

# TOWNSHIP OF FAUQUIER-STRICKLAND

Prepared in accordance with the Safe Drinking Water Act and its  
associated regulations – August 14, 2020

**Drinking  
Water System**

**6 Year Water  
Financial Plan 2019  
- 2025**

***This Financial Plan was approved by the Township of Fauquier-Strickland Council  
on September 4, 2020***

The Plan will be published on the Township of Fauquier-Strickland's website and submitted to the Ministry of Municipal Affairs and Housing as required by the legislation. Hardcopies are available to the public on request.

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## 1. INTRODUCTION

The Township of Fauquier-Strickland municipal Treasurer updated the Water Drinking System Financial Plan for the six (6) year period from 2020 – 2025.

The financial plan contained herein has been prepared in accordance with Ontario Regulation 453/07, as well as the provisions of the financial planning guidelines published by the Ministry of the Environment (MOE) in August 2007 entitled “Toward Financially Sustainable Drinking Water and Wastewater Systems”.

The financial plan was prepared for the Fauquier-Strickland drinking water system based on information supplied by the Municipality and OCWA operational staff, including future capital and major maintenance projects, water system financial information, as well as tangible capital asset information that the Municipality generated in accordance with the Public Sector Accounting Board (PSAB) standard requirements.

The information is based on the 2020 budget to generate a financial operating plan that forecasts future annual expenditure requirements from the year 2020 through to 2026. A revenue plan, relying mostly on user fees was generated to support expenditure requirements outlined in the operating plan. The information generated in the operating and revenue plans along with the tangible capital asset information was used to develop a financial plan for the Fauquier-Strickland drinking water system covering a period from 2020 to 2026 in accordance with O.Reg. 453/07 minimum 6 year study period requirements.

### 1.1 Legislative Context to Financial Planning

There have been a number of legislative initiatives affecting water management and operations over the past decade. These initiatives were a result of the water borne illness tragedy in Walkerton in 2000. Following this event, the Government of Ontario established a public inquiry, chaired by the Honourable Dennis O’Connor, to look into the circumstances that led to the tragedy. The Inquiry Report recommended a comprehensive approach to the delivery of safe drinking water in Ontario.

The MOE has responded to the Inquiry recommendations by making several legislative changes. One change directly related to the development of this Financial Plan was the passage of the Safe Drinking Water Act, 2002 (SDWA). It requires owners of a municipal drinking water system to apply for and obtain a Municipal Drinking Water Licence. Five elements must be in place in order for the owner of a drinking water system to obtain a licence:

- 1) **A drinking-water works permit (DWWP):** A permit to establish or alter a drinking-water system.
- 2) **An accepted Operational Plan:** The Drinking Water Quality Management Standard (DWQMS) is the standard upon which operational plans are based.

The plan documents an operating authority's quality management system (QMS);

- 3) **An Accredited Operating Authority:** A third party audit of an operating authority's QMS will be the basis for accreditation;
- 4) **A Permit to Take Water (PTTW):** Requirements as outlined in the Ontario Water Resources Act.
- 5) **A Financial Plan:** This must be prepared and approved in accordance with the prescribed requirements in the Financial Plans Regulation.

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:

- Must indicate a financial viability of a system
- Must be approved by resolution of Council (or governing body)
- Must apply to a period of at least six years (commencing the year of license expiry)
- Details of the proposed or projected financial position
- Details of the proposed or projected financial operations
- Details of the proposed or projected gross cash receipts and gross cash payments
- 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
- Made available to the public through publication on the internet
- Notice of availability to be given to the public
- Submitted to the Ministry of Municipal Affairs and Housing

