Township of White River

WATER FINANCIAL PLAN
2020 – 2029

In accordance with O.Reg. 453/07

Project No.: 20-106

Prepared by:

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August 18, 2020

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Ms. Tina Forsyth
CAO/Treasurer
Township of White River
102 Durham St., P.O. Box 307
White River, ON
P0M 3G0

Re: 2020 Final Water Financial Plan

Dear Tina,

We are pleased to submit the final version of your updated Water Financial Plan.

We appreciate the opportunity to be of assistance to the Township of White River with this undertaking and look forward to working again with you and your staff in the future.

Please call if you have any questions.

Yours truly,

Infrastructure Solutions (Software) Inc.

Neil Roberts
President
Infrastructure Solutions (Software) Inc.

TABLE OF CONTENTS

LIST OF FIGURES:

LIST OF TABLES:

1 INTRODUCTION and Project Scope

1.1 Objectives

Infrastructure Solutions Inc. (ISI) was retained by the Township of White River (the Township) to prepare a Water/Wastewater Financial Plan for the communal water system. The Financial Plan has been developed and prepared with a forward-looking approach at the financial position of the Township's water and wastewater systems. The plan is not audited, and it does contain various estimates and assumptions as explained in Section 5: "Notes to the Financial Plan".

The Water Financial Plan fulfills one of the five submission requirements for the purposes of obtaining a municipal drinking water license as per the Safe Drinking Water Act 2002 (SDWA). The prescribed reporting requirements for a financial plan are defined by Ontario Regulation 453/07 (O. Reg.453/07). In general, a financial plan requires an in-depth analysis of capital and operating needs, a review of current and future demand versus supply, and consideration of available funding sources. The Financial Plan under O. Reg. 453/07 is required to cover a period of at least six (6) years, and this Plan's period is from 2020 to 2029 inclusive.

The Township of White River is a municipality with a population of approximately 645 according to the 2016 Canada census by Statistics Canada. The water users in White River are non-metered, with 299 accounts on flat rate in 2019. The Township has undertaken this Water and Wastewater Financial Plan in order to ensure that sufficient funds will be in place to cover the short-term water and wastewater system operating costs and full water and wastewater system life-cycle asset renewal and replacement costs over a ten (10)-year time period.

This Water and Wastewater Financial Plan consists of the following tasks:

- Compilation of the current and projected operating costs for the 2020-2029 period
- Projections of capital renewal and replacement costs to 2029
- Revenue projections
- Debt requirements and projections
- Tangible Capital Asset projections
- Statement of Financial Position, Statement of Operations, Statement of Change in Net Financial Assets/Debt, and Statement of Cash Flow

The intent of the project is to develop a sustainable financing plan that will fully meet the current financial needs, as well as make full provision for renewing all water system financial assets. The cost of renewing financial assets has been identified for the 2020 to 2029 period. For each year, from 2020-2029, user fees have been set such that funds will be available when needed to meet future projected capital renewal and replacement needs.

The costs of the identified short-term capital renewal needs have been combined with projections of the operating costs to produce an overall projection of the system costs. Various methods have been utilized to supply the necessary financial resources to pay for the operations & maintenance (O&M) and the capital projects. These include loans, if any, user fees and reserves. User fees are the key component of the financial plan as they pay down any loan and build up reserves.

The current rate structure as per the 2019 Water By-law combined with the rate increases as proposed in the 2015 White River Water/Wastewater Rate Study generates sufficient funds to fully meet the projected needs of the financial plan. It is recommended that the rates be monitored annually to determine if projected revenues and expenditures are in line with expectations.

1.2 Study Area

The Township of White River is located midway between Thunder Bay and Sault Ste. Marie in the heartland of Northwestern Ontario. The Township is responsible for the water supply, treatment and distribution within the Township site. Municipal services, including water and wastewater are supplied to approximate 299 customers. White River's major industry was the forest industry until 2007, when the Domtar mill was shut down.

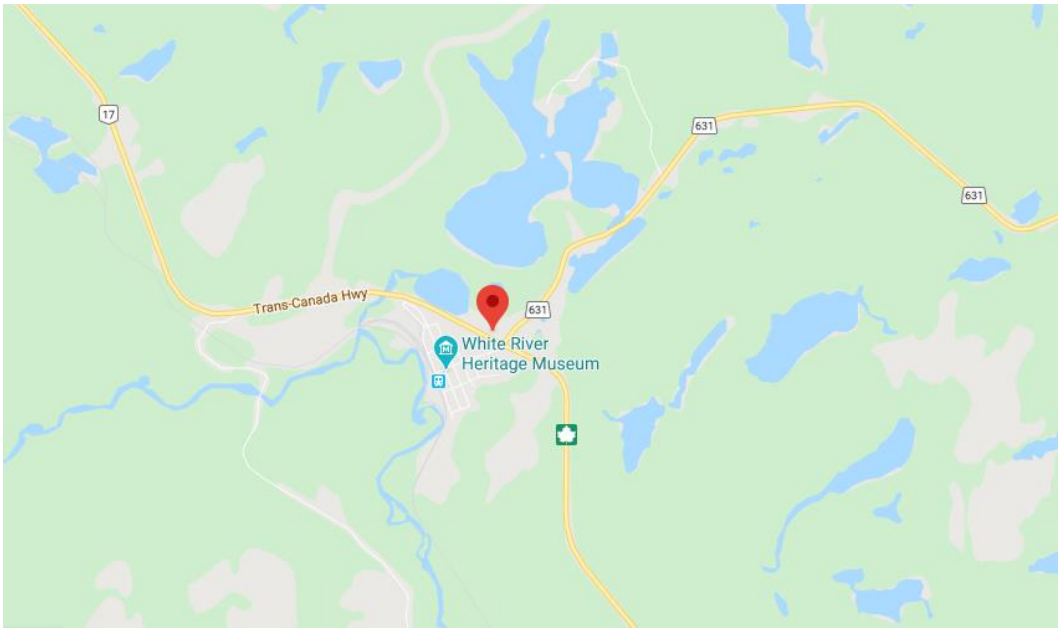

Figure 1 - Study Area *(Source: Google Maps)*

In September 2013, Forest Products Ltd. has begun a multi-million dollar re-investment program and has restarted the saw mill with a single shift and planned to add a second shift by January 1, 2014. A private corporation owns and operates the mill under a Sustainable Forest License, and it is located in North Western Ontario at White River between Thunder Bay and Sault Ste. Marie. The corporation was created by the Township of White River and the Pic Mobert First Nation who purchased the sawmill assets from Domtar after that company closed the mill indefinitely in 2007.

1.3 Water System

The raw water source for The Township is Lake Tukanee located approximately 3.8 kilometers northeast of the water treatment plant. The surface water supply for the Township flows through an intake structure located in approximately 5 metres of water depth, and about 25 metres from shore within Lake Tukanee. An intake pipe conveys raw water by gravity from the intake structure to the wet well.

The pumping station is equipped with submersible pumps that start and stop in response to pressure in the raw water transmission main. An automatic valve located in the Water Treatment Plant (WTP) opens, based on a signal from the Blueberry Hill Reservoir, which starts the flow of raw water through the treatment process. Two of three pumps are called to start and continue to run until the Reservoir is full and a signal closes the automatic valve.

Figure 2 – Water Treatment Plant

There are three valves at the entrance to the WTP. An electric actuator valve starts and stops the flow of water through the treatment process. Once the flow rate is manually set, the SCADA system monitors and records the flow into the WTP on a continuous basis.

The surface water treatment system consists of ozonation, roughing filters, slow sand filters, and granular activated carbon. Each filter train consists of two (2) roughing filters, a slow sand filter and a GAC contactor. Ozone is added to the raw water to oxidize the organic materials in the raw water, which produces a particulate matter that needs to be filtered out, and reduces taste, odour, and colour.

The standby primary disinfection system is chlorination. Sodium hypochlorite is added to maintain a chlorine residual in the distribution system. Also, a UV irradiation for disinfection of the raw water supply is used. Other processes such as de-chlorination are used on the backwash water which is necessary prior to discharge into the exfiltration trench.

The reservoir provides a supply of clean potable water to the community for public consumption during peak water demand periods, and for emergency supply purposes. The reservoir is located on the south side of the community on Blueberry Hill. The reservoir is classified as a two-celled in-ground reservoir and has a maximum useable storage capacity of 1,350 m^3.

In the event of a power failure, a Diesel Electric Generator Set (Gen-Set) has been installed to provide a backup power supply. If the power does go out and there is a delay in starting the Gen-Set, battery operated emergency lights will come on in the building until power is restored. Under full load, the Gen-Set Uses 6.7 U.S. gallons of fuel per hour (25.5L/hr.).

The Township WTP contains two (2) high lift pumps which pump the water from the facility's clear well through the distribution system and to the reservoir, and are controlled by a Milltronics ultrasonic level control system located in the Blueberry Hill Reservoir.

Figure 3 – Water Treatment Plant

The distribution system receives treated water from the Township Water Treatment Plan. The individual components of the water main system are described as follows:

- Main valves are located at regular intervals along the water main.
- Fire Hydrants are located throughout the community.
- Water Services are 19 mm to 50 mm diameter pipes that run from water mains to property lines.

1.4 Wastewater System

The Township Sewage Works consists of four pumping stations, a waste stabilization pond with influent and effluent works, and interconnecting structures. The wastewater generated within the collection area of White River is collected into the sewer system and pumped to the 180-day retention stabilization pond by way of a 250 mm diameter force main. The waste stabilization pond is constructed in two cells totaling 12 acres, with a design capacity of 86,950 cubic meters. The cells have been designed to operate in series or in parallel, with an effluent discharge through two 250 mm diameter outflow sewers into Chain Lakes Creek, which in turn discharges to the White River upstream of the community.

There are four pumping stations in the wastewater collection system. Two of the pumping stations, Stanworth and Durham, collect and pump sewage to the waste stabilization pond. The Stanworth pumping station collects the wastewater from the Stanworth subdivision and the arena. It consists of two A.B.S. submersible pumps and a 40 kW backup generator. This station pumps directly to the lagoons via a 150 mm diameter force main. The overflow for this station leads to the field out back. The Spadoni pumping station collects wastewater from Spadoni and Allaire streets. It has two 2.2 hp submersible Flygt pumps and no backup generator. Its overflow leads to a gravity sewer cover. This station pumps to the Dufferin St. pumping station via gravity. The Dufferin pumping station collects wastewater from Hwy. 17, Ontario St. West and the Spadoni pumping station. It consists of two 5 hp Flygt submersible pumps and a 25 kW backup generator. Its overflow leads to a gravity manhole, and its wastewater flows to the Durham St. pumping station.

