is not necessary to report a financial transaction, the accrual method is meant to provide a more accurate picture of financial position.

The accounting treatment of tangible capital assets is prescribed under section PS3150. Tangible capital assets are to be capitalized to ensure an inventory of the assets owned are recorded and to account for their ability to provide future benefits.



The Statement of Cash Flow and the Statement of Change in Net Financial Assets/Debt are required statements. The Statement of Change in Net Financial Assets/Debt reports on whether enough revenue was generated in a period to cover the expenses in the period and whether sufficient resources have been generated to support current and future activities. The Statement of Cash Flow reports on how activities were financed for a given period providing a measure of the changes in cash for that period.

1.2.5 The Town's Water Financial Plan

The Town is currently in the process of renewing the drinking water licenses and the previous version of the Water Financial Plan no longer meets the requirements as it must apply to a period of a least six years, beginning in the year that the licenses would otherwise expire. Although the S.D.W.A. requires at least six years to be included, this financial plan provides for a ten-year forecast period, 2020 through 2030. The Town's application renewal deadline is May 5, 2020.



Chapter 2

Sustainable Financial Planning



2. Sustainable Financial Planning

2.1 Introduction

In general, sustainability refers to the ability to maintain a certain position over time. While the Act requires a declaration of the financial plan's sustainability, it does not give a clear definition of what would be considered sustainable. Instead, MECP released a guideline ("Towards Financially Sustainable Drinking-Water and Wastewater Systems") that provides possible approaches to achieving sustainability. The Province's Principles of Financially Sustainable Water and Wastewater Services are provided below:

- 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.



2.2 Sustainable Water and Sewage Systems Act

The *Sustainable Water and Sewage Systems Act* (S.W.S.S.A.) was passed on December 13, 2002. The intent of the Act was to introduce the requirement for municipalities to undertake an assessment of the “full cost” of providing their water and the wastewater services. In total, there were 40 areas within the Act to which the Minister could have made Regulations. It is noted that, the regulations, which accompany the Act, were not issued and the Act was repealed on December 31, 2012.

2.3 Water Opportunities Act, 2010

Since the passage of the *Safe Drinking Water Act*, changes and refinements to the legislation have been introduced, including the *Water Opportunities Act* (W.O.A). W.O.A. was introduced into legislation on May 18, 2010 and received Royal Assent on November 29, 2010, as the *Water Opportunities Act*.

The purposes of the *Water Opportunities Act* are to: foster innovative water, wastewater and storm water technologies, services and practices; create opportunities for economic development and clean-technology jobs; and conserve and sustain water resources. To achieve this W.O.A. provides for the creation of performance targets (financial, operational and maintenance related), which will vary by service type and location and the required submission of conservation and sustainability plans for water, wastewater and stormwater.

The sustainability plan in W.O.A. expands on interim legislation for financial plans included in O. Reg. 453/07, to include the following:

- an asset management plan for the physical infrastructure;
- financial plan;
- water conservation plan (for water service only);
- a risk assessment;
- a strategy for maintaining and improving the services; and
- additional information considered advisable.

Where a Board has jurisdiction over a service, the plan (and any plan amendments) must be approved by the municipality in which the municipal service is provided, before



submission to the Minister. The Minister may also direct preparation of joint or partially joint plans.

Regulations (still forthcoming) will prescribe details in regard to any time periods or time limits, contents of the plans, identifying which portions of the plan will require certification, the public consultation process (if required), limitations updates and refinements.

2.4 Infrastructure for Jobs and Prosperity Act (I.J.P.A.), 2015

On June 4, 2015, the Province passed the Infrastructure for Jobs and Prosperity Act (I.J.P.A.) which, over time, will require municipalities to undertake and implement asset management plans for all infrastructure they own. On December 27, 2017, the Province of Ontario released Ontario Regulation 588/17 under I.J.P.A. which has 3 phases that municipalities must meet.

Every municipality in Ontario will have to prepare a strategic asset management policy by July 1, 2019. Municipalities will be required to review their strategic asset management policies at least every five years and make updates as necessary. The subsequent phases are as follows:

- Phase 1 – Asset Management Plan (by July 1, 2021):
 - For core assets – Municipalities must have the following:
 - Inventory of assets;
 - Current levels of service measured by standard metrics; and
 - Costs to maintain levels of service.
- Phase 2 – Asset Management Plan (by July 1, 2023):
 - Same steps as Phase 1 but for all municipal assets.
- Phase 3 – Asset Management Plan (by July 1, 2024):
 - Builds on Phase 1 and 2 by adding:
 - Proposed levels of service; and
 - Lifecycle management and Financial strategy.

In relation to water (which is considered a core asset), municipalities will need to have an asset management plan that addresses the related infrastructure by July 1, 2021 (Phase 1). O. Reg. 588/17 specifies that the municipality's asset management plan must include the following for each asset category:



- the current levels of service being provided;
 - determined in accordance with the following qualitative descriptions and technical metrics and based on data from at most the two calendar years prior to the year in which all information required under this section is included in the asset management plan.
- the current performance of each asset category;
- a summary of the assets in the category;
- the replacement cost of the assets in the category;
- the average age of the assets in the category, determined by assessing the average age of the components of the assets;
- the information available on the condition of the assets in the category;
- a description of the municipality's approach to assessing the condition of the assets in the category, based on recognized and generally accepted good engineering practices where appropriate; and
- the lifecycle activities that would need to be undertaken to maintain the current levels of service.

Upon completion of the asset management plan for water, the Town will need to consider the impacts during the annual budget and forecast process.

2.5 Water Forecast

As noted earlier, the Town has completed and approved a Rate Study on April 28, 2020. The Rate Study process is designed to address “full cost” principles and reflect the guiding principles toward sustainable financial planning.

As a result of employing this process, the 2020 draft water budget and ten-year forecast (2020-2030), included in the Rate Study, provides the basis for a sound financial plan for the Town's water system by assessing:

- A detailed assessment of current and future capital needs including an analysis of potential funding sources;
- An analysis of operating costs in order to determine how they will be impacted by evolving infrastructure needs;
- A review and recommendation on rates that ensure revenues are equitable and sufficient to meet system needs; and



- A public process that involved consultation with the main stakeholders including the Town's staff, Council, the general public (specifically the users of the system) and others with the aim of gaining input and collaboration on the sustainability of the water systems.



Chapter 3

Approach



3. Approach

3.1 Overview

The Rate Study (along with additional detailed information provided by Town Staff) has been used as a starting point to prepare the Water Financial Plan. The Water forecast is prepared on a modified cash basis; therefore, a conversion is required in order to present a full accrual financial plan for the purposes of this report. The conversion process used will help to establish the structure of the financial plan along with the opening balances that will underpin the forecast. This chapter outlines the conversion process utilized and summarizes the adjustments made to prepare the water financial plan.

3.2 Conversion Process

The conversion from the existing modified cash basis found in the Rate Study to the full accrual reporting format required under O. Reg. 453/07 can be summarized in the following steps:

1. Calculate Tangible Capital Asset Balances
2. Convert Statement of Operations
3. Convert Statement of Financial Position
4. Convert Statement of Cash Flow and Net Assets/Debt
5. Verification and Note Preparation

3.2.1 *Calculate Tangible Capital Asset Balances*

In calculating tangible capital asset balances, existing and future purchased, developed, and/or contributed assets will need to be considered. For existing water assets, an inventory has already been compiled and summarized by the Town for the purposes of their annual PSAB 3150 compliance process. As required, for PSAB 3150 reporting purposes, the asset inventory listing included historical cost (which is the original cost to purchase, develop, or construct each asset) along with an estimated useful life for each asset and any anticipated salvage value is recorded. The following calculations are made to determine net book value:

- Accumulated amortization up to the year prior to the first forecast year.



- Amortization expense on existing assets for each year of the forecast period.
- Acquisition of new assets for each year of the forecast period.
- Disposals and related gains or losses for each year of forecast period.

Future water capital needs have also been determined and summarized within the Rate Study. These estimates, however, only represent future assets that the Town anticipates purchasing or constructing without consideration for future assets that are contributed by developers and other parties (at no or partial cost to the Town). These contributed assets will form part of the infrastructure going forward in terms of the sustainability of the system and despite their non-monetary nature; future financial plans may need to be adjusted in order to properly account for these transactions. Once the sequence and total asset acquisition has been determined for the forecast period, annual amortization of these assets for each year is calculated in a similar manner as that used for existing assets.

Once the historical cost, accumulated amortization, and amortization expenses are calculated as described above, the total net book value of the tangible capital assets can be determined and recorded on the Statement of Financial Position.

3.2.2 Convert Statement of Operations

A wide range of adjustments will be considered, dependent on the size and complexity of the systems, in order to convert from the cash to full accrual basis (see Figure 3-1). For example, debt repayment costs relating to the principal payment portion only needs to be removed under the accrual basis, as they no longer qualify as an expense for reporting purposes. Principal payments are reported as a decrease in debt liability on the Statement of Financial Position. Transfers to and from reserves are removed as these transactions are represented by changes in cash and accumulated surplus. Finally, expenses relating to tangible capital assets, such as amortization, write-offs, and (gain)/loss on disposal of assets are reported on the Statement of Operations in order to capture the allocation of the cost of these assets to operating activities over their useful lives and therefore are added in under the accrual basis.



