

ASSET MANAGEMENT PLAN

2022



Key Statistics

\$203.1 million Replacement cost of asset portfolio	\$17,753 Replacement cost of infrastructure per capita
3.2% Target average annual infrastructure reinvestment rate	1.6% Actual average annual infrastructure reinvestment rate
49% Percentage of assets in fair or better condition	50% Percentage of annual infrastructure funding needs currently being met
10% Portion of total average annual investment required that comes from the Canada Community Building Fund	45% Annual cost savings for roads through proactive lifecycle management
\$284 Annual infrastructure deficit per capita	20 years Recommended timeframe for eliminating annual infrastructure deficit

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Introduction

Key Insights

- The goal 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
- A municipal asset management program is a combination of several disciplines or business functions, including management, financial and economic analyses, engineering, operations and maintenance
- The Municipality's asset management policy provides clear direction to staff on their roles and responsibilities regarding asset management
- An asset management plan is a dynamic document that should be updated regularly to inform long-term planning
- Ontario Regulation 588/17 outlines several key milestone and requirements for asset management plans in Ontario between July 1, 2022 and 2025

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 2022 valuation of \$203.1 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 to 20% of their total cost of ownership. The remaining 80 to 90 % comes from operations and maintenance.

This Asset Management Plan (AMP) 2022 includes 2022 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 the 2023 Capital budget and assumes the same for the long-term plan.

1.0 Scope and Methodology








Key Insights

- The asset management plan includes 8 asset categories
- The source and recency of replacement costs data impacts the accuracy and reliability of asset portfolio valuation
- Accurate and reliable condition data helps to prevent premature and costly rehabilitation or replacement and ensures that lifecycle activities occur at the right time to maximize asset value and useful life

1.1 Assets Categories included in this AMP

This asset management plan for the Town of Erin is produced in compliance with Ontario Regulation 588/17.

The AMP summarizes the state of the infrastructure for the Town's asset portfolio, establishes current levels of service, outlines lifecycle strategies for optimal asset management and performance, and provides financial strategies to reach sustainability for the asset categories funded through taxes listed below.

Core Assets		Non-Core Assets	
	Road Network		Buildings, Furniture & Equipment
	Bridges & Culverts		Land Improvements
	Waste Water / Water System		Machinery & Equipment
			Vehicles

1.2 Driving Replacement Costs

There are range of methods to determine the replacement cost of an asset, and some are more accurate and reliable than others. This AMP relies on two methodologies

- User-Defined Cost and Cost/Unit: Based on costs provided by Town staff which could include average costs from recent contracts; data from engineering reports and assessments; staff estimates based on knowledge and experience
- Cost Inflation/CPI Tables: Historical cost of the asset is inflated based on Consumer Price Index or Non-Residential Building Construction Price Index

User-defined costs based on reliable sources are a reasonably accurate and reliable way to determine asset replacement costs. Cost inflation is typically used in the absence of reliable replacement cost data. It is a reliable method for recently purchased and/or constructed assets where the total cost is reflective of the actual costs that the Town incurred. As assets age, and new products and technologies become available, cost inflation becomes a less reliable method.

1.3 Estimate Useful Life and Services Life

The estimated useful life (EUL) of an asset is the period over which the Town expects the asset to be available for use and remain in service before requiring replacement or disposal. The EUL for each asset in this AMP was assigned according to the knowledge and expertise of municipal staff and supplemented by existing industry standards when necessary.

By using an asset's in-service data and its EUL, the Town can determine the service life remaining (SLR) for each asset. Using condition data and the asset's SLR, the Town can more accurately forecast when it will require replacement. The SLR is calculated as follows:

Service Life Remaining (SLR) = In Service Date + Estimated Useful Life(EUL) – Current Year

1.4 Reinvestment Rate

As assets age and deteriorate they require additional investment to maintain a state of good repair. The reinvestment of capital funds, through asset renewal or replacement, is necessary to sustain an adequate level of service. The reinvestment rate is a measurement of available or required funding relative to the total replacement cost

By comparing the actual vs target reinvestment rate the Town can determine the extent of any existing funding gap. The reinvestment rate is calculated as follows:

$$\text{Target Reinvestment Rate} = \frac{\text{Annual Capital Requirement}}{\text{Total Replacement Cost}}$$

$$\text{Actual Reinvestment Rate} = \frac{\text{Annual Capital Funding}}{\text{Total Replacement Cost}}$$

1.5 Driving Asset Condition

An incomplete or limited understanding of asset condition can mislead long-term planning and decision-making. Accurate and reliable condition data helps to prevent premature and costly rehabilitation or replacement and ensures that lifecycle activities occur at the right time to maximize asset value and useful life.

A condition assessment rating system provides a standardized descriptive framework that allows comparative benchmarking across the Town's asset portfolio. The table below outlines the condition rating system used in this AMP to determine asset condition. This rating system is aligned with the Canadian Core Public Infrastructure Survey which is used to develop the Canadian Infrastructure Report Card. When assessed condition data is not available, service life remaining and asset age is used to approximate asset condition.

Condition	Description	Criteria	Service Life Remaining (%)
Very Good	Fit for the future	Well maintained, good condition, new or recently rehabilitated	80-100
Good	Adequate for now	Acceptable, generally approaching mid-stage of expected service life	60-80
Fair	Requires attention	Signs of deterioration, some elements exhibit significant deficiencies	40-60
Poor	Increasing potential of affecting service	Approaching end of service life, condition below standard, large portion of system exhibits significant deterioration	20-40
Very Poor	Unfit for sustained service	Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be unusable	0-20

The analysis in this AMP is based on assessed condition data only as available. In the absence of assessed condition data, asset age is used as a proxy to determine asset condition.

2.0 Financial Profile: Tax Funded Assets

Key Insights

- The total replacement cost of the Town's asset portfolio is \$203.1million
- The Municipality's target re-investment rate is 3.2%, and the actual re-investment rate is 1.6%, contributing to an expanding infrastructure deficit
- 49% of all assets are in fair or better condition
- 61% of assets are projected to require replacement in the next 10 years based on Service Life analysis
- Average annual capital requirements total \$6.5 million per year across all assets
Annual capital funding available by the Town totals \$3.3 million across all assets

2.1 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.

2.2 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 2021 Asset Management Plan update. 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 2021 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 2023 to arrive at an Annual Deficit amount of \$3.25 million.

Calculated by CityWide, the average annual investment requirement for the above asset categories is \$6.52 million compare to \$5.16 million in the 2021 AMP Update. The 2023 funding allocated to these assets for capital purposes is \$4.23 million resulting in an annual average deficit of \$2.29 million compared to a \$1.95 million deficit in the 2021 AMP update. Therefore, these asset categories are currently funded at 64.8% of their long-

term requirement. This is an increase of 2.8% from the 2021 Asset Management Plan update where these categories were funded at 62% of the long-term requirement.

In developing a long term financial strategy, the following changes to revenue and expenses need to be considered.

- The Town Ontario Community Infrastructure Fund (OCIF) formula-based component for 2023 is \$0.47 million. This grant is no longer assured from year to year.
- Total debt payments for these asset categories will be decreasing by \$0.17M over the next 10 years, \$0.33M by year 15 and \$0.43M by year 20.
- Water buildings and equipment are not included in the Facilities and Machinery & Equipment in this AMP as they are funded from rates and not taxation.

Town of Erin							
Summary of Infrastructure Requirements & 2023 Funding Available							
Asset Category	Average Annual Investment Required	Annual Funding Available					Annual Deficit
		Taxes	CCBF	OCIF	Taxes to Reserves	Total	
<u>Tax funded:</u>							
Road Network	3,416,365	-	1,627,261	-	857,865	2,485,126	931,240
Bridges & Culverts	936,645	-	-	466,263	-	466,263	470,382
Facilities	911,629	80,700	-	-	52,962	133,662	777,967
Land Improvements	235,870	-	-	-	-	-	235,870
Machinery and Equipment	406,907	55,300	-	-	85,784	141,084	265,823
Fleet	614,850	900,000	-	-	100,000	1,000,000	(385,150)
Total	6,522,265	1,036,000	1,627,261	466,263	1,096,611	4,226,135	2,296,131

Table below is taken from the 2021 AMP update.

Town of Erin							
Summary of Infrastructure Requirements & 2022 Funding Available							
Asset Category	Average Annual Investment Required	Annual Funding Available					Annual Deficit
		Taxes	CCBF	OCIF	Taxes to Reserves	Total	
Tax funded:							
Road Network	2,301,328	-	725,579	-	697,509	1,423,088	878,240
Bridges & Culverts	830,590	-	-	548,545	-	548,545	282,045
Facilities	864,423	193,500	-	-	30,294	223,794	640,629
Land Improvements	221,469	55,000	-	-	-	55,000	166,469
Machinery and Equipment	376,364	155,000	-	-	66,300	221,300	155,064
Fleet	567,714	635,000	-	-	102,000	737,000	(169,286)
Total	5,161,888	1,038,500	725,579	548,545	896,103	3,208,727	1,953,161

Assuming that the OCIF grants are not available in future years and the decrease in forecasted debt payments can be redirected to capital renewal requirements, increasing tax revenues by 1.3% for next 20 years will maintain existing asset classes in this AMP. The table from the 2021 AMP recommended a 1.2% increase each year.

<i>Long Term Financial Plan</i>				
Activity	Years			
	5	10	15	20
Infrastructure Deficit	2,296,131	2,296,131	2,296,131	2,296,131
Change in OCIF Grant	466,263	466,263	466,263	466,263
Change in Debt Costs	-	(167,095)	(332,418)	(432,483)
Resultant infrastructure Deficit	2,762,394	2,595,299	2,429,976	2,329,911
Resulting tax increase required Total Over Time	34.1%	32.0%	30.0%	28.7%
Annually	6.8%	3.2%	2.0%	1.3%

Below table is taken from 2021 AMP update.

Long Term Financial Plan				
Activity	Years			
	5	10	15	20
Infrastructure Deficit	1,953,161	1,953,161	1,953,161	1,953,161
Change in OCIF Grant	548,545	548,545	548,545	548,545
Change in Debt Costs	-	(167,095)	(332,418)	(432,483)
Resultant infrastructure Deficit	2,501,706	2,334,611	2,169,288	2,069,223
Resulting tax increase required Total Over Time	32.5%	30.4%	28.2%	26.9%
Annually	6.5%	3.0%	1.9%	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 1.3% and in combination with the following strategies:

- When realized, reallocate reductions in debt payments to infrastructure reserves
- Allocating Canadian Community Building Fund (CCBF), formerly Gas Tax funding to asset renewal requirements.

This is a 0.1% decrease from the 2021 Asset Management Plan Update is mainly owing to increases in CCBF and the 2022 budgeted capital investments for fleet vehicles. A detailed breakdown of how the annual funding deficit can be addressed is found in Appendix F.

VEHICLES



3.0 Vehicles

Key Insights

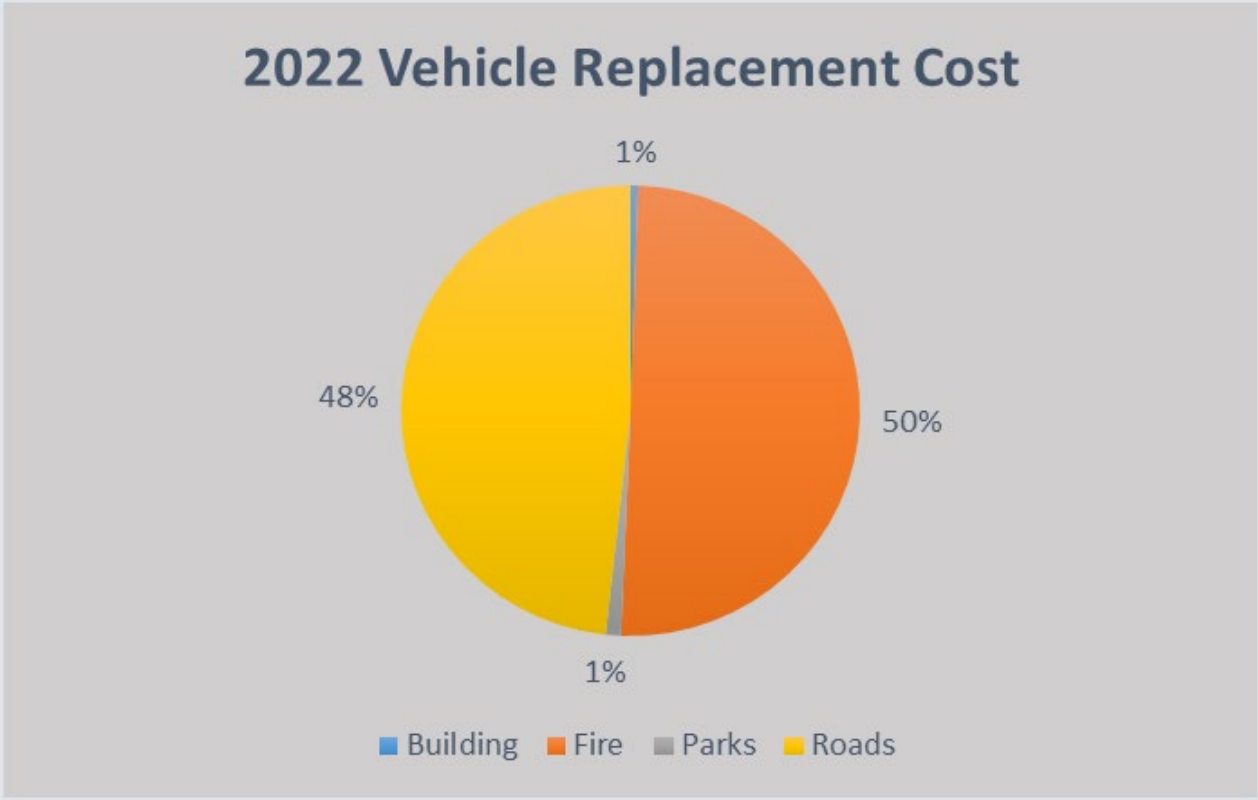
- Vehicles are valued at \$8.8M
- 34% vehicles are in fair or better conditions
- The average annual capital requirement to sustain the current level of services for vehicles is approximately \$0.6M

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

The table below illustrates key asset attributes for the Town of Erin vehicle portfolio, including quantities by department, useful life, replacement cost, and valuation method. In total, the Town's vehicle assets are valued at \$8.799 million based on 2022 replacement costs. A detailed listing of town vehicles is found in Appendix A.

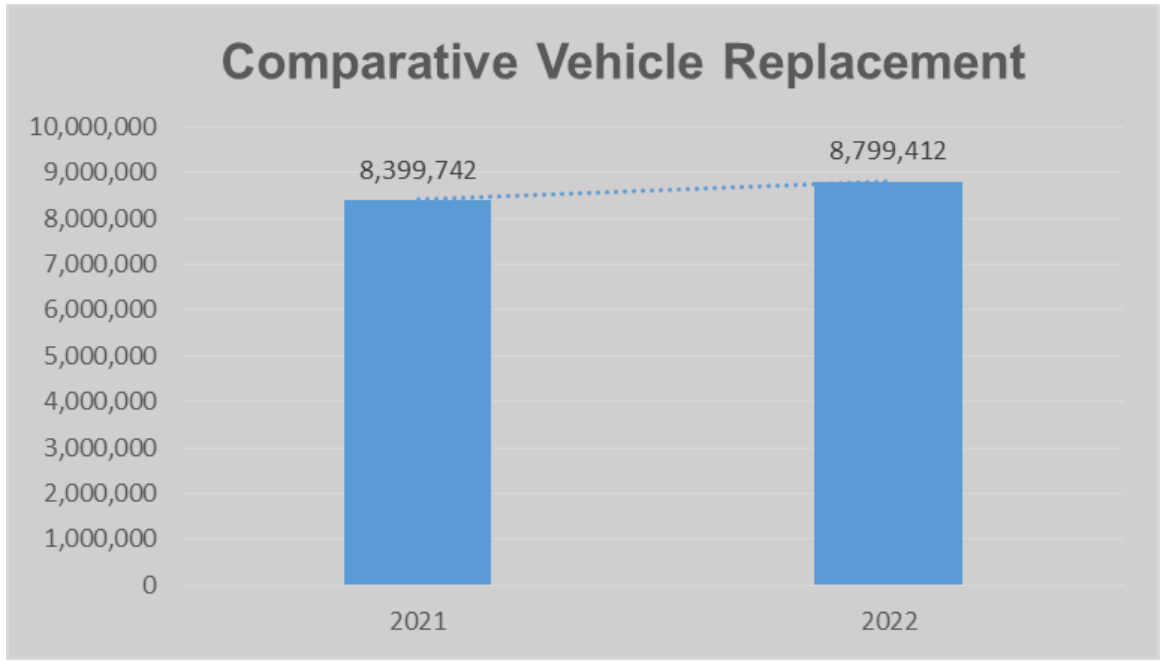
<u>Component</u>	<u>QTY</u>	<u>Useful life (years)</u>	<u>Valuation Method</u>	<u>Replacement Cost</u>	
				<u>2021</u>	<u>2022</u>
Building Vehicle Licensed	1	10	CPI Monthly (ON)	41,856	44,227
Fire Trailer	1	15	CPI Monthly (ON)	4,694	4,960
Fire Vehicle Unlicensed	1	10	CPI Monthly (ON)	23,963	25,320
Fire Vehicle Licensed	12	10,20	CPI Monthly (ON)	4,553,387	4,384,159
Parks Vehicle Licensed	2	10	CPI Monthly (ON)	89,320	94,378
Roads Trailer	1	15	CPI Monthly (ON)	33,627	35,531
Roads Vehicle licensed	13	10,20	CPI Monthly (ON)	1,649,711	2,094,208
Roads Vehicle Unlicensed	17	10,12,15,20	CPI Monthly (ON)	2,003,184	2,116,629
TOTAL				8,399,742	8,799,412

A total of 98% of the Replacement cost for the Town of Erin Vehicles is the Fire and Road Departments.



Replacement cost increased 4.8% from 2021 to 2022. This is a combination of inflationary pressure and a net addition of the following vehicles.

- 1. Roads Department vehicle, Tandem Axle Snow plow Purchase 2022, cost \$351,072
- 2. Roads Department, Backhoe Loader, Purchase 2022 \$182,062

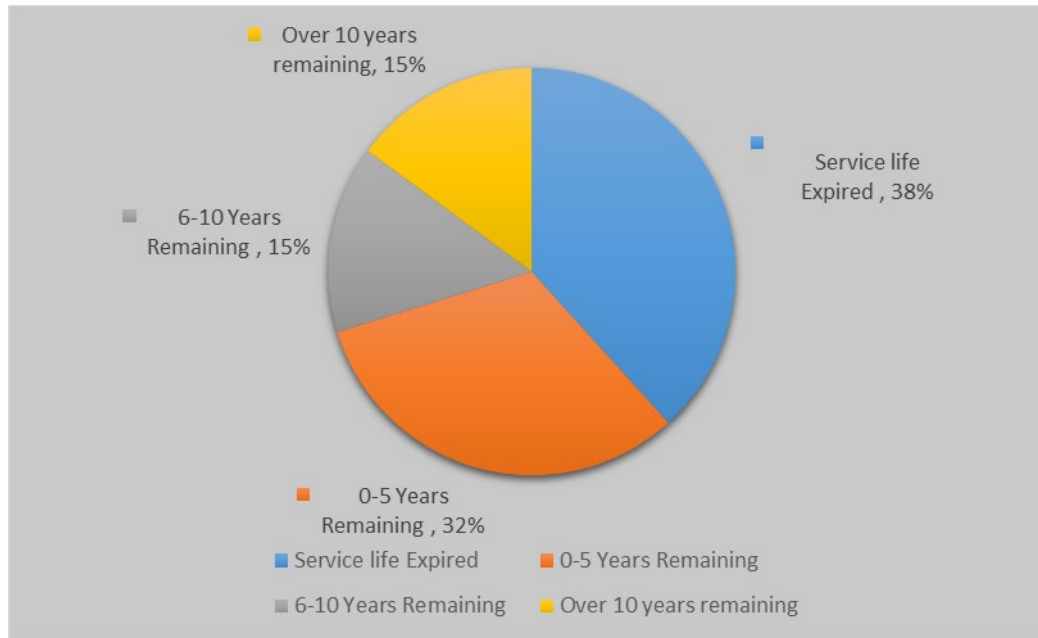


The Replacement costs above were derived applying an inflationary factor (Consumer Price Index) to the Town Vehicle historical costs. Using this methodology, the risk of replacement cost inaccuracy increases the longer an asset ages. (i.e. inflating historical cost may provide an accurate representation 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).

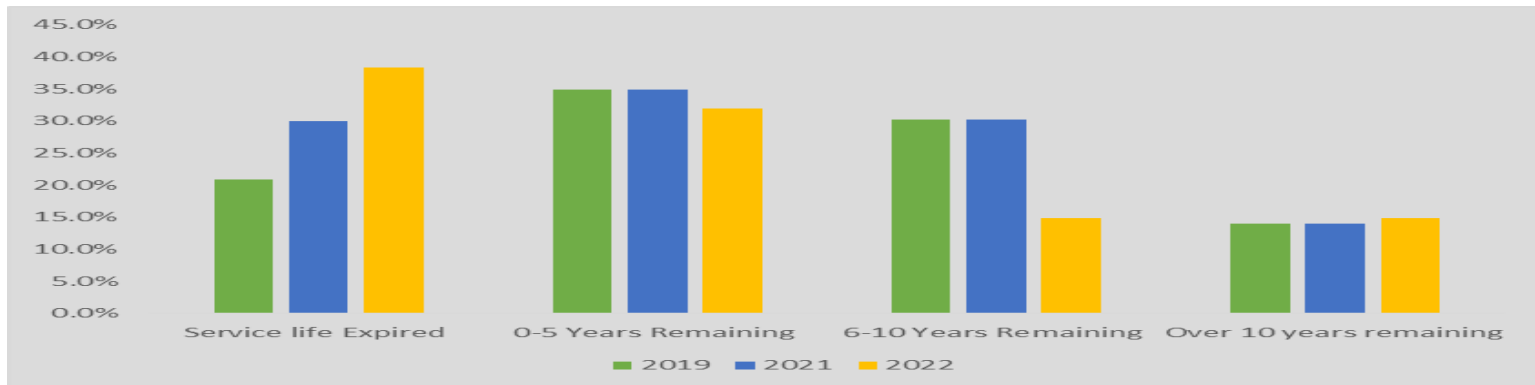
Additionally, inflating historical cost to calculate a replacement value assumes each asset will be replaced with a similar asset.

3.2 Useful Life Consumption

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 2022 for the Town's vehicles. The Service life Expired has significantly increased as it went from 30% in 2021 to 38% in 2022. Although with the purchases of Vehicles "Tandem Axle Snow Plow & Backhoe Loader" in 2022 (the Roads Department created the greatest amount of this increase) many of their vehicles had service life expired.

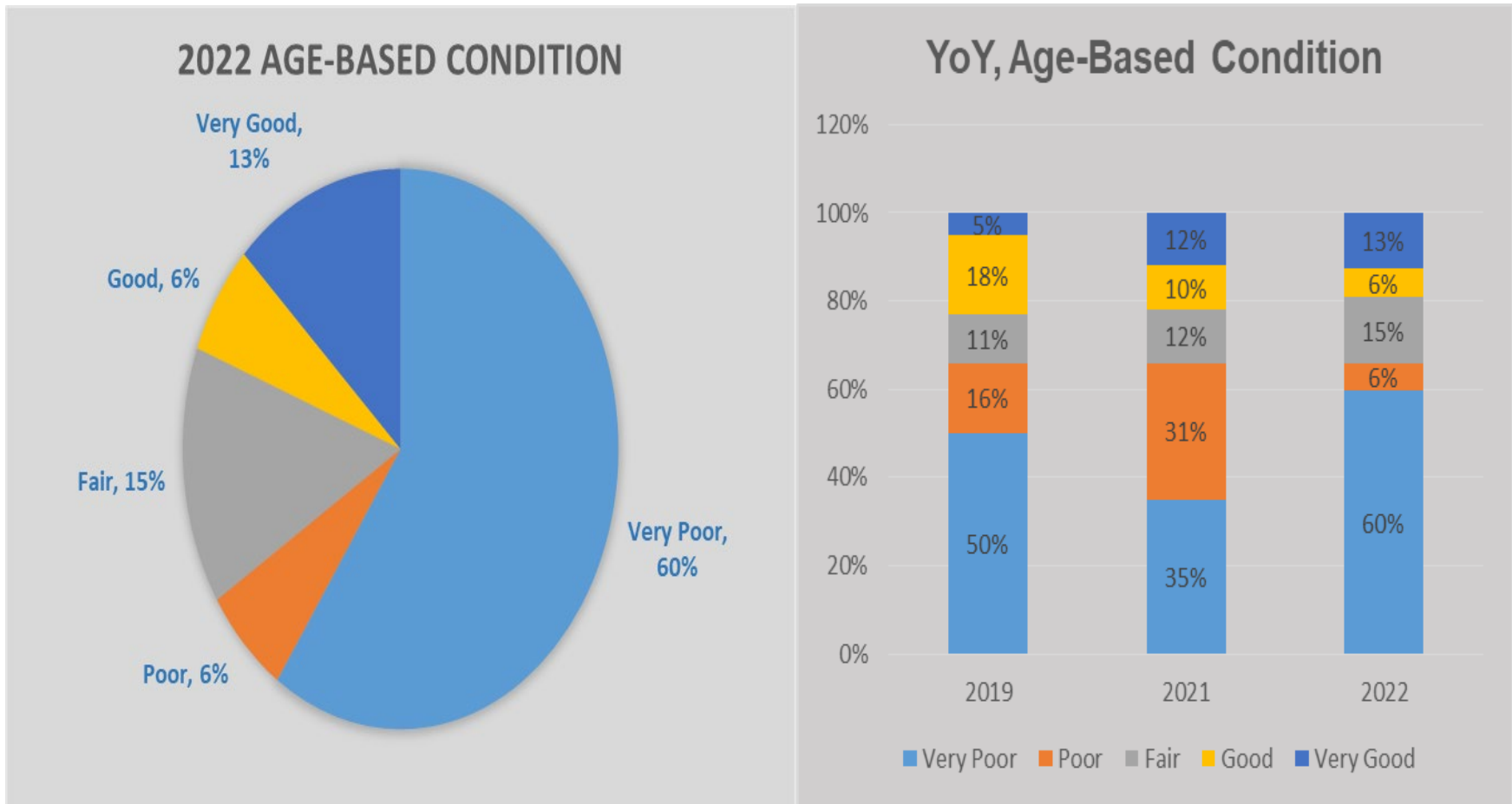


A comparison of Service Life remaining from 2019 to 2022 is shown below.



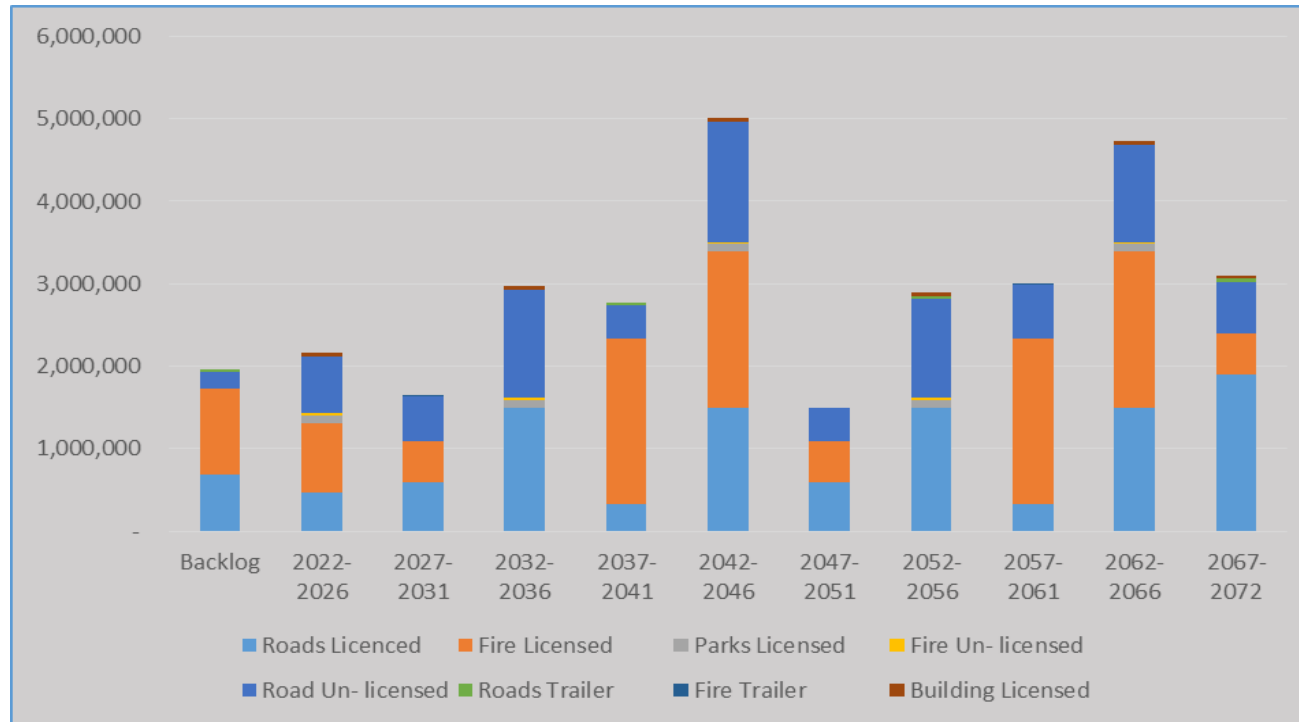
3.3 Asset Condition

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 2019 and 2022 Asset Management Plan to allow for a year-over year (YoY) comparison.



3.4 Forecasting Replacement Needs

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



3.5 Recommendations

A preventative maintenance and lifecycle assessment program for all vehicle assets aid in understanding current condition and performance as well as short and medium term replacement needs. The Roads and Fire Department future operation plans have included vehicle preventative maintenance and Capital Budgets have included plans for vehicle replacement.

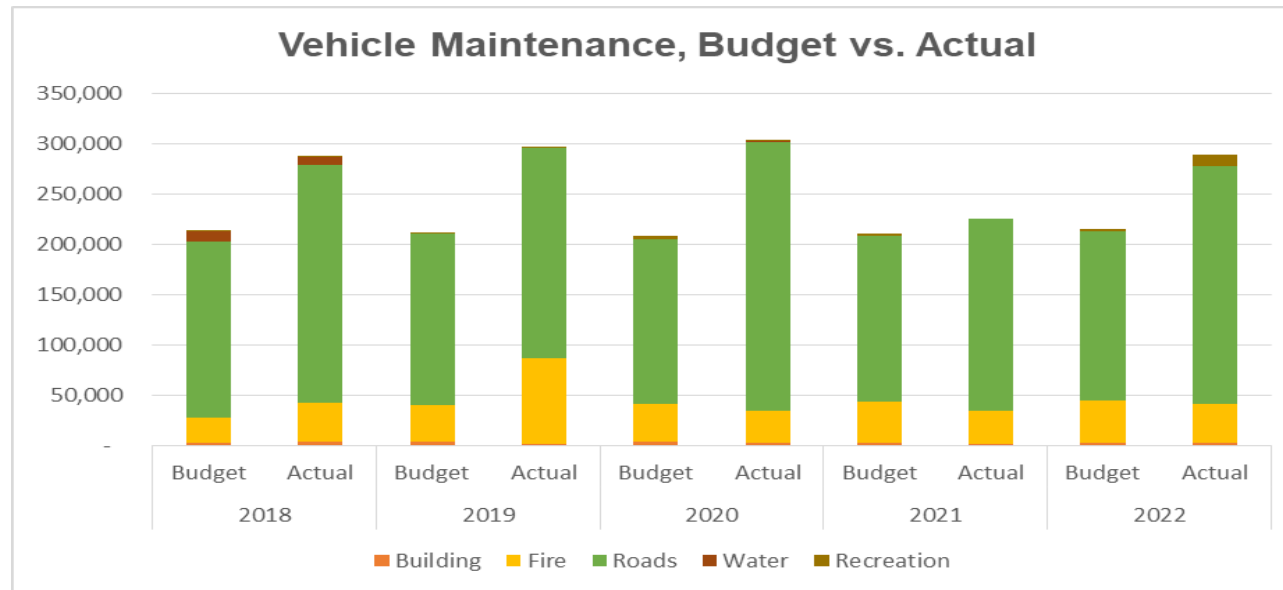
The Town should continue to assess its short, medium and long term capital, operations and maintenance needs. Currently the Roads and Fire Department is required to complete the operations plan (that would include maintenance) for four years of service. A 10 year Capital Plan for Roads, Parks and Recreation, and the Fire Department Vehicle’s was prepared by staff. These Plans should be reviewed and updated annually.

An amount to set aside for the Towns Operating and Maintenance requirements should be calculated and in the budget. A percentage of replacement cost is an option, however, the Town is currently basing these requirements on historical spending and performance compared to Budget.

The preventative maintenance program for the Roads Department is contracted to Brandt Tractor or Jade Equipment based on availability, for graders and done in-house for large trucks and ½ ton and 4 wheel small trucks. Preventative maintenance encompasses the following activities:

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

These preventative maintenance measures are reflected in the Town of Erin’s annual budgeting process with an annual average of \$211,984 for the five preceding years. This represents 2.3% of the vehicle replacement cost. A summary of budget vs. actual performance is below.



For the Town vehicles long term replacement needs, an annual Roads Fleet reserve allocation of \$50,000, and a Fire Capital Reserve allocation of \$100,000 (assume 50% vehicles = \$50,000), started in 2019 and has carried through on an annual basis for 2021 and 2022. With the planned investments based on the approved 2023 Budget for Fleet, the annual funding for Fleet is 163% of the annual requirement.

**MACHINERY,
EQUIPMENT
AND COMPUTERS**



4.0 Machinery, Equipment & Computers

Key Insights

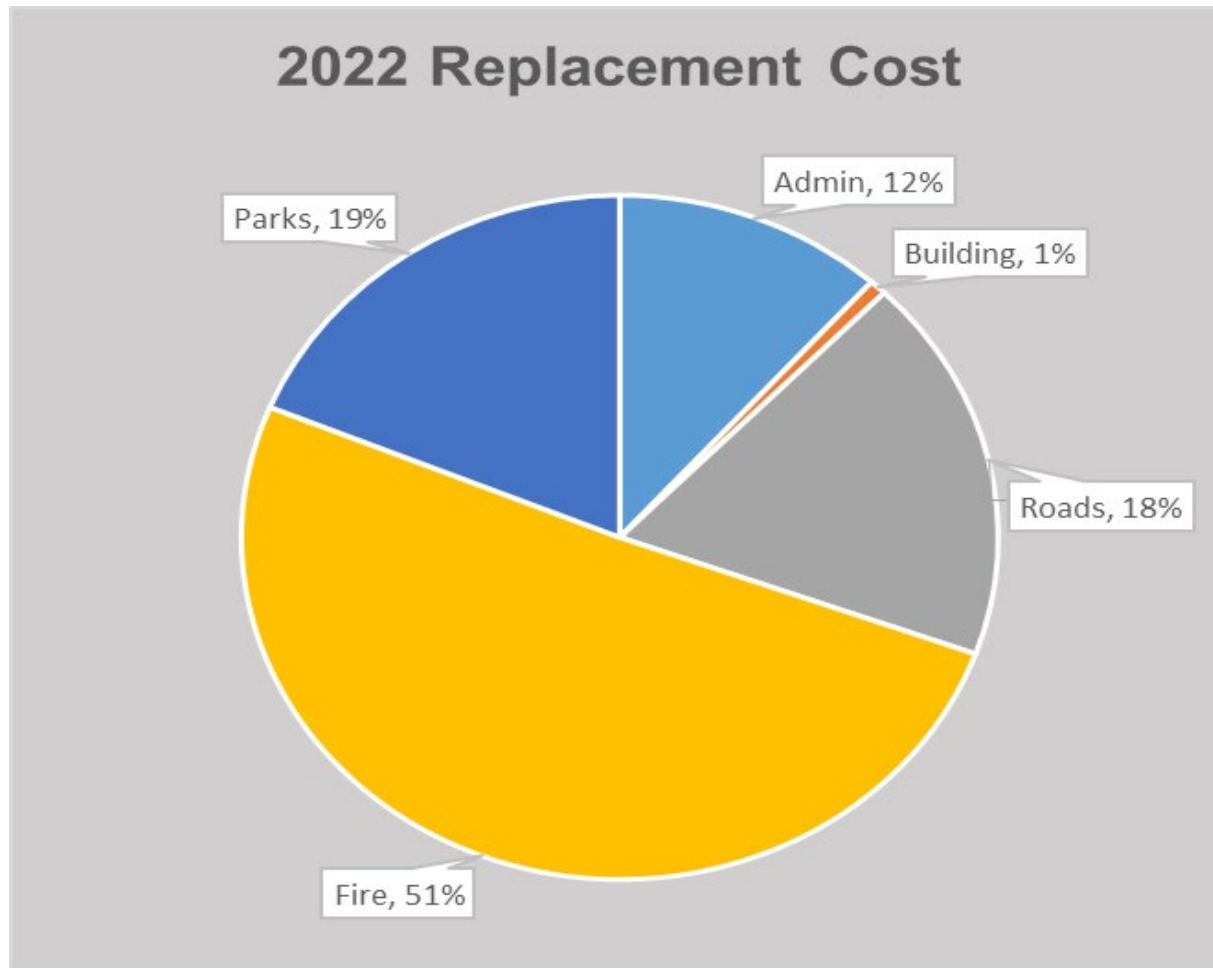
- Machinery, Equipment & Computers are valued at \$3.3M
- 47% Machinery, Equipment & Computers are in fair or better conditions
- The average annual capital requirement to sustain the current level of services for Machinery, Equipment & Computers is approximately \$0.4M

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

The table below illustrates key asset attributes for the Town of Erin Machinery, Equipment and Computer portfolio, including quantities by department, useful life, replacement cost, and the valuation method. In total, the Town's Machinery, Equipment and Computer assets are valued at \$3.330 million based on 2022 replacement costs. A detailed listing of the Town's Machinery, Equipment and Computers is found in Appendix B.

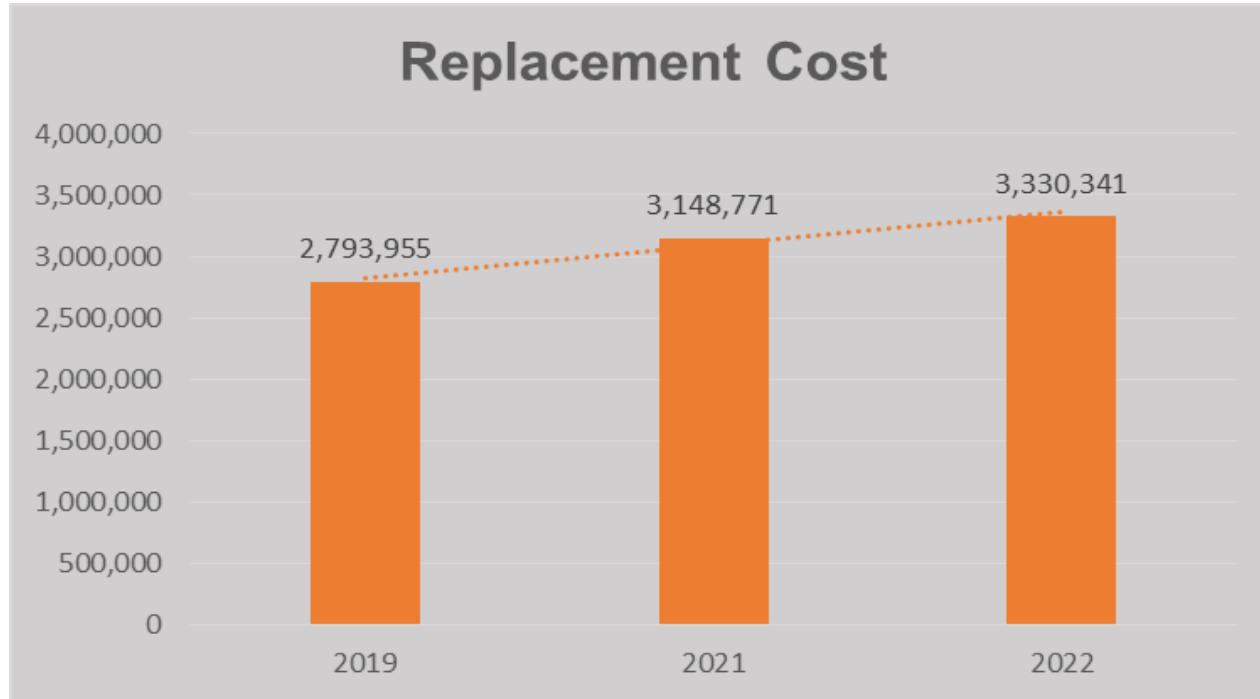
Component	QTY	Useful Life (years)	Valuation Method	Replacement Cost		
				2019	2021	2022
Admin Computer Software	1	5	CPI Monthly (ON)	44,642	45,128	47,683
Admin Computers & Equipment	15	5	CPI Monthly (ON)	316,595	320,037	338,162
Building Computer Software	1	5	CPI Monthly (ON)	21,768	22,004	23,250
Building Computers & Equipment	1	5	CPI Monthly (ON)	1,210	1,223	1,293
Fire Equipment	46	5,7,10,15,20	CPI Monthly (ON)	1,465,175	1,530,663	1,687,666
Parks Computer Software	1	2	CPI Monthly (ON)	0	26,964	28,491
Parks Equipment	16	10,15,20	CPI Monthly (ON)	554,352	800,931	597,158
Roads Equipment	3	10	CPI Monthly (ON)	38,358	38,775	223,033
Roads -Streetlights	788	20	CPI Monthly (ON)	351,855	363,046	383,605
			TOTAL	2,793,955	3,148,771	3,330,341

The majority of replacement cost for Town of Erin Machinery, Equipment and computers is in the Fire Department at 51% and Parks and Recreation at 19%, a total of 70%.



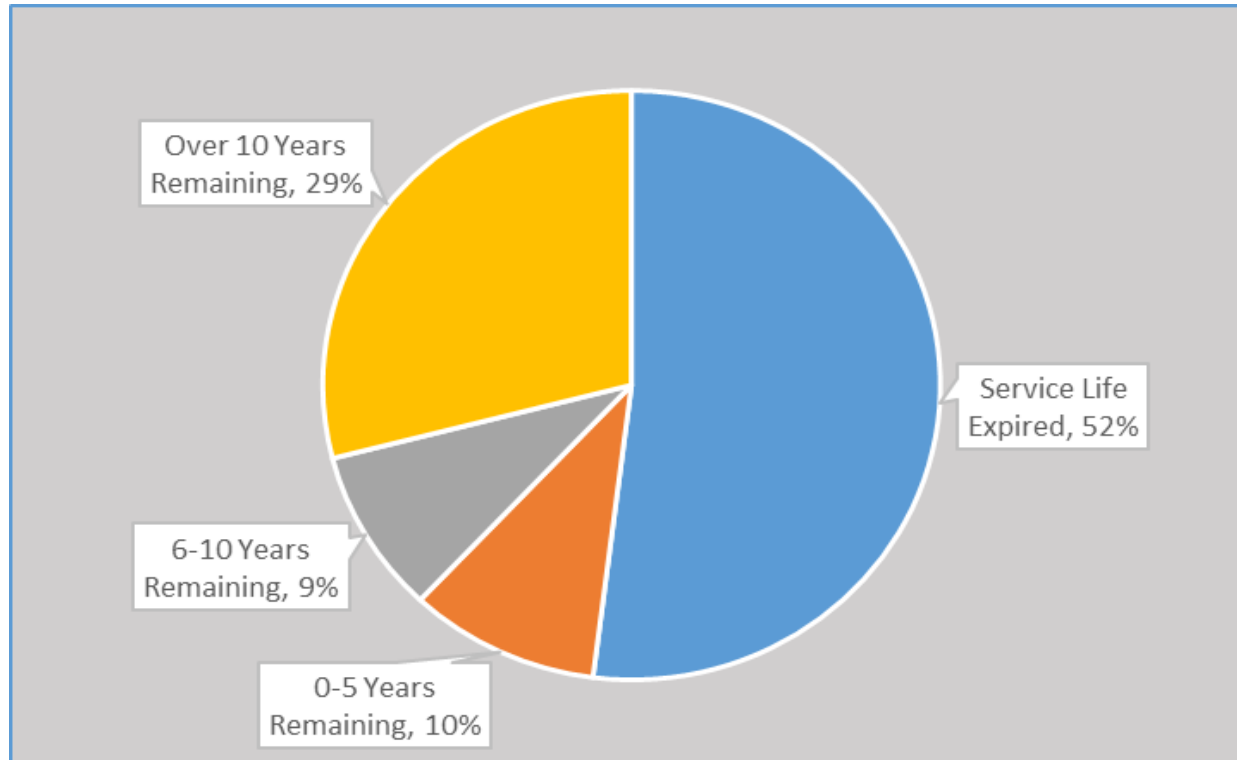
Replacement cost has increased by 5.8% in 2022 as compare to 12.7% in 2021. This is a combination of inflation and the addition of the following items in 2021 and 2022.

- 1) Parks – Clock, Shed, Gazebo Sound, Hydro Poles, Lighting – McMillan Park
- 2) Fire – Hose Cache
- 3) Fire – Gear Washer & Dryer, Signage
- 4) Water – Water Equipment to Extend the life of Equipment Well 8

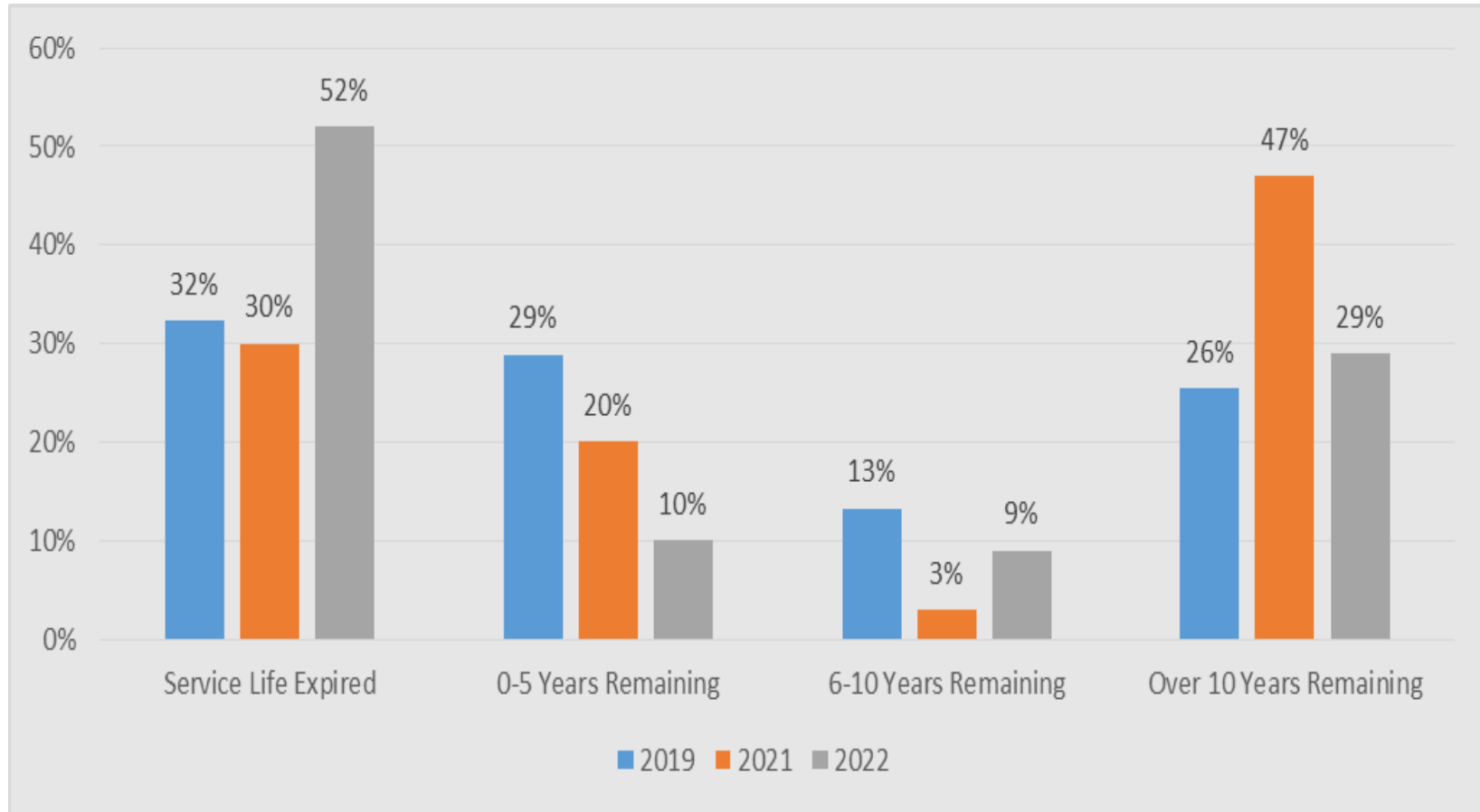


4.2 Useful Life Consumption

A review of the comparison consumption rates 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 2022 useful life consumption levels for the Town's Machinery, Equipment and Computers. Service life Expired decreased from 32% to 30% in 2021 and increased from 30% to 52% in 2022 majority is in Administration, Fire & Parks.

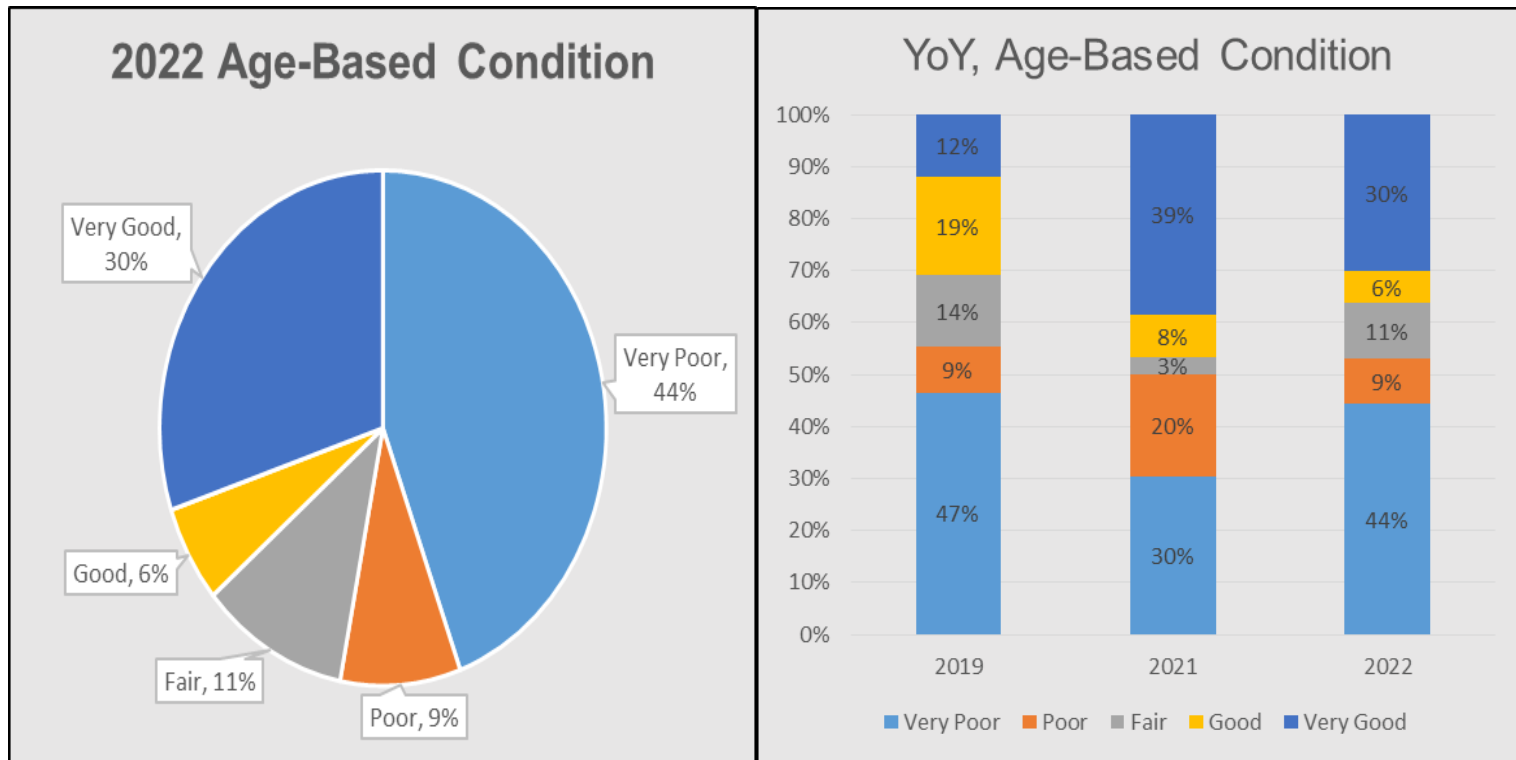


A comparison of service life remaining between the years 2019, 2021 and 2022 is below.



4.3 Asset Condition

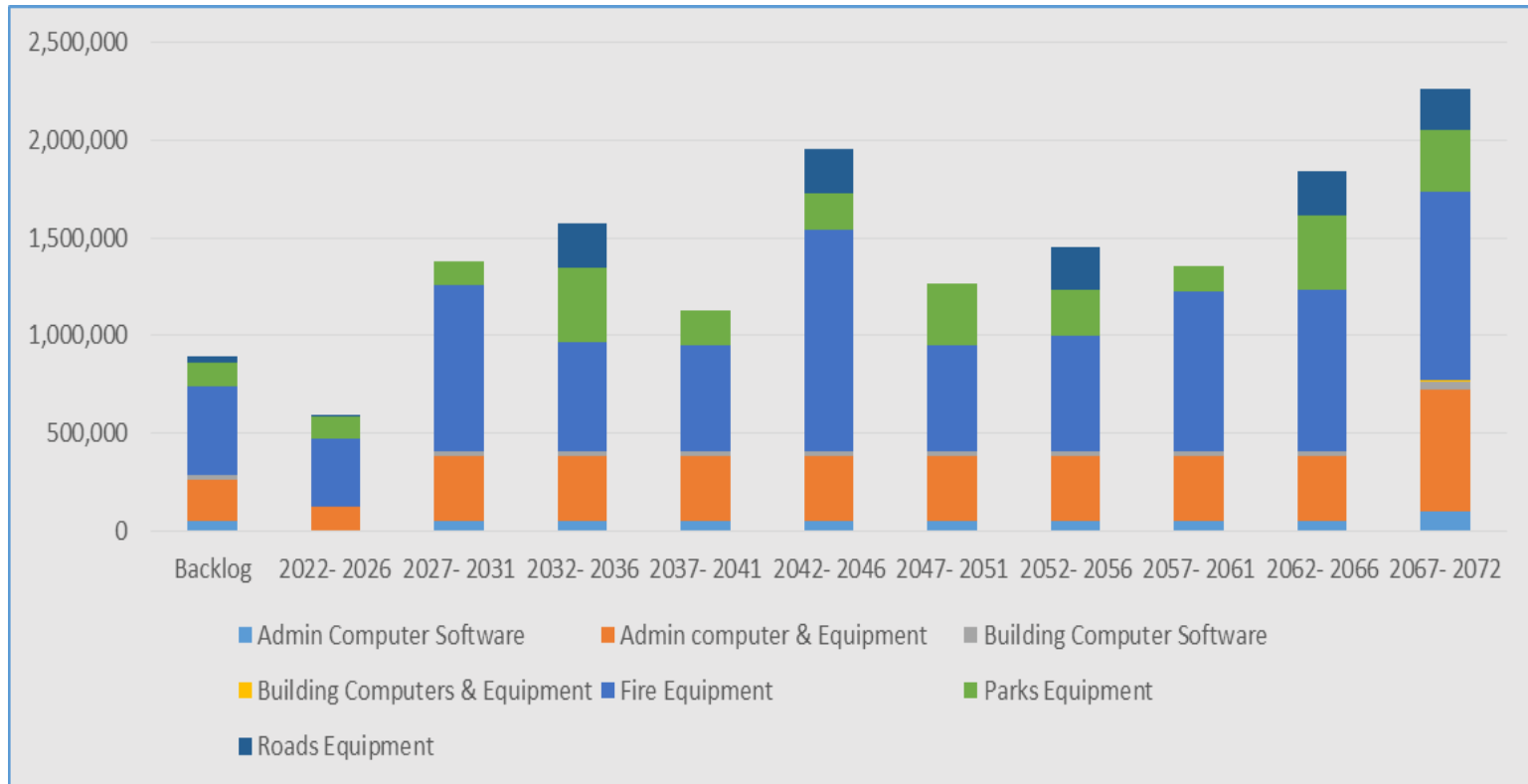
Using replacement cost, the condition of the Town's Machinery, Equipment & Computer assets are summarized by condition as of 2022. The town does not have a mechanism for tracking asset condition for machinery and equipment so age-based data (increased by CPI values) is used as a proxy.



The 2019 to 2022 comparison above shows an overall impact in 2022 with an increase in the 'Very Poor' category of 14% as assets getting older.

4.4 Forecasting Future Replacement Needs

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



4.5 Recommendations

The Town of Erin currently completes in-house inspection of all machinery and equipment assets. An annual staff inspection program should be implemented to better define financial requirements for machinery and equipment. The majority of the assets within this category are Fire equipment, then Parks and Recreation equipment, and the Administrative Equipment. Given the nature of assets included within this category, the costs associated with an outside inspection program would outweigh any potential benefits.

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

For the Town machinery, equipment and computer long term replacement needs, an annual Building reserve allocation of \$0.03M, and a Fire Capital Reserve allocation of \$0.50M (50% of \$0.10M for all Fire Capital) and Administrative annual reserve of \$0.015M. The \$0.095M along with other available funding in total represents 35% of average annual funding of the machinery, equipment and computer replacement cost of these assets.

BUILDINGS AND FACILITIES



5.0 Buildings and Facilities

Key Insights

- Buildings & Facilities are valued at \$26.5M
- 38% Buildings & Facilities are in fair or better conditions
- The average annual capital requirement to sustain the current level of services for Buildings & Facilities is approximately \$0.9M

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

The table below illustrates key asset attributes for the Town of Erin Building and Facilities portfolio. It has been developed to include values from previous Asset Management Plan's to allow for a year-over-year comparison and includes asset quantities, useful life and replacement cost. In total, the Town Building and Facilities are valued at \$26.5 million based on 2022 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		
					2019	2021	2022
Buildings & Facilities	Admin Building	1	40	CPI Monthly (ON)	1,409,043	1,424,360	1,505,021
	Fire Building	2	20, 40	CPI Monthly (ON)	3,499,751	3,545,403	3,746,183
	Parks Building	7	20, 40	CPI Monthly (ON)	18,445,904	18,638,756	19,630,438
	Roads Building	4	20, 40	CPI Monthly (ON)	1,531,912	1,551,935	1,639,769
TOTAL					24,886,610	25,160,454	26,521,411

Note: Quantity refers to the total number of buildings recognized in the Town's Asset Management Software and in the Pinchin Building Condition Assessment.

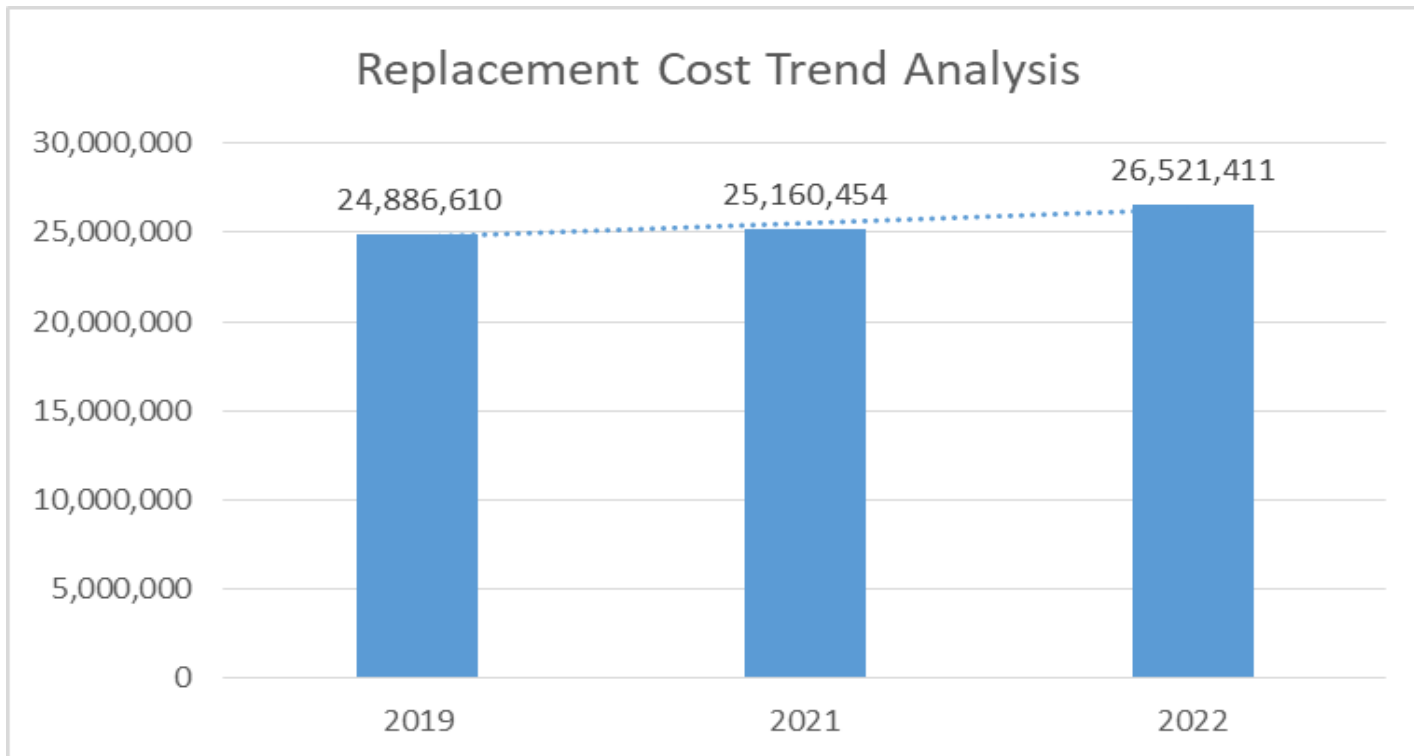
Details of each building can be found in Appendix C while a financial overview of each facility is below.

Facility	Cost	Accumulated Amortization	Net Book Value	Replacement Cost	Number of Components
Erin Community Centre	5,087,835	3,253,911	1,833,925	13,592,105	9
Hillsburgh Community Centre	1,509,881	1,349,547	160,335	4,903,795	12
Ballinafad Community Centre	214,128	196,554	17,574	661,485	3
Parks Buildings	269,111	135,309	133,802	473,053	4
Roads Shop	898,823	588,513	310,311	1,639,769	6
Municipal Office	1,115,560	442,849	672,711	1,505,021	5
Hillsburgh Fire Station	2,538,108	575,605	1,962,503	3,033,688	2
Erin Fire Station	298,882	273,455	25,427	712,495	2
TOTALS	11,932,330	6,815,743	5,116,587	26,521,411	43

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



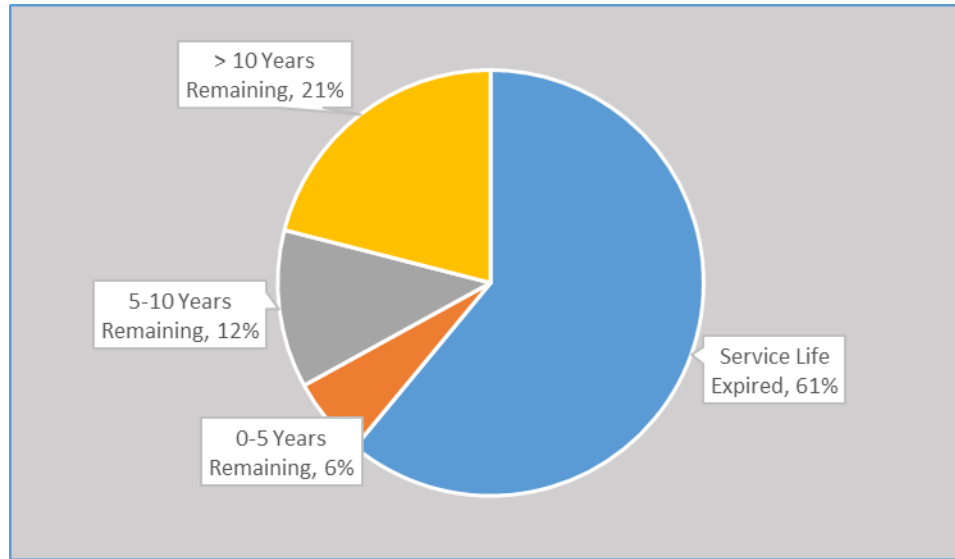
Replacement cost has risen 1.1% from 2019 to 2021 and 5.4% from 2021 to 2022. This is a combination of inflationary increases and the addition of building components (2022 is listed above).



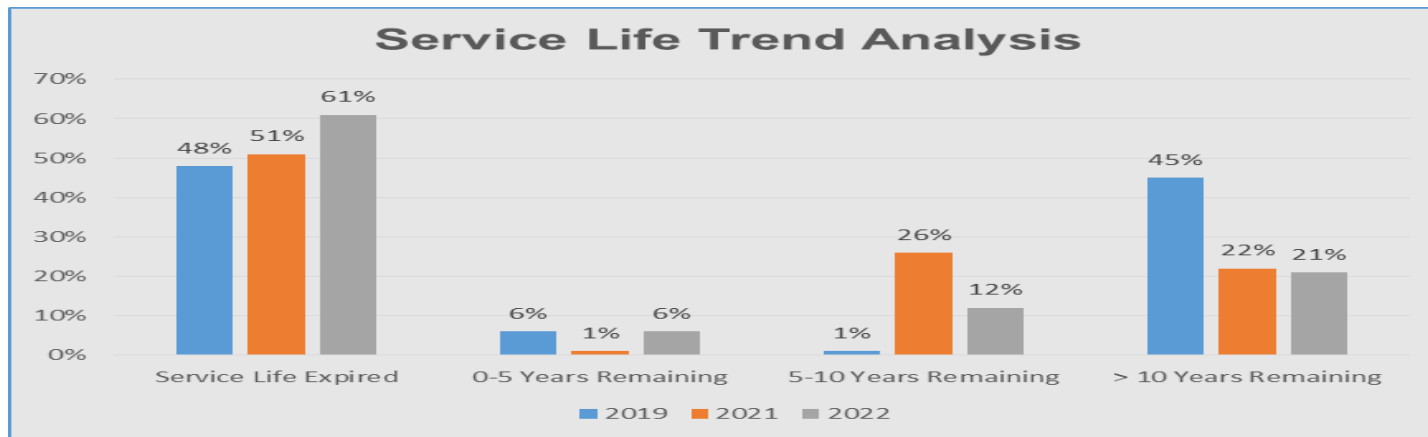
From the 2020 Budget, \$2.4 Million in renovations over 3 years was planned for the Erin Community Centre, with funding from grants, Erin Community Centre Reserves and Cash-in-lieu of Parkland. Also, \$126 Thousand in renovations was planned for the Hillsburgh Community Centre which will be funded from the Canadian Community Building Fund. Due to COVID restrictions, the majority of these renovations have been delayed and pushed forward to the year 2023.

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 2022 for the Town's Building and Facilities.

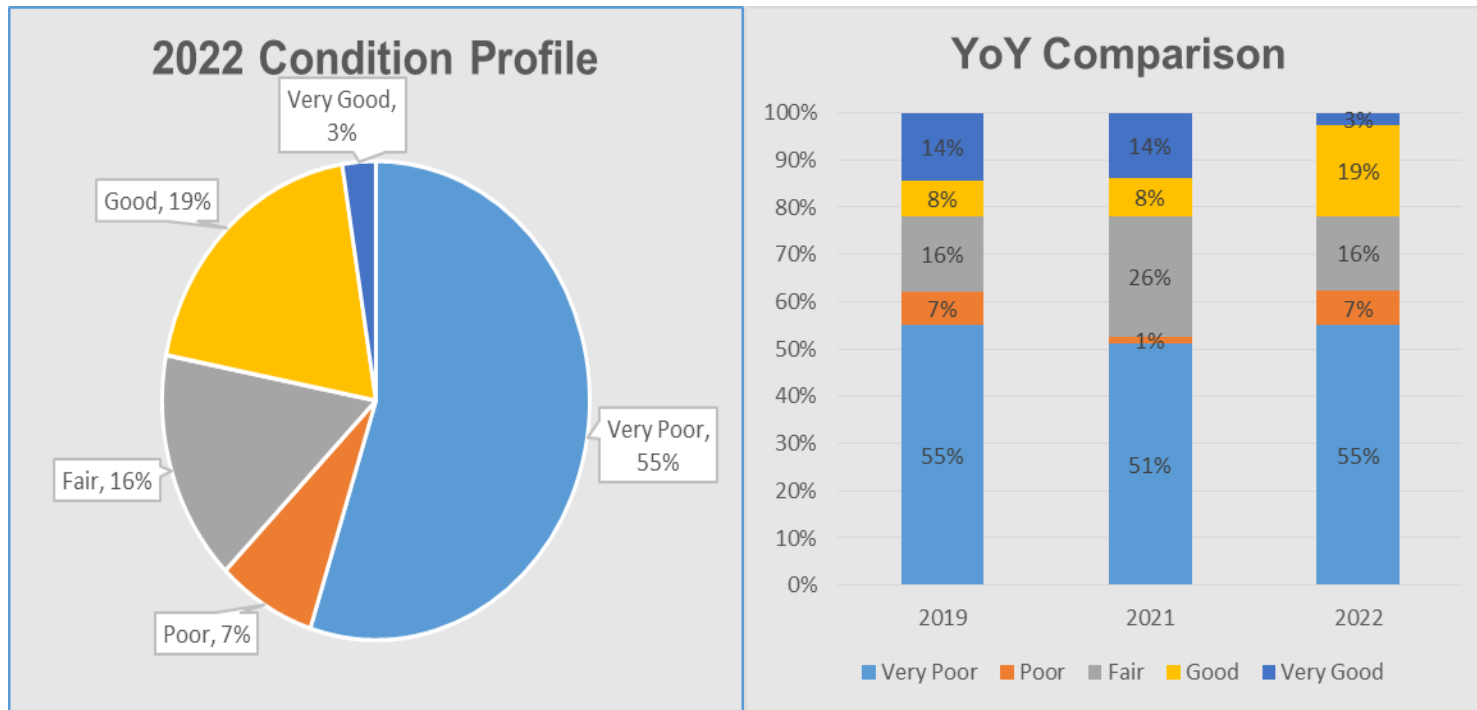


Service life Expired has increased 10% from 2021 to 2022, while service life greater than 10 years has decreased by 1%. These statistics showing this trend due to projects that were delayed, due to COVID response will now be moving ahead with planning and construction. A comparison of service life remaining between 2019 and 2022 is below.



5.3 Asset Condition

Using replacement cost, in this section, the condition of the Town's Building and Facilities are summarized as of 2022. Asset condition has shifted slightly in positive direction with a lower percentage in the 'Very Poor' category. The main take away from the charts below is the increase in 'good' condition over the 5 years and the need to maintain these assets and assets in 'fair' category, so that they do not fall into the 'Poor' and 'Very Poor' category.



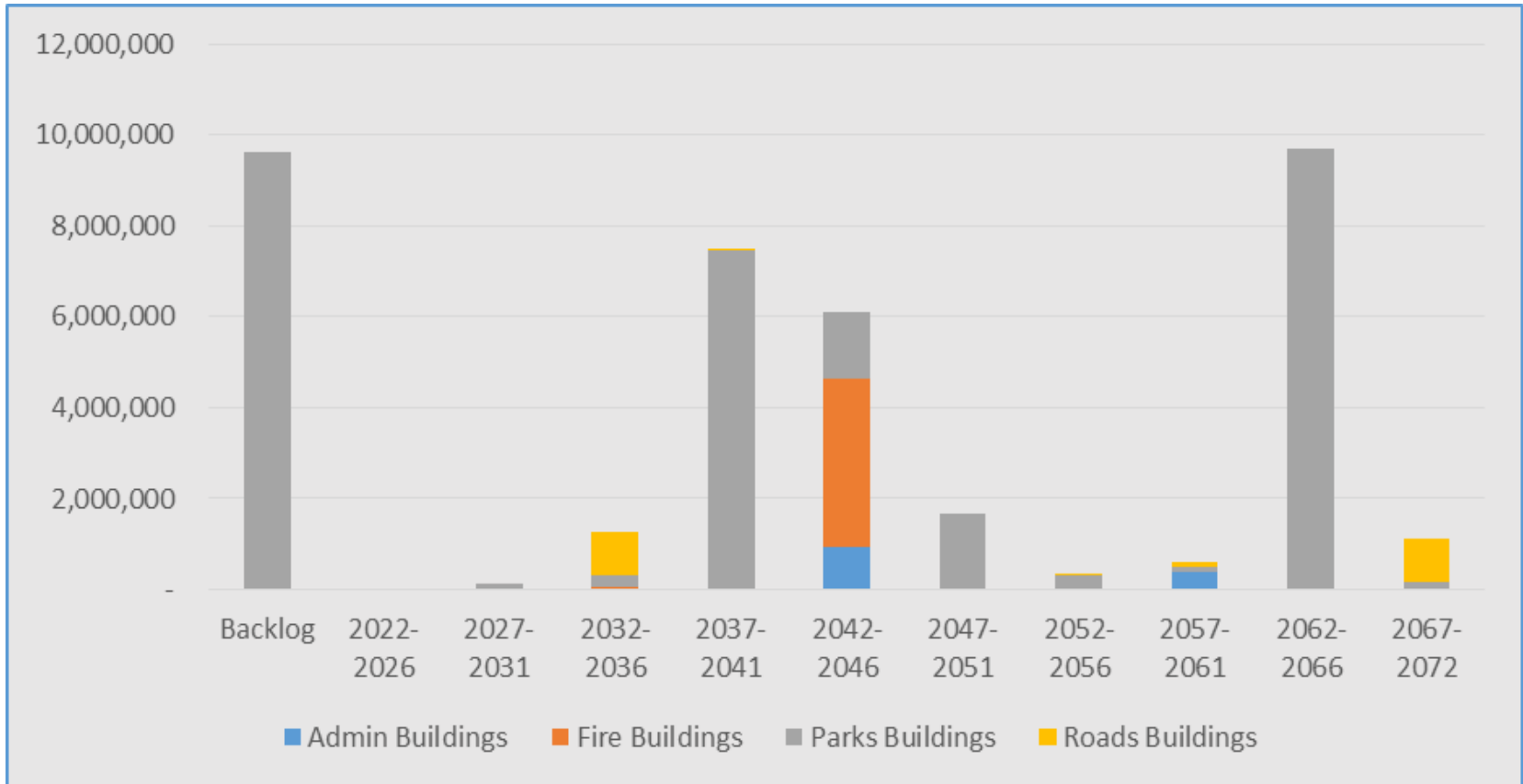
Additionally, Building condition Assessments (BCA) were performed on the following Town of Erin Buildings during 2019 by Pinchin Engineering: Ballinafad Community Centre, Hillsburgh Community Centre, Erin Community Centre, Victoria, Barbour Field and McMillan Parks, Erin and Hillsburgh Fire Stations and the Municipal Office. The Roads Shop BCA was completed by Pinchin Engineering in 2021.

During the assessment a visual inspection of building element was conducted with all common and service room reviewed and an inspection of the exterior was completed. A summary of the components by condition assigned is below from the 2021 Pinchin report.

Condition Assessment	Erin Community Centre	Hillsburgh Community Centre	Ballinafad Community Centre	Parks Buildings	Roads Shop	Municipal Office	Hillsburgh Fire Station	Erin Fire Station
Very Poor	5	3	1	1	0	0	0	0
Poor	3	4	0	2	5	1	0	4
Fair	8	9	7	9	10	5	0	5
Good	9	3	9	7	5	6	4	11
Very Good	5	5	14	48	7	19	26	9

5.4 Forecasting Future Replacement Needs

In this section, the short, medium and long-term infrastructure spending requirements (replacement only) for the Town's Building and Facilities assets are illustrated. The backlog is the aggregate investment in infrastructure that was deferred over previous years. 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 above is summarized in the table below and compared against recommendations from Building Condition Assessments (BCAs):

Building	City Wide (Age-Based)			BCA 10 year
	2022-2026	2027-2031	10 Year Total	
Erin Community Centre	8,537,855	14,077	8,551,932	1,983,190
Hillsburgh Community Centre	798,831	87,746	886,577	1,027,400
Ballinafad Community Centre	334,724	15,691	350,415	203,500
Parks buildings		18,312	18,312	563,310
Roads Shop			-	125,950
Municipal Building			-	290,565
Hillsburgh Fire Hall			-	174,350
Erin Fire Hall			-	352,330
TOTAL	9,671,410	135,826	9,807,236	4,720,595

5.5 Recommendations

The information from the Building Condition Assessments (BCA) done for 10 facilities in 2019 and the Roads Shop in 2021, included component information that has been incorporated into the Town of Erin capital software and will be updated as recommended improvements are completed.

This information has been incorporated into the 2023 budget and 2024-2027 Forecast and developed a risk management framework that prioritizes the repairs and replacements required to extend component life and maintain functionality.

Lifecycle activity framework were completed from the BCA studies and will continue to be updated in the Town of Erin capital software.

Assessment of short, medium and long-term capital, operations and maintenance needs have been prioritized from the information obtained in the BCA.

Key performance indicators continue to be developed for assets and tracked annually.

The Town is currently funding 15% of its average annual requirement for its building and facilities.

ROAD NETWORK



6.0 Road Network

Key Insights

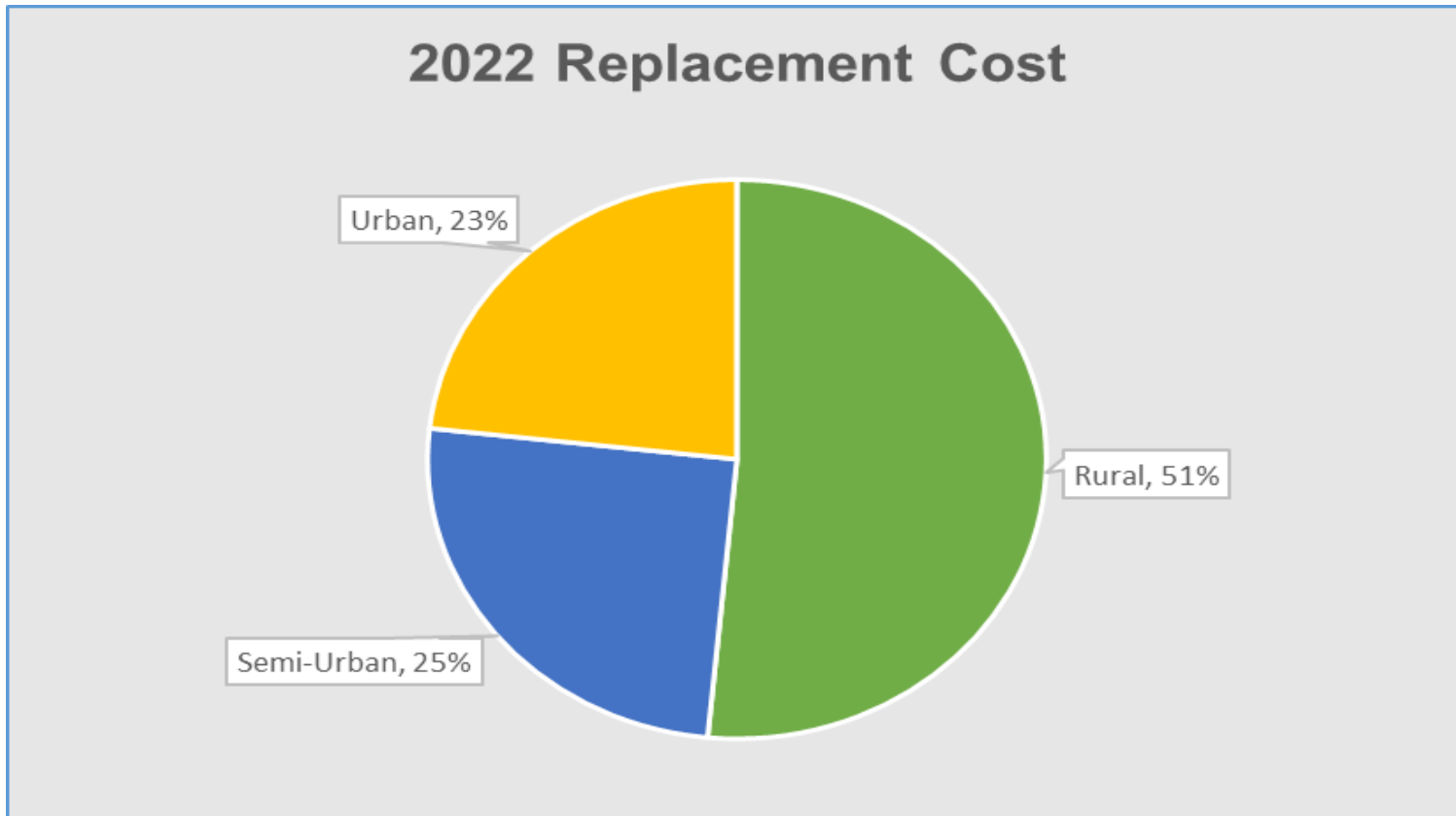
- Roads Network are valued at \$78.2M
- 97% Roads Network are in fair or better condition as per 2021 Roads Needs Study
- The average annual capital requirement to sustain the current level of services for Roads Network is approximately \$3.4M

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

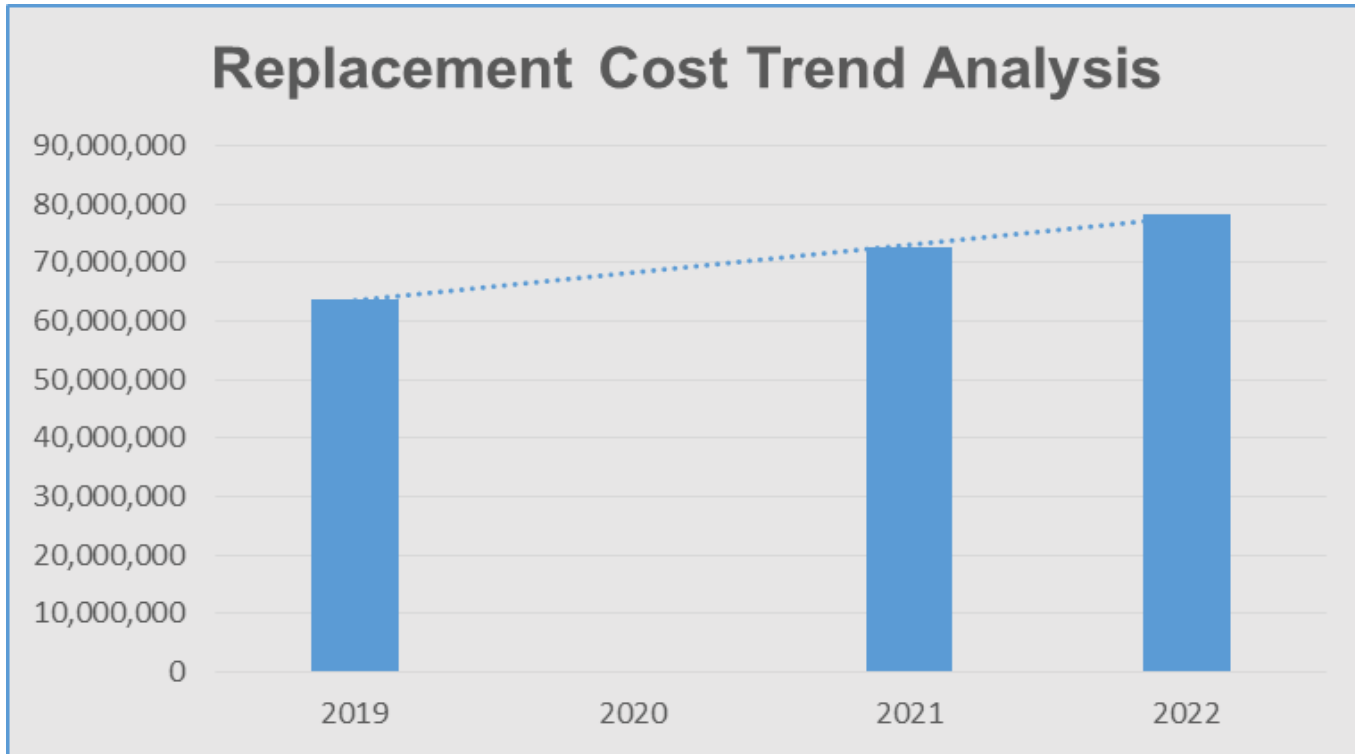
The table below illustrates key asset attributes for the town's Road Network portfolio, including quantities of various assets, their useful life, replacement cost, and valuation method. In total, the Town's Road assets are valued at \$78.2 million based on 2022 replacement costs. Useful life indicated for each asset type was assigned from the Capital Asset Policy.

Component	QTY	Useful Life (years)	Valuation Method	Replacement Cost		
				2019	2021	2022
Road Base - Asphalt - R	36km	40	NRBCPI Quarterly	16,198,417	18,421,489	19,789,260
Road Base - Asphalt - S	23km	40	NRBCPI Quarterly	9,643,751	10,868,702	11,657,754
Road Base - Asphalt - U	10km	40	NRBCPI Quarterly	11,285,271	12,848,953	13,906,918
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	33km	40	NRBCPI Quarterly	8,925,195	10,324,646	11,101,933
Road Base - Surface Treatment -S	2km	40	NRBCPI Quarterly	658,963	734,723	786,605
Road Surface - Asphalt - R	30km	20	NRBCPI Quarterly	7,669,683	8,732,389	9,403,034
Road Surface - Asphalt - S	23km	20	NRBCPI Quarterly	5,741,337	6,636,873	7,141,117
Road Surface - Asphalt - U	11km	20	NRBCPI Quarterly	3,608,116	4,108,052	4,413,940
			TOTAL	63,730,733	72,675,827	78,200,561

The majority of Town of Erin replacement cost is comprised of rural roads.

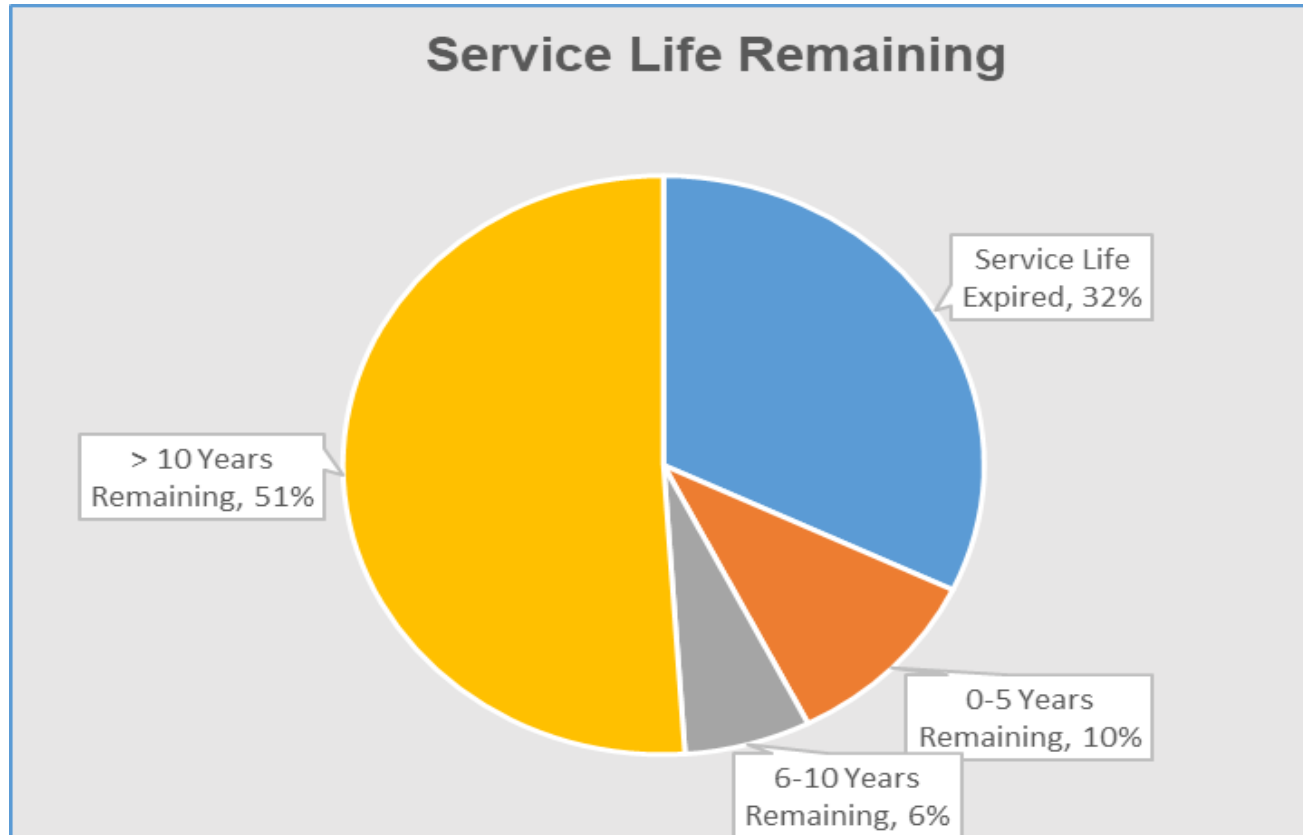


Replacement cost has risen 7.60% from 2021 to 2022. This is a combination of inflationary increases and the addition of the following road-related components that totaled a net addition of \$ 160,865.00 Asphalt on various urban roads.

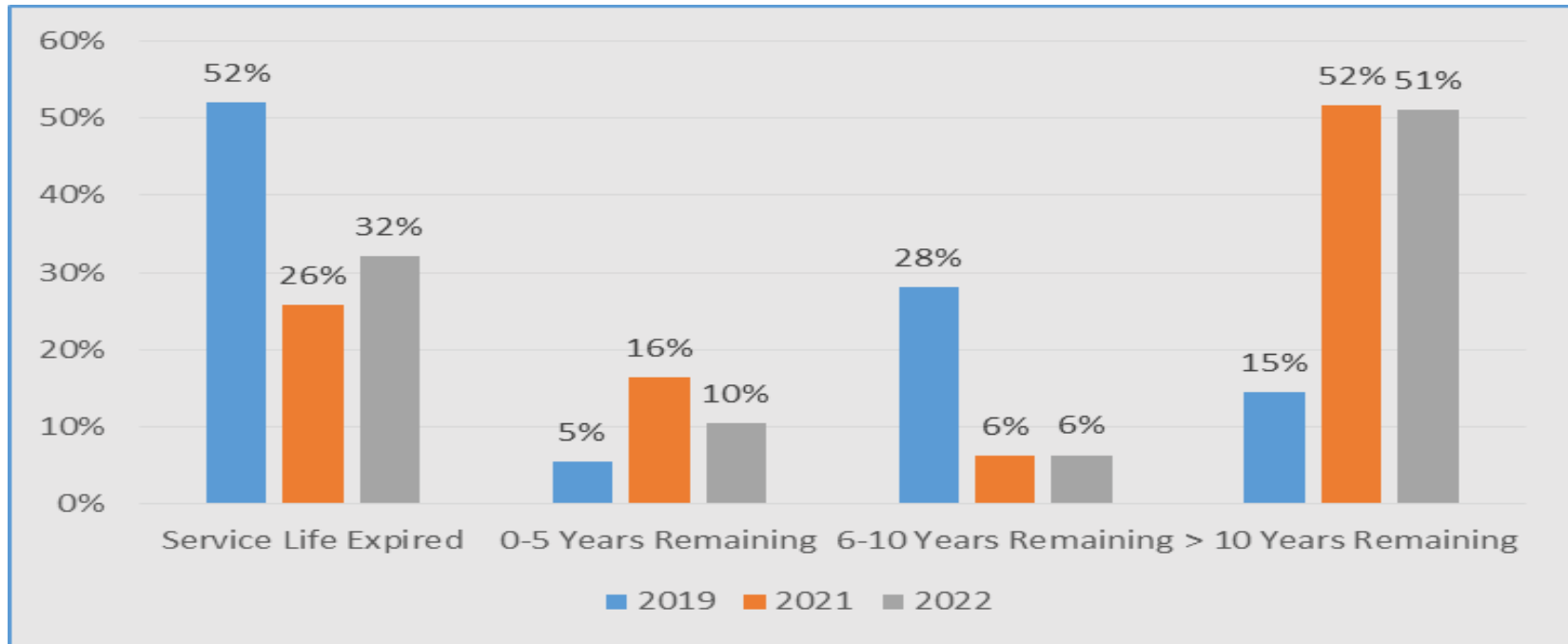


6.2 Useful life Consumption

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 2022 for the Town's Road Network based on Replacement Values.



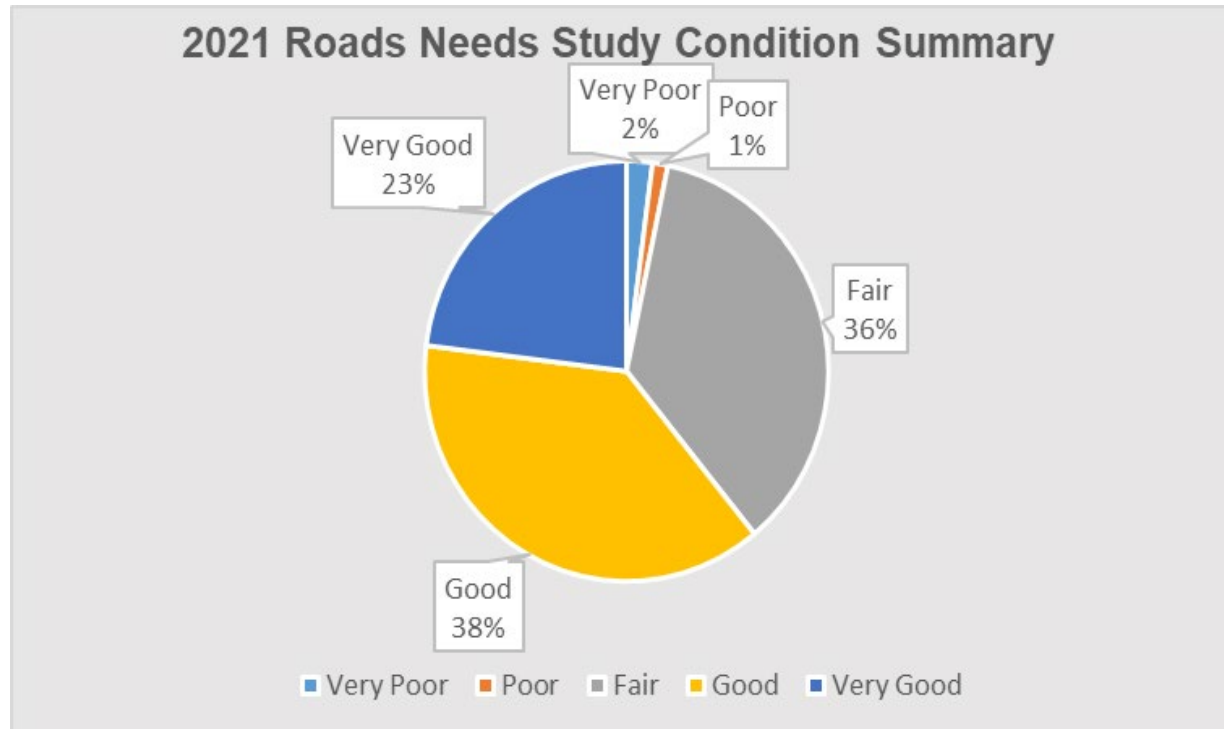
A comparison of service life remaining from 2019 to 2022 is below. Service life Expired has increased to 32% in 2022 versus 26% in 2021 and Greater than 10 years remaining decreased to 51% in 2022 versus 52% in 2021. The favorable result, attributable to maintenance and the replacement of the assets.



6.3 Asset Condition

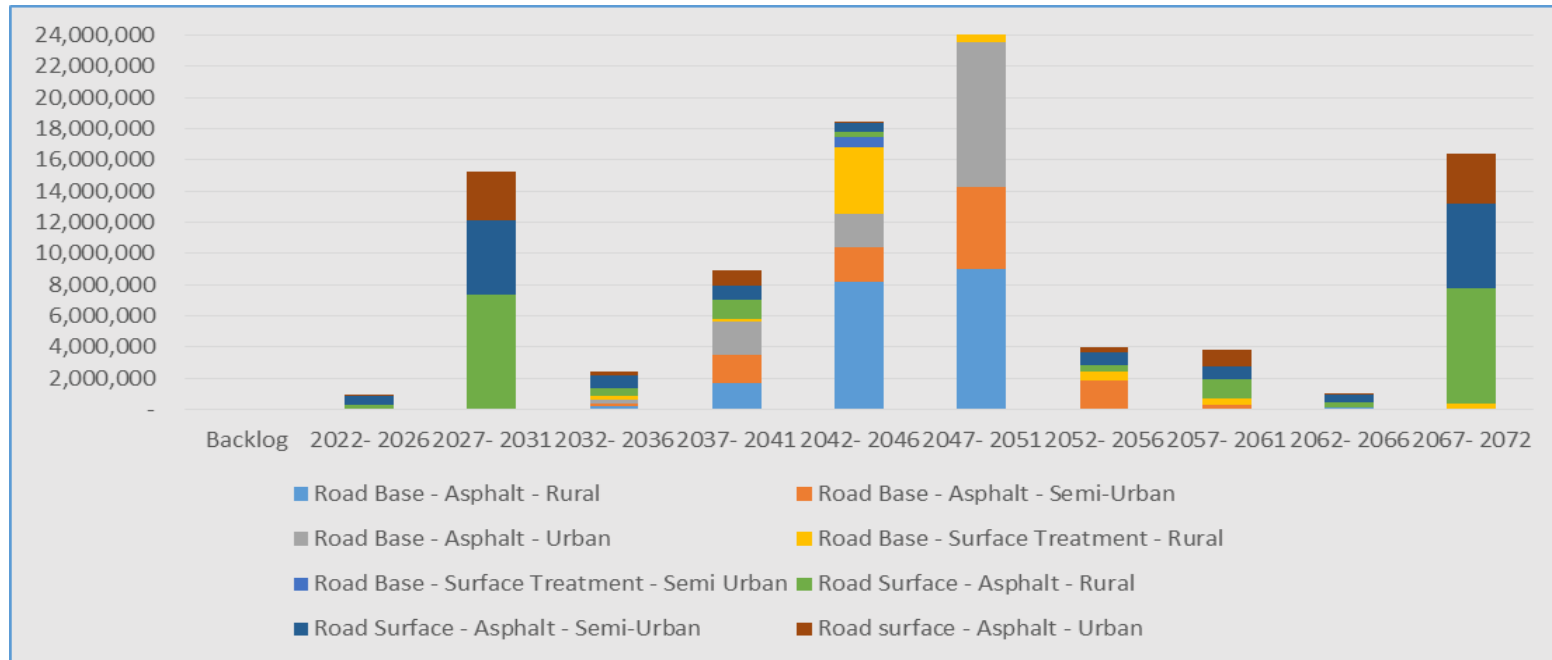
The Roads Needs Study was completed in 2021. Asset condition has been categorized based on 6 factors totaling 100% with a resulting condition index for each road section. The scoring system is as follows:

Surface Condition	10
Surface Width	25
Level of Service	20
Structural Adequacy	20
Drainage	15
Maintenance Demand	10
TOTAL	100



6.4 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 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.



6.5 Recommendations

2022 Age based Data as well as previous years indicates no backlog. Ten year replacement needs have increased to \$16.13 M. Information from the 2021 Roads Needs Study should be updated in 'Citywide' software and has already been incorporated into 'Streetscape' Software. This new data will assist the Town in pinpointing Roads that require maintenance, rehabilitation or replacement.

Condition assessment data from the 2021 Roads Needs Study will be integrated into the 2022 Operations Plan as prioritization guidance for short, medium and long term replacements needs. In addition, The 2021 Roads Needs Study will establish priorities for capital improvements, based on the scoring method that included a breakdown of Surface Condition, Surface Width, Level of Service, Structure Adequacy, Drainage and Maintenance Demand. Key performance indicators from the Study included traffic counts, and tracking of maintenance requirements such as crack sealing, patching and winter maintenance that also included community consultation. Using the Total Long Term requirements from the Road Needs Study, The town is currently funding 45% of its average annual requirements for the road network.

BRIDGES AND
CULVERTS



7.0 Bridges and Culverts

Key Insights

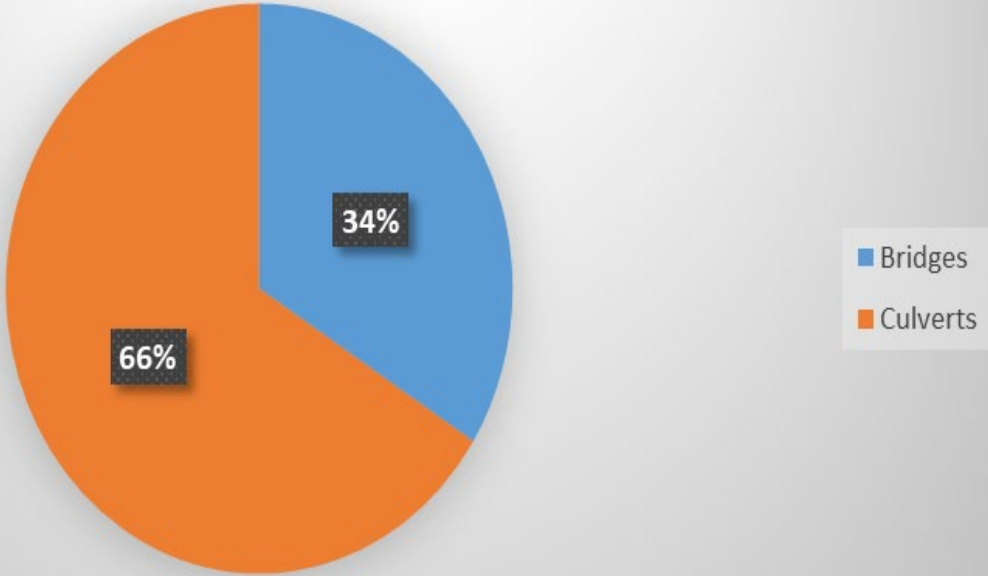
- Bridges and Culverts are valued at \$43.9M
- 80% Bridges and Culverts are in fair or better condition
- The average annual capital requirement to sustain the current level of services for Bridges and Culverts is approximately \$0.9M

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

The table below illustrates key asset attributes for the Town of Erin Bridge and Culvert portfolio. All values are from the OSIM Bridge Inspection Reports, completed every two years as per Ontario regulation 104/97.

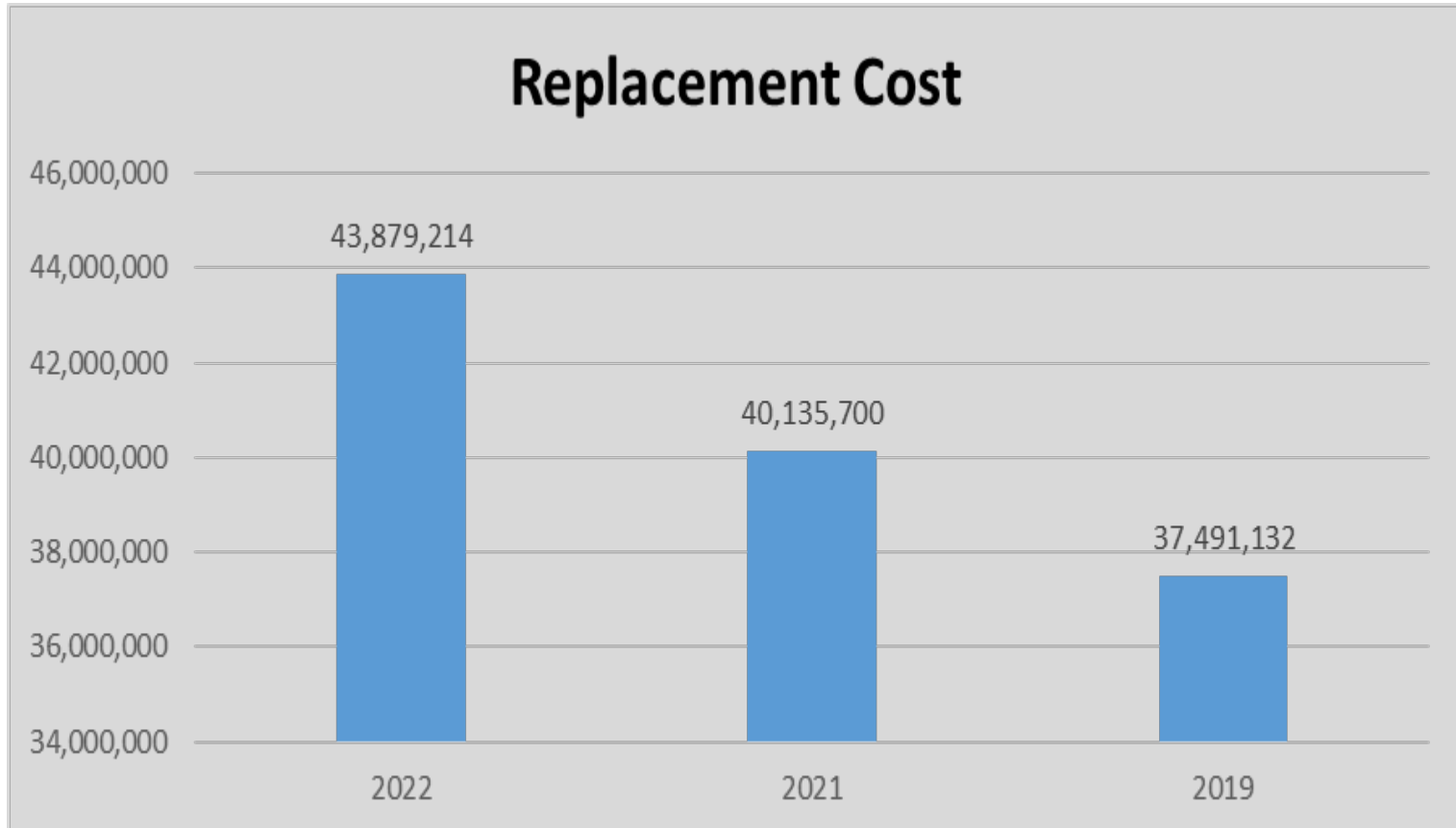
Component	QTY	Useful Life (Average 2021)	Valuation		2022 Replacement Cost	2021 Replacement Cost	2019 Replacement Cost
Bridges	11	17.34	OSIM Report		15,225,626	13,293,500	11,800,302
Culverts	36	15.61	OSIM Report		28,653,588	26,842,200	25,690,830
TOTAL	47				43,879,214	40,135,700	37,491,132

2022 Bridges & Culvert Replacement Cost



Replacement cost has risen 9.3% from 2021 to 2022. This is a due to inflationary increases.

The figure below shows the upward trend in cost of Replacement from 2019 to 2022.

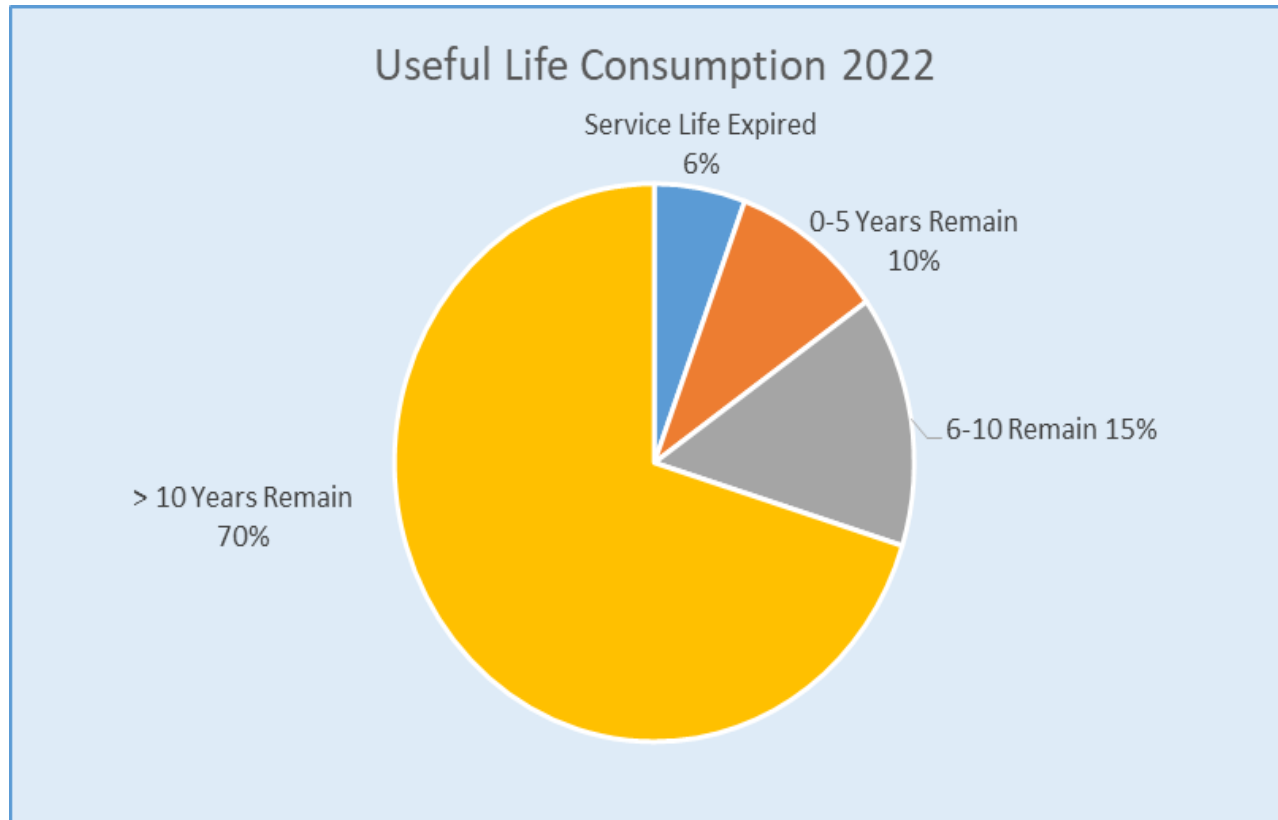


The 9.3% increase in Replacement costs from 2021 to 2022 of all the bridges and culverts in the Town of Erin is primarily due to inflation. This is expected to rise again due to increasing inflationary pressures.

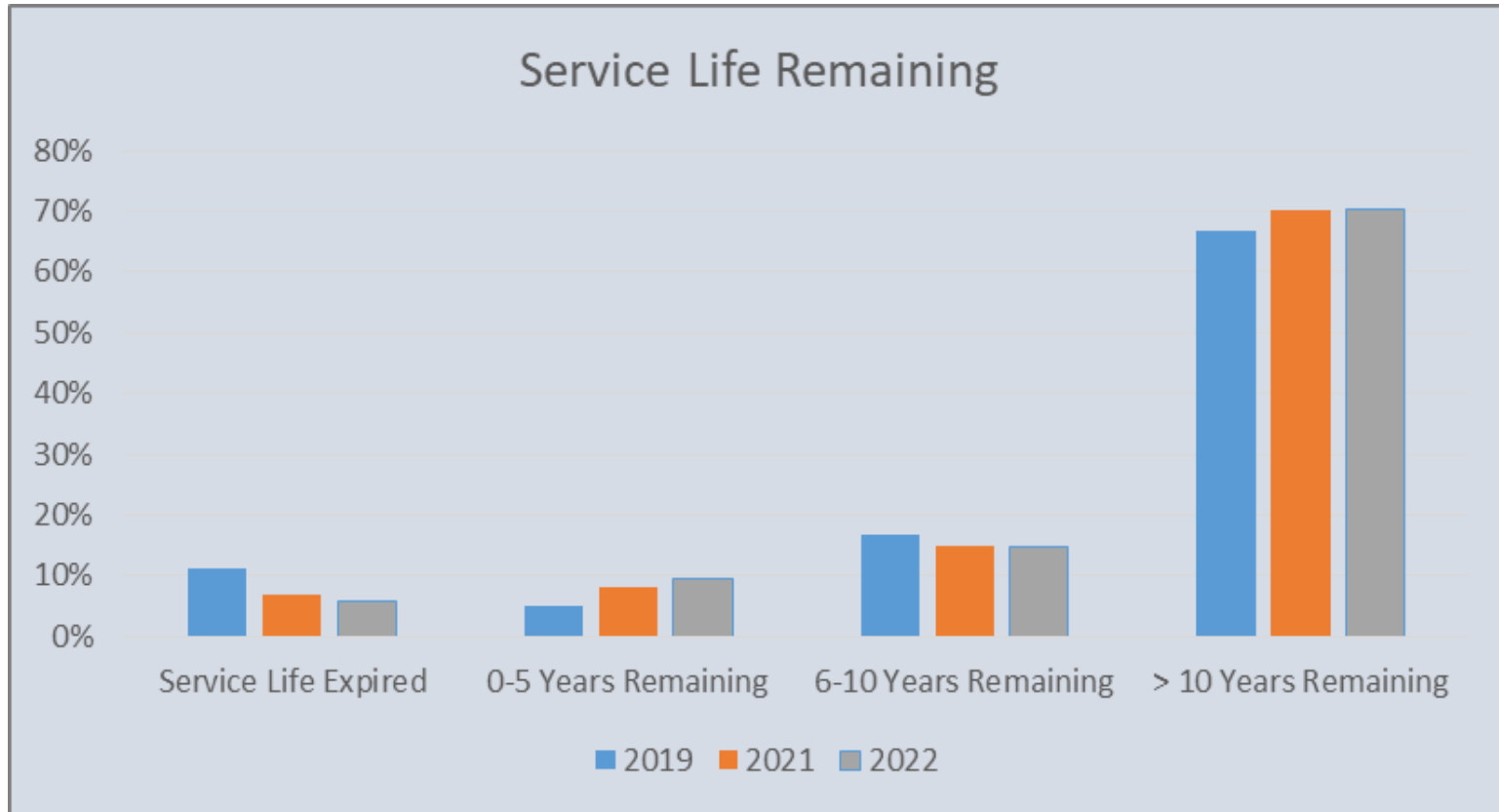
The increase of 7.1% from 2019 to 2021 is the result of inflation as well as several culverts not included in the earlier report.

7.2 Useful Life Consumption

A comparison of useful life consumption from 2021 to 2022 gives a more complete profile of the state of the communities' infrastructure. Service life expired has no change and Bridges and Culverts service life expired have decreased by 1%. This improvement overall can be attributed to the completed capital projects Bridge 11 and the completion of Culvert 2059.



A comparison of useful life remaining from 2021 to 2022 in the chart below gives a clear example of the Town of Erin's proactive approach to replacing bridges and culverts.

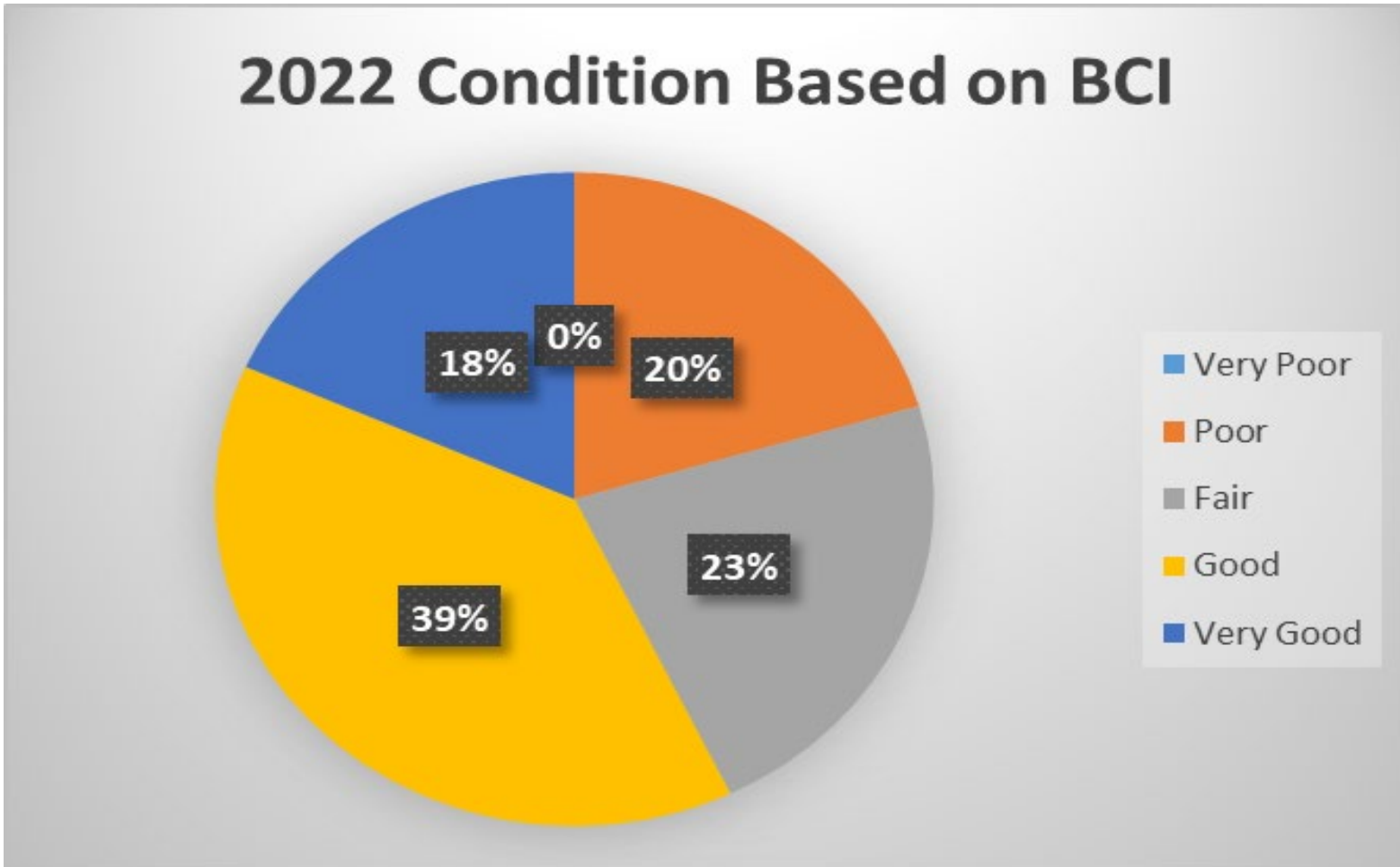


7.3 Asset Condition

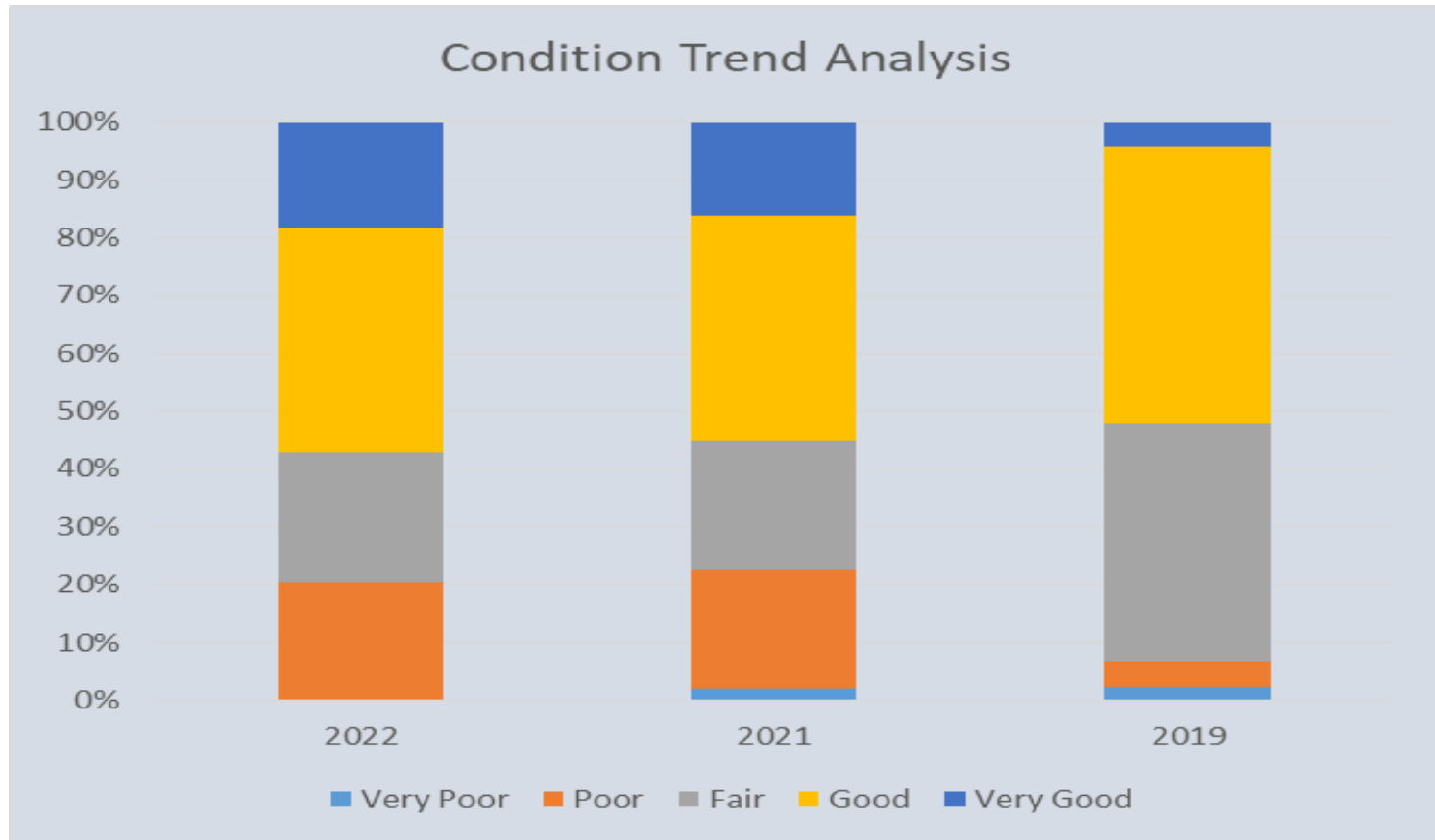
The Town of Erin's Bridge and Culvert Infrastructure is inspected bi-annually using the Ontario Structure inspection Manual (OSIM) format. All structures in excess of 3 meters are mandated to be included in the Town's Inspection Inventory. Therefore, the condition date outlined in this section is based on the observed data from the 2021 OSIM inspections. Where a structure is shared with an adjoining municipality, data from their OSIM report has been included.

Condition Scale: Roads/Bridges		
Scale	Definition	BCI
Very Good (5)	The asset is in very good condition, typically new or recently rehabilitated. Maintenance needs should be minimal until the next assessment of the asset.	> 90
Good (4)	The asset is physically sound and is in good condition, with some elements showing general signs of wear that require attention. Maintenance is minimal, and costs associated with maintenance activities fit within the departmental operating budget. Typically the asset has been used for some time but is still within early to mid-state of its expected life.	70 - 90
Fair (3)	The asset shows general signs of deterioration, and is performing at a lower level than originally intended. Some components of the asset are becoming physically deficient and component replacement may be necessary. Maintenance requirements and cost are increasing. The asset is in need of either minor capital repairs, or additional maintenance.	50 - 70
Poor (2)	The asset is approaching the end of its useful life, and exhibits significant deterioration. Major repairs are required, with significant capital investment.	40 - 50
Very Poor (1)	The asset is in unacceptable condition with widespread signs of advanced deterioration, and has a high probability of failure. Maintenance costs are unacceptable and rehabilitation is not cost-effective. The asset is in need of major replacement or refurbishment.	< 40

The Bridge Condition Index (BCI) for 2021 has the majority of the Bridges and Culverts in the Good range at 57%. The Very Poor Range of 0% indicates that these structures should be replaced.

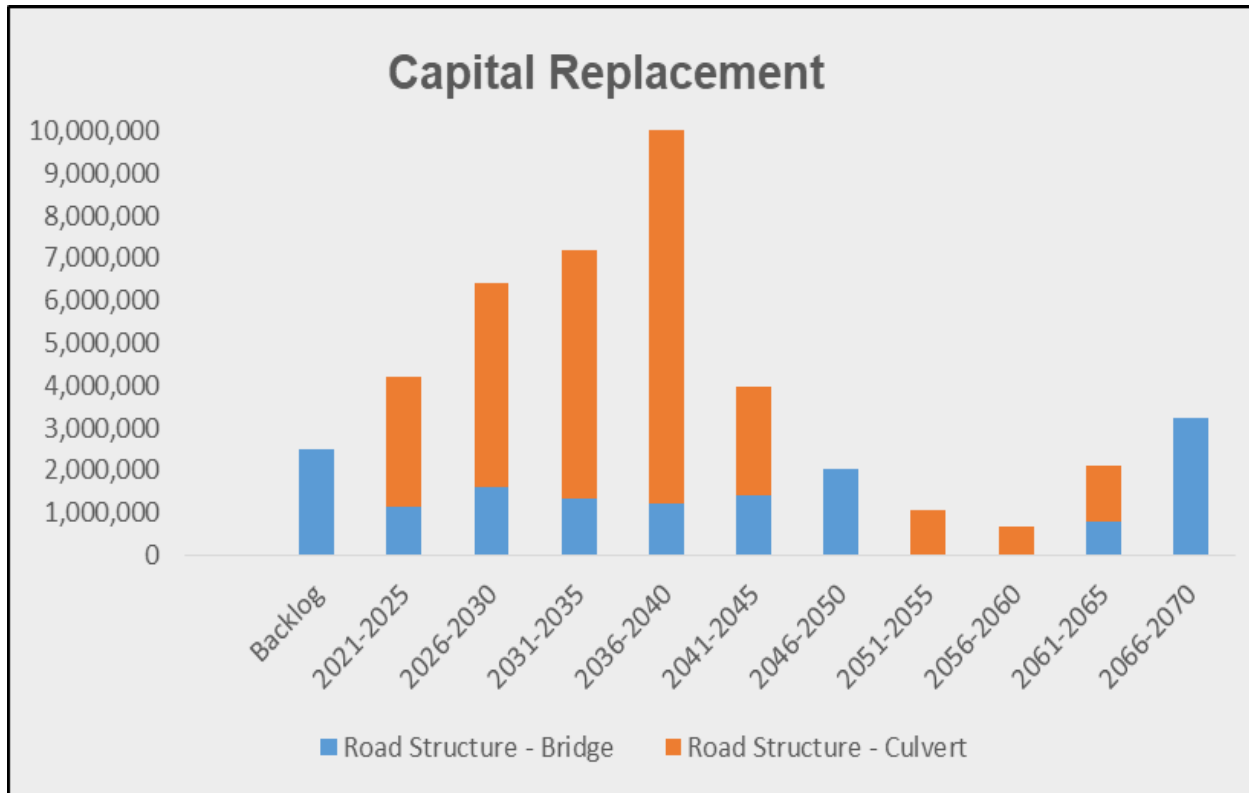


The average Bridge Condition Index (BCI) for 2022 is 71.20, an improvement of 1.25 over the years 2022 and 2021. The comparison of the condition trend below shows the greatest increase in the 2022 'Very Good' Category.



7.4 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 in the below chart. The backlog is the aggregate investment in infrastructure that was deferred over previous years and represents the value of assets that remain in operation beyond their useful life. The 2021 OSIM report recommends replacements including 2021 and beyond. The recommendations are to clear backlog with the majority of replacements planned over the next 25 years.



The replacement needs visualized in the chart above are based on the 2021 OSIM inspections. This chart assumes full structure replacement based on the 2021 OSIM report values. The OSIM inspections often recommend major or minor rehabilitation along with ongoing maintenance, to create a buffer or postponement of complete structure replacement. Out of the 47 Bridges and Culverts listed in the report, a total of 11 were recommended for Rehabilitation and 6 were recommended to be completed within one year at an estimated cost of 1.68 Million (Appendix D).

7.5 Recommendations

The information from the 2021 OSIM inspection report has been incorporated into the 2021 Asset Management Plan and integrated into the development of the 2021 Capital budget and 2022-2025 Capital Forecast. OSIM inspections will continue to be performed by-annually as required by Province of Ontario Regulation 104/97 with the next one scheduled in 2023.

Key Performance Indicators have been assessed under the direction of a Professional Engineer that identify any material defects, maintenance needs, additional studies and/or repairs/rehabilitation work required on a structure by structure basis, and included in the 2021 OSIM report.

The updated Financial Profile for Bridges and Culverts indicates that the Town's average annual investment is 50% for its long term funding requirements.

LAND
IMPROVEMENTS



8.0 Land Improvements

Key Insights

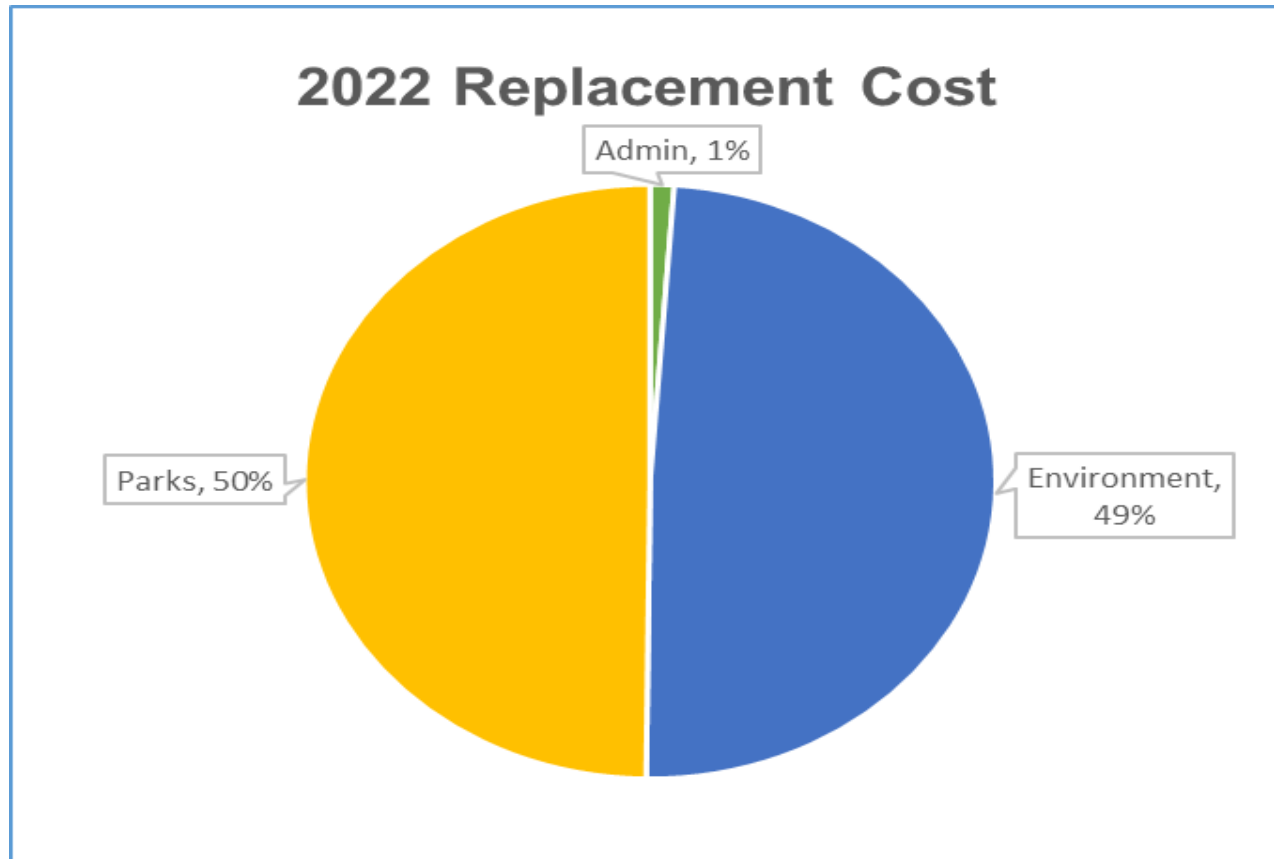
- Land Improvements are valued at \$3.8M
- 25% Land Improvements are in fair or better conditions
- The average annual capital requirement to sustain the current level of services for Land Improvements is approximately \$0.2M

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

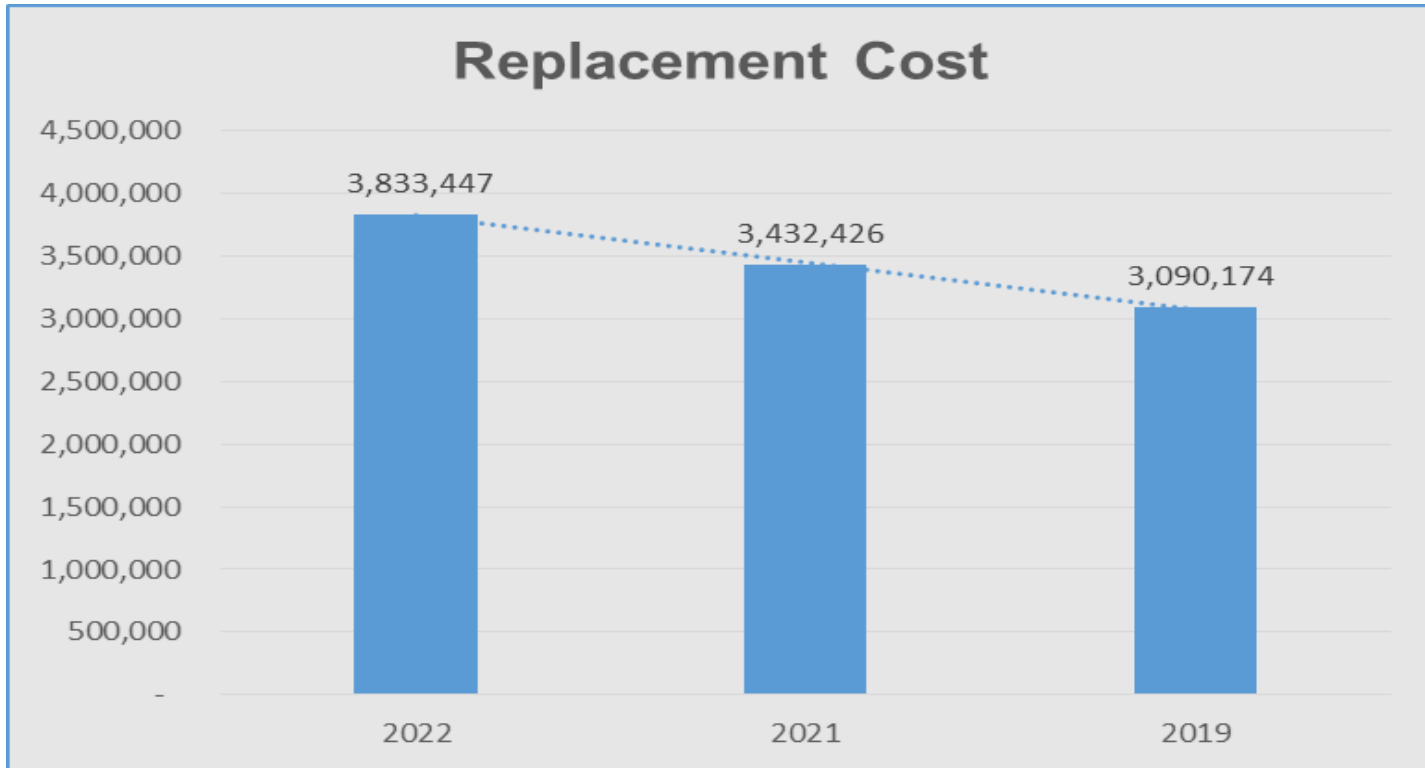
The table below illustrates key asset attributes for the Town's Land improvements, which include parks, playground equipment, and other items. The table outlines quantities, useful life, replacement cost, and the valuation method. In total, the Town's land improvement assets are valued at \$3.83 million based on 2022 replacement costs.

<u>Component</u>	<u>QTY</u>	<u>Useful Life</u>	<u>Valuation Method</u>	<u>Replacement Cost</u>		
				<u>2022</u>	<u>2021</u>	<u>2019</u>
<u>Land Improvements</u>		<u>(Years)</u>				
Admin	2	15	CPI Monthly (ON)	42,831	40,535	40,099
Environmental	1	15	CPI Monthly (ON)	1,880,729	1,951,647	1,760,791
Parks	20	10,20	CPI Monthly (ON)	1,909,887	1,440,244	1,289,284
			TOTAL	3,833,447	3,432,426	3,090,174

The majority of Land Improvement replacement cost is comprised of Environmental and Parks that encompass the larger areas in the chart below.



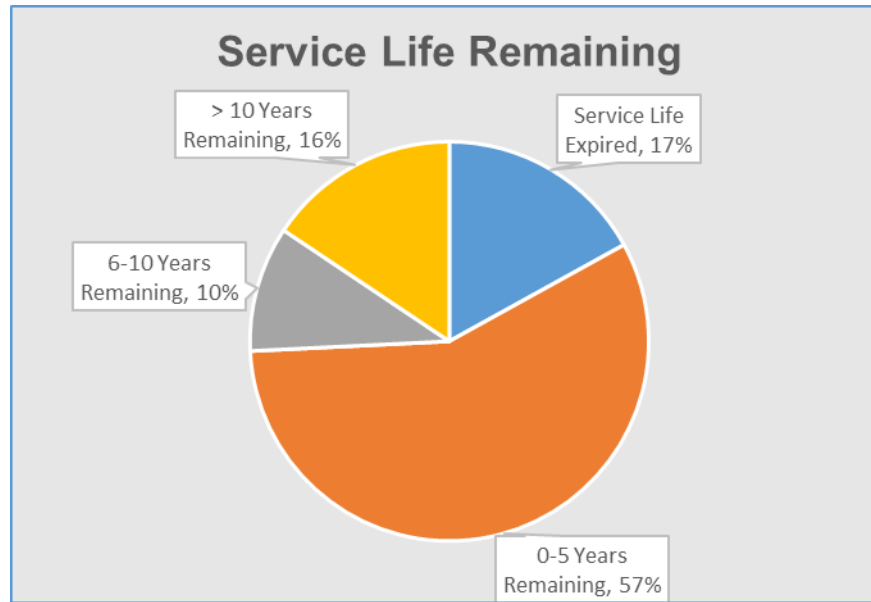
Replacement cost has risen 11.68% from 2021 to 2022, with the increase attributable to inflation (CPI monthly Ontario values were used) as well as the completion of a Drainage Project and Parkland Improvements.



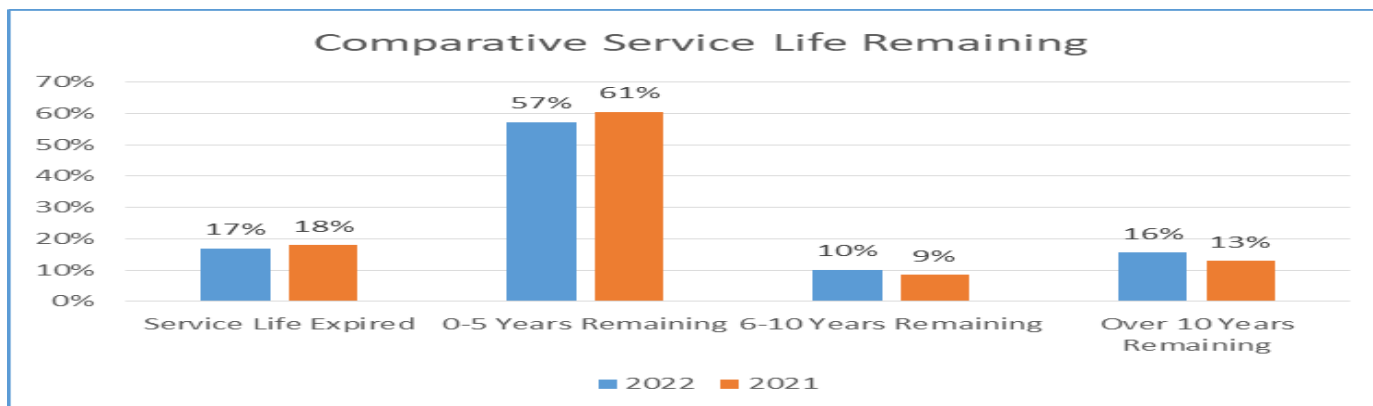
The Erin Rotary River Walk Trail Parkland Project phase II, with a cost of \$405,848 was completed in 2022.

8.2 Useful Life Consumption

The consumption rate of assets based on industry established useful life standards provides a more complete profile of the state of the community's infrastructure. The figure below illustrates the useful life consumption levels as of 2022 for the Town of Erin Land Improvements.

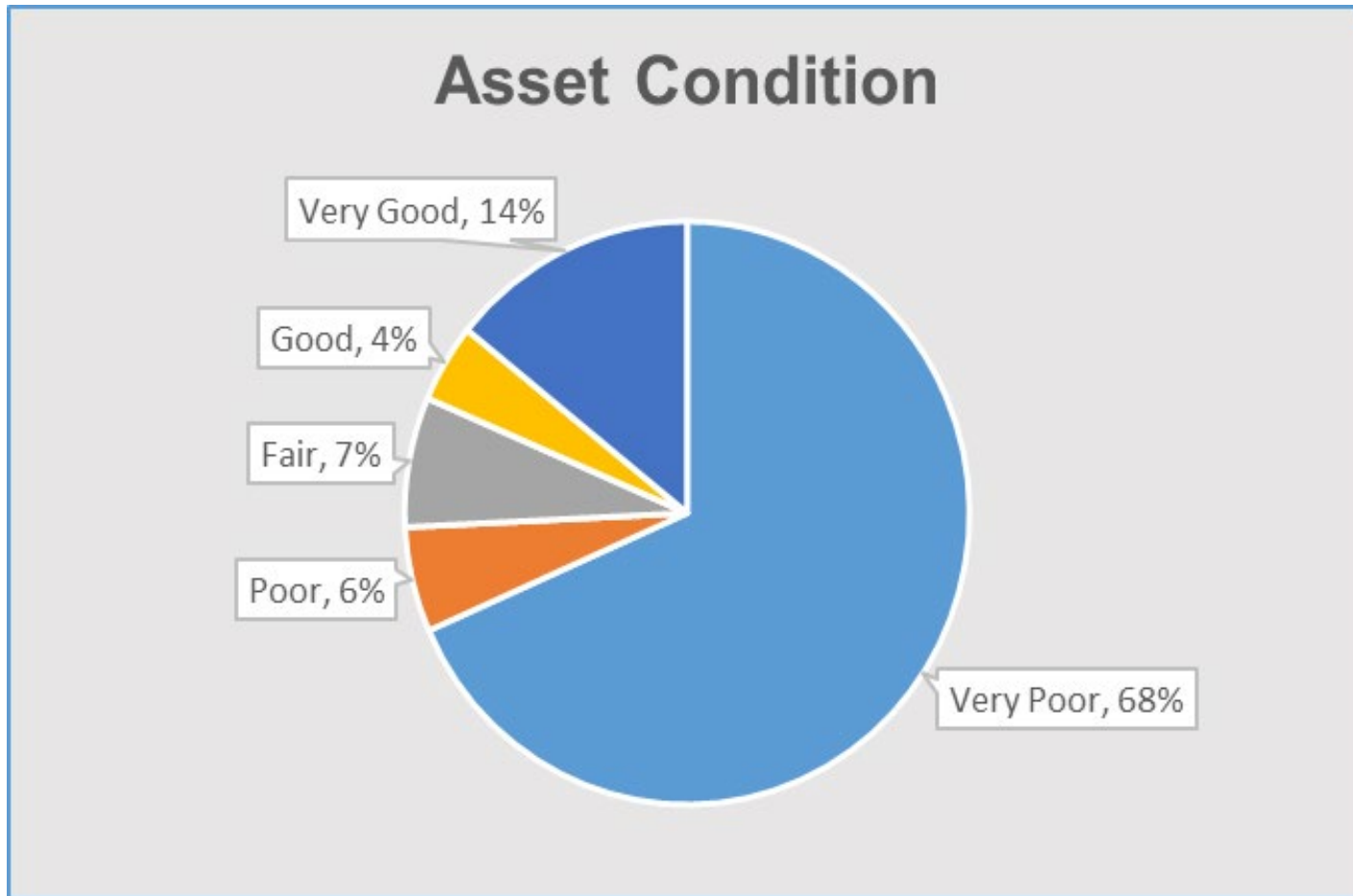


Service Life expired the >10 years experienced an increase of 3% in 2022. This happened due to the Riverwalk Trail project construction completion.



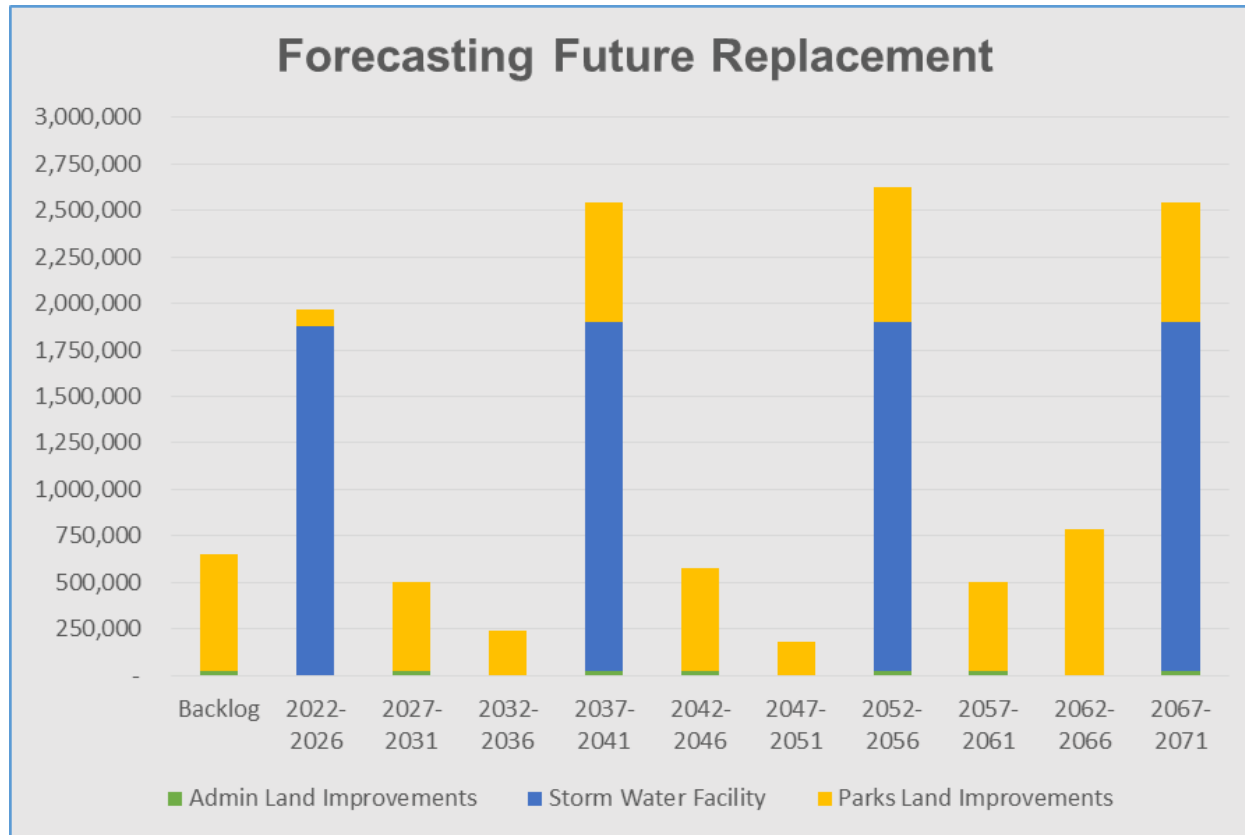
8.3 Asset Condition

Using replacement cost, the condition of the Town of Erin's Land Improvement assets is summarized as of 2022.



8.4 Forecasting Future Replacement Needs

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



8.5 Recommendations

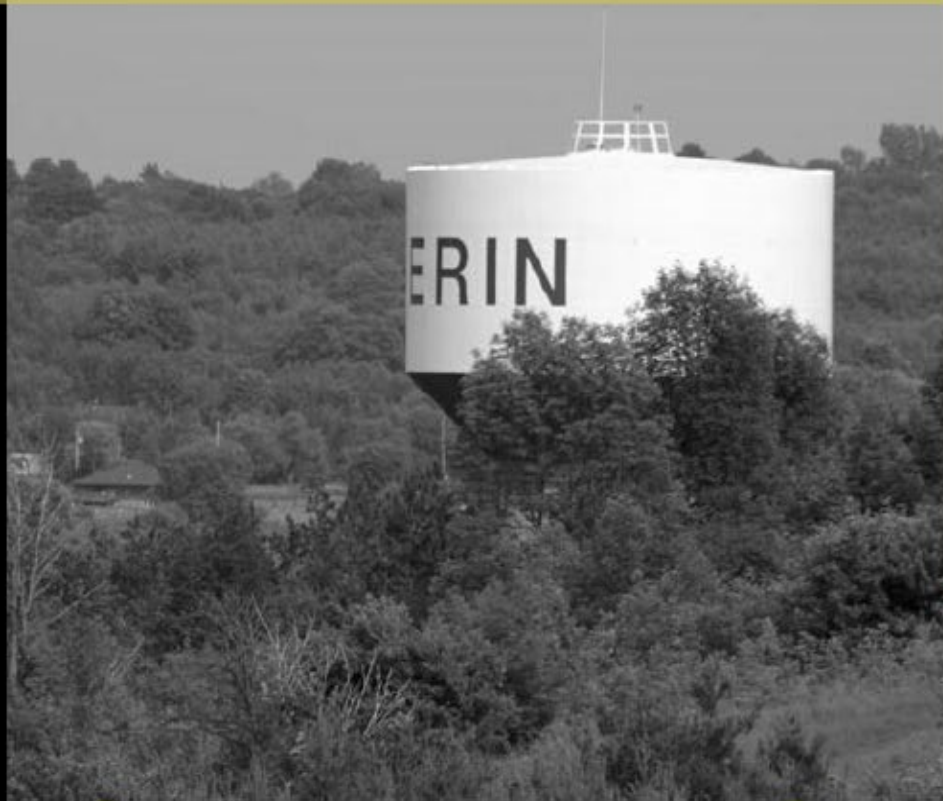
The 2019 Parks, Recreation and Culture Masterplan provided the Town of Erin with a long-term plan. The Town is following these recommendations with budgeted upgrades to parks equipment, fencing and bleachers.

Immediate needs are addressed with ongoing Condition assessment of Land Improvement Assets that is currently performed by Town of Erin staff, who annually inspect playgrounds and trails, as well as Town residents input.

Engineers and architects have designed the Riverwalk Trail project and the construction is completed with a cost of \$405,685.

The Town of Erin is setting aside an annual amount to address immediate needs in land improvement assets. For the 2022 AMP, no funding of the Average Annual Investment Required has been set aside.

WATER SYSTEM



9.0 Water System

Key Insights

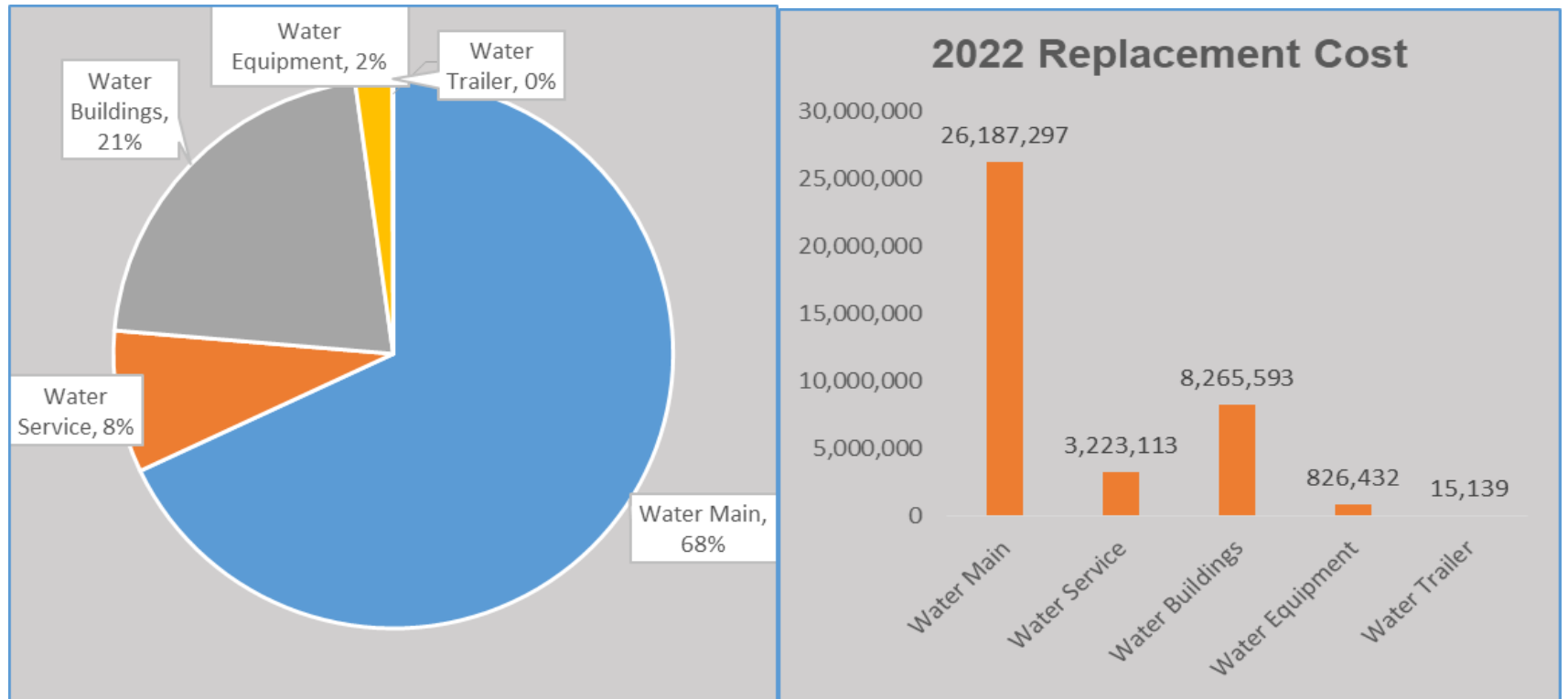
- Water System are valued at \$38.5M
- 70% Water System are in fair or better conditions
- The average annual capital requirement to sustain the current level of services for Water System is approximately \$0.7M

9.1 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 Valuation Method used for Water Mains and Service was NRBCPI Quarterly, and Water Buildings, Equipment and Trailer was CPI Monthly (Ontario). To be consistent, the Valuation Method used in 2021 has been used for all updates.

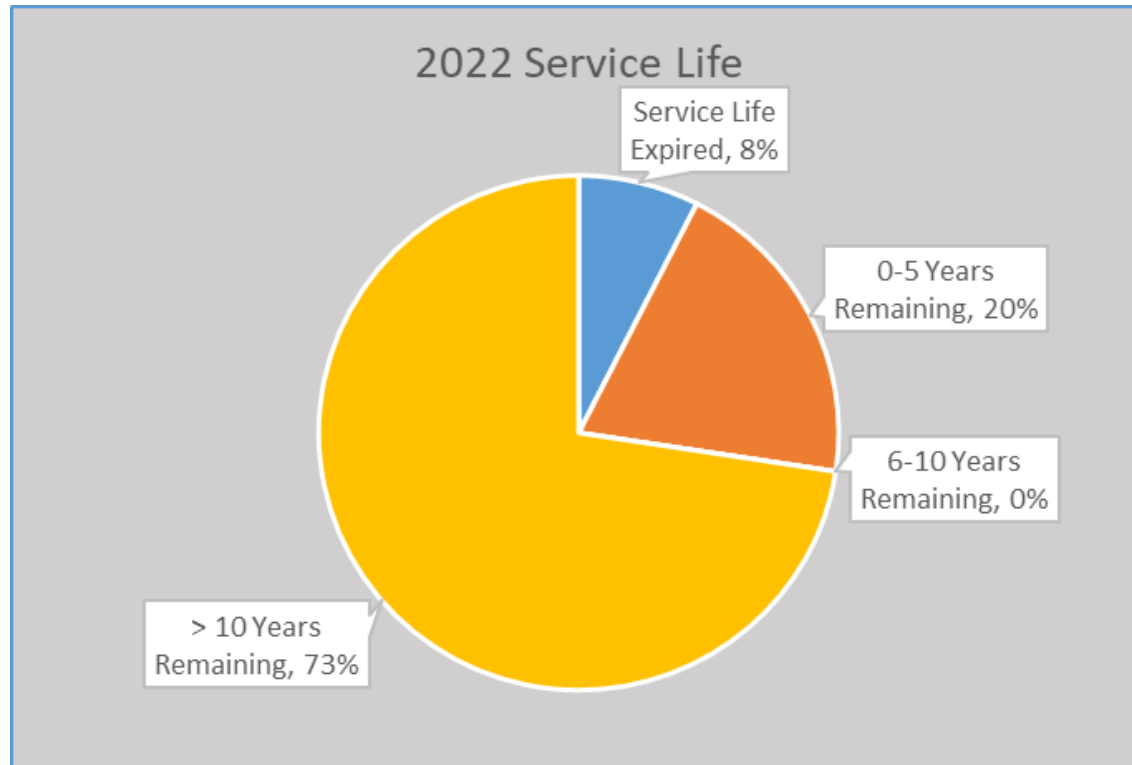
<u>Component</u>	<u>Useful Life</u>	<u>QTY</u>	<u>Replacement</u>	<u>QTY</u>	<u>Replacement</u>	<u>QTY</u>	<u>Replacement</u>
<u>Water</u>	<u>Years</u>	<u>2019</u>	<u>Cost</u>	<u>2021</u>	<u>Cost</u>	<u>2022</u>	<u>Cost</u>
Water Main	50,75	113	22,321,217	113	24,523,199	113	26,187,297
Water Service	50,75	117	2,747,374	117	2,833,756	117	3,223,113
Water Buildings	20,40	10	7,744,827	10	7,828,281	10	8,265,593
Water Equipment	5,10,20	13	603,848	15	782,138	15	826,432
Water Trailer	15	2	14,174	2	14,328	2	15,139
Water Vehicles	10	0	0	0	0	0	0
		113	33,431,440		35,981,702		38,517,574

The majority of replacement cost is comprised of the Water Mains.



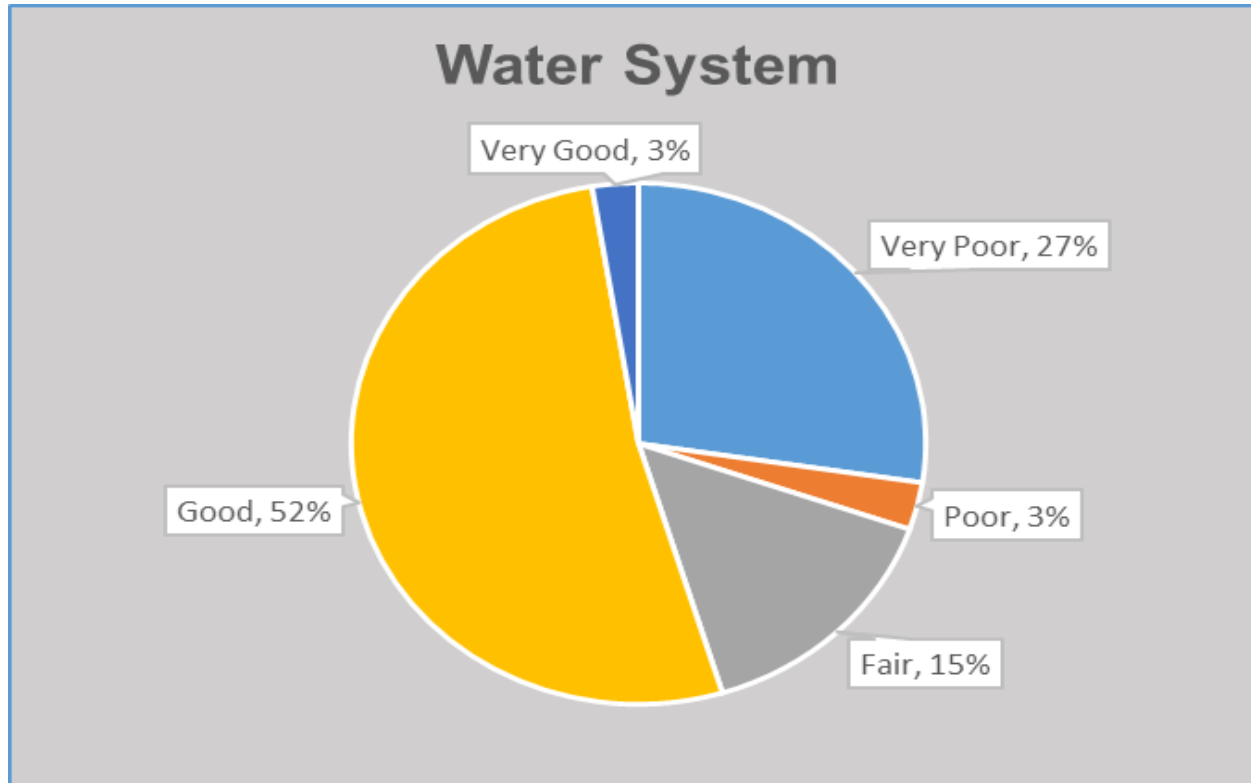
9.2 Useful Life Consumption

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 2022 for the Towns Water Service and Water Mains. 73% of the water assets have at least 10 years of useful life remaining while 8% with a value of \$2.21 million remain in operation beyond their useful life. An additional 20% will reach the end of their useful life within the next five years.



9.3 Current Asset Condition

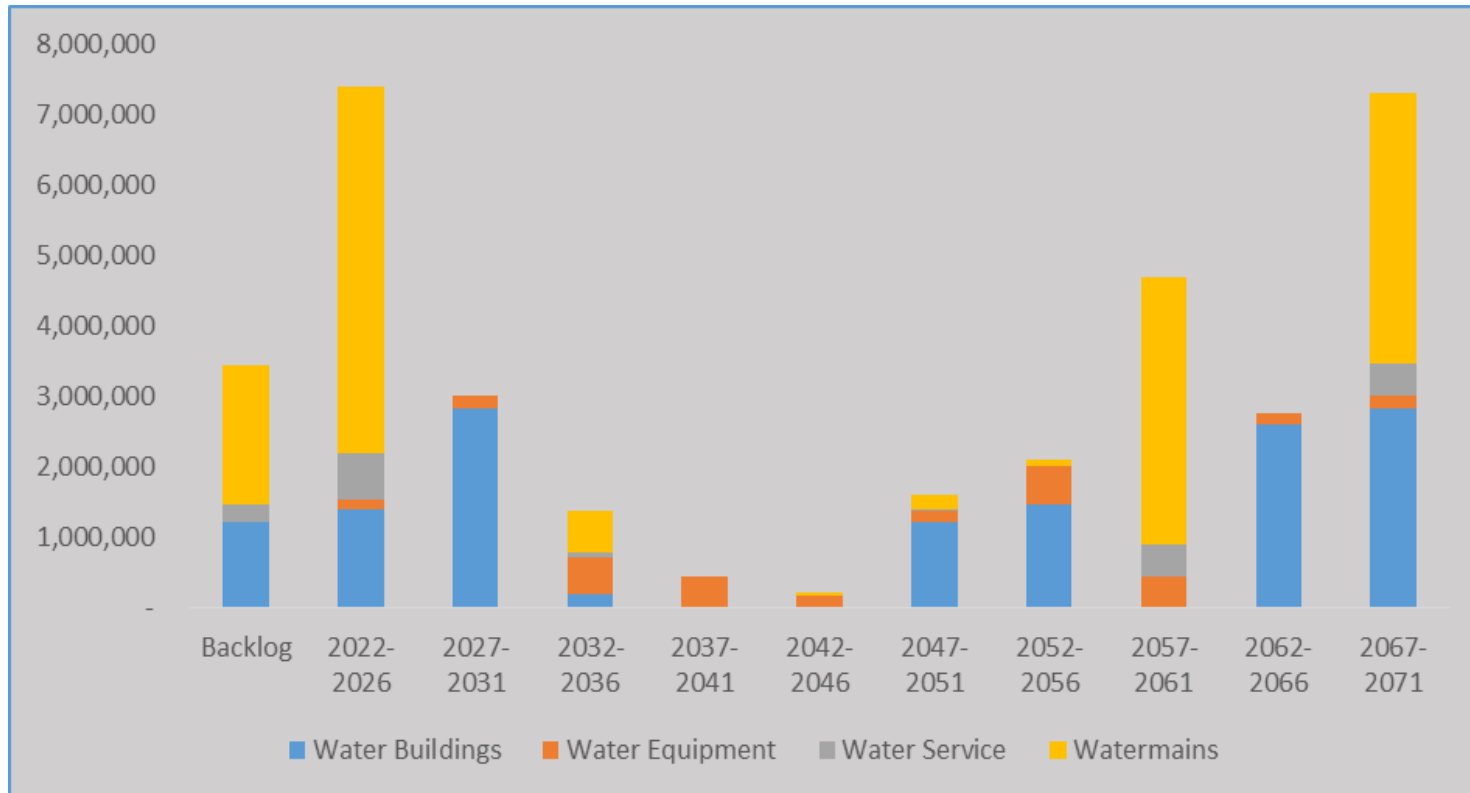
Using 2022 replacement cost, in this section, the condition of the Town's Water Service and Water Mains is classified from Very Poor to Very Good. The Town does not have a mechanism for tracking asset condition so age-based data is used as a proxy.



Based on Age Data, 55% of assets are in good to very good condition with a replacement cost of \$16.09 million, and 45% in very poor to fair condition with a replacement cost of \$13.32 million.

9.4 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 \$3.43 million, replacements needs will total \$7.4 million in the next five years, with an additional \$3.0 million between 2027 and 2031.

9.5 Financial Profile: Rate Funded Assets

The Town's annual requirements (Citywide) for its Water System in 2022 and 2023 AMP is summarized below. Values are based on historical costs, updated to Replacement using CPI indexes. The table below shows that the Town is not allocating sufficient funds by \$312,397 on an annual basis to meet replacement needs and projects may need to be deferred or incur debt. Injection of additional revenues from projected growth will help mitigate infrastructure backlogs.

Asset Class	Average Annual Investment Required	Total Funding Available in 2023			Surplus (Deficit)
		Revenue	Operations	Available Funding	
Water Network	451,219	1,381,202	(965,070)	416,132	\$ (35,087)
Water Facilities	211,448				\$ (211,448)
Machinery & Equip.	65,862				\$ (65,862)
Total	728,529	1,381,202	(965,070)	416,132	\$ (312,397)

9.6 Recommendations – Water System

1. Age-based data show a backlog of \$3.43 million and 10 year replacement needs of \$10.40 million. Based on the Asset Management Plan (AMP) condition assessments and the annual Deficit of available funding, and ICIP Green grant has been approved.
2. The data collected through the (AMP) condition assessments has been integrated into a risk management framework that will guide prioritization of short, medium and long term replacement needs. It was determined that the cost of a formal assessment would outweigh the benefit.
3. A tailored lifecycle activity framework was recommended and developed during the 2020 budget process.
4. Key Performance indicators have been established and must continue to be tracked annually as part of the overall level of service model.
5. The short, medium and long-term capital, operations and maintenance needs need to be annually assessed. The Town has outsourced this to the Ontario Clean Water Agency (OCWA) who provided a 5 year capital plan that has been incorporated into long term needs and annual budgets.
6. An appropriate percentage of replacement costs should be allocated for the Town's operating and maintenance requirements. Currently, the Town is legislated and has followed the requirements of O. Reg. 453/07 that stipulates financial plans have been approved and impacts have been considered.
7. The Town needs to continue set aside an annual amount to fund long term requirements. The ICIP green grant approved with contribution of 40%, 33% and 27% from federal, provincial and town respectively. And with a total cost of \$5.0M.

WASTEWATER SYSTEM



10 Waste Water System

Key Insights

- Waste Water System Work in Progress are valued at \$2.78M
- Waste Water System is new and requires only regular maintenance.
- The average annual capital requirement to sustain the current level of services for Waste Water System at this time is approximately \$0.0M as it's under construction.

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

The Town of Erin is undertaking a project to build a wastewater treatment plant to service the Village of Erin and Hillsburgh. Working with the Credit Valley Conservation authority (CVC) and the Ministry of the Environment, Conservation and Parks (MECP) it was determined that a new system is the best path forward to keep the community thriving now, and for generations to come.

The new system will carry all wastewater flows to a single wastewater treatment plant. It will support the needs of the community by removing the reliance on the existing septic systems.

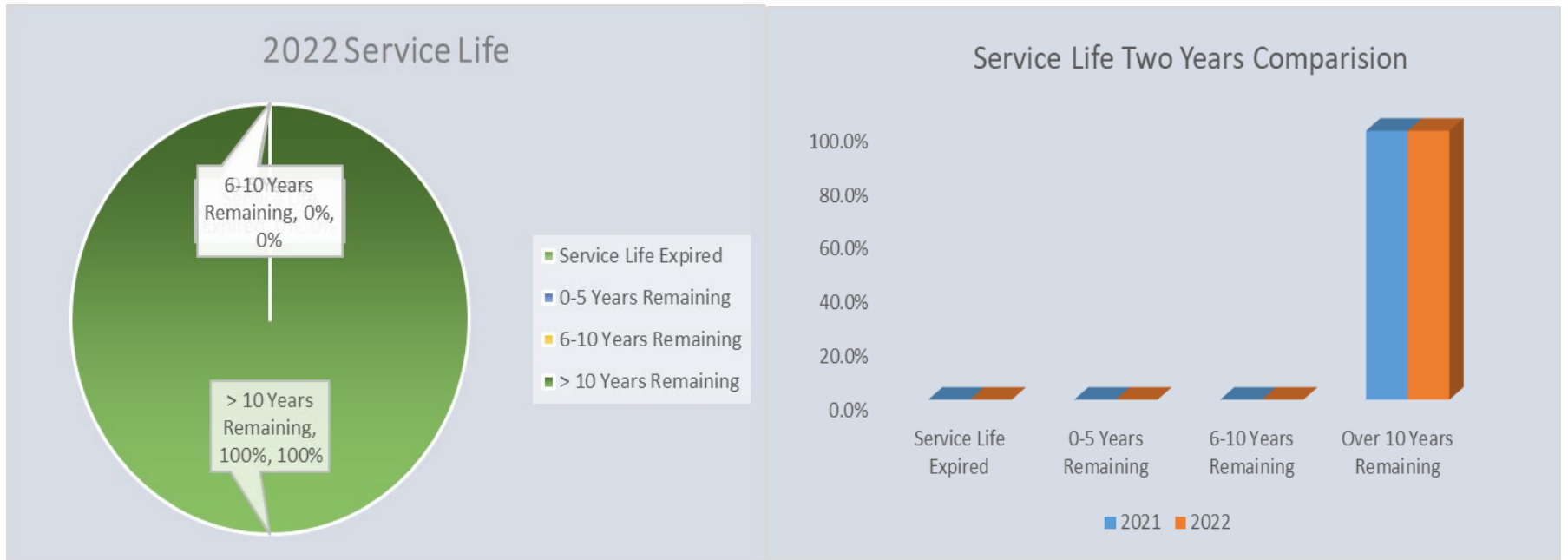
After conducting various studies, including an Environmental Assessment (EA) and an Environmental Study Report (ESR), a series of recommendations and guidelines were identified to ensure we are protecting our water resources and that the project remains compliant with the Municipal Class Environmental Assessment (MECP).

The Town of Erin has raised more than \$180 million from the development community for the construction of the wastewater plant and the main trunk lines. Developers are paying for the costs associated with growth - the costs of building the wastewater treatment plant and main trunk lines, as well as an additional \$7,000 per single detached unit in Erin and \$10,000 per single detached unit in Hillsburgh (this is above and beyond the significant development charges).

As per schedule project is expected to be completed in Oct. 2024. The Town's Waste Water key Assets are the wastewater treatment plant and sewage pumping station. The Valuation Method used for Water Mains and Service was NRBCPI Quarterly, and Water Buildings, Equipment and Trailer was CPI Monthly (Ontario). To be consistent, the same Valuation Method will be used for replacement cost for future AMP for wastewater treatment plant and sewage pumping station. [\(Information Taken from Town of Erin website\)](#)

10.2 Useful Life Consumption

In conjunction with historical spending patterns and observed condition data, 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 2022 for the Town's Wastewater Treatment Plant and Sewage Pumping Station. 100% of the wastewater assets have greater than 10 years of useful life with a value of \$2.78 million.



10.3 Current Assets Condition

Using 2021/2022 cost, in this section, the condition of the Town's Wastewater Treatment Plant and Sewage Pumping Station is classified as Very Good.



LEVELS OF
SERVICE



11 Levels of Service

Key Insights

- 23 residents participated in the town hall, and 183 responses to the survey.
- 72% of the survey respondents indicated that they were generally satisfied with the quality
- 67% of survey respondents identified Roads as the most valuable service.

11.1 Definition

Levels of service can be used to monitor organizational and asset-related performance, resident satisfaction with infrastructure programs, and identify opportunities to adjust operational and capital planning in order to optimize spending.

The Town of Erin continues to grow and develop as a community. To keep up with the changes, the services residents receive, and their quality may also need to evolve. A well-functioning infrastructure system of roads, bridges, water and wastewater, parks, facilities and recreational centres keeps the economy moving and provides a high quality of life to residents. The Town is committed to improve LOS in compliance with following:

- Continue to measure current levels of service in accordance with the metrics identified in O. Reg. 588/17 and those metrics that the Town believes to provide meaningful and reliable inputs into asset management planning.
- Work towards identifying proposed levels of service as per O. Reg. 588/17 and identify the strategies that are required to close any gaps between current and proposed levels of service

11.2 Town of Erin Level of Service Report

Town of Erin retained Public Sector Digest (PSD) to complete an analysis of community expectations of the Town's Infrastructure Programs to establish Asset Management levels of service and to develop a level of service framework including community and technical key performance indicators (KPI's) for each asset class that can be used to track the performance of the Town's infrastructure portfolio. The report was presented to

Council on May 18, 2021 (Report Number: R2021-08). A portion of the information provided in the report is included below to better understand the Town's performance for LOS.

In order to better understand community satisfaction with Erin's infrastructure services and community expectations of service quality and quantity, we delivered a levels of service virtual townhall and invited residents to complete a follow-up survey; 23 residents participated in the townhall, and we received 183 responses to the survey.

When asked how they would describe their daily experiences with different infrastructure services such as roads, sidewalks, parks, recreational centres, and water services, 72% of the survey respondents indicated that they were generally satisfied with the quality. Further, for each asset category, the percentage of people satisfied or highly satisfied with the quality of the service provide far exceeded those who were dissatisfied.

This feedback was consistent with what we heard during the townhall discussion, and the Town's infrastructure data which suggests that 77% of the infrastructure is in fair or better condition (based on age). However, 52 survey respondents offered open-ended comments related to the quality of the Town's roads infrastructure. Desire for more paved roads and sidewalks, and better maintenance, was expressed both in the survey and in the townhall discussion. Of the eight infrastructure services analyzed, roads were also identified as the most valuable service by 67% of survey respondents. This is to be expected.

Although the majority of survey respondents were satisfied with the Town's infrastructure service quality, opinions may be more divided over whether the right investments are made in infrastructure for current residents: 46% of respondent believe that the Town is making the right investments for infrastructure for its current residents, while 36% disagreed with the statement.

In assessing where the Town should invest for tomorrow, 45% of respondents suggested the Town was making the right investments for its future, whereas 39% disagreed. An analysis of raw data revealed that nearly 60% of respondents considered preserving the Town's current character as their first or second most important criteria. Environmental protection was ranked higher in importance in evaluating the feasibility of infrastructure investments than the role these investments may play in supporting local economic activity and in attracting new businesses.

With limited budgets, municipalities must constantly make trade-offs to optimize spending on infrastructure. The majority of survey respondents appeared willing to adjust the quality and quantity of infrastructure programs if costs remained steady; they were least likely to support a reduction in infrastructure service levels, even if it resulted in lower costs. Nearly a quarter of respondents were unwilling to see costs increase.

In assessing whether the Town's spending is aligned with community expectations and Erin's 2019-2023 Strategic Plan, we reviewed previous spending patterns and analyzed the Town's capital budget.

Between 2021 and 2023, the largest share of capital spending will be on the Town's transportation services, which includes roads, bridges and culverts—consistent with community expectations.

Expenditures on road surface conversions are forecasted to be \$300,000 in each of the next three years, pending the results of the roads needs study

These spending patterns are also consistent with the Town's most recent strategic plan, which identifies five goals, including Growth Management, Investment in Community Assets, and Economic Prosperity. Investments in infrastructure, including a planned wastewater treatment plant, will support these goals. However, the higher lifecycle costs associated with new or upgraded infrastructure should be integrated in future planning.

The Town of Erin is in a minority of communities that are engaging the public specifically on asset management. Fewer still have a formal Citizen Engagement Charter. To date, residents have participated in multiple surveys and townhalls dedicated executed by the Town to better understanding community expectations, and to better align long-term delivery of infrastructure services with evolving needs and demands.

Future public engagement efforts to better understand infrastructure investment priorities may focus on different stakeholders, i.e., smaller roundtables with local businesses, or specific cross sections of the Town's demographic. We also recommend that the Town further develop its risk frameworks with additional attribute data. A risk-based evaluation of Erin's infrastructure will produce better project prioritization, and can be an invaluable tool in public and internal communication efforts.

11.3 Level of Service Framework

As part of this stage, we developed a levels of service framework. A LOS framework is a structured document that contains the following:

- Core values associated with each service
- A qualitative level of service statement that outlines corporate goals related to the service
- Level of service description that offers a qualitative summary of current service levels
- Community levels of service (CLOS) that assess the performance of the assets from a user perspective
- Technical levels of service (TLOS) that assess the performance of the assets from an operational or input perspective

The framework was submitted to staff in April 2020. The KPIs suggested for each asset category are directly aligned with key goals in the Town's 2019-2023 Strategic Plan, and reflect the O. Reg 588/17 requirements.

KPIs recommended in the framework for tracking performance of various service areas in two categories Community LOS KPIs and Technical LOS KPIs.

11.4 Community Levels of Service

Below are some of the community levels of service captured through City Wide and other available data resources for different departments/areas.

Department/Area	Core Value	Community KPIs	2020	2021	2022/2023
Roads	<i>Safe & Regulatory</i>	<i># of service requests related to road condition</i>	72	38	61
	<i>Accessible & Reliable</i>	<i># of complaints due to street lighting</i>	2	4	3
Vehicles	<i>Sustainable</i>	<i>Average Age of Fleet assets (in Years)</i>	13	11.5	13
	<i>Accessible & Reliable</i>	<i>% of Vehicles out of service</i>	-	-	-
Parks & Recreation	<i>Accessible & Reliable</i>	<i>% of population that identify cost as a barrier to using recreation facilities</i>	-	-	-
	<i>Sustainable</i>	<i>Estimated Useful Life of Recreation equipment (in years)</i>	-	14	14
Buildings (Facilities)	<i>Accessible & Reliable</i>	<i># of unplanned facility closures</i>	-	4	3
	<i>Safe & Regulatory</i>	<i># of complaints related to accessibility or capacity of parks and recreation facilities</i>	-	-	3
Water Net Work	<i>Accessible & Reliable</i>	<i>% of properties connected to the municipal water system</i>	-	35	35
	<i>Sustainable</i>	<i>Average age of water network (in Years)</i>	-	63	63

11.5 Technical Levels of Service

Below are some of the technical levels of service captured through City Wide and other available data resources for different departments/areas.

Department/Area	Core Value	Technical KPIs	2019	2020	2021	2022
Roads	<i>Sustainable</i>	<i>Average bridge condition index value for bridges in the municipality (As Per BCI)</i>	66.72	-	69.57	-
	<i>Sustainable</i>	<i>Average bridge condition index value for structural culverts in the municipality (As Per BCI)</i>	68.54	-	68.07	-
Vehicles	<i>Sustainable</i>	<i>% of Vehicles that are in good or very good condition</i>	44	34	34	34
	<i>Affordable</i>	<i>Annual Capital reinvestment rate for fleet assets</i>	0.22M	0.35M	0.74M	1M
Parks & Recreation	<i>Safe & Regulatory</i>	<i>Average age of recreation facilities (Years)</i>	-	-	26	26
	<i>Sustainable</i>	<i>% of parks assets that are in good or very good condition (Avg of All Assets)</i>	-	44	42	37
Buildings (Facilities)	<i>Sustainable</i>	<i>% of facilities assets that are in good or very good condition</i>	46	46	46	48
	<i>Safe & Regulatory</i>	<i>Total equivalent kWh power energy consumption of all facilities</i>	3.92M	3.63M	3.09M	-
Water Net Work	<i>Accessible & Reliable</i>	<i>% of the water system that is in fair, good or very good condition</i>	68	-	69	70
	<i>Affordable</i>	<i>Annual capital reinvestment available</i>	-	0.53M	0.46M	0.42M

Appendix A – Town of Erin Vehicles

Roads Vehicles

Vehicle Type	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Vehicle Licensed	International Paystar 5500 2005, Plate:5628ZD	1/1/2005	198,613	198,613	-	278,549
	International 7600 SBA 2010, Water Tank, Sander, Reversible Plow, Plat	1/1/2005	245,318	196,170	49,147	344,051
	International 7600 Tandem Plow 2012, Plate:AB39582	1/1/2012	225,920	225,920	-	276,124
	Ford F450 2015 4X4 1 Ton Pickup with dump box, Plate:AJ14423	1/1/2014	66,090	59,477	6,613	79,007
	GMC Sierra Pickup 2014, Plate:AH81852	1/1/2014	30,472	27,423	3,049	36,429
	Dodge Ram 2500 Pickup 2015, Plate:AL46686	1/1/2015	38,794	31,032	7,763	45,637
	International 7000 Series 7600 2007, Plate:3361VC	1/1/2007	197,012	157,595	39,417	267,400
	Chev Silverado 4x4 Pickup, Plate:AF38834	12/31/2018	26,299	23,668	2,631	31,439
	Chevrolet Express Cube Van 2007, Plate:2684TL	1/1/2018	42,627	42,627	-	58,070
	2017 GMC Savana Cargo Van RWD 2500 135"	1/1/2019	30,200	18,115	12,085	34,033
	International HV607	1/1/2019	239,086	95,634	143,451	260,660
	International 7400 2021	1/1/2021	30,036	5,998	24,038	31,737
	Tandem Axle Snow Plow	1/1/2022	351,072	35,107	315,965	351,072
Vehicle Unlicensed	Bandit Brush Chipper	1/1/2009	41,649	41,649	-	54,618
	Excavator - Hydraulic Thumb	1/1/2011	9,680	9,680	-	12,112
	Rolloff Bins x 2	1/1/2011	10,369	10,369	-	12,975
	John Deere Grader 2012	1/1/2013	324,163	324,163	-	393,912
	Roller / Gravel Packer 8' drum	1/1/2013	18,317	18,317	-	22,258
	Gravel packer / roller	1/1/2014	13,127	11,814	1,313	15,693
	John Deere Grader 870 GP2014	1/1/2014	369,331	231,065	138,266	432,491
	Volvo Motor Grader G976 2015	1/1/2017	313,962	188,330	125,633	353,808
	New Holland 4WD Tractor T6050	1/1/2009	97,526	97,526	-	127,895
	Trackless - attachments 2006	1/1/2007	11,192	11,192	-	15,191
	Sidewalk Machine Trackless	1/1/2016	121,603	56,734	64,870	140,253
	Caterpillar 314CR Excavator 2005	1/1/2005	170,975	153,869	17,106	239,788
	Thompson Steamer	1/1/2009	12,237	8,565	3,672	16,047
	Case Wheel Loader 621FXT	1/1/2016	209,269	73,218	136,051	241,364
	Road Shoulder Reclaimer	1/1/2018	15,244	7,622	7,622	16,870
Roadside Flail Mower KT0214 KUHN	1/1/2020	19,992	5,998	13,994	21,354	
Roads Trailer	Float King Tandem 24 ton 2007	1/1/2006	26,082	26,082	-	35,531
			3,506,257	2,393,569	1,112,688	4,246,368

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, Plate:7800LK	1/1/2003	288,238	288,238	0	416,941
	Freightliner Dependable Pumper, P52, 750 Gallon Water Tank, Plate:9035JY	1/1/2000	284,721	274,443	10,278	422,705
	Freightliner C-Max Rescue Van, R55, Plate:YK7267	1/1/1994	187,769	187,769	0	325,231
	Freightliner Metalfab Tanker, T17, 2300 Gallon Water Tank, Plate YK7296	1/1/1994	369,126	276,813	92,313	490,614
	GMC Sentinal Rescue Van, R15, Plate:JB1816	1/1/1992	184,617	184,617	0	329,849
	International Dependable Tanker, T57, 1500 Gallon Water Tank, Plate:DK4960	1/1/1990	210,770	0	0	0
	Freightliner C-Max Tanker, T17, 1500 Gallon Water Tank, Plate:3875WN	1/1/2008	225,323	225,323	0	390,277
	Spartan Dependable Pumper Rescue Truck, P51, Plate:AD20464	1/1/2012	422,317	205,055	217,262	499,522
	Fire Pumper - Dependable P11	1/1/2019	599,436	119,887	479,549	628,336
	FGFT Model M2112 Red	1/1/2021	424,243	42,424	381,819	448,268
	Dependable Heavy duty mini Rescue Station 10	1/1/2021	204,620	20,462	184,158	216,208
	Dependable Heavy duty mini Rescue Station 50	1/1/2021	204,620	20,462	184,158	216,208
Fire Trailer	Moritz 6x12 Tilt Black 2015	1/1/2019	4,216	2,248	1,968	4,960
Fire Vehicle Unlicensed	Kubota ATV TV-X1120D	1/1/2019	21,524	17,217	4,307	25,320
			3,631,540	1,864,958	1,555,812	4,414,439

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, Plate:AD24409	1/1/2018	36,185	36,185	0	44,227

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, Plate:AP67444	1/1/2016	29,444	20,607	8,837	33,960
	GMC Siera Pickup 2015, Plate:AL62085	1/1/2018	51,359	41,082	10,277	60,418
			80,803	61,689	19,114	94,378

Appendix B – Town of Erin Machinery & Equipment

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	41,343	-	47,683
Computers & Equipment	Computer Upgrades Pooled 2010	1/1/2010	49,568	49,568	-	63,810
	Computer Upgrades Pooled 2011	1/1/2011	19,714	19,714	-	24,668
	Desktops x 6 2012	1/1/2012	5,465	5,465	-	6,679
	Colour Digital Copier	1/1/2012	10,116	10,116	-	12,364
	Desktops x 6 2013	1/1/2013	8,516	8,510	6	10,348
	Servers x 3, rack mounted	1/1/2013	24,416	24,400	17	29,670
	Network Server upgrade	1/1/2014	7,408	7,408	-	8,856
	Audio-Visual System- Council Chamber	1/1/2014	14,926	14,926	-	17,843
	Storage Area Network SAN	1/1/2016	35,707	35,707	-	41,184
	Hardware Upgrades	1/1/2017	20,672	20,672	-	23,296
	Security Cameras, Access Control	1/1/2017	15,884	15,884	-	17,900
	LED Entrance Sign	1/1/2017	25,756	25,756	-	29,025
	Telephone system	1/1/2018	25,169	25,169	-	27,852
	Municipal building Security	1/1/2018	20,098	20,098	-	22,241
	Server Room A/C	1/1/2018	2,193	2,193	-	2,426
	TOTAL		326,951	326,929	23	385,845

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	-	23,250
Computers & Equipment	Monitor, Adapter, Keystone Upgrade	1/1/2011	1,033	1,033	-	1,293
	TOTAL		19,094	19,094	0	24,543

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	-	1,484
	Fire Pagers	1/1/2007	18,426	18,426	-	25,009
	Fire Pagers	1/1/2006	16,654	16,654	-	22,687
	Fire Pagers	1/1/2011	4,771	4,771	-	5,969
	Radio System Mobile XPR5550	1/1/2016	84,568	84,568	-	97,538
	Thermal Cameras	1/1/2009	21,051	21,051	-	27,606
	Defibrillators (AED)	1/1/2004	18,883	18,883	-	26,918
	Hurst Hydraulic Pump	1/1/2015	11,189	8,950	2,239	13,162
	Dress Uniforms x 9	1/1/2008	4,449	-	-	-
	Dress Uniforms x 11	1/1/2007	5,346	-	-	-
	Dress Uniforms x 14	1/1/2006	6,676	-	-	-
	Dress Uniforms x 10	1/1/2005	4,692	-	-	-
	Dress Uniforms x 10	1/1/2004	4,606	-	-	-
	Protective Equipment x 7	1/1/2008	14,547	14,542	5	19,335
	Protective Equipment x 7	1/1/2007	14,301	14,301	-	19,411
	Protective Equipment x 7	1/1/2006	14,033	14,033	-	19,117
	Protective Equipment x 7	1/1/2005	13,809	13,809	-	19,367
	Protective Equipment x 15	1/1/2004	29,048	29,048	-	41,409
	Protective Equipment x 20	1/1/2003	38,120	38,120	-	55,142
	Breathing Apparatus SCBA	1/1/2016	266,793	124,472	142,322	307,710
	Command Lights	1/1/2006	28,700	24,393	4,307	39,098
	Extrication Equipment - H. Pumps	1/1/2005	56,673	51,003	5,670	79,482
	Extrication Equipment - Jaws	1/1/2003	25,920	25,920	-	37,494
	Extrication Equipment - Cutters	1/1/2003	26,568	26,568	-	38,431
	Extrication Equipment - Rams	1/1/2003	25,272	25,272	-	36,556
	Portable Pumps	1/1/2008	15,500	11,624	3,876	20,601
	Portable Pumps	1/1/2004	4,750	4,512	238	6,771
	Portable Pumps	1/1/1995	15,000	15,000	-	25,739
	Portable Pumps	1/1/1985	7,500	7,500	-	18,213
	Generators	1/1/2008	5,335	4,001	1,334	7,091
	Generators	1/1/1995	12,725	12,725	-	21,835
	Generators	1/1/1985	1,700	1,700	-	4,128
	SCBA Compressors	1/1/2009	48,886	34,216	14,670	64,109
	Emergency Plan - Generators	1/1/2009	86,352	60,438	25,914	113,241
	Bunker Gear Racks	1/1/2012	15,749	8,660	7,089	19,248
	Generator 50kw Diesel	1/1/2016	37,763	13,212	24,550	43,554
	Radio System Multi Site	1/1/2018	89,153	89,153	-	98,657
	Extrication Equipment - Cutters	1/1/2018	33,204	10,064	33,718	36,744
	Exhaust System - Portable	1/1/2019	86,347	17,269	69,077	94,138
	Hose Cache/Suction X 32	1/1/2019	20,703	4,141	16,562	22,571
	Thermal Imaging Camera	1/1/2020	13,235	3,971	9,265	14,137
	Dress Uniforms x 10	1/1/2020	4,712	1,413	3,298	5,032
Dress Uniforms x 10	1/1/2020	33,492	10,047	23,444	35,773	
Hose Cache	1/2/2021	20,000	2,000	18,000	21,133	
Gear Washer & Dryer	1/1/2022	34,951	2,330	32,621	34,951	
Electronic Messaging signs	1/1/2022	24,451	1,630	22,821	24,451	
Hose Cache	1/1/2022	22,624	1,131	21,493	22,624	
	TOTAL		1,390,343	892,638	482,514	1,687,666

Parks and Recreation

Category	Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Parks Computer Software	Fusion Software 2020	1/1/2020	38,315	21,825	16,490	28,491
Parks Equipment	ECC - Score Clock	1/1/2007	10,704	10,704	-	14,528
	HCC - Score Clock	1/1/1999	8,791	8,791	-	14,240
	Centre 2000 - Projector	1/1/2002	62,832	62,832	-	94,795
	Tractor Mower John Deere 1445 Series 2	1/1/2012	14,990	14,990	-	18,321
	New Holland Compact Tractor TZ18 + 60'	1/1/2007	15,984	15,984	-	21,695
	HCC - Olympia	1/1/2004	-	-	-	-
	Kubota Tractor F3680 + Mower Deck, rea	1/1/2008	19,494	19,494	-	25,910
	ECC - Zamboni	1/1/2009	-	-	-	-
	ECC - Replace 50 HP Compressor	1/1/2010	57,052	37,078	19,974	73,445
	Desuperheater - Burnside Report	1/1/2017	27,915	8,371	19,544	31,458
	Replace 30hp Compressor #2 ECC	1/1/2017	32,071	9,617	22,454	36,141
	ECC Security Cameras	1/1/2019	42,456	33,965	8,491	46,287
	McMillan Park Equipment Furniture	1/1/2019	92,119	4,159	87,960	4,083
	ECC Brine Pump & Motor	1/1/2020	17,255	2,588	14,667	18,431
	ECC - Zamboni	1/1/2021	96878.75	12917	83,962	102365
HCC - Olympia	1/1/2021	87503.42	11667	75,836	92459	
			624,361	274,983	349,378	622,649

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	-	29,568
Roads Equipment	Snow Plough blade 8.5	1/1/2018	9,871	6,908	2,962	11,385
Roads Equipment	Backhoe Loader	1/1/2022	182,062	18,206	163,856	182,062
			214,915	48,097	166,818	223,015

Appendix C – Town of Erin Building & Facilities

Erin Community Centre

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Centre 2000 - Expansion	1/1/2000	2,163,342.34	1,243,779.00	919,563.34	3,421,423.00
Centre 2000 Community Centre	1/1/1975	652,655.81	652,655.81	0.00	3,494,546.00
Centre 2000 - Arena	1/1/1975	957,985.71	957,985.71	0.00	5,043,309.00
Centre 2000 - Arena expansion project	1/1/2011	1,215,097.28	364,441.00	850,656.28	1,520,419.00
Sewage Flow Meter	1/1/2012	21,170.00	11,641.17	9,528.83	25,874.00
ECC - Rooftop HVAC Units	1/1/2017	23,795.00	7,135.50	16,659.50	26,815.00
ECC - Replace Rubber Flooring	1/1/2017	29,360.00	8,804.30	20,555.70	33,086.00
ECC Carpet Theatre&Cafeteria	1/1/2019	11,517.15	2,303.43	9,213.72	12,556.00
Erin CC Water Heater	1/1/2019	12,912.13	5,164.85	7,747.28	14,077.00
Erin Community Centre		5,087,835.42	3,253,910.77	1,833,924.65	13,592,105.00

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	3,771,576.00
HCC - ice surface floor replacement	1/1/2000	198,864.96	198,864.96	0.00	314,514.00
HCC - refrigeration system replacement	1/1/2001	294,093.02	294,093.02	0.00	449,216.00
HCC - lobby flooring	1/1/2002	23,266.00	23,266.00	0.00	35,101.00
HCC - Roof Replacement (Betterment)	1/1/2010	33,990.00	22,090.11	11,899.89	43,757.00
HCC -Lobby & Dressing Room floor Replacement	1/1/2011	25,398.68	15,236.53	10,162.15	31,781.00
HCC Dasher Board Replacement	1/1/2015	130,280.62	52,096.51	78,184.11	153,259.00
Condenser Evaporative HCC	1/1/2016	49,391.50	17,280.92	32,110.58	56,966.00
Accessibility Renovations	1/1/2016	11,200.00	3,918.61	7,281.39	12,918.00
HCC - Rooftop HVAC Unit	1/1/2017	8,995.00	2,697.37	6,297.63	10,137.00
HCC - Ice surface lighting	1/1/2017	10,969.57	3,289.49	7,680.08	12,362.00
HCC Water Heater	1/1/2019	11,198.00	4,479.20	6,718.80	12,208.00
Hillsburgh Community Centre		1,509,881.20	1,349,546.57	160,334.63	4,903,795.00

Ballinafad Community Centre

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Ballinafad Community Centre	1/1/1975	60,028.52	60,028.52	0.00	334,724.00
Ballinafad Community Centre	1/1/1987	139,707.35	125,731.30	13,976.05	311,070.00
Ballinafad Community Centre - Roof Replacement	1/1/2019	14,392.13	10,794.10	3,598.03	15,691.00
Ballinafad Community Centre		214,128.00	196,553.92	17,574.08	661,485.00

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	127,624.00
Barbour Field: Booth, Pavilion	1/1/1997	74,665.00	48,527.55	26,137.45	123,105.00
McMillan Park Pavilion	1/1/2009	155,569.73	54,438.24	101,131.49	204,012.00
Washrooms at Victoria Park	1/1/2011	14,634.36	6,888.92	7,745.44	18,312.00
Parks Buildings		269,111.49	135,309.23	133,802.26	473,053.00

Roads Buildings

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Roads Shop	1/1/1992	84,893.82	65,788.04	19,105.78	151,677.00
Roads Shop Energy Conservation	1/1/2020	3,286.84	493.03	2,793.81	3,511.00
Roads Shop Roof	1/1/2018	64,138.23	8,017.28	56,120.95	70,976.00
Sand Dome	1/1/1983	249,677.05	161,653.84	88,023.21	566,191.00
Equipment Depot	1/1/1992	434,518.31	336,727.79	97,790.52	776,339.00
Salt Storage Structure	1/1/2017	29,845.63	4,474.62	25,371.01	33,633.00
Roads Shop Vehicle Exhaust System	1/1/2016	32,463.48	11,358.20	21,105.28	37,442.00
Roads Shop		898,823.36	588,512.80	310,310.56	1,639,769.00

Municipal Office

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Municipal Office	1/1/1994	508,016.52	363,770.45	144,246.07	885,161.00
Municipal Office - Basement Offices	1/1/1999	36,680.99	22,006.21	14,674.78	59,415.00
Municipal Office Renovations	1/1/2018	207,889.87	14,058.91	193,830.96	164,719.00
Municipal Office - Roof Replacement	1/1/2019	22,387.21	8,954.88	13,432.33	24,407.00
Municipal Office Elevator	1/1/2019	340,585.44	34,058.54	306,526.90	371,319.00
Municipal Office		1,115,560.03	442,848.99	672,711.04	1,505,021.00

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	564,821.93	1,946,320.02	3,001,965.00
Rooftop Solar MicroFit	1/1/2015	26,966.40	10,783.31	16,183.09	31,723.00
Hillsburgh Fire Station		2,538,108.35	575,605.24	1,962,503.11	3,033,688.00

Erin Fire Hall

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Erin Fire Station 10	1/1/1985	286,293.15	271,971.50	14,321.65	699,080.00
Station 10 Energy Conservation	1/1/1920	7,530.24	1,129.54	6,400.70	8,043.00
Erin Fire Station 10 - Metal Roof Replacement on S	7/1/2019	5,058.49	354.09	4,704.40	5,372.00
Erin Fire Station		298,881.88	273,455.13	25,426.75	712,495.00

Appendix D – Town of Erin Bridge & Culvert 10-Year Needs

2021 OSIM Report					
Name	Activity	Within 1 Year	1-5 Years	6-10 Years	10-Year Total
Bridge 2	Rehabilitate	239,500	-	-	239,500
Bridge 5	Replace	990,300	-	-	917,500
Bridge 6	Rehabilitate	405,500	-	-	405,500
Bridge 9	Rehabilitate	358,000	-	-	358,000
Bridge 15	Rehabilitate	-	305,000	-	305,000
Culvert 13	Rehabilitate	-	228,500	-	228,500
Culvert 14	Rehabilitate	185,000	-	-	185,000
Culvert 2011	Rehabilitate	-	-	205,000	205,000
Culvert 2018	Replace	-	952,365	-	917,500
Culvert 2027	Replace	-	-	640,965	617,500
Culvert 2033	Replace	-	-	703,245	677,500
Culvert 2052	Rehabilitate	187,000	-	-	187,000
Culvert 2053	Replace	-	918,800	-	857,500
Culvert 2057	Replace	-	-	578,685	557,500
Culvert 2060	Replace	-	-	640,965	617,500
Culvert 2066	Rehabilitate	-	-	200,000	200,000
Culvert 2072	Rehabilitate	305,000	-	-	305,000
Culvert 16	Rehabilitate	-	168,000	-	168,000
Culvert 10	Replace	-	2,128,200	-	1,138,500
		2,670,300	4,700,865	2,968,860	9,087,500

Note: Replacement numbers are update by 3.8% construction inflation for 2022 APM.

Appendix E – Town of Erin Water Assets

Water Buildings

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Water Tower	1/1/1990	738,005.00	608,817.30	129,187.70	1,409,092.00
Erin Well E5	1/1/1983	54,615.00	54,615.00	0.00	146,103.00
Erin Well E7	1/1/1986	534,953.00	494,814.40	40,138.60	1,243,724.00
Erin Well E8	1/1/1991	714,291.46	528,104.00	186,187.46	1,208,989.00
Hillsburgh Well H2	1/1/1988	640,689.00	560,575.47	80,113.53	1,368,660.00
Hillsburgh Well H3	1/1/1969	160,338.00	160,338.00	0.00	1,213,391.00
BelErin Well	1/1/1995	108,525.52	56,567.84	51,957.68	142,638.00
Delerin Pressure Building	1/1/1987	27,852.53	25,066.22	2,786.31	62,016.00
Frank Smedley Booster Pumping Station	1/1/2014	1,069,494.83	240,557.54	828,937.29	1,278,536.00
Glendevon High Lift Pump Replacement	1/1/2013	158,323.33	79,143.61	79,179.72	192,390.00
Water Buildings		4,207,087.67	2,808,599.38	1,398,488.29	8,265,539.00

Water Equipment

Name	In-Service Date	Historical Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Radio Meter Reading Device	1/1/2016	8,597	8,597	-	9,915
Scada System - Hillsburgh sites	1/1/2017	165,723	49,696	116,027	186,755
Snow Plough blade	1/1/2016	-	-	-	-
Water Meters x 30	1/1/2015	41,219	5,300	35,919	10,773
Scada System - 3 Erin Village sites	1/1/2015	155,848	62,320	93,527	183,335
Data Loggers - 4 sites	1/1/2015	40,501	16,195	24,305	47,644
Generator 100kw Diesel Perkins Silent - M	1/1/2016	48,000	16,794	31,206	55,362
Generator 100kw Diesel Perkins Silent	1/1/2016	38,883	13,604	25,278	44,846
Fire Hydrants x 2	1/1/2016	45,171	9,917	35,254	22,074
Water Meters x 36	1/1/2016	12,269	4,260	8,009	14,151
Well #2 Retrofit Control Panel	1/1/2017	1,684	505	1,179	1,898
Generator Upgrade Well #8	1/1/2018	29,655	7,414	22,241	32,817
Generator Upgrade Hillsburgh Heights	1/1/2018	27,279	6,820	20,459	30,187
Security Cameras	1/1/2018	4,721	4,721	-	5,224
Chlorine CL2 Analyzers	1/1/2020	30,884	4,633	26,251	32,987
Equipment life extension	1/2/2021	140,507	56,203	84,304	148,464
		790,939	266,978	523,961	826,432

Water System

	In-Service Date	Cost	Accumulated Amortization	Net Book Value	Replacement Cost
Water Mains	1/1/1990	8,939,238.30	3,597,189.80	5,342,048.50	26,187,297.00
Water Service	1/1/2010	1,115,204.24	439,770.28	675,433.96	3,223,113.00
Water System		10,054,442.54	4,036,960.08	6,017,482.46	29,410,410.00

Appendix F – Town of Erin Funding

WITH CAPTURING CHANGES																				
Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
Annual Funding Deficit	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851	3,221,851
Less:Debt Payment Decrease	-	-	-	-	-	-	(167,095)	(167,008)	(167,087)	(167,299)	(166,648)	(167,126)	(331,838)	(332,597)	(332,418)	(332,379)	(432,483)	(432,483)	(432,483)	(432,483)
Add: OCIF Decrease	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263	466,263
Net Annual Funding Deficit	3,688,114	3,688,114	3,688,114	3,688,114	3,688,114	3,688,114	3,521,019	3,521,106	3,521,027	3,520,815	3,521,466	3,520,988	3,356,276	3,355,517	3,355,696	3,355,735	3,255,631	3,255,631	3,255,631	3,255,631

TAX LEVY SUMMARY (CAPTURING CHANGES)																				
Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
Prior Year Levy	8,108,518	8,263,191	8,420,815	8,581,445	8,745,139	8,911,956	9,081,955	9,255,196	9,431,743	9,611,657	9,795,003	9,981,846	10,172,254	10,366,293	10,564,034	10,765,547	10,970,904	11,180,178	11,393,444	11,610,778
Increase (at 1.2%)	154,673	157,623	160,630	163,694	166,817	169,999	173,242	176,546	179,914	183,346	186,843	190,407	194,040	197,741	201,513	205,357	209,274	213,266	217,334	221,480
	8,263,191	8,420,815	8,581,445	8,745,139	8,911,956	9,081,955	9,255,196	9,431,743	9,611,657	9,795,003	9,981,846	10,172,254	10,366,293	10,564,034	10,765,547	10,970,904	11,180,178	11,393,444	11,610,778	11,832,258
Increase Dedicted to AMP	154,673	312,297	472,927	636,621	803,438	973,437	1,146,678	1,323,225	1,503,139	1,686,485	1,873,328	2,063,736	2,257,775	2,455,516	2,657,029	2,862,386	3,071,660	3,284,926	3,502,260	3,723,740
Annual Funding Deficit	(3,533,441)	(3,375,817)	(3,215,187)	(3,051,493)	(2,884,676)	(2,714,677)	(2,374,340)	(2,197,881)	(2,017,888)	(1,834,330)	(1,648,138)	(1,457,252)	(1,098,501)	(900,001)	(698,667)	(493,349)	(183,971)	29,295	246,629	468,109

PERCENTAGE FUNDED BY YEAR																				
Year	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
Annual Average Investment Required	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725	6,495,725
Funding Available																				
2022 Funding	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874	3,273,874
OCIF Decrease	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)	(466,263)
Debt Payment Decrease	0	0	0	0	0	0	167,095	167,008	167,087	167,299	166,648	167,126	331,838	332,597	332,418	332,379	432,483	432,483	432,483	432,483
Tax Levy Increase Required (1.9%)	154,673	312,297	472,927	636,621	803,438	973,437	1,146,678	1,323,225	1,503,139	1,686,485	1,873,328	2,063,736	2,257,775	2,455,516	2,657,029	2,862,386	3,071,660	3,284,926	3,502,260	3,723,740
Total Funding	2,962,284	3,119,908	3,280,538	3,444,232	3,611,049	3,781,048	4,121,385	4,297,843	4,477,837	4,661,395	4,847,587	5,038,472	5,397,224	5,595,724	5,797,058	6,002,376	6,311,754	6,525,020	6,742,354	6,963,834
Percentage Funded	46%	48%	51%	53%	56%	58%	63%	66%	69%	72%	75%	78%	83%	86%	89%	92%	97%	100%	104%	108%