2 Provincial Requirements

The Safe Drinking Water Act (SDWA) was passed in December 2002 to address some of the recommendations made by the Walkerton Inquiry Part II report. One of the main requirements of the Act is the mandatory licensing of municipal water providers. Section 31 (1) specifically states,

"No person shall,

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

One of the main requirements of the SDWA is the mandatory licensing of municipal water providers, as per section 31 (1). To meet license requirements, a municipality must satisfy five key requirements as per section 44 (1):

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

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

2.1 Financial Plan Requirements – General

Under the SDWA, a financial plan is mandatory for water systems and encouraged for wastewater systems. The financial plans shall be for a period of at least six years, but longer planning horizons are encouraged. The financial plan is to be completed and approved by the later of July 1, 2010 and the date that is six months after the first license is issued. Once a water system is licensed, the Township's Water Financial Plan is required to be updated every five (5) years, in conjunction with the application for license renewal. Financial plans may be amended, and additional information beyond what is prescribed can be included if deemed necessary.

2.2 Financial Plan Requirements – Existing System

O. Reg. 453/07 provides details with regards to s.30 (1) part b of the SDWA for existing water systems:

- Financial plans must be approved by Council resolution (or governing body).
- Financial plans must include a statement that the financial impacts have been considered and apply for a minimum six year period (commencing when the system first serves the public, or at renewal starting with the year in which the license expires).
- Financial plans must include detail regarding proposed or projected financial operations itemized by total revenues, total expenses, annual surplus/deficit and accumulated surplus/deficit (i.e. the components of a "Statement of Operations" as per Public Sector Accounting Board (PSAB)) for each year in which the financial plans apply.

- Financial plans must present financial position itemized by total financial assets, total liabilities, net debt, non-financial assets, and tangible capital assets (i.e. the components of a “Statement of Financial Position” as per PSAB) for each year in which the financial plans apply.
- Gross cash receipts/payments itemized by operating transactions, capital transactions, investing transactions and financial transactions (i.e. the components of a “Statement of Cash Flow” as per PSAB) for each year in which the financial plans apply.
- Financial plans applicable to two or more solely-owned drinking water systems can be prepared as if they are for one drinking water system.
- Financial plans are to be made available to the public upon request and at no charge.
- If a website is maintained, financial plans are to be made available to the public through publication on the Internet at no charge.
- Notice of the availability of the financial plans is to be given to the public.
- Financial Plans are to be submitted to the Ministry of Municipal Affairs and Housing.

2.3 Sustainable Financial Planning

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

Principle #1: Ongoing public engagement and transparency can build support for, and confidence in, financial plans and the system(s) to which they relate.

Principle #2: An integrated approach to planning among water, wastewater, and storm water systems is desirable given the inherent relationship among these services.

Principle #3: Revenues collected for the provision of water and wastewater services should ultimately be used to meet the needs of those services.

Principle #4: Life-cycle planning with mid-course corrections is preferable to planning over the short-term, or not planning at all.

Principle #5: An asset management plan is a key input to the development of a financial plan.

Principle #6: A sustainable level of revenue allows for reliable service that meets or exceeds environmental protection standards, while providing sufficient resources for future rehabilitation and replacement needs.

Principle #7: Ensuring that 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.

Principal #8: Financial plans are “living” documents that require continuous improvement. Comparing the accuracy of financial projections with actual results can lead to improved planning in the future.

Principle #9: Financial plans benefit from the close collaboration of various groups, including engineers, accountants, auditors, utility staff, and municipal council.

The principles help form the framework for a sustainable financial plan. The substance of the financial plan may be derived from SWSSA (Sustainable Water and Sewage Systems Act) which will require, once in force, municipalities to assess the “full cost” of providing water and wastewater services. Full cost as defined in subsections 3(7) and 4(7), and includes:

"source protection, operating costs, financing costs, renewal and replacement costs and improvement costs associated with extracting, treating or distributing water to the public and collecting, treating or discharging waste water, and such other costs which may be specified by regulation."

Furthermore, municipalities will be required to inventory and report their current infrastructure and how it will be maintained and managed going forward. Municipalities will then be required to report on the full cost of services and how these costs will be recovered and paid for. The principles of SWSSA ensure that a long-term plan for sustainable asset management is developed and that all costs for providing water and wastewater services are assessed so that there is sufficient funding for system needs.

Although SWSSA has not come into force, the Financial Plan has been prepared such that the Township will be both SDWA and SWSSA compliant.

3 KEY CONSIDERATIONS

This section presents the projections settled for key items over the six (6) year period and the assumptions made in order to prepare this Financial Plan. These include:

- Customer growth
- Operations & Maintenance (O&M)
- Capital budget forecasts
- Revenue requirements
- Debt requirements and repayment
- Capital Reserves and operating reserve projections
- Tangible Capital Asset (TCA) projections

It should be noted that while this Financial Plan meets O. Reg. 453/7 requirements, the Township's 2015 Water Rate Study fully assesses the Town's water/wastewater infrastructure and considers factors such as estimated useful life, asset replacement requirements, conservation, and reserve requirements over a 50-year term to plan for sustainable for long-term water and wastewater infrastructure management.

3.1 Customer Growth & Consumption

The Township does not currently measure water consumption as all customers are charged a flat rate. Therefore, no data on consumption volume were available for consideration.

The number of customers declined from 294 in 2009 to 288 in 2012. By 2013, the number went back up to 292. By 2016 the number of accounts had increased to 297, reaching 299 by the year 2019. While there has been a small growth in customers recently (0.224% on average over the last 3 years), for the purposes of this Water and Wastewater Financial Plan it is assumed that the number of customers will remain steady at 299, as shown in Table 3-1.

Table 3-1: Customer Growth

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
No. Customers	297	298	298	299	299	299	299	299	299	299	299	299	299	299
% Increase in Customers		0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

During 2013, the Township produced a total of 235,723 m^3 of treated water, representing only 28% of the Township's production capacity. Since then the treated water production has increased significantly, reaching 362,171 m^3 in 2019 which represents a capacity utilization of about 43%.

Table 3-2 summarizes raw water production and treated water volumes.

Table 3-2: Raw Water vs. Treated Water

Description	2017	2018	2019
Raw Water Production (m3)	356,409	395,921	371809
Treated Water Production (m^3)	351,268	387,506	362,171
Treated Water (m^3) / Account	1,179	1,300	1,211
Consumption Increase (%)		10.3%	-6.9%
Water Loss (m^3)	5,141	8,415	9,638
Water Loss (%)	1.4%	2.1%	2.6%

3.2 Operating and maintenance (O&M) Cost Projections

The Township maintains combined expenditure records for water and wastewater. For this report, a 70/30 split of water/sewer water/sewer charges was used, as suggested by the Township. Therefore, for expenditure items 70% was applied to the water financial forecast, while 30% of the revenues were used for the wastewater financial forecast.

Water System
The Township's annual operating budget for water includes costs related to the following:

- Water system operations and maintenance
- Water capital related expenditures
- Transfers to the water capital reserve
- Transfers to capital to undertake the annual capital improvement projects. The Township mostly follows a pay-as-you-go approach to capital financing, as capital programs are funded from the user rate revenues each year
- Repayment of funds from the general reserve used in the past for completing water projects

The following assumptions were made for projecting the gross costs and revenues over the ten (10)-year period from 2020 to 2029, using 2019 as the base budget year:

- The annual operating costs for water treatment and distribution would increase by 2.0% per year
- The capital projects are on the capital budget
- Interest of 1.2% is earned by the reserve funds, which remains in the reserve fund
- Non-metered rate revenues are composed of miscellaneous water and tipping fees, gas tax offset, grants and capital reserves
- The revenue was determined by calculating the net rate funding need. This was performed by adding the operating and capital expenditures
- Capital projects for the water system in the 2020-2029 period are shown in Appendix F

Table 3.3 summarizes the projected operating revenues and expenditures, with the annual surplus going towards capital projects and reserves:

Table 3-3: Water Operations Projections

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Net Operating Expenditure	$187,522	$204,754	$208,777	$212,953	$217,212	$221,556	$225,987	$230,507	$235,117	$239,819	$244,616
Total Revenue from User Rates	$295,147	$295,147	$317,283	$341,079	$366,660	$394,159	$405,984	$418,164	$430,708	$443,630	$456,939
Surplus (Deficit)	$107,625	$90,393	$108,505	$128,126	$149,448	$172,603	$179,997	$187,657	$195,591	$203,810	$212,323

The detailed Financial Projections for the plan period are shown in Table 3-4:

Table 3-4: Water Financial Statement Projection

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues														
User Fees Water Revenue	223,274 80	257,820	274,555	295,147	295,147	317,283	341,079	366,660	394,159	405,984	418,164	430,708	443,630	456,939
Water Penalties	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400	8,400
Tipping Fees	3,003	245	637	410	420	420	420	420	420	420	420	420	420	420
OSWAP Grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OCIF Grant	-	-	-	-	-									
OMAFRA Grant	33,948	60,270	85,586	-	-									
Reserves				-	-									
Other Water Connection				-	-									
Gas Tax Offset	-	-	-	-	-									
Miscellaneous Others	3,567	364	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenues	272,272	327,099	369,178	303,956	303,967	326,103	349,899	375,480	402,979	414,804	426,984	439,528	452,450	465,759
Expenditures														
Salaries	60,803	48,841	49,020	52,694	52,500	53,550	54,621	55,713	56,828	57,964	59,124	60,306	61,512	62,742
Benefits	14,418	17,463	14,249	14,423	14,396	14,683	14,977	15,277	15,582	15,894	16,212	16,536	16,867	17,204
Temporary Operators	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training	1,419	-	606	338	1,050	1,071	1,092	1,114	1,137	1,159	1,182	1,206	1,230	1,255
Office Supplies	70	273	44	-	175	179	182	186	189	193	197	201	205	209
Supplies	11,347	12,211	12,725	10,940	12,600	12,852	13,109	13,371	13,639	13,911	14,190	14,473	14,763	15,058
Computer Software & Supplies	-	-	-	826	826	843	859	877	894	912	930	949	968	987
Telephone	3,077	2,936	2,870	2,864	2,940	2,999	3,059	3,120	3,182	3,246	3,311	3,377	3,445	3,514
Postage	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Courier	1,527	2,151	2,886	516	2,800	2,856	2,913	2,971	3,031	3,091	3,153	3,216	3,281	3,346
Heat/Hydro	56,663	66,094	60,134	57,167	63,000	64,260	65,545	66,856	68,193	69,557	70,948	72,367	73,815	75,291
Travel/Conferences	477	-	-	31	-	-	-	-	-	-	-	-	-	-
Meeting Expenses	-	-	-	21	70									
Building Maintenance	1,959	261	1,188	909	3,500	3,570	3,641	3,714	3,789	3,864	3,942	4,020	4,101	4,183
Outdoor Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment	473	-	-	-	-	-	-	-	-	-	-	-	-	-
Janitorial Service/Supplies	49	171	70	146	350	357	364	371	379	386	394	402	410	418
Memberships/Subscriptions	607	551	403	540	700	714	728	743	758	773	788	804	820	837
Uniforms	260	214	210	239	280	286	291	297	303	309	315	322	328	335
Consultants	10,335	3,506	5,969	9,959	10,500	10,710	10,924	11,143	11,366	11,593	11,825	12,061	12,302	12,548
Contractors	35,171	6,880	10,842	10,557	10,500	10,710	10,924	11,143	11,366	11,593	11,825	12,061	12,302	12,548
Fuel	2,335	3,906	4,583	2,860	3,850	3,927	4,006	4,086	4,167	4,251	4,336	4,422	4,511	4,601
Operating Overruns	-	-	-	-	-									
Equipment Repairs	8,849	8,637	19,261	12,885	14,000	14,280	14,566	14,857	15,154	15,457	15,766	16,082	16,403	16,731
Equipment Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Internet	637	692	757	772	770	785	801	817	833	850	867	884	902	920
Water Samples	7,018	8,765	8,223	8,057	9,100	9,282	9,468	9,657	9,850	10,047	10,248	10,453	10,662	10,875
Miscellaneous	295	-	-	-	-									
Water Debenture Payment	-	-	-	-	-									
LUP	78	78	284	232	298	303	310	316	322	328	335	342	349	356
Water Billing	441	455	510	548	550	560	572	583	595	607	619	631	644	657
Total Operating Expenditures	218,307	184,085	194,834	187,522	204,754	208,777	212,953	217,212	221,556	225,987	230,507	235,117	239,819	244,616
Capital Related														
Debenture (Principal + Interest)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers from Operating to Capital Reserve				116,434	99,213	117,325	136,946	158,268	181,423	188,817	196,477	204,411	212,630	221,143
Total Capital Related				116,434	99,213	117,325	136,946	158,268	181,423	188,817	196,477	204,411	212,630	221,143
Total Expenditures				303,956	303,967	326,103	349,899	375,480	402,979	414,804	426,984	439,528	452,450	465,759
Revenues Less Expenses	272,272	327,099	369,178	-	-	-	-	-	-	-	-	-	-	-

Wastewater System
The Township's annual operating budget for wastewater includes costs related to the following:

- Wastewater system operations and maintenance
- Wastewater capital related expenditures
- Transfers to the wastewater capital reserve
- Two existing debentures for Wastewater
- Sewer cover maintenance.
- Sewage pumping stations and equipment
- Repayment of funds from the general reserve used in the past for completing wastewater projects

The following assumptions were made for projecting the gross costs and rate revenues over the period from 2020 to 2029, using 2019 as the base budget year:

- The annual operating costs for water treatment and distribution would increase by 2.0% per year
- Revenues are composed of user fees, miscellaneous sewer fees and sewer penalties, capital reserves, and interest on reserves
- Interest of 1.2% is earned by the reserve funds, which remains in the reserve fund
- Capital projects for wastewater are shown in Appendix F

Table 3.5 summarizes the projected operating revenues and expenditures, with the annual surplus going towards capital projects and reserves:

Table 3-5: Wastewater Operations Projections

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Net Operating Expenditure	$225,615	$230,201	$227,799	$227,417	$226,051	$224,973	$223,566	$222,299	$221,070	$219,882	$218,733
Total Revenue from User Rates	$193,435	$193,435	$210,844	$229,820	$250,504	$273,049	$277,964	$282,967	$288,060	$293,246	$298,524
Surplus (Deficit)	-$32,180	-$36,767	-$16,955	$2,403	$24,453	$48,076	$54,398	$60,668	$66,990	$73,364	$79,791

The detailed Financial Projections for the plan period are shown in Table 3-6:

Table 3-6: Wastewater Financial Statement Projections

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues					Budget									
User Fees Sewer Revenue	143,948	158,147	177,463	193,435	193,435	210,844	229,820	250,504	273,049	277,964	282,967	288,060	293,246	298,524
Sewer Penalties	7,500	7,631	4,138	4,886	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800
Miscelaneous Sewer														
Ontario Grants														
Gas Tax Offset (FIR)	29,731	41,879	41,296											
Other Interest Charges														
Revenue from the Lawsuit														
Other Revenue (Second Billing)														
Reserves	-	-	-	-										
Total Revenues	181,179	207,657	222,897	198,321	198,235	215,644	234,620	255,304	277,849	282,764	287,767	292,860	298,046	303,324
Expenditures														
Operating & General Expenses	93,560	78,893	83,500	80,367	87,752	89,507	91,297	93,123	94,985	96,885	98,822	100,799	102,815	104,871
Unfinanced Lagoon Studies														
Operating Overruns														
Total Operating Expenditures	93,560	78,893	83,500	80,367	87,752	89,507	91,297	93,123	94,985	96,885	98,822	100,799	102,815	104,871
Capital Related					-	-	-		-		-	-	-	-
Debenture (Principal + Interest)	155,455	152,085	149,264	145,249	142,450	138,292	136,121	132,928	129,988	126,681	123,476	120,272	117,067	113,862
Transfers from Operating to Capital Reserve				-27,294	-31,967	- 12,155	7,203	29,253	52,876	59,198	65,468	71,790	78,164	84,591
Total Capital Related				117,954	110,483	126,137	143,323	162,181	182,864	185,879	188,945	192,062	195,231	198,453
Total Expenditures	93,560	78,893	83,500	198,321	198,235	215,644	234,620	255,304	277,849	282,764	287,767	292,860	298,046	303,324
Revenues Less Expenses	87,619	128,764	139,397	-	-	-	-	-	-	-	-	-	-	-

3.3 Capital Forecast

The capital program includes amounts required for life cycle asset replacement or renewal. For the 2020-2029 period the TCA projects have been incorporated into the capital improvement plan. The capital needs have been inflated at an annual rate of 2.40%.

The Water and Wastewater Capital Projects are shown in (Appendix F).

3.4 Revenue Projections

Each year, the Town amends its fees and charges to customers such that the annual costs are recovered in the water system. The Town presently has 299 water and 281 sewer connections. The rates must be set to cover both operational and capital program expenditures. The Township uses an unmetered flat-rate system, with rates set for various categories of customers.

The rates for 2020 to 2029 follow the recommendations of the 2015 Water & Wastewater Rate Study which the Township is adhering to. As of 2019, the total number of accounts per software in the Township is 299. The Water & Wastewater rates are based on 'Residential Units'. 244 accounts are charged a single residential unit, while businesses are charged pre-determined multiples of the Residential Rate depending on estimated water usage. The business accounts with charges that are multiples of the Residential Rate are shown in Appendix E.

The 2020-2029 projected Water Rates are set out in Table 3-7.

Table 3-7 Projected Water Rates

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Flat User Rate	$315.15	$338.80	$364.20	$391.51	$391.51	$420.87	$452.44	$486.37	$522.85	$538.54	$554.69	$571.33	$588.47	$606.13
% Increase in Rate	7.5%	7.5%	7.5%	7.5%	0.0%	7.5%	7.5%	7.5%	7.5%	3.0%	3.0%	3.0%	3.0%	3.0%

The 2020-2029 projected Wastewater Rates are set out in Table 3-8.

Table 3-8 Projected Wastewater Rates

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Flat User Rate	$285.23	$310.90	$338.88	$369.38	$369.38	$402.62	$438.86	$478.36	$521.41	$530.80	$540.35	$550.08	$559.98	$570.06
% Increase in Rate	9.0%	9.0%	9.0%	9.0%	0.0%	9.0%	9.0%	9.0%	9.0%	1.8%	1.8%	1.8%	1.8%	1.8%

The projected annual user fee revenues for water are summarized in Table 3-9.

Table 3-9 Revenue Projections for Water

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Revenue from User Rates	$295,147	$295,147	$317,283	$341,079	$366,660	$394,159	$405,984	$418,164	$430,708	$443,630	$456,939

The projected annual user fee revenues for wastewater are summarized in Table 3-10.

Table 3-10 Revenue Projections for Wastewater

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Total Revenue from User Rates	$193,435	$193,435	$210,844	$229,820	$250,504	$273,049	$277,964	$282,967	$288,060	$293,246	$298,524

3.5 Debt Repayment

The Township has two existing debentures (Tables 3-11 and 3-12) related to the wastewater system. The Township wants to keep a no-debt policy agenda in place, but the existing debentures were required to fund major capital projects.

The first existing debenture in the amount of $1,300,000 was acquired in 2010, with a loan term of 25 years, an interest rate of 2.64%, and a semi-annual payment frequency.

Table 3-11 Debt Repayment Schedule Serial Debenture 1

Payment Date	Total Payment	Principal Amount	Interest Amount	Prinicipal Balance
2020-03-01	36,551.75	26,000.00	10,551.75	780,000.00
2020-09-01	36,324.21	26,000.00	10,324.21	754,000.00
2021-03-01	35,871.00	26,000.00	9,871.00	728,000.00
2021-09-01	35,688.58	26,000.00	9,688.58	702,000.00
2022-03-01	35,190.24	26,000.00	9,190.24	676,000.00
2022-09-01	34,996.54	26,000.00	8,996.54	650,000.00
2023-03-01	34,509.48	26,000.00	8,509.48	624,000.00
2023-09-01	34,304.50	26,000.00	8,304.50	598,000.00
2024-03-01	33,871.97	26,000.00	7,871.97	572,000.00
2024-09-01	33,695.20	26,000.00	7,695.20	546,000.00
2025-03-01	33,207.20	26,000.00	7,207.20	520,000.00
2025-09-01	32,864.00	26,000.00	6,864.00	494,000.00
2026-03-01	32,520.80	26,000.00	6,520.80	468,000.00
2026-09-01	32,177.60	26,000.00	6,177.60	442,000.00
2027-03-01	31,834.40	26,000.00	5,834.40	416,000.00
2027-09-01	31,491.20	26,000.00	5,491.20	390,000.00
2028-03-01	31,148.00	26,000.00	5,148.00	364,000.00
2028-09-01	30,804.80	26,000.00	4,804.80	338,000.00
2029-03-01	30,461.60	26,000.00	4,461.60	312,000.00
2029-09-01	30,118.40	26,000.00	4,118.40	286,000.00

The second existing debenture in the amount of $1,000,000 was acquired in 2011, with a loan term of 25 years, an interest rate of 4.58%, and a semi-annual payment frequency.

