ASSET MANAGEMENT PLAN 2024

Presented to Township Council June 2024

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ASSET MANAGEMENT PLAN 2024

1. INTRODUCTION

This 2024 version of the Township of East Garafraxa ("the Township") Asset Management Plan ("AMP") has been built on the most recent AMP of the Township, updated in 2022.

This AMP includes data on all tangible capital assets (TCA) such as roads, bridges, buildings, vehicles, land, land improvements, technology, and other equipment.

The format of this AMP is in five sections, a structure recommended by the Ontario Government 2013 publication *Building Together: Guide for Municipal Asset Management Plans*. But due to developments that have arisen since 2013, the Township has added a section on Climate Change Impacts

1.1 Legislated Requirements

In December 2017, *Ontario Regulation 588/17 ("the Regulation") Asset Management for Municipal Infrastructure* was passed under the *Infrastructure for Jobs and Prosperity Act.*

The Regulation firstly required all municipalities to develop a Strategic Asset Management Policy, to provide guidance for future capital investment decisions. The Township adopted its Policy in 2017.

The main content of the Regulation goes on to list specific requirements on the types of analysis a municipal AMP should include. The expectation is that by following these specific requirements in the Regulation, the content of AMP's will be made more consistent across the Province. The deadline for completing an AMP was set out in the Regulation, but was later deferred by one year by the Province, in part in response to COVID complications. The broader all-assets AMP deadline became June 30, 2024. The Regulation also contains even more specific requirements that apply only to municipalities over 25,000 population. East Garafraxa population is approx. 3,000.

Specific requirements in the Regulation will be referred to in each section of this AMP.

1.2 Asset Data

Available asset data will be disclosed in this AMP, but where data is not available, that fact will also be disclosed, along with suggestions to address the problem of incomplete data.

The Quality and Confidence of the data used in this AMP is critical, and will be discussed in each section. The following table describes the Confidence Grade for data used herein:

TABLE 1 DATA CONFIDENCE

GRADE LEVEL	DESCRIPTION
5 Highly Reliable	Data is based on sound records, procedure, investigation, and analysis Dataset is complete and estimated to be accurate within 2%
4 Reliable	Data is also based on sound records, etc. but has minor shortcomings, for example some data is old, some documentation is missing and reliance is sometimes placed on unconfirmed reports or an extrapolation Dataset is complete and estimated to be accurate within 10%
3 Uncertain	Data is based on records that are incomplete or unsupported, or is extrapolated from a limited sample Dataset is incomplete and estimated to be accurate within 25%
2 Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspection and analysis, due to lack of resources devoted to obtaining more accurate data Dataset is incomplete and estimated to be accurate within 40%
1 Missing or Unknown	Data is unknown, has not been gathered, or very little data is held, so whatever data is available is not used here Considered as not accurate and therefore not used.

Efforts planned, or currently underway, to improve on the quality of data used for this AMP will be explained in other sections of the AMP.

1.3 Asset Management Overview

Well-managed public infrastructure is vital to the prosperity and the quality of life of communities large and small. Ontario municipalities have an important responsibility to ensure such infrastructure is planned, built or acquired, and maintained in a sustainable way. This is often referred to as the Asset Life Cycle, and includes asset disposal. A detailed AMP, adopted and adhered to, is essential for a municipality to carry out that responsibility for its infrastructure.

Benefits of asset management include:

- Demonstrate the Township is compliant with legislation
- Enable Township to make informed and supportable decisions about its assets
- Enable Township to co-ordinate and plan accordingly
- Higher customer satisfaction by reducing the likelihood of interruptions in service due to asset failure and breakdown
- Documented funding plans and strategy, to manage infrastructure needs in a timely way, and reduce the need for responding to financial emergencies

Although all municipalities, including the Township, may believe they have adequate asset management practices in place now, by following the specifics in the Regulation, many will discover areas where they are coming up short in their existing activities. Completing an updated AMP will identify problem-areas, and guide municipalities towards the actions needed, both in the short-term and longer-term, to maintain the levels of service their residents and businesses have come to expect, and that they rely upon every day.

1.4 AMP Integration

The AMP should be integrated with other Township records and plans. There should be a direct integration, or link, of the AMP with:

- the annual Township Budget
- the Township Development Charges Bylaw and Background Study
- Township capital asset accounting records
- Road Needs Assessment
- OSIM bi-annual studies of bridges and culverts
- most recent Buildings Condition Assessment (BCA) study

Circumstances are constantly in a state of change for municipalities, as new reporting requirements come out, as the municipality experiences growth in population, and as the cost of capital assets increase. The Province is very aware of this; that is why the first specific requirement of the Regulation we mention is, no surprise, a requirement to update the AMP every five years, after the 2024 broader version is completed.

It is incumbent on the Township, and also expected by the Province, to keep on top of the circumstances that impact the Township's AMP over time, and make changes to the AMP in response.

2. LEVELS OF SERVICE

All AMPs need to balance affordability of municipal services with customer needs and expectations. The way this is expressed in AMPs is known as Levels of Service (LOS).

2.1 Levels of Service Measures

LOS are specific measures that describe the extent and the quality of services which the municipality provides to its residents. In asset management, a great deal of work has gone into the area of LOS. A very large number of LOS measures have been developed, along with them many associated measures known as Key Performance Indicators (KPI), which can become quite extensive.

Smaller municipalities like the Township should keep in perspective the value of LOS. Only those LOS that are relevant and insightful to the Township should be kept. It is an easy mistake to make to "go overboard" with LOS and KPI, and you may find diminishing returns of value as the list of LOS measures kept becomes ever larger.

The main types of LOS measures are:

1. **Customer LOS**
2. **Technical LOS**

Customer LOS are simple, plain language description of services that customers receive. For example, What level of storm intensity is the Township Storm Sewer Network designed to handle? A 1-in-10 year storm? A 1-in-100 year storm?

Technical LOS are also called KPI and they take the Customer LOS down to a specific measurement that will indicate how a municipality is performing the service described in the Customer LOS. Technical LOS should be retained over time, to identify trends in the service level quality. For example, What is the % of Storm Sewer mains that are considered resilient to a 1-in-10 year storm? is a specific Technical LOS measurement.

The Regulation is quite specific about LOS measures. It contains a **Table in section 5(2)** where some basic LOS measures, for core assets, are provided as a minimum requirement for inclusion in any AMP.

The Township has not been actively maintaining any LOS data and so the data provided in this AMP for LOS would have a Grade Level of Uncertain. IT IS

RECOMMENDED that greater time and effort be put into the development of more accurate LOS measures in future.

For purposes of this AMP, only the basic, minimum LOS measures as listed in the Regulation are disclosed.

