

**TOWN OF SAUGEEN SHORES**

# **WASTEWATER SYSTEM FINANCIAL PLAN**

**TOWN OF SAUGEEN SHORES**

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## GLOSSARY OF TERMS

**Amortization** – the rational and systematic allocation of the historical costs of a tangible capital asset over its useful life. The action or process of gradually writing off the initial cost of an asset.

**Accumulated Amortization** – the total amortization for a tangible capital asset from the time that asset was placed into service until date of the financial statement.

**Equity in Tangible Capital Assets** – the net book value of recorded tangible capital assets less capital debt.

**Expenditure** – an outlay of cash

**Expense** – a cash or non-cash cost (e.g., wages, material, amortization).

**Financial Assets** – current cash resources plus any investments or holdings that are expected to be converted into cash in the future.

**Financial Information Return (FIR)** - a standard set of year-end reports which capture financial and statistical information for each Municipality in the Province.

**Net Book Value** - the total cost of a tangible capital asset minus the accumulated amortization and any write-down of the asset.

**Non - Financial Assets (Debt)** – an amount equal to the total financial assets less the total liabilities.

**PSAB 3150** – an accounting requirement from the Public Sector Accounting Board (PSAB) that for fiscal years on or after January 1, 2009 require Municipalities to start capitalizing their tangible capital assets (TCA) and to allocate their costs to future accounting periods through annual amortization expenses.

**Tangible Capital Assets** – non-financial assets having a physical form that have an economic and service life beyond the accounting period and are not for sale in the ordinary course of operations.

# 1. INTRODUCTION

## 1.1 OBJECTIVES

Cobide Engineering Inc. (Cobide) was retained by the Town of Saugeen Shores (TSS) to prepare a Wastewater Financial Plan to complement the existing Water Works Financial Plan prepared by B.M Ross dated January 15, 2016, in accordance with the Safe Drinking Water Act, 2002.

Although wastewater financial plans are not regulated, at this time, the Town is continuing a best practice to complete the Wastewater Financial Plan as per the provincial mandate of Financial Plans Regulations O. Reg. 453/07.

A financial plan is a summary and analysis of various operating and capital expenditures and revenues for a set time period to assist the Town in the understanding of the requirements to operate and maintain a reliable and sustainable public service.

## 1.2 BACKGROUND

The Safe Drinking Water Act (SDWA) was passed in December 2002 as an outcome of some of the recommendations of Justice O’Conner’s Part II Walkerton Inquiry Report (2000).

One of the requirements of the Safe Drinking Water Act O. Reg. 453/07 is the creation of a long-term financial plan for water systems. The obvious reason for creating a financial plan is to make sure that the system is financially sustainable now but more importantly in the future.

The water & wastewater systems are similar rate-based systems that benefit in long term planning to ensure that current and future users of the system have a secure financially sustainable system.

It is to the Town’s benefit to prepare both plans simultaneously as likely wastewater regulations will require financial plans in the near future.

## 1.3 STUDY AREA

The Town of Saugeen Shores is on the shoreline of Lake Huron comprising of the amalgamated Municipalities of Southampton, Port Elgin and Saugeen Township. According to the 2016 Canada Census the population is 13,715 with approximately 6,500 connections connected to the two Municipal wastewater systems.

## 1.4 WASTEWATER SYSTEMS

The Town is serviced by two separate wastewater systems, comprising of the Port Elgin Wastewater System and the Southampton Wastewater System.

The Port Elgin Wastewater System comprises of the following:

1. An extended aeration WWTP in the northeast section of the former Town of Port Elgin. The WWTP consist of an inlet works building, two aeration tanks, four secondary clarifiers, digestion facilities, biosolids storage and UV system.
2. Five sewage pump stations, (100% of waste is pumped).

3. Effluent is discharged to Mill Creek.

The Southampton Wastewater System comprises of the following:

1. An extended aeration activated sludge WWTP in the northwest section of the former Town of Southampton The WWTP consist of two oxidation ditches, two final clarifiers, sludge digestion, sludge storage and UV system.
2. Five sewage pump stations, (100% of waste is pumped).
3. Effluent is discharged to the Saugeen River.

The two wastewater systems are comprised of the following:

1. 115 kilometres of sanitary sewer main
2. 15 kilometres of sanitary forcemain
3. 1,423 sanitary sewer manholes
4. 6,484 sanitary sewer services

## 2. PROVINCIAL REQUIREMENTS

### 2.1 REGULATORY REQUIREMENTS

A key requirement of the Safe Drinking Water Act O. Reg. 453/07 is the creation of a long term financial plan for water systems. The obvious reason for creating a financial plan is to make sure that the system is financially sustainable now but more importantly in the future.

Financial Plan key requirements as defined in O. Reg. 453/07 stipulate that financial plans must:

- Apply for a period of at least six years.
- Include details regarding the financial position of the system, including changes in tangible capital assets that are additions, donations, write downs and disposals.
- Included details of the projected financial operations of the system.
- Contain the projected cash receipts and gross cash payments of the system.

### 2.2 REQUIRED FINANCIAL STATEMENTS

In order to comply with requirements as defined in O. Reg. 453/07 the financial plans contain

<b>Statement of Financial Position</b>	<ul style="list-style-type: none"><li>• Assets – what the Municipality owns or controls</li><li>• Liabilities – what the Municipality owes</li><li>• Net financial assets/net debt – liabilities minus financial assets</li></ul>
<b>Statement of Operations</b>	<ul style="list-style-type: none"><li>• Revenues</li><li>• Operating Expenses, including transfers and debt interest</li><li>• Amortization of tangible capital assets</li></ul>
<b>Statement of Cash Flows</b>	<ul style="list-style-type: none"><li>• Operating Transactions</li><li>• Capital Transactions</li><li>• Financing Transactions</li></ul>

Refer to Section 9 Wastewater Financial Plan for additional information on the Town’s financial statements.

### 2.3 SUSTAINABLE FINANCIAL PLANNING

In order to assist Municipalities with the preparation of financial plans required under the SDWA, the former Ministry of the Environment (MOE) now Ministry of Environment Conservation and Parks (MECP) released a document entitled Toward Financially Sustainable Drinking-Water and Wastewater Systems (the “Ministry Document”) that outlines suggested principles of financial

sustainability for water and wastewater systems as well as possible approaches to implementing these principles.

The MOE, Principles of Financially Sustainable Water and Wastewater Services are provided below:

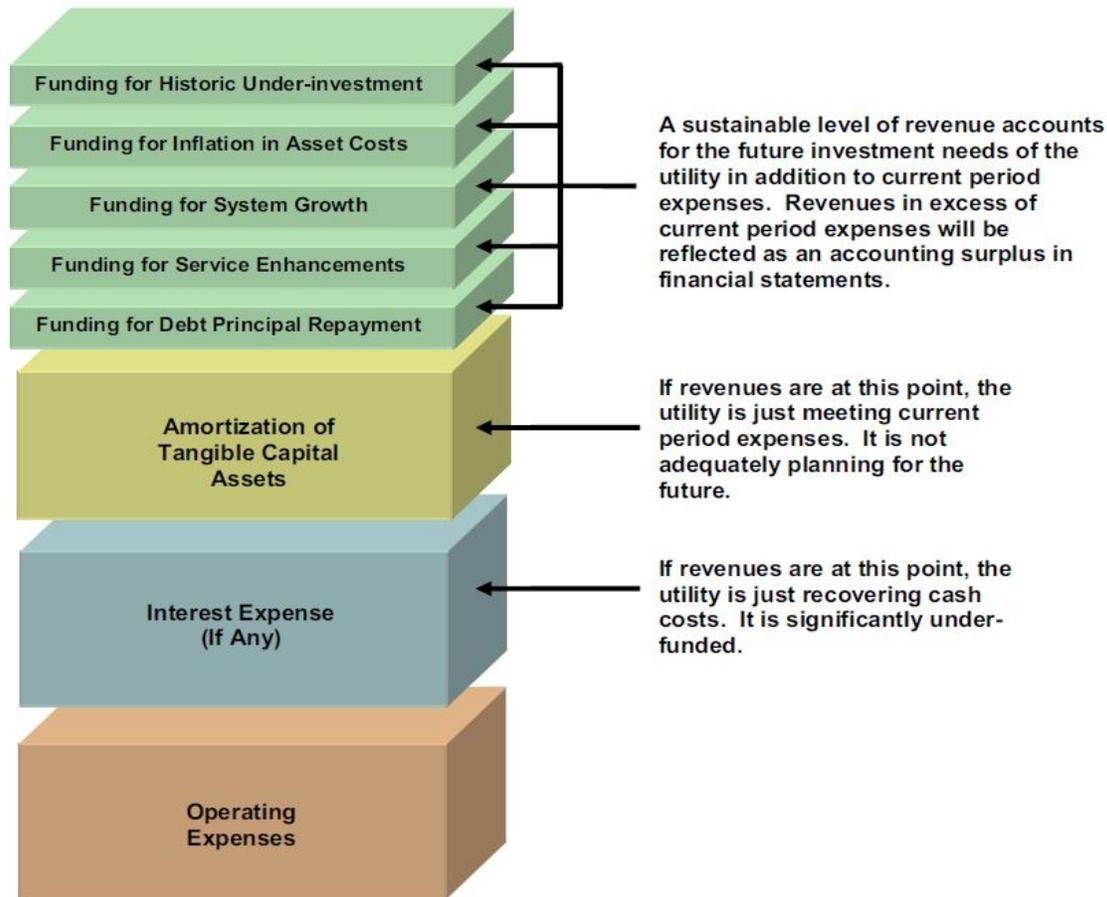
<b>Principle #1</b>	Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.
<b>Principle #2</b>	An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.
<b>Principle #3</b>	Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.
<b>Principle #4</b>	Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.
<b>Principle #5</b>	An asset management plan is a key input to the development of a financial plan.
<b>Principle #6</b>	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.
<b>Principle #7</b>	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.
<b>Principle #8</b>	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.
<b>Principle #9</b>	Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff and Municipal council.

The key reason for creating a financial plan is to make sure that the system is financially and environmentally sustainable in the present day and more importantly in the future.

Generational equity is a guiding principle for financing decisions, the concept of generational equity for Municipal capital works intended to equitably distribute the costs across present and future ratepayers (User-Pay System).

It is understood that in the Municipal environment that there is a multitude immediate financial pressures spread over the numerous Municipal services provided and increasing pressure to do more with less that long term planning may not be a top priority. As a best practice, long-term planning is a proven strategy to understand and deal with a magnitude of fiscal challenges to assist the Municipality in providing a high quality, reliable and sustainable system.

**Figure 1-1 – A Building-block Approach to Determining Utility Needs**



## 2.4 ASSET MANAGEMENT PLAN

(Excerpts from the Town of Saugeen Shores Asset Management Plan (2012))

### 2.4.1 Preamble

In order to make informed decisions about the allocation of resources, infrastructure asset managers, financial managers, politicians and ultimately, the customer, all need useful information. Asset management is a resource allocation tool that provides the information Municipalities need to make decisions on how they will build, operate, maintain, renew and replace an asset over the asset's useful life. Asset management plans identify the technical and financial needs of Municipal infrastructure and provide information well in advance of a major asset renewal or replacement. This enables a Municipality to plan for major projects, should other factors (financial, political etc.) cooperate.