Table 3-1
Conversion Adjustments
Statement of Operations

| Modified Cash Basis | Budget 2020 | Adjustments | | Full Accrual Budget 2020 | Accrual Basis |
|--|----------------|----------------|----------------|--------------------------------|---|
| | | DR | CR | | |
| Revenues | | | | | Revenues |
| Base Charge Revenue | 259,680 | | | 259,680 | Base Charge Revenue |
| Rate Based Revenue | 133,302 | | | 133,302 | Rate Based Revenue |
| Transfers from Reserves | 38,633 | 38,633 | | | |
| | | | 24,450 | 24,450 | Earned Development Charges and Gas Tax Revenue |
| | | | - | - | Developer Contributions |
| Other Revenue | 10,000 | | 3,074 | 13,074 | Other Revenue |
| Total Revenues | 441,615 | | | 430,506 | Total Revenues |
| Expenditures | | | | | Expenses |
| Operating | 275,533 | - | | 275,533 | Operating Expenses |
| Capital | | | | | |
| Transfers to Reserves | 166,082 | | 166,082 | | |
| Transfers to Capital | - | | - | | |
| Debt Repayment (Principal & Interest) | - | | - | - | Interest on Debt |
| | | 42,855 | | 42,855 | Amortization |
| | | - | | - | Loss on Disposal of Tangible Capital Assets |
| Total Expenditures | 441,615 | | | 318,388 | Total Expenses |
| Net Expenditures | - | | | 112,118 | Annual Surplus/(Deficit) |
| Increase (decrease) in amounts to be recovered | - | | | 2,232,305 | Accumulated Surplus/(Deficit), beginning of year |
| Change in Fund Balances | - | 112,118 | - | 2,344,423 | Accumulated Surplus/(Deficit), end of year |
| TOTAL ADJUSTMENTS | | 193,606 | 193,606 | | |

Note: The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



3.2.3 Convert Statement of Financial Position

Once the Statement of Operations has been converted and the net book value of tangible capital assets has been recorded, balances for the remaining items on the Statement of Financial Position are determined and recorded (see Figure 3-2). The opening/actual balances for the remaining accounts such as accounts receivable, inventory, accounts payable, outstanding debt (principal only), are recorded and classified according to the structure of the Statement of Financial Position as outlined in PS1200.

It is acknowledged that some of the balances required on the Statement of Financial Position will be consolidated across the Town and as such, will be difficult to isolate the information that is relevant to water. An example of this is accounts receivable, which may be administered centrally by the Finance Department. Ontario Regulation 453/07 allows for the exclusion of these numbers if they are not known at the time of preparing the financial plan. Please refer to the Water Financial Plan Notes in Chapter 4 for more details.

3.2.4 Convert Statement of Cash Flow and Net Financial Assets/Debt

The Statement of Cash Flow summarizes how the Town financed its activities or in other words, how the costs of providing services were recovered. The statement is derived using comparative Statement of Financial Position, the current Statement of Operations and other available transaction data.

The Statement of Change in Net Financial Assets/Debt is a statement which reconciles the difference between the surplus or deficit from current operations and the change in net financial assets/debt for the year. This is significant, as net debt provides an indication of future revenue requirements. In order to complete the Statement of Net Financial Assets/Debt, information regarding any gains/losses on disposals of assets, asset write-downs, acquisition/use of supplies inventory, and the acquisition use of prepaid expenses is necessary, (if applicable). Although the Statement of Change in Net Financial Assets/Debt is not required under O. Reg. 453/07, it has been included in this report as a further indicator of financial viability.



**Table 3-2
Conversion Adjustments
Statement of Financial Position**

| Modified Cash Basis | Budget 2020 | Adjustments | | Full Accrual Budget 2020 | Accrual Basis |
|--|----------------|------------------|------------------|--------------------------------|---|
| | | DR | CR | | |
| ASSETS | | | | | ASSETS |
| Financial Assets | | | | | Financial Assets |
| Cash | 950,131 | | | 950,131 | Cash |
| Accounts Receivable | 31,635 | | | 31,635 | Accounts Receivable |
| Total Financial Assets | 981,766 | | | 981,766 | Total Financial Assets |
| Non-Financial Assets | | | | | |
| Inventory of Supplies | - | | - | | |
| Prepaid Expenses | - | | - | | |
| Total Non-Financial Assets | - | | | | |
| LIABILITIES | | | | | Liabilities |
| Accounts Payable & Accrued Liabilities | 66,200 | | | 66,200 | Accounts Payable & Accrued Liabilities |
| Gross Long-term Liabilities | - | | | - | Debt (Principal only) |
| Deferred Revenue | 758,805 | | | 758,805 | Deferred Revenue |
| Other | - | | | - | Other |
| Total Liabilities | 825,005 | | | 825,005 | Total Liabilities |
| | | | | | |
| Net Assets/(Debt) | 156,761 | | | 156,761 | Net Financial Assets/(Debt) |
| | | | | | Non-Financial Assets |
| | | 2,187,662 | - | 2,187,662 | Tangible Capital Assets |
| | | - | | - | Inventory of Supplies |
| | | - | | - | Prepaid Expenses |
| | | | | 2,187,662 | Total Non-Financial Assets |
| Municipal Position | | | | | |
| Water Reserves | 156,761 | 156,761 | - | | |
| Gas Tax Reserve Fund | - | - | - | | |
| Development Charge Reserve Fund | 758,805 | 758,805 | - | | |
| Amounts to be Recovered | (758,805) | - | 758,805 | | |
| | | | | | |
| Total Municipal Position | 156,761 | | 2,344,423 | 2,344,423 | Accumulated Surplus/(Deficit), end of year |
| | | | | | |
| TOTAL ADJUSTMENTS | | 3,103,228 | 3,103,228 | | |

Note: The combined adjustments above should be balanced and net to \$0 (i.e. Total DR = Total CR)



3.2.5 Verification and Note Preparation

The final step in the conversion process is to ensure that all the statements created by the previous steps are in balance. The Statement of Financial Position summarizes the resources and obligations of the Town at a set point in time. The Statement of Operations summarizes how these resources and obligations changed over the reporting period. To this end, the accumulated surplus/deficit reported on the Statement of Financial Position should equal the accumulated surplus/deficit reported on the Statement of Operations.

The Statement of Change in Net Financial Assets/Debt and the Statement of Financial Position are also linked in terms of reporting on net financial assets/debt. On the Statement of Financial Position, net financial assets/debt is equal to the difference between financial assets and liabilities and should equal net financial assets/debt calculated on the Statement of Net Financial Assets/Debt.

While not part of the financial plan, the accompanying notes are important to summarize the assumptions and estimates made in preparing the financial plan. Some of the significant assumptions that need to be addressed within the financial plan are as follows:

- a) Opening cash balances – Opening cash balances are necessary to complete the Statement of Cash Flows and balance the Statement of Financial Position. Preferably, opening cash balances should be derived from actual information contained within the Town’s ledgers. It may not be possible, however, to extract this information from the ledgers for water alone; therefore, a reasonable proxy will be needed. One approach is to assume that opening cash balances equal ending reserve and reserve fund balances from the previous year adjusted for accrual-based transactions reflected by accounts receivable/payable balances. The following equation outlines this approach:

$$\begin{aligned} & \text{Ending Reserve/Reserve Fund Balance} \\ & \text{Plus: Ending Accounts Payable Balance} \\ & \underline{\text{Less: Ending Accounts Receivable Balance}} \\ & \text{Equals: Approximate Ending Cash Balance} \end{aligned}$$



- b) Amortization Expense – The method and timing of amortization should be based on the Town’s amortization policy.
- c) Accumulated Amortization – Will be based on the culmination of accumulated amortization expenses throughout the life of each asset however derived, along with information on construction/acquisition date and useful life obtained from the capital asset listing provided.
- d) Contributed Assets – As noted earlier, contributed assets could represent a significant part of the Town’s infrastructure acquisitions. As such, a reasonable estimate of value and timing of acquisition/donation may be required in order to adequately capture these assets. In the case where contributed assets are deemed to be insignificant or unknown, an assumption of “no contributed assets within the forecast period” will be made.
- e) Accumulated Surplus – The magnitude of the surplus in this area may precipitate the need for additional explanation especially in the first year of reporting. This Accumulated Surplus captures the historical infrastructure investment which has not been reported in the past but has accumulated to significant levels. It also includes all water reserve and reserve fund balances.
- f) Other Revenues – Will represent the recognition of revenues previously deferred (i.e. development charge revenues) and/or accrued revenues (developer contributions), and/or other minor miscellaneous revenues.



Chapter 4

Water Financial Plan



4. Water Financial Plan

4.1 Introduction

The following tables provide the complete financial plan for the Town's water systems. A brief description and analysis of each table is provided below. It is important to note that the financial plan that follows is a forward look at the financial position of the Town's water systems. It is not an audited document¹ and it contains various estimates as detailed in the "Notes to the Water Financial Plan" section below.