TABLE 2 : Basic LOS in the Regulation

SERVICE PROVIDED	Customer LOS	Technical LOS and KPI's
Roads	Township road network is safe, convenient and available to the whole community	Asphalt surfaces measured by PCI Good 69.96% Fair 23.33% Poor 6.71%
	Meet Minimum Maintenance Standards MMS per Ont. Regulation 239/02	
	Service requests are responded to promptly Example : potholes filled	No specific measures are kept on response time data; generally considered adequate LOS
	Roads are safe to use: traffic signs and road markings are well maintained and visible	Staff perform regular road patrols and replace damaged signs. Pavement markings are re-done as needed.
Storm Water Network: mains, ponds, catch-basins	Network is maintained in good condition to provide continuous service delivery	% of properties resilient to a 5-year storm : 100% *estimate only* % of properties resilient to a 100-year storm : 75% *estimate only*
Potable drinking water system	Provide a safe and reliable supply of drinking water to residents connected to a municipal water system	% of properties in Marsville connected to system: 100% % of prop. in Marsville where Fire Flow is available 100%
	Service requests are responded to promptly	Number of Boil-Water Advisories issued : 2022 – 0 2021 - 0
		Number of watermain breaks 2022 - 0 2021 - 0
Bridges and culverts > 3 m. diameter AKA Structures	All Bridges and Culverts provide safe vehicular and pedestrian passage	BCI measures obtained from bi-annual OSIM studies: **PER 2023 OSIM review:** Good = over 70 = 19 Fair = 50 to 70 = 11 Poor = BCI < 50 = 1

	All structures are fully compliant with regulatory requirements	Is an OSIM review completed bi-annually as required? **YES**
	Traffic types supported by the Structure Network • Heavy trucks • Passenger vehicles • Emergency vehicles • Cyclists • pedestrians	Structures with Loading restrictions:
NOTE: the MTO established a target for BCI measures where the expectation is to have 85% of structures in "Good" condition = a BCI above 70 by the year 2021. The Township has not met this MTO target, but it has completed three major bridge rehabilitations over the past ten years.		

The Township currently tracks some LOS measures as part of the MMS for roads, and for Provincial water guidelines through an external consultant that tracks and documents LOS measures in annual reports to Council.

Asset Management Ontario (AMONT) is an organization providing help, training, and advice to municipalities about asset management. AMONT offers these "tips" for developing LOS measures:

- keep LOS simple, focus on the asset's service objectives
- minimize number of LOS, ask "Why do we need this LOS?" and "What will this LOS tell us about the asset?"
- will the data needed for an LOS be available?

It is expected that LOS is an area of asset management that the Province will expand upon in the future, asking municipalities to develop and maintain more LOS measures.

2.2.1 PROPOSED Levels of Service

In Part 6 of the Regulation, the topic of Proposed Levels of Service is addressed, although these will not apply until 2025, so they don't apply to this version of the AMP. However they are mentioned here for awareness purposes.

Proposed LOS represent target LOS that the municipality aspires to achieve in future. By June of 2025, the Township must have decided upon its Proposed LOS and must begin to measure and track its progress towards reaching them.

The next stage of LOS development would be to set **Target Values** for each Technical LOS which the Township strives to achieve. This is another activity the Township could

plan on for the future. When setting Target Values, some limitations on what could be considered realistically achievable LOS targets are:

- Budget and financial capacity
- Available external contractors and service providers
- Potential staff time that could be devoted to improvements in LOS

Proposed LOS are mentioned in this AMP as recognition of their existence and as a reminder for the future.

Part 9 of the Regulation requires ANNUAL REVIEWS of the AMP. This will become effective with the release of this 2024 AMP. Part of the Province's expectation for Annual AMP Reviews is a tracking of LOS starting at the least with the LOS as shown in this AMP, and re-measuring them every year, beginning with 2025, to both identify trends in LOS and to introduce new LOS measures.

2.2 Risk Measurements

The second major AMP topic to be discussed in the LOS section is RISK. Risk is directly linked to LOS, and risk represents a combination of two factors:

1. chance, or likelihood, of an event occurring
2. consequence of such an event to residents/customers

Risk of Asset Failure = Probability of Failure x Consequence of Failure

In asset management , Risk relates to the likelihood and consequence of an asset failure or breakdown that prevents the continued provision of service. The failure could be caused by a weather-related event. For example, a severe winter storm recently happened in Texas, with a very low Likelihood but severe Consequences. Another example might be a snow-plow breakdown, causing the vehicle to be out-of-service, and impacting the time it takes for the remaining plows to reach all Township roads.

A Risk Matrix is the common tool used to evaluate risk for an asset. Values are assigned to the levels of Likelihood and the levels of Consequence of an asset failure. A sample Risk Matrix that the Township might use is illustrated below.

TABLE 3 : RISK MATRIX with values added

CONSEQUENCE	Insignificant = 1	Minor Impact = 2	Moderate = 3	Major Impact = 4	Catastrophic = 5
LIKELIHOOD					
Rare = 1	1 L	2 L	3 L	4 M	5 M
Unlikely = 2	2 L	4 L	6 M	8 M	10 M
Possible = 3	3 L	6 M	9 M	12 H	15 H
Likely = 4	4 M	8 M	12 H	16 H	20 H
Almost Certain = 5	5 M	10 M	15 H	20 H	25 H

Instead of numeric values, often the matrix risk-values are simply expressed as L for Low, M for Medium and H for High. These codes are also shown in the matrix above.

Climate Change has substantially impacted risk levels for many municipal assets. For example, increased frequency and severity of weather events, like floods and power outages due to storms, demands more LOS measures around asset resiliency, measuring the ability to withstand such events. The area of Climate Science has become very extensive, and this AMP has included a separate section to discuss climate measures and impacts.

The Township has not developed its own Risk measurements to any great extent, and so the values for Risk Assessment do not appear in the State of the Infrastructure section which follows.

IT IS RECOMMENDED that time and effort be devoted by the Township in future to a more specific assessment of asset risk, to guide the setting of priorities in future Township budgets for capital assets.

3. STATE OF THE INFRASTRUCTURE

This AMP section discloses specific data about the Township's assets.

A required component is Replacement Cost estimates. Township financial records are based on historical costs, and because many assets are quite old, those financial values are of little benefit for asset management, and they can even be misleading. Historical values are shown in the summary Table 5 below, just to indicate how far off from current replacement values they are.

These are the sources of data used to compile this AMP section, with data-confidence ratings shown:

TABLE 4 : Data Sources used

Source of Data		Data Confidence	
Township TCA asset accounting records		4 - Reliable	Somewhat outdated
2023 OSIM report on Bridges and large culverts		5 – Highly Reliable	current
Discussions with current Township staff (vehicles+equipment)		5 – Highly Reliable	current
Road Study 2023		5 – Highly Reliable	current
Building Condition study 2023		5 – Highly Reliable	current
2023 Year-End annual Water System Report		5 – Highly Reliable	current

New external studies were completed in 2023 for roads, bridges and buildings, so more accurate asset data was available for this AMP than was available for the 2022 AMP.

Table 5 lists the asset categories with Historical Cost values, Replacement Cost estimates and a generic high-level Condition estimate. More in-depth Tables for each asset category follow. Road Bases are separated because they are assets that will not be replaced normally, except in rare situations where a full road reconstruction is considered necessary.