The need for such a management plan can be evidenced by the critical role that infrastructure plays in a Municipality. A Municipality's health can be measured by the quality of its infrastructure, which in turn promotes economic development, ensures citizen's safety and provides a higher quality of life for its society.

“Meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.” (National Guide to Sustainable Municipal Infrastructure)

## 2.4.2 Implementation

The asset management program described in the document is based on the unique requirements and service delivery principles of the Town of Saugeen Shores. With existing time and staff restraints, it appeared that implementing a “just do it” philosophy was the most prudent way to construct an asset management plan. As a result, this plan is rooted in the current expertise of the Municipal engineering and public works departments and presents a more systematic method for operating infrastructure projects within the Municipality. This asset management plan is firmly rooted in common sense, industry best methods, good business practices and most importantly, what “works” in this Municipality.

## 2.4.3 Asset Management Mandate

To preserve Municipal assets for use by present and future generations, and to demonstrate to the public, in a clear and transparent manner, the rationale for selecting projects with the most efficient use of investment dollars through the life cycle of an asset that is in the best interests of the community.

## 2.4.4 The Characteristics of an Asset Management Plan

### ***What is Asset Management?***

- A comprehensive framework that includes the planning, design, construction, operation and maintenance of infrastructure used to provide cost-effective service.
- It is not a project; it is a never-ending process that will continually be refined and expanded.
- A strategy to help allocate available funds and resources amongst the competing needs of assets.
- Supports justification for funding new and existing infrastructure assets.
- Enables trade-off analysis and decisions, using a full life cycle approach.

*Ultimately, Asset Management is providing the **right information to make the right infrastructure investment in the right place at the right time.***

### ***What are the key principles?***

- To effectively manage and optimize infrastructure assets today and into the future across the entire Municipality.
- Maximize capital investment decision making process to assist the Town in maximizing the life cycle of our infrastructure networks to ensure a high quality of life for all users.
- Will enable the Town to provide stakeholders who are increasingly demanding with increased transparency, a consistent, qualitative and a quantitative approach of how assets are being managed through their life cycle in an integrated manner.

- A business case involving investment choices that are policy driven with tradeoffs among competing priorities.
- A comprehensive long-term view of infrastructure performance and cost.
- A strategic and proactive integrated approach that places a premium on data, information, collaboration and interdisciplinary management.
- If an asset is not affordable (properly funded), it is not sustainable. If it is not sustainable, the service that the asset provides eventually will be lost or fall to an unacceptable level.

#### ***Why is Asset Management important?***

- Infrastructure is the largest and most valuable asset for our Municipality, and it is getting older.
- Increasingly stringent compliance factors such as health & safety and environmental standards are challenging the level of service at current funding levels.
- Decreasing funding from the senior levels of government.
- Citizens expect their Municipality to responsibly manage their public assets in a transparent process.
- Provide imperial data to balance public expectations against budget realities.
- The Town can be proactive rather than reactive in maintaining the assets.

#### **2.4.5 An Integrated Approach to Asset Management and Evaluation**

A systematic and proactive method should be used to plan the renewal of Municipal roads, sewers, watermains and other related infrastructure in an integrated manner. The inventory, investigation, condition assessment and performance evaluation were completed independently for the various assets. Considering the proximity of all other assets in the Municipal environment, significant efficiencies can be achieved taking into consideration coordination of other works over the life cycle of all assets.

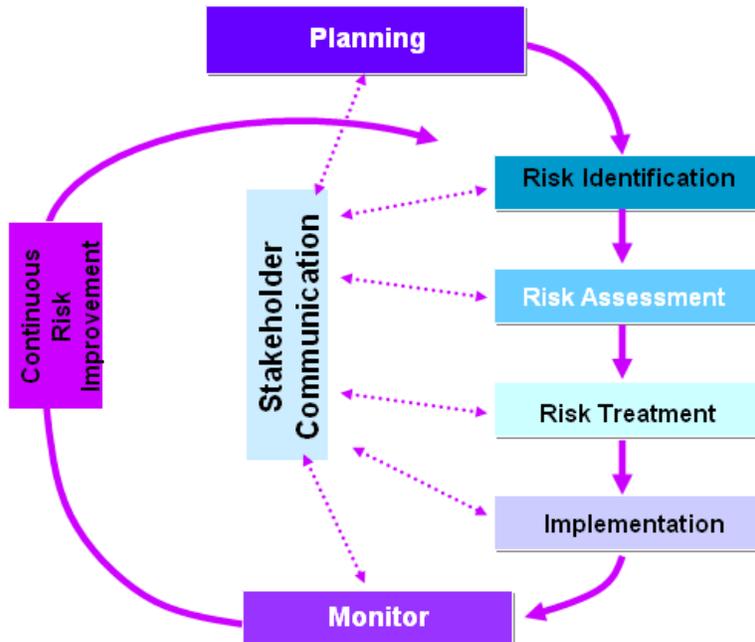
The integration refers to the infrastructure that shares a common location within the utility corridor such as roads, curbs, gutters, streetlights and sewer and water systems. These different asset types all deteriorate at different rates and all have different priorities and timing for maintenance, renewal and replacement.

#### ***Risk Management***

Risk can be defined as the possibility that an event may adversely affect the day to day operations in a Municipality. Risk management is a term used to describe the process of analyzing, organizing, planning, directing, and controlling the resources of an organization in order to minimize the potential effects of risk.

Risk assessment has been added to identify the cumulative risk associated with the current rate of funding for the Town's assets. As stated, the continual increasing of the infrastructure gap will increase the risk to the Municipality.

## The Risk Management Process



One of the purposes for identifying critical assets is to allow staff and Council to make more informed decisions regarding the use of its operation and maintenance dollars. As discussed previously, the most critical assets are those assets that are likely to fail and have a significant consequence if they do fail. Therefore, it is most advantageous to the Municipality to spend the greatest portion of its available funds on these assets.

Risk management is, by nature, proactive, and encompasses all management-directed activities aimed at accomplishing optimum results in a professional manner. Understanding the consequences of an asset failing is critical to determining its replacement priority.

To meet these goals, the asset management planning effort focused on performance and condition assessment of all assets. Each linear asset was assessed individually to develop an overall risk-based rating for the renewal/replacement which considers the likelihood and consequence of failure. This provides staff and Council with a holistic long-term look at the health and sustainability of the assets.

Not all assets are equally important to the Municipality's operation; some assets are highly critical to operations and others are not critical at all. Furthermore, critical assets are completely system-specific. Certain assets or types of assets may be critical in one location but not critical in another.

### Benefits of Risk Management

- Protection of public funds
- Reduced costs

- Increased productivity
- Reduced uncertainty
- More effective management
- Improves strategic decisions that minimizes negative consequences
- Dialogue/communications of the degree and type of risk that the Municipality is willing to accept

### **Risk Rating Factors**

- Event likelihood
- Time to Impact
- Financial Severity
- Injury Severity
- Reputational Impact Severity

## **2.5 INFRASTRUCTURE DEFICIT**

The Municipal infrastructure deficit refers to:

- *the unfunded investments required to maintain and upgrade existing, Municipally owned infrastructure assets*
- *the funding needed over and above current and projected levels to bring existing facilities to a minimum acceptable level for operation over their service life, through maintenance, rehabilitation, repairs and replacement*

As a result of the massive shift in financial responsibilities during the past 20 years, Municipalities have had to increase taxes/rates year after year, reduce services in the community, and defer infrastructure rehabilitation to later in its life-cycle.

Saugeen Shores Council and staff has taken positive steps to reduce the upward trend of the Municipal infrastructure deficit by allocating appropriate finances. However, this deficit continues to grow and compound as maintenance is delayed, assets reach the end of their service life, and the magnitude of the repairs and replacement costs will skyrocket.

The main concern with this aging infrastructure is that deterioration accelerates with age. The longer investments in Municipal infrastructure are put off, the higher exposure to the risk and higher operating costs and eventual capital costs.

As staff investigates and analyzes the Town's existing infrastructure, it becomes apparent that the primarily buried, somewhat forgotten underground infrastructure which the public takes for granted, is under-funded.

### 2.5.1 Existing Infrastructure Deficit

Due to Council's proactive measures, the Town of Saugeen Shores is not in a crisis situation; however, given the growing body of evidence that the Municipal infrastructure is under-funded, if the problem is ignored it will simply overtake the Municipality.

### 2.5.2 What is the Deferred Investment Backlog?

The deferred investment backlog continues to grow and compound as assets reach the end of their service life, replacement capital investment is underfunded, and delayed maintenance activities accelerates the deterioration of the assets which results in a considerable reduction in the service life of that asset.

To ignore all available evidence and continue on the current funding model will have dire consequences as the accumulated backlog will simply overwhelm the Council and staff as assets start to fail at increased frequency.

The goal is not to shock stewards/stakeholders with a massive dollar figure; the goal is to provide information on this negative trend and to facilitate a discussion on solutions to deal with the Municipal infrastructure long range funding challenges.

### 2.5.3 A Summary of Key Discussions for the Infrastructure Deficit

- Current inventory of Municipal infrastructure is deteriorating slowly since, without doubt, nothing is immortal.
- Deterioration will accelerate with age and will become increasingly noticeable.
- Deterioration will impact the health and level of service, quality of life and, in some cases, the environment.
- Deterioration of the assets will increase the operational budgets by the frequent maintenance activities required to maintain the current level of service.
- The right investment at the right time, based on sustainability, can reduce the life cycle cost significantly for the Municipality.
- Deterioration of the assets will increase the Municipalities exposure to risk.
- Deferral of essential investment in critical infrastructure will led to disaster.

### 3. CHALLENGES / RISKS

The following summarizes the key challenges and risks considered in preparation of this financial plan:

#### 3.1 INCREASING OPERATING COSTS

The costs of operations are increasing at a pace faster than inflation due to reasons beyond the control of the Municipality. In particular the utility costs of a 24/7 operation and impacts of low Canadian dollar and decreasing contractor/sub-contractor work force. Various assumptions have been made to reflect the negative impacts of increasing costs to the Municipal operations.

#### 3.2 ASSET RENEWAL/REPLACEMENT

The cost of replacement of assets is also increasing at a pace faster than inflation due to reasons beyond the control of the Municipality. In particular the fuel costs of a 24/7 operation, impacts of low Canadian dollar on equipment & materials, decreasing number of contractor/sub-contractors and high profit margins due to robust economy.

From the GIS/Asset Management Plan, Town staff have identified \$7.46 million in linear wastewater assets that have a condition rating of Poor or Very Poor that are not included in the proposed Long Range 2016 to 2026 Capital Plan.