4.2 Water Financial Plan

4.2.1 *Statement of Financial Position (Table 4-1)*

The Statement of Financial Position provides information that describes the assets, liabilities, and accumulated surplus of the Town's water systems. The first important indicator is net financial assets/(debt), which is defined as the difference between financial assets and liabilities. This indicator provides an indication of the system's "future revenue requirement." A net financial asset position is where financial assets are greater than liabilities and implies that the system has the resources to finance future operations. Conversely, a net debt position implies that the future revenues generated by the system will be needed to finance past transactions, as well as future operations. Table 4-1 indicates that at the end of 2020, the Town's water system will be in a net financial asset position of \$156,761. After 2020, the financial plan forecasts a declining net financial asset position for each year of the forecast period resulting in a net debt position of \$1.17 million by 2030.

Another important indicator on the Statement of Financial Position is the tangible capital asset balance under section PS3150. As noted earlier, providing this information is a requirement for municipalities as part of PS3150 compliance and is significant from a financial planning perspective for the following reasons:

- Tangible capital assets such as watermains and treatment facilities are imperative to water service delivery.

¹ O. Reg. 453/07 does not require an audited financial plan.



- These assets represent significant economic resources in terms of their historical and replacement costs. Therefore, ongoing capital asset management is essential to managing significant replacements and repairs.
- The annual maintenance required by these assets has an enduring impact on water operational budgets.

In general terms, an increase in the tangible capital asset balance indicates that assets may have been acquired either through purchase by the municipality or donation/contribution by a third party. A decrease in the tangible capital asset balance can indicate a disposal, write down, or use of assets. A use of assets is usually represented by an increase in accumulated amortization due to annual amortization expenses arising as a result of allocating the cost of the asset to operations over the asset's useful life. Table 4-1 shows tangible capital assets net book value is expected to increase over the forecast period by approximately \$7.61 million. This indicates that the Town has plans to invest in tangible capital assets in excess of the anticipated use of existing assets over the forecast period.

4.2.2 Statement of Operations (Table 4-2)

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 the expenses incurred and in turn, whether net financial assets have been maintained or depleted. Table 4-2 illustrates the ratio of expenses to revenues, although fluctuating to some extent over the forecast period, decreases from 74% in 2020 to 41% by 2030. As a result, annual surpluses are anticipated in every year of the forecast. It is important to note that an annual surplus is beneficial to ensure funding is available to non-expense costs such as tangible capital asset acquisitions and reserve/reserve fund transfers.

Another important indicator on this statement is accumulated surplus/deficit. An accumulated surplus indicates that the available net resources are sufficient to provide future capital water services. An accumulated deficit indicates that resources are insufficient to provide future services and that borrowing or rate increases are required to finance annual deficits. From Table 4-2, the financial plan proposes to add approximately \$6.34 million over the forecast period to a 2020 accumulated surplus of \$2.23 million. The accumulated surplus, as indicated in Table 4-2, is predominantly



made up of reserve and reserve fund balances as well as historical investments in tangible capital assets by the municipality.

4.2.3 Statement of Change in Net Financial Assets/Debt (Table 4-3)

The Statement of Change in Net Financial Assets/Debt indicates whether revenue generated was sufficient to cover operating and non-financial asset costs (i.e. inventory supplies, prepaid expenses, tangible capital assets, etc.) and in so doing, explains the difference between the annual surplus/deficit and the change in net financial assets/debt for the period. Table 4-3 indicates that in some years, forecasted annual surplus exceeds forecasted tangible capital asset acquisitions (net of amortization for the year), resulting in increases in the net financial asset balance. In 2021 and 2027, forecasted tangible capital asset acquisitions (net of amortization for the year) exceeds the forecasted annual surplus, resulting in decreases in the net financial asset balance. This is due to the significant capital assets anticipated to be emplaced during these years and financed through debt issuance. Therefore, an overall increase to net financial assets is anticipated over the forecast period to 2030. This is a result of more significant capital asset acquisitions forecasted between 2020 and 2030 allowing for a long-term plan of funding capital through accumulated surplus (i.e. reserves and reserve funds). The ratio of cumulative annual surplus before amortization to cumulative tangible capital asset acquisitions decreasing from 1.57 to 0.86 over the forecast period.¹

4.2.4 Statement of Cash Flow (Table 4-4)

The Statement of Cash Flow summarizes how water systems are expected to generate and use cash resources during the forecast period. The transactions that provide/use cash are classified as operating, capital, investing, and financing activities as shown in Table 4-4. This statement focuses on the cash aspect of these transactions and thus is the link between cash-based and accrual-based reporting. Table 4-4 indicates that cash from operations will be used to fund capital transactions (i.e. tangible capital asset acquisitions) and build internal reserves and reserve funds over the forecast period. The financial plan projects the cash position of the Town's water systems to improve from a balance of \$570,568 at the beginning of 2020, to just over \$1.57 million by the

¹ A desirable ratio is 1:1 or better.



end of 2030. For further discussions, on projected cash balances please refer to the Notes to the Water Financial Plan.



Table 4-1
Statement of Financial Position: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

| | Notes | Forecast | | | | | | | | | | |
|---|---------------------|------------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Financial Assets | | | | | | | | | | | | |
| Cash | 1 | 950,131 | 449,858 | 643,983 | 929,356 | 415,646 | 685,088 | 1,021,447 | 1,395,527 | 1,225,033 | 1,355,371 | 1,573,758 |
| Accounts Receivable | 1 | 31,635 | 33,905 | 36,213 | 38,559 | 40,946 | 43,373 | 45,844 | 48,358 | 50,918 | 53,525 | 56,181 |
| Long-term Accounts Receivable | 2 | - | - | - | - | - | - | - | - | - | 286,889 | 636,245 |
| Total Financial Assets | | 981,766 | 483,763 | 680,196 | 967,915 | 456,592 | 728,461 | 1,067,291 | 1,443,885 | 1,275,951 | 1,695,785 | 2,266,184 |
| Liabilities | | | | | | | | | | | | |
| Bank Indebtedness | | - | - | - | - | - | - | - | - | - | - | - |
| Accounts Payable & Accrued Liabilities | 1 | 66,200 | 64,184 | 61,867 | 64,558 | 67,345 | 70,277 | 73,376 | 76,620 | 80,055 | 83,635 | 87,431 |
| Debt (Principal only) | 2 | - | 1,795,000 | 1,645,493 | 1,490,005 | 1,383,869 | 1,211,065 | 1,031,349 | 5,050,445 | 4,505,742 | 3,939,251 | 3,350,101 |
| Deferred Revenue | 3 | 758,805 | 371,636 | 473,800 | 583,888 | - | 134,364 | 278,783 | 433,601 | 70,232 | - | - |
| Total Liabilities | | 825,005 | 2,230,820 | 2,181,160 | 2,138,451 | 1,451,214 | 1,415,706 | 1,383,508 | 5,560,666 | 4,656,029 | 4,022,886 | 3,437,532 |
| Net Financial Assets/(Debt) | | 156,761 | (1,747,057) | (1,500,964) | (1,170,536) | (994,622) | (687,245) | (316,217) | (4,116,781) | (3,380,078) | (2,327,101) | (1,171,348) |
| Non-Financial Assets | | | | | | | | | | | | |
| Tangible Capital Assets | 4 | 2,187,662 | 4,938,348 | 4,969,963 | 4,999,492 | 5,841,567 | 5,849,581 | 5,816,771 | 9,979,959 | 9,896,058 | 9,819,916 | 9,740,682 |
| Total Non-Financial Assets | | 2,187,662 | 4,938,348 | 4,969,963 | 4,999,492 | 5,841,567 | 5,849,581 | 5,816,771 | 9,979,959 | 9,896,058 | 9,819,916 | 9,740,682 |
| Accumulated Surplus/(Deficit) | 5 | 2,344,423 | 3,191,291 | 3,468,999 | 3,828,956 | 4,846,945 | 5,162,336 | 5,500,554 | 5,863,178 | 6,515,980 | 7,492,815 | 8,569,334 |
| Financial Indicators | | | | | | | | | | | | |
| | Total Change | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 1) Increase/(Decrease) in Net Financial Assets | (1,271,586) | 56,523 | (1,903,818) | 246,093 | 330,428 | 175,914 | 307,377 | 371,028 | (3,800,564) | 736,703 | 1,052,977 | 1,155,753 |
| 2) Increase/(Decrease) in Tangible Capital Assets | 7,608,615 | 55,595 | 2,750,686 | 31,615 | 29,529 | 842,075 | 8,014 | (32,810) | 4,163,188 | (83,901) | (76,142) | (79,234) |
| 3) Increase/(Decrease) in Accumulated Surplus | 6,337,029 | 112,118 | 846,868 | 277,708 | 359,957 | 1,017,989 | 315,391 | 338,218 | 362,624 | 652,802 | 976,835 | 1,076,519 |