Table 5 : High Level Asset Valuations

Asset Category	Financial Records Historical Cost	Replacement Cost 2024-$ estimated		Overall Condition assessment
Stormwater ponds	624,318	1,000,000		Fair
Stormwater mains and catch-basins	90,583	236,250		Fair
Asphalt road surfaces	4,631,738	4,966,000		Fair to Poor
Gravel road surfaces	1,642,245	2,675,750		Fair
Bridges and large culverts (over 3 metres)	6,546,743	41,362,000		Good to Fair
Smaller culverts, cross-culverts, guiderails, posts	477,471	600,000		Fair
Public Works vehicle fleet	2,281,860	5,160,000		Fair to Poor
Land improvements including Parks (park. lots,etc.)	790,443	1,000,000		Fair
Land – all township property	1,752,709	5,500,000		Fair
Stormwater properties		1,000,000		Fair
Buildings – all Dep'ts. including Leasehold Improv.	525,286	5,700,000 -400,000water		See list. Poor /Critical
Equipment – all Dep'ts.	573,891	650,000		Fair
SUBTOTAL A Tax-Supported Assets	**$ 19,937,287**	**$ 69,450,000**		
Water facility (1972)	150,752	400,000		Poor
Water mains (1972)	113,720	330,000		Fair
Wells, Hydrants, Pumps and other equipment	284,443	528,250		Fair
SUBTOTAL B Rate-Supported Assets	**$ 548,915**	**$ 1,258,250**		
SUBTOTALS A+B *Excluding Road Bases*	**$ 20,486,202**	**$ 70,708,250**		
Road Bases: paved roads	1,839,250	1,839,250		Bases are normally not replaced
: gravel roads	493,940	1,605,450		
TOTAL	**$ 22,819,392**	**$74,152,950**		

Township assets have total estimated current replacement cost of about $74.1 million, or 3.25 times the value showing on the Township books and audited financial statements.

Replacement costs above are based on **"like-for-like" asset replacements**, meaning these are the costs in 2024-$ to replace existing assets with similar (or identical) assets, without considering upgrades to asset size, expanded capacity, better technology, etc., that are available for purchase in today's marketplace.

Next this State of the Infrastructure section looks at each core asset category more closely.

Stormwater assets

Stormwater mains (2,399 m. of 4-inch, 6-inch and 12-inch Main Drain), catch-basins (25), manholes and detention ponds (7) are all relatively newer assets compared with those in other categories, and no replacements or rehabilitations are foreseen in the next few years. Regular maintenance including clean-outs and inspections should be sufficient to keep these assets in functioning condition. All stormwater assets are considered in good condition. A thorough study of these assets is planned for 2024.

Roads

The Township road network has 36.8 km. of paved roads, 0.9 km. of surface-treated road, and 107.0 km. of gravel roads **for a total network of 144.7 km**. or 289.4 lane-km.

The road conditions have been evaluated by township consultants as:

- 78.45% Good/Satisfactory (PCI = 71 +)
- 16.04% Fair (PCI = 50 – 70)
- 5.51% Poor (PCI < 50)

Roads are classified by the Ministry of Transportation (MTO) into Classes, per O. Reg. 612/06. Road classes are based on both Speed Limits and Average Daily Traffic (ADT) volumes. The breakdown of township roads is:

TABLE 6 All Roads by ADT

ADT traffic range	Township Roads in km.	Road Class
Below 200 (gravel)	105.65	6
200 to 499	17.21	6
500 to 999	5.93	5
1,000 to 1,999	7.14	4
2,000 to 2,999	3.07	3
3,000 to 3,999	1.36	3
4,000 + (shared responsibility, Boundary roads)	4.34	3
	144.7	

The consultants recommend upgrading the 5.93 km of road where ADT is 500 to 999 to a high class bituminous (HCB) surface. These are the southern section of 18th Line and the middle section of A-Line.

Table 7 is a listing of road segments and PCI's (Pavement Condition Indexes) for asphalt roads. Gravel roads receive top-up gravel on a 3-year cycle, and also dust suppressant (calcium) is applied annually.

Table 7 Township Asphalt Roads ranked by PCI

Road Segment	Road Name	Length in km.	PCI value	PCI category
LR0040	Hilltop Crescent	0.657	43	Poor
SR0140	EG-Caledon townline	0.880	49	Poor
SR0130	EG-Caledon townline	0.496	49	Poor
SR0120	EG-Caledon townline	0.745	55	Fair
LN1000	10th Line	3.084	63	Fair
LR0131	Grand Crescent - Marsville	0.077	63	Fair
SR0150	EG-Caledon townline	1.349	64	Fair
LN1850	W. Churchill Blvd.	0.494	65	Fair
LR0035	Old Carriage Road	0.145	69	Fair
LR0140	Victoria Blvd. - Marsville	0.385	70	Satisfactory
	others	15.979	71 to 85	Satisfactory
	others	12.494	85+	Good
		36.785		

Bridges and Large Culverts

These assets are required to be inspected every two years, per the MTO Ontario Structures Inspection Manual (OSIM) guidelines. Condition is measured by a Bridge Condition Index (BCI) measure, established through the MTO. BCI measures are

- 70 to 100 = Good
- 50 to 69 = Fair
- 20 to 49 = Poor
- Below 20 = Critical

The Township has 31 of these assets and 2023 inspection results show BCI values of 19 Good (61%), 11 Fair (36%), 1 Poor (3%) and none Critical. The average BCI across all 31 assets went from **65.9 in 2019 to 68.8 in 2021 to 71.6 in 2023**. **Table 8** lists the 31 bridge/large culvert assets and their BCI as measured in 2023:

Table 8 Bridges and Culverts BCI

I.D.	Located on		Replacement Cost	B.C.I.	
0001	20th Sideroad	CSP multi-plate Ellipse culvert 1976	708,000	60.30	Fair
0002	10th Line	Cast-in-place concr rigid frame 1950	895,000	73.71	Good
0003	10th Line	Prefabricated fibreglass bridge **2015**	1,133,000	97.62	Good
0004	10th Line	Cast-in-place concr rigid frame 1945	833,000	73.63	Good
0005	10th Line	CSP multi-plate Ellipse culvert 1972	1,083,000	44.10	Poor
0006	11th Line	Precast concrete I-Girder 1987	4,843,000	74.65	Good
0007	12th Line	Bowstring Arch **(concrete, 2020 rehab.)**	4,893,000	80.92	Good

0008	13th Line	Steel Truss (timber deck) **2014 rehab**	4,108,000	51.49	Fair
0009	10th Line	Precast concrete I-Girder **(replac 2008)**	5,648,000	90.99	Good
0010	11th Line	Cast-in-place concr rigid frame **2003**	1,508,000	87.55	Good
0011	20th Line	CSP multi-plate Ellipse culvert 1969	1,020,000	68.89	Fair
0014	10th Sideroad	Cast-in-place concrete T-beam 1930	1,270,000	70.44	Good
0015	13th Line	Cast-in-place concr box culvert 1979	958,000	74.78	Good
0016	EG-WG TnLn	Cast-in-place concr box culvert 1960	708,000	56.74	Fair
0017	13th Line	Cast-in-place concr box culvert 1940	645,000	62.50	Fair
0019	16th Line	Cast-in-place concr box culvert 1960	770,000	74.64	Good
0021	12th Line	CSP multi-plate Ellipse culvert **2007**	583,000	73.89	Good
0022	18th Line	Cast-in-place concr box culvert 1940	583,000	74.47	Good
0023	19th Line	Cast-in-place concr box culvert **2007**	708,000	91.09	Good
0024	EG-Caledon	Cast-in-place concr box culvert 1950	833,000	67.88	Fair
0026	EG-Erin TnLn	Cast-in-place concr box culvert 1940	708,000	54.94	Fair
0027	EG-Caledon	Cast-in-place concr box culvert 1945	583,000	74.35	Good
0029	EG-Erin TnLn	Cast-in-place concr box culvert 1940	708,000	67.65	Fair
0031	EG-WG TnLn	Cast-in-place concr box culvert 1940	645,000	64.59	Fair
0041	10th Sideroad	CSP round culvert	580,000	75.00	Good
0042	10th Sideroad	Cast-in-place concrete Rigid frame	580,000	69.39	Fair
0043	13th Line	CSP round culverts (2)	640,000	75.00	Good
0044	15th Line	Cast-in-place concrete Rigid frame	580,000	74.06	Good
0045	EG-Erin TnLn	Cast-in-place concrete Rigid frame	722,000	56.40	Fair
0046	EG-Erin TnLn	CSP Arch culvert 3.2 m 2000	770,000	76.78	Good
0047	EG-Caledon TL	Cast-in-place concrete box 5.4 m	1,116,000	80.04	Good
			41,362,000		

In addition to these assets, there are also bridges/culverts on the municipal boundary that are shared with neighbouring municipalities. Those assets will be included on the AMP of the other municipality, as they are the owners, but the Township cost-shares in any major rehabilitation done to those assets. This cost-sharing situation will appear, and have some impact, in the Financing Strategy section of this AMP.

Smaller bridges and culverts include the ID numbers 12, 13, 18, 20, 25, 28 and 30 which are intentionally missing from Table 8, plus a large number of corrugated steel culverts valued at under $3,000 apiece. Collectively, they are valued on the Township books at $477,471. Condition ratings for these assets are not available. For this AMP, these assets are all listed as being in Good condition. They are estimated to have a replacement value of roughly $600,000 per Table 5.

Bridge and culvert replacement cost values also include engineering design, contingencies, concrete end-barriers, guide posts and steel beam guide rails.

Normally in any AMP section on State of the Infrastructure, within asset Tables like Tables 5 to 8 above, a Risk measurement would be disclosed next to the condition

assessment of each asset. Risk measurement methods appeared in the Levels of Service section.

Risk values have been excluded from the Asset Tables in this section because the Township has not completed any formal risk assessment on its core assets. For this 2024 AMP, for simplicity and due to a lack of reliable information, Risk is assessed as Moderate for all Core Assets.

Non-Core Assets

Table 9 Vehicle Fleet

Asset ID	Description	Replacement Cost	Condition	Odometer end of 2023
76	2013 Western Star tandem-axle plow truck	$450,000	Fair	228,629
77	2015 Western Star tandem-axle plow truck	$450,000	Fair	114,984
78	2005 International tandem-axle plow truck	$450,000	Poor	280,489
79	2009 Volvo tandem-axle plow truck	$450,000	Fair	189,070
70	2020 Silverado 2500HD	$65,000	Good	163,440
71	2015 Sierra 1500 4-dr.	$65,000	Fair	224,716
72	Volvo loader	$550,000	Fair	3,779 hrs.
73	2001 Volvo 740 Grader	$700,000	Poor	10,790 hrs.
74	2012 Volvo 976 Grader	$700,000	Fair	5,550 hrs.
75	2016 J. Deere Grader	$700,000	Fair	5,318 hrs
701	2015 Hitachi excavator	$400,000	Fair	6,838 hrs
702	2011 4WD Sierra pickup	$65,000	Poor	325,794
703	2024 4WD Sierra pickup	$65,000	Good	4,017
	HOLMS Sweeper 501174	$50,000	Good	
		$5,160,000		

Plow Truck 78 is 20 years old and needs to be replaced. Pickup 702 is no longer in regular service, and was replaced by 703.

Table 10 Land Improvements

	Historical Cost	Replacement Cost estimate	Condition
Works shop/sand dome parking lot	$ 21,524	$ 130,000	Poor
Gravel pit driveway, boundary fencing	11,282	35,000	Poor
Rayburn Meadows playground equip. 2023	100,217	110,000	Good
Rayburn Meadows other	41,274	To be deleted	
Orton Park amenities#, parking lot	31,297	50,000	Fair
Tot Haven Park amenities#	27,962	30,000	Fair
Garafraxa Woods parkette amenities#	11,392	20,000	Fair
Brookhaven Park amenities# + parking lot	108,214	125,000	Fair
Marsville Park amenities# + parking lot	72,796	90,000	Good
Nature's Landing trails	56,860	70,000	Good
Nature's Landing amenities (playground equip.)	250,847	280,000	Good
Nature's Landing site work 2022	56,778	60,000	Good
	790,443	**1,000,000**	
#Includes fences, baseball backstops, basketball courts, parking lots, etc.			

The township has no current plans to upgrade or renovate any Land Improvements listed above.

One additional asset not shown above is **LEASEHOLD IMPROVEMENTS.**

The township leases its admin. office space, and in 2020 the township made internal renovations to the leased physical space in the total amount of $371,922. This amount does not include anything movable, such as furniture, technology items or kitchen appliances, which all appear under Equipment.

Table 11 Land

Prop. Size (acres)	Description	Replacement Cost	Condition
2.93	Orton Park	$232,000	Fair
1.07	Marsville Park 207 ft. frontage	$123,000	Fair
1.82	Rayburn Meadows Park 182.3 ft. frontage	$294,000	Fair
0.89	Nature's Landing Park 423 ft. frontage	$280,000	Fair
1.06	Northridge & Forest Hill Lane park	$285,000	Fair
3.89	Old Carriage Rd @ Rd. 23 Gara.Woods park	$300,000	Fair
4.91	Brookhaven Park	$303,000	Fair
16.57	SUBTOTAL Parklands	**$1,817,000**	

9.07	vacant farmland, 13th Line	$1,143,000	Fair
47.86	gravel pits / quarry 17th Line	$700,000	Fair
3.00	vacant farmland, 15th Line conc. 16	$400,000	Fair
1.03	vacant farmland, 19th Line @ Rd. 3	$189,000	Fair
1.72	cemetery land, 12th Line	$197,000	Fair
0.22	Land under Community Hall	$83,000	Fair
2.00	Land under Works garage+sand dome	$280,000	Fair
0.14	for drainage laneway, Marsville	$80,000	Fair
0.17	for drainage laneway, Marsville	$81,000	Fair
0.64	drainage laneway, R.M. & NLW subdiv.	$270,000	Fair
0.39	drainage laneway, R.M. & NLW subdiv.	$260,000	Fair
82.81			
		$5,500,000	

Table 11A The Land listing above does not include these stormwater properties:

Prop. Size (acres)	Description	Replacement Cost	Condition
0.25	Brookhaven Cres. subdivision	$200,000	Fair
0.10	end of Maywood Drive	$180,000	Fair
0.10	end of Maywood Drive	$180,000	Fair
0.10	on Woodland Drive 134.7 ft frontage	$180,000	Fair
0.40	on Woodland Drive 134.7 ft frontage	$200,000	Fair
0.50	on Nature's Landing	$30,000	Fair
0.81	A-Line at Caledon TnLn 156.5 ft frontage	$30,000	Fair
		$1,000,000	

Buildings

The township has relatively few municipal buildings, as many municipal services in the township are contracted-out to adjacent municipalities that provide the physical facilities from which those services are provided [arenas, pools, libraries, firehalls].

A comprehensive Building Condition Study was completed in 2023 on the township buildings. The study analyzed each building by its component parts. The buildings were assigned an overall FCI (Facility Condition Index) rating based on this scale:

- 0 to 10% Excellent / as new
- 11 to 30% Good / performs its function
- 31 to 60% Fair / needing repair to prolong life
- 61 to 80% Poor / cannot be relied on to perform its function
- Over 80% Critical / immediate replacement, safety or code violations

Table 12 lists township buildings at a high-level overview:

BUILDING	Township Historical Cost	Estimated Replace. Cost	FCI score	Year built	Recommended repair costs 1 to 5 yr. period
Orton Park					
Storage shed	$ 53,912	$ 100,000	8% Excellent	2014	00
Orton Park	$ 106,645	$ 650,000	1% Excellent	2015	8,000
Open-air Pavilion					
Marsville	$ 83,967	$1,500,000	79% Poor	1950	130,000
Community Centre					
Public Works	$ 81,438	$ 700,000	10% Excellent	1987	10,000
Sand Dome					
Public Works shop	$ 177,692	$2,100,000	16% Good	1980	67,500
and fleet garage					
Marsville Water	$ 150,752	$ 400,000	98% Critical	1972	140,000
System pumphouse					
Gravel Pit shed 1	$ 21,632	$ 250,000	48% Fair	1978	110,000
Gravel Pit shed 2		demolition	102% Critical		n/a to demolish
Gravel Pit shed 3		demolition	160% Critical		n/a to demolish
Sheds have no HVAC, no plumbing, electrical systems are abandoned					
	$ 676,038	**$5,700,000**			

The township has provided some funding in its 2024 budget to complete some building repairs. Building replacement values include approx. allowances for energy efficiency improvements to modern standards, for heating and cooling systems and electricity.

Equipment

Assets in this category are generally of lower values but are significant in total. They have shorter useful lives and are replaced more frequently, such as technology items.

Instead of a detailed, itemized listing, Equipment assets are grouped for simplicity:

TABLE 13	Historical Cost	Replac. Cost	Condition
Admin items furniture etc.	70,002	75,000	Good
Admin technology items	61,700	65,000	Good
Community Hall furnishings	4,806	10,000	Fair
Public Works tools, technology, etc	146,453	175,000	Fair
Road Signs - pooled	290,930	325,000	Fair
	$ 573,891	**$ 650,000**	

Water System (Marsville subdivision)

This table lists the main assets within the waterworks system serving 33 properties in the Marsville subdivision. The system has been in place since 1972.

TABLE 14 Water System Assets

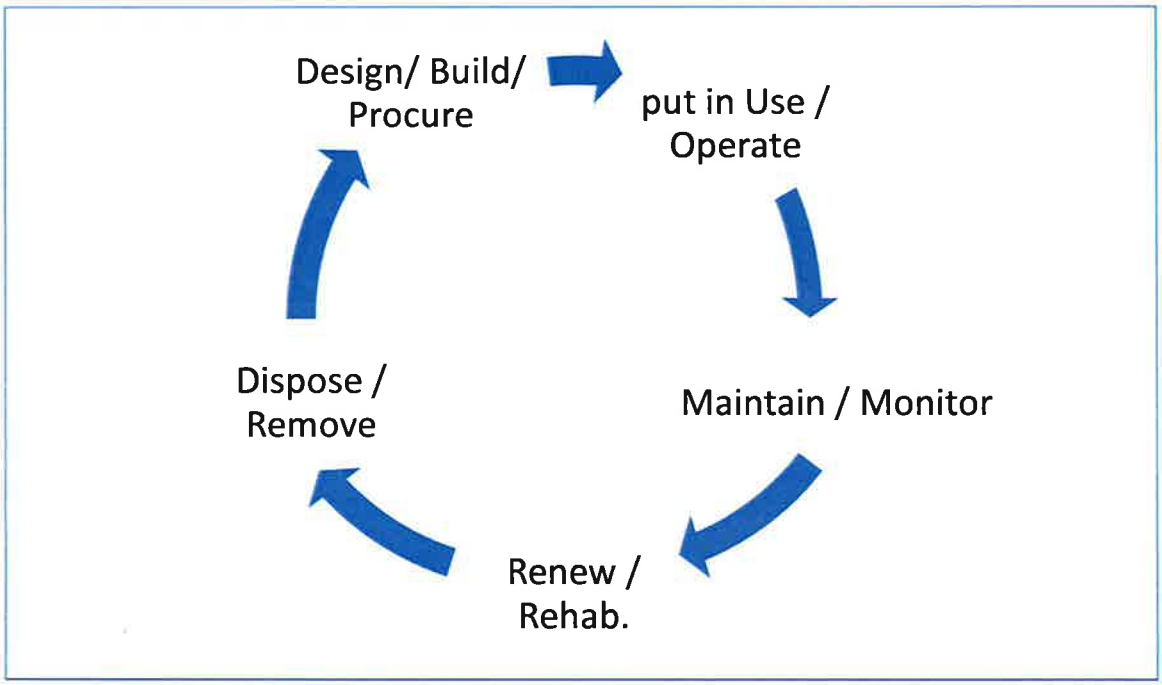
	Historical Cost	Replac. Cost	Condition
Pumphouse building 1972 [containing pumps, materials, etc.] concrete block structure with masonry, vinyl siding, and sloped shingled roof	150,752	400,000	**Poor**
150mm watermains 1972-install Total length = 640 m. (not including surface restorations)	113,720	330,000	**Fair**
Five hydrants (not functioning)	7,367	52,000	
Monitoring wells at gravel pit	24,744	26,750	**Fair**
Marsville production well + upgrades	86,603	145,000	**Fair**
2nd Well, not in service	6,539	75,000	
Water Tank 2013	12,750	13,500	**Fair**
Motors, valves+process-piping, boxes, pumps, flow meter, chlorinator, tanks, analyzer, chemical injectors, SCADA, electrical controls, raw-water piping	146,440	216,000	**Fair**
	$ 548,915	**$ 1,258,250**	

4. ASSET MANAGEMENT STRATEGY

This AMP section relates to identifying a set of actions that will assist the Township in maintaining its core assets in such condition that they may continue to provide current levels of service to residents.

These actions typically include:

- Non-infrastructure solutions
- Maintenance activities
- Renewal or rehabilitation
- Replacement and Expansion
- Disposal



ASSET LIFECYCLE aka CRADLE-to-GRAVE

Non-infrastructure solutions and maintenance activities involve the work carried out in day-to-day care of existing assets, to keep them in operating condition. Renewal and rehabilitation is the next Asset Strategy phase, when assets need a major overhaul to remain operational. Replacement is the stage where an asset is beyond rehabilitation, can no longer provide service and must be replaced. Expansion includes making plans to expand services due to growth, which normally involves more, or larger, assets than those previously in use, and not simply replacing "same with same". Disposal involves the removal of an expired asset that is no longer of any use.

The Township currently faces serious near-term financial shortfalls for its capital assets, which will be made clear in the Financial Strategy section 5 of the AMP. This reality places the primary emphasis within the Township's Asset Strategy on maintenance activities and non-infrastructure solutions, because it is known that necessary funds are not available for renewals, rehabilitations and replacements of core assets.

This Table identifies typical actions the Township could take, specifically for roads and bridges and culverts:

Table 15 Typical Lifecycle Actions

Non-infrastructure solutions		Changes in asset use to lessen stress on the asset : making changes to hours of operation, take break times during asset use, safer storage, regular cleaning
Maintenance activity		Snow-plowing, sweeping, grading of ruts and pot-holes, shouldering, crack sealing, cold patching, weed + grass cutting, ditching, dust control, re-graveling, deck washing, OSIM inspections, component repairs as indicated by the inspection, line-painting All part of day-to-day Public Works activities
Renewal + Rehabilitation		Asphalt removal and resurfacing. Replace joints, concrete abutments, barriers, decks, bearings, wingwalls
Replacement		Remove existing asset and install new asset of approx. the same dimension and materials
Expansion		Install a new, different asset to perform similar function, but with increased size, or more capacity, or more features, or improved technology
Disposal		Remove the replaced asset from its former location, sell or trade-in, landfill, incineration

It is recommended that the Township develop a multi-year Capital Plan that looks at existing assets and evaluates their physical condition. Based on what the data shows, realistic timetables for asset replacements need to be established. These timetables would then be converted to budget requirements based on current asset market prices, anticipated inflation increases and a matching up to the expected replacement dates.

Next, the required funding per year, for asset replacement, should be analyzed against sources of funds available. If necessary, compromises should then be made to accommodate financial shortfalls, but without over-extending reasonable asset lifecycles by over-extending replacement dates.

Where compromises are made, because of financial shortfalls, they should be reflected in increased operating budgets for repair and maintenance costs, for older assets with delays to their replacement times.

Another aspect of an Asset Strategy is lifecycle record-keeping, maintaining ongoing service records or "log-books" for large assets, such as documenting when parts were replaced or rebuilt, for example. It is recommended that asset lifecycle records be maintained.

Good maintenance of assets will

- Avoid the need for earlier-than-planned replacement
- Save financial resources through fewer major repairs
- Ensure asset performance meets customer expectations for levels of service (for example, residents expect a road that they can drive on without damaging their vehicle)
- Benefit Township employees' health and safety by reducing chances of accidents caused by asset failure

When performing asset maintenance, these factors should be considered:

- Is the repair cost-effective? How much longer will the asset last by doing this?
- Time delays : how long will the repair work put the asset out-of-service? Example road closures, or temporary single-direction traffic
- Have local utilities been contacted? (gas, hydro)
- Will this work impact surrounding municipalities?

A recent development in Asset Strategy is the emergence of climate change adaptation in infrastructure planning. Climate adaptation is necessary to cope with the adverse effects of climate change on human and natural systems. When the Township is scheduling rehabilitation or replacement of bridges or culverts in future, consideration should be given to ways of making the new/ renewed asset more resilient to the adverse consequences of climate-related hazards.

In summary, because of limited resources, in the near-term the Township Asset Strategy will continue to consist mostly of good maintenance practices, to keep Township assets in working condition, to meet service levels expected by residents. This will remain the case until sufficient financing is raised to make asset replacements.

5. FINANCIAL STRATEGY

The Financial Strategy outlines the recommended approach to raising the funds needed to address the full asset lifecycle costs outlined in section 4 of the AMP, namely:

- Annual maintenance of capital assets a.k.a. Operating Costs
- Major rehabilitation or renewal costs (capital costs) to extend asset useful life
- Asset replacement costs (capital costs)
- Asset inventory expansion costs (capital costs)
- a Capital Plan to fully fund replacements/upgrades based on a best-estimate for the expected timing

Calculations should take Inflation into consideration.

There will always be a shortfall, commonly referred to as an Infrastructure Gap. This AMP will use the term "I-Gap" for this. The Financial Strategy must, by necessity, compromise in addressing the I-Gap, based on limited resources and the magnitude of the I-Gap. It will likely be the case that addressing the I-Gap will need to be a slower, more gradual process than what would be considered ideal. The main goal of the Township should be to consistently, although gradually, reduce its I-Gap over a period of years. This main goal will attempt to move the Township towards asset management **sustainability.**

The term **Capital Costs** will be used to include major rehabilitations, complete replacements, and expansion of capital assets. There might need to be some Capital cost deferrals due to a lack of available funding. Tax-supported funding levels for Capital costs adopted for the 2024 Budget are low; there is a long way to go to get to a sustainable level of Capital cost funding.

All types of funding sources will be included. External sources are based on the current levels of funding, including

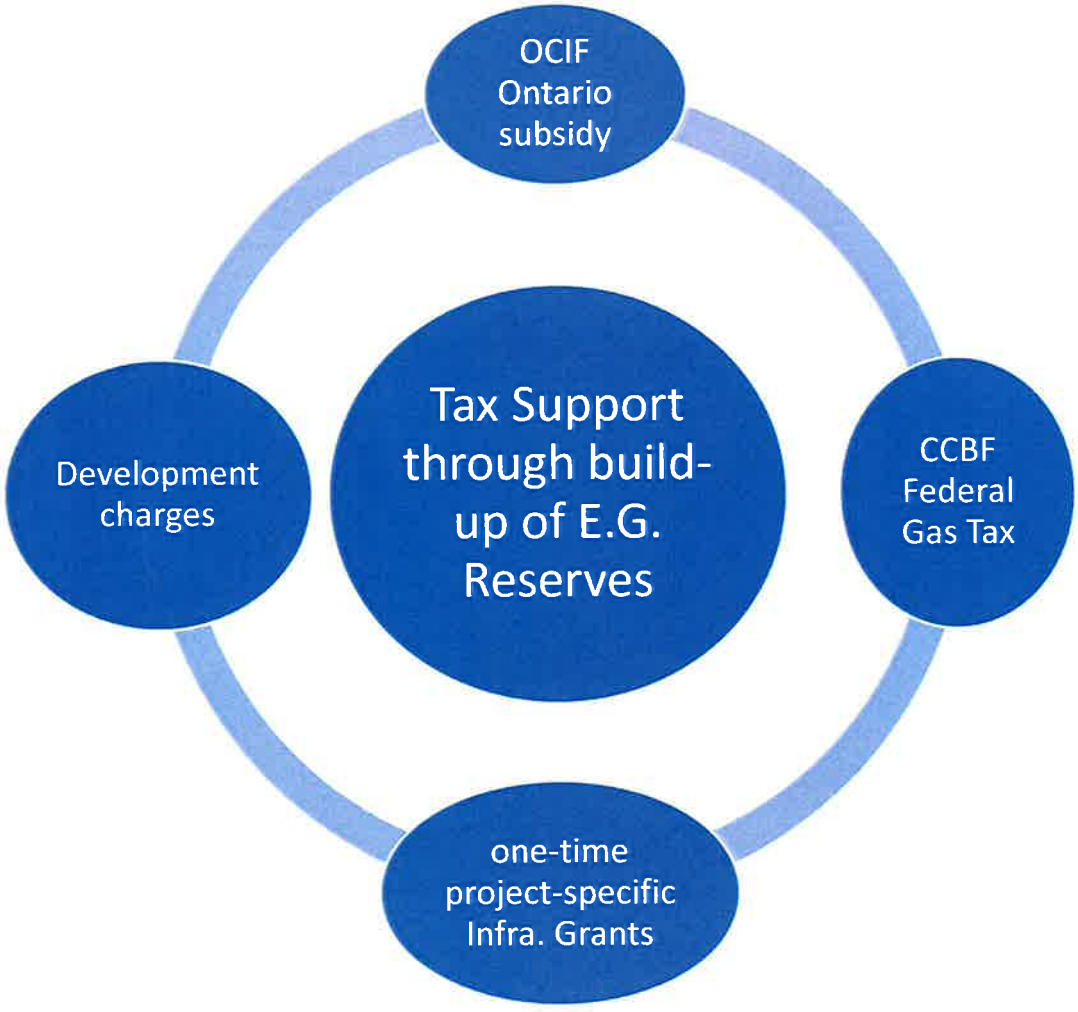
- Federal Gas Tax
- OCIF Provincial grant funding

The amounts of these two external funds are not under the control of the Township and are subject to change from time to time.

Internal sources of funds, which are under Township control, include:

- Property taxation
- Development Charges (although restricted in their use)
- Reserves established by the Township

SOURCES OF CAPITAL ASSET FINANCING



The following estimates are for annual township operational costs (not Capital Costs) required to maintain core assets, based on 2023 actual costs. All these costs are funded through property taxes, except waterworks, funded by user fees from customers on the water system. There can be no deferrals of these costs, they must be paid at the time they are incurred, to enable the operation of the related assets, to deliver services.

Employee costs (salaries + benefits) are considered indirect costs and are excluded, although it is recognized that a portion of time spent by Township staff is devoted to maintaining and operating township capital assets.

Table 16 Annual Operating Costs for Capital Assets

Asset Group	Description of Maintenance Cost	Amount from 2023
Water System	Hydro, inspection, repairs as needed	$ 35,000
Water system	Insurance protection	2,800
Bridges + culverts	Repairs, parts, contracted service	3,000
Gravel roads	Dust control , calcium chloride	130,000
	Gravel + crushing + hauling	120,000
	Winter sand + salt 50%	42,000
Paved roads	Winter sand + salt 50%	42,000
	Crack Sealing and cold patching	31,300
	Grass mowing and weed-spraying	7,600
	Road markings / line-painting	4,100
	Liability insurance	35,000
Vehicles	Licenses	11,500
	Fuel	105,000
	General repairs	83,000
	Tires, Blades, other materials	50,000
Works Garage+Shop	Utilities and repairs	13,000
Other buildings	Utilities and repairs	9,700
		725,000

These annual costs can potentially increase substantially without notice. Inflation may cause large increases in some of these costs (fuel is a good example). Existing assets will be worn-down, and repair costs will increase, over time, especially if major capital asset rehabilitations and replacements are consistently being postponed. **Table 16** Operational Costs of capital assets amount to 18% of the 2024 tax levy, not including any staffing costs.

Capital asset cost data for preparation of forecasts of major asset rehabilitations and replacements were obtained from:

- Roads Needs Study 2023
- OSIM bridge and culvert reviews, every 2nd year per legislation
- Annual capital summary for water system, from external contractor

Bridges and culverts project data come from the 2023 OSIM review, and water asset data comes from the 2024 external contractor's estimates for capital work. The timing of the projects in Table 17 may differ somewhat from the consultant reports. Due to limited funds, it is recognized some projects may be deferred, and the Township would be accepting the inherent risks of project deferral. Compromises in the timing of work, due to a lack of resources, is already a reality at the township. Availability of contractors to actually perform the project work (referred to as "Capacity issues") can also be a factor in project timing.

Property taxation is normally the largest source of funding for capital work. Taxation must be increased gradually, but consistently, as much as future budget approvals will permit. Township Capital Reserves have not been built up to the level required to meet future capital project needs. In recognition of this, in the following **Table 18** financial plan, care has been taken to ensure OCIF grants, Gas Tax and Development Charges are used within the time limits imposed on their use.

Another source of financing for capital projects is Long Term Debt. The Township will need to take on some debt to meet its capital needs, due to the low level of its other funding sources. Debt has not been used by the Township in the past. Debt is a sensible method to finance large projects, because ongoing debt repayments will spread the capital asset cost of those large projects over several years, matching the fact that the related asset should be providing service for many years, therefore the residents benefitting from the services provided by that asset will be paying for the asset, instead of the full cost being borne by only those residents of the year in which the asset was acquired.

Debt Policy for many municipalities often does not permit taking on debt to replace or rehabilitate any existing asset, with the Debt Policy limiting any new debt taken on to the purpose of new asset additions only, such as the construction of a new building. The financial analysis on **Table 18** shows the Township is not in a sufficient financial position to avoid using new debt as a source of funds for asset replacements, whenever a large project comes up, as now forecasted for 2029.

The Capital Project Plan forecast that follows **(Table 17)** covers 2024 to 2031 for capital project spending. The goal of increasing tax support for capital project purposes is built into this forecast, where tax support needs to increase annually, as contribution to Reserves, in order to have sufficient Reserves in place when they are required.

All projects in the capital project forecast in **Table 17** relate to existing assets. No provision has been made for anything new, be it new roads, bridges or culverts, any vehicle fleet expansion, or any new buildings, stormwater assets or water system assets. All the Capital Cost figures in **Table 17** are for the rehabilitation of, or replacement of, existing assets.

TABLE 17 CAPITAL WORKPLAN FORECAST

	Road Resurfacing	Bridges or Culverts	Buildings	Vehicles	Others
2024					
50% share of Caledon paving on Townline: Shaws Creek to 19th Line HL3	$ 150,000				
replace 2005 Int'l. plow-truck				$ 450,000	
County to replace Computer Server					$ 10,000
2025					
upgrade A-Line to asphalt, from 1km north of O.C.Rd. to Rd.3/Rd.11 intersection	$ 410,000				
replace culvert 005 on 10th Line		$ 1,100,000			
Water pumphouse roof replacement			$ 22,000		
various repairs to buildings, specifics t.b.d.			$ 75,000		
2026					
resurface Hilltop Cr. 0.657km	$ 183,000				
various repairs to buildings, specifics t.b.d.			$ 75,000		
2027					
Bridge 008 on 13th Line: design work (see 2029)		$ 125,000			
replace 2001 Volvo 740 grader				$ 700,000	
various repairs to buildings, specifics t.b.d.			$ 75,000		
(likely will include replacing Works garage septic system)					
2028					
replace structure 0045 on Erin-EG TnLn		$ 740,000			
resurface 500m W.Churchill Blvd.	$ 60,000				
various repairs to buildings, specifics t.b.d.			$ 75,000		
2029					
replace truck #71 2015 Sierra 1500				$ 70,000	
Bridge 008 on 13th Line: replacement		$ 4,150,000			
OR					
Bridge 008 on 13th Line: rehabilitation		$ 1,400,000			
various repairs to buildings, specifics t.b.d.			$ 75,000		
2030					
Culvert 0026 on Erin TnLn : rehabil. only		$ 325,000			
resurface 3,000m 10th Line Erin TnLn -Rd. 3	$ 450,000				
replace 2013 W.Star plow truck				$ 500,000	
2031					
resurface Grand Cres+Victoria Blvd.Marsville	$ 90,000				
replace truck #70 2020 Silverado 2500HD				$ 73,000	
2032 no forecast, too distant					
2033 no forecast, too distant					
	$ 1,343,000	**$ 3,690,000** with 008 rehab	**$ 397,000**	**$1,793,000**	**$ 10,000**
Capital project spending forecasted for next 8 years			**$7,233,000**		

if Bridge 008 rehabil. and not replaced

WorkPlan does not address any equipment replacements
WorkPlan does not address the future of Marsville Hall building
WorkPlan does not consider Stormwater assets

Table 17 shows the township faces the need to finance $7.2 million of capital spending over the next 8 years. This work is also needed to avoid losing some of the OCIF and Gas Tax funding that the township receives.

Most municipalities use capital forecasts, that identify their capital asset needs, to support committing to annual tax increases of 1% to 2% for more tax support of capital work, on top of operational budget tax increases. This is commonly referred to as a Capital Levy. The 2024 township tax levy was about $3.9 million, so a 1% increase would raise $39,000.

Township taxes set for 2024 included a Tax Levy increase of 2% over 2023, for capital project cost purposes. The township has increased its Tax Support for capital projects from a low-point of $142,000 in 2021 up to $270,000 in 2024.

Table 18B is a financing scenario for the capital costs shown for 2024 to 2028 in **Table 17.** This financing scenario is designed to:

- Fully fund each year's projects
- Do not over-draw any sources of financing, and allow some flexibility in case the project costs are higher than estimated (for example, annual inflation allowance of 3% may not be realistic as marketplace changes)
- Commit to modestly increase the Tax Levy support every year for capital projects on a consistent basis, never taking a "year off"
- Limit the use of new debt to only very large projects

New Debt is used only once, in 2029 for a major bridge rehabilitation of $1.4 million (for a bridge on the 13th Line, that would cost $4 million+ to replace rather than rehabilitate). It is possible that there could be one-time infrastructure grants available for such a project, and if the Township successfully applied for such a grant, debt could be reduced or avoided.

Like any multi-year workplan, capital project budgets are subject to changes by Council, and each year going further-out in the forecast, the numbers become more uncertain. For that reason, **Table 18B** only considers the financing of projects up to 2028.

Stormwater asset projects have been excluded, because of the lack of detailed information on the state of township stormwater assets. An external study will be done in 2024 to gather information on stormwater assets.

Any financial plan must have flexibility built-in as a crucial element of the plan. The existing Township reserves need to be built up, for any unexpected road, bridge or culvert project, so that the Township has some capacity to respond to an emergency situation.

Climate change will certainly increase the likelihood of an emergency (see Section 6).

There is a requirement to spend CCBF Gas Tax and OCIF funds within five years of receipt, or else those funds must be returned. This forecast was based on using some Gas Tax money and OCIF money in time to avoid this "claw-back".

Although much of the water system assets are decades old, the external consultant's ten-year capital forecast for water asset capital work in upcoming years contains only minor repair costs forecasted, that can be funded from the existing Water Reserve, so they are excluded from Tables 17 and 18.

Table 18A CAPITAL FORECAST – Project Costs (from Table 17)

ASSET CLASS	2024	2025	2026	2027	2028	
SPENDING (Table 16)						
Asphalt roads	160,000	400,000	183,000		60,000	**803,000**
Bridges+culverts		1,100,000		125,000	740,000	**1,965,000**
Vehicles	450,000 Plow truck			700,000 Grader		**1,150,000**
Buildings	0	97,000	75,000	75,000	75,000	**322,000**
Stormwater assets		No specific data available at this time				
Others (technology)	10,000					**10,000**
	620,000	**1,597,000**	**258,000**	**900,000**	**875,000**	**$4,250,000**

Table 18B CAPITAL FORECAST - funding [where $$ will come from]

	2024	2025	2026	2027	2028	
From Road Reserve		50,000	163,000	50,000		
From Bridge Reserve		350,000			250,000	
From Fleet Reserve	350,000			650,000		
From CCBF Gas Tax	160,000	415,000	20,000		250,000	
From OCIF		340,000		107,500	50,000	
From Develop. Charges		145,000		17,500	110,000	
From taxes raised for *Technology + buildings*	10,000	75,000	75,000	75,000	75,000	
From Prev.Yr. Surplus	100,000					
From NEW Infra Reserve					140,000	
From other sources: Water *Rsrv., Developer$*	0	222,000				
	620,000	**1,597,000**	**258,000**	**900,000**	**875,000**	**4,250,000**

Gas Tax is relied upon heavily in Table 18B, such that it is expected there will be close to zero unspent Gas Tax on hand by the end of 2028 (see **Table 18C**).

The Fleet Reserve will be near zero after the 2024 plow purchase, and it will need to be replenished over each of the next three years (2025 to 2027) to be able to fund the replacement of the 2001 grader by 2027.

The Capital Plan provides no top-up of either the Road or the Bridges Reserves, but includes some spending of them in 2026, 2027 and 2028, so that by the end of 2028 both of those Reserves will be near zero.

In 2024, the Township Budget included $270,000 for capital reserves. **Table 18B** shows, indirectly, the need to bump annual tax-levy contributions to about $500,000 so that, when added to $100,000 each of Gas Tax and OCIF funds coming in every year, the township

would have approx. $500K + $100K + $100K = $700,000 raised per year for its capital work. This gap between $270,000 and $500,000 is a rough estimate of the Township's **Infrastructure Gap.** That difference of $230,000 **amounts to roughly a 6% tax increase.**

But that is an incomplete picture.

All municipalities have an Infrastructure Gap, or **I-Gap**. The I-Gap is the shortfall of available funds compared to the costs of capital work that should be completed each year.

The true I-Gap that exists in the Township is not fully measurable at this time. One reason is the asset needs for stormwater assets are unknown. For this AMP, only a small annual increase for tax support for Fleet has been presumed in the financing **Table 18B**.

The township has I-Gaps in roads, bridges, vehicles and buildings, when you consider the capital needs compared to the funds on hand currently. Capital spending in the next 5 years will mostly use-up any reserves in place for those assets. By the end of 2028, there will be insufficient funding available for projects needed in 2029 and beyond. Inflation will also impact project costs. The inflation impact gets larger when projects are delayed.

Table 18A and 18B have been intentionally structured to only disclose capital projects for which sufficient funding could be made available to complete them, during 2024 to 2028.

Other projects such as the Marsville Hall, any parkland amenities (ball diamonds, tennis courts, playground areas), any equipment replacements, any repaving of parking lots, installation of natural assets such as tree canopies and shrubs, and replacing/renovating the Works Garage, may be brought forward over the next five years. Most of those types of projects would be Ineligible for OCIF or Gas Tax funding. **Table 18C** shows how only minimal capital project funding is expected to remain in place by the end of 2028.

Table 18C CAPITAL FORECAST – Funding Sources analysis

	O CI F	GAS TAX	Road Rsrv	Bridge Rsrv	Fleet Rsrv	Infra. Rsrv
End of 2023	**143,975**	**308,274**	**262,252**	**614,467**	**185,000**	**0**
Additions over 2024 to 2028 **5-yrs**	**500,000** [100K x 5]	**500,000** [100K x 5]	**0** No additions	**0** No additions	**1,225,000** From taxes	**200,000** From taxes
Spend 2024		**-160,000**			**-350,000**	
Spend 2025	**-340,000**	**-415,000**	**-50,000**	**-350,000**		
Spend 2026			**-163,000**			
Spend 2027	**-107,500**	**-20,000**	**-50,000**		**-650,000**	
Spend 2028	**-50,000**	**-250,000**		**-250,000**		**-140,000**
End of 2028	**146,475**	**-36,726**	**-748**	**14,467**	**410,000**	**60,000**

A major bridge project is tentatively scheduled for 2029 (**see Table 17**), based on the 2023 OSIM study, so the funding for that project would need to come from debt/borrowing (or possibly an Infra. Grant might be available) because by 2029 the other funding sources will be depleted.

Although the township also has a Parkland Dedication reserve fund, and two small reserves for the Community Hall and the Works Garage buildings, they are insufficient in size to fully fund any significant asset upgrades.