#### 3.3 ACCEPTABLE RISK

Finding an acceptable balance of risk and affordability in the operation of the wastewater system is always a challenge, however in periods of steep escalation in costs combined with *diminishing returns* with the dollars spend, it is a recipe for increased risk. The various inflation assumptions will assist in offsetting the *diminishing returns* however in areas of high inflation in the O&M of the wastewater system the risk factor will increase.

#### 3.4 REVENUE CHALLENGES RELATED TO REDUCED CONSUMPTION

Potable water production and water billing has been relatively flat lined or reducing for the past 7 years while the population has been increasing. In Saugeen Shores an average of 80 new house builds occur per year for a total of 560 new dwellings connecting to the Municipal water and wastewater system in that span. This reduction in water consumption is common trend in Municipalities partly due to the positive impact of water conservation programs, improvement and acceptance of water efficient fixtures and the increasing user fees for the service. While this is good news for water conservation as it may aid in a reduction in future capital expenditures the resulting revenue reduction can place increased pressure for a rate increase.

The only occurrences where the water consumption from 2012 to 2018 has remained high is the during the periodical peak water demand event during a period of drought combined with high temperature and high humidity.

Consumption per residential connection continues to decline despite growth. Since the Town bills for wastewater using the water metered reads the two Financial Plans show similar trends as both are bound by the same revenue stream which is driven by consumption.

### 3.5 IMPACTS OF CLIMATE CHANGE

The nature, severity and frequency of future climate events will challenge Municipalities to account for and minimize the impact on the Municipal infrastructure. These changes will impact the wide range of Municipal assets in different manner depending on the unique characteristics of that particular asset.

The existing infrastructure was engineered and constructed with a set of design principles and standards at that time, climate change will expose those assets to conditions and an environment that was not envisioned by the stakeholders that may result in shorter life cycle for those asserts and a greater risk exposure to the Municipality.

The key climate change impact, at this time, on the wastewater system is more precipitation in a shorter duration that causes localized ponding and flooding that overflow to the streets and some of that precipitation flows/enters into the wastewater collection system resulting in high flows at the wastewater treatment plant that requires treatment and disposal.

These downpours result in the same volume of water that would have fallen in 24 hours period that would have had time to percolate into the ground, now these rainfall events fall in a very short period that can cause minor or major flooding.

If one of these intense rainfall events occur during the springtime thaw of snow that additional flow can overwhelm the capacity of the wastewater treatment plant resulting in untreated waste overflowing into the environment.

The Town of Saugeen Shores is fortunate that there are no “*common sewers*” where sanitary and storm water flow into the same sewers.

The data from the Municipal wastewater treatment plants indicate that inflow and infiltration (I&I) is occurring when compared to production and distribution volumes and shows distinct increases during extreme precipitation events. Inflow is stormwater (clear water) that enters the sanitary sewer system at direct connections. Infiltration is ground water that enters the sanitary sewer system from cracks, joints and leaks in the sanitary sewer piping and manholes

This I&I contributes to the needless and costly treatment of this “*clear water*” at the wastewater treatment plant.

One of the main inflow sources are illegally connected sump pumps that dump “*clear water*” into the sanitary sewer system in areas of the Municipality with a high-water table.

This environmental impact is not accounted for in the volumetric rate structure and the intensity and duration of these rainfall events are expected to increase as the earth’s climate changes.

## 4. APPROACH

As the forward-thinking stewards of the Municipal wastewater system, the Town of Saugeen Shores is continuing to complete the Wastewater Financial Plan as per the provincial mandate of Financial Plans Regulations O. Reg. 453/07. The completion and content of the Wastewater Financial Plan is not regulated however in the past the Town has chosen to complete a similar plan for the wastewater system to ensure transparency and sustainability of this critical system.

The Financial Plan is not a rate increase, it is a study/examination to determine the total revenue required to fund the wastewater system. However, based on the needs of the system and the findings of the study on the revenue stream, rate adjustments may be recommended to Council to meet the level of service to the users. The required total revenue maybe lowered by:

- Development Charges Act
- Municipal Act
  - Fees and Charges
  - Local Improvements
- Grant funding
- Reserves/Reserves Funds
- Debenture Financing

The Financial Plan is not binding on council to fund any particular project. It is to develop a long range plan to ensure sufficient resources for future rehabilitation and replacement needs are available when needed.

The financial plan will follow the principles and guidelines of the Safe Water Drinking Act (SWDA), applicable requirements of Ontario Regulation 453/07, Sustainable Water and Sewage System Act (SWSSA), Public Sector Accounting Board standards (PSAB 3150) for Tangible Capital Assets (TCA) and the MOECC “Principles of Financially Sustainable Water and Wastewater Services.”

Cobide assisted Town staff in preparation and compiling of the background data during the process there were multiple long-range capital plans developed and funding scenarios advanced to support those plans

The presented Financial Plan is a flexible Saugeen Shores-driven approach to financial sustainability by forecasting stable funding to ensure a positive financial position and an adequate reserve fund in the year 2024 for a sustainable water system.

## 5. KEY FINANCIAL PLAN ASSUMPTIONS

### 5.1 BACKGROUND INFORMATION

The period for this Plan is from 2019 to 2023 with some assumptions being made to forecast beyond the plan period to ensure a long-term approach to revenue sources. Years beyond 2023 will not be discussed in this plan though. Various assumptions have been incorporated into the plan to reflect the various fiscal and service pressures on individual wastewater components. These assumptions were based on discussions with and/or direction from Town staff including anticipated inflation rates, annual growth rates, contract services, regulatory requirements and other assumptions.

### 5.2 WATER CONSUMPTION

Annual water consumption since 2012 has remained relatively flat lined even with the robust residential and commercial development the Town is experiencing.

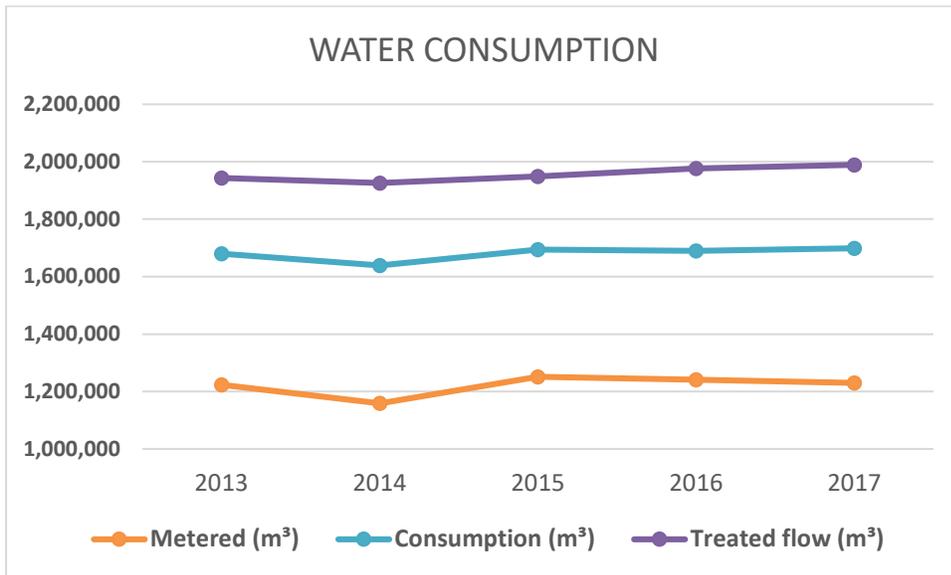
Example 1 of growth, using single residential building data from the annual Financial Information Return (FIR,) since 2012 to 2018, 511 new single residential buildings have been constructed and connected to the Municipal water system & sewer systems. An additional 49 buildings have been connected to water only.

Example 2 of growth, using water and wastewater billing accounts, based on residential, commercial and for non-residential Equivalent Household Unit Meters.

Based on the account growth, 1,925 customers have been added to the water system and 1,158 customers have been added to the wastewater system based on equivalent household units (EHU).

Year	Number of Water Customers <sup>2</sup>	Number of Wastewater Customers <sup>2</sup>
2012	7,651	6,620
2018	9,576	7,778
Growth	1,925	1,158

Despite the strong growth pattern, the trend of overall water consumption is expected to remain level or a minor increase for this study period. Yearly analysis of the annual water consumption and wastewater treatment volumes versus growth is recommended, to identify long-term trends and possible sources of uncollected revenue.



### 5.3 INFLATION

The inflation rate assumptions used in this plan were derived from annual wastewater operating general ledgers, market-based trends and recent prices from invoices, tenders, and request for proposals.

The inflation rate assumptions are presented in the table below:

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
General	2%	2%	2%	2%	2%	2%
Salary	2%	2%	2%	2%	2%	2%
Benefits	3%	3%	3%	3%	3%	3%
Electricity	2%	2%	2%	6.5%	6.5%	6.5%
Fuel	2%	4%	4%	4%	4%	4%
Materials	5%	5%	5%	5%	5%	5%
Service Contract	5%	5%	5%	5%	5%	5%

## 5.4 GROWTH RELATED CAPITAL EXPENDITURES

It is assumed that growth related infrastructure costs will be funded thru the Development Charges Act and that the Municipality will continue with that funding model whereas *growth pays for growth*. The applicable non-eligible cost of growth as directed by the Development Charges Act is accounted for in the yearly capital plans.

## 5.5 PROJECTED ACCOUNT GROWTH

It is evident from the Hemson Memorandum -*Updated Development Residential and Non-Residential Forecast* dated May 29, 2018 and the pace of growth and development recently experienced in Saugeen Shores, the growth rate from the Town's 2016 Development Charges Background Study of 1.5% -1.6% per year is understated.



Based on the Town's current growth rate, the Hemson Memorandum and the known development applications from the Town's 2017 *Year End Development Services' Report* this Financial Plan will use a the year end 2017 of 6500 wastewater accounts as a user base and yearly growth of 185 new building starts that equates to a growth of 3% yearly.

Building starts is a more relevant predictor of wastewater flows than population growth, if the growth of 185 new residential building is equated back to population growth it would be 422 new persons yearly.

## 5.6 RESERVE FUND

The Town does not have a written policy for a Wastewater Reserve Fund. The Town since amalgamation has a historical practise of attempting to have an average of \$900,000 to \$1,000,000 in a wastewater reserve fund at the end of each year.

The Reserve Funds are established by Council to assist with long term financial stability and financial planning. They are a key element of the Municipality's long-term financial goal to maintain a sustainable wastewater system.

By maintaining adequate reserves for specific purposes, the Town can accumulate funds for a wide variety of unanticipated circumstances such as unexpected shifts in revenues and expenditures, fund major infrastructure projects, deal with asset failures or natural disasters.

## 5.7 LEVEL OF SERVICE AND/OR REGULATORY CHANGES

Any additional costs of Municipal driven Level of Service change or regulatory changes have not been accounted for in this plan.

## 5.8 WRITE-OFF OF ASSET VALUE

The rehabilitation or replacement projects may result in some write-off of asset value; this is assumed to be minor as it is anticipated the assets are at their respective "end of life" and has not been incorporated into the tangible asset valuation.

## **5.9 DEVELOPMENT CHARGES**

Development Charges Bylaw since 2007, has been a fundamental funding tool that in essence “Growth should pay for growth.”