Table 3-12 Debt Repayment Schedule Serial Debenture 2

Payment Date	Total Payment	Principal Amount	Interest Amount	Prinicipal Balance
2020-03-01	34,973.88	20,000.00	14,973.88	640,000.00
2020-09-01	34,599.89	20,000.00	14,599.89	620,000.00
2021-03-01	33,065.36	20,000.00	13,065.36	600,000.00
2021-09-01	33,667.40	20,000.00	13,667.40	580,000.00
2022-03-01	33,158.85	20,000.00	13,158.85	560,000.00
2022-09-01	32,774.90	20,000.00	12,774.90	540,000.00
2023-03-01	32,251.84	20,000.00	12,251.84	520,000.00
2023-09-01	31,862.41	20,000.00	11,862.41	500,000.00
2024-03-01	31,530.82	20,000.00	11,530.82	480,000.00
2024-09-01	30,890.06	20,000.00	10,890.06	460,000.00
2025-03-01	30,534.00	20,000.00	10,534.00	440,000.00
2025-09-01	30,076.00	20,000.00	10,076.00	420,000.00
2026-03-01	29,618.00	20,000.00	9,618.00	400,000.00
2026-09-01	29,160.00	20,000.00	9,160.00	380,000.00
2027-03-01	28,702.00	20,000.00	8,702.00	360,000.00
2027-09-01	28,244.00	20,000.00	8,244.00	340,000.00
2028-03-01	27,786.00	20,000.00	7,786.00	320,000.00
2028-09-01	27,328.00	20,000.00	7,328.00	300,000.00
2029-03-01	26,870.00	20,000.00	6,870.00	280,000.00
2029-09-01	26,412.00	20,000.00	6,412.00	260,000.00

In summary there are $2,300,000 in debentures. Based on the information provided by the Township, in 2015, a secondary billing will be created for water and sewer, separate from the user rate billing, to collect the amounts required to service the debentures. In subsequent years this secondary billing was eliminated, and the rates were adjusted accordingly.

3.6 WATER AND WASTEWATER RESERVES

The annual operating surplus is transferred to the water and wastewater reserve funds at year-end, and consequentially any shortfall is returned to the operating budget as revenue in subsequent years as needed. The 2019 opening balance of the Water reserves will be the ending balance in 2018 in the amount of $1,004,079. There is no 2018 ending reserve balance for Wastewater. The Reserve Balances were taken from the FIR 2018, the most recent one available. These reserves will be used to fund non growth-related future water and wastewater capital renewal projects. The projected transfers to and from the water and wastewater reserves are shown in Tables 3-10 and 3-11. The interest earned on the water reserves is assumed to be 1.20% per annum and is added to the reserves.

With a zero 2019 opening balance of the Wastewater Reserves, a Wastewater operating shortfall in 2020 and various capital projects due, The Wastewater Reserve balance becomes increasingly negative. To better illustrate the Townships overall Water & Wastewater Reserves, Table 3-12 shows the Combined Water & Wastewater Reserves. This table shows that there are sufficient reserves available during the plan period.

Table 3-13 Water Projected Reserves

Township of White River Projected Water Reserves 2020-2029										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	1,129,642	1,118,021	1,245,644	1,358,836	1,530,563	1,728,037	1,818,698	1,957,240	2,182,373	2,195,924
Transfer from Operating	99,213	117,325	136,946	158,268	181,423	188,817	196,477	204,411	212,630	221,143
Transfer to Capital	124,092	4,473	39,867	4,690	4,439	119,722	81,143	5,157	225,117	302,275
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Close Balane	1,104,764	1,230,873	1,342,723	1,512,414	1,707,546	1,797,132	1,934,032	2,156,495	2,169,886	2,114,792
Interest	13,257	14,770	16,113	18,149	20,491	21,566	23,208	25,878	26,039	25,378

Table 3-14 Wastewater Projected Reserves

Township of White River - Projected Wastewater Reserves 2020-2029										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	(27,622)	(384,631)	(401,548)	(399,077)	(374,262)	(325,243)	(690,379)	(632,410)	(567,347)	(812,531)
Transfer from Operating	-	(12,155)	7,203	29,253	52,876	59,198	65,468	71,790	78,164	84,591
Transfer to Capital	320,482	-	-	-	-	416,147	-	-	313,712	-
Transfer to Operating	31,967	-	-	-	-	-	-	-	-	-
Closing Balance	(380,070)	(396,786)	(394,345)	(369,825)	(321,387)	(682,193)	(624,911)	(560,620)	(802,896)	(727,940)
Interest	(4,561)	(4,761)	(4,732)	(4,438)	(3,857)	(8,186)	(7,499)	(6,727)	(9,635)	(8,735)

Table 3-15 Combined Water & Wastewater Projected Reserves

Township of White River Projected Combined Water & Wastewater Reserves 2020-2029										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	1,102,020	733,390	844,096	959,759	1,156,300	1,402,794	1,128,318	1,324,830	1,615,025	1,383,394
Transfer from Operating	67,247	105,170	144,149	187,521	234,299	248,015	261,945	276,201	290,794	305,734
Transfer to Capital	444,574	4,473	39,867	4,690	4,439	535,869	81,143	5,157	538,830	302,275
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Close Balane	724,693	834,087	948,378	1,142,589	1,386,160	1,114,939	1,309,121	1,595,875	1,366,990	1,386,852
Interest	8,696	10,009	11,381	13,711	16,634	13,379	15,709	19,150	16,404	16,642

3.7 Tangible Capital Asset (TCA) Analysis

The Township's PSAB 3150 TCA data was used to develop the financial material related to the water assets which includes the following:

- Water Treatment Plant assets include the land, buildings and equipment. A breakdown of the Water Treatment Plant components is necessary to determine the appropriate depreciation rates and expenses.
- Also, linear assets such as watermains, valves, hydrants and service connections were taken into consideration. Likewise, for wastewater, sewer covers, sewer linear assets, pumping stations were considered as well.
- The useful life of the assets was taken from the TCA policy and corroborated with engineering experience.
- TCA policy was followed for the amortization of new assets, and straight-line depreciation was used at the beginning of the year of acquisition.
- Fully depreciated assets are being used with no asset removals.
- New assets and asset replacements are projected for 2020-2029 period.

The 2019 ending net book value of the Water assets is about $2,899,110, decreasing to approximately $1,275,820 by 2029. The water system would be 89% depreciated by 2029. This suggests the assets are approaching their useful life expectancies.

Table 3-16 TCA Consolidated for Water

TCA	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Historical Cost	10,539,093	10,663,185	10,667,658	10,707,524	10,712,214	10,716,654	10,836,376	10,917,518	10,922,675	11,147,792
Acquisitions	124,092	4,473	39,867	4,690	4,439	119,722	81,143	5,157	225,117	302,275
Disposals										
Closing TCA Balance (HC)	10,663,185	10,667,658	10,707,524	10,712,214	10,716,654	10,836,376	10,917,518	10,922,675	11,147,792	11,450,067
Accumulated Amortization (Beginning)	7,639,983	7,881,871	8,129,964	8,378,281	8,628,591	8,879,135	9,129,901	9,386,654	9,647,463	9,908,531
Amortization Expense	241,888	248,093	248,317	250,310	250,544	250,766	256,752	260,810	261,067	265,716
Amortization on Disposal										
Accumulated Amortization (Ending)	7,881,871	8,129,964	8,378,281	8,628,591	8,879,135	9,129,901	9,386,654	9,647,463	9,908,531	10,174,247
Net Book Value	2,781,313	2,537,693	2,329,244	2,083,624	1,837,519	1,706,474	1,530,864	1,275,212	1,239,262	1,275,820

The 2019 ending net book value of the Wastewater assets is $513,783, increasing to $1,012,763 by 2029 due to numerous larger capital renewal projects. The Wastewater system would be 85% depreciated by 2023. This suggests the assets have reached the useful life expectancies.

Table 3-17 TCA Consolidated for Wastewater

TCA	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Historical Cost	5,895,689	6,216,171	6,216,171	6,216,171	6,216,171	6,216,171	6,632,318	6,632,318	6,632,318	6,946,030
Acquisitions	320,482	-	-	-	-	416,147	-	-	313,712	-
Disposals										
Closing TCA Balance (HC)	6,216,171	6,216,171	6,216,171	6,216,171	6,216,171	6,632,318	6,632,318	6,632,318	6,946,030	6,946,030
Accumulated Amortization (Beginning)	5,381,906	5,412,729	5,459,576	5,506,423	5,553,270	5,600,117	5,646,964	5,714,619	5,782,273	5,849,928
Amortization Expense	30,823	46,847	46,847	46,847	46,847	46,847	67,654	67,654	67,654	83,340
Amortization on Disposal										
Accumulated Amortization (Ending)	5,412,729	5,459,576	5,506,423	5,553,270	5,600,117	5,646,964	5,714,619	5,782,273	5,849,928	5,933,268
Net Book Value	803,442	756,595	709,748	662,900	616,053	985,354	917,699	850,045	1,096,103	1,012,763

3.8 Lead Pipe Replacement

The Township water supply system has no lead pipes. The water system is constantly tested for lead and other impurities, and tests results show no lead contamination exists in the system. However, if test results indicate lead levels in a customer's water, water service connections will be replaced at the earliest convenience with other water related repairs. Therefore, there are no noteworthy financial costs linked to lead pipe replacement.

4 WATER / WASTEWATER FINANCIAL PLAN

The financial plan guidelines were used to select the method for preparing the Township of White River Drinking Water/Wastewater System Financial Plan. These steps include the determination of the current period expenses and forecasting the future period expenses; the determination and forecasting of capital expenditure needs, the identification of all current revenue sources and forecasting revenues, and the preparation of the financial statements.
For the current expenses, three categories were included for the purpose of this financial plan: operating costs, interest, and amortization. The current period operating expenses were determined from the Township's 2019 unofficial budget, which also included expense details for the years 2016, 2017 and 2018. Further information relating to the assumed rates of increase for future operating expenses can be found in the Notes to the Financial Plan.