## 1.2 Township of Fauquier-Strickland Drinking Water System Background

The Fauquier-Strickland Water Treatment Plant is a conventional plant with a rated capacity of 545 m<sup>3</sup>/d. The plant is owned by the Township of Fauquier-Strickland and operated by the Ontario Clean Water Agency (OCWA). Originally built in 1971, the plant takes raw water from the Groundhog River and treats it through two Neptune WaterBoy units, each containing a flocculation tank with a mixer, tube clarifier, and dual media filter. Sludge collected from the tube clarifier is sent to the sanitary sewer for treatment. The filtered water from both package plants merge into a common discharge pipe where sodium hypochlorite is added for primary disinfection before entering two interconnected baffled clearwells, each with a volume of 341 m<sup>3</sup>. Two high lift pumps are used to pump the treated water to the distribution system. Ammonium sulphate and sodium hydroxide are added to the water leaving the plant for the purposes of chloramination and pH control, respectively. Treated water is pumped into the distribution system which serves a population of approximately 500 people.

A study was completed in 2016 to evaluate the options available to refurbish the existing WTP or construct a new WTP. The study recommended that the pre-fabricated Neptune WaterBoy approaching their end-of-life be replaced with a new surface water treatment train. In 2019, conventional treatment package plant equipment was evaluated against technical criteria and pre-selected. The new pre-fabricated water treatment plant equipment will replace the existing Neptune WaterBoy units. UV treatment will be added to the treatment train and existing chemical dosing systems will be maintained.

## **2. FINANCIAL OPERATING PLAN**

The financial operating plan includes the full costs of operating the Fauquier-Strickland water system on an ongoing basis and includes capital investments, operating costs, maintenance costs, administration costs, debt repayment and interest charges.

### **2.1 Operating Expenses**

Recurring operating expenses for the Fauquier-Strickland water system consists of OCWA operating contract costs, utility costs, major maintenance and repair items for the upkeep of the drinking water system as well as other miscellaneous costs such as telephone bills, insurance, memberships and training costs. All operating costs are projected to increase on an annual basis at a rate of 2% per year up to the end of the study period. The total water operating expenses (excluding capital items and amortization) for the Fauquier-Strickland water system have been budgeted at \$283,721 for 2020 and projected to increase to \$350,039 by the end of the study period.

### **2.2 Capital Costs**

Although ongoing yearly maintenance and repair of the Fauquier-Strickland drinking water system is forecasted, most of these costs will be considered as operating expenditures. There are however several items that will be capitalized during the study period. These include:

- A completely new Water Treatment Plant system in 2021 (approximately \$2.6 million dollars)
- Replacement of Highlift Distributor Header in 2023 (\$10,000)
- Replacement of Distribution Pressure Relief Valve in 2024 (\$5,000)
- Replacement of Chemical Drum Pump in 2022 and 2025 (\$6,000)
- Upgrade to Chemical Pumps in 2021 (\$6,000)
- Replacement of fire hydrants in 2021, 2022, 2023, 2024 and 2025 (\$40,000)
- Replacement of the Generator at the Water Treatment Plant in 2021 (\$100,000)

### **2.3 Debt Management**

The municipality has a debenture loan which was obtained to finance costs incurred for the Water Distribution Line Upgrade project. The debt principal was \$350,835 at year

end 2019 with annual payments of \$71,580 (both principal and interest). The debt principal is expected to decrease throughout the study period with a resulting principal of \$81,914.85 by the end of 2026. The debt will be fully paid by February of 2028.

During the study period, the municipality will be obtaining another debenture loan in the approximate amount of \$600,000 to cover a portion of the municipality's contribution for the new water treatment plant system. The amount of the loan is yet to be determined as final costs for the completion of the project have not yet been received. The forecasts of this study are based on a \$600,000 debenture loan with a repayment period of 25 years.

#### **2.4 Lead Replacement Costs**

There is no lead present in the system and as a result, no funds have been set aside for lead abatement.

#### **2.5 Source Water Protection Costs**

There are no costs associated with source water protection for the Fauquier-Strickland Drinking Water System.

### **3. FUNDING PLAN**

A funding plan was developed to ensure the annual expenditures forecasted in the financial operating plan can be sustained over the study period. The funding plan relies on operating revenues from the direct users of the drinking water system through water rates. The plan did not require any transfers of funding from general reserves during this study. Capital cost projections were made based on OCWA's six (6) year capital plan recommendations from 2020 to 2026. Barring any unanticipated capital projects, the water system is self-sustaining for the full study period (2020-2026).

#### **3.1 Water Rates**

In the last 5 years, there have been no new connections to the system. As such, water consumption basically stays the same year over year. With the new water treatment system scheduled for 2021, we anticipate lower operating costs. It is difficult to forecast the financial impact the new water treatment system will have on the operating budget, therefore, for the study period we have forecasted an increase of 5% per year from 2020 to 2026.

Water Rates are billed on a flat rate per unit with annual rate increases to reach 100% recovery on operational costs and maintain appropriate levels of debt.

#### **3.2 Debt and Cash Reserves**

As mentioned previously in section 2.3, the Fauquier-Strickland Drinking Water System carries a debenture loan, which will be paid in full by February 2028.

## Township of Fauquier-Strickland Drinking Water System – 6 Year Financial Plan

New debt is projected for 2021 in order to supply funds to replace the current water treatment system.

The Fauquier-Strickland Drinking Water System reserve had an opening balance of \$262,832 as at December 31, 2020. By the end of this study, the reserves are estimated to at \$168,878.

### 3.3 Government Grants

In 2016, the Township of Fauquier-Strickland was approved for financial assistance from the New Building Canada Fund under the Small Communities Fund program for the replacement of the water treatment system. As such, the Township of Fauquier-Strickland was approved for the following:

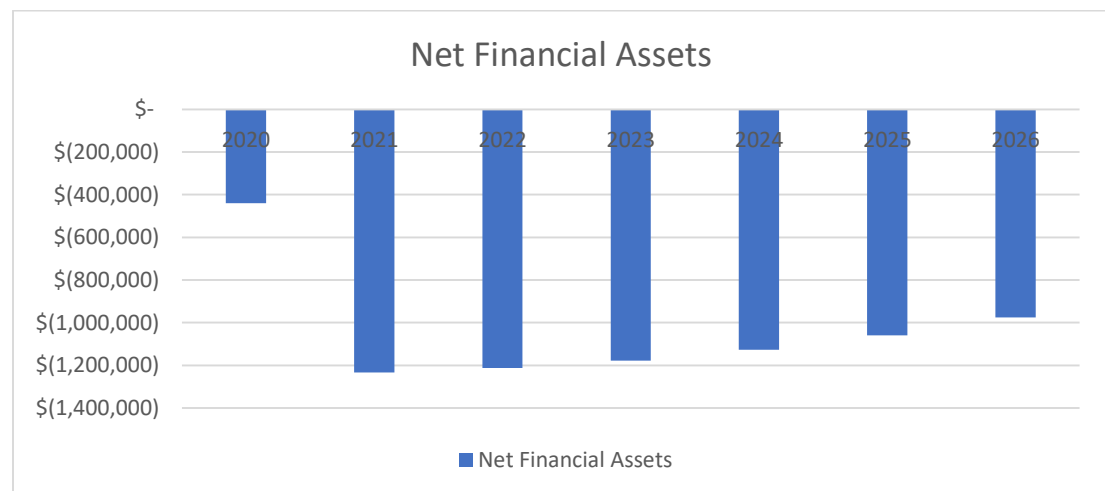
Provincial Contribution maximum:	\$878,578.00
Federal Contribution maximum:	\$878,578.00

## 4. Financial Plan Summary

This section provides a summary of principal features concerning the current and projected future state of the Fauquier-Strickland Drinking Water System. The financial information is contained in financial statements covering at least six years (2020 – 2026) in compliance with O.Reg. 453.

### 4.1 Statement of Financial Position

An important feature of a water system is its net financial assets. A positive net financial asset indicates that the system has resources to deal with future capital and other needs. A negative number indicates that past capital and other investments must be financed from future revenues. The Fauquier-Strickland Drinking Water System's net financial asset are shown in figure 4.1 below.





## Township of Fauquier-Strickland Drinking Water System – 6 Year Financial Plan

Figure 4.1 shows that negative net financial assets are projected up to the year 2026. The repayment of debt principal for the Water Distribution project and the Water Treatment System replacement is also included in the chart and indicates long term debt.

A second feature of the water system is the total value of the system's tangible capital assets (plant equipment, watermains). Consideration of the value of tangible capital assets (TCA) is part of PSAB compliance. The current value of the capital assets is termed net book value (NBV). NBV is the difference between the original cost of an asset less the accumulated amortization.

Water systems have 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. Tangible capital assets, once installed, are being used and are decreasing in value. An increase in net book value of tangible capital assets is an indication that assets have been renewed faster than they were used. A decrease in net book value indicates that assets are being used, or amortized, faster than they are renewed. The net book value of the assets is set out in Figure 4.2.

As shown in the figure, the TCA NBV increases in 2021 due to the replacement of the water treatment system but then decrease through to 2026 as the yearly amortization was greater than the capital additions in each of those years.

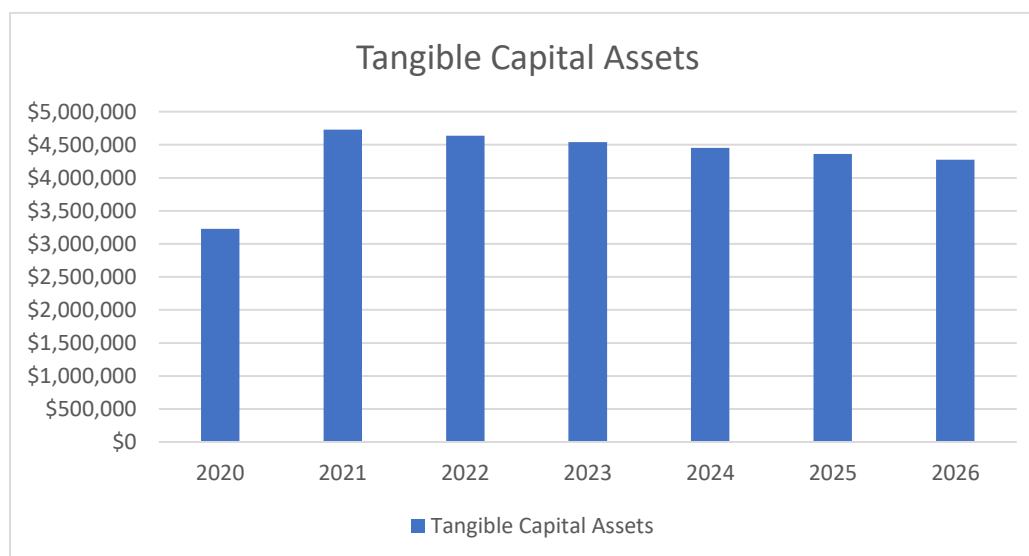
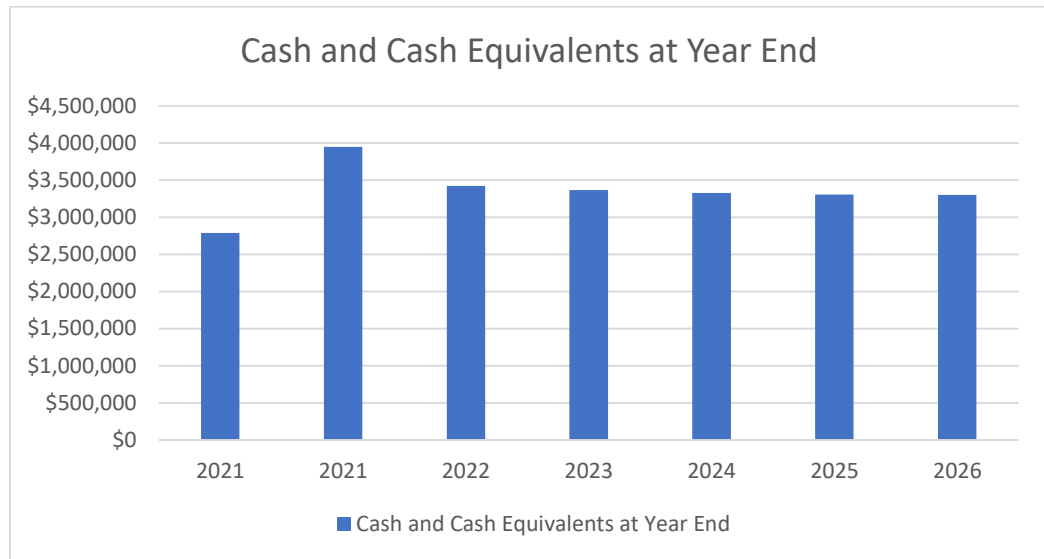
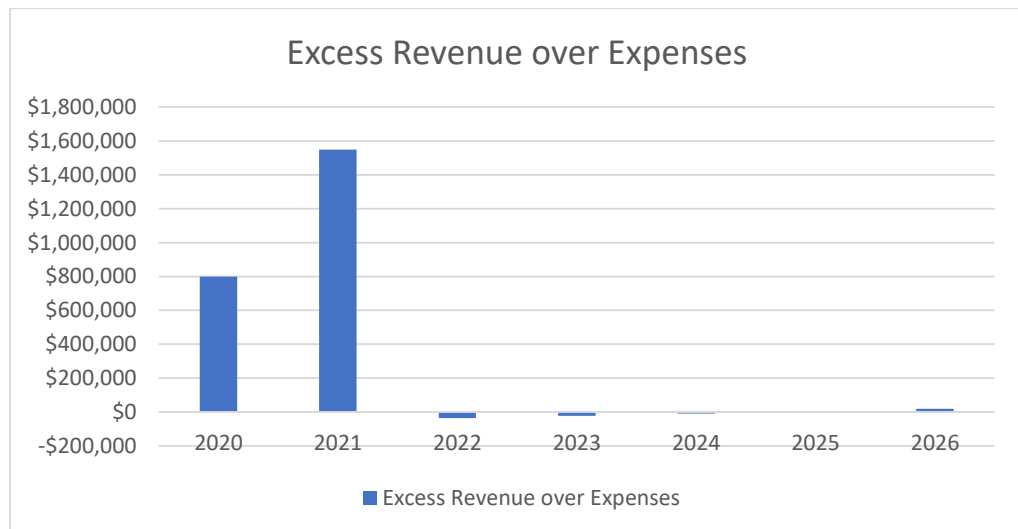


Figure 4.3 sets out the accumulated surplus, which represents cash on hand plus the net book value of tangible capital assets less debt.



#### 4.2 Statement of Operations

This statement summarizes revenues and expenditures. Revenue include user fees from connected users. Expenditures include ongoing operating costs, debt repayment, and asset amortization. Figure 4.4 projects that the system’s excess of revenues over expenses, including amortization, increases significantly in 2020 and 2021 due to capital grants. Without this capital surplus, the numbers would be similar to those found from 2022 to 2026.



#### **4.3 Continuous Improvement**

The SDWA requires renewal of Municipal Drinking Water Licenses every five (5) years. The Financial Plan regulation requires the preparation and approval of a financial plan before making an application for renewal of a Drinking Water License. Each Financial Plan will require updating at a minimum frequency of every five years. This on-going update will assist in revisiting the assumptions made in the original financial plan, to develop the operating and funding plans as well as re-assessing the need for capital renewal and major maintenance expenditures.

#### **4.4 Conclusion**

The Fauquier-Strickland water system is anticipated to experience substantial infrastructure growth. User fees are increased to cover the increase in operating expenses. Due to the replacement of the drinking water and the debt incurred to fund that capital investment, the Township will need to proceed with caution in the future years to ensure a healthy financial situation.

### **5. FINANCIAL STATEMENTS**

The detailed financial statements are set out in the following tables.

Please note that these financial statements are unaudited and are for planning purposes only.

Actual results will defer from the above and these differences could be material.

# THE CORPORATION OF THE TOWNSHIP OF FAUQUIER AND STRICKLAND

Projected Statement of Financial Position

	2020	2021	2022	2023	2024	2025	2026
<b>Financial assets</b>							
User charges receivable	\$ 262,832	\$ 214,199	\$ 177,941	\$ 154,643	\$ 144,922	\$ 149,436	\$ 168,878
<b>Financial liabilities</b>							
Debentures Principal	702,640	1,447,065	1,390,468	1,332,001	1,271,596	1,209,187	1,144,707
<b>Net financial debt</b>	<b>(439,808)</b>	<b>(1,232,866)</b>	<b>(1,212,527)</b>	<b>(1,177,358)</b>	<b>(1,126,674)</b>	<b>(1,059,751)</b>	<b>(975,829)</b>
<b>Non-financial assets</b>							
Tangible capital assets	3,226,599	4,728,467	4,635,466	4,542,757	4,451,901	4,362,863	4,275,606
<b>Accumulated surplus</b>	<b>\$ 2,786,791</b>	<b>\$ 3,495,601</b>	<b>\$ 3,422,939</b>	<b>\$ 3,365,399</b>	<b>\$ 3,325,227</b>	<b>\$ 3,303,112</b>	<b>\$ 3,299,777</b>
<b>Made up of:</b>							
Investment in Tangible Capital Assets	2,523,959	3,281,402	3,244,998	3,210,756	3,180,305	3,153,676	3,130,899
Reserves	262,832	214,199	177,941	154,643	144,922	149,436	168,878
	<u>2,786,791</u>	<u>3,495,601</u>	<u>3,422,939</u>	<u>3,365,399</u>	<u>3,325,227</u>	<u>3,303,112</u>	<u>3,299,777</u>

# THE CORPORATION OF THE TOWNSHIP OF FAUQUIER AND STRICKLAND

Projected Statement of Operations and Accumulated Surplus

	2020	2021	2022	2023	2024	2025	2026
<b>Revenue:</b>							
User charges	262,832	275,974	289,772	304,261	319,474	335,448	352,220
Province of Ontario grants	400,000	799,200	-	-	-	-	-
Government of Canada grants	400,000	799,200	-	-	-	-	-
Interest and penalties	1,893	1,950	2,009	2,069	2,131	2,195	2,261
Other	18,000	15,000	15,000	15,000	15,000	15,000	15,000
<b>Total revenue</b>	<b>1,082,725</b>	<b>1,891,323</b>	<b>306,781</b>	<b>321,330</b>	<b>336,605</b>	<b>352,643</b>	<b>369,481</b>
<b>Expenses:</b>							
Operating	51,370	52,603	53,865	55,158	56,482	57,838	59,226
Water Service Contract	143,448	146,891	150,416	154,026	157,723	161,508	165,384
Debt Interest	25,077	30,797	28,981	27,105	25,166	23,163	21,092
Amortization	49,522	96,532	94,601	92,709	90,855	89,038	87,257
Maintenance and capital	14,304	14,733	15,175	15,630	16,099	16,582	17,079
		-	-	-	-	-	-
<b>Total expenses</b>	<b>283,721</b>	<b>341,556</b>	<b>343,039</b>	<b>344,629</b>	<b>346,326</b>	<b>348,129</b>	<b>350,039</b>
<b>Annual surplus (deficit)</b>	<b>799,004</b>	<b>1,549,767</b>	<b>(36,258)</b>	<b>(23,298)</b>	<b>(9,721)</b>	<b>4,514</b>	<b>19,442</b>
Capital surplus	800,000	1,598,400	-	-	-	-	-
operating surplus	(996)	(48,633)	(36,258)	(23,298)	(9,721)	4,514	19,442