Development Charges are meant to help offset the infrastructure costs of improvements to facilitate growth in a fair and equitable system for all stakeholders.

The use of Development Charges combined with available rate based water/wastewater funds has permitted the Municipal system to grow in a financially stable manner.

## **5.10 SOUTHAMPTON WPCP ENVIRONMENTAL ASSESSMENT**

The Town of Saugeen Shores (Town) has hired the Ainley Group – Consulting Engineers to complete a Municipal Class Environmental Assessment (Class EA) Schedule C for a planned expansion/upgrade of the Southampton Water Pollution Control Plant (WPCP).

The Town is planning to assess the capacity of the existing Southampton WPCP and define the preferred alternatives for increasing treatment capacity to meet the future growth to the year 2048 (30 years).

The Town is planning to complete the Class EA by early 2020.

## 6. REVENUES

Revenues are primarily from billings from metered consumption of water and fixed capital charge based on property type/meter size.

The metered charge is user pay for the operating cost of the treatment facilities and the distribution and collection system through their consumption charge.

The monthly fixed capital charge (Capital Contribution) is designed to pay for capital improvements/replacements of assets including debt and reserves funds to sustain the user pay Municipal system.

Wastewater (sewer) charges are based on metered consumption of water and a fixed capital charge based on the financial requirements of the wastewater system.

### **Town of Saugeen Shores Rate Structure (from Town's Website)**

*Our Water Financial Plan and Sewer Financial Plan set out projected annual utility rate increases. This is to help operate, maintain and upgrade the water and sewer system over a 15-year period.*

*Our water and sewer rate structure ensures that the monthly fixed charge will pay for the debt, capital, reserve and major upgrades needed for our water and sewer treatment, collection and distribution system.*

*It ensures that all users are contributing to these infrastructure costs through their consumption charge.*

*Revenue collected through water rates pay for water services. Revenue collected through sewer rates pay for sewer services.*

*The rate structure takes into consideration the diverse make-up of our community. Around 30% of Saugeen Shores residential properties are seasonal.*

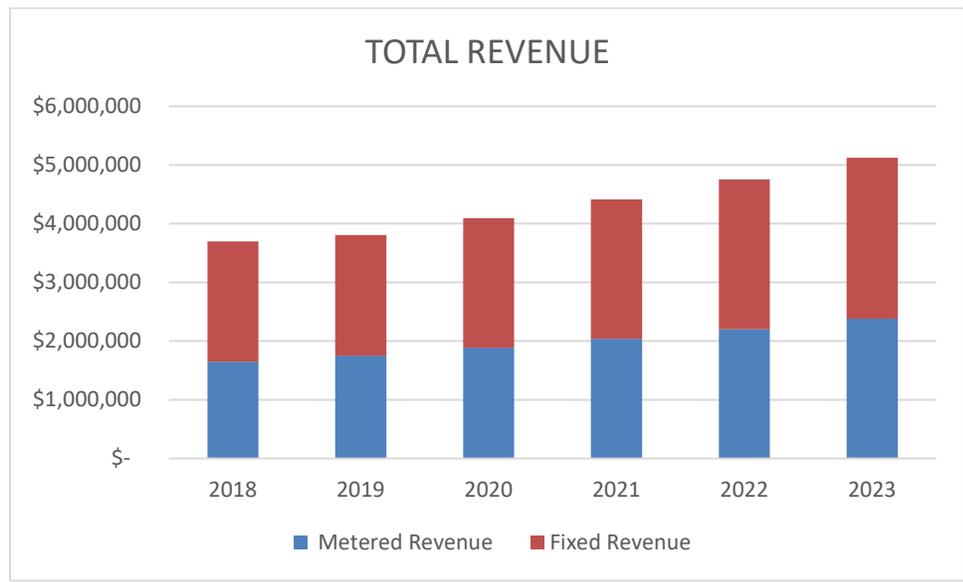
*We want to ensure all property owners, regardless of residency status, are contributing fairly to the fixed costs of delivering water and collecting waste. Treatment plants, pumping stations, and the distribution and collection system are available to all residents, year-round.*

The Water & Sewer Rate Structure is reviewed and adjusted, if required on an annual basis via the Water and Wastewater Fees and Charge.

2019 Wastewater Financial Plan

Town of Saugeen Shores

		2018	2019	2020	2021	2022	2023
<b>PROJECTED FINANCIAL OPERATIONS</b>							
<b>REVENUE</b>							
01-5410-3000	Recoveries	-	-	-	-	-	-
01-5410-3105	Metered-Bulk Sales	3,000	3,240	3,564	4,027	4,551	5,142
01-5410-3110	Metered-Residential	1,099,982	1,187,981	1,306,779	1,476,660	1,668,626	1,885,547
01-5410-3115	Metered-Commercial	443,749	479,249	527,174	595,706	673,148	760,658
01-5410-3120	Service charges-Commercial	291,012	314,293	345,722	390,666	441,453	498,842
01-5410-3125	Service charges-Residential	1,495,225	1,614,843	1,776,327	2,007,250	2,268,192	2,563,057
01-5410-3150	Installation charges	5,300	5,724	6,296	7,115	8,040	9,085
01-5410-9320	Transfers from Sewer Reserve	100,000	108,000	118,800	134,244	151,696	171,416
01-5410-9400	Sewer-DC Res Fund (Debt Repay)	147,432	147,432	147,432	147,432	147,432	147,432
01-5410-9410	DC Reserve fund transfer	-	-	-	-	-	-
<b>Total REVENUE</b>		<b>3,585,700</b>	<b>3,860,761</b>	<b>4,232,094</b>	<b>4,763,100</b>	<b>5,363,137</b>	<b>6,041,179</b>



The Water & Sewer Rate Structure is adjusted on an annual basis via the Water and Wastewater Fees and Charges as illustrated in table below.

## Water and Wastewater 2019 Fees and Charges

Effective April 1, 2019

Rate Structure			
Property Type or Meter Type	Equivalent Household Unit (EHU) Factor applied per Unit	Bi-Monthly Fixed Water Capital Contribution	Bi-Monthly Fixed Sewer Capital Contribution
Single Family Residential, Semi Detached & Condominium Units	1	41.80	46.96
Multi-family Residential	0.5	20.90	23.48
Campground Sites - per site	0.3	12.54	14.08
Motel Rooms - per room	0.2	8.36	9.39
Cabins and Cottage Courts - per cabin or cottage - 3 or more units	0.4	16.72	18.78
Cabins and Cottage Courts - minimum charge - 2 or fewer units	N/A	41.80	46.96
Retirement Lodges/Nursing Homes - per room	0.2	8.36	9.40
1" Meter Fixed Capital Contribution	N/A	66.88	75.14
1.5" Meter Fixed Capital Contribution	N/A	100.32	112.70
2" Meter Fixed Capital Contribution	N/A	133.78	150.26
3" Meter Fixed Capital Contribution	N/A	200.66	225.40
4" Meter Fixed Capital Contribution	N/A	267.54	300.54
6" Meter Fixed Capital Contribution	N/A	401.32	450.80

- Water – volumetric rate: \$0.94 per m<sup>3</sup>
- Sewer – volumetric rate: \$1.70 per m<sup>3</sup>
- Sewer – residential cap: \$165.00 bi-monthly (based on 70 m<sup>3</sup> of consumption)

## 7. EXPENSES

The three expenses that make up full cost accrual accounting as per the accounting standards of PSAB 3150 are operating expenses, debt interest expenses and tangible capital asset amortization. These three components added together are the current period expenses.

### 7.1 OPERATING EXPENSES

Budgets and actual expenses for the wastewater system from 2013 to 2016 General Ledgers including the 2018 Operational Budget for the wastewater system were reviewed.

#### Saugeen Shores 2018 Operations Budget

Description	2018 BUDGET
SEWERS-WAGES INSPECTION & LOCATE	55,000.00
SEWERS-PW WAGES	54,000.00
SEWERS-BENEFITS	34,378.60
SEWERS-DEBT PRINC-CMHC 10TH CONC SPS	297,519.19
SEWERS-DEBT PRINC-CMHC-INLET WORKS BLDG	61,578.69
SEWERS-DEBT INT-CMHC 10TH CONC SPS	93,205.89
SEWERS-DEBT INT-CMHC-INLET WORKS BLDG	23,673.32
SEWERS-BILLING COSTS	3,600.00
SEWERS-MATLS-MAIN MNTC/REPAIRS	30,000.00
SEWERS-FUEL	10,000.00
SEWERS-PLANT MNTCE/REPAIR	60,000.00
SEWER-LOCATES	1,400.00
SEWERS-CONSULTANTS	105,000.00
SEWERS-SANITARY COLLECTION SYSTEM ASSESSMENT	50,000.00
SEWERS-FINANCIAL PLAN-(I & I PORTION)	35,000.00
SEWERS-INSURANCE	14,000.00
SEWERS-WATER/SEWER READING	4,500.00
SEWERS-OCWA MAINT-SOUTH CONTRACT	480,440.00
SEWERS-OCWA MAINT-P E CONTRACT	733,304.00
SEWER-CONTRACT-LATERAL CLEAN/REPAIR	15,000.00

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SEWERS-BAD DEBT WRITE-OFF	200.00
SEWERS-TAXES	23,600.00
SEWERS-TR TO CAPITAL-SEWERS	524,900.00
SEWERS-TR TO ROADS CAPITAL	139,000.00
SEWERS-TR TO RESERVE	415,204.98
SEWERS-TR TO FLEET RESERVE (VAC & REPLACEMENT)	25,750.00
SEWERS-MACHINE TIME I/F	52,000.00
SEWERS-INTER BILLINGS COSTS	107,500.00
SEWERS-IT ALLOCATION	9,500.00
SEWERS-INTERF-RDS ADMIN FEE	52,000.00
SEWERS-INTERF-ENGINEERING ADMIN FEE	64,446.00
SEWERS-TRANSFER TO ROADS	10,000.00
<b>TOTAL SANITARY SEWER</b>	<b>3,585,700.67</b>

### Saugeen Shores 2013- 2018 Operations Budget

Description	2018 BUDGET	2017 BUDGET	2016 ACTUAL	2015 ACTUAL	2014 ACTUAL	2013 ACTUAL
SEWERS-WAGES INSPECTION & LOCATE	55,000.00	61,035.50	97,714.28	81,265.06	109,084.57	72,129.86
SEWERS-ENGINEERING WAGE EXPENSE	0.00	0.00	0.00	0.00	0.00	0.00
SEWERS-WAGES PART TIME	0.00	0.00	0.00	4,335.42	0.00	0.00
SEWERS-WAGES-OVERTIME	0.00	0.00	5,494.86	4,792.75	0.00	0.00
SEWERS-PW WAGES	54,000.00	17,000.00	0.00	0.00	0.00	0.00
SEWERS-BENEFITS	34,378.60	21,849.94	28,541.59	22,641.32	15,680.40	14,304.08
SEWERS-DEBENTURE- PRINCIPAL	0.00	0.00	0.00	29,573.58	105,987.39	97,825.79