In the event that the Township should determine that there is a need to incur new debt, then the forecasted interest expense will require revision. The annual amortization expenses were calculated using the straight-line method and were based on PSAB information provided by the Municipality, as well as the estimated useful lives and historic costs of the assets. The capital expenditures and the useful lives of all the assets included in the projections were provided by the Township.

4.1 Statement of Financial Position

The Statement of Financial Position shows the assets, liabilities, and the accumulated surplus of the Township's Water and Wastewater systems. The net financial assets/debt is defined as the difference between financial assets and liabilities; this amount provides an indication of the system's future revenue requirements.

Appendix A shows that from 2020 to 2029, the net financial asset position of the Township's water system is expected to increase from $481,570 in 2019 to a net financial assets position of $1,287,250 in 2029. In addition to this, the total change in net financial asset has a positive position of $627,783. A net financial positive position means that the financial assets are more than liabilities, and it implies that enough resources exist in the system to finance future operations. For Wastewater, the net financial debt position is expected to decrease from $1,454,020 in 2019 to a net financial assets position of $1,179,942 in 2029. In addition to this, the total change in net financial asset has a positive position of $249,433. A net financial positive position means that the financial assets are more than liabilities, and it implies that enough resources exist in the system to finance future operations.

The tangible capital asset balance is another important indicator. Generally, an increase in the tangible capital asset balance indicates the acquisition of assets either through purchase by the municipality or contribution/donation by a third party. A decrease in the tangible capital asset balance can indicate a disposal, write down, or use of assets. A use of assets usually results in an increase in accumulated amortization where annual amortization expenses arise as a result of allocating the cost of the asset to operations over the asset's useful life. As shown in Appendix A, for the Water system tangible capital assets are expected to decrease by $1,299,000 over the 10-year forecast period. Also, as shown in Appendix A, the net financial debt position of the Township's Wastewater system is expected to increase by $71,447 over this period.

4.2 Statement of Operations

The Statement of Operations is a summary of the revenues and expenses generated by the water/wastewater systems for a given period. The annual surplus/deficit determines whether the revenues generated were enough to meet the expenses incurred and in turn, whether net financial assets have been maintained or depleted. The Statement of Operations (Appendix B) of the Water system shows an annual deficit in 2019 of $125,241 decreasing to an annual deficit of $44,573 in 2029. For the 2020-2029 period

the accumulated surplus of $3.38 million in 2019 decreases to $2.56 million in 2029. For the Wastewater system, the Statement of Operations (Appendix B) shows an annual surplus in 2019 of $33,883 increasing to $93,251 in 2029. For the 2020-2029 period the accumulated deficit of $940,237 in 2019 decreases to $167.179 in 2029.

An annual surplus provides sufficient funding to manage non-expense costs such as tangible capital asset acquisitions, reserve/reserve fund transfers and debt principal payments. An annual surplus provides sufficient funding to manage non-expense costs such as tangible capital asset acquisitions, reserve/reserve fund transfers and debt principal payments. The accumulated surplus/deficit is a significant indicator of whether the available net resources are sufficient to finance future water services. An accumulated deficit means that resources are insufficient to provide for such services. As a result, borrowing or rate increases are needed to finance annual deficits. This accumulated surplus/deficit, as indicated in Appendix B, primarily comprises reserve and reserve fund balances as well as historic investments in tangible capital assets.

4.3 Statement of Change in Net Financial Assets/Debt

The Statement of Change in Net Financial Assets/Debt indicates whether the revenue generated was sufficient to provide for operating and non-financial asset costs such as prepaid expenses, inventory supplies, tangible capital assets, etc. This Statement explains the variance between the annual surplus/deficit and the change in net financial assets/debt for the period. For the Water system, the Statement of Change in Net Financial Position (Appendix C) indicates that in most of the projected years (except 2020 and 2029) the forecasted annual surplus exceeds forecasted tangible capital asset acquisitions (net of amortization) for the year. As noted in the Statement of Change in Net Financial Assets, the total change in net financial asset has a net surplus position of $1,287,250 in 2029. This implies that sufficient resources exist in the system to finance future operations through an accumulated surplus such as revenues or reserve funds.

Similarly, for the Wastewater system the Statement of Change in Net Financial Position (Appendix C) indicates that in most of the projected years (except 2020, 2025 and 2028) the forecasted annual surplus exceeds forecasted tangible capital asset acquisitions (net of amortization) for the year. As noted in the Statement of Change in Net Financial Assets, the total change in net financial asset has a net debt position of $1,179,942 in 2029, a significant reduction from 2019. This implies that sufficient resources exist in the system to finance future operations through an accumulated surplus such as revenues or reserve funds

4.4 Statement of Cash Flow

The Statement of Cash Flow is a summary of the way in which the water and wastewater systems are projected to generate and use cash resources during the planning period. The transactions that provide/use cash are categorized as operating, capital, investing and financing activities, as shown in Appendix D. Since this statement focuses on the cash aspect of these transactions, it is the linkage between cash and accrual based reporting.

Appendix E illustrates that cash from operations will fund capital transactions (i.e. tangible capital asset acquisitions), pay down any debt, and build enough reserve funds over the plan period. The financial plan projects the cash position of the Township's Water system to increase from a surplus balance of approximately $291,710 at the beginning of 2020, to a surplus of $1,055,811 by the end of 2029.

Similarly, for the Wastewater system the Statement of Cash Flow illustrates that cash from operations will not fund capital transactions (i.e. tangible capital asset acquisitions) during the plan period and will draw on the reserve fund for several larger capital projects. The financial plan projects the cash position of the Township's wastewater system to decrease from a deficit balance of $114,594 at the beginning of 2020 to a deficit of approximately $788,235 in 2029.

5 NOTES TO FINANCIAL PLAN

The financial plan format above approximates the full accrual format, however the financial plan is not an audited document and contains various estimates. To show a balanced financial plan in full accrual format for the Township of White River, some items have been estimated. The assumptions used have been documented below.

5.1 Cash, Receivables and Payables

Historical water account receivables and payables were identified from information provided by the Township, which were used to project system cash, receivable and payable balances throughout the forecast period. The accounts receivable for Water at the end of 2019 was projected to be $189,861, while the accounts receivable for Wastewater was projected to be $126,574.

The trend of ending Accounts Receivable balances was established to project the percentage in annual Accounts Receivable balances for water and wastewater systems. A multiplier equal to the average ending Accounts Receivable balances as a percentage of revenues was calculated and then applied to projected revenues in each year of the forecast period to determine annual Accounts Receivable balances. Similarly, projected accounts payable were valued based on the average ending Account Payable balances as a percentage of expenditures. The opening cash balance at the beginning of the year 2020 was $291,710 for Water, and negative ($114,594) for wastewater.

5.2 Debt

The outstanding water and wastewater related debt at the end of 2019, in terms of accounts payable and accrued liabilities was determined to be $806,000 and $660,000, respectively. The scheduled principal repayments for existing debt over the forecasting period can be seen in Tables 3-11 and 3-12, respectively.

5.3 Deferred Revenue

Deferred revenue is made up of gas tax reserve and water development charge reserve fund balances which are considered to be a liabilities for financial reporting purposes until the funds are used on the projects for which they have been collected. Gas tax revenue allocated in 2018 was used in the same year for capital projects in the Wastewater system. Therefore, there are no liabilities for financial reporting purposes in the statement of financial position.

5.4 Tangible Capital Assets (TCA)

The amortization of existing assets is a non-cash annual cost that mirrors the annual use of assets until the end of their respective useful lives. It should be noted that depreciation is based on the historical cost at the time the asset was placed in service, and therefore it does not account for inflation since the year of installation. Therefore, replacement cost estimates based on indexing historical costs to the replacement year are used for projecting future asset replacement costs.
The Township's PSAB 3150 TCA data was used to develop the financial information and asset replacement forecasts related to the water system. The TCA projections are based on the following:

- Amortization is calculated based on using the straight-line approach with no amortization in the year of acquisition or construction.
- The Township staff provided the useful life on acquisitions.
- Write-offs are assumed to equal $0 for each year in the forecast period.
- Tangible capital assets are shown on a net basis. It is assumed that disposal occurs when the asset is being replaced.
- Gains/losses on disposal are assumed to be $0.

- Residual value is assumed to be $0 for all assets contained within the forecast period.
- Contributed Assets are deemed to be insignificant or unknown during the forecast period and are therefore assumed to be $0.
- The summary of the balance of tangible capital assets is presented in Tables 3-16 and 3-17 respectively.

5.5 Interest Earned

Interest earned represents the interest earned on the Township's bank account.

5.6 Operating Expenses

Capital expenditures not meeting the definition of tangible capital assets are classified as operating expenses and are expensed in the year in which they occur.

6 PROCESS FOR APPROVAL AND SUBMISSION

The requirement to prepare the Financial Plan is provided in Section32 (5) 2 ii of the SDWA.
Proof of the preparation of a financial plan is one of the submission requirements for municipal drinking water licensing, and upon completion must be submitted to the Ministry of the Environment. As part of O. Reg. 453/07. The process established for approval of the plan, public circulation, and filing is provided as follows:

1. The financial plan must be approved by resolution of the municipality who owns the drinking water system, or the governing body of the owner (O. Reg. 453/07, Section 3 (1) 1).
2. The owner of the drinking water system must provide a notice advertising the availability of the financial plan. The plan must be made available to the public upon request and free of charge. The plan must also be made available to the public on the municipality's website (O. Reg. 453/07, Section 3 (1) 5).
3. The owner of the drinking water system must provide a copy of the financial plan to the Director of Policy Branch, Ministry of Municipal Affairs and Housing (O. Reg. 453/07, Section 3 (1) 6).
4. The Council Resolution approving the financial plan shall be submitted to the Ministry of the Environment as part of the application for a municipal drinking water license (SDWA, Section 32 (5) 2 ii).

All of which is respectfully submitted,

Infrastructure Solutions Inc. Per:

Neil Roberts
President
Infrastructure Solutions Inc.