Table 4-2
Statement of Operations: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

| | Notes | Forecast | | | | | | | | | | |
|--|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Water Revenue | | | | | | | | | | | | |
| Base Charge Revenue | | 259,680 | 276,480 | 293,280 | 310,080 | 326,880 | 343,680 | 360,480 | 377,280 | 394,080 | 410,880 | 427,680 |
| Rate Based Revenue | | 133,302 | 144,705 | 156,572 | 168,920 | 181,765 | 195,122 | 209,010 | 223,445 | 238,447 | 254,032 | 270,222 |
| Earned Development Charges Revenue | 3 | 24,450 | 727,000 | 246,307 | 247,307 | 936,736 | 228,159 | 228,159 | 228,159 | 746,720 | 746,720 | 746,720 |
| Other Revenue | 6 | 13,074 | 11,140 | 13,234 | 75,641 | 18,433 | 21,271 | 25,222 | 29,706 | 33,674 | 324,675 | 391,601 |
| Total Revenues | | 430,506 | 1,159,325 | 709,393 | 801,948 | 1,463,814 | 788,232 | 822,871 | 858,590 | 1,412,921 | 1,736,307 | 1,836,223 |
| Water Expenses | | | | | | | | | | | | |
| Operating Expenses | Sch. 4-1 | 275,533 | 267,143 | 257,500 | 268,700 | 280,300 | 292,500 | 305,400 | 318,900 | 333,200 | 348,100 | 363,900 |
| Interest on Debt | 2 | - | - | 71,800 | 65,820 | 59,600 | 55,355 | 48,443 | 41,254 | 202,018 | 180,230 | 157,570 |
| Amortization | 4 | 42,855 | 45,314 | 102,385 | 107,471 | 105,925 | 124,986 | 130,810 | 135,812 | 224,901 | 231,142 | 238,234 |
| Loss on Disposal of Tangible Capital Assets | | - | - | - | - | - | - | - | - | - | - | - |
| Total Expenses | | 318,388 | 312,457 | 431,685 | 441,991 | 445,825 | 472,841 | 484,653 | 495,966 | 760,119 | 759,472 | 759,704 |
| Annual Surplus/(Deficit) | | 112,118 | 846,868 | 277,708 | 359,957 | 1,017,989 | 315,391 | 338,218 | 362,624 | 652,802 | 976,835 | 1,076,519 |
| Accumulated Surplus/(Deficit), beginning of year | 5 | 2,232,305 | 2,344,423 | 3,191,291 | 3,468,999 | 3,828,956 | 4,846,945 | 5,162,336 | 5,500,554 | 5,863,178 | 6,515,980 | 7,492,815 |
| Accumulated Surplus/(Deficit), end of year | | 2,344,423 | 3,191,291 | 3,468,999 | 3,828,956 | 4,846,945 | 5,162,336 | 5,500,554 | 5,863,178 | 6,515,980 | 7,492,815 | 8,569,334 |
| Note 5: | | | | | | | | | | | | |
| Accumulated Surplus/(Deficit) Reconciliation: | | | | | | | | | | | | |
| | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Reserve Balances | | | | | | | | | | | | |
| Reserves: Development Charges | | 758,805 | 371,636 | 473,801 | 583,888 | - | 134,364 | 278,783 | 433,601 | 70,232 | - | - |
| Reserves: Gas Tax | | - | - | - | - | - | - | - | - | - | - | - |
| Reserves: Capital/Other | | 156,761 | 47,943 | 144,529 | 319,469 | 389,247 | 523,820 | 715,132 | 933,664 | 1,125,664 | 1,325,261 | 1,542,508 |
| Total Reserves Balance | | 915,566 | 419,579 | 618,330 | 903,357 | 389,247 | 658,184 | 993,915 | 1,367,265 | 1,195,896 | 1,325,261 | 1,542,508 |
| Less: Debt Obligations and Deferred Revenue | | (758,805) | (2,166,636) | (2,119,294) | (2,073,893) | (1,383,869) | (1,345,429) | (1,310,132) | (5,484,046) | (4,575,974) | (3,939,251) | (3,350,101) |
| Add: Long-term Accounts Receivable | | - | - | - | - | - | - | - | - | - | 286,889 | 636,245 |
| Add: Tangible Capital Assets | 4 | 2,187,662 | 4,938,348 | 4,969,963 | 4,999,492 | 5,841,567 | 5,849,581 | 5,816,771 | 9,979,959 | 9,896,058 | 9,819,916 | 9,740,682 |
| Total Ending Balance | | 2,344,423 | 3,191,291 | 3,468,999 | 3,828,956 | 4,846,945 | 5,162,336 | 5,500,554 | 5,863,178 | 6,515,980 | 7,492,815 | 8,569,334 |
| Financial Indicators | | | | | | | | | | | | |
| | Total Change | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 1) Expense to Revenue Ratio | | 74% | 27% | 61% | 55% | 30% | 60% | 59% | 58% | 54% | 44% | 41% |
| 2) Increase/(Decrease) in Accumulated Surplus | 6,337,029 | 112,118 | 846,868 | 277,708 | 359,957 | 1,017,989 | 315,391 | 338,218 | 362,624 | 652,802 | 976,835 | 1,076,519 |



Table 4-3
Statement of Changes in Net Financial Assets/Debt: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

| | Notes | Forecast | | | | | | | | | | |
|---|-------|----------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Annual Surplus/(Deficit) | | 112,118 | 846,868 | 277,708 | 359,957 | 1,017,989 | 315,391 | 338,218 | 362,624 | 652,802 | 976,835 | 1,076,519 |
| Less: Acquisition of Tangible Capital Assets | 4 | (98,450) | (2,796,000) | (134,000) | (137,000) | (948,000) | (133,000) | (98,000) | (4,299,000) | (141,000) | (155,000) | (159,000) |
| Add: Amortization of Tangible Capital Assets | 4 | 42,855 | 45,314 | 102,385 | 107,471 | 105,925 | 124,986 | 130,810 | 135,812 | 224,901 | 231,142 | 238,234 |
| (Gain)/Loss on disposal of Tangible Capital Assets | | - | - | - | - | - | - | - | - | - | - | - |
| Add: Proceeds on Sale of Tangible Capital Assets | | - | - | - | - | - | - | - | - | - | - | - |
| Add: Write-downs of Tangible Capital Assets | | - | - | - | - | - | - | - | - | - | - | - |
| | | (55,595) | (2,750,686) | (31,615) | (29,529) | (842,075) | (8,014) | 32,810 | (4,163,188) | 83,901 | 76,142 | 79,234 |
| Less: Acquisition of Supplies Inventory | | - | - | - | - | - | - | - | - | - | - | - |
| Less: Acquisition of Prepaid Expenses | | - | - | - | - | - | - | - | - | - | - | - |
| Add: Consumption of Supplies Inventory | | - | - | - | - | - | - | - | - | - | - | - |
| Add: Use of Prepaid Expenses | | - | - | - | - | - | - | - | - | - | - | - |
| | | - | - | - | - | - | - | - | - | - | - | - |
| Increase/(Decrease) in Net Financial Assets/(Net Debt) | | 56,523 | (1,903,818) | 246,093 | 330,428 | 175,914 | 307,377 | 371,028 | (3,800,564) | 736,703 | 1,052,977 | 1,155,753 |
| Net Financial Assets/(Net Debt), beginning of year | | 100,238 | 156,761 | (1,747,057) | (1,500,964) | (1,170,536) | (994,622) | (687,245) | (316,217) | (4,116,781) | (3,380,078) | (2,327,101) |
| Net Financial Assets/(Net Debt), end of year | | 156,761 | (1,747,057) | (1,500,964) | (1,170,536) | (994,622) | (687,245) | (316,217) | (4,116,781) | (3,380,078) | (2,327,101) | (1,171,348) |
| Financial Indicators | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 1) Acquisition of Tangible Capital Assets (Cumulative) | | 98,450 | 2,894,450 | 3,028,450 | 3,165,450 | 4,113,450 | 4,246,450 | 4,344,450 | 8,643,450 | 8,784,450 | 8,939,450 | 9,098,450 |
| 2) Annual Surplus/Deficit before Amortization (Cumulative) | | 154,973 | 1,047,155 | 1,427,248 | 1,894,676 | 3,018,590 | 3,458,967 | 3,927,995 | 4,426,431 | 5,304,134 | 6,512,111 | 7,826,864 |
| 3) Ratio of Annual Surplus before Amortization to Acquisition of TCA's (Cumulative) | | 1.57 | 0.36 | 0.47 | 0.60 | 0.73 | 0.81 | 0.90 | 0.51 | 0.60 | 0.73 | 0.86 |



Table 4-4
Statement of Cash Flow – Indirect Method: Water Services
UNAUDITED: For Financial Planning Purposes Only
2020-2030

| | Notes | Forecast | | | | | | | | | | |
|--|----------|-----------------|--------------------|------------------|------------------|------------------|------------------|------------------|--------------------|------------------|------------------|------------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Operating Transactions | | | | | | | | | | | | |
| Annual Surplus/Deficit | | 112,118 | 846,868 | 277,708 | 359,957 | 1,017,989 | 315,391 | 338,218 | 362,624 | 652,802 | 976,835 | 1,076,519 |
| Add: Amortization of TCA's | 4 | 42,855 | 45,314 | 102,385 | 107,471 | 105,925 | 124,986 | 130,810 | 135,812 | 224,901 | 231,142 | 238,234 |
| (Gain)/Loss on disposal of Tangible Capital Assets | | - | - | - | - | - | - | - | - | - | - | - |
| Less: Earned Deferred Revenue | 3 | (24,450) | (727,000) | (246,307) | (247,307) | (936,736) | (228,159) | (228,159) | (228,159) | (746,720) | (746,720) | (746,720) |
| Less: Developer Contributions | | - | - | - | - | - | - | - | - | - | - | - |
| Add: Deferred Revenue Proceeds | | 340,923 | 339,831 | 348,472 | 357,395 | 352,848 | 362,523 | 372,578 | 382,976 | 383,351 | 389,600 | 397,364 |
| Change in A/R (Increase)/Decrease | | (1,241) | (2,270) | (2,309) | (2,346) | (2,387) | (2,427) | (2,471) | (2,512) | (2,560) | (2,608) | (2,656) |
| Change in A/P (Increase)/Decrease | | 7,808 | (2,016) | (2,317) | 2,691 | 2,787 | 2,932 | 3,099 | 3,244 | 3,435 | 3,580 | 3,796 |
| Less: Interest Proceeds | | (3,074) | (940) | (2,834) | (6,264) | (7,632) | (10,271) | (14,022) | (18,307) | (22,072) | (25,986) | (30,245) |
| Cash Provided by Operating Transactions | | 474,939 | 499,787 | 474,798 | 571,597 | 532,794 | 564,975 | 600,053 | 635,678 | 493,137 | 825,843 | 936,292 |
| Capital Transactions | | | | | | | | | | | | |
| Proceeds on sale of Tangible Capital Assets | | - | - | - | - | - | - | - | - | - | - | - |
| Less: Cash Used to acquire Tangible Capital Assets | 4 | (98,450) | (2,796,000) | (134,000) | (137,000) | (948,000) | (133,000) | (98,000) | (4,299,000) | (141,000) | (155,000) | (159,000) |
| Cash Applied to Capital Transactions | | (98,450) | (2,796,000) | (134,000) | (137,000) | (948,000) | (133,000) | (98,000) | (4,299,000) | (141,000) | (155,000) | (159,000) |
| Investing Transactions | | | | | | | | | | | | |
| Proceeds from Investments | | 3,074 | 940 | 2,834 | 6,264 | 7,632 | 10,271 | 14,022 | 18,307 | 22,072 | 25,986 | 30,245 |
| Less: Cash Used to Acquire Investments | | - | - | - | - | - | - | - | - | - | - | - |
| Cash Provided by (applied to) Investing Transactions | | 3,074 | 940 | 2,834 | 6,264 | 7,632 | 10,271 | 14,022 | 18,307 | 22,072 | 25,986 | 30,245 |
| Financing Transactions | | | | | | | | | | | | |
| Proceeds from Debt Issue | 2 | - | 1,795,000 | - | - | 55,571 | - | - | 4,206,000 | - | - | - |
| Add: Long-term Accounts Receivable Proceeds (recovery of debt) | 2 | - | - | - | - | - | - | - | - | - | - | - |
| Less: Debt Repayment (Principal only) | 2 | - | - | (149,507) | (155,488) | (161,707) | (172,804) | (179,716) | (186,905) | (544,703) | (566,491) | (589,150) |
| Cash Applied to Financing Transactions | | - | 1,795,000 | (149,507) | (155,488) | (161,707) | (172,804) | (179,716) | 4,019,095 | (544,703) | (566,491) | (589,150) |
| Increase in Cash and Cash Equivalents | | 379,563 | (500,273) | 194,125 | 285,373 | (513,710) | 269,442 | 336,359 | 374,080 | (170,494) | 130,338 | 218,387 |
| Cash and Cash Equivalents, beginning of year | 1 | 570,568 | 950,131 | 449,858 | 643,983 | 929,356 | 415,646 | 685,088 | 1,021,447 | 1,395,527 | 1,225,033 | 1,355,371 |
| Cash and Cash Equivalents, end of year | 1 | 950,131 | 449,858 | 643,983 | 929,356 | 415,646 | 685,088 | 1,021,447 | 1,395,527 | 1,225,033 | 1,355,371 | 1,573,758 |



Notes to the Water Financial Plan

The financial plan format as outlined in Chapter 4 closely approximates the full accrual format used by municipalities on their audited financial statements. However, the financial plan is not an audited document and contains various estimates. In this regard, section 3 (2) of O. Reg. 453/07 states the following:

“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).”

The information referred to in sub-subparagraphs 4 i A, B and C of subsection (1) includes:

- A. Total financial assets (i.e. cash and receivables)
- B. Total liabilities (i.e. payables, debt and deferred revenue)
- C. Net debt (i.e. the difference between A and B above)

The information referred to in sub-subparagraphs 4 iii A, C, E and F of subsection (1) includes:

- A. Operating transactions that are cash received from revenues, cash paid for operating expenses and finance charges
- B. Investing transactions that are acquisitions and disposal of investments
- C. Change in cash and cash equivalents during the year
- D. Cash and cash equivalents at the beginning and end of the year

In order to show a balanced financial plan in a full accrual format for the Town, some of the items listed above have been estimated given that the Town does not maintain all financial asset and liability data separately for water. Usually, this type of data is combined with the financial assets and liabilities of other departments and services given that there is not a current obligation to disclose this data separately (as there is with revenue and expenses).



The assumptions used have been documented below:

1. Cash, Receivables and Payables

It is assumed that the opening cash balances required to complete the financial plan are equal to:

Ending Reserve/Reserve Fund Balance
Plus: Ending Accounts Payable Balance
Less: Ending Accounts Receivable Balance
Equals: *Approximate Ending Cash Balance*

For the Town, receivable and payable balances were estimated for each year of the forecast based on the following factors:

- a) Receivables: Based on the historical levels of Municipal-wide receivables as a percentage of annual Municipal-wide revenue earned; and
- b) Payables: Based on historical levels of Municipal-wide payables as a percentage of annual Municipal-wide expenses.

2. Debt

The Town has no outstanding water related debt; however, it is anticipated that the Town will issue debt in 2021, 2024, and 2027 to finance growth-related projects. Principal repayment over the forecast period are scheduled as follows:

| Year | Principal Payments |
|--------------|--------------------|
| 2020 | - |
| 2021 | - |
| 2022 | 149,507 |
| 2023 | 155,488 |
| 2024 | 161,707 |
| 2025 | 172,804 |
| 2026 | 179,716 |
| 2027 | 186,905 |
| 2028 | 544,703 |
| 2029 | 566,491 |
| 2030 | 589,150 |
| Total | 2,706,471 |



For financial reporting purposes, debt principal payments represent a decrease in debt liability and the interest payments represent a current year operating expense.

3. Deferred Revenue

Deferred revenue is typically made up of water development charge reserve balances which are considered to be a liability for financial reporting purposes until the funds are used to emplace the works for which they have been collected. In 2029 and 2030, when the Town provides interim funds to the water development charge reserve fund, the value of the interim financing is also presented as an asset (long-term accounts receivable) for reporting purposes, representing future amounts to be collected from developers.

4. Tangible Capital Assets

- Opening net book value of tangible capital assets includes water related assets in the following categories:
 - i. Chemical Injectors
 - ii. Hydrants
 - iii. Lateral Lines
 - iv. Mains
 - v. Pumps
 - vi. SCADA
 - vii. Valves
 - viii. Wells
- Amortization is calculated based on using the straight-line approach.
- Given the planned asset replacement forecast in the Rate Study, useful life on acquisitions is assumed to be equal to the weighted average useful life for all assets on hand in each respective asset category.
- Write-offs are assumed to equal \$0 for each year in the forecast period.
- Tangible capital assets are shown on a net basis. It is assumed that disposals occur when the asset is being replaced. To calculate the value of each asset disposal, the replacement value (of each new asset that has been identified as a “replacement”) has been deflated (by weighted average useful life for all assets on hand in the respective asset category) to an estimated historical cost. This



figure was used to calculate disposals only. Future assets are disposed of when fully amortized.

- Gains/losses on disposal are assumed to be \$0 (it is assumed that historical cost is equal to accumulated amortization for all disposals).
- Residual value is assumed to be \$0 for all assets contained within the forecast period.
- Contributed Assets, as described in section 3.2.1, are deemed to be insignificant/unknown during the forecast period and are therefore assumed to be \$0.
- The Town is unaware of any specific lead service piping in the municipal water system. However, when older portions of the watermain system is replaced as part of the ongoing replacement program, any lead service pipes will be replaced if and when found.



- The balance of tangible capital assets is summarized as follows:

| Asset Historical Cost | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| Opening Tangible Capital Asset Balance | 2,663,063 | 2,741,172 | 5,463,902 | 5,544,010 | 5,624,432 | 6,482,155 | 6,548,526 | 6,587,936 | 10,827,935 | 10,893,200 | 10,954,695 |
| Acquisitions | 98,450 | 2,796,000 | 134,000 | 137,000 | 948,000 | 133,000 | 98,000 | 4,299,000 | 141,000 | 155,000 | 159,000 |
| Disposals | 20,341 | 73,270 | 53,892 | 56,578 | 90,277 | 66,629 | 58,590 | 59,001 | 75,735 | 93,505 | 97,439 |
| Closing Tangible Capital Asset Balance | 2,741,172 | 5,463,902 | 5,544,010 | 5,624,432 | 6,482,155 | 6,548,526 | 6,587,936 | 10,827,935 | 10,893,200 | 10,954,695 | 11,016,256 |
| Opening Accumulated Amortization | 530,996 | 553,510 | 525,554 | 574,047 | 624,940 | 640,588 | 698,945 | 771,165 | 847,976 | 997,142 | 1,134,779 |
| Amortization Expense | 42,855 | 45,314 | 102,385 | 107,471 | 105,925 | 124,986 | 130,810 | 135,812 | 224,901 | 231,142 | 238,234 |
| Amortization on Disposal | 20,341 | 73,270 | 53,892 | 56,578 | 90,277 | 66,629 | 58,590 | 59,001 | 75,735 | 93,505 | 97,439 |
| Ending Accumulated Amortization | 553,510 | 525,554 | 574,047 | 624,940 | 640,588 | 698,945 | 771,165 | 847,976 | 997,142 | 1,134,779 | 1,275,574 |
| Net Book Value | 2,187,662 | 4,938,348 | 4,969,963 | 4,999,492 | 5,841,567 | 5,849,581 | 5,816,771 | 9,979,959 | 9,896,058 | 9,819,916 | 9,740,682 |



5. Accumulated Surplus

Opening accumulated surplus for the forecast period is reconciled as follows:

| Water | 2020 Opening Accumulated Surplus |
|---|----------------------------------|
| Reserve Balances | |
| Reserves: Development Charges | 442,332 |
| Reserves: Capital/Other | 100,238 |
| Total Reserves Balance | 542,570 |
| Less: Debt Obligations and Deferred Revenue | (442,332) |
| Add: Tangible Capital Assets | 2,132,067 |
| Total Opening Balance | 2,232,305 |

The accumulated surplus reconciliation for all years within the forecast period is contained in Table 4-2.

6. Other Revenue

Other revenues include minor revenues from water service inspection fees and connection permits fees. These revenues have been inflated annually by 2% over the forecast period.

7. Operating Expenses

Capital expenditures for items not meeting the definition of tangible capital assets have been reclassified as operating expenses and have been expensed in the year in which they occur.



Chapter 5

Process for Water Financial Plan Approval and Submission to the Province



5. Process for Water Financial Plan Approval and Submission to the Province

As mentioned in section 1.2, preparation of and approval of a financial plan for water assets that meets the requirements of the Act is mandatory for municipal water providers. Proof of the plan preparation and approval is a key submission requirement for municipal drinking water licensing and, upon completion, must be submitted to the MECP. The process established for plan approval, public circulation and filing is set out in O. Reg. 453/07 and can be summarized as follows:

1. The financial plan must be approved by resolution of Council of the municipality who owns the drinking water system or the governing body of the owner. (O. Reg. 453/07, section 3 (1) 1.)
2. The owner of the drinking water system must provide notice advertising the availability of the financial plan. The plans will be made available to the public upon request and without charge. The plans must also be made available to the public on the municipality's website. (O. Reg. 453/07, section 3 (1) 5.)
3. The owner of the drinking water system must provide a copy of the financial plan to the Director of Policy Branch, Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6.)
4. The owner of the drinking water system must provide proof satisfactory to the Director that the financial plans for the system satisfy the requirements under the Safe Drinking Water Act. (S.D.W.A. section 32 (5) 2.ii.)



Chapter 6

Recommendations



6. Recommendations

This report presents the Water Financial Plan for the Town in accordance with the mandatory reporting formats for water systems, as detailed in O. Reg. 453/07. It is important to note that while mandatory, the financial plan is provided for Council's interest and approval. However, for decision making purposes, it may be more informative to rely on the information contained within the 2020 Water and Wastewater Rate Study, dated April 23, 2020. Nevertheless, Council is required to pass certain resolutions with regard to this plan (which were provided at the Council Meeting of April 28, 2020) and regulations and it is recommended that:

1. The Town of Grand Valley's Water Financial Plan prepared by Watson & Associates Economists Ltd. dated May 4, 2020 be approved.
2. Notice of availability of the Water Financial Plan be advertised.
3. The Water Financial Plan dated May 4, 2020 be submitted to the Ministry of Municipal Affairs and Housing. (O. Reg. 453/07, section 3 (1) 6).
4. The resolution of Council approving the Water Financial Plan be submitted to the MECP, satisfying the requirements under the *Safe Drinking Water Act*. (S.D.W.A. section 32 (5) 2.ii.).



Appendix A – Water Forecast Summary Tables



Table A-1
Town of Grand Valley
Water Service
Capital Budget Forecast
 Inflated \$

| Description | Total | Budget 2020 | Forecast | | | | | | | | | |
|--------------------------------------|--------|----------------|----------|-------|-------|--------|--------|--------|-------|-------|-------|------|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Capital Expenditures | | | | | | | | | | | | |
| <u>Well One</u> | | | | | | | | | | | | |
| Cameral Inspection of Well Casing | 11,000 | | 5,000 | | | | | | 6,000 | | | |
| Rehab Well | 10,000 | | 10,000 | | | | | | | | | |
| Submersible Pump Replacement | 32,000 | | | | | 32,000 | | | | | | |
| Transmission Main Repairs | - | | | | | | | | | | | |
| Monitoring Well 1 (Crozier St) | 13,000 | | | | | | | 13,000 | | | | |
| <u>Well Two</u> | | | | | | | | | | | | |
| Cameral Inspection of Well Casing | 10,000 | 5,000 | | | | 5,000 | | | | | | |
| Rehab Well | 15,000 | 15,000 | | | | | | | | | | |
| Submersible Pump Replacement | 20,000 | 20,000 | | | | | | | | | | |
| Transmission Main Repairs | - | | | | | | | | | | | |
| <u>Well Three</u> | | | | | | | | | | | | |
| Cameral Inspection of Well Casing | 11,000 | 5,000 | | | | | | 6,000 | | | | |
| Rehab Well | - | | | | | | | | | | | |
| Submersible Pump Replacement | 11,000 | | | | | 11,000 | | | | | | |
| Transmission Main Repairs | 3,000 | | | | | 3,000 | | | | | | |
| Monitoring Well 3 (Arena) | 12,000 | | 12,000 | | | | | | | | | |
| <u>Pumphouse Raw Water Piping</u> | | | | | | | | | | | | |
| Replace pressure gauges | 3,000 | | | | | | | | | | 3,000 | |
| Service Flow Control Valves | 11,000 | | | 5,000 | | | | | | | 6,000 | |
| Service Pressure Relief Valve | 5,000 | | | | | 5,000 | | | | | | |
| Process Piping Repairs | 6,000 | | | 3,000 | | | | | | | 3,000 | |
| Replace Raw Water Meters | 11,000 | | | | | 11,000 | | | | | | |
| <u>Pumphouse Treatment Equipment</u> | | | | | | | | | | | | |
| Chemical Metering Pumps | 11,000 | 5,000 | | | | | | 6,000 | | | | |
| Discharge Piping | 11,000 | | | 5,000 | | | | | | | 6,000 | |
| Centreline Injectors | 17,500 | 1,500 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | |
| <u>Instrumentation and SCADA</u> | | | | | | | | | | | | |
| Replace Free Chlorine Analyzer | 16,000 | | | | | | 16,000 | | | | | |
| Replace Desktop | 7,000 | | | 3,000 | | | | | | | 4,000 | |
| Replace Datalogger | 6,000 | | | | | | | | | | 6,000 | |
| Replace Transducers | 7,000 | | | | | | 3,000 | | | | 4,000 | |
| Wireless Link | 3,000 | | | | | | | | | | 3,000 | |
| <u>Building Services</u> | | | | | | | | | | | | |
| Electrical | 28,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 4,000 | |
| Heating | 9,500 | 1,500 | | 2,000 | | | 2,000 | | 2,000 | | 2,000 | |
| Lighting | 3,000 | | | 1,000 | | | 1,000 | | | | 1,000 | |
| Doors | - | | | | | | | | | | | |
| Generator Service | 13,500 | 1,500 | | 2,000 | | | 2,000 | 4,000 | 2,000 | | 2,000 | |



Table A-1 (cont'd)
Town of Grand Valley
Water Service
Capital Budget Forecast
 Inflated \$

| Description | Total | Budget 2020 | Forecast | | | | | | | | | | |
|--|------------------|----------------|------------------|----------------|----------------|----------------|----------------|---------------|------------------|----------------|----------------|----------------|---|
| | | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | |
| Capital Expenditures | | | | | | | | | | | | | |
| Treated Water Distribution | | | | | | | | | | | | | |
| Distribution Mains Leak Repairs | 46,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 3,000 | 6,000 | 6,000 | 6,000 | | |
| Valve Repair | 17,500 | 1,500 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | | |
| Hydrant Repair | 14,500 | 2,500 | | 3,000 | | 3,000 | | 3,000 | | 3,000 | | 3,000 | |
| Service Repairs | 18,500 | 1,500 | 2,000 | 2,000 | 2,000 | 3,000 | | 2,000 | 2,000 | 2,000 | 2,000 | | |
| Stock Pipe and Repair Fittings | 20,000 | | | 6,000 | | | | 7,000 | | | | 7,000 | |
| Restock Check and PRVS | 28,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 4,000 | | |
| Restock Water Meters | 28,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 4,000 | | |
| Water Tower Inspect and Maintain | 28,000 | | 5,000 | | 11,000 | | | 6,000 | | 6,000 | | | |
| Water Tower | | | | | | | | | | | | | |
| Driveway - Grand Valley Water Tower | 17,000 | | | | 17,000 | | | | | | | | |
| Water Tower - Vent | 10,000 | | | | | | 10,000 | | | | | | |
| Cooper Street Pumping Station | | | | | | | | | | | | | |
| Driveway - Cooper Street Pumping Station | 2,000 | | | | 2,000 | | | | | | | | |
| Melody Lane Pumphouse | | | | | | | | | | | | | |
| Driveway - Melody Lane Pumphouse | 6,000 | | 6,000 | | | | | | | | | | |
| Electrical Heating - Melody Lane Pumphouse | 12,000 | | 12,000 | | | | | | | | | | |
| Process Piping - Melody Lane Pumphouse | 117,000 | | 117,000 | | | | | | | | | | |
| Ventilation - Melody Lane Pumphouse | 29,000 | | 29,000 | | | | | | | | | | |
| Other | | | | | | | | | | | | | |
| Water Meters | 638,000 | | 58,000 | 59,000 | 61,000 | 62,000 | 63,000 | 64,000 | 66,000 | 67,000 | 68,000 | 70,000 | |
| Lifecycle Provision | 176,000 | | | | | | | | | | 87,000 | 89,000 | |
| Growth Related | | | | | | | | | | | | | |
| Pumphouse Storage Upgrades | 126,450 | 24,450 | 25,000 | 25,000 | 26,000 | 26,000 | | | | | | | |
| Production Wells | 745,000 | | | | | 745,000 | | | | | | | |
| Water Treatment Pumphouse | 2,497,000 | | 2,497,000 | | | | | | | | | | |
| Elevated Water Storage | 4,206,000 | | | | | | | | 4,206,000 | | | | |
| Total Capital Expenditures | 9,098,450 | 98,450 | 2,796,000 | 134,000 | 137,000 | 948,000 | 133,000 | 98,000 | 4,299,000 | 141,000 | 155,000 | 159,000 | |
| Capital Financing | | | | | | | | | | | | | |
| Provincial/Federal Grants | - | | | | | | | | | | | | |
| Development Charges Reserve Fund | 1,517,879 | 24,450 | 727,000 | 25,000 | 26,000 | 715,429 | - | - | - | - | - | - | - |
| Non-Growth Related Debenture Requirements | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Growth Related Debenture Requirements | 6,056,571 | - | 1,795,000 | - | - | 55,571 | - | - | 4,206,000 | - | - | - | - |
| Operating Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Lifecycle Reserve Fund | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Water Reserve | 1,524,000 | 74,000 | 274,000 | 109,000 | 111,000 | 177,000 | 133,000 | 98,000 | 93,000 | 141,000 | 155,000 | 159,000 | |
| Total Capital Financing | 9,098,450 | 98,450 | 2,796,000 | 134,000 | 137,000 | 948,000 | 133,000 | 98,000 | 4,299,000 | 141,000 | 155,000 | 159,000 | |



Table A-2
Town of Grand Valley
Water Service
Schedule of Non-Growth Related Debenture Repayments
 Inflated \$

| Debenture Year | Principal (Inflated) | Forecast | | | | | | | | | |
|----------------------------------|----------------------|----------|------|------|------|------|------|------|------|------|------|
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 2021 | - | | - | - | - | - | - | - | - | - | - |
| 2022 | - | | | - | - | - | - | - | - | - | - |
| 2023 | - | | | | - | - | - | - | - | - | - |
| 2024 | - | | | | | - | - | - | - | - | - |
| 2025 | - | | | | | | - | - | - | - | - |
| 2026 | - | | | | | | | - | - | - | - |
| 2027 | - | | | | | | | | - | - | - |
| 2028 | - | | | | | | | | | - | - |
| 2029 | - | | | | | | | | | | - |
| 2030 | - | | | | | | | | | | |
| Total Annual Debt Charges | - | - | - | - | - | - | - | - | - | - | - |

Table A-3
Town of Grand Valley
Water Service
Schedule of Growth Related Debenture Repayments
 Inflated \$

| Debenture Year | Principal (Inflated) | Forecast | | | | | | | | | |
|----------------------------------|----------------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| 2021 | 1,795,000 | | 221,307 | 221,307 | 221,307 | 221,307 | 221,307 | 221,307 | 221,307 | 221,307 | 221,307 |
| 2022 | - | | | - | - | - | - | - | - | - | - |
| 2023 | - | | | | - | - | - | - | - | - | - |
| 2024 | 55,571 | | | | | 6,851 | 6,851 | 6,851 | 6,851 | 6,851 | 6,851 |
| 2025 | - | | | | | | - | - | - | - | - |
| 2026 | - | | | | | | | - | - | - | - |
| 2027 | 4,206,000 | | | | | | | | 518,562 | 518,562 | 518,562 |
| 2028 | - | | | | | | | | | - | - |
| 2029 | - | | | | | | | | | | - |
| 2030 | - | | | | | | | | | | |
| Total Annual Debt Charges | 6,056,571 | - | 221,307 | 221,307 | 221,307 | 228,159 | 228,159 | 228,159 | 746,720 | 746,720 | 746,720 |



Table A-4
Town of Grand Valley
Water Service
Water Reserves/ Reserve Funds Continuity
 Inflated \$

| Description | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---------------------------------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|
| Opening Balance | 100,238 | 156,761 | 47,942 | 144,529 | 319,469 | 389,246 | 523,820 | 715,132 | 933,665 | 1,125,663 | 1,325,261 |
| Transfer from Operating | 166,082 | 184,385 | 202,752 | 279,676 | 273,918 | 257,302 | 275,290 | 293,225 | 310,927 | 328,612 | 346,002 |
| Transfer to Capital | 74,000 | 274,000 | 109,000 | 111,000 | 177,000 | 133,000 | 98,000 | 93,000 | 141,000 | 155,000 | 159,000 |
| Transfer to Operating | 38,633 | 20,143 | - | - | 34,774 | - | - | - | - | - | - |
| Transfer to/(from) Wastewater Reserve | - | - | - | - | - | - | - | - | - | - | - |
| Closing Balance | 153,687 | 47,002 | 141,695 | 313,205 | 381,614 | 513,549 | 701,110 | 915,357 | 1,103,591 | 1,299,275 | 1,512,263 |
| Interest | 3,074 | 940 | 2,834 | 6,264 | 7,632 | 10,271 | 14,022 | 18,307 | 22,072 | 25,986 | 30,245 |

Table A-5
Town of Grand Valley
Water Service
Water Development Charges Reserve Fund Continuity
 Inflated \$

| Description | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|--|----------------|----------------|----------------|----------------|----------|----------------|----------------|----------------|---------------|----------|----------|
| Opening Balance | 442,332 | 758,805 | 371,636 | 473,801 | 583,888 | - | 134,364 | 278,784 | 433,601 | 70,232 | - |
| Development Charge Proceeds | 326,044 | 332,544 | 339,182 | 345,946 | 352,848 | 359,888 | 367,112 | 374,474 | 381,974 | 389,600 | 397,364 |
| Interim Funding from Non-Rate Revenues | - | - | - | - | - | - | - | - | - | 286,889 | 349,356 |
| Transfer to Capital | 24,450 | 727,000 | 25,000 | 26,000 | 715,429 | - | - | - | - | - | - |
| Transfer to Operating | - | - | 221,307 | 221,307 | 221,307 | 228,159 | 228,159 | 228,159 | 746,720 | 746,720 | 746,720 |
| Closing Balance | 743,926 | 364,349 | 464,510 | 572,439 | - | 131,729 | 273,317 | 425,099 | 68,855 | - | - |
| Interest | 14,879 | 7,287 | 9,290 | 11,449 | - | 2,635 | 5,466 | 8,502 | 1,377 | - | - |
| Required from Development Charges | 24,450 | 2,522,000 | 25,000 | 26,000 | 771,000 | - | - | 4,206,000 | - | - | - |



**Table A-6
Town of Grand Valley
Water Services
Operating Budget Forecast
Inflated \$**

| Description | Actual 2019 | Forecast | | | | | | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | |
| Operating Expenditures | | | | | | | | | | | | | |
| <i>Water Delivery System</i> | | | | | | | | | | | | | |
| Materials/Supplies | 1,860 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 |
| Monitoring Program for Mun Wells | 9,709 | 9,900 | 10,100 | 10,300 | 10,500 | 10,700 | 10,900 | 11,100 | 11,300 | 11,500 | 11,700 | 11,900 | 11,900 |
| Repairs & Maintenance | 1,963 | 15,000 | 15,300 | 15,600 | 15,900 | 16,200 | 16,500 | 16,800 | 17,100 | 17,400 | 17,700 | 18,100 | 18,100 |
| Equipment Charges | 2,648 | 2,700 | 2,800 | 2,900 | 3,000 | 3,100 | 3,200 | 3,300 | 3,400 | 3,500 | 3,600 | 3,700 | 3,700 |
| Contracts | 62,655 | 66,400 | 70,400 | 74,600 | 79,100 | 83,800 | 88,800 | 94,100 | 99,700 | 105,700 | 112,000 | 118,700 | 118,700 |
| Water Meter Replacement | 145 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Minor Capital | 45,024 | 17,000 | 17,300 | 17,600 | 18,000 | 18,400 | 18,800 | 19,200 | 19,600 | 20,000 | 20,400 | 20,800 | 20,800 |
| <i>Water Treatment Plant</i> | | | | | | | | | | | | | |
| Materials/Supplies | 8,325 | 8,500 | 8,700 | 8,900 | 9,100 | 9,300 | 9,500 | 9,700 | 9,900 | 10,100 | 10,300 | 10,500 | 10,500 |
| Hydro | 24,791 | 25,300 | 25,800 | 26,300 | 26,800 | 27,300 | 27,800 | 28,400 | 29,000 | 29,600 | 30,200 | 30,800 | 30,800 |
| Telephone | 3,952 | 4,000 | 4,100 | 4,200 | 4,300 | 4,400 | 4,500 | 4,600 | 4,700 | 4,800 | 4,900 | 5,000 | 5,000 |
| Repairs & Maintenance | 2,826 | 2,900 | 3,000 | 3,100 | 3,200 | 3,300 | 3,400 | 3,500 | 3,600 | 3,700 | 3,800 | 3,900 | 3,900 |
| Contracts | 62,655 | 66,400 | 70,400 | 74,600 | 79,100 | 83,800 | 88,800 | 94,100 | 99,700 | 105,700 | 112,000 | 118,700 | 118,700 |
| Insurance | 10,183 | 10,400 | 10,600 | 10,800 | 11,000 | 11,200 | 11,400 | 11,600 | 11,800 | 12,000 | 12,200 | 12,400 | 12,400 |
| Levies-Taxes | 6,300 | 6,400 | 6,500 | 6,600 | 6,700 | 6,800 | 6,900 | 7,000 | 7,100 | 7,200 | 7,300 | 7,400 | 7,400 |
| Transfer to Wastewater | | 38,633 | 20,143 | | | | | | | | | | |
| New Tower and Pumphouse | | | 51,000 | 44,900 | 52,500 | 44,900 | 52,500 | 44,900 | 52,500 | 44,900 | 52,500 | 44,900 | 44,900 |
| Sub Total Operating | 243,036 | 275,533 | 267,143 | 257,500 | 268,700 | 280,300 | 292,500 | 305,400 | 318,900 | 333,200 | 348,100 | 363,900 | 363,900 |
| <i>Capital-Related</i> | | | | | | | | | | | | | |
| Existing Debt (Principal) - Growth Related | | | | | | | | | | | | | |
| Existing Debt (Interest) - Growth Related | | | | | | | | | | | | | |
| New Growth Related Debt (Principal) | | | - | 149,507 | 155,488 | 161,707 | 172,804 | 179,716 | 186,905 | 544,703 | 566,491 | 589,150 | 589,150 |
| New Growth Related Debt (Interest) | | | - | 71,800 | 65,820 | 59,600 | 55,355 | 48,443 | 41,254 | 202,018 | 180,230 | 157,570 | 157,570 |
| Existing Debt (Principal) - Non-Growth Related | | | | | | | | | | | | | |
| Existing Debt (Interest) - Non-Growth Related | | | | | | | | | | | | | |
| New Non-Growth Related Debt (Principal) | | | - | - | - | - | - | - | - | - | - | - | - |
| New Non-Growth Related Debt (Interest) | | | - | - | - | - | - | - | - | - | - | - | - |
| Transfer to Capital | | | | | | | | | | | | | |
| Interim Transfers to D.C. Reserve Fund | | | | | | | | | | | | 286,889 | 349,356 |
| Transfer to Capital Reserve | 144,530 | 166,082 | 184,385 | 202,752 | 279,676 | 273,918 | 257,302 | 275,290 | 293,225 | 310,927 | 328,612 | 346,002 | 346,002 |
| Sub Total Capital Related | 144,530 | 166,082 | 184,385 | 424,060 | 500,984 | 495,226 | 485,461 | 503,449 | 521,384 | 1,057,647 | 1,362,222 | 1,442,079 | 1,442,079 |
| Total Expenditures | 387,566 | 441,615 | 451,528 | 681,560 | 769,684 | 775,526 | 777,961 | 808,849 | 840,284 | 1,390,847 | 1,710,322 | 1,805,979 | 1,805,979 |
| Revenues | | | | | | | | | | | | | |
| Monthly Base Charge Revenues | 251,280 | 259,680 | 276,480 | 293,280 | 310,080 | 326,880 | 343,680 | 360,480 | 377,280 | 394,080 | 410,880 | 427,680 | 427,680 |
| Water Service Inspection Fees | 6,000 | 6,000 | 6,100 | 6,200 | 6,300 | 6,400 | 6,500 | 6,600 | 6,700 | 6,800 | 6,900 | 7,000 | 7,000 |
| Water Connection Permit Fees | 4,000 | 4,000 | 4,100 | 4,200 | 4,300 | 4,400 | 4,500 | 4,600 | 4,700 | 4,800 | 4,900 | 5,000 | 5,000 |
| Transfer from Wastewater | | | | | 58,776 | | | | | | | | |
| Transfer from Non-Rate Revenue (Interim Financing) | | | | | | | | | | | | 286,889 | 349,356 |
| Contributions from Development Charges Reserve Fund | - | - | - | 221,307 | 221,307 | 221,307 | 228,159 | 228,159 | 228,159 | 746,720 | 746,720 | 746,720 | 746,720 |
| Contributions from Reserves / Reserve Funds | - | 38,633 | 20,143 | - | - | 34,774 | - | - | - | - | - | - | - |
| Total Operating Revenue | 261,280 | 308,313 | 306,823 | 524,987 | 600,763 | 593,761 | 582,839 | 599,839 | 616,839 | 1,152,400 | 1,456,289 | 1,535,757 | 1,535,757 |
| Water Consumptive Billing Recovery | 126,286 | 133,302 | 144,705 | 156,572 | 168,920 | 181,765 | 195,122 | 209,010 | 223,445 | 238,447 | 254,032 | 270,222 | 270,222 |



Table A-7
Town of Grand Valley
Water Services
Water Rate Forecast
 Inflated \$

| Description | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Water Consumptive Billing Recovery | 126,286 | 133,302 | 144,705 | 156,572 | 168,920 | 181,765 | 195,122 | 209,010 | 223,445 | 238,447 | 254,032 | 270,222 |
| Total Water Consumption (m ³) | 154,623 | 159,872 | 170,370 | 180,868 | 191,366 | 201,864 | 212,363 | 222,861 | 233,359 | 243,857 | 254,355 | 264,853 |
| <i>Water Consumption Forecast By Block (m³)</i> | | | | | | | | | | | | |
| Block 1 Consumption (up to 15m ³ /month) | 103,030 | 108,279 | 118,778 | 129,276 | 139,774 | 150,272 | 160,770 | 171,268 | 181,766 | 192,265 | 202,763 | 213,261 |
| Block 2 Consumption (over 15m ³ /month) | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 | 51,592 |
| Total Consumption (m³) | 154,623 | 159,872 | 170,370 | 180,868 | 191,366 | 201,864 | 212,363 | 222,861 | 233,359 | 243,857 | 254,355 | 264,853 |
| <i>Increasing Block Rates (\$/m³)</i> | | | | | | | | | | | | |
| Block 1 (up to 15m³/month) | 0.75 | 0.77 | 0.79 | 0.80 | 0.82 | 0.84 | 0.86 | 0.88 | 0.90 | 0.93 | 0.95 | 0.97 |
| Block 2 (over 15m³/month) | 0.95 | 0.97 | 1.00 | 1.02 | 1.04 | 1.07 | 1.09 | 1.12 | 1.15 | 1.17 | 1.20 | 1.23 |
| Check Revenue | | | | | | | | | | | | |
| Block 1 | 77,273 | 83,130 | 93,346 | 103,999 | 115,104 | 126,676 | 138,731 | 151,285 | 164,355 | 177,959 | 192,114 | 206,839 |
| Block 2 | 49,013 | 50,172 | 51,358 | 52,573 | 53,816 | 55,089 | 56,392 | 57,725 | 59,090 | 60,488 | 61,918 | 63,383 |
| Check Total Revenue | 126,286 | 133,302 | 144,705 | 156,572 | 168,920 | 181,765 | 195,122 | 209,010 | 223,445 | 238,447 | 254,032 | 270,222 |