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SEWERS-DEBT PRINC-CMHC 10TH CONC SPS	297,519.19	286,158.69	275,231.98	264,722.50	254,614.31	244,892.09
SEWERS-DEBT PRINC-CMHC- INLET WORKS BLDG	61,578.69	59,125.00	56,769.08	54,507.04	52,335.13	50,249.77
SEWERS-DEBENTURE- INTEREST	0.00	0.00	0.00	408.66	7,049.97	15,211.57
SEWERS-DEBT INT-CMHC 10TH CONC SPS	93,205.89	103,601.53	114,565.08	125,109.99	135,252.27	145,007.26
SEWERS-DEBT INT-CMHC- INLET WORKS BLDG	23,673.32	24,480.01	26,901.56	29,226.62	31,459.02	33,602.48
SEWERS-BILLING COSTS	3,600.00	3,600.00	868.09	945.06	1,028.21	3,792.42
SEWERS-MATLS-MAIN MNTC/REPAIRS	30,000.00	40,000.00	56,778.19	29,944.82	35,007.33	13,250.84
SEWERS-FUEL	10,000.00	5,000.00	1,423.39	10,000.00	0.00	0.00
SEWERS-PLANT MNTCE/REPAIR	60,000.00	70,000.00	79,571.65	62,454.91	33,352.38	43,003.61
SEWER-ENERGY AUDIT EXPENSES	0.00	0.00	0.00	0.00	0.00	0.00
SEWERS-NON TCA CAPITAL	0.00	0.00	0.00	0.00	0.00	0.00
SEWER-LOCATES	1,400.00	1,400.00	2,812.30	18,241.13	7,436.77	17,139.26
SEWERS-CONSULTANTS	105,000.00	10,000.00	9,257.80	2,383.64	33,074.25	9,323.98
SEWERS-SANITARY COLLECTION SYSTEM ASSESSMENT	50,000.00	50,000.00	59,526.53	260.43	0.00	0.00
SEWERS-FINANCIAL PLAN-(I & I PORTION)	35,000.00	0.00	0.00	0.00	0.00	0.00
SEWERS-INSURANCE	14,000.00	14,100.00	18,451.00	17,655.41	11,232.16	46,300.00
SEWERS-WATER/SEWER READING	4,500.00	3,500.00	2,610.66	4,126.24	9,848.11	9,718.35
SEWERS-OCWA MAINT-SOUTH CONTRACT	480,440.00	471,945.50	556,424.41	550,108.72	444,664.29	446,479.52
SEWERS-OCWA MAINT-P E CONTRACT	733,304.00	733,303.81	709,240.74	808,422.86	712,373.93	660,833.63

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SEWER-CONTRACT-LATERAL CLEAN/REPAIR	15,000.00	0.00	0.00	21,435.54	16,605.24	9,331.88
SEWERS-BAD DEBT WRITE- OFF	200.00	200.00	(81.66)	(1,133.86)	348.01	(177.36)
SEWERS-FROZEN WATER REBATE	0.00	0.00	0.00	13,676.44	0.00	0.00
SEWERS-TAXES	23,600.00	23,600.00	21,471.45	21,176.88	21,171.21	(10,662.40)
SEWERS-TR TO CAPITAL- SEWERS	524,900.00	216,704.00	389,900.00	365,260.86	85,658.05	191,337.93
SEWERS-TR TO CAPITAL- ENGINEERING	0.00	22,500.00	129,000.00	6,500.00	15,130.59	0.00
SEWERS-TR TO ROADS CAPITAL	139,000.00	219,070.00	10,000.00	278,569.89	407,432.00	2,500.00
SEWERS-TR TO RESERVE	415,204.98	562,058.12	0.00	(41,825.01)	162,096.78	489,157.13
SEWERS-TR TO FLEET RESERVE (VAC & REPLACEMENT)	25,750.00	25,750.00	25,750.00	23,000.00	0.00	0.00
SEWERS-MACHINE TIME I/F	52,000.00	23,000.00	23,000.00	23,000.00	23,000.00	15,000.00
SEWERS-INTER BILLINGS COSTS	107,500.00	117,500.00	107,500.00	107,500.00	82,000.00	62,000.00
SEWERS-IT ALLOCATION	9,500.00	9,500.00	9,500.00	9,500.00	0.00	0.00
SEWERS-INTERF-RDS ADMIN FEE	52,000.00	52,000.00	52,000.00	48,500.00	17,500.00	17,000.00
SEWERS-INTERF- ENGINEERING ADMIN FEE	64,446.00	39,229.50	61,579.00	51,875.00	0.00	0.00
SEWER-INTERF-INTERNAL WASTE TRANSFER	0.00	0.00	0.00	509.27	0.00	0.00
SEWERS-TRANSFER TO ROADS	10,000.00	10,000.00	10,000.00	10,000.00	2,000.00	0.00
<b>TOTAL SANITARY SEWER</b>	<b>3,585,700.67</b>	<b>3,297,211.60</b>	<b>2,941,801.98</b>	<b>3,058,671.17</b>	<b>2,832,422.37</b>	<b>2,698,551.69</b>

### 7.1.1 Operations Contract

Presently the Town has a Service Agreement with OCWA for the management, operation and maintenance of the Southampton Water Treatment Facility, the Saugeen Shores Water Distribution System, the Port Elgin and Southampton Wastewater Treatment Plants and Collection Systems.

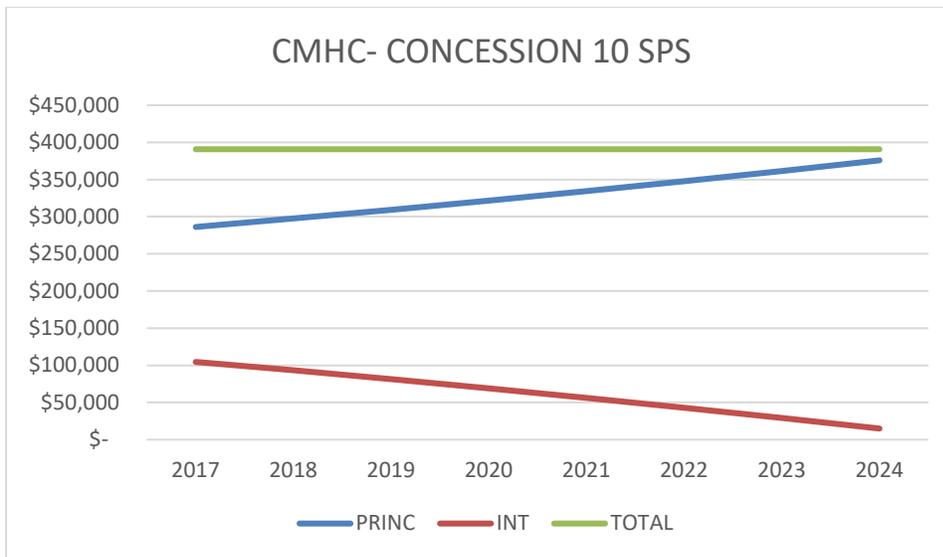
In 2017, Town of Saugeen Shores negotiated a 1-year service extension which is valid through to December 2019.

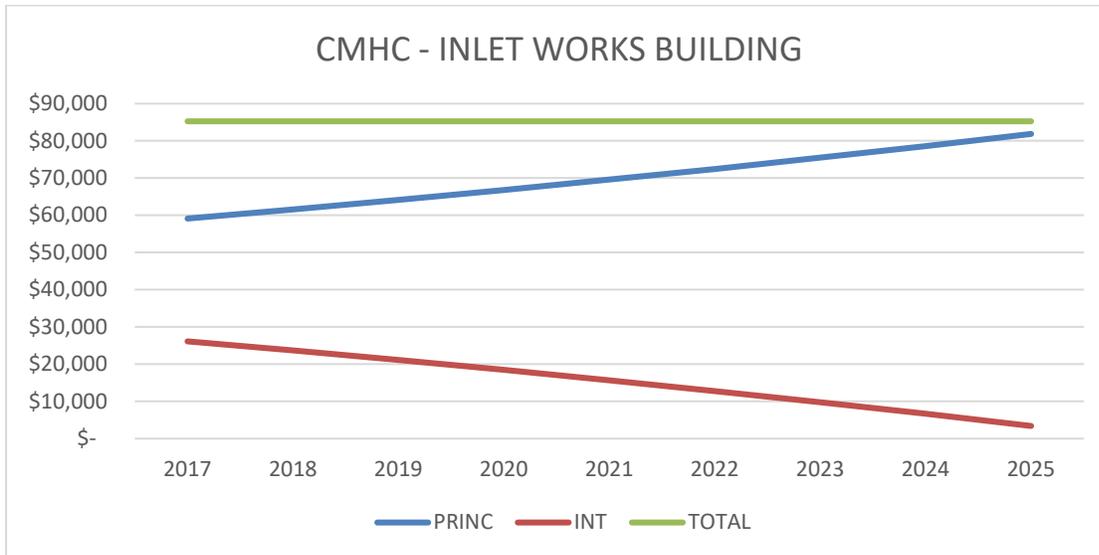
The Town is currently in the process of negotiating with OCWA for a new 5 year Service Agreement.

### 7.2 INTEREST EXPENSES

#### Interest Expenses and Debt Repayment

Loan	Debenture Term	Maturity Date	Interest	Annual Payment (P&I)	Balance Jan. 1, 2018
CMHC – 10 <sup>th</sup> Concession	15 years	2024-12-01	3.97%	\$390,725.08-	\$2,355,522.14+
CMHC – Inlet Works Building	15 years	2025-05-01	4.15%	\$85,252.01-	\$586,233.09+





### 7.3 AMORTIZATION OF TANGIBLE CAPITAL ASSETS (TSA)

Amortization expense is a non-cash expense that is spread over the life cycle of that asset to reflect the degrading of the service life/useable life of that asset over time. This annual expense is based on the historic cost of the asset, which is depreciated over the useful life of the asset using a depreciation method.

PS 3150 requires that:

*The cost, less any residual value, of a tangible capital asset with a limited life should be amortized over its useful life in a rational and systematic manner appropriate to its nature and use by the government. (PS 3150.22)*

*The amortization of the costs of tangible capital assets should be accounted for as expenses in the statement of operations. (PS 3150.23)*

*The amortization method and estimate of the useful life of the remaining unamortized portion of a tangible capital asset should be reviewed on a regular basis and revised when the appropriateness of a change can be clearly demonstrated. (PS 3150.29)*

Amortization expenses vary yearly due to replacement of assets, acquisitions of new assets by the Town and by acquisitions of new assets thru development/growth. The depreciation of these assets starts the year following acquisition.

In the context of asset management tangible capital assets once installed and being used they are decreasing in value and service life, undeniably resulting in that asset will be required to be replaced at some time in the future. In essence, the asset is decreasing in value and cost to replace is increasing from day one. The Municipal system has a great deal of resources tied up in tangible capital assets and managing these assets is critical to maintaining current and future levels of service

### 7.4 TOTAL EXPENSES

The total expenses are the sum of operating, amortization and interest expenses.