APPENDIX A: Statement of Financial Position

Water

Township White River
Statement of Financial Position (Water Only)
UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY
Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets												
Cash		291,710	263,034	372,013	465,142	614,690	787,564	852,466	963,524	1,158,417	1,141,481	1,055,811
Accounts Receivable		189,861	193,658	197,531	201,482	205,511	209,622	213,814	218,090	222,452	226,901	231,439
Due from Federal Government - GST		-	-	-	-	-	-	-				
Due from Township		-	-	-	-	-	-	-				
Investments		-	-	-	-	-	-	-				
Inventory for resale		-	-	-	-	-	-	-				
Total Financial Assets		481,570	456,692	569,544	666,624	820,201	997,185	1,066,280	1,181,614	1,380,869	1,368,382	1,287,250
Liabilities												
Accounts Payable		-	-	-	-	-	-	-				
Long-Term Liabilities (principal only)		-	-	-	-	-	-	-	-	-	-	-
Deferred revenue - obligatory reserves		-	-	-	-	-	-	-	-	-	-	-
Deferred revenue - other		-	-	-	-	-	-	-	-	-	-	-
Other (Development Charge Reserves-Deferred Revenue)		-	-	-	-	-	-	-	-	-	-	-
Total Financial Liabilities		-	-	-	-	-	-	-	-	-	-	-
Net Financial Assets/(Net Debt)		481,570	456,692	569,544	666,624	820,201	997,185	1,066,280	1,181,614	1,380,869	1,368,382	1,287,250
Non-Financial Assets												
Tangible Capital Assets		10,539,093	10,663,185	10,667,658	10,707,524	10,712,214	10,716,654	10,836,376	10,917,518	10,922,675	11,147,792	11,450,067
Accumulated Amortization		(7,639,983)	(7,881,871)	(8,129,964)	(8,378,281)	(8,628,591)	(8,879,135)	(9,129,901)	(9,386,654)	(9,647,463)	(9,908,531)	(10,174,247)
Total Non-Financial Assets		2,899,110	2,781,313	2,537,693	2,329,244	2,083,624	1,837,519	1,706,474	1,530,864	1,275,212	1,239,262	1,275,820
Accumulated Surplus / (Deficit)		3,380,680	3,238,005	3,107,238	2,995,867	2,903,825	2,834,704	2,772,755	2,712,479	2,656,081	2,607,644	2,563,070
Financial Indicators	**Total Change**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
1) Increase/(Decrease) in Net Financial Assets	627,783	112,168	(24,879)	112,853	97,079	153,578	176,984	69,095	115,334	199,254	(12,487)	(81,132)
2) Increase/(Decrease) in Tangible Capital Assets	(1,299,000)	(237,409)	(117,796)	(243,620)	(208,450)	(245,620)	(246,105)	(131,044)	(175,610)	(255,653)	(35,950)	36,559
3) Increase/(Decrease) in Accumulated Surplus	(671,217)	(125,241)	(142,675)	(130,767)	(111,370)	(92,042)	(69,121)	(61,949)	(60,276)	(56,398)	(48,437)	(44,573)

Wastewater

Township White River

Statement of Financial Position (Wastewater Only)

UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY

Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Financial Assets												
Cash		(114,594)	(469,574)	(484,311)	(479,742)	(453,176)	(403,041)	(762,785)	(700,168)	(631,286)	(869,800)	(788,235)
Accounts Receivable		126,574	129,105	131,687	134,321	137,008	139,748	142,543	145,394	148,301	151,267	154,293
Due from Federal Government - GST		-	-	-	-	-	-	-				
Due from Township		-	-	-	-	-	-	-				
Investments		-	-	-	-	-	-	-				
Inventory for resale		-	-	-	-	-	-	-				
Total Financial Assets		11,980	(340,469)	(352,624)	(345,421)	(316,169)	(263,293)	(620,242)	(554,774)	(482,984)	(718,533)	(633,942)
Liabilities												
Accounts Payable		-	-	-	-	-	-	-	-	-	-	-
Long-Term Liabilities (principal only)		1,466,000	1,374,000	1,282,000	1,190,000	1,098,000	1,006,000	914,000	822,000	730,000	638,000	546,000
Deferred revenue - obligatory reserves		-	-	-	-	-	-	-	-	-	-	-
Deferred revenue - other		-	-	-	-	-	-	-	-	-	-	-
Other (Development Charge Reserves-Deferred Revenue)		-	-	-	-	-	-	-	-	-	-	-
Total Financial Liabilities		1,466,000	1,374,000	1,282,000	1,190,000	1,098,000	1,006,000	914,000	822,000	730,000	638,000	546,000
Net Financial Assets/(Net Debt)		(1,454,020)	(1,714,469)	(1,634,624)	(1,535,421)	(1,414,169)	(1,269,293)	(1,534,242)	(1,376,774)	(1,212,984)	(1,356,533)	(1,179,942)
Non-Financial Assets												
Tangible Capital Assets		5,895,689	6,216,171	6,216,171	6,216,171	6,216,171	6,216,171	6,632,318	6,632,318	6,632,318	6,946,030	6,946,030
Accumulated Amortization		(5,381,906)	(5,412,729)	(5,459,576)	(5,506,423)	(5,553,270)	(5,600,117)	(5,646,964)	(5,714,619)	(5,782,273)	(5,849,928)	(5,933,268)
Total Non-Financial Assets		513,783	803,442	756,595	709,748	662,900	616,053	985,354	917,699	850,045	1,096,103	1,012,763
Accumulated Surplus / (Deficit)		(940,237)	(911,027)	(878,029)	(825,674)	(751,268)	(653,239)	(548,889)	(459,075)	(362,940)	(260,430)	(167,179)
Financial Indicators	**Total Change**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
1) Increase/(Decrease) in Net Financial Assets	249,433	64,706	(260,448)	79,845	99,203	121,253	144,876	(264,950)	157,468	163,790	(143,549)	176,591
2) Increase/(Decrease) in Tangible Capital Assets	71,447	(30,823)	289,659	(46,847)	(46,847)	(46,847)	(46,847)	369,300	(67,654)	(67,654)	246,058	(83,340)
3) Increase/(Decrease) in Accumulated Surplus	320,881	33,883	29,210	32,998	52,355	74,406	98,029	104,351	89,814	96,136	102,509	93,251

APPENDIX B: Statement of Operations

Water

Township of White River
Statement of Operations (Water Only)
UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY
Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenue												
Base Charge Revenue		295,147	295,147	317,283	341,079	366,660	394,159	405,984	418,164	430,708	443,630	456,939
Rate Base Revenue		-	-	-	-	-	-	-	-	-	-	-
Earned Deferred Revenue		-	-	-	-	-	-	-	-	-	-	-
Other Revenue		8,810	8,820	8,820	8,820	8,820	8,820	8,820	8,820	8,820	8,820	8,820
Total Revenues		303,956	303,967	326,103	349,899	375,480	402,979	414,804	426,984	439,528	452,450	465,759
Expenses												
Operating Expenses		187,522	204,754	208,777	212,953	217,212	221,556	225,987	230,507	235,117	239,819	244,616
Interest on Debt		-	-	-	-	-	-	-	-	-	-	-
Amortization		241,675	241,888	248,093	248,317	250,310	250,544	250,766	256,752	260,810	261,067	265,716
Loss on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-
Total Expenses		429,197	446,642	456,870	461,269	467,522	472,100	476,753	487,259	495,927	500,887	510,332
Annual Surplus / (Deficit)		(125,241)	(142,675)	(130,767)	(111,370)	(92,042)	(69,121)	(61,949)	(60,276)	(56,398)	(48,437)	(44,573)
Accumulated Surplus / (Deficit), beginning of year		3,505,921	3,380,680	3,238,005	3,107,238	2,995,867	2,903,825	2,834,704	2,772,755	2,712,479	2,656,081	2,607,644
Accumulated Surplus / (Deficit), end of year		3,380,680	3,238,005	3,107,238	2,995,867	2,903,825	2,834,704	2,772,755	2,712,479	2,656,081	2,607,644	2,563,070
Financial Indicator	**Total Change**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Increase/(decrease) in Accumulated Surplus	(942,851)	(125,241)	(142,675)	(130,767)	(111,370)	(92,042)	(69,121)	(61,949)	(60,276)	(56,398)	(48,437)	(44,573)

Wastewater

Township of White River
Statement of Operations (Wastewater Only)
UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY
Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenue												
Base Charge Revenue		193,435	193,435	210,844	229,820	250,504	273,049	277,964	282,967	288,060	293,246	298,524
Rate Base Revenue		-	-	-	-	-	-	-	-	-	-	-
Earned Deferred Revenue		-	-	-	-	-	-	-	-	-	-	-
Other Revenue		4,886	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800
Total Revenues		198,321	198,235	215,644	234,620	255,304	277,849	282,764	287,767	292,860	298,046	303,324
Expenses												
Operating Expenses		80,367	87,752	89,507	91,297	93,123	94,985	96,885	98,822	100,799	102,815	104,871
Interest on Debt		53,249	50,450	46,292	44,121	40,928	37,988	34,681	31,476	28,272	25,067	21,862
Amortization		30,823	30,823	46,847	46,847	46,847	46,847	46,847	67,654	67,654	67,654	83,340
Loss on Sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-	-	-
Total Expenses		164,438	169,024	182,646	182,264	180,898	179,820	178,413	197,953	196,725	195,536	210,073
Annual Surplus / (Deficit)		33,883	29,210	32,998	52,355	74,406	98,029	104,351	89,814	96,136	102,509	93,251
Accumulated Surplus / (Deficit), beginning of year		(974,120)	(940,237)	(911,027)	(878,029)	(825,674)	(751,268)	(653,239)	(548,889)	(459,075)	(362,940)	(260,430)
Accumulated Surplus / (Deficit), end of year		(940,237)	(911,027)	(878,029)	(825,674)	(751,268)	(653,239)	(548,889)	(459,075)	(362,940)	(260,430)	(167,179)
Financial Indicator	**Total Change**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Increase/(decrease) in Accumulated Surplus	806,941	33,883	29,210	32,998	52,355	74,406	98,029	104,351	89,814	96,136	102,509	93,251

