TOWN OF ERIN

September 15, 2020

Asset Management Plan 2020 Update

Contents

Introduction

Infrastructure is inextricably linked to the economic, social and environmental advancement of a community. As analyzed in this Asset Management Plan (AMP), the Town of Erin's infrastructure portfolio comprises the following asset classes: Road Network, Bridges and Culverts, Buildings, Machinery and Equipment, Land Improvements, Vehicles and Water. The asset classes analyzed in this asset management plan had a total 2019 valuation of $172.8 million.

The intent of asset management is to minimize the lifecycle costs of delivering infrastructure services, manage the associated risks, while maximizing the value ratepayers receive from the asset portfolio. The initial acquisition of capital assets accounts for only 10-20% of their total cost of ownership. The remaining 80-90% comes from operations and maintenance.

This Asset Management Plan (AMP) Update 2020 includes 2019 completed capital projects and provides details of the state of infrastructure of the town's service areas. Furthermore, the long-term financial strategy was also updated with changes to funding allotments based on 2020 Capital Budget and assumes the same for the long-term plan.

1.0 Financial Profile: Tax Funded Assets

1.1 Funding Objective

As with any Asset Management Plan, the objective is to have ownership of an asset base that is fully funded. This section provides an overview of the Town's current funding position. Details pertaining to these calculations are found in the remainder of the report.

1.2 Current Funding Position

Presented below is an updated funding scenario calculating the Town of Erin's infrastructure deficit by utilizing the same methodology as the 2017 Asset Management Plan. This is calculated by taking each assets' replacement cost and dividing it by the estimated useful life. Furthermore, the bridges and culverts estimated value in the 2019 Ontario Structure Inspection Manual (OSIM) report was used for this update. The result yields the "Average Annual Investment Required" in order to meet the replacement cost needs at the end of the useful life. This annual average is compared against the funding available in 2020 to arrive at an Annual Deficit amount of $2.3m.

Calculated by CityWide, the average annual investment requirement for the above asset categories is $4.5 million compared to $3.6 million in 2017 AMP. The 2020 funding allocated to these assets for capital purposes is $2.3 million resulting in an annual average deficit of $2.3 million compared to a $2.0 million deficit in 2017 AMP. Therefore, these asset categories are currently funded at 50% of their long-term requirement. This is a fairly significant improvement from the 2017 Asset Management Plan where these categories were funded at 43.8% of the long-term requirement.

In developing a long term financial strategy to address this deficit, the following changes in costs and revenues needed to be considered:

- The Town Ontario Community Infrastructure Fund (OCIF) formula-based component for 2020 is $260,016. This grant has been discontinued until further notice starting with the year 2021.
- Total debt payments for these asset categories will be decreasing by $171k over the next 6-years and by $332 over the next 10-years. In 20-years, the decrease will be $432k (see Long Term Financial Plan below). This is assuming that the balloon payment of $907k expiring in 2022 is paid in full.
- Water buildings and equipment are not included in Facilities and Machinery & Equipment in this AMP update as they are funded from rates and not taxation.

Town of Erin							
Summary of Infrastructure Requirements & 2020 Funding Available							
Asset Category	Average Annual Investment Required	Annual Funding Available					Annual Deficit
		Taxes	Gas Tax	OCIF	Taxes to Reserves	Total	
Tax funded:							
Road Network	2,016,550	18,000	347,016		681,509	1,046,525	970,025
Bridges & Culverts	845,162	200,000		260,016	0	460,016	385,146
Facilities	656,671	257,200		0	0	257,200	399,471
Land Improvements	208,358	84,100	0	0	0	84,100	124,258
Machinery and Equipment	289,491	35,000	0	0	32,000	67,000	222,491
Fleet	515,535	250,000	0	0	100,000	350,000	165,535
Total	4,531,767	844,300	347,016	260,016	813,509	2,264,841	2,266,926

Table 30 Infrastructure Requirements and Current Funding Available: Tax Funded Assets

Asset class	Average Annual Investment Required	Total Funding Available in 2018					Annual Deficit/Surplus
		Taxes	Gas Tax	OCIF	Taxes to Reserves	Total Funding Available	
Road Network	1,840,000	324,000	343,000	0	448,000	1,115,000	-725,000
Bridges & Culverts	337,000	0	0	164,000	112,000	276,000	-61,000
Facilities	613,000	143,000	0	0	0	143,000	-470,000
Land Improvements	192,000	22,000	0	0	0	22,000	-170,000
Machinery & Equipment	200,000	32,000	0	0	0	32,000	-168,000
Vehicles	455,000	0	0	0	0	0	-455,000
Total	3,637,000	521,000	343,000	164,000	560,000	1,588,000	-2,049,000

The combined changes in OCIF and decrease in debt payments can be redirected to capital renewal requirements. As shown in the table below, increasing tax revenues by 1.4% each year for the next 20 years will maintain existing asset classes in this AMP. The table from the 2017 AMP recommended a 1.2% increase each year.

Long Term Financial Plan

Year	5	10	15	20
Infrastructure Deficit	2,266,926	2,266,926	2,266,926	2,266,926
Change in OCIF Grant	260,016	260,016	260,016	260,016
Change in Debt Costs	-171,000	-332,000	-333,000	-432,000
Resultant infrastructure Deficit	2,355,942	2,194,942	2,193,942	2,094,942
Resulting tax increase required				
Total Over Time	31.2%	29.1%	29.1%	27.8%
Annually	6.2%	2.9%	1.9%	1.4%

Source: 2017 Asset Management Plan - Town of Erin (pg 111) Table 32: Effect of Changes to OCIF Funding and Reallocating Decreases in Debt Costs

		5	10	15	20
Infrastructure Deficit		2,049,000	2,049,000	2,049,000	2,049,000
Change in OCIF Grant		-94,000	-94,000	-94,000	-94,000
Change in Debt Costs		-172,000	-333,000	-333,000	-434,000
Resulting Infrastructure Deficit		1,783,000	1,622,000	1,622,000	1,521,000
Resulting Tax Increase Required					
Total Over Time		26.9%	24.5%	24.5%	23.0%
Annually		5.4%	2.5%	1.6%	1.2%

OCIF Funding and Reallocation Decreases in Debt Costs

With consideration to the table above, full asset funding can be achieved in a 20-year period by increasing capital funding by 1.4% and in combination with the following strategies:

- When realized, reallocate reductions in debt payments to infrastructure reserves;
- Allocating Gas Tax to asset renewal requirements.

This is a 0.2% increase from the 2017 Asset Management Plan due to the following factors. Between 2017 and the 2020 AMP, the 'Average Annual Investment Required' calculated by CityWide increased by $895k. The majority of this increase is attributed to the more accurate OSIM information for Bridges and Culverts, and overall increasing replacement values that will continue to increase over the following 20 years. The cancellation of the OCIF grant negatively impacts the Total Funding available beginning in 2021. Over the 20 year period, these changes taken as a percentage result in the 0.2% increase as seen in the chart above. A detailed breakdown of how the annual funding deficit can be addressed is found in Appendix F.

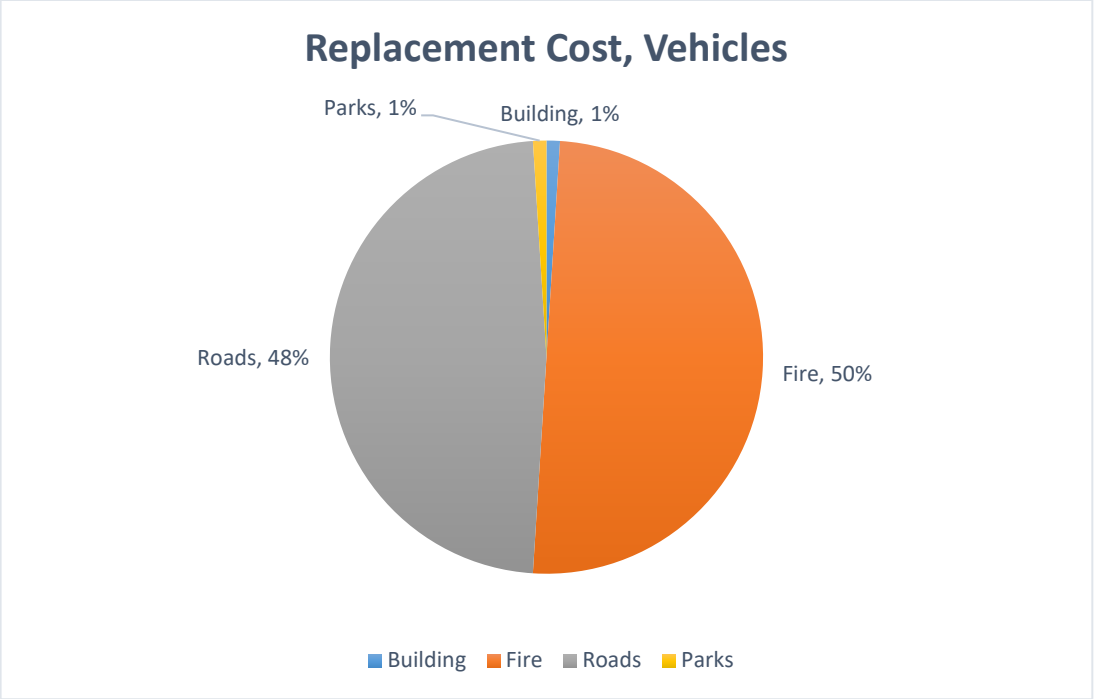
2 Vehicles

2.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

The table below summarizes key asset attributes for the Town's vehicles portfolio, including quantities by department, useful life, replacement cost, and the valuation method by which the replacement costs were derived. In total, the Town's vehicles assets are valued at $7.4 million based on 2019 replacement costs. A detailed listing of Town vehicles is found Appendix A.

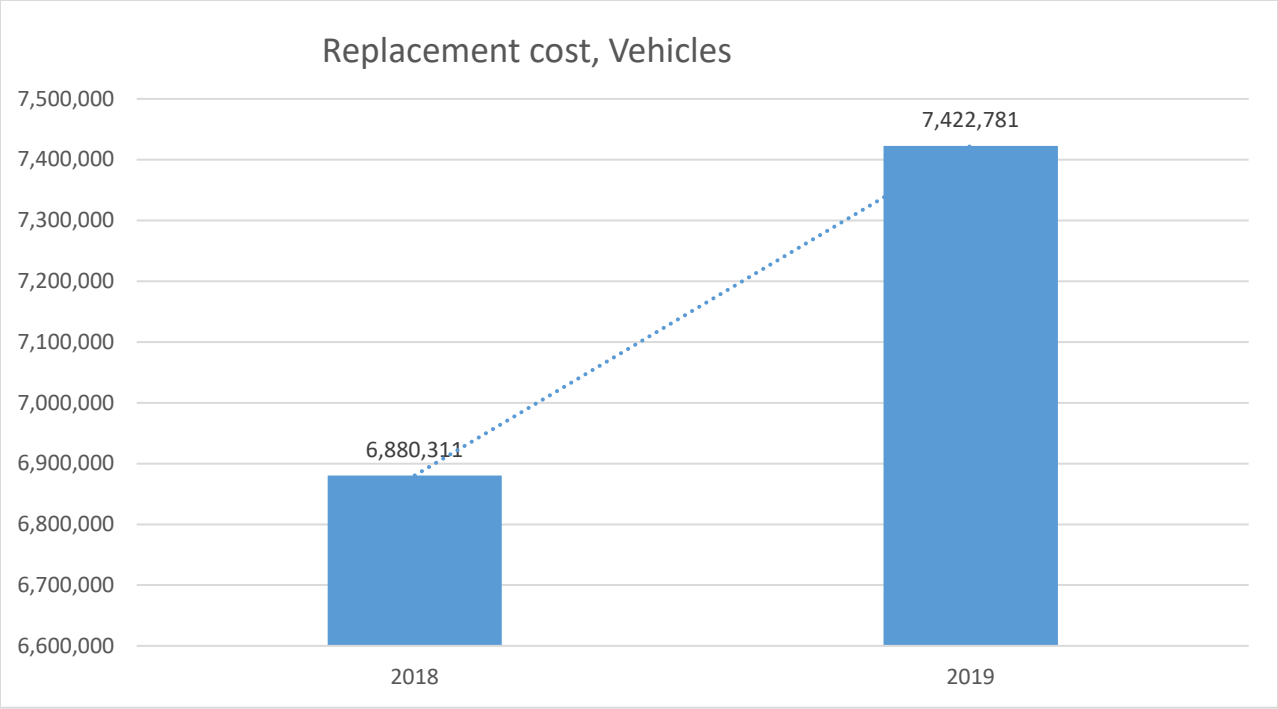
Component	QTY	Useful Life (years)	Valuation Method	Replacement Cost	
				2018	2019
Building Vehicle Licensed	1	10	CPI Monthly (ON)	40,566	41,406
Fire Trailer	1	15	CPI Monthly (ON)	4,549	4,643
Fire Vehicle Licensed	9	10,20	CPI Monthly (ON)	3,429,845	3,656,816
Fire Vehicle Unlicensed	1	10	CPI Monthly (ON)	23,225	23,706
Parks Vehicle Licensed	3	10	CPI Monthly (ON)	117,782	88,359
Roads Trailer	1	15	CPI Monthly (ON)	32,590	33,265
Roads Vehicle Licensed	9	10,20	CPI Monthly (ON)	1,299,449	1,602,260
Roads Vehicle Unlicensed	16	10,12,15,20	CPI Monthly (ON)	1,932,305	1,972,326
			TOTAL	**6,880,311**	**7,422,781**

The majority of replacement cost for Town of Erin vehicles is the Fire and Roads department.



Replacement cost increased 3.8% from 2018 to 2019. This is a combination of inflationary increases and the net addition of the following 2 vehicles:

1) Asset #924 – 2019 Fire Pumper Erin Station – Purchased in 2019.
2) Asset #927 – 2019 Single Axle Dump Truck/Winter Sander – Purchased in 2019.



These replacement costs were derived applying an inflationary factor to their respective historical costs. Using this methodology the risk of replacement cost inaccuracy increases the longer an asset ages (i.e. inflating historical cost may provide an accurate representation of replacement cost early in an asset life cycle, but the accuracy diminishes as more time passes). Therefore, there may be circumstances where an inflationary adjustment to historical cost may not be appropriate and should only be used for assets with shorter lifecycles (i.e. < 7 years).

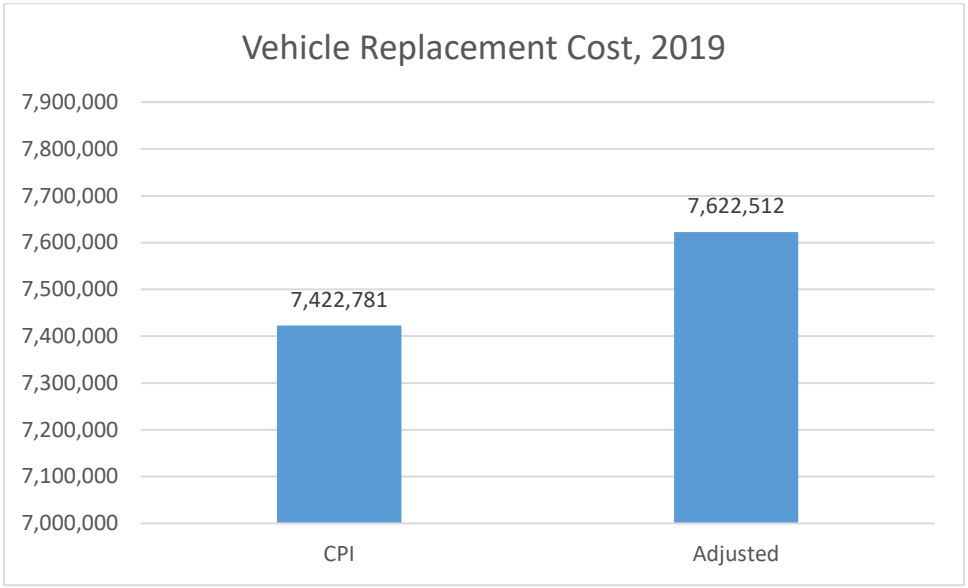
Additionally, inflating historical cost to calculate a replacement value assumes each asset will be replaced with a similar asset. However, the Freightliner Rescue vans owned by the Fire Department will not be a direct replacement as it's recommended to be replaced with two vehicles that require less equipment to meet service level needs. Moreover, the Fire Department received informal quotations from vendors on current market prices for their vehicles. The table below summarizes the differences in using replacement cost calculated by CPI and current market rates for Fire Department vehicles:

For 2020, the replacement of a 1990 Fire Tanker 57 with a budget of $450k was procured for delivery in 2021.

Replacement Cost Discrepancies: Fire Vehicles

Category	Description		Replacement Cost		Difference
			CPI Values	Market Value 2020	
Fire Trailer	2015 Moritz Trailer - Tilt 6x12		4,643	4,643	-
Fire Vehicle Unlicensed	2015 Kubota ATV		23,706	23,706	-
Fire Vehicle Licensed	1990 International Dependable Tanker, T57, 1500 Gallon Water Tank		376,765	450,000	73,235.00
	1994 Freightliner C-Max Rescue Van, R55		304,490	400,000	95,510.00
	1994 Freightliner Metalfab Tanker, T17, 2300 Gallon Water Tank		365,389	300,000	(65,389.00)
	2008 Freightliner C-Max Tanker, T17, 1500 Gallon Water Tank		459,327	300,000	(159,327.00)
	1992 GMC Sentinal Rescue Van, R15		308,814	400,000	91,186.00
	2019 Spartan Dependable P11 Pumper		588,266	576,330	(11,936.03)
	2000 Freightliner Dependable Pumper, P52, 750 Gallon Water Tank		395,748	450,000	54,252.00
	2003 Freightliner Dependable Pumper, P12, 750 Gallon Water Tank		390,351	450,000	59,649.00
	2012 Spartan Dependable Pumper Rescue Truck, P51		467,666	575,000	107,334.00
		TOTAL	3,685,165	3,929,679	244,514

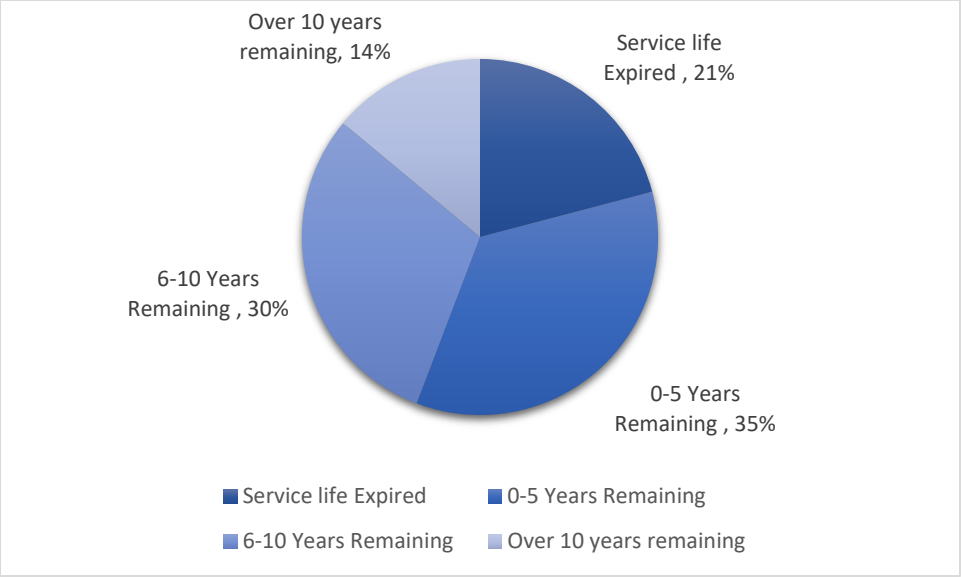
The risk of replacement cost inaccuracy exists for all departments. However, without factoring in potential replacement cost discrepancies from other departments, substituting the Market Rate for Fire Vehicles in the overall replacement cost for the Vehicle asset class increases the replacement cost to $7.6 million in 2019 an additional 2.62%.



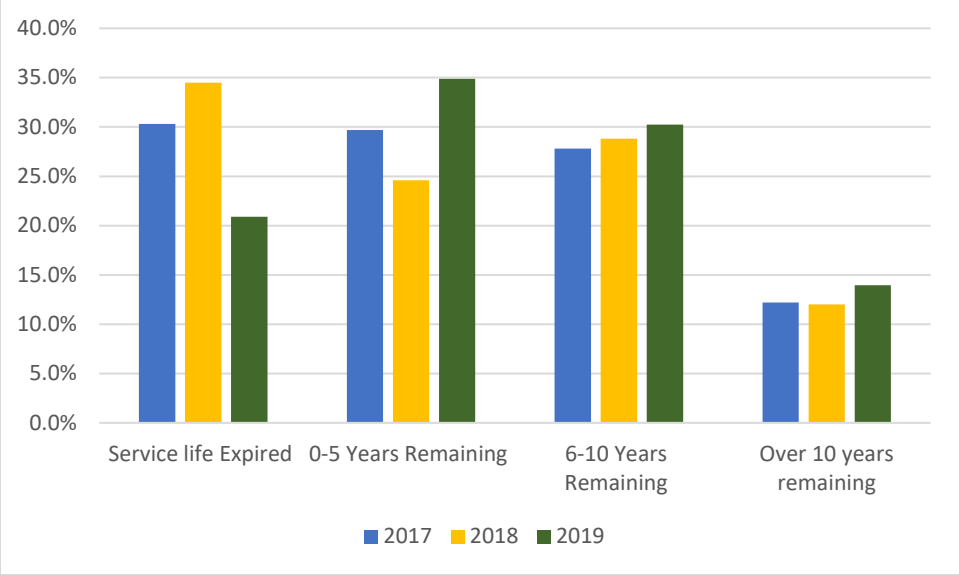
Note: Adjusted refers to the substitution of Market Rates for Fire Department vehicles only.

2.2 Useful Life Consumption

Understanding the consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the useful life consumption levels as of 2019 for the Town's vehicles. The Service Life Expired was significantly reduced as it went from 34% in 2018 to 21% in 2019 due to the replacement of the fire tanker and single axle dump truck/winter sander.

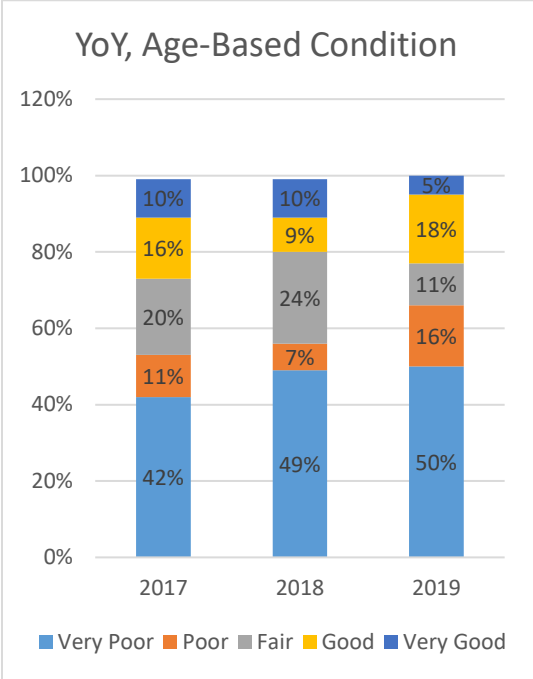


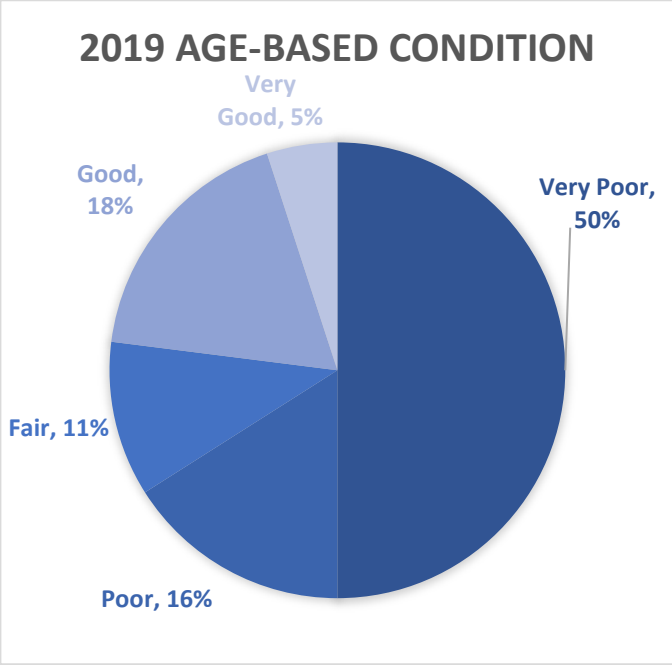
A comparison of service life remaining from 2017 to 2019 is shown below:



2.3 Asset Condition

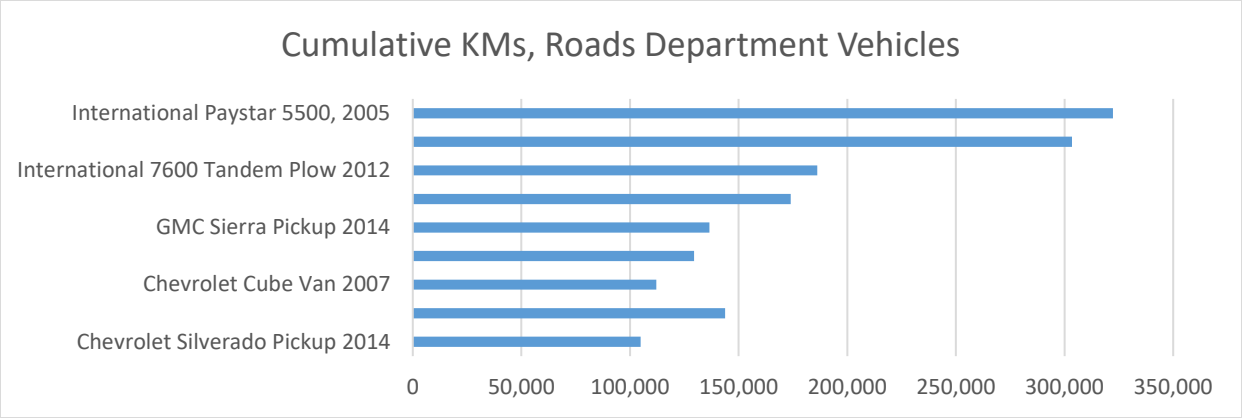
The Town of Erin does not have a formal mechanism for tracking vehicle condition. Therefore, the chart below summarizes replacement cost using age-based condition. It's compared against the age-based condition reported in the 2017 Asset Management Plan to allow for a year-over-year (YoY) comparison.





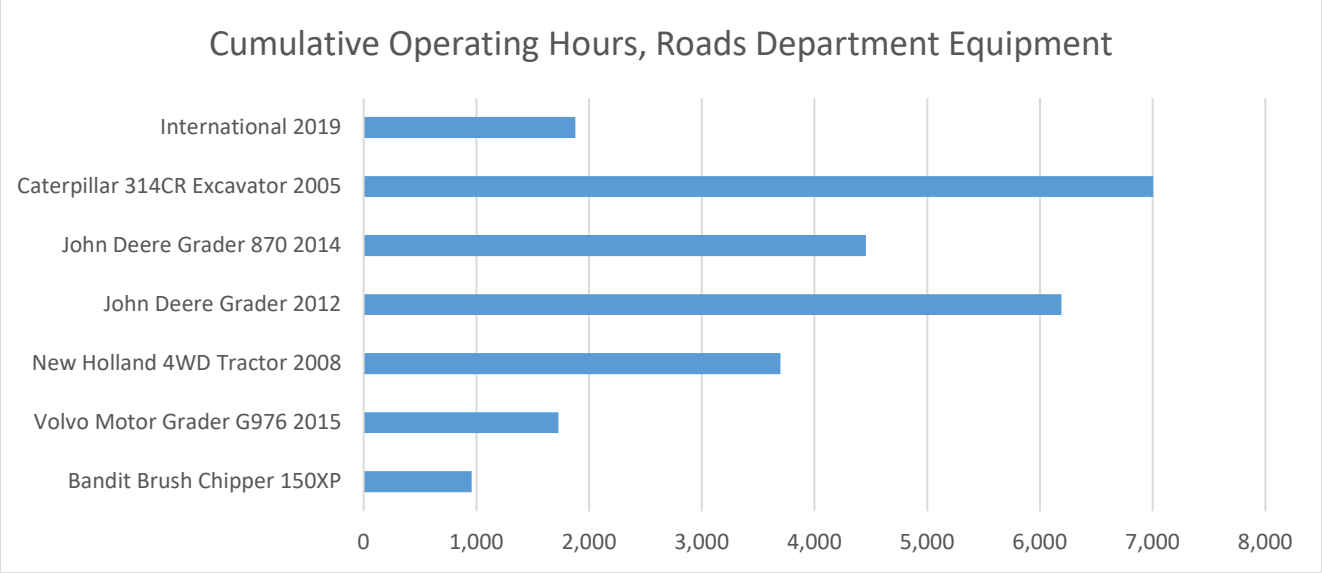
However, age-based condition can only be used as a proxy to guide replacement decisions. A more accurate proxy for condition can be asset consumption as measured by vehicle mileage and/or cumulative operating hours and yearly maintenance expenditures.

The Town of Erin Roads Department measures this data on a monthly basis. It is also captured in the Town's Fuel Management System. A summary of vehicles where asset consumption data is available is below. The cumulative KMs driven is as of December 2019.



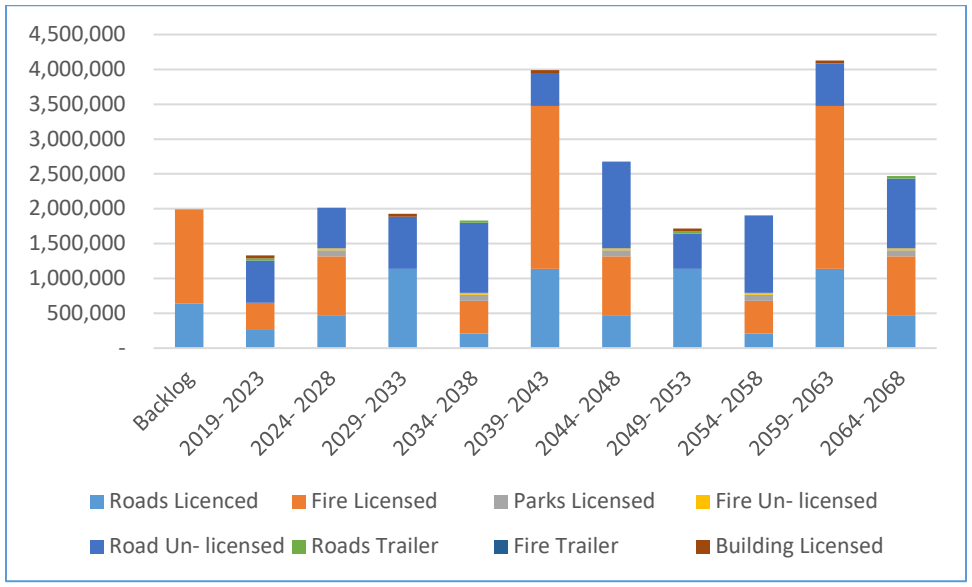
Analyzing the prior 3-years of mileage data on the above noted vehicles, these vehicles drive an average of 28,065 KMs/year.

The operating hours of Roads Equipment as of December 2019 is summarized below



2.4 Forecasting Replacement Needs

In this section, the short-, medium- and long-term infrastructure spending requirements (replacement only) for the Town's vehicles assets are illustrated. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.



2.5 Recommendations

The recommendations below were identified in the 2017 Asset Management Plan. Beneath each recommendation is an explanation detailing the approach for implementation.

1) A preventative maintenance and lifecycle assessment program should be established for all vehicle assets to gain a better understanding of current condition and performance as well as the short- and medium-term replacement needs.

In 2019, $170k was transferred to the Fire Vehicle Reserve which was related to year-end surplus. Furthermore, the 2020 Budget, included reserve contributions of $50,000 towards Roads Vehicles and $50,000 towards Fire Vehicle Reserve. Also, $250k of tax revenue towards the replacement of Fire Tanker 57. Part of the Roads and Fire Department Budget planning now includes vehicle preventative maintenance programs that were incorporated into the 2020 and future Operation Plans.

2) Using the above information [from recommendation 1], the Town should assess its short-, medium- and long-term capital and operations and maintenance needs.

This has been incorporated into the 2020 and future Operations Plans. Currently the Roads and Fire Department is required to complete the Operations Plan outline for four years of service.

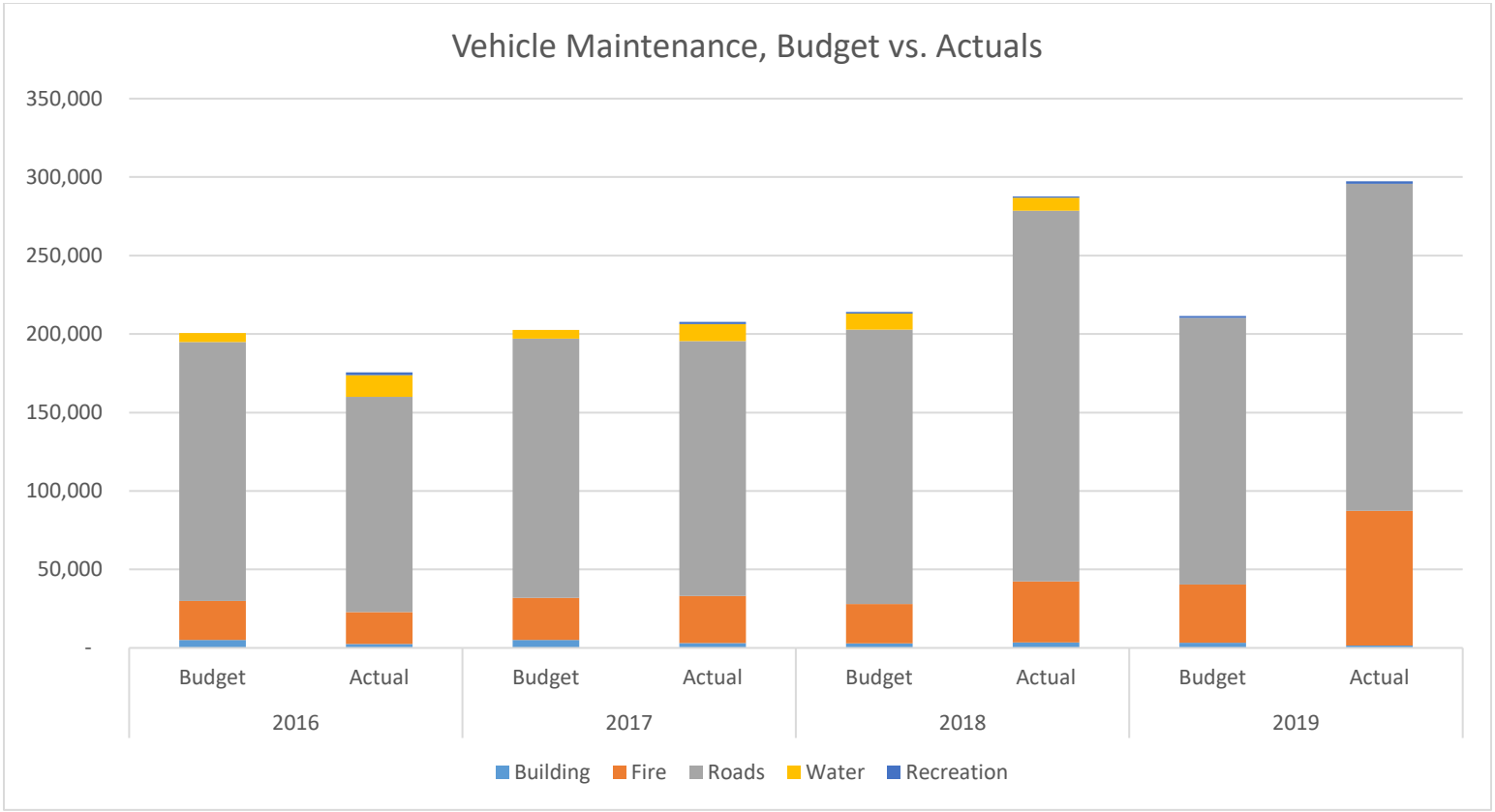
3) An appropriate percentage of the replacement cost should be allocated for the Town's O&M requirements.

The Town does not apply a specific replacement cost to vehicle operating and maintenance requirements in the annual budget. Instead, operating and maintenance requirements are reflected in the budget based on historical spending requirements and performance against budget.

The preventative maintenance program for the Roads Department is contracted to Brandt Tractor for Graders and done in-house for large trucks and ½ ton and 4 wheel small trucks. Preventative maintenance encompasses the following activities:

Activities	*Frequency*		
	Trucks	*Graders*	*½ Ton and 4-Wheelers*
- *Oil Change* - *Air & Hydraulic Filter Replacement*	*Every 300 operating hours*	*Every 500 operating hours*	*Every 8,000kms*

These preventative maintenance measures are reflected in the Town of Erin's annual budgeting process with an annual average of $207,225 for the 4-preceeding years. This represents 2.8% of the vehicle replacement cost. A summary of budget vs. actual performance is below.



4) The town is funding 46% of its long-term replacement needs for its vehicles on an annual basis.

For the roads vehicles, an annual reserve allocation of $50,000 started with the 2019 Budget and a continuous future annual reserve allocation of $50,000.

These changes have been incorporated into the Current Funding Position in Appendix E of this document. For the current year, AMP 68% annual funding has been set aside for the Average Annual Investment.

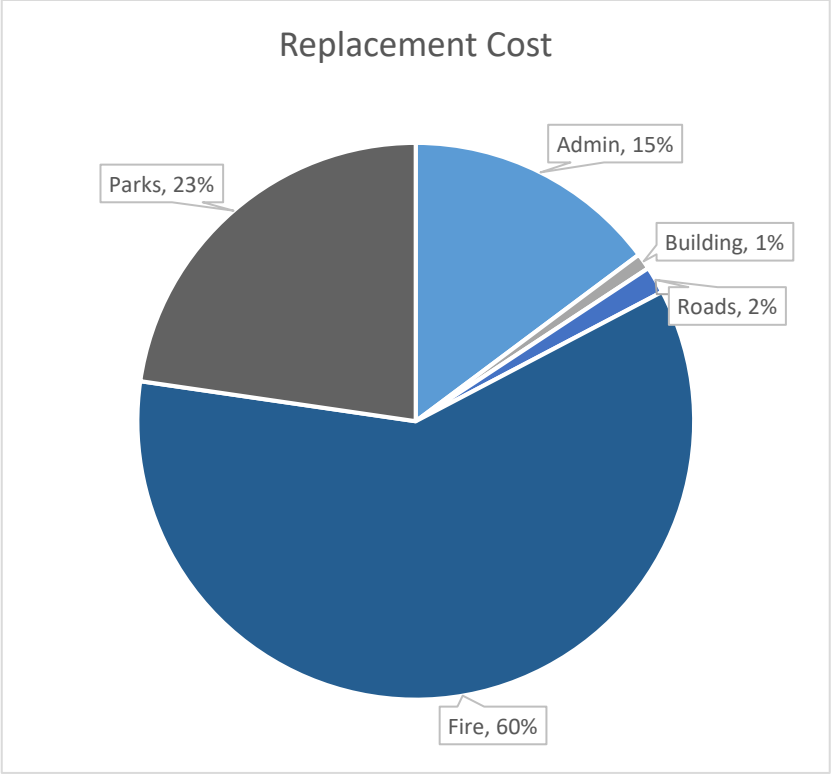
3.0 Machinery, Equipment & Computers

3.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

The table below illustrates key asset attributes for the Town's Machinery, Equipment & Computers portfolio, including quantities by department, useful life, replacement cost, and the valuation method by which the replacement costs were derived. In total, the Town's Machinery, Equipment & Computers assets are valued at $2.4 million based on 2019 replacement costs. A detailed listing of the Town's Machinery, Equipment & Computers is found in Appendix B.

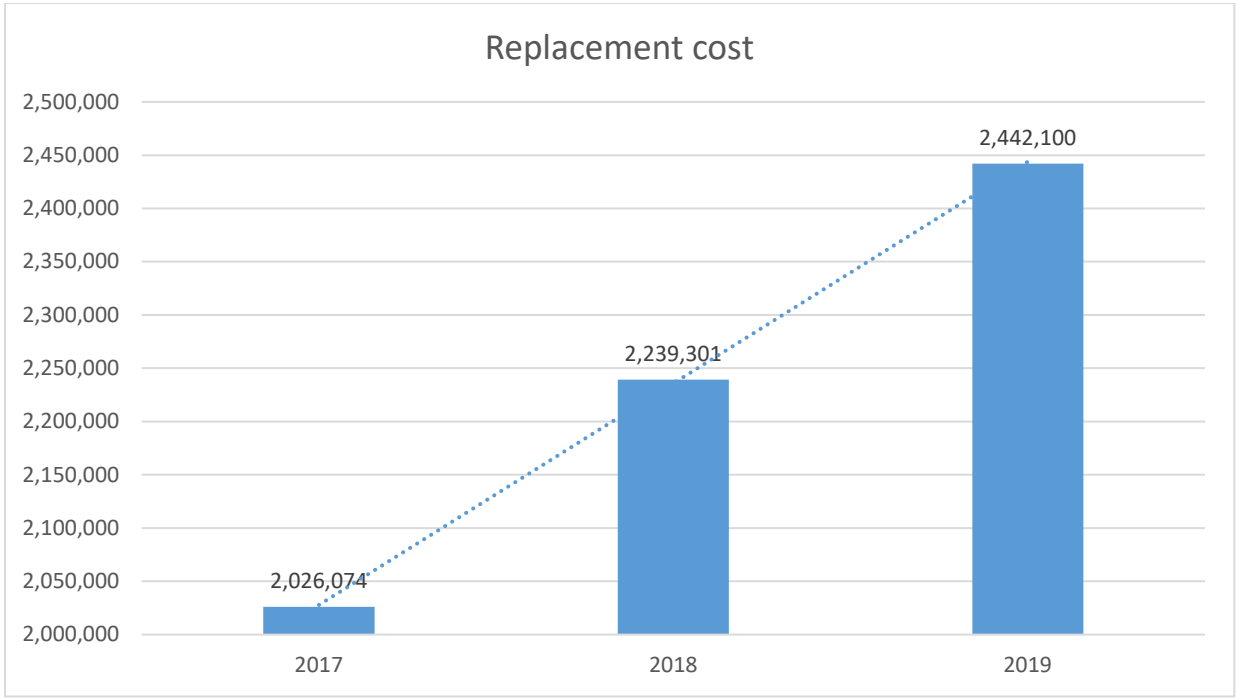
Component	QTY	Useful Life (years)	Valuation Method	Replacement Cost		
				2017	2018	2019
Admin Computer Software	1	5	CPI Monthly (ON)	43,090	43,737	44,642
Admin Computers & Equipment	15	5	CPI Monthly (ON)	258,125	310,174	316,595
Building Computer Software	1	5	CPI Monthly (ON)	21,011	21,326	21,768
Building Computers & Equipment	1	5	CPI Monthly (ON)	1,168	1,186	1,210
Fire Equipment	40	5,7,10,15,20	CPI Monthly (ON)	1,186,391	1,328,397	1,465,175
Parks Equipment	13	10,15,20	CPI Monthly (ON)	489,553	496,902	554,352
Roads Equipment	2	10	CPI Monthly (ON)	26,736	37,579	38,358
			TOTAL	2,026,074	2,239,301	2,442,100

The majority of replacement cost for Town of Erin Machinery, Equipment & Computers is for the Town's Fire and Parks (Recreation) departments.



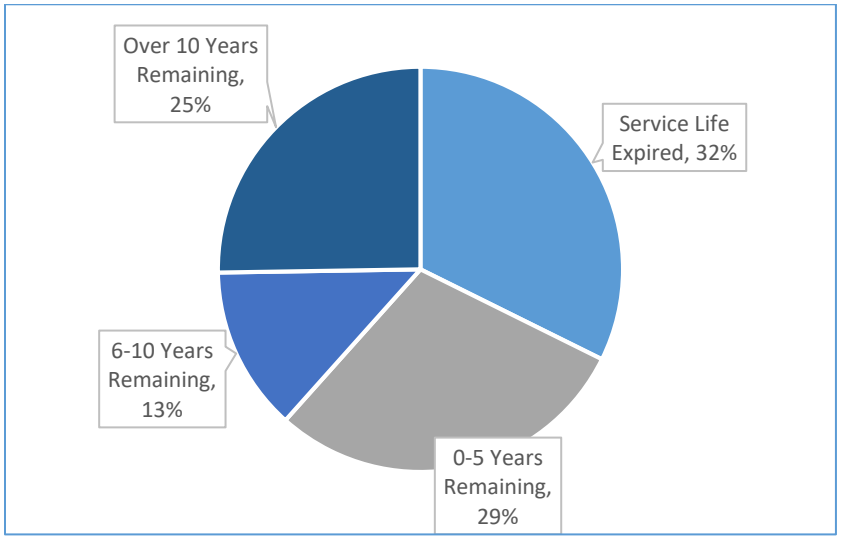
Replacement cost has risen by 8.3% from 2018 to 2019. This is a combination of inflationary increases and the addition of the following items in 2019:

1) Asset #925 – Fire - Exhaust System
2) Asset #926 – Fire - Hose Cache/Suction X 32
3) Asset #937 – Parks and Recreation – McMillan Park Equipment
4) Asset #932 – Parks and Recreation – Erin Community Centre Security Cameras

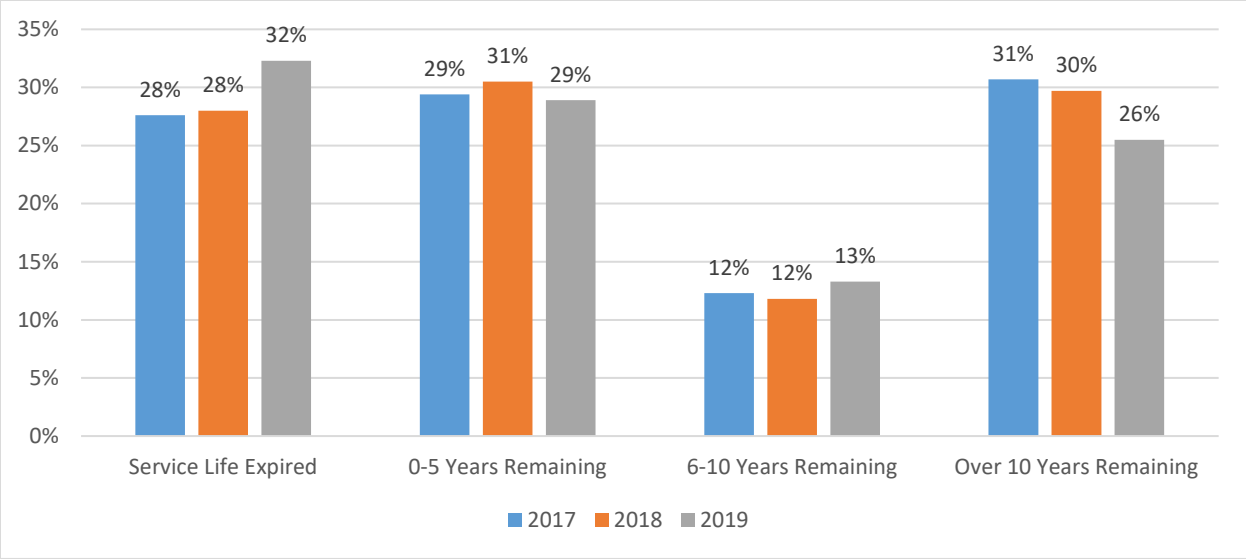

Replacement cost
2,500,000
2,450,000
2,400,000
2,350,000
2,300,000
2,250,000
2,200,000
2,150,000
2,100,000
2,050,000
2,000,000
2,026,074
2,239,301
2,442,100
2017
2018
2019

3.2 Useful Life Consumption

Understanding the consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the useful life consumption levels as of 2019 for the Town's Machinery, Equipment & Computers. Service Life Expired increased from 30% to 32% in 2018 to 2019, respectively.

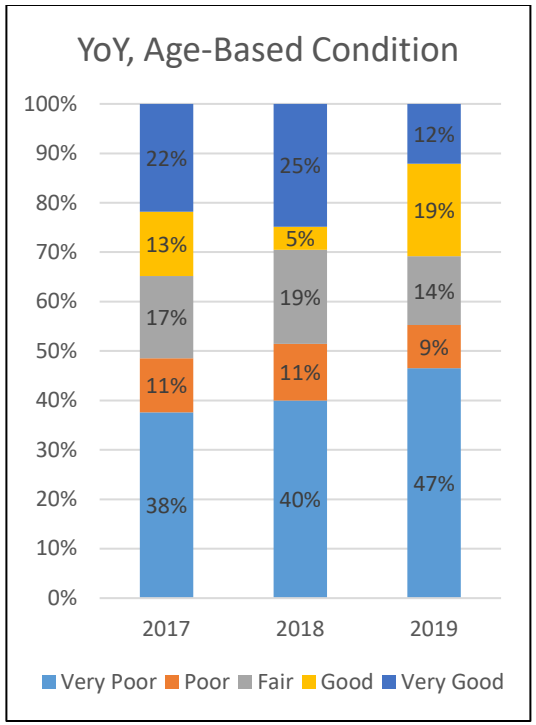


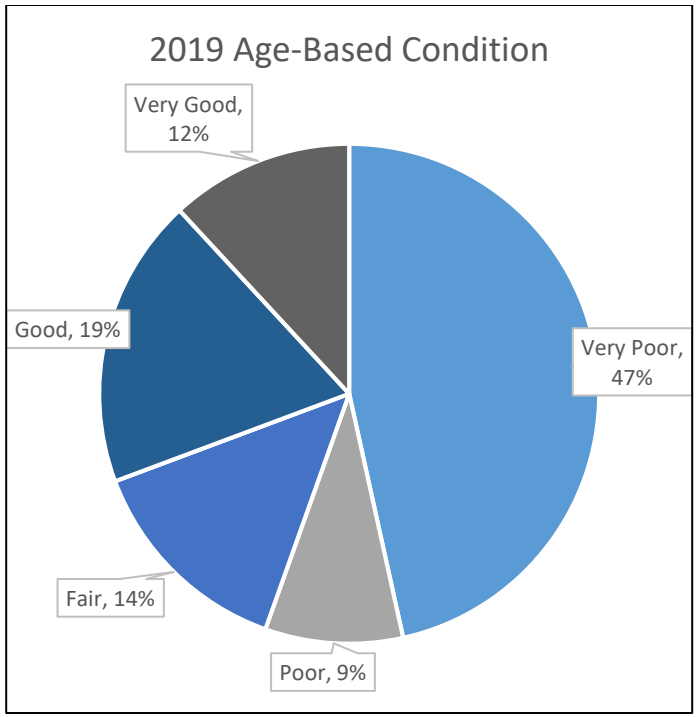
A comparison of service life remaining between 2017, 2018 and 2019 is below:



3.3 Asset Condition

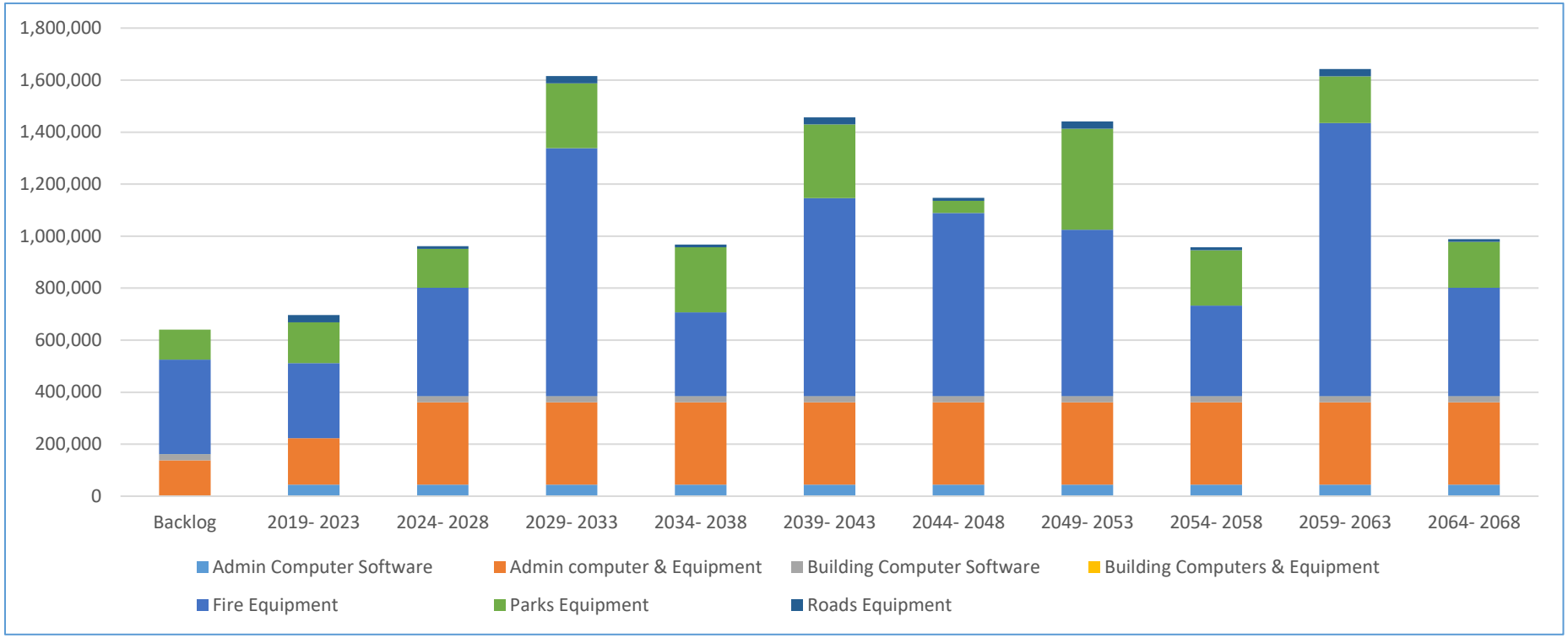
Using replacement cost, the condition of the Town's Machinery, Equipment & Computers assets are summarized by condition as of 2019. This went from 40% very poor to 47% very poor in 2018 and 2019, respectively. The Town does not have a mechanism for tracking asset condition for machinery and equipment so age-based data is used as a proxy.


YoY, Age-Based Condition
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
22%
13%
17%
11%
38%
25%
5%
19%
11%
40%
12%
19%
14%
9%
47%
2017
2018
2019
Very Poor
Poor
Fair
Good
Very Good


2019 Age-Based Condition
Very Good, 12%
Good, 19%
Very Poor, 47%
Fair, 14%
Poor, 9%

3.4 Forecasting Future Replacement Needs

In this section, the short-, medium- and long-term infrastructure spending requirements (replacement only) for the Town's machinery and equipment assets are illustrated below. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.



3.5 Recommendations

The recommendations below were identified in the 2017 Asset Management Plan. Beneath each recommendation is an explanation detailing the Town of Erin implementation approach.

1) The Town should implement a component-based condition inspection program for all machinery & equipment assets to better define financial requirements for machinery & equipment.

   The majority of assets the Town of Erin recognized within this category are Fire Equipment (Pagers, Protective Equipment, Extraction Equipment, Pumps, etc.) and IT-related (See Appendix B for a complete listing). Given the nature of assets included within this category, the costs associated with a condition inspection program would outweigh any potential benefits. Moreover, these assets are already recognized at the component level.

2) Using the information from above (recommendation 1), the Town should assess its short-, medium-, and long-term capital and operations and maintenance needs.

The 2020 and all future annual budgets require each related department for Machinery and Equipment to prepare a plan and a timetable of their short, medium and long-term capital, operations and maintenance needs.

3) An appropriate percentage of the replacement costs should be allocated for the town's operating and maintenance requirements.

   The IT-related assets within this category have a useful life of 5-years and have minimal maintenance needs. Similarly, the Fire Equipment is primarily comprised of Uniforms, Protective Equipment, Pumps, and Pagers and also requires minimal maintenance.

4) The Town is funding **16%** of its long-term requirements for its machinery & equipment assets on an annual basis.

   This is based on average capital budget specific to this asset class. The 2020 AMP for the Town has increased the funding long-term funding percentage to 23%.

4.0 Buildings and Facilities

4.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

The table below illustrates key asset attributes for the Town's Buildings & Facilities portfolio. It's developed using the same methodology as the 2017 Asset Management Plan to allow for a year-over-year comparison and includes asset quantities, useful life, and replacement cost. In total, the Town's Buildings & Facilities assets are valued at $25 million based on 2019 replacement costs. A detailed listing of the Town's Buildings & Facilities is found in Appendix C.

Asset Type	Component	Quantity	Useful Life (yrs)	Valuation Method	Replacement Cost		
					2017	2018	2019
Buildings & Faciltiies	Admin Building	1	40	CPI Monthly (ON)	853,579	1,017,480	1,409,043
	Fire Building	3	20, 40	CPI Monthly (ON)	3,373,166	3,423,814	3,499,751
	Parks Building	7	20, 40	CPI Monthly (ON)	17,724,989	17,984,319	18,445,904
	Roads Building	4	20, 40	CPI Monthly (ON)	1,414,489	1,500,828	1,531,912
				TOTAL	23,366,223	23,926,441	24,886,610

*QTY refers to the total number of Buildings recognized in the Town's Asset Management Software and in the Pinchin Building Condition Assessment 2019.

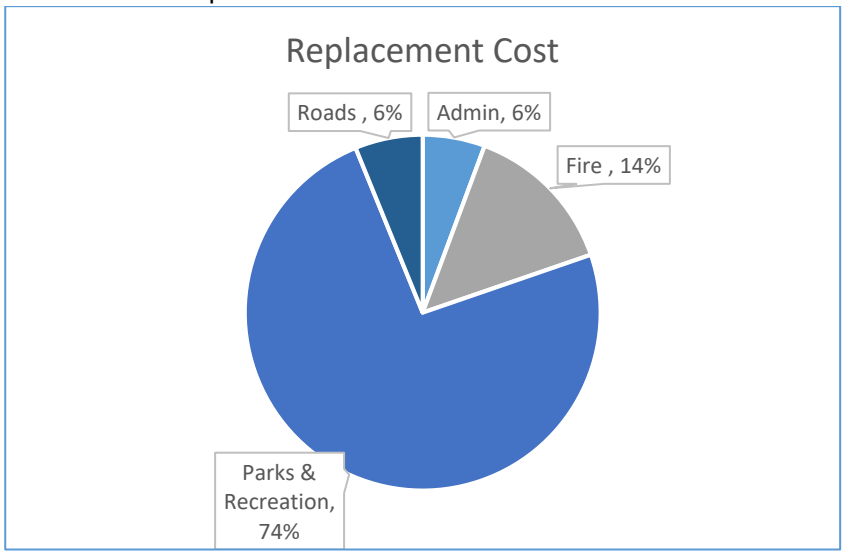
Details of each building can be found in Appendix C while a financial overview of each facility is below:

Facility	Cost	Accumulated Amortization	Net Book Value	Replacement Cost	Number of Components
Erin Community Centre	5,087,835	2,983,741	2,104,095	12,770,325	9
Hillsburgh Community Centre	1,509,881	1,288,595	221,287	4,610,954	12
Ballinafad Community Centre	217,681	183,913	30,215	621,066	3
Parks Buildings	269,111	115,135	153,977	443,559	4
Roads Shop	895,537	531,854	363,683	1,531,912	6
Municipal Office	1,059,544	364,710	742,950	1,409,043	5
Hillsburgh Fire Station	2,538,108	383,206	2,154,902	2,840,224	2
Erin Fire Station	292,943	250,540	40,812	659,527	2
TOTALS	11,870,640	6,101,692	5,811,920	24,886,610	43

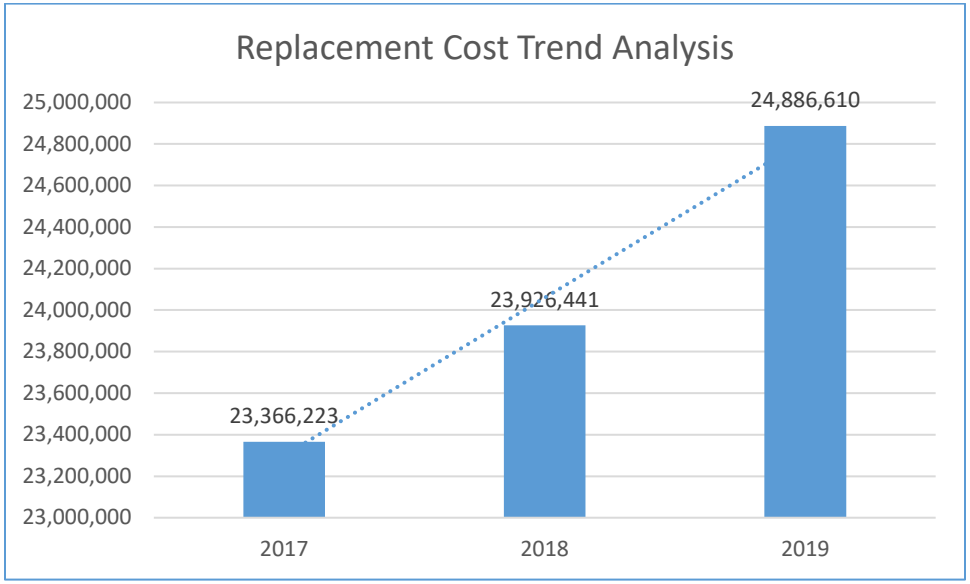
The number of components increased from 36 in the 2019 Asset Management Plan to 43 due to the addition of the following:

Asset #923: Municipal Office Elevator
Asset #931: Erin Community Centre Carpet
Asset #938: Hillsburgh Community Centre Water Heater
Asset #939: Erin community Centre Water Heater
Asset #921: Erin Fire Station 10 – Metal Roof Replacement

The majority of replacement cost of Buildings & Facilities is for Parks and Recreation.



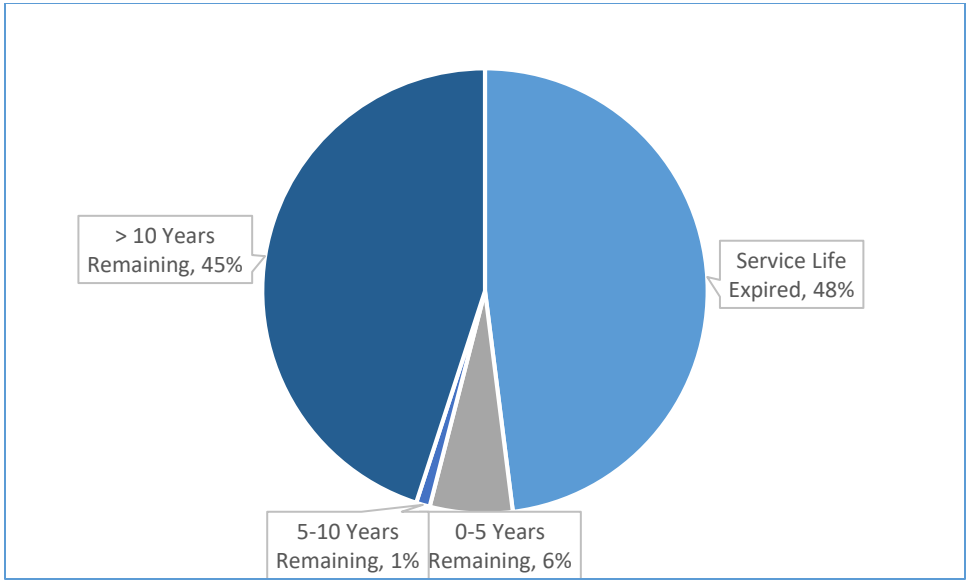
Replacement cost has risen 2.4% from 2017 to 2018 and 3.9% from 2018 to 2019. This is a combination of inflationary increases and the additions of building components (2019 listed above)



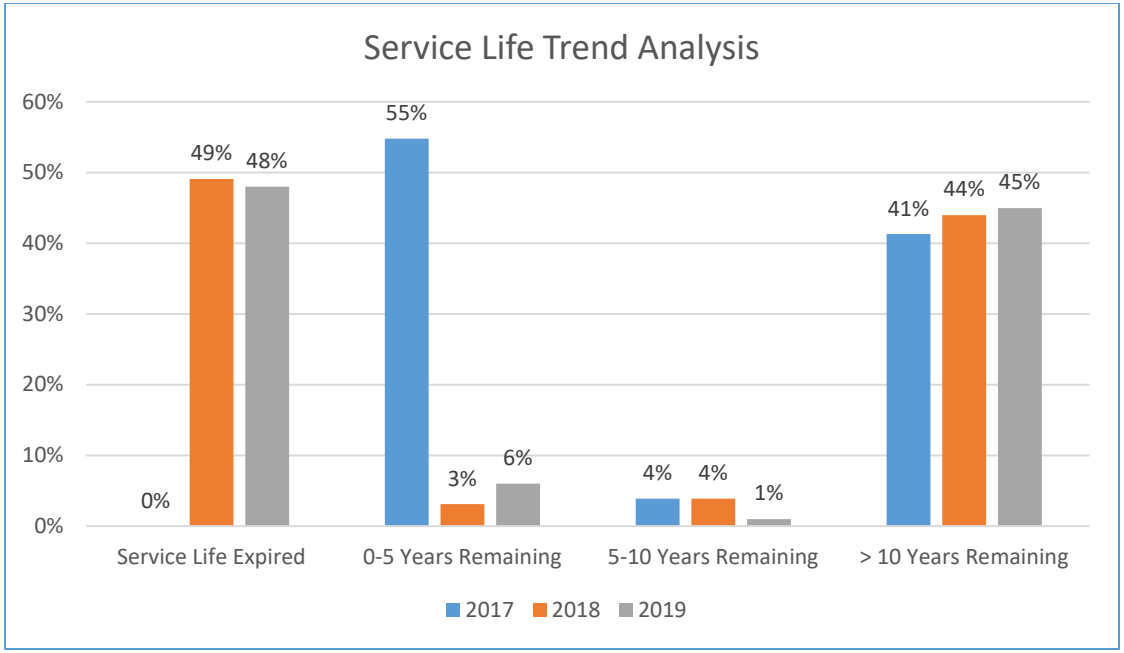
For the 2020 Budget, $2.4m in renovations over 3 years are planned for Erin Community Centre, mostly funded from grants, Erin Community Centre Reserves and Cash-in-lieu of Parkland. Also, $126k in renovations are planned for Hillsburgh Community Centre which will be funded from the Gas Tax grant.

4.2 Useful Life Consumption

Understanding the consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the useful life consumption levels as of 2019 for the Town's Buildings & Facilities.

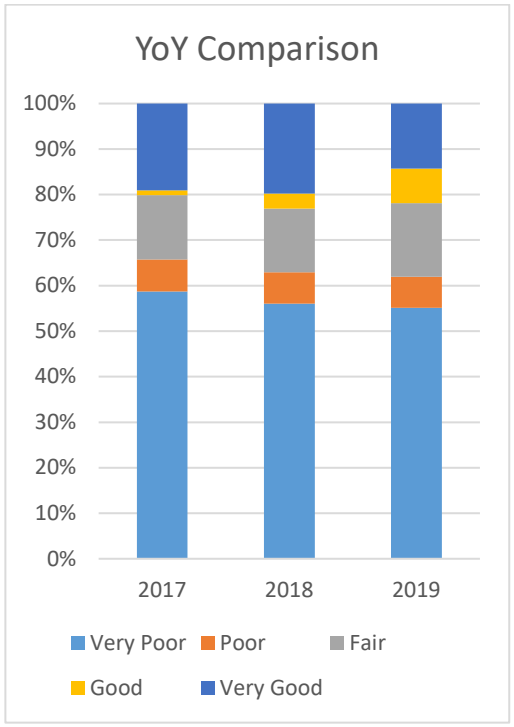


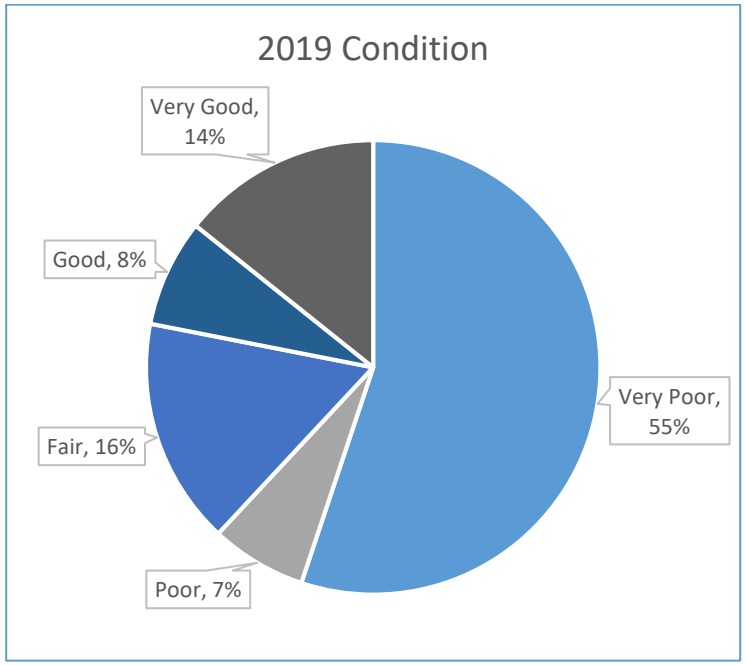
Service Life Expired went from 49% to 48% in 2018 and 2019 respectively. Service life greater than 10 years remaining increased by 1% with Municipal Office Elevator and minor building additions in 2019 listed above accounting for the majority of this increase. A comparison of service life remaining between 2017 and 2019 is below:


Service Life Trend Analysis
60%
50%
40%
30%
20%
10%
0%
0%
49%
48%
55%
3%
6%
4%
4%
1%
41%
44%
45%
Service Life Expired
0-5 Years Remaining
5-10 Years Remaining
> 10 Years Remaining
2017
2018
2019

4.3 Asset Condition

Using replacement cost, in this section, the condition of the Town's Buildings & Facilities assets are summarized as of 2019. Asset condition stayed relatively the same from 2018 to 2019. To allow for comparison with the 2017 Asset Management Plan, age-based data is used as a proxy for condition.





Additionally, Building Condition Assessments (BCA) were performed on the following Town of Erin Buildings during 2019 by Pinchin Engineering:

- Ballinafad Community Centre
- Hillsburgh Community Centre
- Erin Community Centre (& Tennis Courts)
- Parks (Includes Victoria Park, Barbour Field, and McMillan Park)
- Erin Fire Station
- Hillsburgh Fire Station
- Municipal Office

During their assessment a visual inspection of buildings elements was conducted except for the Roads Shop. All common and service rooms were reviewed and an inspection of the exterior was completed. A summary of the components by condition assigned is below:

	Erin Community Centre	Hillsburgh Community Centre	Ballinafad Community Centre	Parks Buildings	Municipal Office	Hillsburgh Fire Station	Erin Fire Station
Very Poor	5	3	1	1	0	0	0
Poor	3	4	0	2	1	0	4
Fair	8	9	7	9	5	0	5
Good	9	3	9	7	6	4	11
Very Good	5	5	14	48	19	26	9

However, some building components have a high replacement cost while others have a low replacement cost and this doesn't provide an indication to the overall condition of each facility. To translate this into an overall condition by facility the Town can utilize the recommendations from the BCAs to calculate the Facility Condition Index (FCI) for each building.

Facility Condition Index (FCI) is an industry standard metric for assigning an overall building condition at a specific point in time. It results in a numerical value for condition to allow for comparison. FCI is the ratio of the aggregated required repairs and replacements to the current building replacement value.

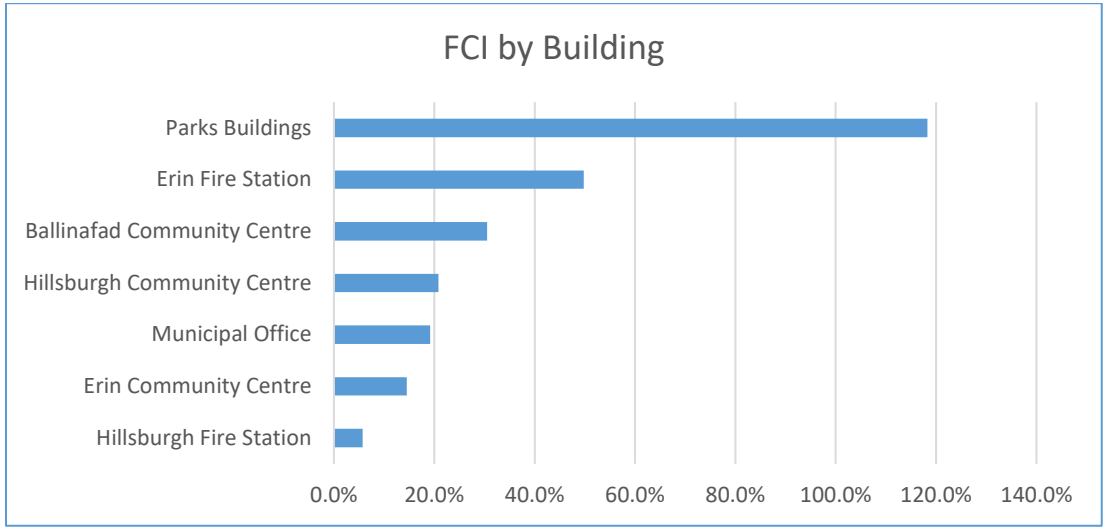
$$FCI = \frac{Cumulative\ 10\ Year\ Renewal\ Requirements}{Building\ Replacement\ Cost}$$

There is an inverse relationship between the FCI value and condition as the lower an FCI value, the better overall condition. This is because the renewal needs are low relative to the building's replacement cost. As the ratio increases in value, rehabilitation may not be recommended as the entire building can be replaced for a similar dollar value as it would cost for complete rehabilitation. FCI is used to only determine the relative condition of each building and is only used as a guide for asset management purposes. A qualitative condition description for FCI are based on the ranges in the following table:

FCI Range	Condition	Descriptive Qualities of Building

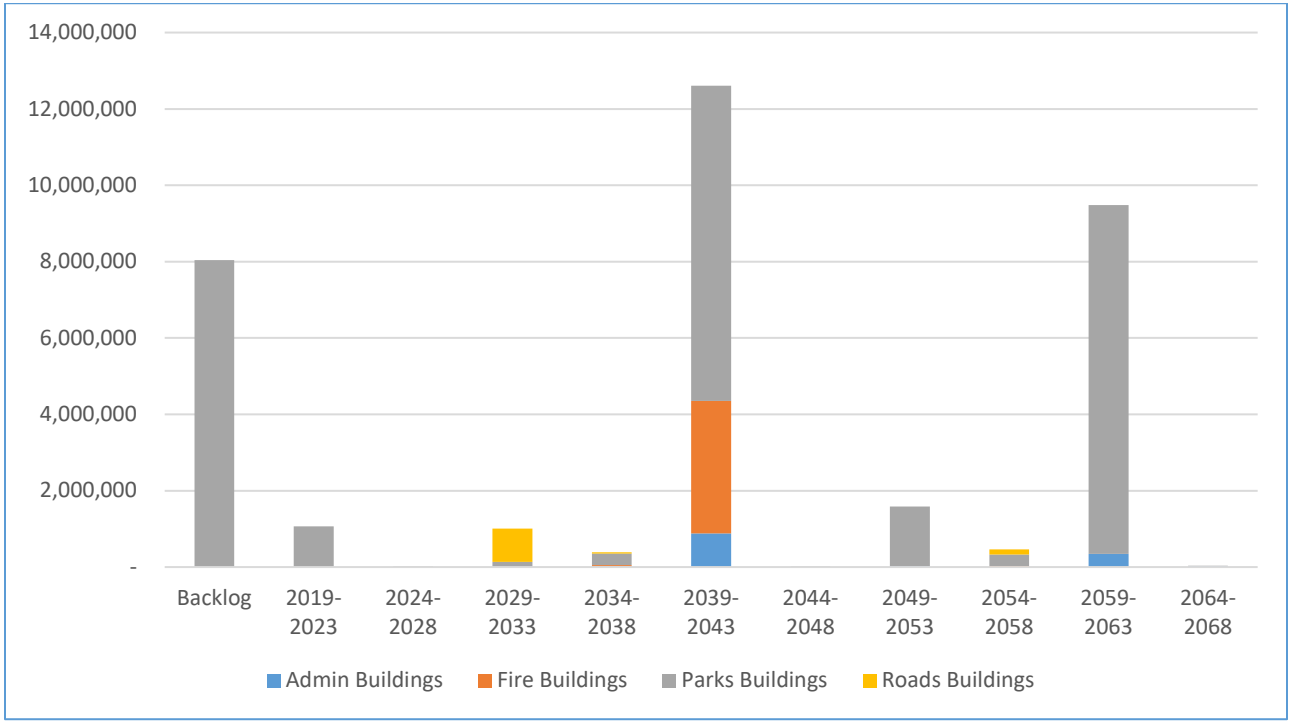
0-5%	Good	- Building appears in near perfect condition
5-15%	Fair	- No obvious signs of deterioration - Building has moderately deteriorated and most cost is preventative maintenance
>15%	Poor	- Obvious and visual deterioration - Building components are at a high risk of failure

The chart below outlines condition by building as derived by the FCI calculation:



4.4 Forecasting Future Replacement Needs

In this section, the short-, medium- and long-term infrastructure spending requirements (replacement only) for the Town's Buildings & Facilities assets are illustrated. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.



The 10-year replacement needs visualized in the chart on the preceding page is summarized in the table below and compared against recommendations from Building Condition Assessments (BCAs):

	City Wide (Age-Based)			BCA 10 year
	2019-2023	2024-2028	10 Year Total	
Erin Community Centre	8,038,393		8,038,393	1,847,973
Hillsburgh Community Centre	747,888		747,888	957,350
Ballinafad Community Centre	315,143	14,690	329,833	189,625
Parks buildings			-	524,903
Roads Shop			-	N/A
Municipal Building			-	270,754
Hillsburgh Fire Hall			-	162,463
Erin Fire Hall			-	328,308
TOTAL	9,101,424	14,690	9,116,114	4,281,376

4.5 Recommendations

The recommendations below were identified in the 2017 Asset Management Plan. Beneath each recommendation is an explanation detailing the Town of Erin implementation approach and updates.

1) The Town should look to incorporate condition data from its condition inspection program into CityWide to more precisely estimate future financial needs.

   The Town conducted Building Condition Assessments (BCAs) on ten of its municipally owned facilities in 2019. Information obtained was for building components only and not full replacement value. The component information has been included in CityWide as new Condition Assessments and Lifestyle quantities.

2) The data collected through condition assessment programs should be integrated into a risk management framework which will guide prioritization of short-, medium-, and long-term replacement needs.

The Building Condition Assessments was incorporated in the 2020 Budget and 2021 to 2023 Forecast and developed a risk management framework that prioritizes the repairs and replacements required to extend component life and maintain function.

3) In addition to the above, a tailored lifecycle activity framework should be developed to promote standard lifecycle management of buildings and facilities.

   This was completed during the 2020 Budget process and will continue moving forward.

4) Using the above information, the Town should assess its short-, medium-, and long-term capital and operations, and maintenance needs.

   Results and recommendations have been integrated into subsequent budgets.

5) An appropriate percentage of the replacement costs should be allocated to meet operating and maintenance requirements.

   Key findings from the 2019 BCAs have been incorporated into the 2020 and future Capital Budgets.

6) Facility Key Performance Indicators should be established and tracked annually.

   Key Performance Indicators are being developed for assets that will be tracked annually.

7) The Town is funding 23% of its long-term requirement for its buildings and facilities on an annual basis.

   The 2020 AMP for the Town has increased the funding long-term funding percentage to 39%

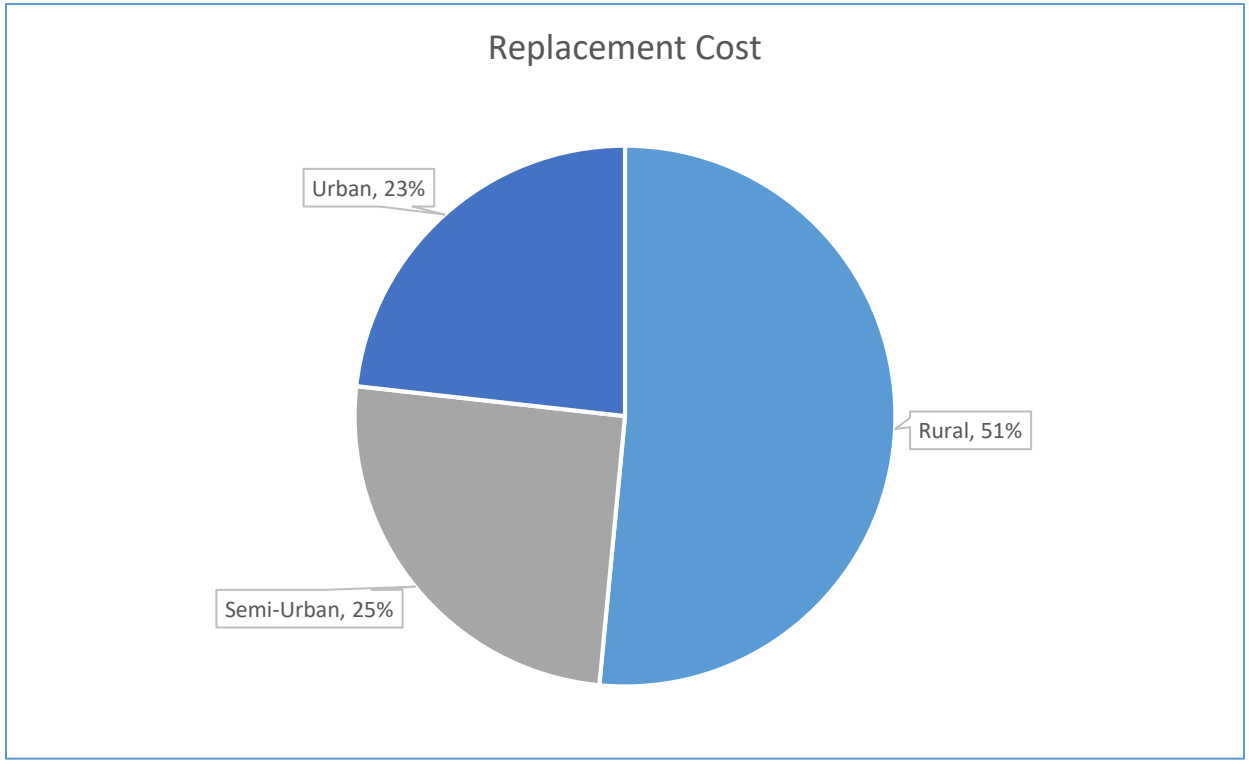
5.0 Road Network

5.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

The table below illustrates key asset attributes for the Town's Road Network portfolio, including quantities of various assets, their useful life, replacement cost, and the valuation method by which the replacement costs were derived. In total, the Town's Road assets are valued at $64 million based on 2019 replacement costs. The useful life indicated for each asset type below was assigned from the Capital Asset Policy.

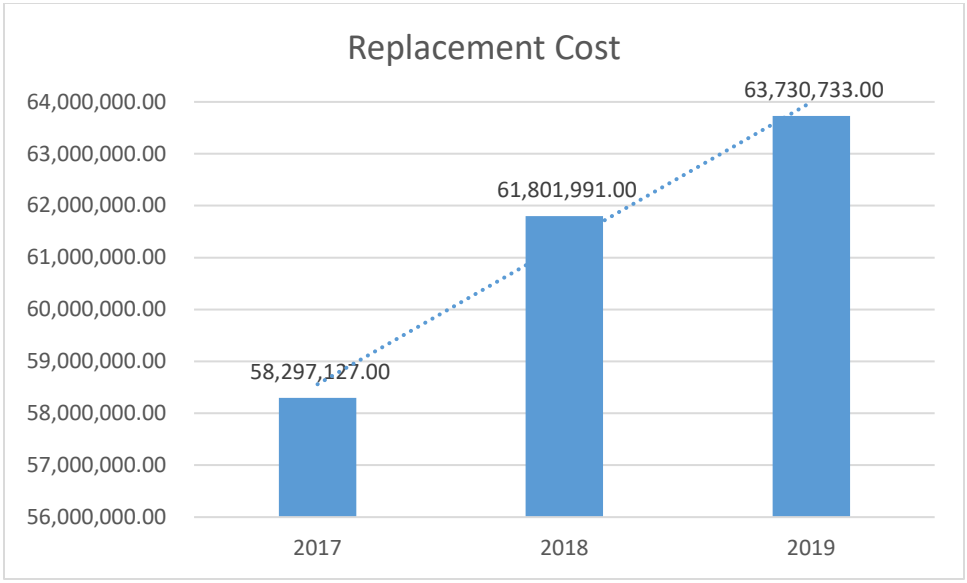
Component	QTY	Useful Life (years)	Valuation Method	Replacement Cost		
				2017	2018	2019
Road Base - Asphalt - R	36km	40	NRBCPI Quarterly	14,883,388	15,726,861	16,198,417
Road Base - Asphalt - S	23km	40	NRBCPI Quarterly	8,889,508	9,367,455	9,643,751
Road Base - Asphalt - U	10km	40	NRBCPI Quarterly	10,362,205	10,956,073	11,285,271
Road Base - Earth - R	0.32km	40	Not Planned	-	-	-
Road Base - Earth - S	0.25km	40	Not Planned	-	-	-
Road Base - Gravel - R	190km	40	Not Planned	-	-	-
Road Base - Gravel - S	2km	40	Not Planned	-	-	-
Road Base - Surface Treatment -R	30km	40	NRBCPI Quarterly	8,150,319	8,588,486	8,925,195
Road Base - Surface Treatment -S	2km	40	NRBCPI Quarterly	610,098	640,441	658,963
Road Surface - Asphalt - R	30km	20	NRBCPI Quarterly	7,047,459	7,445,952	7,669,683
Road Surface - Asphalt - S	23km	20	NRBCPI Quarterly	5,126,711	5,573,859	5,741,337
Road Surface - Asphalt - U	11km	20	NRBCPI Quarterly	3,227,439	3,502,864	3,608,116
			TOTAL	58,297,127	61,801,991	63,730,733

The majority of replacement cost is comprised of rural roads in the Town of Erin:



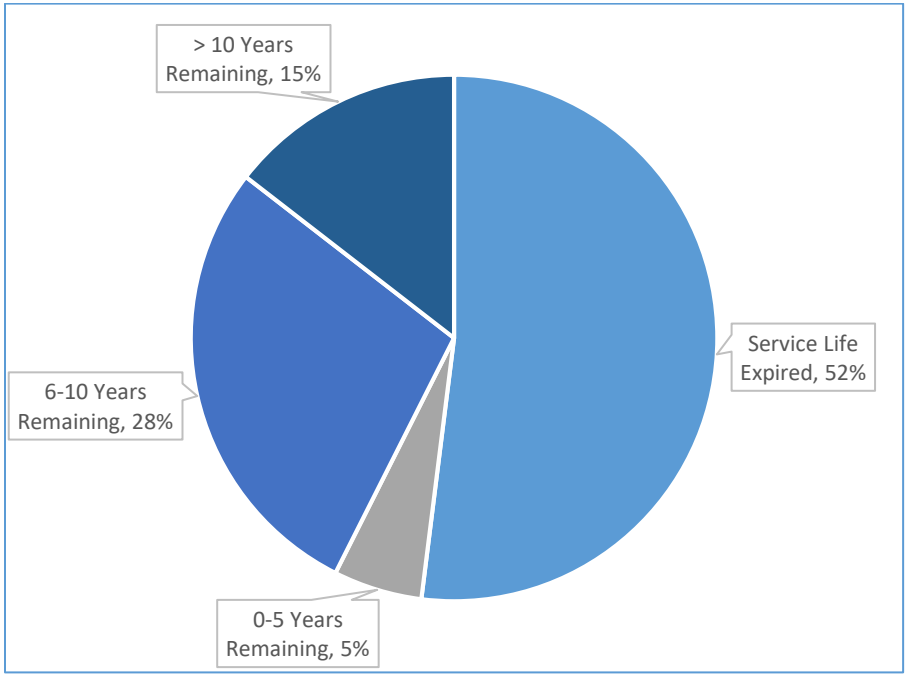
Replacement cost has risen 3% from 2018 and 2019. This is a combination of inflationary increases and the addition of the following road-related component that totalled to a net addition of $65,150:

1) Asset #930 – 5th Line Surface Treatment

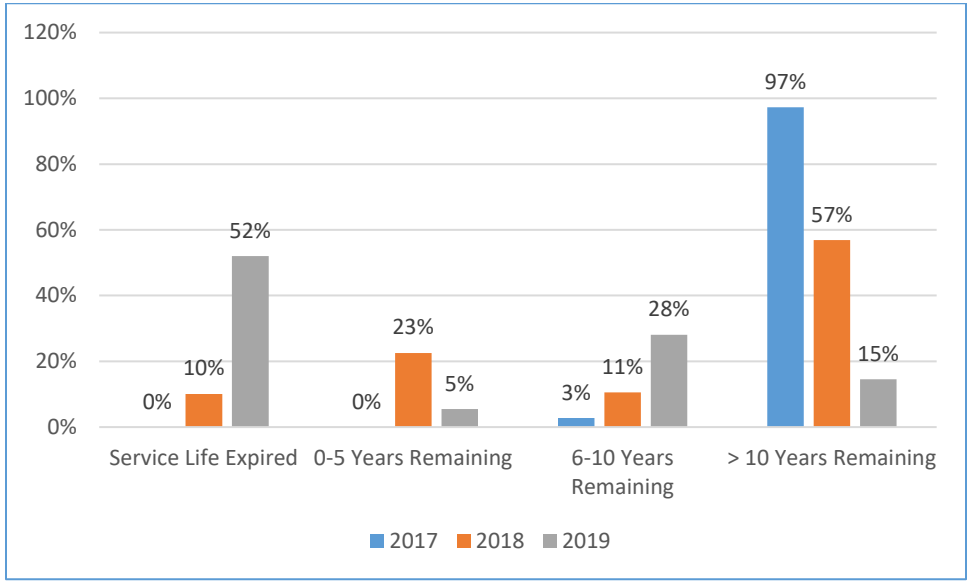

Replacement Cost
64,000,000.00
63,000,000.00
62,000,000.00
61,000,000.00
60,000,000.00
59,000,000.00
58,000,000.00
57,000,000.00
56,000,000.00
58,297,127.00
61,801,991.00
63,730,733.00
2017
2018
2019

5.2 Useful Life Consumption

Understanding the consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the useful life consumption levels as of 2019 for the Town's Road Network.

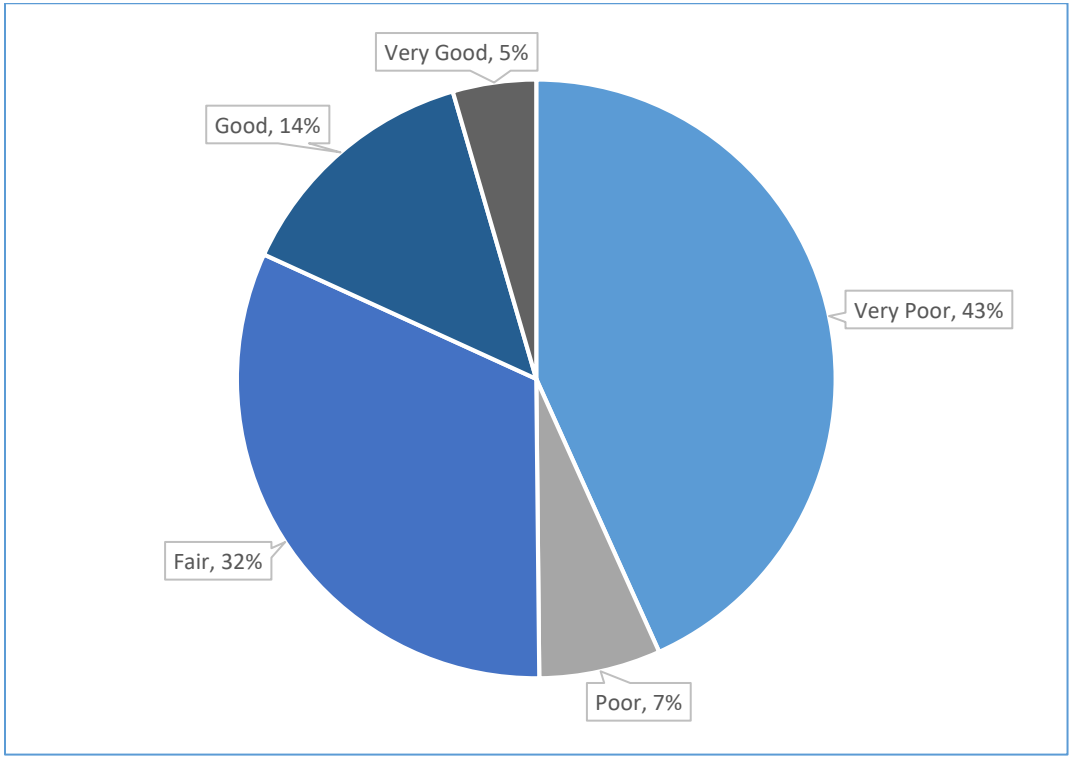


A comparison of service life remaining from 2017 to 2019 is below. Service Life Expired has increased to 52% over the 3 year period and Greater than 10 years remaining has decreased from 97% to 15%. The Town's 2020 Road Needs Study will address this shortfall with a future replacement and rehabilitation need focus.



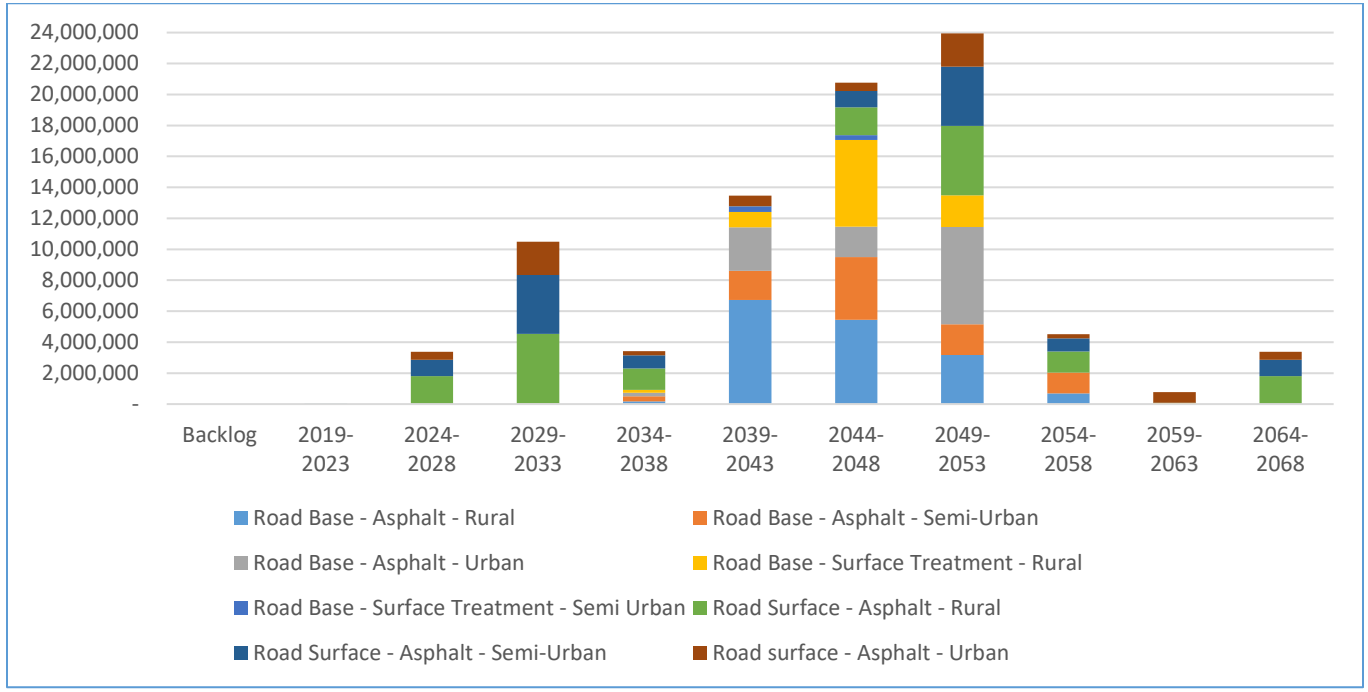
5.3 Asset Condition

Using replacement cost, in this section, the condition of the Town's Road Network assets are summarized as of 2019. The Town currently does not have a mechanism for tracking asset condition for Road Network so age-based data is used as a proxy. However, condition assessment will be completed in 2020 with the Roads Needs Study.



5.4 Forecasting Future Replacement Needs

In this section, the short-, medium- and long-term infrastructure spending requirements (replacement only) for the Town's Roads assets are illustrated. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.



5.5 Recommendations

The recommendations below were identified in the 2017 Asset Management Plan. Beneath each recommendation is an explanation detailing the approach for implementation.

1) Age-based data indicates no backlog and 10-year replacement needs of $769,000. The Town should conduct condition assessments of road surfaces and expand the program to incorporate all assets in order to more precisely estimate its actual financial requirements and field needs.

   Age-based data for the current year still indicates no backlog and 10-year replacement needs have increased to $3,397,348. Condition assessment requirements have been incorporated into the Roads Needs Study tendered in 2020 with results to be incorporated into the 2021 Operations Plan.

2) The data collected through condition assessment programs should be integrated into a risk management framework which will guide prioritization of the backlog as well as short, medium, and long-term replacement needs.

   Condition assessment data from the Roads Needs Study will be integrated into the 2021 Operations Plan as prioritization guidance for short, medium and long-term replacement needs.

3) In addition to the above, a tailored lifecycle activity framework should be developed to promote standard lifecycle management of the road network.

   Asset management priorities will be established to prioritize capital improvements and will be based on results from the Roads Needs Study. Moreover, information on traffic counts and road classifications inventory, repairs and upgrades to sidewalks and recommendations to convert gravel roads to hardtop surface.

4) Road network Key Performance Indicators should be established and tracked annually as part of an overall level of service model.

   Key Performance Indicators are currently in development that will incorporate community consultation.

5) The town is funding 61% of its long-term requirements for its road network on an annual basis.

   Based on the updated financial profile Roads are funded 52% for the 2020 year.

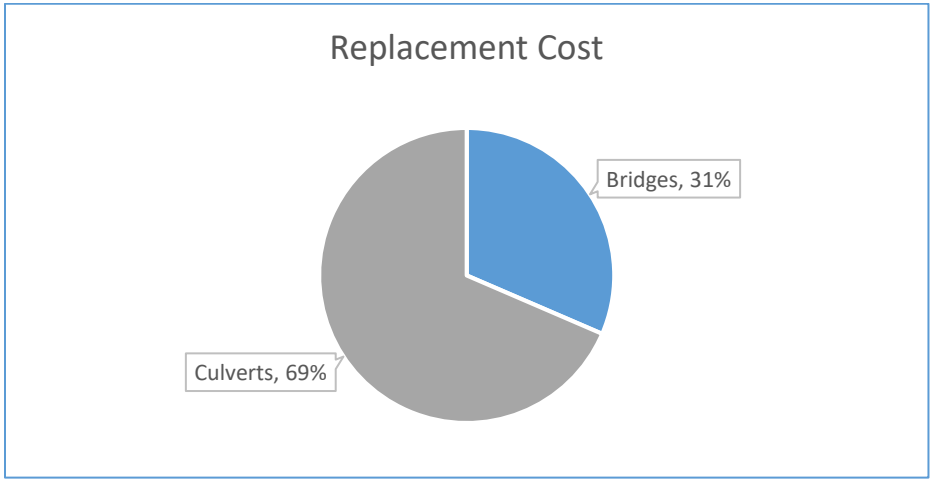
6.0 Bridges and Culverts

6.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

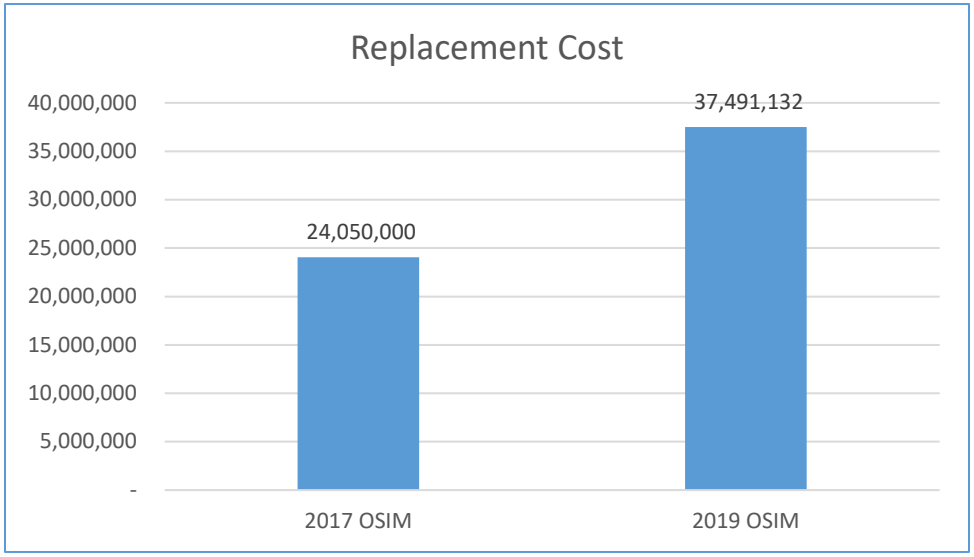
The table below illustrates key asset attributes for the Town's Bridges & Culverts portfolio. The 2017 values are from the Asset Management Plan which used Non-Residential Building Construction Price Index (NRBCPI) quarterly (Toronto) and the 2019 values represent estimates from the OSIM Inspection Reports (2019) and includes asset quantities, useful life, replacement cost which total $37.5 million.

Component	QTY	Useful Life (Years)	2017 Valuation Method	2017 Replacement Cost	2019 Valuation Method	2019 Replacement Cost
Bridges	11	45,50	NRBCPI Quarterly (Toronto)	3,537,781	OSIM Report	11,800,302
Culvert	37	40,50	NRBCPI Quarterly (Toronto)	11,909,501	OSIM Report	25,690,830
			TOTAL	15,447,282		37,491,132

The majority of replacement cost is comprised of culverts.



As shown in the figure below, Replacement Cost has risen 35.9% from 2017 to 2019.

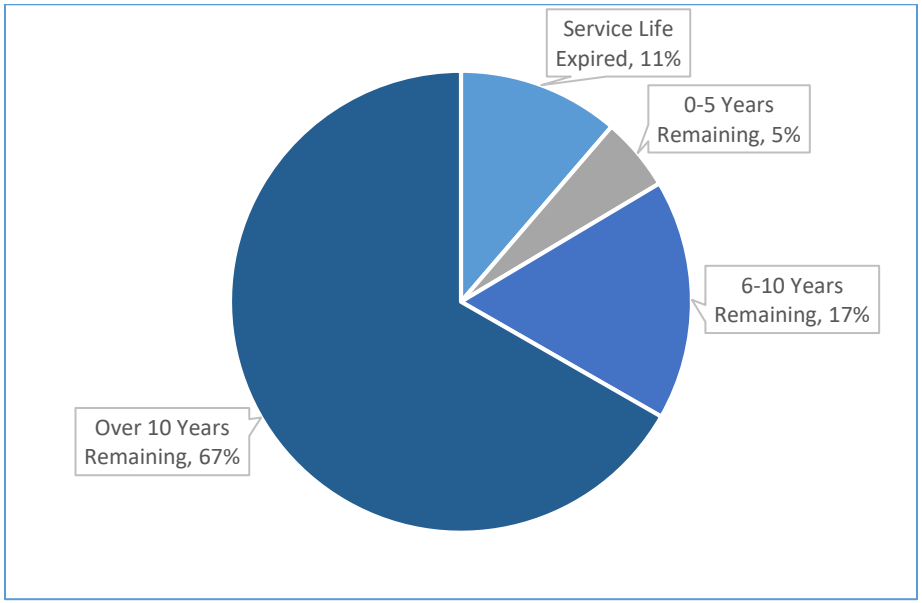


The 2017 RJ Burnside inspections assigned a replacement cost of $24 million and the 2019 RJ Burnside inspections assigned a replacement cost of $37 million for the Town's bridges and culverts as reflected in the figure below. The 35.9% increase in replacement cost is the combination of inflationary increases over the two years and the availability of shared replacement costs in 2019 (Caledon OSIM Report) for Bridge 1 and Culvert 2002. Culvert 2066 and 2068, located on the Erin-Garafraxa Townline and Culvert 2026 and 2027 located on the Erin-Halton Townline border were included in the 2019 OSIM report but not the 2017 OSIM report. Culvert 2045 was planned for replacement in 2018 and therefore not included in the 2017 OSIM Report.

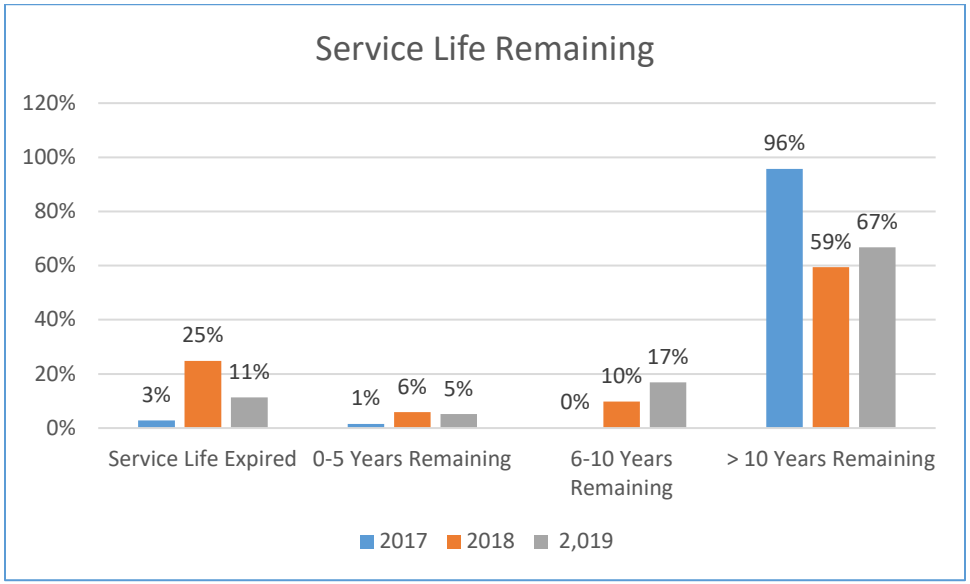
Overall, and without considering the inflationary increases of other structures, updating the replacement cost for Culvert 2045, Bridge 1, Culvert 2002, 2066, 2068, 2026 and 2027 resulted in a 15.0% increase to the total Replacement cost of the Bridges & Culverts asset class. The Station St Bridge and Dam was not included in the 2017 or 2019 OSIM report since it is currently under construction and will be completed in 2020.

6.2 Useful Life Consumption

Understanding the consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the useful life consumption levels as of 2019 for the Town's Bridges and Culverts using the RJ Burnside 2019 OSIM inspection results.



A comparison of service life remaining from the 2017 as presented in the AMP compared to the 2019 AMP. From 2018 to 2019 the 'service life expired' % has decreased by 14%, with 'greater than 10 years remaining' increased by 8% from 2018 to 2019 as there has been a proactive approach to replacing bridges and culverts.



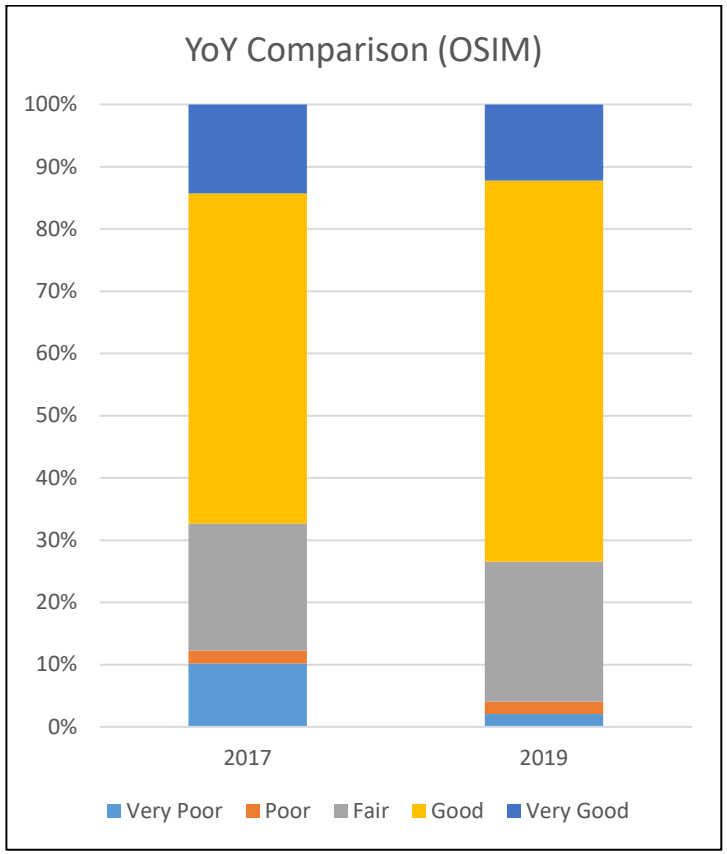
6.3 Asset Condition

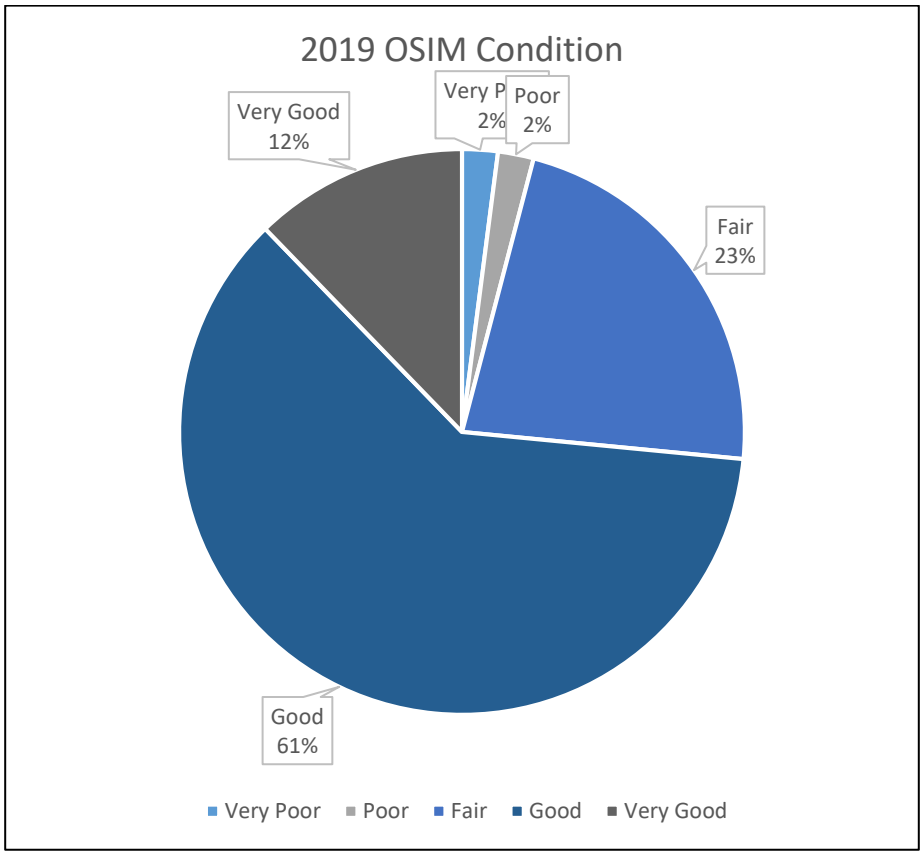
The Town of Erin's bridges and culverts are inspected bi-annually using the Ontario Structure Inspection Manual (OSIM) format. All structures in excess of 3 meters are mandated to be included in the Town's OSIM inspection inventory. Therefore, the condition data outlined in this section is based off the observed field data from the 2019 OSIM inspections. Where a structure is below 3 meters, age-based condition is used as a proxy.

The OSIM inspections assign each structure a numerical condition rating referred to as the Bridge Condition Index (BCI). This figure ranges from 0-100 and condition is assigned as Poor, Fair, or Good based on the following thresholds:

BCI Range	Condition
<20	Very Poor
20-40	Poor
40-60	Fair
60-80	Good
>80	Very Good

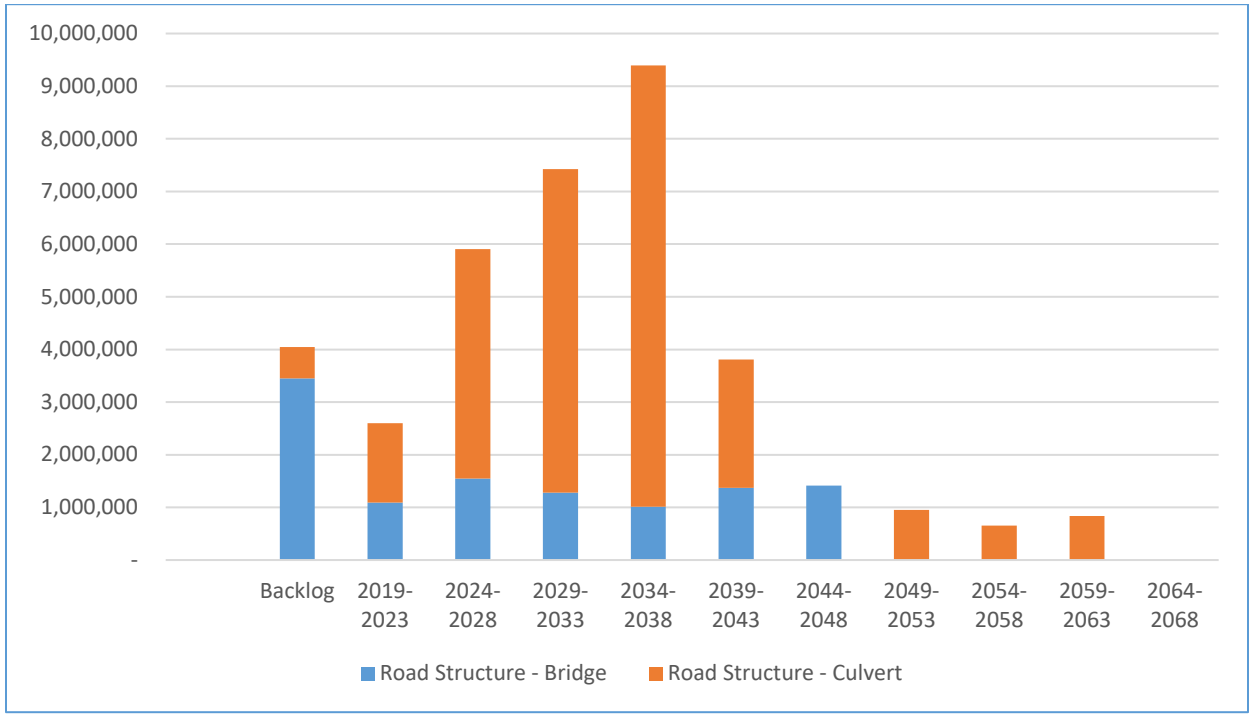
The average BCI for the Town's bridges and culverts in 2019 is 68.1. This figure is unchanged from the 2017 OSIM inspections where the average BCI rating was 68.4. A breakdown of overall condition is below:





6.4 Forecasting Future Replacement Needs

In this section, the short-, medium- and long-term infrastructure spending requirements (replacement only) for the Town's Bridges and Culverts are illustrated. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life. The 2019 OSIM report (see Appendix D) recommends replacements including from 2019 and beyond. Calculated using OSIM parameters the recommendations are on clearing backlog with the majority of replacements planned over the next 25 years. Appendix D details the recommended replacements over the next 10 years.



As with the 2017 Asset Management Plan, the replacement needs visualized in the chart above is based on the 2019 OSIM inspections. This chart assumes full structure replacement based on the 2019 OSIM report values. The OSIM inspections often recommended major or minor rehabilitation along with ongoing maintenance, to create a buffer or postponement of complete structure replacement. Out of the 45 Bridges and Culverts listed in the OSIM report a total of 16 were recommended for Rehabilitation with the majority required to complete immediately at an estimated cost of $1.74 Million.

6.5 Recommendations

The recommendations below were first identified in the 2017 Asset Management Plan. Beneath each recommendation is an explanation detailing the approach for implementation.

1) Primarily assessed data indicates a backlog of $438,000 and 5-year replacement needs of $229,000. The Town should integrate a risk management framework with its OSIM condition assessment programs to prioritize bridges & culverts capital projects within the short- and long-term budget.
   OSIM Inspection was completed in 2019 and the data from this report has been incorporated into this Asset Management Plan 2020 Update. The information has been integrated into the development of the 2020 Capital Budget and 2021-2023 Capital Forecast. OSIM Inspections will continue to be performed bi-annually as required by Province of Ontario Regulation 104/97.

2) Bridge and culvert structure key performance indicators should be established and tracked annually as part of an overall level of service model.
   Key Performance Indicators are currently in development and will incorporate community consultation.

3) The town is funding 82% of its long-term requirement for its bridges and culverts on an annual basis.
   Based on the updated financial profile bridges & culverts are funded 58% for the 2020 year.

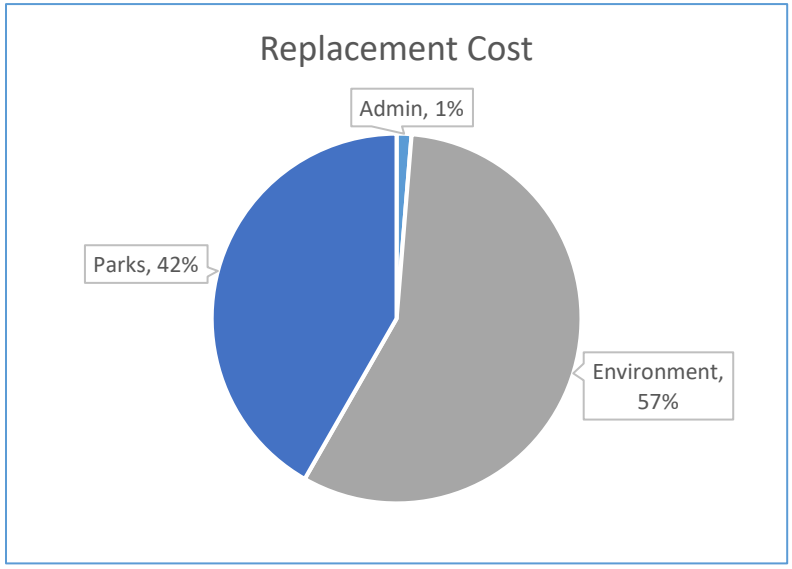
7.0 Land Improvements

7.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

The table below illustrates key asset attributes for the Town's Land Improvements, which include parks, tennis courts, playground equipment, and other items. The table outlines quantities, useful life, replacement cost, and the valuation method by which the replacement costs were derived. In total, the Town's land improvement assets are valued at $3.09 million based on 2019 replacement costs.

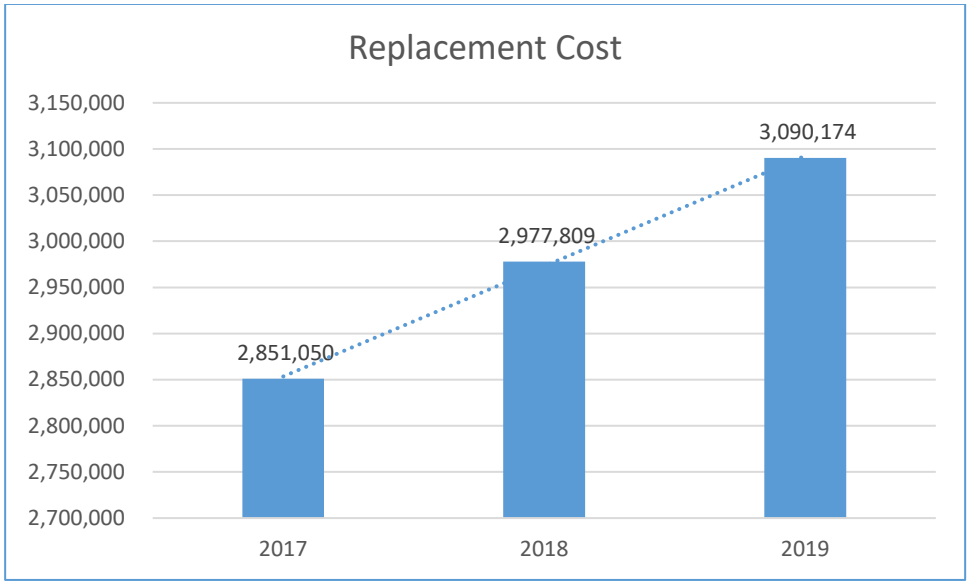
Component	QTY	Useful Life	Valuation Method	Replacement Cost		
Land Improvements		(Years)		2017	2018	2019
Admin	2	15	CPI Monthly (ON)	38,705	39,285	40,099
Environmental	1	15	CPI Monthly (ON)	1,699,546	1,725,065	1,760,791
Parks	19	10,20	CPI Monthly (ON)	1,112,799	1,213,459	1,289,284
			TOTAL	2,851,050	2,977,809	3,090,174

The majority of Land Improvement replacement cost is comprised of Environmental and Parks in the Town of Erin:



Replacement cost has risen 4.4% from 2017 to 2018 and 3.6% from 2018 to 2019. This is a combination of inflationary increases and the addition of the following Land Improvement asset in 2019 that totalled to $51,000:

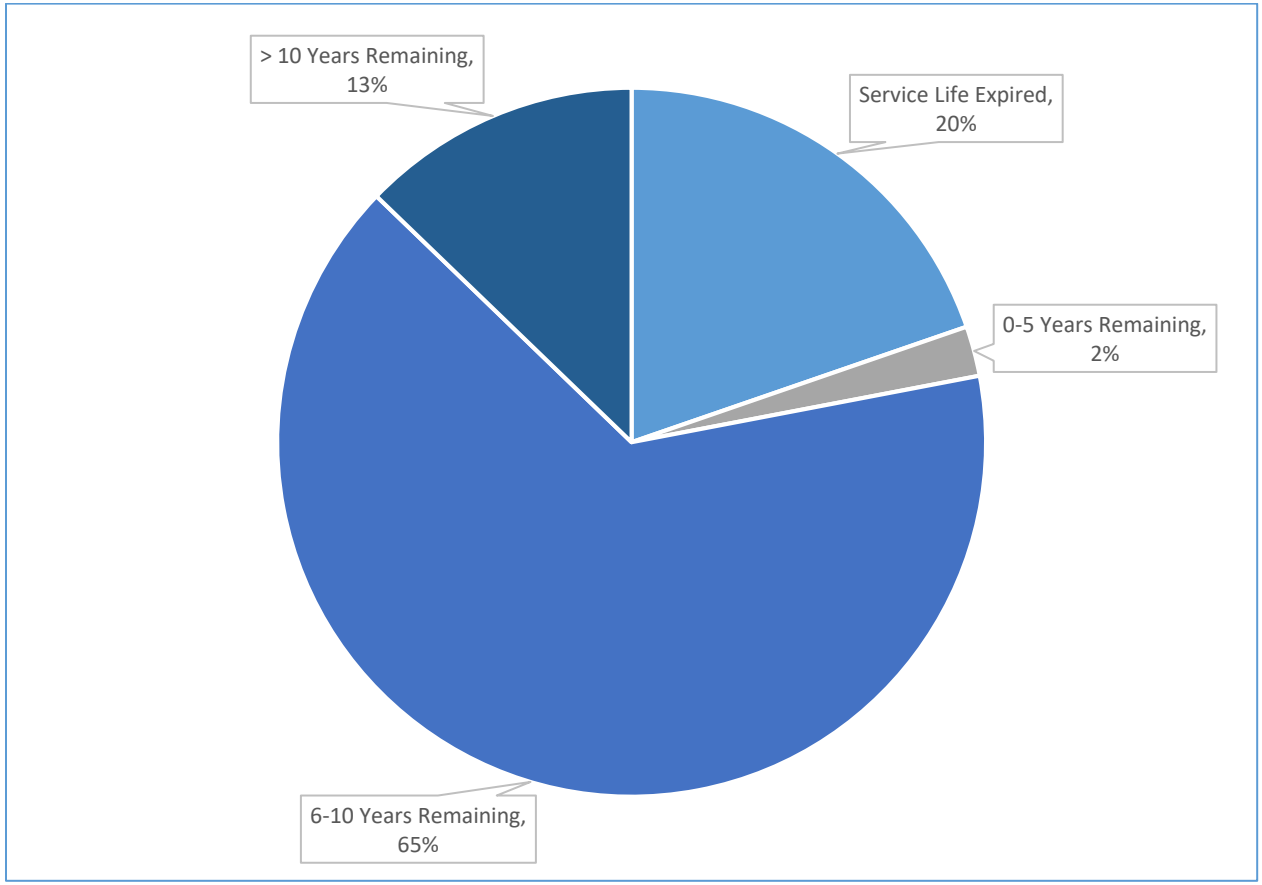
1) Asset #934 – Various Improvement Projects



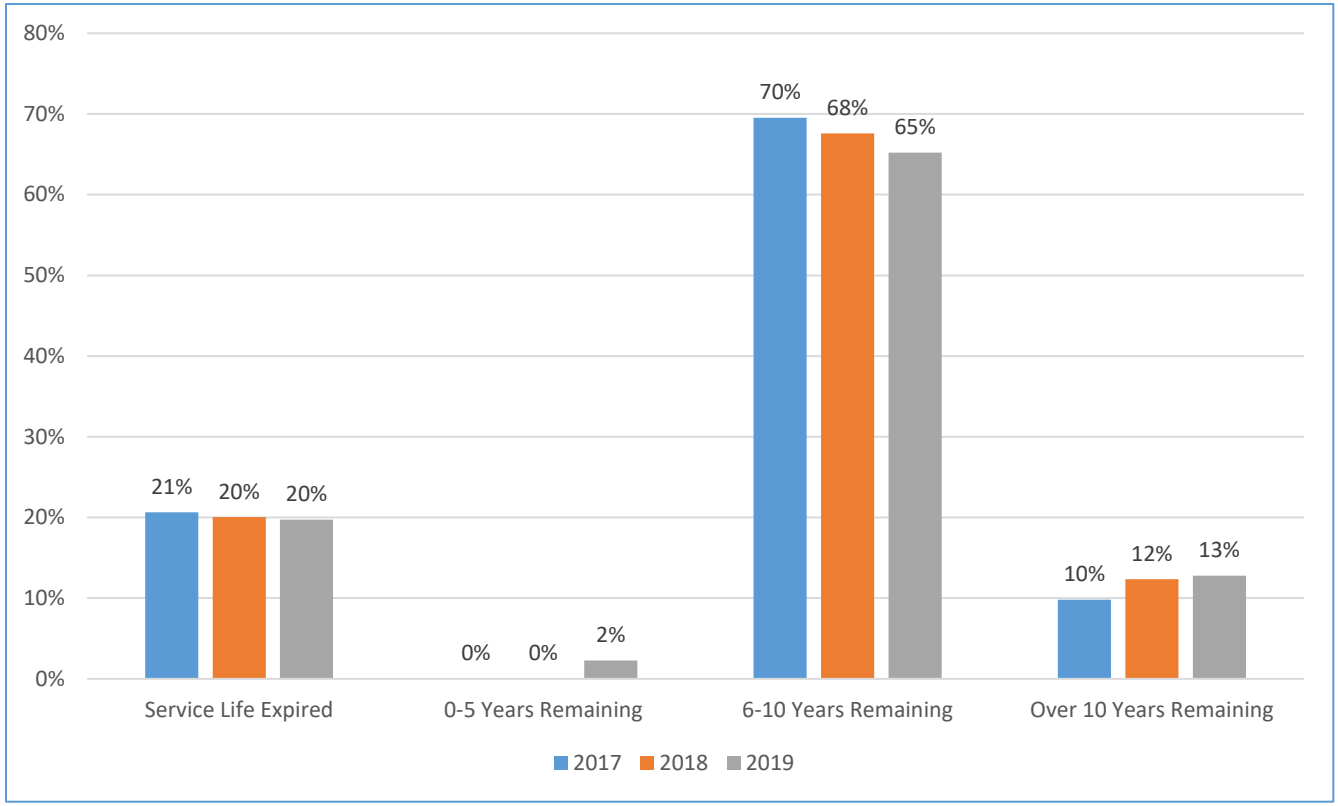
For 2020, the extension of the Erin Rotary River Walk (Phase II) is planned with a budget of $300k.

7.2 Useful Life Consumption

Understanding the consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the useful life consumption levels as of 2019 for the Town's Land Improvements.

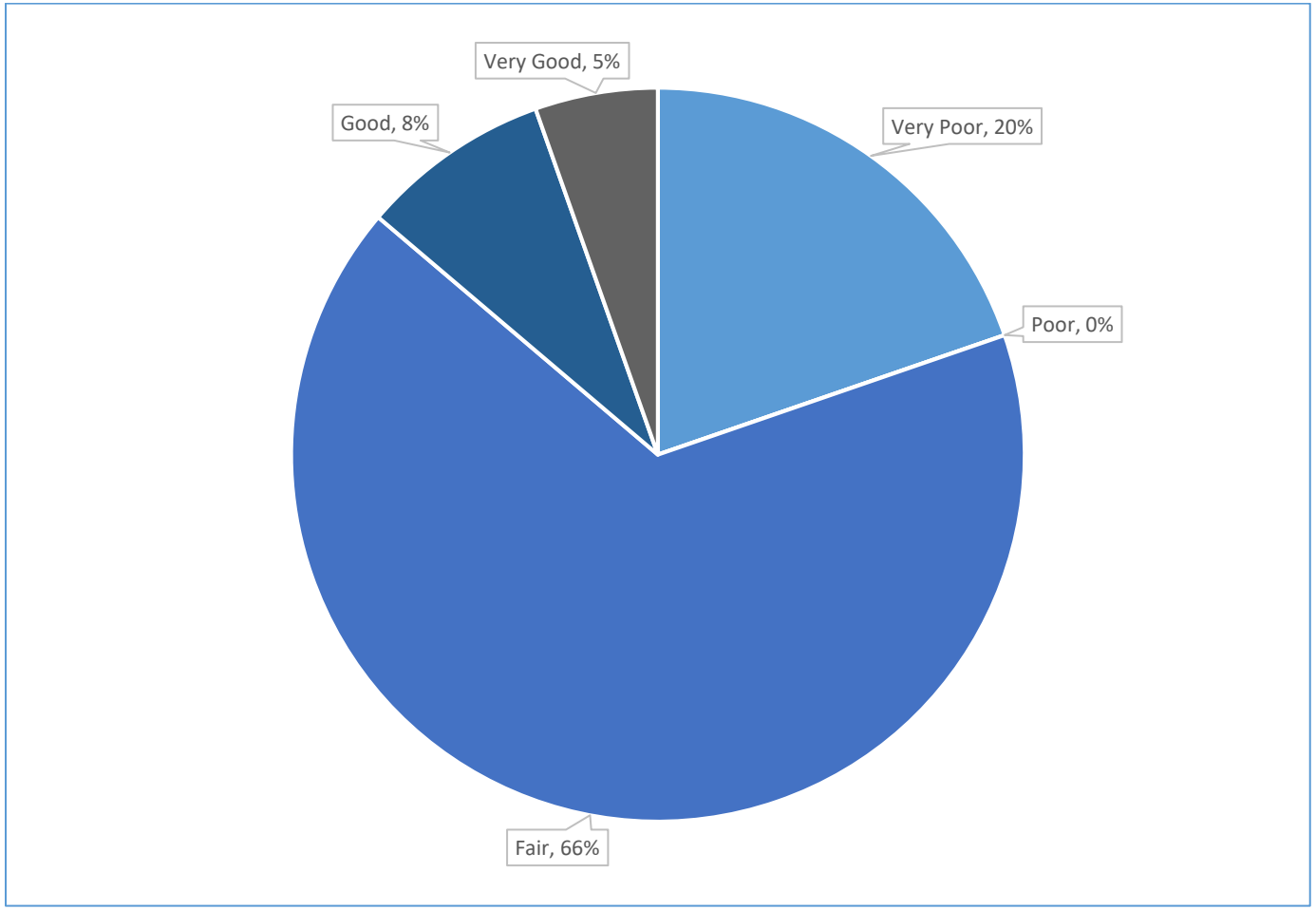


Service Life expired has stayed the same in the past 3 years at 20%. A comparison of service life remaining from 2017 to 2019 is below:



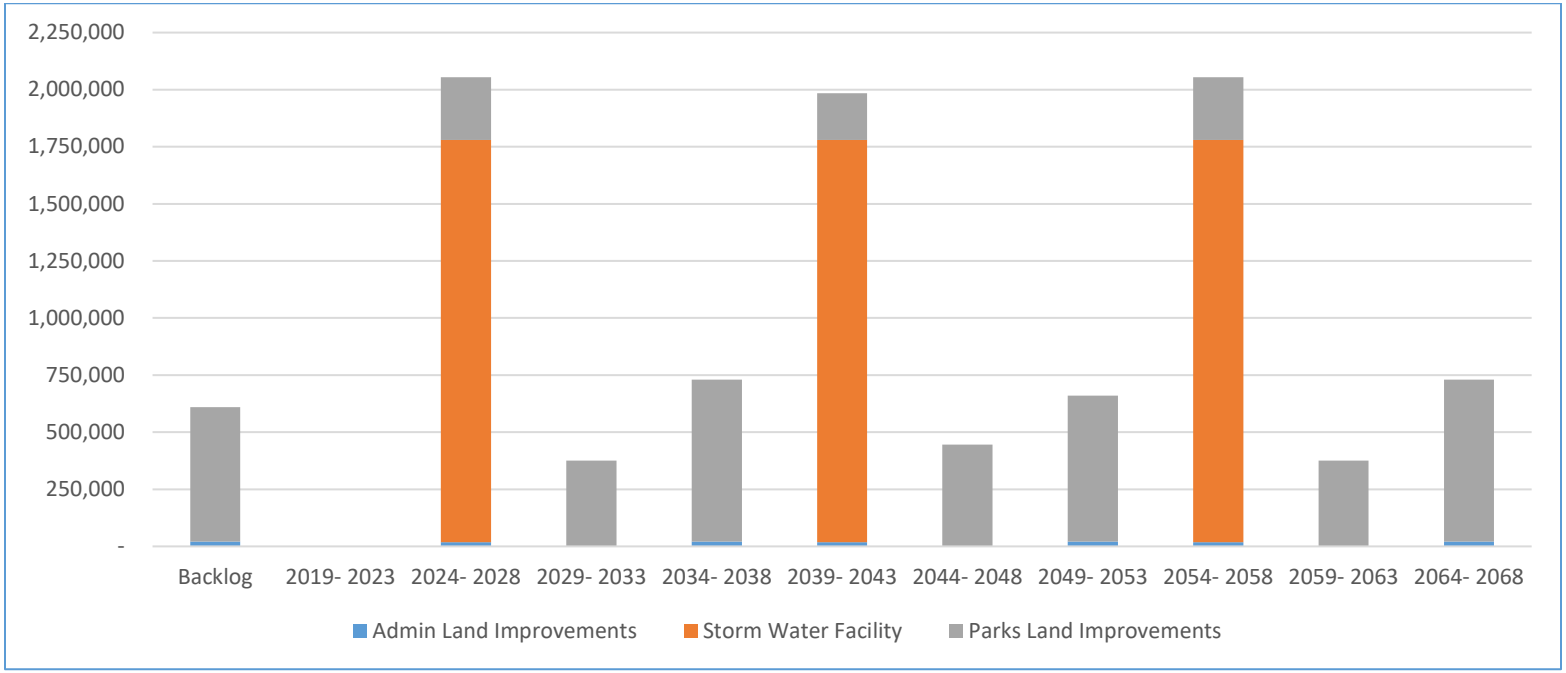
7.3 Asset Condition

Using replacement cost, in this section, we summarize the condition of the Town's Land Improvement assets as of 2019. The Town does not have a mechanism for tracking asset condition so age-based data is used as a proxy.



7.4 Forecasting Future Replacement Needs

In this section, the short-, medium- and long-term infrastructure spending requirements (replacement only) for the Town's Land Improvement assets are illustrated. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.



7.5 Recommendations

The recommendations below were identified in the 2017 Asset Management Plan. Beneath each recommendation is an explanation detailing the approach for implementation.

1) The Town should start a condition assessment program for its land improvement assets to precisely estimate financial needs.
   Condition assessment is currently performed by Staff who annually inspect playgrounds and trails.

2) The data collected through condition assessment programs should be integrated into a risk management framework which will guide prioritization of short-, medium-, and long-term replacement needs.
Staff researched the cost of having formal assessments and recommended that at this time the cost outweighed the benefit. Staff are formally trained in inspecting playgrounds to meet provincial requirements and perform repairs as needed. There is $179k approved to be spent 2020 on fencing, playground equipment and bleachers.

3) Using the above information, the Town should assess its short-, medium-, and long-term capital and operations and maintenance needs.
The 2019 Parks, Recreations and Culture Masterplan provided the Town with a long-term plan.

4) An appropriate percentage of the replacement costs should then be allocated to the Towns' operating and maintenance requirements.
At this time, the Town will attend to immediate needs and will follow the recommendations in the Parks, Recreations and Culture Masterplan.

5) The town is funding 11% of its long-term requirement for its land improvements on an annual basis.
An amount is set aside annually to address immediate needs in land improvements assets. For the 2020 AMP 40% annual funding has been set aside for the Average Annual Investment.

8.0 Water System

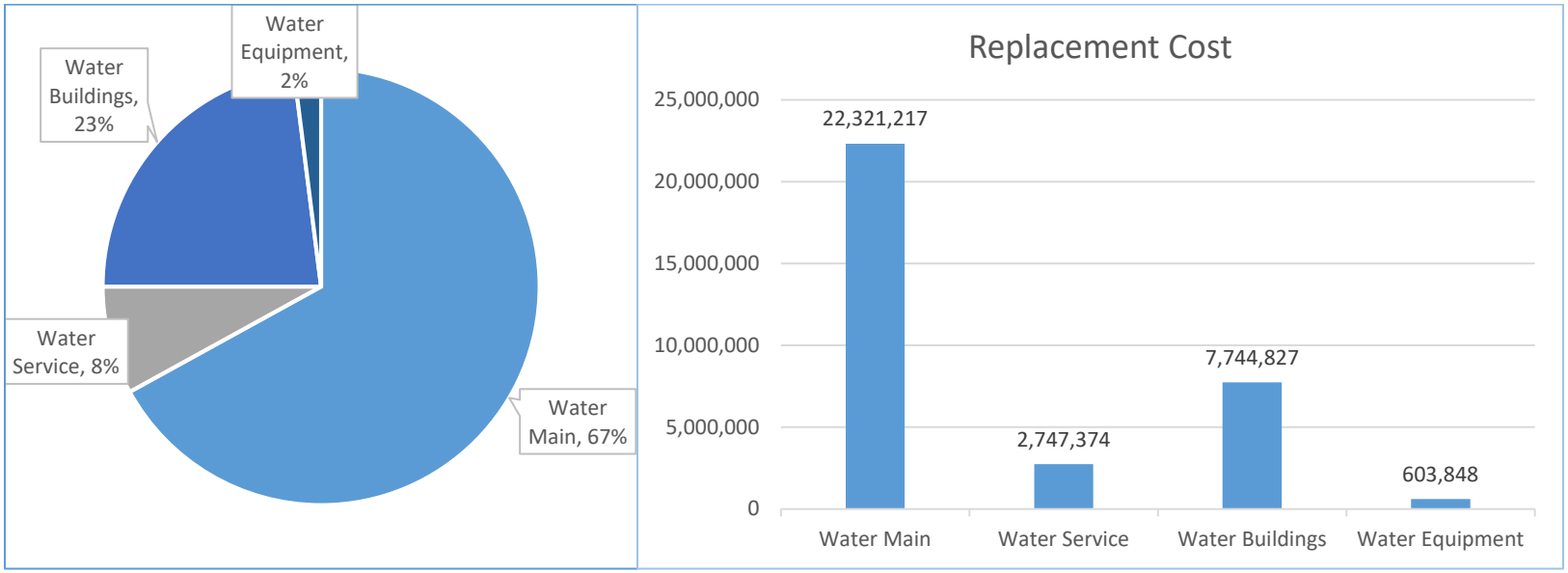
8.1 Asset Portfolio: Quantity, Useful Life, & Replacement Cost

The table below illustrates key asset attributes for the Town's Water Assets that exist in the water mains and water service. The table outlines quantities, useful life, replacement cost, and the valuation method by which the replacement costs were derived. In total, the Town's Water assets are valued at $34.3 million based on 2019 replacement costs.

Component Water	Useful Life (Years)	Valuation Method	QTY	Replacement Cost 2017	QTY	Replacement Cost 2019
Water Main	50,75	NRBCPI Quarterly (Toronto)	113	20,785,428	113	22,321,217
Water Service	50,75	NRBCPI Quarterly (Toronto)	117	2,558,390	117	2,747,374
Water Buildings	20,40	CPI Monthly (ON)	11	8,292,829	10	8,594,624
Water Equipment	5,10,20	CPI Monthly (ON)	11	531,479	13	603,848
Water Trailer	15	CPI Monthly (ON)	2	13,680	2	14,174
Water Vehicles licenced	10	CPI Monthly (ON)	4	161,395	0	0
		TOTAL	113	32,343,201		34,281,237

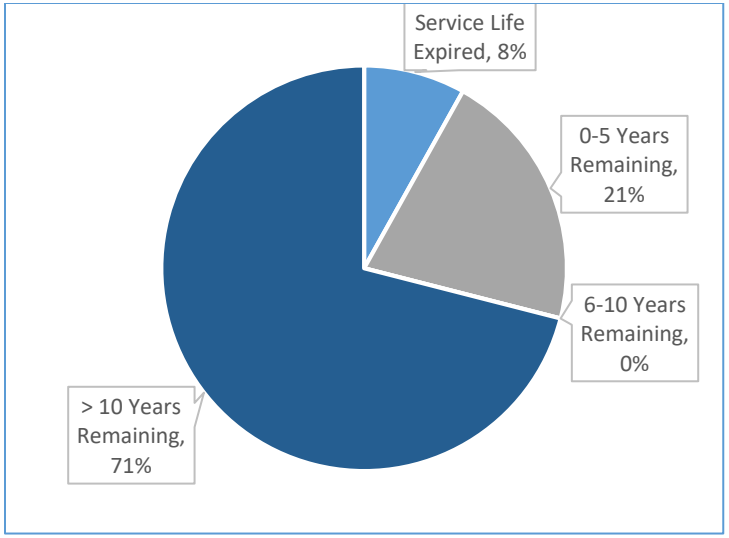
The 2017 Information for the above chart was taken from the 2017 AMP that used the NRBCPI Quarterly (Toronto) valuation for replacement cost. For this update, the same method was used for comparative purposes.

The majority of replacement costs is comprised of water mains.



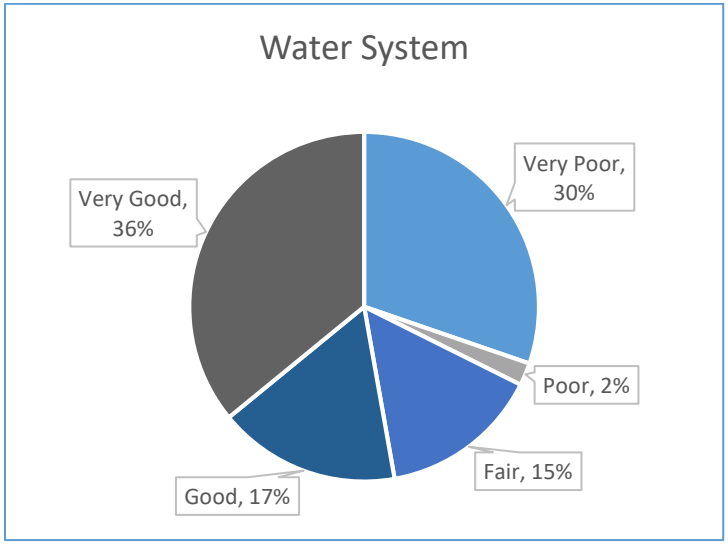
8.2 Useful Life Consumption

In conjunction with historical spending patterns and observed condition data, understanding the consumption rate of asset based on industry established useful life standards provides a more complete profile of the state of a community's infrastructure. The figure below illustrates the Useful life consumption levels as of 2019 for the Towns Water Service and Water Mains. 71% of the water assets have at least 10 years of useful life remaining while 8% with a value of $2 million remain in operation beyond their useful life. An additional 21% will reach the end of their useful life within the next five years.



8.3 Current Asset Condition

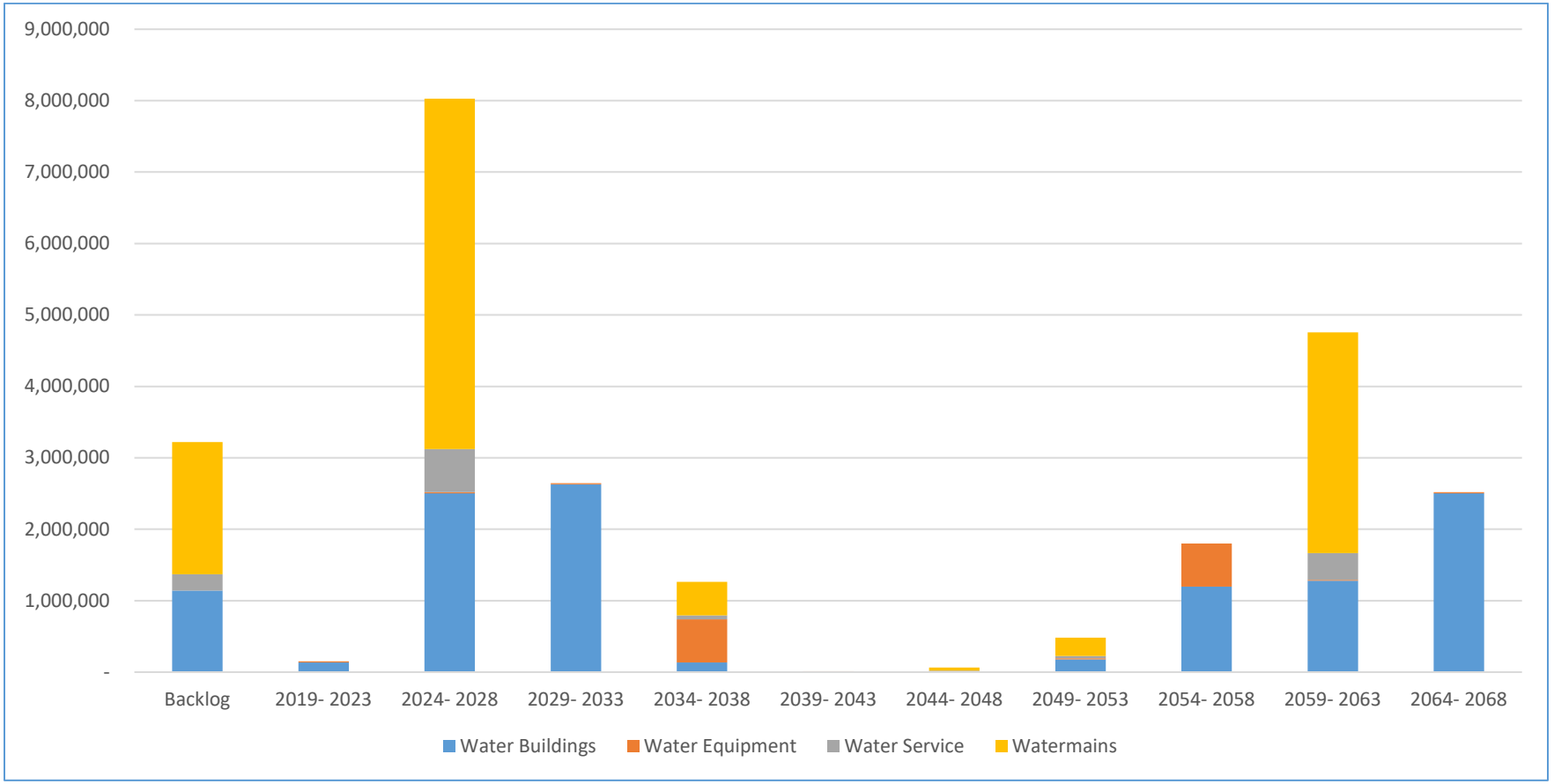
Using replacement cost, in this section, we summarize the condition of the Town's Water assets as of 2019. The Town does not have a mechanism for tracking asset condition so age-based data is used as a proxy.



Based on Age Data, 53% of assets are in good to very good conditions with a replacement cost of $13.2 million, with 47% in very poor to fair condition with a replacement cost of $11.8 million.

8.4 Forecasting Future Replacement Needs

In this section, the short, medium and long-term infrastructure spending requirements (replacement only) for the Towns Water System Assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.



In addition to a backlog of $3 million, replacements needs will total $3.5 million in the next five year; and additional $8 million will be required between 2024 and 2028.

8.5 Financial Profile: Rate Funded Assets

The Town's annual requirements (CityWide) for its Water System was $621k in the 2017 AMP and did not include facilities and machinery and equipment. The Water Rate Study approved by Council in on December 17, 2019 assessed the watermains annual lifecycle replacement to be at $548k. However, the values are based on historical costs and do not reflect current market conditions which may be much higher. Also, by adding the Average Annual Investment Required of Facilities and Machinery & Equipment funded by water rates, the table below shows that the Town is not allocating sufficient funds by $569k on an annual basis to meet replacement needs and projects may need to be deferred or incur debt. Injection of additional revenues from growth will be needed to mitigate infrastructure backlogs.

Asset Class	Average Annual Investment Required	Total Funding Available in 2018				
		Rates	To Operations	Other	Total Funding Available	Annual Deficit/Surplus
Water Network	621,000	1,528,000	(936,000)	-	592,000	-29,000
		Total Funding Available in 2020				
Water Network	547,608	1,390,000	-852,800	0	529,700	-17,908
Water Facilities	508,860					-508,860
Water Machinery & Equipment	42,604					-42,604
Total	1,099,072	1,390,000	(852,800)	-	529,700	-569,372

8.6 Recommendations – Water System

1) Age-based data show a backlog of $2 million and 10-year replacement needs of 7.7 million. The Town should start a condition assessment program for its water assets to precisely estimate its financial requirements and field needs.
   Condition assessment is currently performed by Staff who annually inspect all water assets.
2) The data collected through condition assessment programs should be integrated into a risk management framework which will guide prioritization of short, medium and long term replacement needs.
   Staff researched the cost of having formal assessments and recommended that at this time the cost outweighed the benefit.
3) In addition to the above, a tailored lifecycle activity framework should be developed to promote standard lifecycle management of the water system.
   This was completed during the 2020 Budget process and will continue moving forward.
4) Water distribution system key performance indicators should be established and tracked annually as part of an overall level of service model.
   The Town will address this in its 2020 and 2021 Operations Plan.
5) The Town should assess its short, medium and long-term capital and operations and maintenance needs.
   OCWA provides the Town with a 5 year Capital Plan. This information is incorporated into long-term needs and is incorporated into annual Budgets.
6) An appropriate percentage of the replacement costs should then be allocated for the Town's Operating and maintenance requirements.
   At this time, the Town will attend to immediate needs and will follow the recommendations and guidance in the Water Ontario Regulation 453/07.
7) The Town is currently funding 95% of its long term requirements for its water system on an annual basis.
   An amount is set aside annually to address immediate needs in water assets.

Appendix A – Vehicle Listing

Roads Vehicles

Vehicle Type	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Mileage 2019	Hours 2019	Replacement Cost
Vehicle Licensed	International Paystar 5500 2005	1/1/2005	198,613	198,613	-	322,346	14,476	260,786
	International 7600 SBA 2010, Water Tank, Sander, Reversible Plow	1/1/2005	245,318	196,170	49,147	173,965	8,574	322,111
	International 7600 Tandem Plow 2012	1/1/2012	225,920	180,697	45,223	186,226	8,066	258,515
	Ford F450 2015 4X4 1 Ton Pickup with dump box	1/1/2014	66,090	39,639	26,451	129,502		73,969
	GMC Sierra Pickup 2014	1/1/2014	30,472	18,277	12,196	136,581		34,105
	Dodge Ram 2500 Pickup 2015	1/1/2015	38,794	19,388	19,407	143,763		42,727
	International 7000 Series 7600 2007	1/1/2007	197,012	128,032	68,981	303,380	13,543	250,347
	Chev Silverado 4x4 Pickup	12/31/2018	26,299	15,773	10,526	104,950		29,434
	Chevrolet Express Cube Van 2007	1/1/2018	42,627	42,627	-	112,063		54,367
	2017 GMC Savana Cargo Van RWD 2500 135"	1/1/2019	30,200	9,052	21,148			31,862
	International HV607	1/1/2019	239,086	23,909	215,177		1,878	244,037
Vehicle Unlicensed	Bandit Brush Chipper	1/1/2009	41,649	41,649	-		96	51,135
	Excavator - Hydraulic Thumb	1/1/2011	9,680	8,711	969			11,340
	Rolloff Bins x 2	1/1/2011	10,369	9,331	1,038			12,147
	Roadside mower H6740	1/1/2011	9,108	8,196	912			10,670
	John Deere Grader 2012	1/1/2013	324,163	226,847	97,315		4,456	368,792
	Roller / Gravel Packer 8' drum	1/1/2013	18,317	12,818	5,499			20,839
	Gravel packer / roller	1/1/2014	13,127	7,873	5,254			14,692
	John Deere Grader 870 GP2014	1/1/2014	361,779	193,356	175,975		6,192	404,910
	Volvo Motor Grader G976 2015	1/1/2017	313,962	94,105	219,857		1,727	331,245
	New Holland 4WD Tractor T6050	1/1/2009	97,526	89,389	8,138		3,698	119,739
	Trackless - attachments 2006	1/1/2007	11,192	9,699	1,493		1,010	14,222
	Sidewalk Machine Trackless	1/1/2016	121,603	32,407	89,196			131,309
	Caterpillar 314CR Excavator 2005	1/1/2005	170,975	128,210	42,765		7,006	224,496
	Thompson Steamer	1/1/2009	12,237	6,729	5,508			15,024
	Case Wheel Loader 621FXT	1/1/2016	209,269	41,822	167,447		1,969	225,972
	Road Shoulder Reclaimer	1/1/2018	15,244	3,049	12,196			15,794
Roads Trailer	Float King Tandem 24 ton 2007	1/1/2006	26,082	24,342	1,740			33,265
			3,106,712	1,810,708	1,303,558	1,612,776	72,691	3,607,851

Fire Vehicles

Vehicle Type	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Fire Vehicle Licensed	Freightliner Dependable Pumper, P12, 750 Gallon Water Tank	1/1/2003	288,238	244,972	43,265	390,351
	Freightliner Dependable Pumper, P52, 750 Gallon Water Tank, Plate	1/1/2000	267,273	259,026	25,696	395,748
	Freightliner C-Max Rescue Van, R55	1/1/1994	187,769	187,769	0	304,490
	Freightliner Metalfab Tanker, T17, 2300 Gallon Water Tank	1/1/1994	225,323	225,323	0	365,389
	GMC Sentinal Rescue Van, R15	1/1/1992	184,617	184,617	0	308,814
	International Dependable Tanker, T57, 1500 Gallon Water Tank	1/1/1990	210,770	210,770	0	376,765
	Freightliner C-Max Tanker, T17, 1500 Gallon Water Tank	1/1/2008	369,126	221,425	147,701	459,327
	Spartan Dependable Pumper Rescue Truck, P51	1/1/2012	408,700	158,499	263,818	467,666
	Fire Pumper - Dependable P11	1/1/2019	576,330	29,972	569,464	588,266
Fire Trailer	Moritz 6x12 Tilt Black 2015	1/1/2015	4,216	1,405	2,811	4,643
Fire Vehicle Unlicensed	Kubota ATV TV-X1120D	1/1/2015	21,524	10,757	10,767	23,706
			2,743,886	1,734,534	1,063,522	3,685,165

Building Vehicles

Vehicle Type	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Building Vehicle Licensed	Ford F150 Pickup 2013 Red Crew Cab, Unit:101	12/31/2018	36,185	28,942	7,243	41,406

Parks Vehicles

Vehicle Type	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Parks Vehicle Licensed	Dodge Ram Pickup 1500 RTR	1/1/2016	29,444	11,770	17,674	31,794
	GMC Siera Pickup 2015	1/1/2018	51,359	25,667	25,692	56,565
			80,803	37,437	43,366	88,359

Appendix B – Machinery & Equipment Listing

Administration

Category	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Computer Software	Keystone Software 2016	1/1/2016	41,343	33,065	8,278	44,642
Computers & Equipment	Computer Upgrades Pooled 2010	1/1/2010	49,568	49,568	-	59,741
	Computer Upgrades Pooled 2011	1/1/2011	19,714	19,714	-	23,095
	Desktops x 6 2012	1/1/2012	5,465	5,465	-	6,253
	Colour Digital Copier	1/1/2012	10,116	10,116	-	11,575
	Desktops x 6 2013	1/1/2013	8,516	8,510	6	9,688
	Servers x 3, rack mounted	1/1/2013	24,416	24,400	17	27,778
	Network Server upgrade	1/1/2014	7,408	7,408	-	8,291
	Audio-Visual System- Council Chambers	1/1/2014	14,926	14,926	-	16,705
	Storage Area Network SAN	1/1/2016	35,707	28,558	7,150	38,557
	Hardware Upgrades	1/1/2017	20,672	12,396	8,276	21,810
	Security Cameras, Access Control	1/1/2017	15,884	9,525	6,359	16,758
	LED Entrance Sign	1/1/2017	25,756	15,445	10,311	27,174
	Telephone system	1/1/2018	25,169	10,068	15,101	26,076
	Municipal building Security	1/1/2018	20,098	8,039	12,059	20,822
	Server Room A/C	1/1/2018	2,193	877	1,316	2,272
			326,951	258,079	68,872	361,237

Building

Category	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Computer Software	Keystone Software 2010	1/1/2010	18,061	18,061	-	21,768
Computers & Equipment	Monitor, Adapter, Keystone Upgrade	1/1/2011	1,033	1,033	-	1,210
			19,094	19,094	-	22,978

Fire

Category	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Fire Equipment	Fire Pagers	1/1/2008	1,117	1,117	-	1,390
	Fire Pagers	1/1/2007	18,426	18,426	-	23,414
	Fire Pagers	1/1/2006	16,654	16,654	-	21,240
	Fire Pagers	1/1/2011	4,771	4,771	-	5,589
	Radio System Mobile XPR5550	1/1/2016	84,568	67,635	16,933	91,317
	Thermal Cameras	1/1/2009	21,051	21,051	-	25,846
	Defibrillators (AED)	1/1/2004	18,883	18,883	-	25,201
	Hurst Hydraulic Pump	1/1/2015	11,189	5,592	5,597	12,323
	Dress Uniforms x 9	1/1/2008	4,449	4,447	2	5,536
	Dress Uniforms x 11	1/1/2007	5,346	5,346	-	6,793
	Dress Uniforms x 14	1/1/2006	6,676	6,676	-	8,514
	Dress Uniforms x 10	1/1/2005	4,692	4,692	-	6,161
	Dress Uniforms x 10	1/1/2004	4,606	4,606	-	6,148
	Protective Equipment x 7	1/1/2008	14,547	14,542	5	18,102
	Protective Equipment x 7	1/1/2007	14,301	14,301	-	18,173
	Protective Equipment x 7	1/1/2006	14,033	14,033	-	17,898
	Protective Equipment x 7	1/1/2005	13,809	13,809	-	18,132
	Protective Equipment x 15	1/1/2004	29,048	29,048	-	38,768
	Protective Equipment x 20	1/1/2003	38,120	38,120	-	51,625
	Breathing Apparatus SCBA	1/1/2016	266,793	71,101	195,693	288,087
	Command Lights	1/1/2006	28,700	20,086	8,614	36,604
	Extrication Equipment - H. Pumps	1/1/2005	56,673	42,498	14,175	74,414
	Extrication Equipment - Jaws	1/1/2003	25,920	22,029	3,891	35,103
	Extrication Equipment - Cutters	1/1/2003	26,568	22,580	3,988	35,980
	Extrication Equipment - Rams	1/1/2003	25,272	21,479	3,793	34,225
	Portable Pumps	1/1/2008	15,500	9,298	6,202	19,288
	Portable Pumps	1/1/2004	4,750	3,799	951	6,339
	Portable Pumps	1/1/1995	15,000	15,000	-	24,098
	Portable Pumps	1/1/1985	7,500	7,500	-	17,051
	Generators	1/1/2008	5,335	3,200	2,135	6,639
	Generators	1/1/1995	12,725	12,725	-	20,443
	Generators	1/1/1985	1,700	1,700	-	3,865
	SCBA Compressors	1/1/2009	48,886	26,881	22,006	60,021
	Emergency Plan - Generators	1/1/2009	86,352	47,482	38,870	106,019
	Bunker Gear Racks	1/1/2012	15,749	6,297	9,452	18,021
	Generator 50kw Diesel	1/1/2016	37,763	7,547	30,216	40,776
	Radio System Multi Site	1/1/2018	89,153	35,661	53,492	92,365
	Extrication Equipment - Cutters	1/1/2018	33,204	3,320	29,884	34,401
	Exhaust System - Portable	1/1/2019	86,347	4,317	82,029	88,135
	Hose Cache/Suction X 32	1/1/2019	20,703	1,035	19,668	21,131
			1,236,878	689,285	547,593	1,465,175

Parks and Recreation

Category	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Parks Equipment	ECC - Score Clock	1/1/2007	10,704	10,704	0	13,602
	HCC - Score Clock	1/1/1999	8,791	8,791	0	13,332
	Centre 2000 - Projector	1/1/2002	62,832	62,832	0	88,750
	Tractor Mower John Deere 1445 Series 2 4W	1/1/2012	14,990	11,989	3,001	17,153
	New Holland Compact Tractor TZ18 + 60" M	1/1/2007	15,984	13,851	2,133	20,311
	HCC - Olympia	1/1/2004	71,181	71,181	0	95,000
	Kubota Tractor F3680 + Mower Deck, rear di	1/1/2008	19,494	15,593	3,901	24,258
	ECC - Zamboni	1/1/2009	83,681	61,355	22,326	102,740
	ECC - Replace 50 HP Compressor	1/1/2010	57,052	28,518	28,534	68,761
	Desuperheater - Burnside Report	1/1/2017	27,915	4,183	23,732	29,452
	Replace 30hp Compressor #2 ECC	1/1/2017	32,071	4,806	27,265	33,836
	McMillan Park Picnic Tables	1/1/2019	3,745	749	2,996	3,822
	ECC Security Cameras	1/1/2019	42,456	8,491	33,965	43,335
			450,896	303,043	147,852	554,352

Roads

Category	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Roads Equipment	Fuel Management System	1/1/2010	22,983	22,983	0	27,699
Roads Equipment	Snow Plough blade 8.5	1/1/2018	9,871	3,946	5,925	10,659
			32,853	26,928	5,925	38,358

Appendix C – Buildings & Facilities Listing

Erin Community Centre

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Centre 2000 - Expansion	1/1/2000	2,163,342.34	1,081,502.90	1,081,839.44	3,203,232.00
Centre 2000 Community Centre	1/1/1975	652,655.81	652,655.81	0.00	3,290,116.00
Centre 2000 - Arena	1/1/1975	957,985.71	957,985.71	0.00	4,748,277.00
Centre 2000 - Arena expansion project	1/1/2011	1,215,097.28	273,299.22	941,798.06	1,423,459.00
Sewage Flow Meter	1/1/2012	21,170.00	8,464.90	12,705.10	24,224.00
ECC - Rooftop HVAC Units	1/1/2017	23,795.00	3,565.61	20,229.39	25,105.00
ECC - Replace Rubber Flooring	1/1/2017	29,360.00	4,399.51	24,960.49	30,976.00
ECC Carpet Theatre&Cafeteria	1/1/2019	11,517.15	575.86	10,941.29	11,756.00
Erin CC Water Heater	1/1/2019	12,912.13	1,291.21	11,620.92	13,180.00
Erin Community Centre		5,087,835.42	2,983,740.73	2,104,094.69	12,770,325.00

Hillsburgh Community Centre

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Hillsburgh Community Centre	1/1/1975	712,233.85	712,233.85	0.00	3,550,940.00
HCC - ice surface floor replacement	1/1/2000	198,864.96	198,864.96	0.00	294,457.00
HCC - refrigeration system replacement	1/1/2001	294,093.02	279,371.60	14,721.42	420,568.00
HCC - lobby flooring	1/1/2002	23,266.00	20,937.41	2,328.59	32,863.00
HCC - Roof Replacement (Betterment)	1/1/2010	33,990.00	16,990.15	16,999.85	40,966.00
HCC - Lobby & Dressing Room flooring Replacement (Betterment)	1/1/2011	25,398.68	11,425.73	13,972.95	29,754.00
HCC Dasher Board Replacement	1/1/2015	130,280.62	32,550.48	97,730.14	143,485.00
Condenser Evaporative HCC	1/1/2016	49,391.50	9,870.79	39,520.71	53,334.00
Accessibility Renovations	1/1/2016	11,200.00	2,238.29	8,961.71	12,094.00
HCC - Rooftop HVAC Unit	1/1/2017	8,995.00	1,347.87	7,647.13	9,490.00
HCC - Ice surface lighting	1/1/2017	10,969.57	1,643.75	9,325.82	11,573.00
HCC Water Heater	1/1/2019	11,198.00	1,119.80	10,078.20	11,430.00
Hillsburgh Community Centre		1,509,881.20	1,288,594.69	221,286.51	4,610,954.00

Ballinafad Community Centre

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Ballinafad Community Centre	1/1/1975	63,581.50	60,028.52	0.00	315,143.00
Ballinafad Community Centre	1/1/1987	139,707.35	115,249.26	24,458.09	291,233.00
Ballinafad Community Centre - Roof Replacement	1/1/2019	14,392.13	8,635.28	5,756.85	14,690.00
Ballinafad Community Centre		217,680.98	183,913.07	30,214.94	621,066.00

Parks Buildings

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Victoria Park: booth	1/1/1975	24,242.40	25,454.52	-1,212.12	120,158.00
Barbour Field: booth, pavillion	1/1/1997	74,665.00	42,926.66	31,738.34	115,255.00
McMillan Park Pavillion	1/1/2009	155,569.73	42,769.23	112,800.50	191,002.00
Washrooms at Victoria Park	1/1/2011	14,634.36	3,984.38	10,649.98	17,144.00
Parks Buildings		269,111.49	115,134.79	153,976.70	443,559.00

Roads Shops

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Roads Shop	1/1/1992	84,893.82	59,419.45	25,474.37	142,004.00
Roads Shop Roof	1/1/2018	64,138.23	3,206.91	60,931.32	66,450.00
Sand Dome	1/1/1983	249,677.05	156,372.45	93,304.60	530,084.00
Equipment Depot	1/1/1992	434,518.31	304,130.95	130,387.36	726,831.00
Salt Storage Structure	1/1/2017	29,845.63	2,236.00	27,609.63	31,489.00
Roads Shop Vehicle Exhaust System	1/1/2016	32,463.48	6,487.76	25,975.72	35,054.00
Roads Shop		895,536.52	531,853.51	363,683.01	1,531,912.00

Municipal Office

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Municipal Office	1/1/1994	511,039.54	325,038.30	175,078.21	828,713.00
Municipal Office - Basement Offices	1/1/1999	36,680.99	19,254.69	17,426.30	55,626.00
Municipal Office Renovations	1/1/2018	148,850.46	6,305.67	201,584.20	154,214.00
Municipal Office - Roof Replacement	1/1/2019	22,387.21	5,596.80	16,790.41	22,851.00
Municipal Office Elevator	1/1/2019	340,585.44	8,514.64	332,070.80	347,639.00
Municipal Office		1,059,543.64	364,710.10	742,949.93	1,409,043.00

Hillsburgh Fire Hall

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Hillsburgh Fire Station 50	1/1/2014	2,511,141.95	376,468.38	2,134,673.57	2,810,524.00
Rooftop Solar MicroFit	1/1/2015	26,966.40	6,737.53	20,228.87	29,700.00
Hillsburgh Fire Station		2,538,108.35	383,205.92	2,154,902.43	2,840,224.00

Erin Fire Hall

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Erin Fire Station 10	1/1/1985	287,884.32	250,489.02	35,804.14	654,498.00
Erin Fire Station 10 - Metal Roof Replacement on Shed	7/1/2019	5,058.49	50.58	5,007.91	5,029.00
Erin Fire Station		292,942.81	250,539.60	40,812.04	659,527.00

Appendix D – Bridge & Culvert 10-Year Needs

	CityWide					2019 OSIM Report				
Name	Activity	Backlog	2019-2023	2023-2028	10 Year Total	Activity	Within 1 Year	1-5 Years	6-10 Years	10-Year Total
Bridge 2	Replacement	-	-	-	-	Rehabilitate	234,500	-	-	234,500
Bridge 5	Replacement	-	-	-	-	Replace	913,500	-	-	913,500
Bridge 6	Replacement	-	-	-	-	Rehabilitate	450,500	-	-	450,500
Bridge 9	Replacement	-	-	-	-	Rehabilitate	410,000	-	-	410,000
Bridge 11	Replacement	-	-	-	-	Replace	1,100,000	-	-	1,100,000
Bridge 15	Replacement	-	-	-	-	Rehabilitate	-	310,000	-	310,000
Bridge 2064	Replacement	193,790	-	-	193,790		-	-	-	-
Culvert 13	Replacement	-	-	-	-	Rehabilitate	-	220,000	-	220,000
Culvert 14	Replacement	-	-	-	-	Rehabilitate	-	174,000	-	174,000
Culvert 2011	Replacement	-	-	-	-	Rehabilitate	-	-	195,000	195,000
Culvert 2018	Replacement	-	-	-	-	Replace	-	-	673,500	673,500
Culvert 2027	Replacement	-	-	-	-	Replace	-	613,500	0	613,500
Culvert 2033	Replacement	-	-	-	-	Replace	-	-	673,500	673,500
Culvert 2051	Replacement	-	-	-	-	Rehabilitate	126,000	-	-	126,000
Culvert 2052	Replacement	-	-	-	-	Rehabilitate	172,000	-	-	172,000
Culvert 2053	Replacement	-	-	-	-	Replace	-	673,500	-	673,500
Culvert 2057	Replacement	-	-	-	-	Replace	-	-	553,500	553,500
Culvert 2059	Replacement	-	-	-	-	Replace	594,500	-	-	594,500
Culvert 2060	Replacement	-	-	-	-	Replace	-	-	553,500	553,500
Culvert 2066	Replacement	-	-	-	-	Rehabilitate	-	185,000	-	185,000
Culvert 2068	Replacement	-	-	-	-	Replace	-	-	-	-
Culvert 2072	Replacement	-	-	-	-	Rehabilitate	348,000	-	-	348,000
Culvert 16	Replacement	-	-	-	-	Rehabilitate	-	163,000	-	163,000
Culvert 10	Replacement	-	-	-	-	Replace	-	834,500	-	834,500
		193,790	-	-	193,790		4,349,000	3,173,500	2,649,000	10,171,500

Appendix E – Water Assets

Water Buildings

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Water Tower	1/1/1990	738,005.00	553,451.13	184,553.87	1,319,232.00
Erin Well E5	1/1/1983	54,615.00	50,516.07	4,098.93	136,785.00
Erin Well E7	1/1/1986	534,953.00	454,675.73	80,277.27	1,164,409.00
Erin Well E8	1/1/1991	669,291.00	485,187.52	184,103.48	1,131,889.00
Hillsburgh Well H2	1/1/1988	640,689.00	512,507.35	128,181.65	1,281,378.00
Hillsburgh Well H3	1/1/1969	160,338.00	160,338.00	0.00	1,142,408.00
BelErin Well	1/1/1995	83,125.00	51,946.85	31,178.15	133,542.00
Delerin Pressure Building	1/1/1987	27,852.53	22,976.49	4,876.04	58,061.00
Frank Smedley Booster Pumping Station	1/1/2014	1,069,494.83	160,337.81	909,157.03	1,197,002.00
Glendevon High Lift Pump Replacement	1/1/2013	158,323.33	55,389.69	102,933.64	180,121.00
Water Buildings		4,136,686.69	2,507,326.64	1,629,360.05	7,744,827.00

Water Equipment

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Water Meters x 30	1/1/2015	9,158.10	2,288.14	6,869.96	10,086.00
Scada System - 3 Erin Village sites	1/1/2015	155,847.58	38,938.37	116,909.21	171,644.00
Data Loggers - 4 sites	1/1/2015	40,500.50	10,119.01	30,381.49	44,605.00
Radio Meter Reading Device	1/1/2016	8,596.68	6,875.38	1,721.30	9,283.00
Generator 100kw Diesel Perkins Silent - Mobile Trailer	1/1/2016	48,000.19	9,592.74	38,407.45	51,831.00
Generator 100kw Diesel Perkins Silent	1/1/2016	38,882.50	7,770.59	31,111.91	41,986.00
Fire Hydrants x 2	1/1/2016	19,138.72	3,516.94	15,621.78	20,666.00
Water Meters x 36	1/1/2016	12,269.20	2,411.40	9,857.80	13,248.00
Scada System - Hillsburgh sites	1/1/2017	165,722.95	24,833.07	140,889.88	174,845.00
Well #2 Retrofit Control Panel	1/1/2017	1,684.13	252.36	1,431.77	1,777.00
Generator Upgrade Well #8	1/1/2018	29,655.10	2,965.51	26,689.59	30,724.00
Generator Upgrade Hillsburgh Heights	1/1/2018	27,279.09	2,727.91	24,551.18	28,262.00
Security Cameras	1/1/2018	4,720.94	1,888.38	2,832.56	4,891.00
Water Equipment		561,455.68	114,179.80	447,275.88	603,848.00

Water System

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Water Mains	1/1/1990	8,939,238.00	3,224,688.51	5,714,549.79	22,321,217.00
Water Service	1/1/2010	1,115,204.24	393,328.88	721,875.36	2,747,374.00
Water System		10,054,442.24	3,618,017.39	6,436,425.15	25,068,591.00

Appendix F – Funding

WITH CAPTURING CHANGES																				
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Annual Funding Deficit	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926	2,266,926
Less: Debt Payment Decrease	-3511	-3,596	-13,690	-171,059	-171,279	-198,614	-218,676	-332,184	-332,097	-332,176	-332,388	-331,737	-332,215	-331,838	-332,597	-332,418	-332,379	-432,483	-432,483	-432,483
Add: OCIF Decrease	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016	260,016
Net Annual Funding Deficit	2,523,431	2,523,346	2,513,252	2,355,883	2,355,663	2,328,328	2,308,266	2,194,758	2,194,845	2,194,766	2,194,554	2,195,205	2,194,727	2,195,104	2,194,345	2,194,524	2,194,563	2,094,459	2,094,459	2,094,459

TAX LEVY SUMMARY (CAPTURING CHANGES)																				
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Prior Year Levy	7,540,869	7,633,018	7,726,294	7,820,709	7,916,278	8,013,015	8,110,934	8,210,050	8,310,377	8,411,929	8,514,723	8,618,773	8,724,095	8,830,703	8,938,614	9,047,844	9,158,409	9,270,324	9,383,608	9,498,276
Increase (at 1.2%)	92,149	93,275	94,415	95,569	96,737	97,919	99,116	100,327	101,553	102,794	104,050	105,321	106,608	107,911	109,230	110,565	111,916	113,283	114,668	116,069
	7,633,018	7,726,294	7,820,709	7,916,278	8,013,015	8,110,934	8,210,050	8,310,377	8,411,929	8,514,723	8,618,773	8,724,095	8,830,703	8,938,614	9,047,844	9,158,409	9,270,324	9,383,608	9,498,276	9,614,344
Increase Dedicted to AMP	92,149	185,425	279,840	375,409	472,146	570,065	669,181	769,508	871,060	973,854	1,077,904	1,183,226	1,289,834	1,397,745	1,506,975	1,617,540	1,729,455	1,842,739	1,957,407	2,073,475
Annual Funding Deficit	-2,431,282	-2,337,921	-2,233,412	-1,980,474	-1,883,517	-1,758,263	-1,639,085	-1,425,250	-1,323,785	-1,220,912	-1,116,650	-1,011,979	-904,893	-797,359	-687,370	-576,984	-465,108	-251,720	-137,052	-20,984

PERCENTAGE FUNDED BY YEAR																				
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Annual Average Investment Required	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767	4,531,767
Funding Available																				
2020 Funding	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841	2,264,841
OCIF Decrease	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016	-260,016
Debt Payment Decrease	3,511	3,596	13,690	171,059	171,279	198,614	218,676	332,184	332,097	332,176	332,388	331,737	332,215	331,838	332,597	332,418	332,379	432,483	432,483	432,483
Tax Levy Increase Required (1.2%)	92,149	185,425	279,840	375,409	472,146	570,065	669,181	769,508	871,060	973,854	1,077,904	1,183,226	1,289,834	1,397,745	1,506,975	1,617,540	1,729,455	1,842,739	1,957,407	2,073,475
Total Funding	2,100,485	2,193,846	2,298,355	2,551,293	2,648,250	2,773,504	2,892,682	3,106,517	3,207,982	3,310,855	3,415,117	3,519,788	3,626,874	3,734,408	3,844,397	3,954,783	4,066,659	4,280,047	4,394,715	4,510,783
Percentage Funded	46%	48%	51%	56%	58%	61%	64%	69%	71%	73%	75%	78%	80%	82%	85%	87%	90%	94%	97%	100%