## 7.5 HISTORICAL UNDER-FUNDING

A full accrual view of cost does not account for deferred maintenance/rehabilitation of assets nor do current period expenses account for the historic under-investment in tangible capital assets.

The prolonged practise of deferred maintenance of assets and/or replacement of wastewater asset will result in deteriorating asset condition, service interruptions due to asset failure, increased operating costs and additional risk exposure to the ratepayers and Municipality.

These assets that are often buried and forgotten have largely escaped public attention. The risk to this infrastructure has an impact on the quality of life for all parts Municipality to grow and prosper.

In an attempt to reduce this “infrastructure gap” lower tier Municipalities often are at the mercy of funding from upper tier governments. This up and down funding is certainly welcome however the Municipality can make provisions for stable infrastructure spending to reduce this deficit.

The replacement cost of the Town of Saugeen Shores Wastewater System as of 2017 estimated to be approximately \$81,000,000. The value increases annually as construction and regulatory cost increase, the annual increment would be approximately \$2,025,000, based on 2.5% inflation of replacement costs.

## 8. CAPITAL EXPENDITURES

### Recommended Capital Projects

2019 Capital Budget	2019 Budget	Plants	Mains	DC
Southampton WPCP	\$ 78,487.50	\$ 78,487.50		
Port Elgin WPCP	\$ 479,213.44	\$ 479,213.44		
Port Elgin WPCP Turbo Blower	\$ 150,000.00			\$ 150,000.00
WasteWater Portion - W&S Master Plan Update	\$ 31,500.00			\$ 31,500.00
Southampton SPS Capacity Study	\$ 13,125.00			\$ 13,125.00
WWCS Condition Assessment	\$ 75,000.00		\$ 75,000.00	
Beach St - Huron St to Lake St	\$ 3,500.00		\$ 3,500.00	
McNabb St - Railway to Peel	\$ 42,000.00		\$ 42,000.00	
Lane between Green/Gustavus Ruby to Eastwood	\$ 190,050.00		\$ 190,050.00	
<b>TOTALS</b>	<b>\$1,062,875.94</b>	<b>\$ 557,700.94</b>	<b>\$ 310,550.00</b>	<b>\$ 194,625.00</b>

2020 Projected Capital Budget	2020 Budget	Plants	Mains	DC
Southampton WPCP	\$ 91,800.00	\$ 91,800.00		
Port Elgin WPCP	\$ 393,660.00	\$ 393,660.00		
Port Elgin WPCP Splitter Box Study	\$ 22,400.00			\$ 22,400.00
Southampton WPCP Class EA and Expansion- Rebuilt	\$ 750,000.00	\$ 750,000.00		
WWCS Condition Assessment	\$ 75,000.00		\$ 75,000.00	
Ridge Street - Ivings to Bruce Road 25	\$ 1,638,000.00			\$ 1,638,000.00
Bricker Street - Mill to Elgin	\$ 154,000.00		\$ 154,000.00	
Highland Green to Market	\$ 273,483.00			\$ 273,483.00
Louis Goderich to Bricker	\$ 110,537.24		\$ 75,350.00	
<b>TOTALS</b>	<b>\$ 3,508,880.24</b>	<b>\$ 1,235,460.00</b>	<b>\$ 304,350.00</b>	<b>\$ 1,933,883.00</b>

2021 Projected Capital Budget	2021 Budget	Plants	Mains	DC
Southampton WPCP	\$ 106,624.00	\$ 106,624.00		
Port Elgin WPCP	\$ 621,600.00	\$ 621,600.00		
Southampton WPCP Class EA and Expansion- Rebuilt	\$ 500,000.00	\$ 500,000.00		
WWCS Condition Assessment	\$ 75,000.00		\$ 75,000.00	
Bruce Rd. 25 - Phase 3	\$ 1,125,272.00		\$ 38,220.00	\$ 1,087,052.00
Catherine Street - Goderich to Wellington	\$ 220,000.00		\$ 220,000.00	
Lane Between Elgin/Mill - Ruby to Eastwood	\$ 115,000.00		\$ 115,000.00	
Davey Srive - Bricker to Wellington	\$ 3,000.00		\$ 3,000.00	
<b>TOTALS</b>	<b>\$ 2,766,496.00</b>	<b>\$ 1,228,224.00</b>	<b>\$ 451,220.00</b>	<b>\$ 1,087,052.00</b>

2022 Projected Capital Budget	2022 Budget	Plants	Mains	DC
Southampton WPCP	\$ 112,700.00	112,700.00		
Port Elgin WPCP	\$ 283,475.00	283,475.00		
Southampton WPCP Class EA and Expansion- Rebuilt	\$ 500,000.00	\$ 500,000.00		
WWCS Condition Assessment	\$ 75,000.00		75,000.00	
Bruce Rd. 25 - Phase 4	\$ 13,950.00		13,950.00	
Adelaide Street - Lambert to Huron	\$ 4,000.00		4,000.00	
Victoria Street - Spence to Morpeth	\$ 3,000.00		3,000.00	
Knechtel Lane - Victoria to Morpeth	\$ 1,000.00		1,000.00	
Catherine Street - Kaake to Bruce	\$ 3,500.00		3,500.00	
Adelaide Street - Albert to Breadalbane	\$ 69,000.00		69,000.00	
Alice Street - Grenville to Edward	\$ 90,000.00		90,000.00	
<b>TOTALS</b>	<b>1,155,625.00</b>	<b>896,175.00</b>	<b>259,450.00</b>	<b>-</b>

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<b>2023 Projected Capital Budget</b>	<b>2023 Budget</b>	<b>Plants</b>	<b>Mains</b>	<b>DC</b>
Southampton WPCP	\$ 118,000.00	\$ 118,000.00		
Port Elgin WPCP	\$ 383,500.00	\$ 383,500.00		
Southampton WPCP Class EA and Expansion- Rebuilt	\$ 500,000.00	\$ 500,000.00		
WWCS Condition Assessment	\$ 75,000.00		\$ 75,000.00	
Lisa Lane - Christopher to Davey	\$ 3,500.00		\$ 3,500.00	
MacAuley Lane - Peel to Adelaide	\$ 88,000.00		\$ 88,000.00	
Burns Lane - Peel to Adelaide	\$ 85,000.00		\$ 85,000.00	
Bricker Street - Emma to Gustavus	\$ 146,500.00		\$ 146,500.00	
Archibald Place - Bay to Bay	\$ 335,000.00		\$ 335,000.00	
Eastwood Drive - Mill to Elgin	\$ 3,000.00		\$ 3,000.00	
Palmerston Street - Huron to Laird	\$ 69,000.00		\$ 69,000.00	
Bricker Street - Barnes to Iving's	\$ 67,500.00		\$ 67,500.00	
Bricker Street - Ashwell to Carsons	\$ 75,000.00		\$ 75,000.00	
<b>TOTALS</b>	<b>\$ 1,949,000.00</b>	<b>\$ 1,001,500.00</b>	<b>\$ 947,500.00</b>	<b>\$ -</b>

<b>2024 Projected Capital Budget</b>	<b>2024 Budget</b>	<b>Plants</b>	<b>Mains</b>	<b>DC</b>
Southampton WPCP	\$ 7,020,000.00	\$ 3,510,000.00		\$ 3,510,000.00
Port Elgin WPCP	\$ 198,300.00			
WWCS Condition Assessment	\$ 75,000.00		\$ 75,000.00	
Bricker Street - Elgin to Market	\$ 166,000.00		\$ 166,000.00	
Catherine Street - Stafford to Kaake	\$ 3,500.00		\$ 3,500.00	
Falconer Street - Waterloo to Sumpton	\$ 79,000.00		\$ 79,000.00	
Grey Street - Adelaide to Morpeth	\$ 87,500.00		\$ 87,500.00	
Stafford Street - Catherine to Eugenie	\$ 3,500.00		\$ 3,500.00	
Stafford Street - Green to Mill	\$ 94,000.00		\$ 94,000.00	
Mcvicar Street - Stevens to Geddes	\$ 5,000.00		\$ 5,000.00	
High Street - Grosvener to Albert	\$ 240,000.00		\$ 240,000.00	
Christopher Street - Goderich to Bricker	\$ 107,500.00		\$ 107,500.00	
<b>TOTALS</b>	<b>\$ 8,079,300.00</b>	<b>\$ 3,510,000.00</b>	<b>\$ 861,000.00</b>	<b>\$ 3,510,000.00</b>

## 9. FINANCIAL PLAN STATEMENTS

### 9.1 STATEMENT OF OPERATIONS

The Statement of Operations includes the expenses of operating and maintaining the wastewater system comprising of collection, conveyance, treatment and disposal including all costs in providing technical and regulatory compliance services including the administrative costs of customer service, billing and the debt interest expenses. Annual surplus is required to operate and maintain the system by funding costs such as tangible capital asset acquisition, reserve fund transfers and debt principal payments.

The Statement of Operations is comprised of three categories: operating, interest and amortization.

The Statement of Operations illustrates the ratio of expenses to revenue ranging from a projected 96% in 2018 to 78% in 2023. As a result of the proposed annual 8% revenue increase, over the forecasted period the annual total increases from \$3.80 million to \$5.12 million.

The annual surplus is fundamental to ensure funding is available for new or renewal water assets (tangible capital assets acquisitions), reserve funds and debt principal payments.

Revenues are primarily from billings from metered consumption of water and fixed capital charge based on property type/meter size. The Town's rate structure is created on equitable and fair treatment of the various customers on the municipal system and Full Cost Recovery to operate and maintain a sustainable system.

#### **Town of Saugeen Shores Rate Structure** (Website)

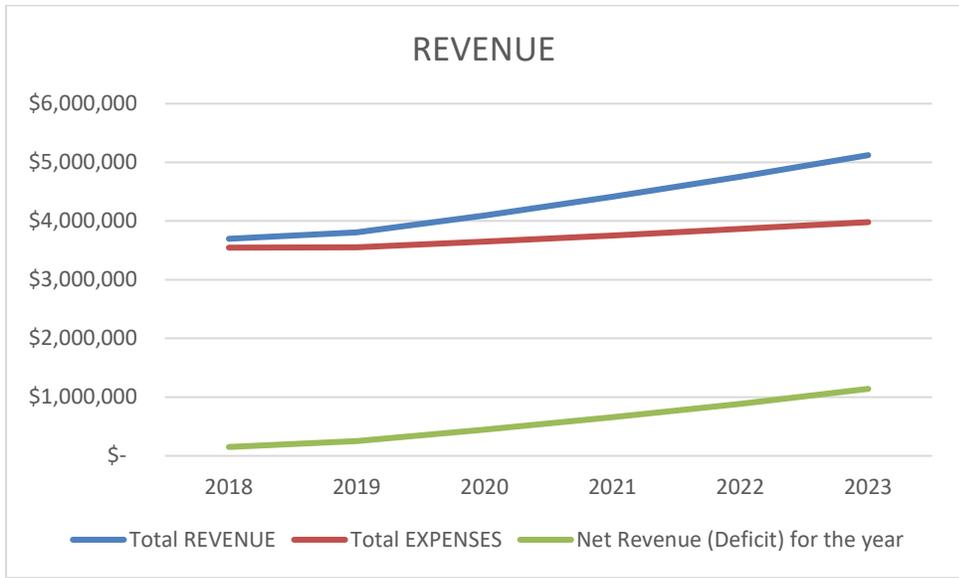
Our Water Financial Plan and Sewer Financial Plan set out projected annual utility rate increases. This is to help operate, maintain and upgrade the water and sewer system.