APPENDIX C: Statement of Change in Net Financial Assets

Water

Township of White River
Statement of Changes in Net Financial Assets/(Debt) (Water Only)
UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY
Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual Surplus/(Deficit)		(125,241)	(142,675)	(130,767)	(111,370)	(92,042)	(69,121)	(61,949)	(60,276)	(56,398)	(48,437)	(44,573)
Less: Acquisition of Tangible Capital Assets		(4,266)	(124,092)	(4,473)	(39,867)	(4,690)	(4,439)	(119,722)	(81,143)	(5,157)	(225,117)	(302,275)
Add: Amortization of Tangible Capital Assets		241,675	241,888	248,093	248,317	250,310	250,544	250,766	256,752	260,810	261,067	265,716
(Gain)/Loss on disposal of Tangible Capital Assets (exceptions provided by staff)		-	-	-	-	-	-	-	-	-	-	-
Add: Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Subtotal		112,168	(24,879)	112,853	97,079	153,578	176,984	69,095	115,334	199,254	(12,487)	(81,132)
Less: Acquisition of supplies inventory		-	-	-	-	-	-	-	-	-	-	-
Less: Acquisition of prepaid expenses		-	-	-	-	-	-	-	-	-	-	-
Add: Consumption of supplies inventory		-	-	-	-	-	-	-	-	-	-	-
Add: Use of prepaid expenses		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-
Increase/(Decrease) in Net Financial Assets/(Net Debt)		112,168	(24,879)	112,853	97,079	153,578	176,984	69,095	115,334	199,254	(12,487)	(81,132)
Net Financial Assets/(Net Debt), beginning of year		369,402	481,570	456,692	569,544	666,624	820,201	997,185	1,066,280	1,181,614	1,380,869	1,368,382
Net Financial Assets /(Net Debt), end of year		481,570	456,692	569,544	666,624	820,201	997,185	1,066,280	1,181,614	1,380,869	1,368,382	1,287,250

Net Financial Assets /(Net Debt), end of year for 2018	369,402

Wastewater

Township of White River
Statement of Changes in Net Financial Assets/(Debt) (Wastewater Only)
UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY
Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual Surplus/(Deficit)		33,883	29,210	32,998	52,355	74,406	98,029	104,351	89,814	96,136	102,509	93,251
Less: Acquisition of Tangible Capital Assets		-	(320,482)	-	-	-	-	(416,147)	-	-	(313,712)	-
Add: Amortization of Tangible Capital Assets		30,823	30,823	46,847	46,847	46,847	46,847	46,847	67,654	67,654	67,654	83,340
(Gain)/Loss on disposal of Tangible Capital Assets (exceptions provided by staff)		-	-	-	-	-	-	-	-	-	-	-
Add: Proceeds on sale of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Add: Write-downs of Tangible Capital Assets		-	-	-	-	-	-	-	-	-	-	-
Subtotal		64,706	(260,448)	79,845	99,203	121,253	144,876	(264,950)	157,468	163,790	(143,549)	176,591
Less: Acquisition of supplies inventory		-	-	-	-	-	-	-	-	-	-	-
Less: Acquisition of prepaid expenses		-	-	-	-	-	-	-	-	-	-	-
Add: Consumption of supplies inventory		-	-	-	-	-	-	-	-	-	-	-
Add: Use of prepaid expenses		-	-	-	-	-	-	-	-	-	-	-
Subtotal		-	-	-	-	-	-	-	-	-	-	-
Increase/(Decrease) in Net Financial Assets/(Net Debt)		64,706	(260,448)	79,845	99,203	121,253	144,876	(264,950)	157,468	163,790	(143,549)	176,591
Net Financial Assets/(Net Debt), beginning of year		(1,518,726)	(1,454,020)	(1,714,469)	(1,634,624)	(1,535,421)	(1,414,169)	(1,269,293)	(1,534,242)	(1,376,774)	(1,212,984)	(1,356,533)
Net Financial Assets /(Net Debt), end of year		(1,454,020)	(1,714,469)	(1,634,624)	(1,535,421)	(1,414,169)	(1,269,293)	(1,534,242)	(1,376,774)	(1,212,984)	(1,356,533)	(1,179,942)

Net Financial Assets /(Net Debt), end of year for 2018	(1,518,726)

APPENDIX D: Statement of Cash Flow

Water

Township of White River
Statement of Cash Flow (Water Only)
UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY
Projected 2020 - 2029

	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Cash provided by:												
Operating Activities												
Annual Surplus/Deficit		(125,241)	(142,675)	(130,767)	(111,370)	(92,042)	(69,121)	(61,949)	(60,276)	(56,398)	(48,437)	(44,573)
Non-Cash Items												
Add: Amortization of TCA's		241,675	241,888	248,093	248,317	250,310	250,544	250,766	256,752	260,810	261,067	265,716
Change in A/R (Increase)/(Decrease)		(3,723)	(3,797)	(3,873)	(3,951)	(4,030)	(4,110)	(4,192)	(4,276)	(4,362)	(4,449)	(4,538)
Less: Interest Proceeds												
Net Change in Cash Provided by Operating Activities		112,711	95,416	113,452	132,995	154,238	177,313	184,624	192,200	200,050	208,181	216,605
Capital Activities												
Proceeds on sale of Tangible Capital Assets												
Less: Cash used to acquire Tangible Capital Assets		(4,266)	(124,092)	(4,473)	(39,867)	(4,690)	(4,439)	(119,722)	(81,143)	(5,157)	(225,117)	(302,275)
Net Change in Cash Used in Capital Activities		(4,266)	(124,092)	(4,473)	(39,867)	(4,690)	(4,439)	(119,722)	(81,143)	(5,157)	(225,117)	(302,275)
Investing Activities												
Proceeds from investments												
Less: Cash used to acquire investments												
Net Change in Cash Used in Investing Activities												
Financing Activities												
Proceeds from Debt Issue		-	-	-	-	-	-	-	-	-	-	-
Less: Debt Repayment (principal only)		-	-	-	-	-	-	-	-	-	-	-
Net Change in Cash Used in Financing Activities		-	-	-	-	-	-	-	-	-	-	-
Net Change in Cash and Cash Equivalents		108,446	(28,676)	108,979	93,129	149,548	172,874	64,903	111,058	194,893	(16,936)	(85,670)
Cash and Cash Equivalents, beginning of year		183,264	291,710	263,034	372,013	465,142	614,690	787,564	852,466	963,524	1,158,417	1,141,481
Cash and Cash Equivalents, end of year		291,710	263,034	372,013	465,142	614,690	787,564	852,466	963,524	1,158,417	1,141,481	1,055,811

Cash and Cash Equivalents, end of year 2018	183,264	estimate

Wastewater

Township of White River

Statement of Cash Flow (Wastewater Only)

UNAUDITED: FOR FINANCIAL PLANNING PURPOSES ONLY

		Projected 2020 - 2029										
	Notes	Forecast										
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Cash provided by:												
Operating Activities												
Annual Surplus/Deficit		33,883	29,210	32,998	52,355	74,406	98,029	104,351	89,814	96,136	102,509	93,251
Non-Cash Items												
Add: Amortization of TCA's		30,823	30,823	46,847	46,847	46,847	46,847	46,847	67,654	67,654	67,654	83,340
Change on A/R (Increase)/(Decrease)		(2,482)	(2,531)	(2,582)	(2,634)	(2,686)	(2,740)	(2,795)	(2,851)	(2,908)	(2,966)	(3,025)
Net Change in Cash Provided by Operating Activities		62,224	57,502	77,263	96,569	118,566	142,136	148,403	154,617	160,882	167,198	173,565
Capital Activities												
Proceeds on sale of Tangible Capital Assets		-										
Less: Cash used to acquire Tangible Capital Assets		-	(320,482)	-	-	-	-	(416,147)	-	-	(313,712)	-
Net Change in Cash Used in Capital Activities		-	(320,482)	-	-	-	-	(416,147)	-	-	(313,712)	-
Investing Activities												
Proceeds from investments		-	-	-	-	-	-	-	-	-	-	-
Less: Cash used to acquire investments		-	-	-	-	-	-	-	-	-	-	-
Net Change in Cash Used in Investing Activities		-	-	-	-	-	-	-	-	-	-	-
Financing Activities												
Proceeds from Debt Issue		-	-	-		-	-	-	-	-	-	-
Less: Debt Repayment (principal only)		(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)
Net Change in Cash Used in Financing Activities		(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)	(92,000)
Net Change in Cash and Cash Equivalents		(29,776)	(354,980)	(14,737)	4,569	26,566	50,136	(359,745)	62,617	68,882	(238,515)	81,565
Cash and Cash Equivalents, beginning of year		(84,818)	(114,594)	(469,574)	(484,311)	(479,742)	(453,176)	(403,041)	(762,785)	(700,168)	(631,286)	(869,800)
Cash and Cash Equivalents, end of year		(114,594)	(469,574)	(484,311)	(479,742)	(453,176)	(403,041)	(762,785)	(700,168)	(631,286)	(869,800)	(788,235)

Cash and Cash Equivalents, end of year 2018	-84,818	estimate

APPENDIX E: Business User Rates

Flat Rate User Fees – Residential Rate Multiples

Account Name	Water	Sewer
CP Rail	12	12
Twsp Clinic	4	4
Twsp Ambulance Bay	4	4
Royal Canadian Legion	3	3
Browne Apartments	3	3
Manuna Home Hardware	4	3
D & S Holding Ltd Apartments	8	8
Twsp Municipal Office	2	2
NCCI	3	3
9185496 Canada Ltd (Alo Apt)	42	42
Twsp Fire Hall	8	8
Twsp Colebourn	6	6
Twsp Garage	2	2
Twsp Info Centre	6	6
St Basil's School	12	12
Albert & Sons Apartments	3	3
Continental Restaurant	4	4
Continental Motel	8	8
Robins Donuts	4	4
2271599 Ontario Ltd (A&W)	6	6
Albert & Sons Husky	3	3
White River Motel	6	6
Subway Restaurant	3	3
Tom Alexopoulos Restaurant	2	2
Twsp Arena	12	12
Harte Gold Trailer Park	26	26
Buddy Bear Travel Centre	2	2
OPP Station	4	4
MTO Station	6	6
Harte Gold Cabins	8	8
Water Plant	2	0
Bert's Trucking	6	0
Kabi Lake	7	0
Chibougamau Diamond Drill	4	0
WRFP Bunkhouses	5	0
Belisle Builders Ind Park	6	0
WR Housing Corp	20	20

APPENDIX F: Capital Projects (2020–2029)

Capital Projects for Water Systems

Water Treatment Plant

ID No.	Asset Name	Count	Description	Asset Life	Installed Date	Asset Replacement Cost	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2	High Lift Pump	2	Submersible Well	20	2006	18,432							18,432			
3	Gravity Assist Pumps (GAP)	3	SP 46-1-A(15B730A1)	20	2006	4,219							4,219			
4	Electric Actuation Valve (Raw- MV-1)	1	BF-03-3 1-1 0(150)	15	2005	2,560	2,560									
7	Flow Meter	1	Krohne 150mm (Raw)(Mag-1)	15	2005	3,079	3,079									
8	Flow Meter	1	Krohne 150mm (treated)(Mag-2)	15	2005	3,079	3,079									
9	Flow Meter	1	Krohne 150 mm(treated)(Mag-3)	15	2005	3,079	3,079									
10	Flow Meter	1	Krohne 300 mm (treated) (Mag-4)	15	2005	4,608	4,608									
11	Process & Temperature Input Meter	1	Precision Digital	10	2005	72						72				
12	Sensor Termination Enclosure	1		10	2005	340						340				
18	SCADA Control System	1	Update	15	2005	39,388	39,388									
19	Chemical Feed System	1		15	2005	23,808	23,808									
20	Central Control Unit	1	US Filter Microcat Class 9300 Central Control Unit	15	2005	10,752	10,752									
21	Motor Starter Frontline Rack	2	Square D combination motor starter - Class 8539	10	2005	1,828						1,828				
22	Remote Telemetry Unit	1	Microcat Class 9507 Remote Telemetry Unit	20	2005	287						287				
23	Level Pressure Transducer	1	Endress and Hauser Pressure Transducer	20	2005	681						681				
25	Surge Protector	1	TRANQUELL Secondary Surge Arresters	10	2005	394						394				
26	Primary Surge Protector	1	SurgeTrack ST080 - Total Protection Solutions	10	2005	1,091						1,091				
27	Chlorine Residual Analyzer	1	Conex 350 Series	15	2005	5,734	5,734									
28	Turbidity Monitor	1	1720 E Low Range	15	2005	3,100	3,100									
29	Cartridge Filter	1	Cartridge Filter	2	2005	86		86		86		86		86		86
30	Lighting	5	AlleyKat	5	2005	78	78					78				
32	Eyewash Station	2	Haws 7500EB Eyewash Station	5	2005	287	287					287				
33	Emergency Lighting	10	Emergency Lighting	5	2005	72	72					72				
34	Fluorescent Industrial Lighting	30	Fluorescent tube	2	2005	201		201		201		201		201		201
35	Ozone Generators	23	MS Filter	15	2005	128,000										128,000
36	Side Stream Injection	1		15	2005	40,000										40,000
37	Piping Ozone System	1		15	2005	20,000										20,000
38	Electrical Ozone System	1		15	2005	20,000										20,000
39	Activated Carbon	1	Granular coconut Shell	4	2005	29,475			29,475				29,475			
40	Diesel Generator Unit	1	Detroit Diesel 80DSEJB	20	2005	38,707						38,707				
41	Fuel Tank, Containment & Components	1		20	2005	20,992						20,992				
43	Electrical Power & Control Equipment	1		20	2005	11,850						11,850				
45	UV lamps and filters	2	Trojan UV Swift Units	1	2005	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024	1,024
46	UV Control Power Panel	2	CompactLogix L32 from Allen Bradley	15	2005	2,459	2,459									
47	Chlorine Membrane Caps & Electrolyte	1		1	2005	2,478	2,478	2,478	2,478	2,478	2,478	2,478	2,478	2,478	2,478	2,478
48	Sodium Hypochlorite Feed Pump	4	M208-3.6 D70 E26	20	2005	10,240						10,240				
49	Metering Pumps	1	Prominent Gala Series	20	2005	1,107						1,107				
50	Secondary and Solution Tanks	3	Aco Container 55 Gallon	10	2005	417						417				
51	Sodium Bi-sulfite Feed Pump	1	M208-3.6 D70 E26	15	2005	2,048	2,048									
52	Alarm System	1	SK-983A Access Control Keypad	20	2006	72							72			
54	Electric Water Heater	1	DEL Models - A.O. SMITH	20	2006	2,877							2,877			
57	Suspended Unit Heater	4	Ouellet OAS10036 Forced Air Heater	20	2006	1,642							1,642			
59	Dehumidifier	2	AD50USR Whirlpool	20	2006	496							496			
60	Actuator	1	Bellimo	10	2006	330							330			
	TOTAL WFP (2014 Cost)						**107,633**	**3,789**	**32,977**	**3,789**	**3,502**	**92,230**	**61,045**	**3,789**	**3,502**	**211,789**
	TOTAL WFP INFLATED						**124,092**	**4,473**	**39,867**	**4,690**	**4,439**	**119,722**	**81,143**	**5,157**	**4,881**	**302,275**

Water Valves

ID No.	Asset Name	Count	Diam (mm)	Asset Life	Installed Date	Asset Replacement Cost	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
798	Control Valve	1	25	50	1978	2,781									2,781	
799	Control Valve	1	25	50	1978	2,781									2,781	
800	Control Valve	1	25	50	1978	1,897									1,897	
801	Control Valve	1	25	50	1978	1,897									1,897	
802	Control Valve	1	25	50	1978	1,897									1,897	
803	Control Valve	1	200	50	1978	5,637									5,637	
804	Control Valve	1	25	50	1978	1,897									1,897	
805	Control Valve	1	25	50	1978	1,897									1,897	
806	Control Valve	1	150	50	1978	2,780									2,780	
807	Control Valve	1	25	50	1978	1,897									1,897	
808	Control Valve	1	25	50	1978	1,897									1,897	
809	Control Valve	1	25	50	1978	1,897									1,897	
810	Control Valve	1	25	50	1978	1,897									1,897	
811	Control Valve	1	25	50	1978	1,897									1,897	
812	Control Valve	1	25	50	1978	1,897									1,897	
813	Control Valve	1	25	50	1978	1,897									1,897	
814	Control Valve	1	25	50	1978	1,897									1,897	
815	Control Valve	1	25	50	1978	1,897									1,897	
816	Control Valve	1	25	50	1978	1,897									1,897	
817	Control Valve	1	25	50	1978	1,897									1,897	
818	Control Valve	1	25	50	1978	1,897									1,897	
819	Control Valve	1	25	50	1978	1,897									1,897	
820	Control Valve	1	150	50	1978	2,780									2,780	
821	Control Valve	1	150	50	1978	2,780									2,780	
822	Control Valve	1	25	50	1978	1,897									1,897	
823	Control Valve	1	25	50	1978	1,897									1,897	
824	Control Valve	1	25	50	1978	1,897									1,897	
825	Control Valve	1	25	50	1978	1,897									1,897	
826	Control Valve	1	25	50	1978	1,897									1,897	
827	Control Valve	1	25	50	1978	1,897									1,897	
828	Control Valve	1	25	50	1978	1,897									1,897	
829	Control Valve	1	25	50	1978	1,897									1,897	
830	Control Valve	1	25	50	1978	1,897									1,897	
831	Control Valve	1	25	50	1978	1,897									1,897	
832	Control Valve	1	25	50	1978	1,897									1,897	
833	Control Valve	1	25	50	1978	1,897									1,897	
834	Control Valve	1	25	50	1978	1,897									1,897	
835	Control Valve	1	25	50	1978	1,897									1,897	
836	Control Valve	1	25	50	1978	1,897									1,897	
837	Control Valve	1	25	50	1978	1,897									1,897	
838	Control Valve	1	25	50	1978	1,897									1,897	
839	Control Valve	1	25	50	1978	1,897									1,897	
840	Control Valve	1	25	50	1978	1,897									1,897	
841	Control Valve	1	25	50	1978	1,897									1,897	
842	Control Valve	1	25	50	1978	1,897									1,897	
843	Control Valve	1	25	50	1978	1,897									1,897	
844	Control Valve	1	25	50	1978	1,897									1,897	
845	Control Valve	1	25	50	1978	1,897									1,897	
846	Control Valve	1	25	50	1978	1,897									1,897	
847	Control Valve	1	19	50	1978	1,897									1,897	
848	Control Valve	1	19	50	1978	1,897									1,897	
849	Control Valve	1	25	50	1978	1,897									1,897	
850	Control Valve	1	25	50	1978	1,897									1,897	
851	Control Valve	1	25	50	1978	1,897									1,897	
852	Control Valve	1	25	50	1978	1,897									1,897	
853	Control Valve	1	25	50	1978	1,897									1,897	
854	Control Valve	1	25	50	1978	1,897									1,897	
855	Control Valve	1	25	50	1978	1,897									1,897	
856	Control Valve	1	25	50	1978	1,897									1,897	
857	Control Valve	1	150	50	1978	2,780									2,780	
858	Control Valve	1	25	50	1978	1,897									1,897	
859	Control Valve	1	25	50	1978	1,897									1,897	
860	Control Valve	1	25	50	1978	1,897									1,897	
861	Control Valve	1	50	50	1978	1,897									1,897	
862	Control Valve	1	25	50	1978	1,897									1,897	
863	Control Valve	1	200	50	1978	5,637									5,637	
	Total Valves (2014 Cost)														**137,956**	
	Total Valves Inflated														**192,283**	

Water Hydrants

ID No.	Asset Name	Count	Diam (mm)	Asset Life	Installed Date	Asset Replacement Cost	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
80	Hydrant	1	150	50	1978	6,685									6,685	
81	Hydrant	1	150	50	1978	6,685									6,685	
82	Hydrant	1	150	50	1978	6,685									6,685	
	Total Hydrants (2014 Cost))														**20,055**	
	Total Hydrants Inflated														**27,953**	

Capital Projects for Wastewater System

Asset ID	Asset Name	Useful Life	Installed Date	Asset Replacement Cost	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
SPS1	Stanworth Sewage Pumping Station	20	1985	33,992						33,992				
SPS3	Dufferin Street Pumping Station	20	1985	32,818						32,818				
SPS5	Spadoni Sewage Pumping Station	20	1988	181,123									181,123	
SPS4	Durham Street Sewage Pumping Station	20	1985	241,236						241,236				
EQ11	Lisgar SPS Standby Generator	20	1999	134,856	134,856									
EQ6	Durham SPS Equipment	20	1985	12,542						12,542				
EQ7	Spadoni SPS Equipment	20	1988	12,542									12,542	
EQ8	Dufferin SPS Equipment	20	1988	31,413									31,413	
EQ9	Stanworth SPS Equipment	20	1977	157,065	157,065									
	TOTAL WFP (2014 Cost)				**291,921**					**320,588**			**225,078**	
	TOTAL WFP INFLATED				**320,482**					**416,147**			**313,712**	