Our water and sewer rate structure ensures that the monthly fixed charge will pay for the debt, capital, reserve and major upgrades needed for our water and sewer treatment, collection and distribution system. It ensures that all users are contributing to these infrastructure costs through their consumption charge. Revenue collected through water rates pay for water services. Revenue collected through sewer rates pay for sewer services.

The rate structure takes into consideration the diverse make-up of our community. Around 30% of Saugeen Shores residential properties are seasonal. We want to ensure all property owners, regardless of residency status, are contributing fairly to the fixed costs of delivering water and collecting waste. Treatment plants, pumping stations, and the distribution and collection system are available to all residents, year-round.

In 2019, the projected revenue is \$3.80 million with projected expenditures of \$3.55 million resulting in an annual net revenue of approximately \$253,000.

In 2023, the projected revenue is \$5.12 million with projected expenditures of \$3.98 million resulting in an annual net revenue of approximately \$1.14 million

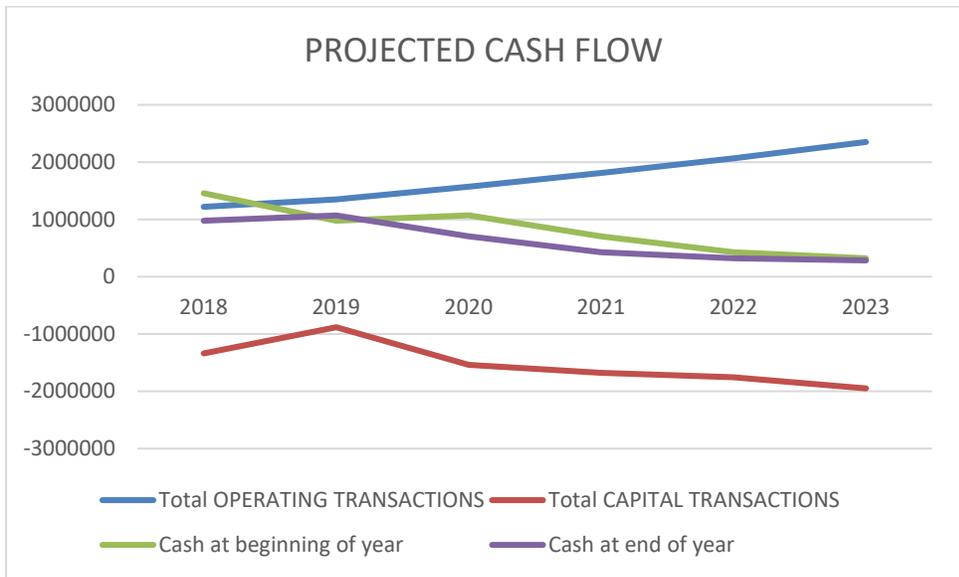


## 9.2 STATEMENT OF CASH FLOW

The Statement of Cash Flow reports the revenue provided and used by the operating, investing, and financing activities of the wastewater system during the accounting period. (Identifying where cash came from and showing how cash was used.)

The Statement of Cash Flow indicates the projected cash at the end of year (reserves) is projected at \$1.07 million for 2019 decreasing each year with a projected cash at end of 2023 of \$284,322

The financial plan projects a deficit in cash at end of the year in 2020 and 2021 and a favourable outlook the end of the forecast period in 2023 the projected cash at the end of year has increased to \$931,228.



### 9.3 STATEMENT OF FINANCIAL POSITION

The Statement of Financial Position is a statement that reports on:

- Assets – what the Municipality owns or controls
- Liabilities – what the Municipality owes
- Net financial assets/net debt – liabilities minus financial assets
- Accumulated surplus – what remains after the assets have been used to meet the liabilities.

The statement indicates the Town's Net Debt (Liabilities – Assets) projected at \$1.88 million in 2018 reducing to \$611,694 in 2023, primarily by not accumulating any long-term debt in this forecast period and paying down the CMHC Loans for Concession 10 SPS and Inlet Works Building.

The Town will continue with a net debt financial position throughout this forecasting period and in 2025 will be in a net positive position as the debt is progressively paid down.

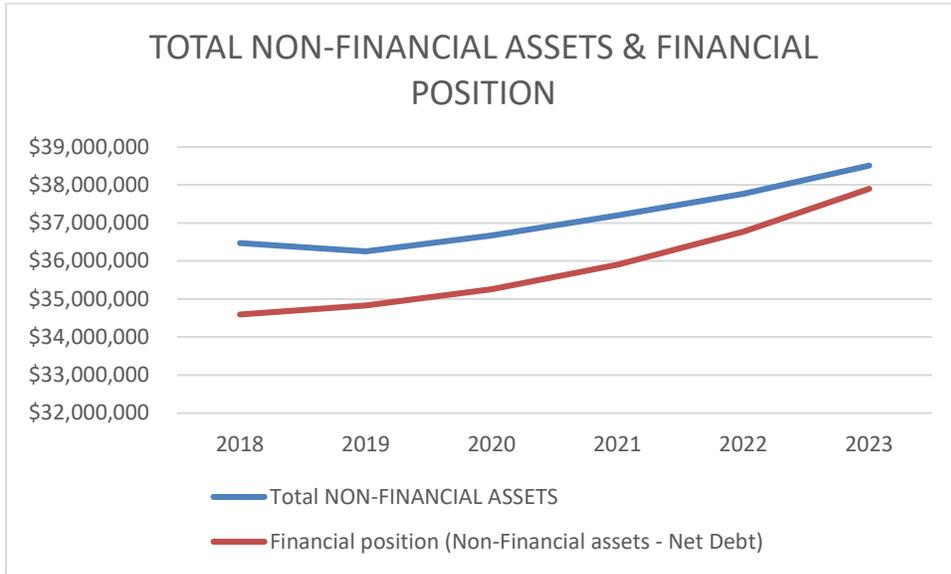
Having a net debt financial position indicates the Town is using future revenues to fund past infrastructure assets improvements or acquisitions, which indicates the Town is continuing to fund asset renewal and replacement of assets when required.

The financial indicators illustrate the reduction in yearend cash as a percentage of fixed assets throughout the study period whereas the financial indicator of debt as a percentage of fixed assets shows a positive trend of paying down the debt throughout the study period.

The Statement of Financial Position provides information and the yearly changes on the wastewater assets (tangible capital assets). The Town continues to increase yearly the tangible capital assets indicating a continual renewal and replacement of assets to improve and maintain the system.

The term and requirements of Non-financial Assets (Tangible Capital Assets, TCA's) is based on the requirements of PSAB 3150 for this Financial Plan document.

In the context of asset management, tangible capital assets once installed and being used they are degrading in value and service life undeniably resulting in that asset will be required to be replaced at some time in the future. In essence, the asset is decreasing in value and cost to replace is increasing from day one. The Municipal system has a great deal of resources tied up in tangible capital assets and managing these assets is critical to maintaining the current and future levels of service.



## 10. SUMMARY

This Financial Plan has been prepared in accordance with the Ministry of Environment Financial Plans Regulation (O.Reg. 453/07).

The primary guiding principle of this plan is the MOECC, Principles of Financially Sustainable Water and Wastewater Systems as presented in Section 2.3 Sustainable Financial Planning.

The key reason for creating a financial plan is to make sure that the system is financially and environmentally sustainable at present day and into the future.

Intergenerational Equity is a guiding principle for financing decisions, the concept of generational equity for Municipal operational & capital works intended to equitably distribute the costs across present and future ratepayers (User-Pay System).

It is understood that in the Municipal environment that there is a multitude immediate financial pressures spread over the numerous Municipal services provided and increasing pressure to do more with less that long term planning may not be a top priority.

As a best practice, long term planning is a proven strategy to understand and deal with a magnitude of fiscal challenges to assist the Municipality in providing a high quality reliable sustainable system.

The plan was developed to achieve a balance of acceptable risk, maintaining a safe viable modern water system while managing rate increases to appropriate and justifiable levels.

Town staff developed multiple revenue and expenditures scenarios for each year, then analyzed the results and consequences of those individual changes before selecting a best-case scenario to provide sufficient resources for future rehabilitation and replacement of the assets.

## 11. RECOMMENDATIONS OR CONCLUSIONS

The following are the main recommendations and conclusions:

1. Financial Plans are “living” documents that require continuous improvement. Annual comparisons of the accuracy of financial projections within this Plan with actual results will aid in understand the relationship and trends between customers usage and the system’s fiscal health.
2. The Total Revenue recovered from wastewater rates is projected to increases from \$3,804,587 by 2019 to \$5,122,229 by 2023.
3. Year End Cash/Reserves over the period are projected to decrease from \$ 1,068,832 in 2019 reducing to \$284,322 in 2023 using the rate structure forecast provided by Town Staff.
4. No new debt is projected during the study period to fund capital infrastructure.
5. That a copy of this Wastewater Financial Plan be posted on the Municipal website
6. That the Town consider a Rate Study Review to determine if the current rate structure, is fair and equitable to the diverse users of the Municipal system and meets the Municipal objectives for the future. The Rate Study Review would investigate and review strategies for the operational costs of providing primarily a fixed service with the financial relationship of variable and fixed charges.
7. That the Town consider the concept of maintaining a minimum and optimum reserve balance based on a percentage of the total cost of wastewater system’s tangible capital assets.

Yours very truly,

COBIDE ENGINEERING INC.



Travis Burnside, P.Eng.



David Burnside, Senior Technologist

# Appendix A

**WASTEWATER SYSTEM FINANCIAL PLAN**

**TOWN OF SAUGEEN SHORES**

**TOWN OF SAUGEEN SHORES FINANCIAL PLAN FOR WASTEWATER SYSTEM**  
**UNAUDITED: For Financial Planning Purposes Only**

	2018	2019	2020	2021	2022	2023
<b>PROJECTED FINANCIAL POSITION</b>						
<b>Financial assets</b>						
Cash and cash equivalents	975,159	1,068,832	707,634	429,515	321,137	284,322
Total FINANCIAL ASSETS	975,159	1,068,832	707,634	429,515	321,137	284,322
<b>Liabilities</b>						
Long-term debt	2,851,226	2,490,255	2,114,839	1,724,391	1,318,333	896,016
Total LIABILITIES	2,851,226	2,490,255	2,114,839	1,724,391	1,318,333	896,016
<b>NET DEBT (Liabilities - Assets)</b>	<b>1,876,067</b>	<b>1,421,423</b>	<b>1,407,205</b>	<b>1,294,876</b>	<b>997,196</b>	<b>611,694</b>
<b>Non-financial assets (Tangible capital assets)</b>						
Book Value of existing wastewater system	36,197,532	36,469,131	36,253,292	36,668,889	37,200,643	37,771,426
New wastewater system - at cost	1,340,277	881,736	1,539,810	1,679,444	1,753,617	1,949,000
Less: Loss (gain) of tangible capital assets	-	-	-	-	-	-
Less: Amortization	(1,068,678)	(1,097,575)	(1,124,213)	(1,147,690)	(1,182,835)	(1,210,114)
Total NON-FINANCIAL ASSETS	36,469,131	36,253,292	36,668,889	37,200,643	37,771,426	38,510,311
<b>Financial position (Non-Financial assets - Net Debt)</b>	<b>34,593,064</b>	<b>34,831,869</b>	<b>35,261,684</b>	<b>35,905,767</b>	<b>36,774,230</b>	<b>37,898,617</b>
<b>Financial Indicators</b>						
Cash as a % of Net Fixed Assets	2.7%	2.9%	1.9%	1.2%	0.9%	0.7%
Debt as a % of Net Fixed Assets	7.8%	6.9%	5.8%	4.6%	3.5%	2.3%
<b>Analysis of financial position</b>						
Equity in tangible capital assets	33,617,905	33,763,037	34,554,050	35,476,252	36,453,093	37,614,295
Reserves and reserve funds	975,159	1,068,832	707,634	429,515	321,137	284,322
General surplus (deficit)	-	-	-	-	-	-
<b>Financial position (from analysis)</b>	<b>34,593,064</b>	<b>34,831,869</b>	<b>35,261,684</b>	<b>35,905,767</b>	<b>36,774,230</b>	<b>37,898,617</b>

	2018	2019	2020	2021	2022	2023
<b>PROJECTED FINANCIAL OPERATIONS</b>						
<b>REVENUE</b>						
01-5410-300 Recoveries	2,000	2,000	2,000	2,000	2,000	2,000
01-5410-310 Metered-Bulk Sales	3,000	3,180	3,434	3,709	4,006	4,326
01-5410-311 Metered-Residential	1,168,378	1,238,481	1,337,559	1,444,564	1,560,129	1,684,939
01-5410-311 Metered-Commercial	479,716	508,499	549,179	593,113	640,562	691,807
01-5410-312 Service charges-Commercial	260,207	275,819	297,885	321,716	347,453	375,249
01-5410-312 Service charges-Residential	1,531,658	1,623,557	1,753,442	1,893,717	2,045,215	2,208,832
01-5410-315 Installation charges	5,300	5,618	6,067	6,553	7,077	7,643
01-5410-932 Transfers from Sewer Reserve	100,000	-	-	-	-	-
01-5410-940 Sewer-DC Res Fund (Debt Repay)	147,432	147,432	147,432	147,432	147,432	147,432
01-5410-941 DC Reserve fund transfer	-	-	-	-	-	-
<b>Total REVENUE</b>	<b>3,697,691</b>	<b>3,804,587</b>	<b>4,096,999</b>	<b>4,412,804</b>	<b>4,753,874</b>	<b>5,122,229</b>
<b>EXPENSES</b>						
01-6410-102 SEWERS-WAGES INSPECTION & LOCATE	55,000	56,100	57,222	58,366	59,534	60,724
01-6410-140 SEWERS-PW WAGES	54,000	55,080	56,182	57,305	58,451	59,620
01-6410-200 SEWERS-BENEFITS	34,378	35,409	36,472	37,566	38,693	39,854
01-6410-311 SEWERS-DEBT PRINC-CMHC 10TH CONC SPS	-	-	-	-	-	-
01-6410-312 SEWERS-DEBT PRINC-CMHC-INLET WORKS BLDG	-	-	-	-	-	-
01-6410-412 SEWERS-BILLING COSTS	3,600	3,672	3,745	3,820	3,897	3,975
01-6410-433 SEWERS-MATLS-MAIN MNTC/REPAIRS	30,000	31,500	33,075	34,729	36,465	38,288
01-6410-441 SEWERS-FUEL	10,000	10,400	10,816	11,249	11,699	12,167
01-6410-470 SEWERS-PLANT MNTCE/REPAIR	60,000	63,000	66,150	69,458	72,930	76,577
01-6410-540 SEWER-LOCATES	1,400	1,428	1,457	1,486	1,515	1,546
01-6410-541 SEWERS-CONSULTANTS	105,000	10,000	10,200	10,404	10,612	10,824
01-6410-542 SEWERS-SANITARY COLLECTION SYSTEM ASSESSMENT	-	-	-	-	-	-
01-6410-543 SEWERS-FINANCIAL PLAN-(I & I PORTION)	-	-	-	-	-	-
01-6410-580 SEWERS-INSURANCE	14,000	14,280	14,566	14,857	15,154	15,457
01-6410-592 SEWERS-WATER/SEWER READING	4,500	4,590	4,682	4,775	4,871	4,968
01-6410-593 SEWERS-OCWA MAINT-SOUTH CONTRACT	480,440	504,462	529,685	556,169	583,978	613,177
01-6410-593 SEWERS-OCWA MAINT-P E CONTRACT	733,304	769,969	808,468	848,891	891,336	935,902
01-6410-594 SEWER-CONTRACT-LATERAL CLEAN/REPAIR	15,000	15,750	16,538	17,364	18,233	19,144
01-6410-600 SEWER-CONTRACT-BAD DEBT WRITE-OFF	200	204	208	212	216	221
01-6410-640 SEWERS-TAXES	23,600	24,072	24,553	25,045	25,545	26,056
01-6410-990 SEWERS-MACHINE TIME I/F	52,000	53,040	54,101	55,183	56,286	57,412
01-6410-990 SEWERS-INTER BILLINGS COSTS	107,500	109,650	111,843	114,080	116,361	118,689
01-6410-990 SEWERS-IT ALLOCATION	9,500	9,690	9,884	10,081	10,283	10,489
01-6410-991 SEWERS-INTERF-RDS ADMIN FEE	52,000	53,040	54,101	55,183	56,286	57,412
01-6410-991 SEWERS-INTERF-ENGINEERING ADMIN FEE	64,446	65,735	67,050	68,391	69,758	71,154
	<b>1,910,068</b>	<b>1,891,275</b>	<b>1,971,203</b>	<b>2,054,826</b>	<b>2,142,322</b>	<b>2,233,877</b>
01-6410-320 SEWERS-DEBENTURE-INTEREST	-	-	-	-	-	-
01-6410-321 SEWERS-DEBT INT-CMHC 10TH CONC SPS	93,206	81,394	69,114	56,346	43,071	29,269
01-6410-322 SEWERS-DEBT INT-CMHC-INLET WORKS BLDG	23,673	21,118	18,456	15,684	12,797	9,790
01-6410-790 SEWERS-AMMORTIZATION-TREATMENT	575,777	592,317	614,639	634,057.84	663,187	679,034

01-6410-791	SEWERS-AMMORTIZATION-DISTRUBUTION	492,901	505,258	509,574	513,632	519,648	531,081
01-6410-920	SEWERS-TRANSFER TO CAPITAL-SEWERS	-	-	-	-	-	-
01-6410-922	SEWERS-TRANSFER TO ROADS CAPITAL	-	-	-	-	-	-
01-6410-930	SEWERS-TRANSFER TO RESERVE	415,205	423,509	431,979	440,619	449,431	458,420
01-6410-992	SEWERS-TRANSFER TO FLEET RESERVE (VAC TRUC	25,750	26,265	26,790	27,326	27,873	28,430
01-6410-992	SEWERS-TRANSFER TO ROADS	10,000	10,200	10,404	10,612	10,824	11,041
<b>Total EXPENSES</b>		<b>3,546,580</b>	<b>3,551,337</b>	<b>3,652,160</b>	<b>3,753,103</b>	<b>3,869,152</b>	<b>3,980,941</b>
<b>Net Revenue (Deficit) for the year</b>		<b>151,111</b>	<b>253,250</b>	<b>444,839</b>	<b>659,702</b>	<b>884,722</b>	<b>1,141,288</b>
<b>Financial Indictors</b>							
Expense to Revenue		96%	93%	89%	85%	81%	78%
		2018	2019	2020	2021	2022	2023
<b>PROJECTED CASH FLOW</b>							
<b>Operating Transactions</b>							
Net revenue (deficit) for the year		151,111	253,250	444,839	659,702	884,722	1,141,288
Add back (deduct) non-cash expense:		-	-	-	-	-	-
Add back Loss (gain) on disposal of tangible capital		-	-	-	-	-	-
Add back Amortization of Capital Assets		1,068,678	1,097,575	1,124,213	1,147,690	1,182,835	1,210,114
<b>Total OPERATING TRANSACTIONS</b>		<b>1,219,789</b>	<b>1,350,825</b>	<b>1,569,052</b>	<b>1,807,391</b>	<b>2,067,556</b>	<b>2,351,403</b>
<b>Capital Transactions</b>							
Various sanitary sewer replacements		(876,777)	(235,550)	(229,350)	(376,220)	(782,442)	(872,500)
Port Elgin Wastewater Treatment Plant		(210,000)	(479,213)	(393,660)	(621,600)	(283,475)	(383,500)
Port Elgin Sewage Pump Stations		-	-	-	-	-	-
Southampton Wastewater Treatment Plant		(128,500)	(78,848)	(91,800)	(106,624)	(112,700)	(118,000)
Southampton Sewage Pump Stations		-	(13,125)	-	-	-	-
Studies and Assessments		(50,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
Southampton WWTP Class EA and Expansion- Rebuilt		(75,000)	-	(750,000)	(500,000)	(500,000)	(500,000)
<b>Total CAPITAL TRANSACTIONS</b>		<b>(1,340,277)</b>	<b>(881,736)</b>	<b>(1,539,810)</b>	<b>(1,679,444)</b>	<b>(1,753,617)</b>	<b>(1,949,000)</b>
<b>Investing transactions</b>							
Proceeds from portfolio investments		-	-	-	-	-	-
Purchase of portfolio investments		-	-	-	-	-	-
<b>Total INVESTING TRANSACTIONS</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Financing transactions</b>							
Federal/Provincial grants		-	-	-	-	-	-
Proceeds from debenture issue		-	-	-	-	-	-
Debt repayment - principal		(360,970)	(375,416)	(390,440)	(406,066)	(422,317)	(439,218)
<b>Total FINANCING TRANSACTIONS</b>		<b>(360,970)</b>	<b>(375,416)</b>	<b>(390,440)</b>	<b>(406,066)</b>	<b>(422,317)</b>	<b>(439,218)</b>
<b>Net Cash Receipts (Payments) for the year</b>		<b>(481,458)</b>	<b>93,673</b>	<b>(361,198)</b>	<b>(278,119)</b>	<b>(108,378)</b>	<b>(36,815)</b>
Cash at beginning of year		1,456,617	975,159	1,068,832	707,634	429,515	321,137
Cash at end of year		975,159	1,068,832	707,634	429,515	321,137	284,322

Notes: