

Town of LaSalle | Asset Management Plan

# 2024



# Contents

---

|                                                  |    |
|--------------------------------------------------|----|
| Executive Summary .....                          | 9  |
| About this document .....                        | 11 |
| Ontario Regulation 588/17 .....                  | 11 |
| Scope .....                                      | 11 |
| Overview of Asset Management .....               | 12 |
| Key Technical Concepts in Asset Management ..... | 13 |
| Lifecycle Management Strategies .....            | 13 |
| Risk and Criticality .....                       | 15 |
| Levels of Service .....                          | 17 |
| Asset Condition Rating Scale .....               | 18 |
| Source of Asset Condition .....                  | 19 |
| Foundational Documents in Asset Management ..... | 20 |
| Limitations and Constraints .....                | 21 |
| State of the Infrastructure .....                | 22 |
| Asset Hierarchy and Data Classification .....    | 23 |
| Portfolio Overview .....                         | 24 |
| Condition Data .....                             | 25 |
| Forecasted Long-term Replacement Needs .....     | 27 |
| Road Network .....                               | 28 |
| Inventory and Valuation .....                    | 28 |
| Asset Condition .....                            | 29 |
| Age Profile .....                                | 30 |
| Current Approach to Lifecycle Management .....   | 32 |
| Forecasted Long-term Replacement Needs .....     | 33 |
| Risk Analysis .....                              | 36 |
| Levels of Service .....                          | 39 |
| Bridges and Culverts .....                       | 48 |
| Inventory and Valuation .....                    | 48 |
| Asset Condition .....                            | 49 |
| Age Profile .....                                | 50 |
| Current Approach to Lifecycle Management .....   | 51 |
| Forecasted Long-term Replacement Needs .....     | 52 |
| Risk Analysis .....                              | 55 |
| Levels of Service .....                          | 58 |
| Stormwater Network .....                         | 59 |
| Inventory and Valuation .....                    | 59 |
| Asset Condition .....                            | 60 |

|                                                          |            |
|----------------------------------------------------------|------------|
| Age Profile.....                                         | 61         |
| Current Approach to Lifecycle Management .....           | 62         |
| Forecasted Long-term Replacement Needs.....              | 63         |
| Risk Analysis.....                                       | 66         |
| Levels of Service .....                                  | 69         |
| <b>Water Network .....</b>                               | <b>70</b>  |
| Inventory and Valuation.....                             | 70         |
| Asset Condition .....                                    | 71         |
| Age Profile.....                                         | 72         |
| Current Approach to Lifecycle Management .....           | 73         |
| Forecasted Long-term Replacement Needs.....              | 74         |
| Risk Analysis.....                                       | 77         |
| Levels of Service .....                                  | 80         |
| <b>Sanitary Network .....</b>                            | <b>81</b>  |
| Inventory and Valuation.....                             | 81         |
| Asset Condition .....                                    | 82         |
| Age Profile.....                                         | 83         |
| Current Approach to Lifecycle Management .....           | 84         |
| Forecasted Long-term Replacement Needs.....              | 85         |
| Risk Analysis.....                                       | 88         |
| Levels of Service .....                                  | 91         |
| <b>Growth Core Assets .....</b>                          | <b>93</b>  |
| Impact of Growth on Infrastructure .....                 | 93         |
| <b>Financial Strategy Core Assets.....</b>               | <b>95</b>  |
| Annual Capital Requirements .....                        | 96         |
| Current Infrastructure Funding Framework.....            | 97         |
| Current Funding Levels and Infrastructure Deficits ..... | 98         |
| Closing Funding Gaps .....                               | 99         |
| Tax-Funded Assets .....                                  | 99         |
| Rate-Funded Assets.....                                  | 100        |
| Reserve Levels and Use of Debt.....                      | 102        |
| <b>Recommendations and Key Considerations.....</b>       | <b>103</b> |
| Financial Strategies .....                               | 103        |
| Asset Management Program Development.....                | 103        |
| <b>Non-Core Assets .....</b>                             | <b>103</b> |
| <b>Facilities .....</b>                                  | <b>103</b> |
| Inventory and Valuation.....                             | 103        |
| Asset Condition .....                                    | 104        |
| Age Profile.....                                         | 104        |
| Current Approach to Lifecycle Management .....           | 105        |
| Forecasted Long-term Replacement Needs.....              | 106        |
| Risk Analysis.....                                       | 109        |
| Levels of Service .....                                  | 110        |

|                                                          |            |
|----------------------------------------------------------|------------|
| <b>Fleet and Fleet Equipment.....</b>                    | <b>111</b> |
| Inventory and Valuation.....                             | 111        |
| Asset Condition .....                                    | 112        |
| Age Profile.....                                         | 112        |
| Current Approach to Lifecycle Management .....           | 113        |
| Forecasted Long-term Replacement Needs.....              | 114        |
| Risk Analysis .....                                      | 117        |
| Levels of Service .....                                  | 118        |
| <b>Machinery and Equipment.....</b>                      | <b>119</b> |
| Inventory and Valuation.....                             | 119        |
| Asset Condition .....                                    | 120        |
| Age Profile.....                                         | 120        |
| Current Approach to Lifecycle Management .....           | 121        |
| Forecasted Long-term Replacement Needs.....              | 122        |
| Risk Analysis .....                                      | 125        |
| Levels of Service .....                                  | 126        |
| <b>Information Techonology Equipment .....</b>           | <b>127</b> |
| Inventory and Valuation.....                             | 127        |
| Asset Condition .....                                    | 127        |
| Age Profile.....                                         | 128        |
| Current Approach to Lifecycle Management .....           | 128        |
| Forecasted Long-term Replacement Needs.....              | 129        |
| Risk Analysis .....                                      | 132        |
| Levels of Service .....                                  | 133        |
| <b>Land Improvement.....</b>                             | <b>134</b> |
| Inventory and Valuation.....                             | 134        |
| Asset Condition .....                                    | 135        |
| Age Profile.....                                         | 135        |
| Current Approach to Lifecycle Management .....           | 136        |
| Forecasted Long-term Replacement Needs.....              | 136        |
| Risk Analysis .....                                      | 140        |
| Levels of Service .....                                  | 141        |
| <b>Growth Core Assets .....</b>                          | <b>142</b> |
| Impact of Growth on Infrastructure .....                 | 142        |
| <b>Financial Strategy Core Assets.....</b>               | <b>145</b> |
| Annual Capital Requirements .....                        | 145        |
| Current Infrastructure Funding Framework.....            | 146        |
| Current Funding Levels and Infrastructure Deficits ..... | 147        |
| Closing Funding Gaps .....                               | 147        |

## List of Figures

|                                                                                               |     |
|-----------------------------------------------------------------------------------------------|-----|
| Figure 1 Asset Condition .....                                                                | 23  |
| Figure 2 Asset Hierarchy and Data Classification .....                                        | 23  |
| Figure 3 Current Replacement Cost by Asset Category .....                                     | 24  |
| Figure 4 Asset Condition – Portfolio Overview: Core Assets .....                              | 25  |
| Figure 5 Asset Condition – By Asset Category .....                                            | 26  |
| Figure 6 Capital Replacement Needs - 2022-2101 .....                                          | 27  |
| Figure 7 Portfolio Valuation .....                                                            | 28  |
| Figure 8 Asset Condition - Road Network: Overall .....                                        | 29  |
| Figure 9 Asset Condition - Road Network: By Asset Type .....                                  | 29  |
| Figure 10 Estimated Useful Life vs. Asset Age – Road Network .....                            | 30  |
| Figure 11 Forecasted Capital Replacement Requirements - Road Network: 2022-2071 .....         | 33  |
| Figure 12 Risk Matrix - Road Network: Arterial, Collector, Local .....                        | 37  |
| Figure 13 Risk Matrix - Road Network: Sidewalks, Pathways, Trails, and Appurtenances .....    | 38  |
| Figure 14 Road Network Map 1 .....                                                            | 40  |
| Figure 15 Road Network Map 2 .....                                                            | 41  |
| Figure 16 Road Network Map 3 .....                                                            | 42  |
| Figure 17 Road Network Map 4 .....                                                            | 43  |
| Figure 18 Road Network Condition Distribution Map 1 .....                                     | 44  |
| Figure 19 Road Network Condition Distribution Map 2 .....                                     | 45  |
| Figure 20 Road Network Condition Distribution Map 3 .....                                     | 46  |
| Figure 21 Road Network Condition Distribution Map 4 .....                                     | 47  |
| Figure 22 Portfolio Valuation – Bridges & Culverts .....                                      | 48  |
| Figure 23 Asset Condition - Bridges and Culverts: Overall .....                               | 49  |
| Figure 24 Asset Condition - Bridges and Culverts: By Segment .....                            | 49  |
| Figure 25 Estimated Useful Life vs. Asset Age – Brides and Culverts .....                     | 50  |
| Figure 26 Forecasted Capital Replacement Requirements - Bridges and Culverts: 2022-2071 ..... | 52  |
| Figure 27 Risk Matrix - Bridges and Culverts .....                                            | 56  |
| Figure 28 Portfolio Valuation – Stormwater Network .....                                      | 59  |
| Figure 29 Asset Condition - Stormwater Network .....                                          | 60  |
| Figure 30 Asset Condition - Stormwater Network – By Segment .....                             | 60  |
| Figure 31 Estimated Useful Life vs. Asset Age – Stormwater Network .....                      | 61  |
| Figure 32 Forecasted Capital Replacement Requirements - Stormwater Network: 2022-2071 .....   | 63  |
| Figure 33 Risk Matrix - Stormwater Network: Linear Only .....                                 | 67  |
| Figure 34 Portfolio Valuation – Water Network .....                                           | 70  |
| Figure 35 Asset Condition - Water Network .....                                               | 71  |
| Figure 36 Asset Condition - Water Network – By Segment .....                                  | 71  |
| Figure 37 Estimated Useful Life vs. Asset Age – Water Network .....                           | 72  |
| Figure 38 Forecasted Capital Replacement Requirements - Water Network: 2022-2071 .....        | 74  |
| Figure 39 Risk Matrix - Water Network .....                                                   | 78  |
| Figure 40 Portfolio Valuation – Sanitary Network .....                                        | 81  |
| Figure 41 Asset Condition - Sanitary Network .....                                            | 82  |
| Figure 42 Asset Condition - Sanitary Network – By Segment .....                               | 82  |
| Figure 43 Estimated Useful Life vs. Asset Age – Sanitary Network .....                        | 83  |
| Figure 44 Forecasted Capital Replacement Requirements - Sanitary Network: 2022-2071 .....     | 85  |
| Figure 45 Risk Matrix - Sanitary Network: Linear Only .....                                   | 89  |
| Figure 46 Current Infrastructure Backlog by Asset Category .....                              | 101 |
| Figure 47 Asset Condition - Facilities .....                                                  | 105 |
| Figure 48 Estimated Useful Life vs. Asset Age – Facilities .....                              | 105 |
| Figure 49 Forecasted Capital Replacement Requirements - Facilities .....                      | 107 |
| Figure 50 Risk Matrix - Facilities .....                                                      | 110 |
| Figure 51 Asset Condition - Fleet .....                                                       | 114 |
| Figure 52 Estimated Useful Life vs. Asset Age – Fleet .....                                   | 114 |
| Figure 53 Forecasted Capital Replacement Requirements - Fleet .....                           | 116 |
| Figure 54 Risk Matrix - Fleet .....                                                           | 119 |
| Figure 55 Asset Condition – Machinery and Equipment .....                                     | 122 |

|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| Figure 56 Estimated Useful Life vs. Asset Age – Machinery and Equipment.....          | 122 |
| Figure 57 Forecasted Capital Replacement Requirements - Machinery and Equipment ..... | 124 |
| Figure 58 Risk Matrix - Machinery and Equipment.....                                  | 127 |
| Figure 59 Asset Condition – Information Technology.....                               | 129 |
| Figure 60 Estimated Useful Life vs. Asset Age – Information Technology.....           | 130 |
| Figure 61 Forecasted Capital Replacement Requirements - Information Technology.....   | 131 |
| Figure 62 Risk Matrix - Information Technology .....                                  | 134 |
| Figure 63 Asset Condition – Land Improvement.....                                     | 137 |
| Figure 64 Estimated Useful Life vs. Asset Age – Land Improvement .....                | 137 |
| Figure 65 Forecasted Capital Replacement Requirements - Land Improvement .....        | 139 |
| Figure 66 Risk Matrix - Land Improvement.....                                         | 142 |

## List of Tables

|                                                                                                         |     |
|---------------------------------------------------------------------------------------------------------|-----|
| Table 1 Ontario Regulation 588/17 Requirements and Reporting Deadlines.....                             | 11  |
| Table 2 Lifecycle Management: Typical Lifecycle Interventions.....                                      | 14  |
| Table 3 Risk Analysis: Types of Consequences of Failure.....                                            | 16  |
| Table 4 Standard Condition Rating Scale.....                                                            | 18  |
| Table 5 Source of Condition Data.....                                                                   | 19  |
| Table 6 Detailed Asset Inventory - Road Network.....                                                    | 28  |
| Table 7 Current Lifecycle Management Strategies - .....                                                 | 32  |
| Table 8 System-generated 10-Year Capital Replacement Forecast - Road Network.....                       | 34  |
| Table 9 Planned Capital, Operating, and Maintenance Expenditures- Road Network.....                     | 35  |
| Table 10 Ontario Regulation 588/17 Community Levels of Service - Roads .....                            | 39  |
| Table 11 Ontario Regulation 588/17 Technical Levels of Service - Roads .....                            | 39  |
| Table 12 Detailed Asset Inventory - Bridges and Culverts .....                                          | 48  |
| Table 13 System-generated 10-Year Capital Replacement Forecast - Bridges and Culverts .....             | 53  |
| Table 14 Planned Capital, Operating, and Maintenance Expenditures- Bridges & Culverts.....              | 54  |
| Table 15 Ontario Regulation 588/17 Community Levels of Service - Bridges and Culverts .....             | 58  |
| Table 16 Ontario Regulation 588/17 Technical Levels of Service - Bridges and Culverts .....             | 58  |
| Table 17 Detailed Asset Inventory - Stormwater Network .....                                            | 59  |
| Table 18 System-generated 10-Year Replacement Forecast - Stormwater Network .....                       | 64  |
| Table 19 Planned Capital, Operating, and Maintenance Expenditures - Stormwater Network.....             | 65  |
| Table 20 Ontario Regulation 588/17 Community Levels of Service - Stormwater Network .....               | 69  |
| Table 21 Ontario Regulation 588/17 Technical Levels of Service - Stormwater Network .....               | 69  |
| Table 22 Detailed Asset Inventory - Water Network.....                                                  | 70  |
| Table 23 System-generated 10-Year Replacement Forecast - Water Network .....                            | 75  |
| Table 24 Planned Capital, Operating, and Maintenance Expenditures- Water Network.....                   | 76  |
| Table 25 Ontario Regulation 588/17 Community Levels of Service - Water Network.....                     | 80  |
| Table 26 Ontario Regulation 588/17 Technical Levels of Service - Water Network.....                     | 80  |
| Table 27 Detailed Asset Inventory - Sanitary Network .....                                              | 81  |
| Table 28 System-generated 10-Year Replacement Forecast - Sanitary Network.....                          | 86  |
| Table 29 Planned Capital, Operating, and Maintenance Expenditures- Sanitary Network .....               | 87  |
| Table 30 Ontario Regulation 588/17 Community Levels of Service - Sanitary Network .....                 | 91  |
| Table 31 Ontario Regulation 588/17 Technical Levels of Service - Sanitary Network .....                 | 92  |
| Table 32 Capital, Operating, and Maintenance Costs as a Percentage of Current Replacement Cost.....     | 94  |
| Table 33 Average Annual Capital Requirements.....                                                       | 96  |
| Table 34 Canadian Infrastructure Report Card (CIRC) Reinvestment Rate Targets .....                     | 96  |
| Table 35 Allocation of Average Annual Infrastructure Funding by Asset Category .....                    | 97  |
| Table 36 Current Funding Position vs. Required Funding .....                                            | 98  |
| Table 37 Target vs. Actual Reinvestment Rates.....                                                      | 98  |
| Table 38 Increase Needed in Property Taxation Revenue to Meet Annual Infrastructure Needs.....          | 99  |
| Table 39 Phasing in Tax Increases.....                                                                  | 99  |
| Table 40 Increase Needed in Water and Wastewater Rate Revenues to Meet Annual Infrastructure Needs..... | 100 |
| Table 41 Phasing in Rate Increases .....                                                                | 100 |
| Table 42 Infrastructure Reserve Levels .....                                                            | 102 |
| Table 43 Detailed Asset Inventory - Facilities.....                                                     | 103 |
| Table 44 System-generated 10-Year Replacement Forecast - Facilities .....                               | 107 |
| Table 45 Planned Capital, Operating, and Maintenance Expenditures- Facilities.....                      | 107 |
| Table 46 Ontario Regulation 588/17 Community Levels of Service -Facilities.....                         | 110 |
| Table 46 Ontario Regulation 588/17 Technical Levels of Service - Facilities.....                        | 110 |
| Table 47 Detailed Asset Inventory - Fleet.....                                                          | 112 |
| Table 48 System-generated 10-Year Replacement Forecast - Fleet .....                                    | 117 |
| Table 49 Planned Capital, Operating, and Maintenance Expenditures- Fleet.....                           | 117 |
| Table 50 Ontario Regulation 588/17 Community Levels of Service -Fleet.....                              | 118 |
| Table 50 Ontario Regulation 588/17 Technical Levels of Service - Fleet.....                             | 118 |
| Table 51 Detailed Asset Inventory – Machinery and Equipment.....                                        | 120 |

|                                                                                                   |     |
|---------------------------------------------------------------------------------------------------|-----|
| Table 52 System-generated 10-Year Replacement Forecast – Machinery and Equipment .....            | 124 |
| Table 53 Planned Capital, Operating, and Maintenance Expenditures- Machinery and Equipment.....   | 125 |
| Table 54 Ontario Regulation 588/17 Community Levels of Service - Machinery and Equipment.....     | 127 |
| Table 54 Ontario Regulation 588/17 Technical Levels of Service - Machinery and Equipment.....     | 127 |
| Table 55 Detailed Asset Inventory – Information Technology .....                                  | 128 |
| Table 56 System-generated 10-Year Replacement Forecast – Information Technology .....             | 131 |
| Table 57 Planned Capital, Operating, and Maintenance Expenditures- Information Technology .....   | 132 |
| Table 58 Ontario Regulation 588/17 Community Levels of Service - Information Technology .....     | 134 |
| Table 58 Ontario Regulation 588/17 Technical Levels of Service - Information Technology .....     | 134 |
| Table 59 Detailed Asset Inventory – Land Improvement.....                                         | 135 |
| Table 60 System-generated 10-Year Replacement Forecast – Land Improvement .....                   | 139 |
| Table 61 Planned Capital, Operating, and Maintenance Expenditures- Land Improvement .....         | 142 |
| Table 62 Ontario Regulation 588/17 Community Levels of Service - Land Improvement.....            | 142 |
| Table 62 Ontario Regulation 588/17 Technical Levels of Service - Land Improvement.....            | 142 |
| Table 63 Capital, Operating, and Maintenance Costs as a Percentage of Current Replacement Cost... | 144 |
| Table 64 Average Annual Capital Requirements.....                                                 | 146 |
| Table 65 Allocation of Average Annual Infrastructure Funding by Asset Category .....              | 146 |
| Table 66 Current Funding Position vs. Required Funding .....                                      | 147 |

# Executive Summary

This asset management plan (AMP) for the Town of LaSalle's core infrastructure and non-core assets is developed in accordance with Ontario Regulation 588/17 ("O. Reg"). It provides a detailed overview of the Town's capital assets, including the current state of the infrastructure, risk and criticality analysis, and short- and long-term capital needs. Although a financial strategy is not required by O. Reg 588/17, it is included in the AMP to support long-term sustainability goals for LaSalle's core asset groups.

The Town's current core infrastructure and non-core asset portfolio is valued at more than **\$748 million (\$612 million core asset and \$136 million in non-core assets)** and comprises a road network of arterial, collector, and local roadways; bridges and structural culverts; water distribution infrastructure; wastewater collection system; stormwater collection and conveyance infrastructure, facilities, land improvements, fleet, machinery and equipment and information technology equipment. At 35% of the total portfolio, the Town's stormwater network forms the largest share of the core asset portfolio, followed by the road network at 24%. Facilities represents 62% of non-core assets, significantly larger than the remaining 4 categories.

Based on both assessed condition and age-based analysis, 92% of the Town's core infrastructure portfolio is in fair or better condition; the remaining 8%, with a current replacement cost of \$44 million was classified as poor or worse. No condition data was available for some major infrastructure assets, including sidewalks and sanitary mains. For these assets, only age was used to estimate condition. With respect to the non-core assets, 60% of the portfolio are in fair or better condition, the remaining 40% was classified as poor or worse. No condition data was available for much of the non-core assets such as facilities and land improvements. Age typically understates asset condition; it is likely that the actual physical state of assets is better than approximated by their age, and they can continue to perform their intended functions.

Typically, assets in poor or worse condition can require replacement or major rehabilitation in the immediate or short-term. Targeted condition assessments will help further refine the list of assets that may be candidates for immediate intervention. Keeping assets in fair or better condition is typically more cost-effective than addressing assets needs when they enter the latter stages of their lifecycle or a drop to a lower condition rating, e.g., poor or worse.

Aging assets require maintenance, rehabilitation, and replacement. On average, \$14.8 million is required each year to remain current with capital replacement needs for the Town's core asset portfolio and an additional \$7.2 million is required for non-core assets. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The municipality is meeting 81% of its an annual infrastructure needs for core asset categories and meeting 30% of the funding needs for non-core assets, in total LaSalle is meeting 65% of

its annual needs. Although this creates an annual deficit, LaSalle is among a minority of municipalities that achieve high annual funding levels for infrastructure and non-core assets.

# About this document

This asset management plan (AMP) for the Town of LaSalle was developed in accordance with Ontario Regulation 588/17 (“O. Reg 588/17”). It contains a comprehensive analysis of LaSalle’s infrastructure and non-core asset portfolio. The AMP is a living document that should be updated regularly as additional asset and financial data becomes available.

## Ontario Regulation 588/17

As part of the *Infrastructure for Jobs and Prosperity Act, 2015*, the Ontario government introduced Regulation 588/17 - Asset Management Planning for Municipal Infrastructure. Along with creating better performing organizations, more livable and sustainable communities, the regulation is a key, mandated driver of asset management planning and reporting. It places substantial emphasis on current and proposed levels of service and the lifecycle costs incurred in delivering them.

Table 1 Ontario Regulation 588/17 Requirements and Reporting Deadlines

| Requirement                                                | 2019 | 2022 | 2024 | 2025 |
|------------------------------------------------------------|------|------|------|------|
| Asset Management Policy                                    | ●    |      | ●    |      |
| Asset Management Plans                                     |      | ●    | ●    | ●    |
| State of infrastructure for core assets                    |      | ●    |      |      |
| State of infrastructure for all assets                     |      |      | ●    | ●    |
| Current levels of service for core assets                  |      | ●    |      |      |
| Current levels of service for all assets                   |      |      | ●    |      |
| Proposed levels of service for all assets                  |      |      |      | ●    |
| Lifecycle costs associated with current levels of service  |      | ●    | ●    |      |
| Lifecycle costs associated with proposed levels of service |      |      |      | ●    |
| Growth impacts                                             |      | ●    | ●    | ●    |
| Financial strategy                                         |      |      |      | ●    |

## Scope

The scope of this AMP includes all requirements for the 2024 reporting deadline, covering the Town’s core asset and non-core categories.

# Overview of Asset Management

Municipalities are responsible for managing and maintaining a broad portfolio of infrastructure assets to deliver services to the community. The goal of asset management is to minimize the lifecycle costs of delivering infrastructure services, manage the associated risks, while maximizing the value and levels of service ratepayers receive from the asset portfolio.

Lifecycle costs can span decades, requiring planning and foresight to ensure financial responsibility is spread equitably across generations. An asset management plan is critical to this planning, and an essential element of broader asset management program. The industry-standard approach and sequence to developing a practical asset management program begins with a Strategic Plan, followed by an Asset Management Policy and an Asset Management Strategy, concluding with an Asset Management Plan.

This industry standard, defined by the Institute of Asset Management (IAM), emphasizes the alignment between the corporate strategic plan and various asset management documents. The strategic plan has a direct, and cascading impact on asset management planning and reporting.

# Key Technical Concepts in Asset Management

Effective asset management integrates several key components, including lifecycle management, risk management, and levels of service. These concepts are applied throughout this asset management plan and are described below in greater detail.

## Lifecycle Management Strategies

The condition or performance of most assets will deteriorate over time. This process is affected by a range of factors including an asset's characteristics, location, utilization, maintenance history and environment. Asset deterioration has a negative effect on the ability of an asset to fulfill its intended function, and may be characterized by increased cost, risk and even service disruption.

To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

There are several field intervention activities that are available to extend the life of an asset. These activities can be generally placed into one of three categories: maintenance, rehabilitation, and replacement. Table 2 table provides a description of each type of activity, the general difference in cost, and typical risks associated with each.

Depending on initial lifecycle management strategies, asset performance can be sustained through a combination of maintenance and rehabilitation, but at some point, replacement is required. Understanding what effect these activities will have on the lifecycle of an asset, and their cost, will enable staff to make better recommendations.

The Town's approach to lifecycle management is described within each asset category outlined in this AMP. Developing and implementing a proactive lifecycle strategy will help staff to determine which activities to perform on an asset and when they should be performed to maximize useful life at the lowest total cost of ownership.

Table 2 Lifecycle Management: Typical Lifecycle Interventions

| Lifecycle Activity             | Description                                                                                                     | Cost         | Typical Associated Risks                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance                    | Activities that prevent defects or deteriorations from occurring                                                | \$           | <ul style="list-style-type: none"> <li>Balancing limited resources between planned maintenance and reactive, emergency repairs and interventions;</li> <li>Diminishing returns associated with excessive maintenance activities, despite added costs;</li> <li>Intervention selected may not be optimal and may not extend the useful life as expected, leading to lower payoff and potential premature asset failure;</li> </ul> |
| Rehabilitation/<br>Renewal     | Activities that rectify defects or deficiencies that are already present and may be affecting asset performance | \$\$\$\$     | <ul style="list-style-type: none"> <li>Useful life may not be extended as expected;</li> <li>May be costlier in the long run when assessed against full reconstruction or replacement;</li> <li>Loss or disruption of service, particularly for underground assets;</li> </ul>                                                                                                                                                    |
| Replacement/<br>Reconstruction | Asset end-of-life activities that often involve the complete replacement of assets                              | \$\$\$\$\$\$ | <ul style="list-style-type: none"> <li>Incorrect or unsafe disposal of existing asset;</li> <li>Costs associated with asset retirement obligations;</li> <li>Substantial exposure to high inflation and cost overruns;</li> <li>Replacements may not meet capacity needs for a larger population;</li> <li>Loss or disruption of service, particularly for underground assets;</li> </ul>                                         |

## Risk and Criticality

Asset risk and criticality are essential building blocks of asset management, integral in prioritizing projects and distributing funds where they are needed most based on a variety of factors. Assets in disrepair may fail to perform their intended function, pose substantial risk to the community, lead to unplanned expenditures, and create liability for the municipality. In addition, some assets are simply more important to the community than others, based on their financial significance, their role in delivering essential services, the impact of their failure on public health and safety, and the extent to which they support a high quality of life for community stakeholders.

Risk is a product of two variables: the probability that an asset will fail, and the resulting consequences of that failure event. It can be a qualitative measurement, (low, medium, high) or quantitative measurement (1-5), that can be used to rank assets and projects, identify appropriate lifecycle strategies, optimize short- and long-term budgets, minimize service disruptions, and maintain public health and safety.

The approach used in this AMP relies on a quantitative measurement of risk associated with each asset. The probability and consequence of failure are each scored from 1 to 5, producing a minimum risk index of 1 for the lowest risk assets, and a maximum risk index of 25 for the highest risk assets.

### Probability of Failure

Several factors can help decision-makers estimate the probability or likelihood of an asset's failure, including its condition, age, previous performance history, and exposure to extreme weather events, such as flooding and ice jams—both a growing concern for municipalities in Canada.

### Consequence of Failure

Estimating criticality also requires identifying the types of consequences that the organization and community may face from an asset's failure, and the magnitude of those consequences. Consequences of asset failure will vary across the infrastructure portfolio; the failure of some assets may result primarily in high direct financial cost but may pose limited risk to the community. Other assets may have a relatively minor financial value, but any downtime may pose significant health and safety hazards to residents.

Table 3 illustrates the various types of consequences that can be integrated in developing risk and criticality models for each asset category and segments within. We note that these consequences are common, but not exhaustive.

Table 3 Risk Analysis: Types of Consequences of Failure

| Type of Consequence      | Description                                                                                                                                                                                                                                                                                                                              |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Direct Financial         | Direct financial consequences are typically measured as the replacement costs of the asset(s) affected by the failure event, including interdependent infrastructure.                                                                                                                                                                    |
| Economic                 | Economic impacts of asset failure may include disruption to local economic activity and commerce, business closures, service disruptions, etc. Whereas direct financial impacts can be seen immediately or estimated within hours or days, economic impacts can take weeks, months and years to emerge, and may persist for even longer. |
| Socio-political          | Socio-political impacts are more difficult to quantify and may include inconvenience to the public and key community stakeholders, adverse media coverage, and reputational damage to the community and the Town.                                                                                                                        |
| Environmental            | Environmental consequences can include pollution, erosion, sedimentation, habitat damage, etc.                                                                                                                                                                                                                                           |
| Public Health and Safety | Adverse health and safety impacts may include injury or death, or impeded access to critical services.                                                                                                                                                                                                                                   |
| Strategic                | These include the effects of an asset's failure on the community's long-term strategic objectives, including economic development, business attraction, etc.                                                                                                                                                                             |

This AMP includes an evaluation of asset risk and criticality. Each asset has been assigned a probability of failure score and consequence of failure score based on available asset attribute data. These risk scores can be used to prioritize maintenance, rehabilitation, and replacement strategies for critical assets.

## Levels of Service

A level of service (LOS) is a measure of the services that the Town is providing to the community and the nature and quality of those services. Within each asset category in this AMP, technical metrics and qualitative descriptions that measure both technical and community levels of service have been established and measured as data is available.

The Town measures the level of service provided at two levels: Community Levels of Service, and Technical Levels of Service. At this stage, only those LOS that are required under O. Reg. 588/17 are included.

### Community Levels of Service

Community levels of service are a simple, plain language description or measure of the service that the community receives. For core asset categories (Roads, Bridges & Culverts, Water, Wastewater, Stormwater) the Province, through O. Reg. 588/17, has provided qualitative descriptions that are required to be included in this AMP.

### Technical Levels of Service

Technical levels of service are a measure of key technical attributes of the service being provided to the community. These include mostly quantitative measures and tend to reflect the impact of the Town's asset management strategies on the physical condition of assets or the quality/capacity of the services they provide.

For core asset categories (Roads, Bridges & Culverts, Water, Wastewater, and Stormwater) the province, through O. Reg. 588/17, has also provided technical metrics that are required to be included in this AMP.

### Current and Proposed Levels of Service

This AMP focuses on measuring the current level of service provided to the community. Once current levels of service have been measured, the Town plans to establish proposed levels of service over a 10-year period, in accordance with O. Reg. 588/17.

Proposed levels of service should be realistic and achievable within the timeframe outlined by the Town. They should also be determined with consideration of a variety of community expectations, fiscal capacity, regulatory requirements, corporate goals and long-term sustainability. Once proposed levels of service have been established, and prior to July 2025, the Town must identify a lifecycle management and financial strategy which allows these targets to be achieved.

## Asset Condition Rating Scale

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 is used to approximate asset condition.

Table 4 Standard Condition Rating Scale

| Condition | Pavement Condition Index (PCI) | Pipe Rating | Bridge Condition Index (BCI) | Age-based (Service Life Remaining%) | Broad Criteria                                                                                                                                                                                         |
|-----------|--------------------------------|-------------|------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very Good | 91-100                         | 0-1         | 70-100                       | 80-100                              | <b>Fit for the future</b><br>Well maintained, good condition, new or recently rehabilitated; no defects or minor defects                                                                               |
| Good      | 76-90                          | 2           |                              | 60-80                               | <b>Adequate for now</b><br>Acceptable, signs of minor to defects and deterioration                                                                                                                     |
| Fair      | 66-75                          | 3           | 50-70                        | 40-60                               | <b>Requires attention</b><br>Signs of moderate deterioration and defects, some elements exhibit significant deficiencies                                                                               |
| Poor      | 40-65                          | 4           | <50                          | 20-40                               | <b>Increasing potential of affecting service</b><br>Approaching end of service life, condition below standard, large portion of system exhibits significant deterioration; significant defects overall |
| Very Poor | 0-39                           | 5           |                              | 0-20                                | <b>Unfit for sustained service</b><br>Near or beyond expected service life, widespread signs of advanced deterioration, some assets may be unusable                                                    |

## Source of Asset Condition

The analysis in this AMP is based on assessed condition data when available. In the absence of assessed condition data, asset age is used as a proxy to determine asset condition. Table 5 provides the source of condition assessment data, if available, for each asset category. For assets not identified in the table, only age data was used to approximate their condition.

Table 5 Source of Condition Data

| Asset Category     | Percentage of Assets (by replacement cost)<br>with Condition Assessment Available | Condition Data Details                                                                                                               |
|--------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Road Network       | Arterial Surface – 87%<br>Collector Surface – 93%<br>Local Surface – 95%          | StreetScan Roadway<br>Assessment<br>2021 (surface only)                                                                              |
| Bridges & Culverts | Bridges – 100%<br>Structural Culverts – 100%                                      | Dillon Consulting OSIM<br>Inspection 2021                                                                                            |
| Stormwater Network | Storm Mains – 97%<br>Storm Manholes – 84%<br>Catch Basin – 76%                    | Sewer Technologies Inc.<br>Storm Main Assessment<br>2019<br><br>Catch Basin and Manhole<br>Assessment 2014 – Internal<br>Assessments |
| Water Network      | Water Mains - 86%                                                                 | Internal Assessments                                                                                                                 |
| Sanitary Network   | 0%                                                                                | Age-based only                                                                                                                       |

## Foundational Documents in Asset Management

In the municipal sector, ‘asset management strategy’ and ‘asset management plan’ are often used interchangeably. Other concepts such as ‘asset management framework’, ‘asset management system’, and ‘strategic asset management plan’ further add to the confusion; lack of consistency in the industry on the purpose and definition of these elements offers little clarity. We make a clear distinction between the policy, strategy, and the plan.

### Asset Management Policy

An asset management policy represents a statement of the principles guiding the Town’s approach to asset management activities. It aligns with the organizational strategic plan and provides clear direction to municipal staff on their roles and responsibilities as part of the asset management program. All municipalities were required to develop and adopt an asset management policy in 2019 in compliance with O. Reg 588/17.

### Asset Management Strategy

An asset management strategy is typically a higher-level document, focusing on business processes and organizational practices. It is a roadmap that includes key initiatives with recommended timelines that lead to higher state of asset management maturity. It is intended to convert the asset management policy from a set of formal, institutionalized, but philosophical commitments into specific actions.

While not a static document, the strategy should not evolve and change frequently—unlike the asset management plan. The strategy provides a long-term outlook on the overall asset management program development and strengthening key elements of its framework.



The Town of LaSalle developed its first corporate asset management strategy in 2022. An asset management policy was also completed in 2019 in compliance with O. Reg 588/17 requirements.

### Asset Management Plan

The asset management plan is often identified as a key output within the strategy. The AMP has a sharp focus on the current state of the Town’s asset portfolio, and its approach to managing and funding individual service areas or asset groups. It is tactical in nature and provides a snapshot in time.

The strategic plan has a direct, and cascading impact on asset management planning and reporting, making it a foundational element. Many municipalities begin with an asset management plan. However, without the preceding documents, the AMP operates in a vacuum.

# Limitations and Constraints

This AMP required substantial effort by staff. It was developed based on best-available data, and was subject to the following limitations, constraints, and assumptions.

- Although the Town's asset datasets have improved over the last year, some gaps persist, including incomplete condition data.
- In the absence of condition assessment data, age was used to estimate asset condition ratings. This approach can result in an over- or understatement of asset needs. As a result, financial requirements generated through this approach can differ from those identified by staff.
- The risk models are designed to support objective project prioritization and selection. However, in addition to the inherent limitations that all models face, they also require availability of important asset attribute data to ensure that asset risk ratings are valid, and assets are properly stratified within the risk matrix. Missing attribute data can misclassify assets.

These limitations have a direct impact on most of the analysis presented in this AMP, including condition summaries, age profiles, long-term replacement and rehabilitation forecasts, and shorter term, 10-year forecasts that are generated from Citywide, the Town's primary asset management system.

These challenges are quite common among municipalities and require long-term commitment and sustained effort by staff. As LaSalle's asset management program evolves and advances, the quality of future AMPs and other core documents that support asset management will continue to increase. The Town's recently completed asset management strategy provides a roadmap to overcome these limitations and make continuous improvements.



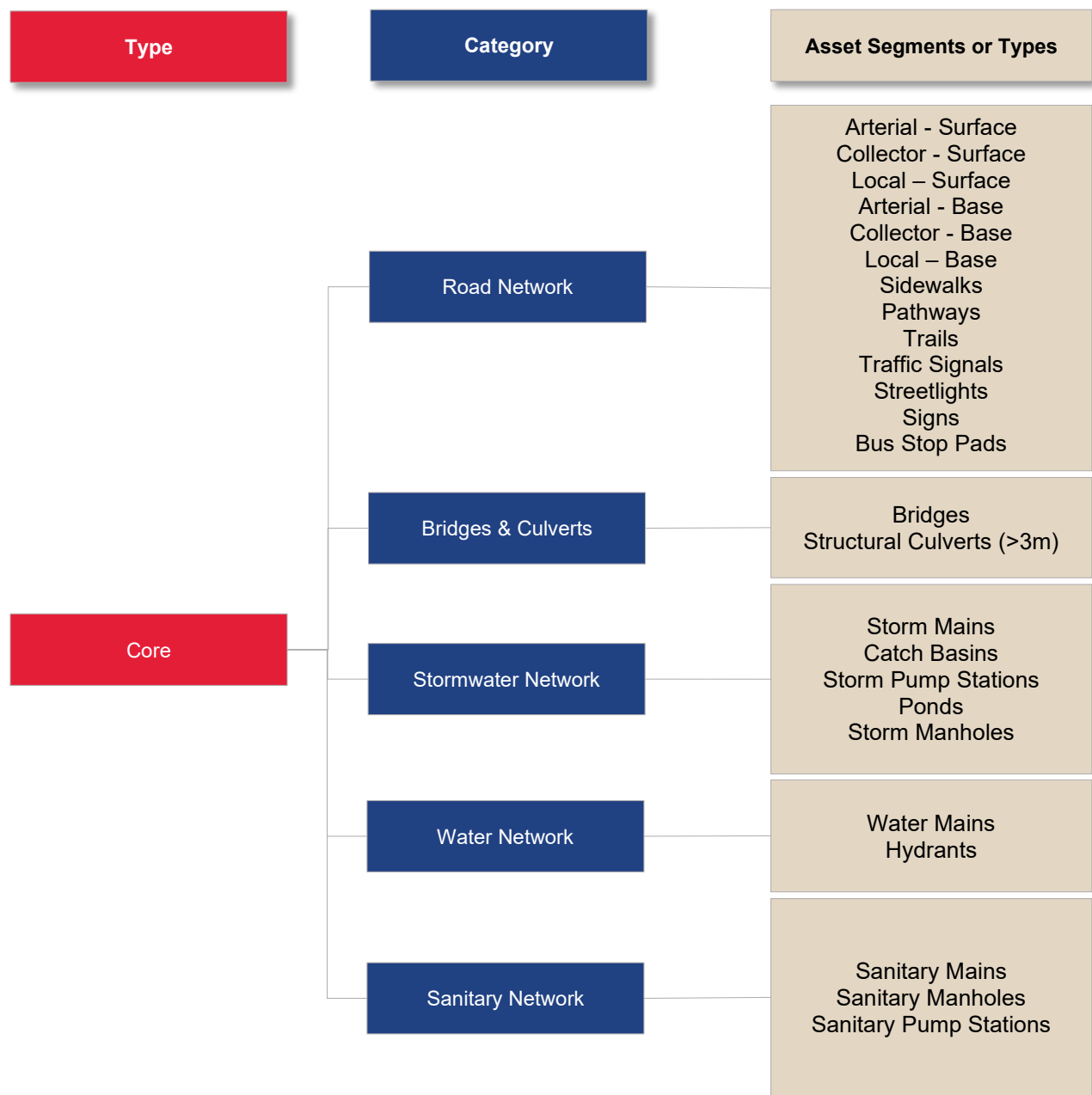
# State of the Infrastructure

The state of the infrastructure (SOTI) summarizes the inventory, condition, age profiles, and other key performance indicators for the Town's core infrastructure portfolio. These details are presented for all asset categories at the segment level. Figure 2 illustrates how assets were classified within the infrastructure data hierarchy.

# Asset Hierarchy and Data Classification

Asset hierarchy explains the relationship between individual assets and their components, and a wider, more expansive network and system. How assets are grouped in a hierarchy structure can impact how data is interpreted. Assets were structured to support meaningful, efficient reporting and analysis. Key category details are summarized at asset segment level

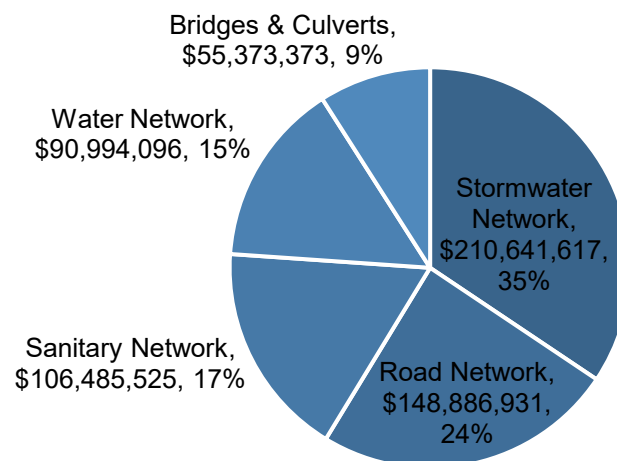
Figure 1 Asset Hierarchy and Data Classification



## Portfolio Overview

The five core asset categories analyzed in this asset management plan have a total current replacement cost of \$612 million. This estimate was calculated using cost per unit and user-defined costing, as well as inflation of historical or original costs to current date. Figure 3 illustrates the replacement cost of each asset category; at 35% of the total portfolio, the Town's stormwater network forms the largest share of the asset portfolio, followed by the road network at 24%.

Figure 2 Current Replacement Cost by Asset Category



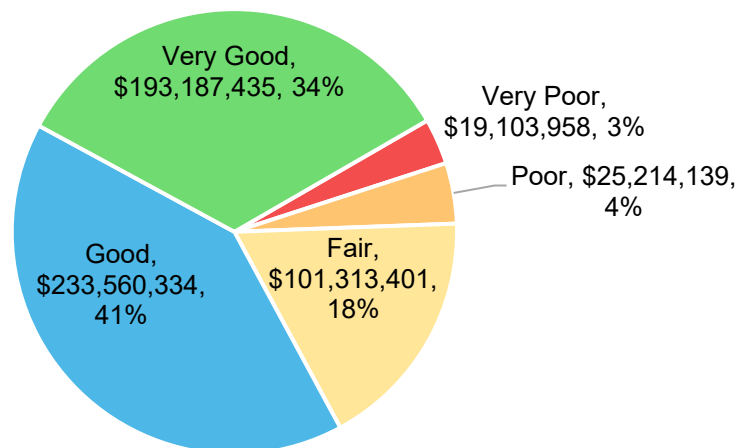
Total Current Replacement Cost: \$612,381,541

## Condition Data

Based on both assessed condition and age-based analysis, 92% of the Town's core infrastructure portfolio is in fair or better condition; the remaining 8%, with a current replacement cost of \$44 million was classified as poor or worse. No condition data was available for some major infrastructure assets, including sidewalks and sanitary assets. For these assets, only age was used to estimate condition. We note that age typically understates asset condition.

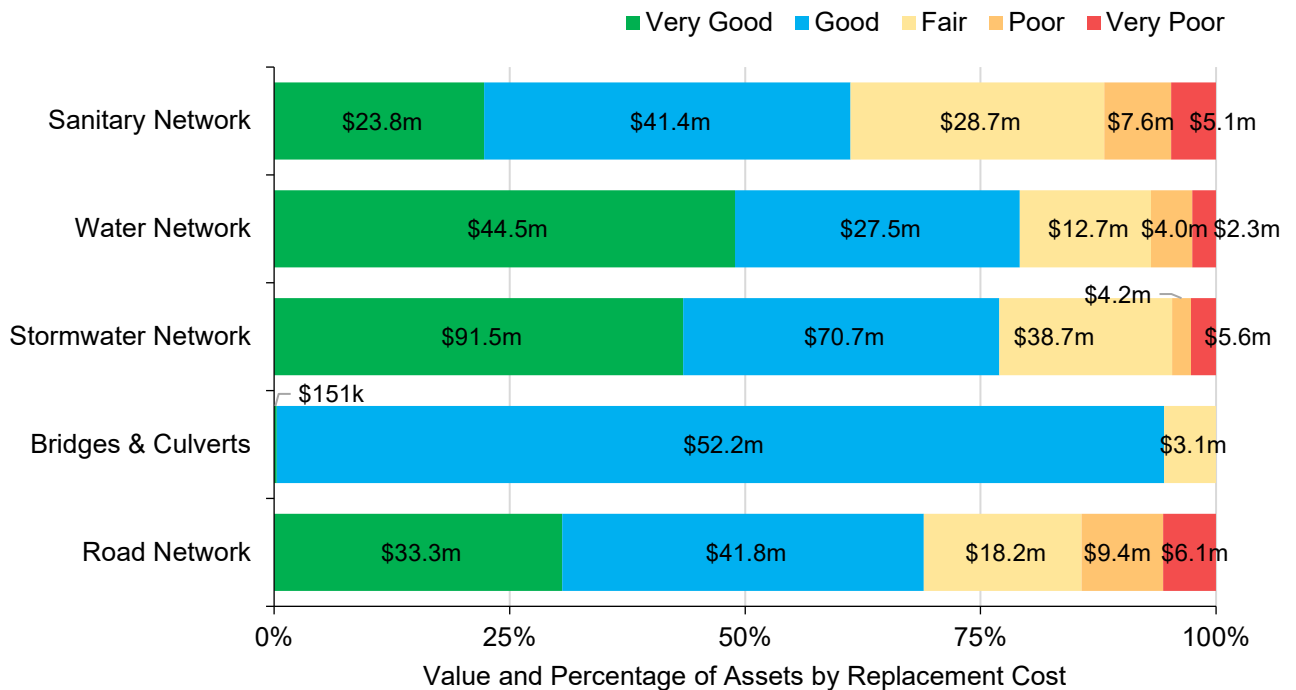
Typically, assets in poor or worse condition may require replacement or major rehabilitation in the immediate or short-term. Targeted condition assessments will help further refine the list of assets that may be candidates of immediate intervention. Keeping assets in fair or better condition is typically more cost-effective than addressing assets needs when they enter the latter stages of their lifecycle or a drop to a lower condition rating, e.g., poor or worse.

Figure 3 Asset Condition – Portfolio Overview: Core Assets



As further illustrated in Figure 5, based on current replacement costs, approximately 90% of core assets in each asset category was estimated to be in fair or better condition. This was determined using both actual condition data as available, and age-based estimates.

Figure 4 Asset Condition – By Asset Category



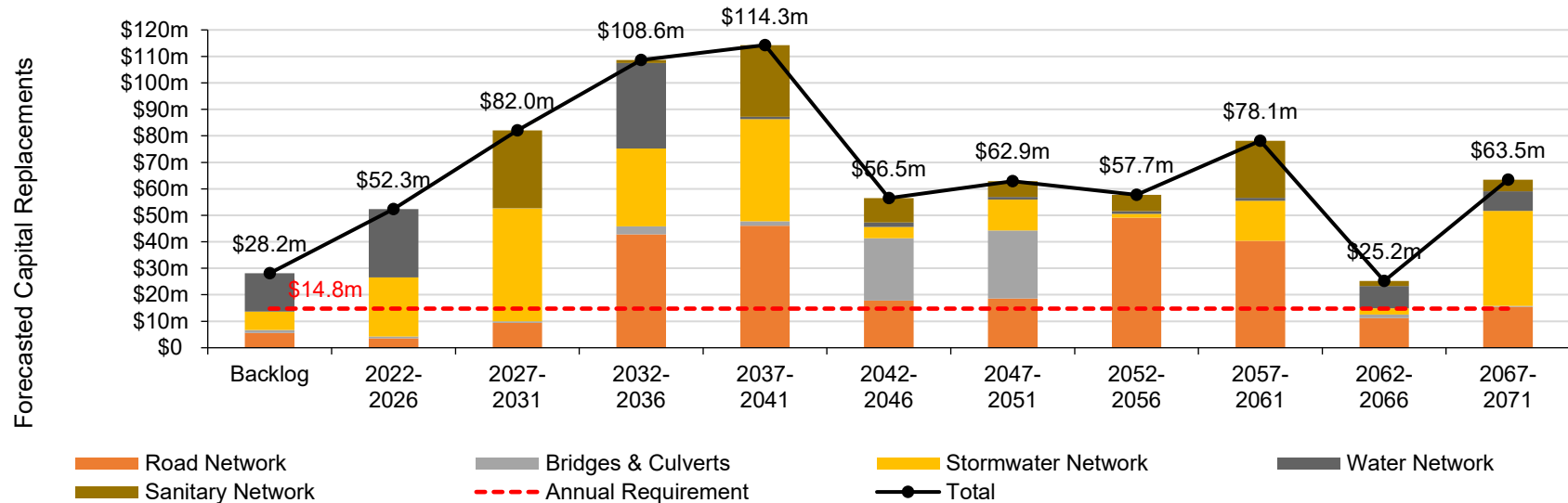
Although age can understate asset condition, particularly for water, sanitary, and storm mains, it should remain an important indicator to guide repair, rehabilitation, and replacement strategies.

## Forecasted Long-term Replacement Needs

Aging assets require maintenance, rehabilitation, and replacement. Figure 6 below illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for all asset categories. On average, \$14.8 million is required each year to remain current with capital replacement needs for the Town's core asset portfolio (red dotted line). Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

This figure relies on age, available condition data, and lifecycle modeling. The chart also illustrates a backlog of more than \$28 million, comprising assets that remain in service beyond their estimated useful life. It is highly unlikely that all such assets are in a state of disrepair, requiring immediate replacements or full reconstruction. This makes targeted and consistent condition assessments integral. Risk frameworks and levels of service targets can then be used to prioritize projects, continuously refine estimates for both backlogs and ongoing capital needs, and help select the right lifecycle intervention for the right asset at the right time—including replacement or full reconstruction.

Figure 5 Capital Replacement Needs - 2022-2101



# Road Network

The Town of LaSalle's Road Network comprises the second largest share of its infrastructure portfolio, with a current replacement cost of \$149 million, distributed primarily between arterial, collector, and local roadways. The Town also owns and manages other supporting and related infrastructure and capital assets, including asphalt and concrete sidewalks, pathways, trails, and streetlights.

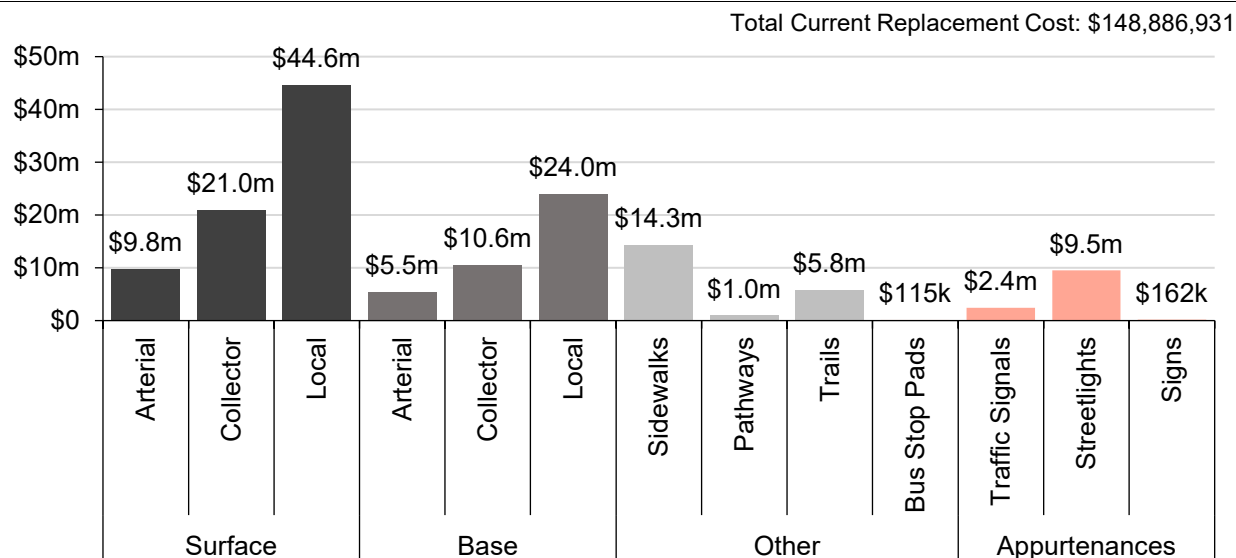
## Inventory and Valuation

Table 6 summarizes the quantity and current replacement cost of the Town's various road network assets as available in its primary asset management register, Citywide. The replacement cost of all arterial, collector, and local roads includes the road base, which has a combined replacement cost of \$40 million.

Table 6 Detailed Asset Inventory - Road Network

| Segment         | Quantity | Unit of Measure | Primary Replacement Cost Method | Replacement Cost     |
|-----------------|----------|-----------------|---------------------------------|----------------------|
| Arterial Roads  | 16,869   | Meters          | Cost per unit                   | \$15,272,838         |
| Collector Roads | 53,432   | Meters          | Cost per unit                   | \$31,571,387         |
| Local Roads     | 133,942  | Meters          | Cost per unit                   | \$68,583,373         |
| Traffic Signals | 27       | Assets          | CPI                             | \$2,423,311          |
| Streetlights    | 6,121    | Assets          | CPI                             | \$9,546,776          |
| Signs           | 49       | Assets          | CPI                             | \$161,685            |
| Sidewalks       | 104,324  | Meters          | Cost per unit                   | \$14,341,925         |
| Pathways        | 4,578    | Meters          | Cost per unit                   | \$1,025,402          |
| Trails          | 33,603   | Meters          | Cost per unit                   | \$5,845,176          |
| Bus Stop Pads   | 3        | Assets          | CPI                             | \$115,058            |
| <b>Total</b>    |          |                 |                                 | <b>\$148,886,931</b> |

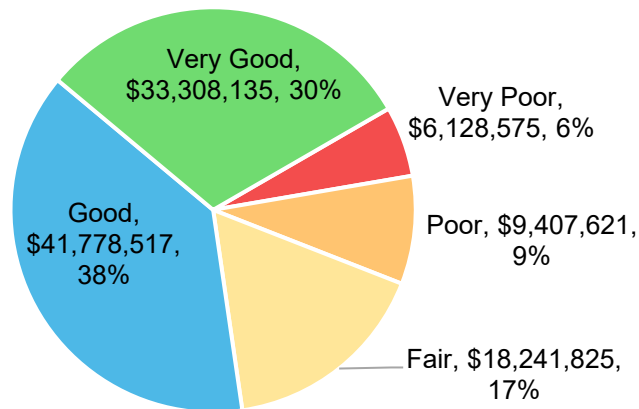
Figure 6 Portfolio Valuation



## Asset Condition

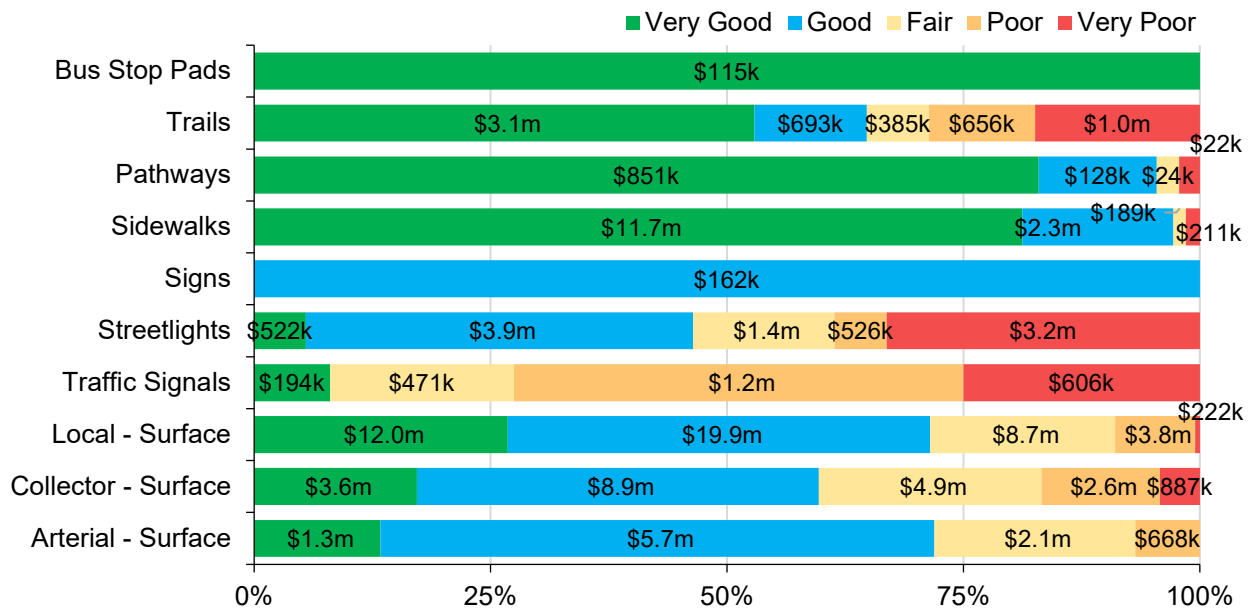
Figure 8 summarizes the replacement cost-weighted condition of the Town's road network. Based primarily on condition assessments, 86% of road network assets are in fair or better condition; the remaining 14% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 7 Asset Condition - Road Network: Overall



As further illustrated in Figure 9, based on condition assessments and the pavement condition index (PCI) values, the vast majority of the Town's arterial, collector, and local roadways are in fair or better condition. The majority of traffic signals are considered to be in poor or worse condition, based only on age data.

Figure 8 Asset Condition - Road Network: By Asset Type



Value and Percentage of Assets by Replacement Cost

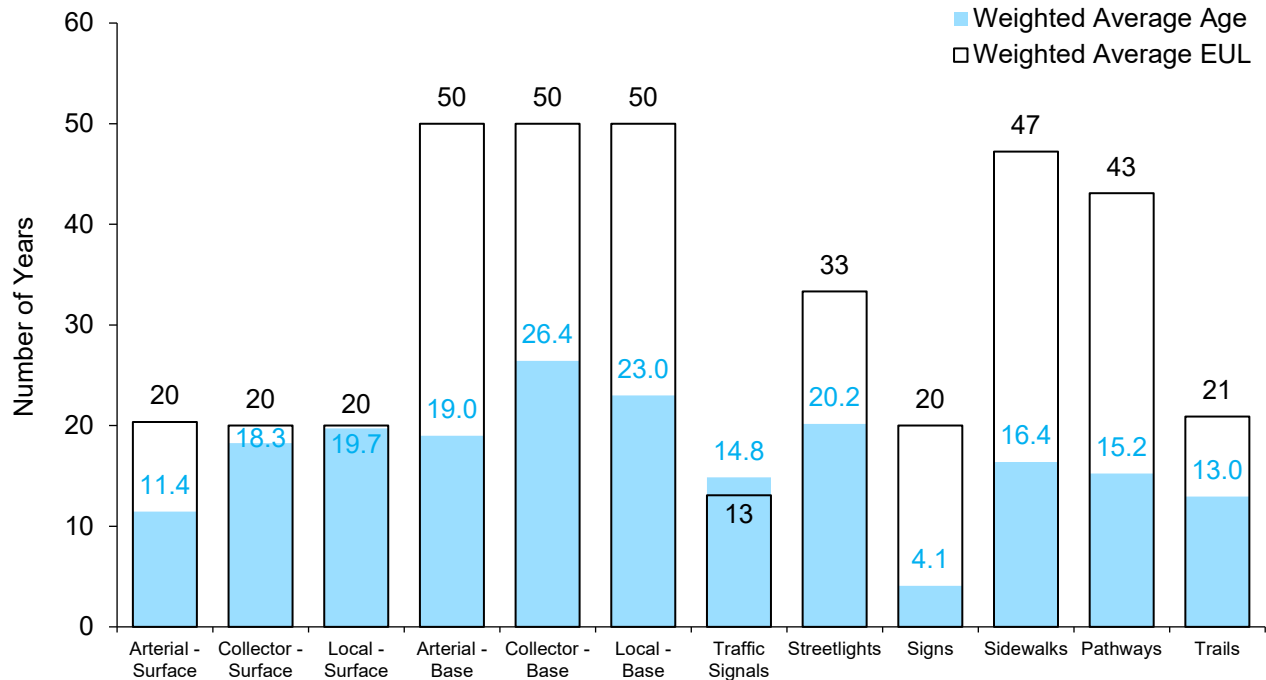
## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential long-term replacement spikes.

Figure 10 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 9 Estimated Useful Life vs. Asset Age – Road Network



Although age analysis suggests that, on average, most roadways are in the latter stages of their lifecycle, in-field condition surveys indicate that most pavements are in fair or better condition. The data also indicates that, based on original construction dates, collector and local road bases have consumed more than 50% of their estimated useful life, with an average weighted age of 26.4 and 23.0 years, against an expected useful life of 50 years, respectively. Arterial road bases, and various sidewalk and pathway infrastructure, are still in the earlier stages of their respective design life estimates. On average, traffic signals remain in service beyond their expected useful life.

## Current Approach to Lifecycle Management

This section outlines LaSalle's current approach to managing its roadways. Key data was collected through staff discussions. Lifecycle models were also built in Citywide for each surface type and road class. These can be used by staff for ongoing reference and planning within the Town's asset management program. These models should be continuously refined and updated with new data as it becomes available.

Pavement management is guided by roads needs studies (RNS). The most recent RNS for all collector, local, and arterial roadways was completed in 2021, producing a PCI value for all assets. Budget limitations require staff judgement to finalize projects. Planned developments and opportunities for bundle projects with utility work can also guide scheduling of major road work. Rehabilitations are prioritized for arterial roadways. A crack sealing program is in place; however, budget for surface treatments and sealants is not available.

### Pavement Management

Table 7 summarizes the various lifecycle events or interventions for the Town's roadways, along with the trigger for the application, the expected impact on condition and/or asset life, and the cost per unit.

The lifecycle activity selected varies by road classification (and other variables). The condition thresholds for arterial roadways are higher than collector and local. For example, a mill and pave treatment for arterial roadways is triggered at a condition rating of 70, whereas for collector, the event is triggered at a condition rating of 60, followed by 55 for local roadways

Table 7 Current Lifecycle Management Strategies -

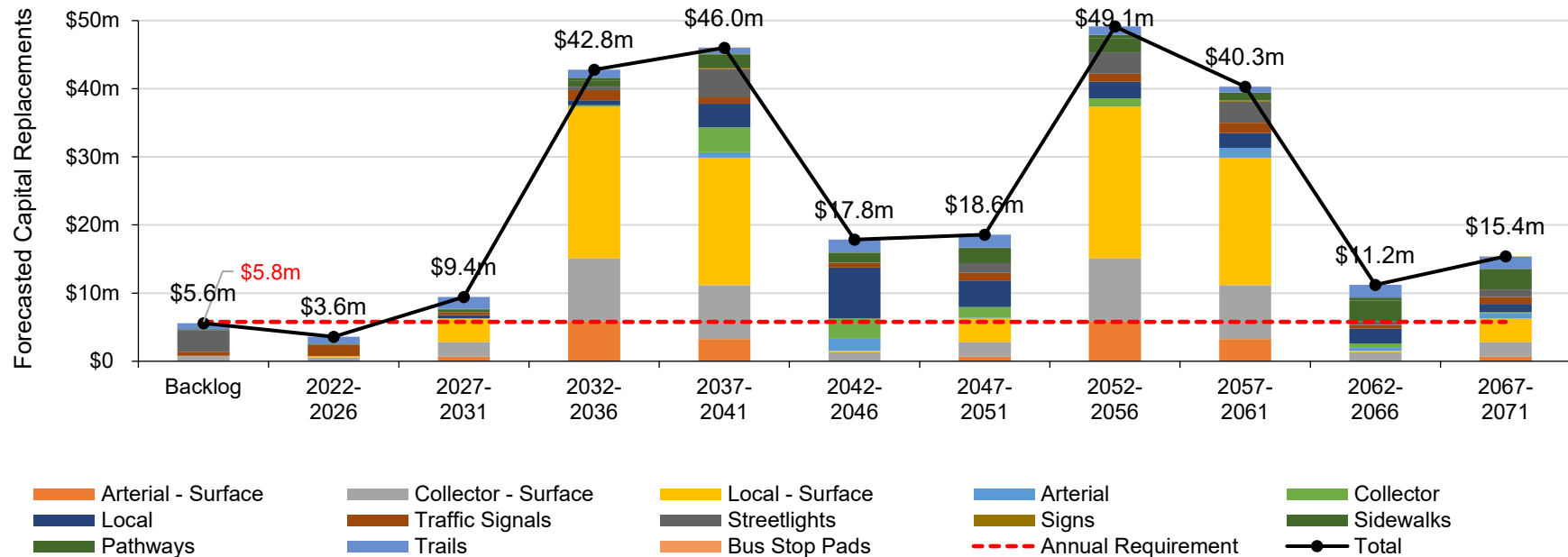
| Event Name                           | Event Class              | Event Range / Trigger                                                              | Impact on Asset Condition | Impact on Serviceable Life | Cost Per Unit       |
|--------------------------------------|--------------------------|------------------------------------------------------------------------------------|---------------------------|----------------------------|---------------------|
| Crack Sealing                        | Preventative Maintenance | Every 3-5 years                                                                    | Condition returns to 95   | +3 years                   | \$5/sm              |
| Surface mill and pave                | Minor-Rehabilitation     | 10-15 years from new construction/ PCI score and road classification               | Condition returns to 90   | +10 years                  | \$25/sm             |
| Full depth mill and pave             | Major - Rehabilitation   | 15-25 years from new construction/ PCI score and road classification               | Condition returns to 90   | +15 years                  | \$50/sm             |
| Recycle (CIREAM, hot-in-place, etc.) | Major - Rehabilitation   | 15-25 years from new construction/ PCI score and road classification / road design | Condition returns to 95   | +15 years                  | \$80/sm - \$700/m   |
| Reconstruction                       | Reconstruction           | 25+ years from new construction / PCI score and road classification                | Condition returns to 100  | +25 years                  | \$200/sm - \$1600/m |

## Forecasted Long-term Replacement Needs

Figure 11 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's road network. This analysis was run until 2071 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$5.8 million for all assets in the road network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates a substantial spike in replacement needs over the next two decades, and a backlog of more than \$5.6 million, dominated by streetlights. These projections are based on available data, such as age, condition, replacement costs, and expected useful life. They are designed to provide a long-term, portfolio-level overview of potential capital needs and should be used to support improved financial planning over several decades. It is highly unlikely that all assets will require full reconstruction or replacement. Further, with proactive lifecycle management strategies outlined previously, the life of most assets can be extended by many years in a cost-effective manner. Regular pavement condition assessments and a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

Figure 10 Forecasted Capital Replacement Requirements - Road Network: 2022-2071



### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 8 System-generated 10-Year Capital Replacement Forecast - Road Network

| Segment             | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Arterial - Surface  | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$283.7k      | \$0.0         | \$64.3k       | \$60.7k       | \$259.1k      |
| Collector - Surface | \$0.0         | \$0.0         | \$570.4k      | \$0.0         | \$0.0         | \$798.5k      | \$0.0         | \$92.3k       | \$702.2k      | \$552.6k      |
| Local - Surface     | \$19.4k       | \$0.0         | \$0.0         | \$0.0         | \$162.7k      | \$47.4k       | \$209.5k      | \$435.8k      | \$917.7k      | \$1.82m       |
| Arterial – Base     | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         |
| Collector – Base    | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$59.2k       | \$0.0         |
| Local - Base        | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$446.7k      | \$0.0         |
| Traffic Signals     | \$0.0         | \$0.0         | \$1.25m       | \$0.0         | \$404.1k      | \$0.0         | \$194.4k      | \$0.0         | \$263.7k      | \$0.0         |
| Streetlights        | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         |
| Signs               | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         |
| Sidewalks           | \$134.6k      | \$0.0         | \$0.0         | \$15.1k       | \$15.8k       | \$34.9k       | \$30.2k       | \$158.0k      | \$0.0         | \$206.4k      |
| Pathways            | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$0.0         | \$23.8k       | \$11.7k       | \$0.0         | \$30.3k       |
| Trails              | \$0.0         | \$640.4k      | \$0.0         | \$289.7k      | \$95.6k       | \$271.7k      | \$344.4k      | \$77.0k       | \$0.0         | \$1.03m       |
| Bus Stop Pads       | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           |
| <b>Total</b>        | <b>\$154k</b> | <b>\$640k</b> | <b>\$1.8m</b> | <b>\$305k</b> | <b>\$678k</b> | <b>\$1.4m</b> | <b>\$802k</b> | <b>\$839k</b> | <b>\$2.5m</b> | <b>\$3.9m</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, particularly condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the forecasted capital, operating, and maintenance expenditures as outlined in LaSalle's 2022-2027 Capital Plan. Data beyond 2027 is further projected for the purpose of this AMP using average annual growth rates.

Table 9 Planned Capital, Operating, and Maintenance Expenditures- Road Network

| Expenditure             | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits      | \$687k        | \$701k        | \$715k        | \$729k        | \$744k        | \$759k        | \$774k        | \$789k        | \$805k        | \$821k        |
| Vehicle/Equipment       | \$34k         | \$35k         | \$35k         | \$36k         | \$37k         | \$38k         | \$38k         | \$39k         | \$40k         | \$41k         |
| Program Services        | \$579k        | \$597k        | \$616k        | \$636k        | \$655k        | \$675k        | \$689k        | \$703k        | \$717k        | \$731k        |
| Winter Control          | \$200k        | \$200k        | \$200k        | \$200k        | \$200k        | \$200k        | \$200k        | \$200k        | \$200k        | \$200k        |
| <b>Sub-total</b>        | <b>\$1.5m</b> | <b>\$1.5m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> |
| Capital                 |               |               |               |               |               |               |               |               |               |               |
| <b>Sub-total</b>        | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> | <b>\$5.4m</b> |
| <b>Total</b>            | <b>\$6.9m</b> | <b>\$6.9m</b> | <b>\$6.9m</b> | <b>\$7.0m</b> | <b>\$7.0m</b> | <b>\$7.0m</b> | <b>\$7.1m</b> | <b>\$7.1m</b> | <b>\$7.1m</b> | <b>\$7.1m</b> |

Program services for roads include crack sealing, asphalt repair, catch basin cleaning, railway crossing maintenance, and other day-to-day activities to keep roadways in a state of good repair and support safe and efficient movement flow of traffic.

## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining, replacement costs, traffic data, road class, and asset type. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager). See

[Risk](#) and Criticality section for further details on approach used to determine asset risk ratings and classifications.

Figure 11 Risk Matrix - Road Network: Arterial, Collector, Local

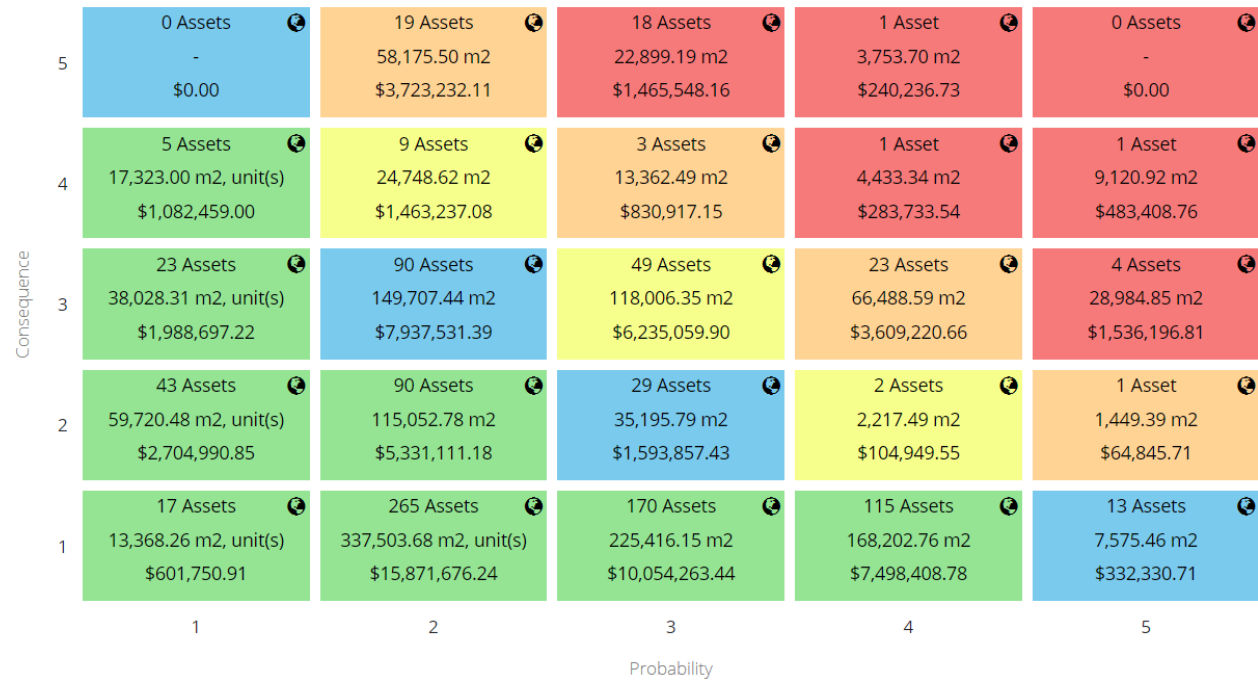
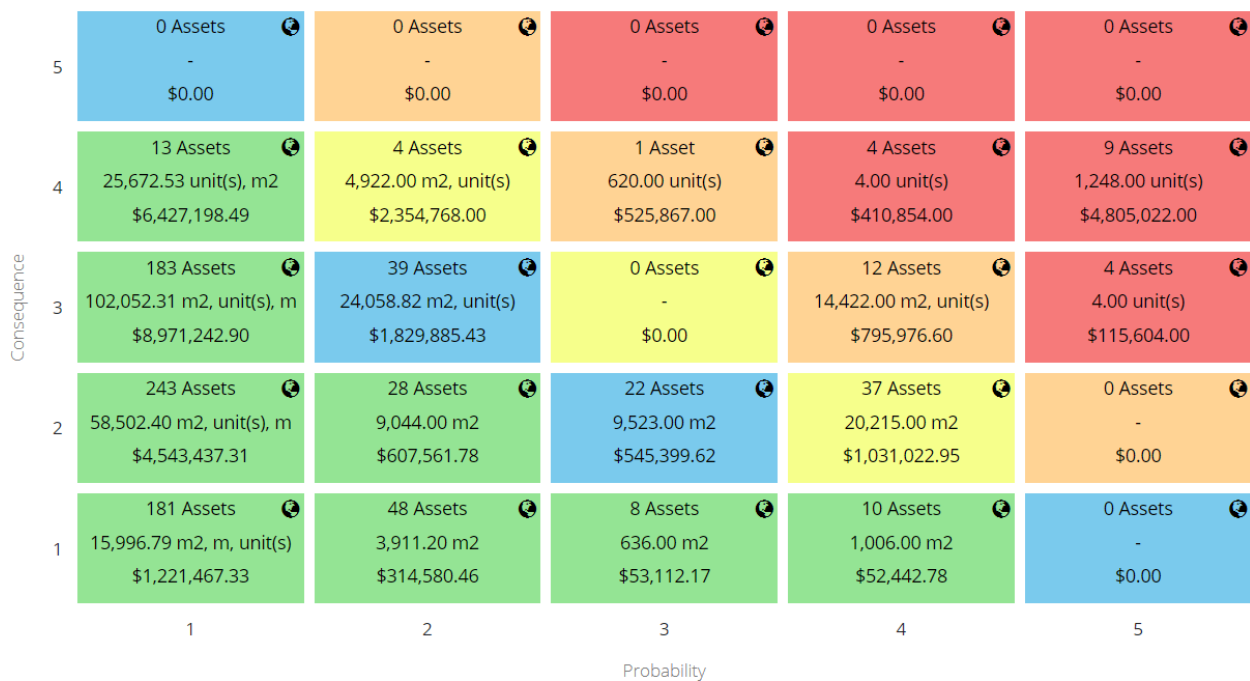


Figure 12 Risk Matrix - Road Network: Sidewalks, Pathways, Trails, and Appurtenances



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Misallocation of funds leading to over- or under-investments
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

## Levels of Service

The tables that follow summarize LaSalle's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17.

Table 10 Ontario Regulation 588/17 Community Levels of Service - Roads

| Service Attribute | Qualitative Description                                                                            | Current Level of Service   |
|-------------------|----------------------------------------------------------------------------------------------------|----------------------------|
| Scope             | Description, which may include maps, of the road network in the Town and its level of connectivity | See Figure 14 to Figure 17 |
| Quality           | Description or images that illustrate the different levels of road class pavement condition.       | See Figure 18 to Figure 21 |

Table 11 Ontario Regulation 588/17 Technical Levels of Service - Roads

| Service Attribute | Qualitative Description                                                                     | Current Level of Service                    |
|-------------------|---------------------------------------------------------------------------------------------|---------------------------------------------|
| Scope             | Lane-km of arterial roads (MMS classes 1 and 2) per land area (km/km <sup>2</sup> )         | 0.84<br>51.8 lane-km per 62km <sup>2</sup>  |
|                   | Lane-km of collector roads (MMS classes 3 and 4) per land area (km/km <sup>2</sup> )        | 1.36<br>84.4 lane-km per 62km <sup>2</sup>  |
|                   | Lane-km of local roads (MMS classes 5 and 6) per land area (km/km <sup>2</sup> )            | 4.51<br>279.4 lane-km per 62km <sup>2</sup> |
| Quality           | Average pavement condition for paved roads in the Town                                      | 81                                          |
| Performance       | Average surface condition for unpaved roads in the Town (e.g., excellent, good, fair, poor) | NA                                          |

Figure 13 Road Network Map 1

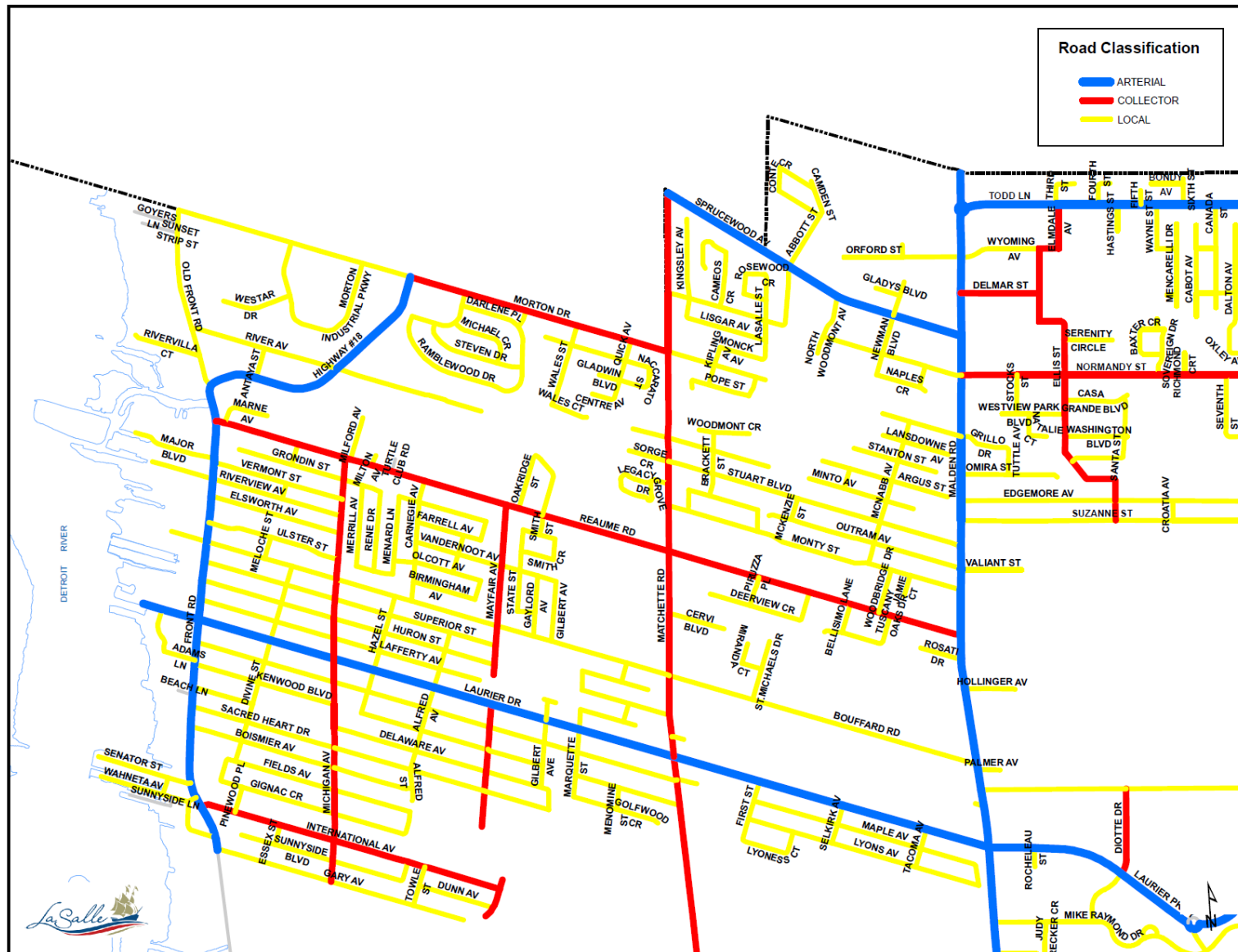


Figure 14 Road Network Map 2

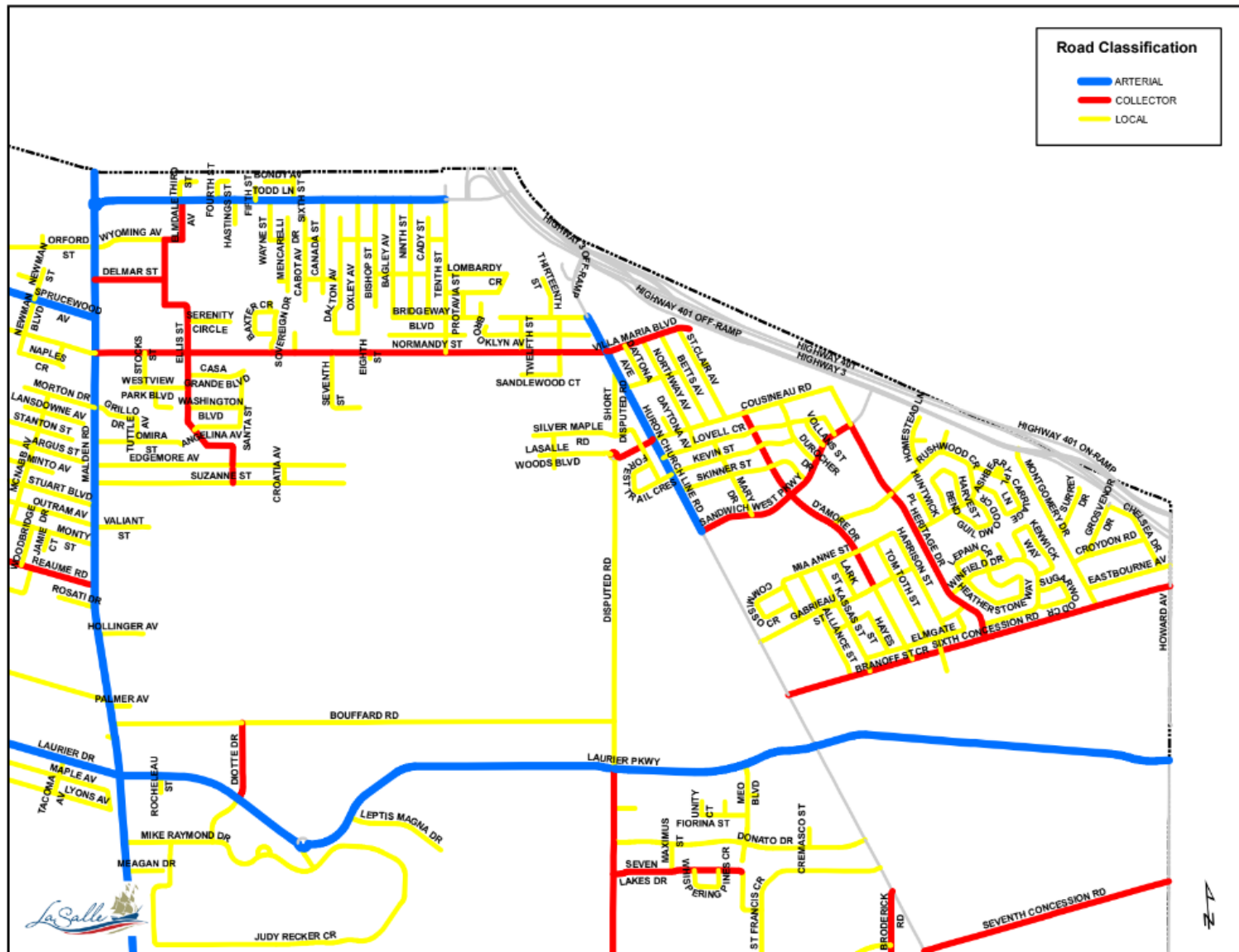




Figure 16 Road Network Map 4

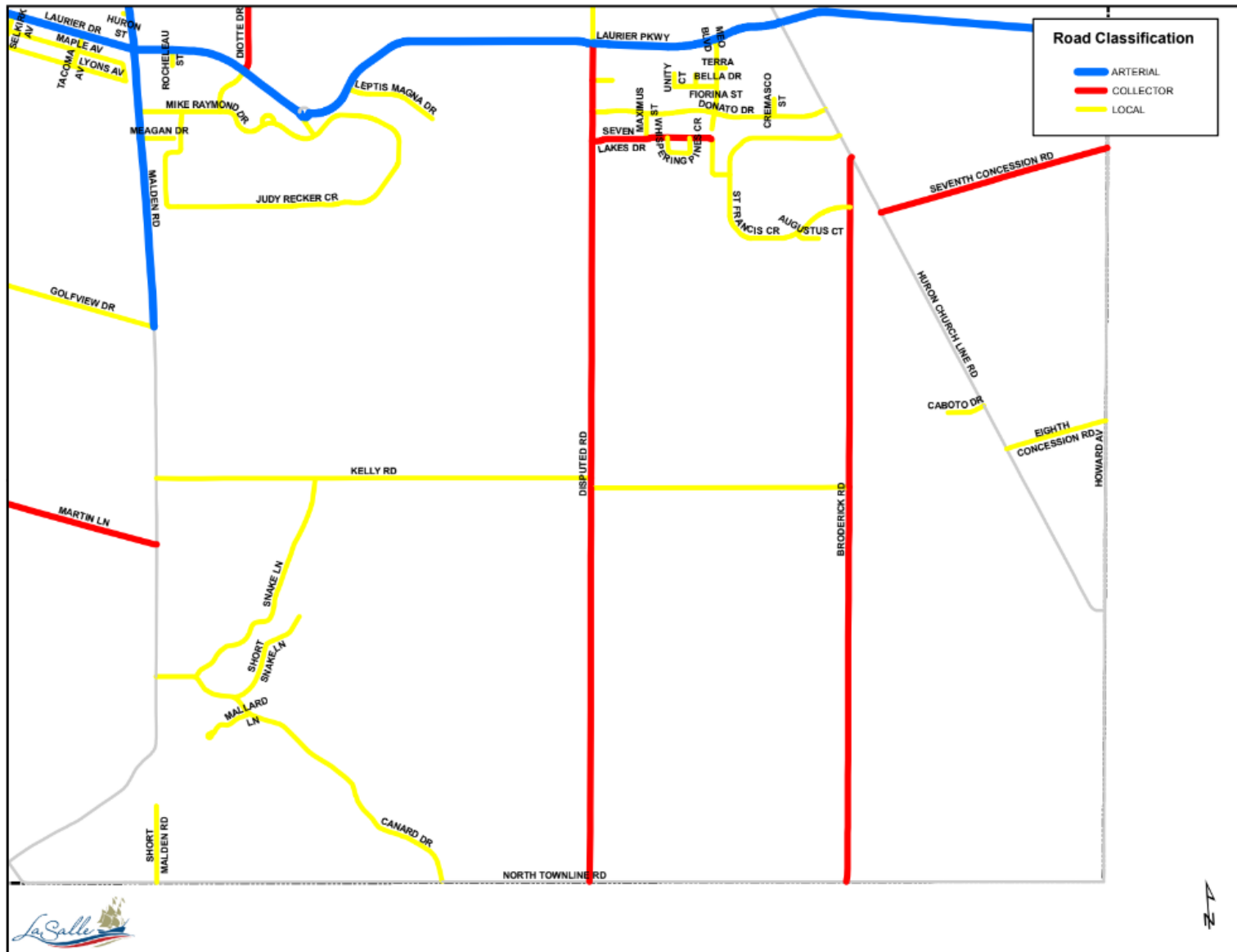


Figure 17 Road Network Condition Distribution Map 1





Figure 19 Road Network Condition Distribution Map 3

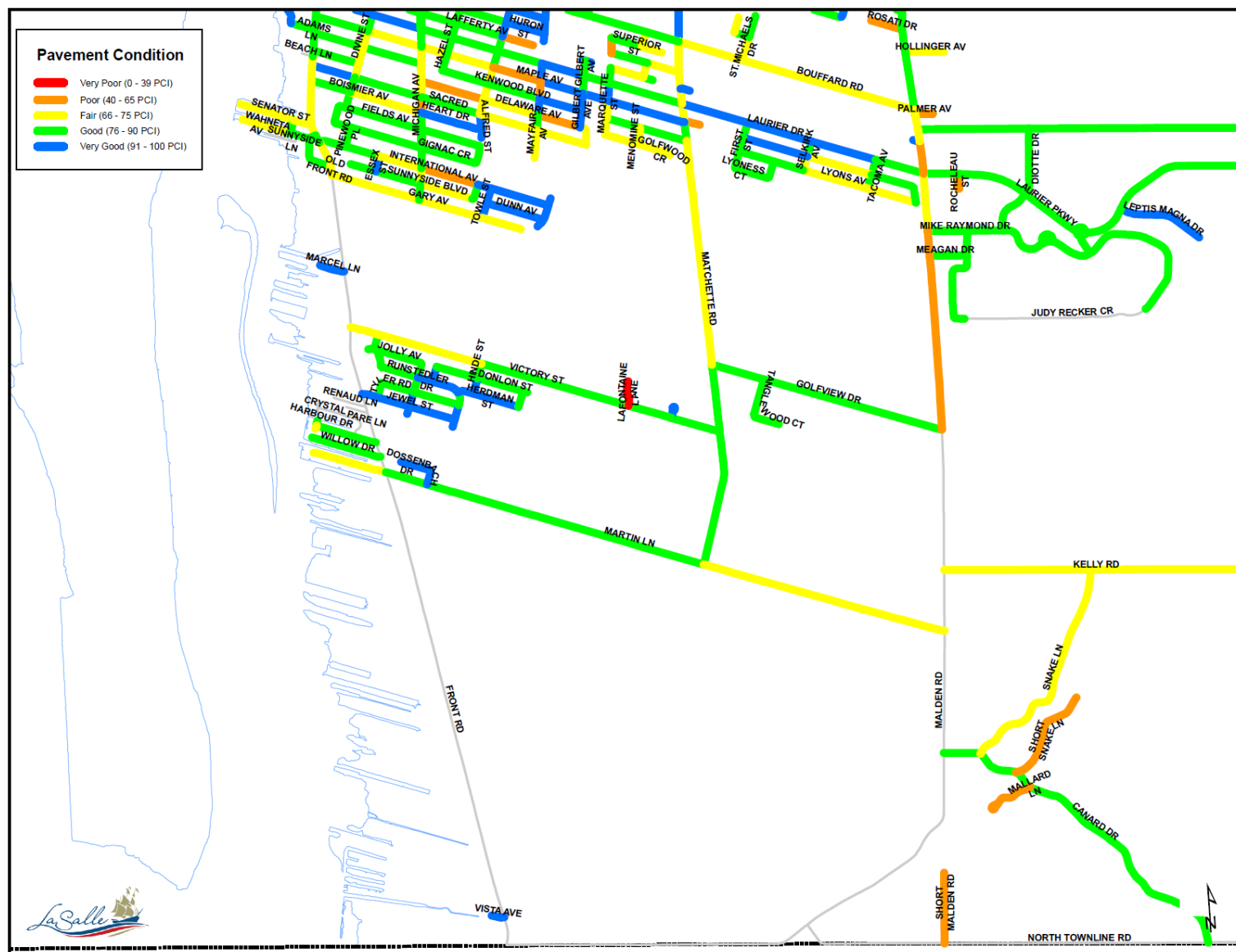
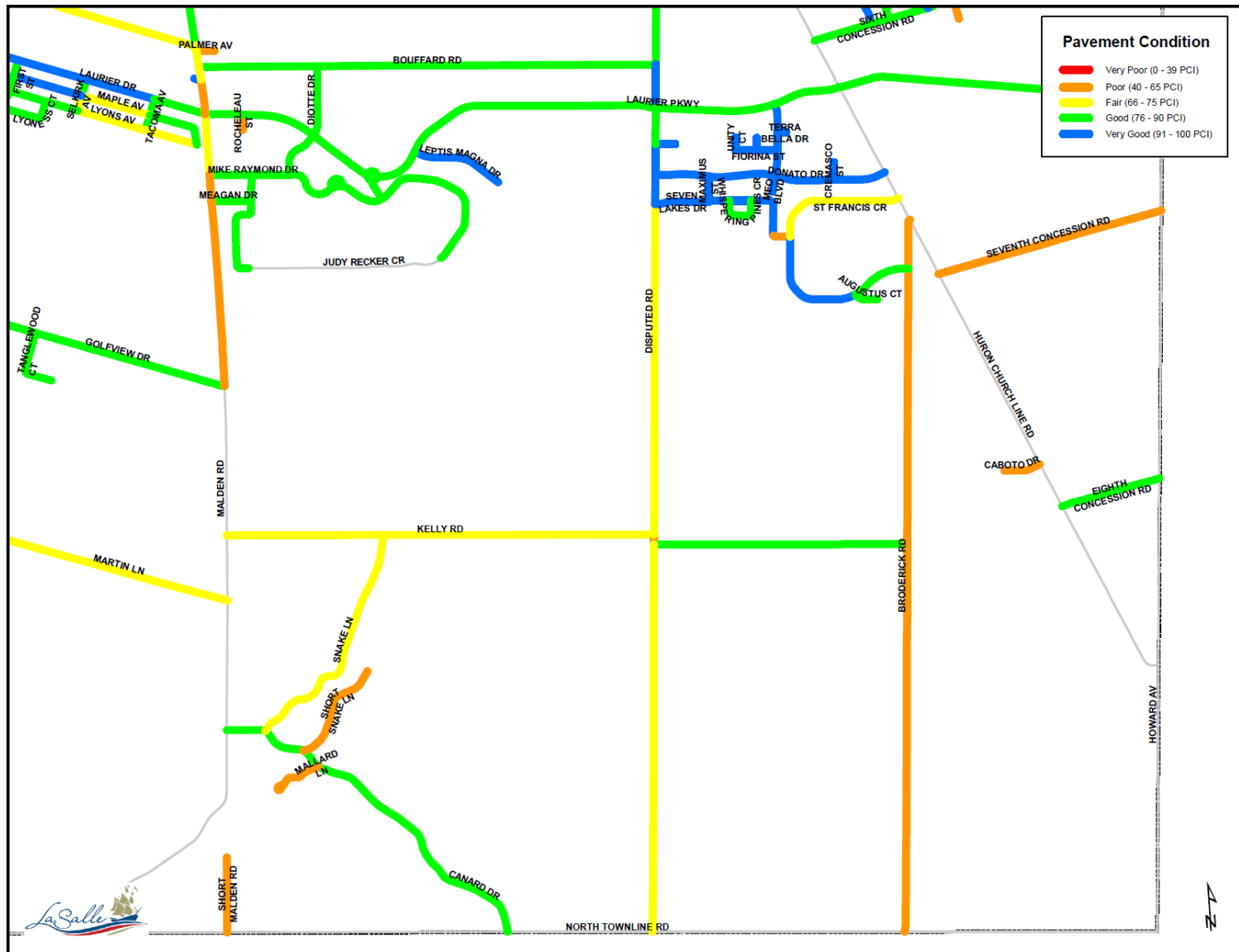


Figure 20 Road Network Condition Distribution Map 4



## Bridges and Culverts

The Town of LaSalle's transportation network also includes bridges and structural culverts, with a current replacement cost of \$55 million.

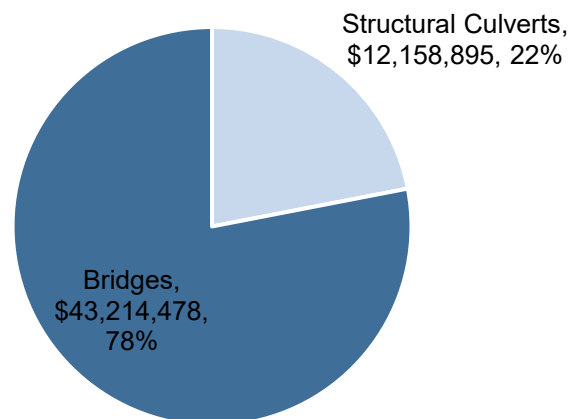
### Inventory and Valuation

Table 12 summarizes the quantity and current replacement cost of bridges and culverts. The Town owns and manages 13 bridges and nine structural culverts.

Table 12 Detailed Asset Inventory - Bridges and Culverts

| Segment      | Quantity  | Unit of Measure | Primary Replacement Cost Method | Replacement Cost    |
|--------------|-----------|-----------------|---------------------------------|---------------------|
| Bridges      | 13        | Assets          | CPI                             | \$43,214,478        |
| Culverts     | 9         | Assets          | CPI                             | \$12,158,895        |
| <b>Total</b> | <b>22</b> |                 |                                 | <b>\$55,373,373</b> |

Figure 21 Portfolio Valuation – Bridges & Culverts



Total Current Replacement Cost: \$55,373,373

## Asset Condition

Figure 23 summarizes the replacement cost-weighted condition of the Town's bridges and culverts. Based on the Town's 2021 Ontario Structures Inspection Manual (OSIM) assessments, all bridges and culverts are in fair or better condition. Elements or components in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 22 Asset Condition - Bridges and Culverts: Overall

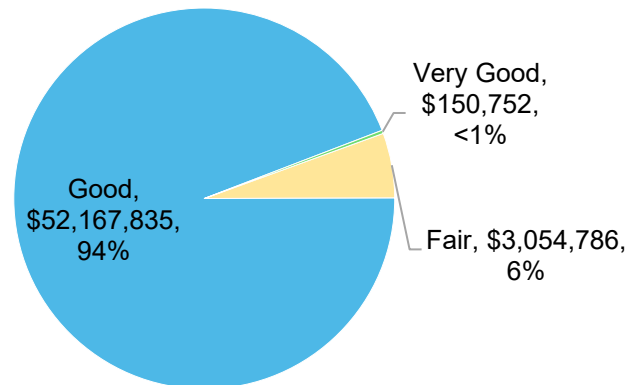
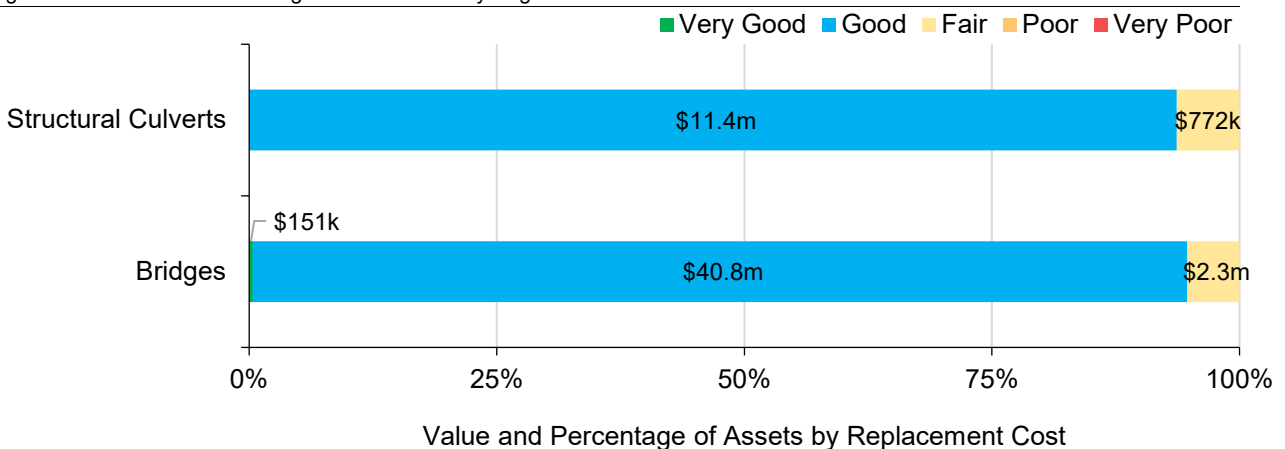


Figure 24 provides further condition detail for each asset segment.

Figure 23 Asset Condition - Bridges and Culverts: By Segment



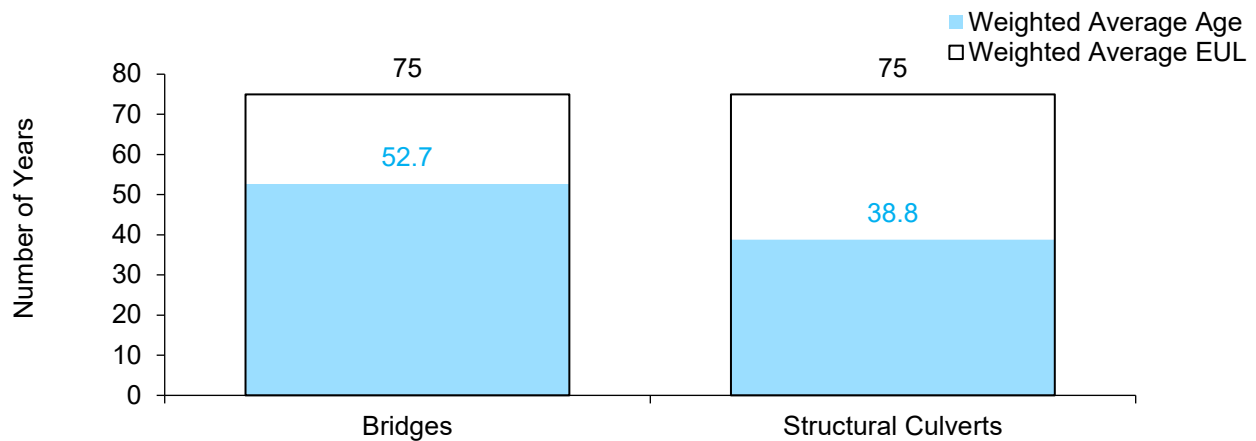
## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 25 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 24 Estimated Useful Life vs. Asset Age – Bridges and Culverts



Age analysis reveals that on average, bridges have consumed more than 50% of their estimated useful life, with an average age of 52.7 years against an average EUL of 75 years. On average, culverts are also in the latter stages of their lifecycle, with an average age of 38.8 years, against an average EUL of 75 years. OSIM assessments should continue to be used in conjunction with age and asset criticality to prioritize capital and maintenance expenditures.

## **Current Approach to Lifecycle Management**

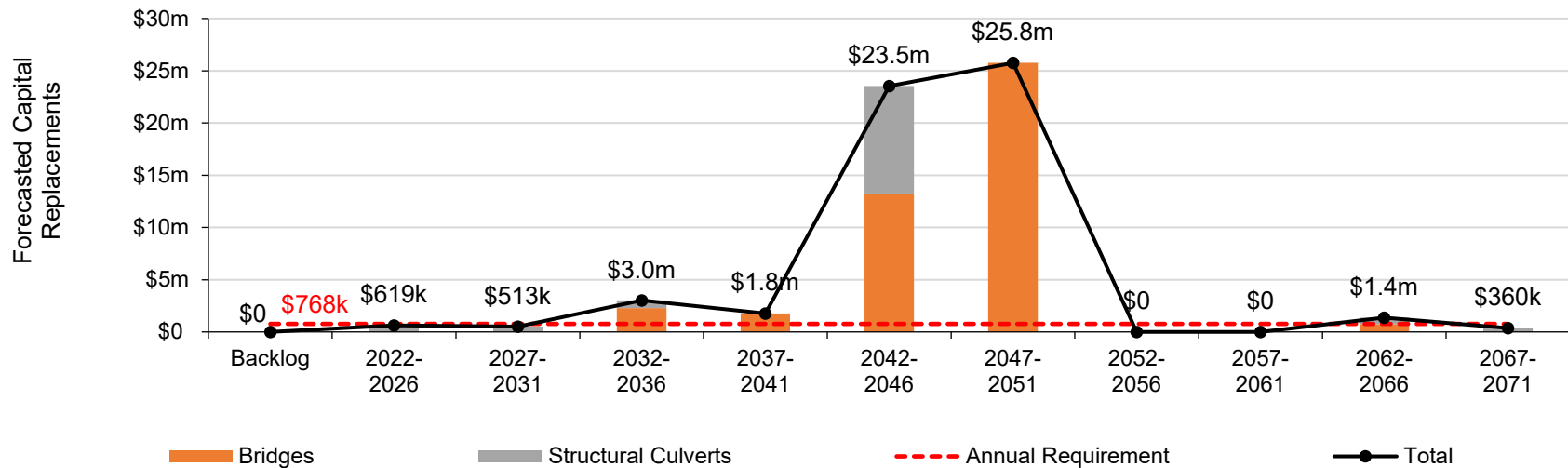
All lifecycle activities for the Town's 22 structures are driven by the results of mandated structural inspections completed according to the Ontario Structure Inspection Manual (OSIM) on a biennial basis. The most recent OSIM inspection was conducted in 2021. Approximately \$400,000 is allocated annually for major bridge work and spent based on bridge needs and alignment with OSIM recommendations.

## Forecasted Long-term Replacement Needs

Figure 26 illustrates the cyclical short-, medium- and long-term infrastructure rehabilitation and replacement requirements for the Town's bridges and culverts. This analysis was run until 2071 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) for bridges and culverts total \$768,000. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

No major replacement spikes are anticipated until 2042-2051 when assets with a current replacement cost of nearly \$50 million will reach the end of their useful life. These projections and estimates are based on asset replacement costs, age analysis, and condition data. They are designed to provide a long-term, portfolio-level overview of potential capital needs and should be used to support improved financial planning over several decades. Continuous bridge maintenance and refurbishments in accordance with OSIM condition assessments and a robust risk framework will ensure that high-criticality bridge elements receive proper and timely lifecycle intervention, including replacements.

Figure 25 Forecasted Capital Replacement Requirements - Bridges and Culverts: 2022-2071



Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves.

### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 13 System-generated 10-Year Capital Replacement Forecast - Bridges and Culverts

| Segment      | 2022       | 2023       | 2024       | 2025       | 2026          | 2027       | 2028       | 2029          | 2030          | 2031       |
|--------------|------------|------------|------------|------------|---------------|------------|------------|---------------|---------------|------------|
| Bridges      | \$0        | \$0        | \$0        | \$0        | \$0           | \$0        | \$0        | \$0           | \$0           | \$0        |
| Culverts     | \$0        | \$0        | \$0        | \$0        | \$619k        | \$0        | \$0        | \$153k        | \$360k        | \$0        |
| <b>Total</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$619k</b> | <b>\$0</b> | <b>\$0</b> | <b>\$153k</b> | <b>\$360k</b> | <b>\$0</b> |

These projections are generated in Citywide and rely on OSIM condition data and age data as available within the system. They are developed at the portfolio level, and can be different from actual capital forecasts as outlined in OSIM inspections and recommended workplans. Consistent data updates, especially condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts, including long-term capital plans.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the planned capital, operating, and maintenance expenditures as outlined in LaSalle's 2022-2027 Capital Plan. Data beyond 2027 is further projected for the purpose of this AMP using average annual growth rates.

Table 14 Planned Capital, Operating, and Maintenance Expenditures- Bridges & Culverts

| Expenditure             | 2022                                    | 2023   | 2024   | 2025   | 2026   | 2027   | 2028   | 2029   | 2030   | 2031   |
|-------------------------|-----------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Operating & Maintenance | Maintained as part of the Road Network. |        |        |        |        |        |        |        |        |        |
| Capital                 | \$1.1m                                  | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m |
| Sub-total               | \$1.1m                                  | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m |
| Total                   | \$1.1m                                  | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m | \$1.1m |

## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining, replacement costs, traffic data, and road type/class. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager). See

[Risk](#) and Criticality section for further details on approach used to determine asset risk ratings and classifications.

Figure 26 Risk Matrix - Bridges and Culverts



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage
- Bridges are inherently vital to the Town's transportation infrastructure, and their failures can disconnect communities, lead to public health and safety incidents, and can impede the efficient flow of residential and commercial traffic.

An asset's criticality rating, determined by the nature and magnitude of the consequences of its potential failure should be used to prioritize projects, particularly lifecycle management strategies. Using risk in conjunction with levels of service, and the recommended workplans in OSIM inspections, can assist in optimizing limited funds.

## Levels of Service

The tables that follow summarize LaSalle's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17.

Table 15 Ontario Regulation 588/17 Community Levels of Service - Bridges and Culverts

| Service Attribute | Qualitative Description                                                                                                                                        | Current Level of Service                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scope             | Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists). | Bridges support all traffic types, including vehicular and pedestrian.                                                                                                                          |
| Quality           | 1. Description or images of the condition of bridges and how this would affect use of the bridges.                                                             | With the exception of six structures that are rated as poor with a BCI of <60, all other structures are rated as fair or better. Two of these structures also have a load limit of five tonnes. |
|                   | 2. Description or images of the condition of culverts and how this would affect use of the culverts.                                                           |                                                                                                                                                                                                 |

Table 16 Ontario Regulation 588/17 Technical Levels of Service - Bridges and Culverts

| Service Attribute | Qualitative Description                                                           | Current Level of Service  |
|-------------------|-----------------------------------------------------------------------------------|---------------------------|
| Scope             | Percentage of bridges in the Town with loading or dimensional restrictions.       | 27%<br>6 of 22 structures |
| Quality           | 1. For bridges in the Town, the average bridge condition index value.             | 71.1                      |
|                   | 2. For structural culverts in the Town, the average bridge condition index value. | 67.1                      |

# Stormwater Network

LaSalle's Stormwater Network comprises sewer mains and other critical supporting capital assets with a total current replacement cost of \$210 million. The Town is responsible for approximately 149 kilometres of storm mains.

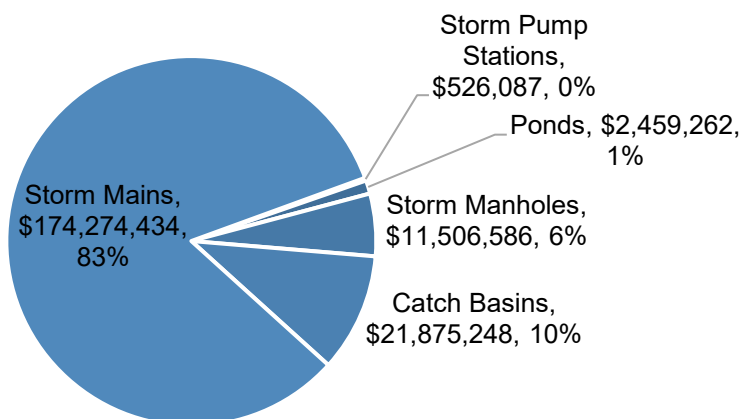
## Inventory and Valuation

Table 17 summarizes the quantity and current replacement cost of all stormwater management assets available in the Town's asset register.

Table 17 Detailed Asset Inventory - Stormwater Network

| Segment             | Quantity | Unit of Measure | Primary Replacement Cost Method | Replacement Cost     |
|---------------------|----------|-----------------|---------------------------------|----------------------|
| Storm Mains         | 149,026  | Meters          | Cost per unit                   | \$174,274,434        |
| Catch Basins        | 7,505    | Assets          | Cost per unit                   | \$21,875,248         |
| Storm Pump Stations | 2        | Assets          | User-defined                    | \$526,087            |
| Ponds               | 7        | Assets          | User-defined                    | \$2,459,262          |
| Storm Manholes      | 1,538    | Assets          | User-defined                    | \$11,506,586         |
| <b>Total</b>        |          |                 |                                 | <b>\$210,641,617</b> |

Figure 27 Portfolio Valuation – Stormwater Network



Total Current Replacement Cost: \$210,641,617

## Asset Condition

Figure 29 summarizes the replacement cost-weighted condition of the Town's stormwater management assets. Based on a combination of condition assessment and age data, 95% of assets are in fair or better condition, with the remaining 5% in poor or worse condition. Assets in poor condition may be candidates for replacement in the short term. Similarly, those in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 28 Asset Condition - Stormwater Network

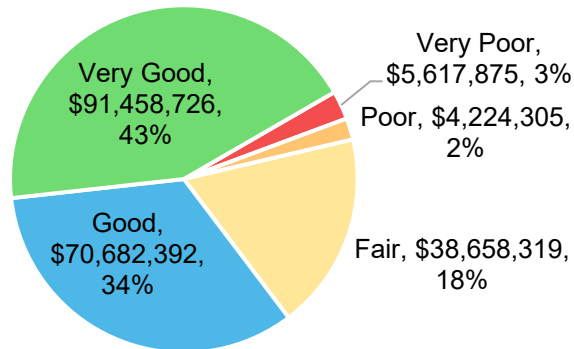
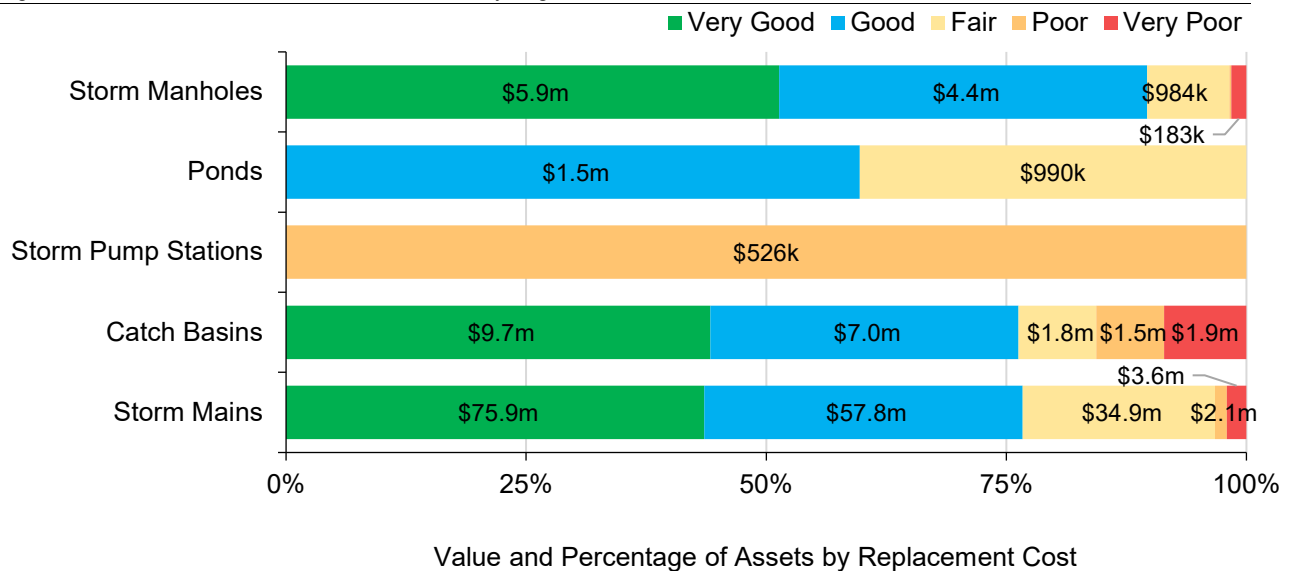


Figure 30 summarizes the condition of individual stormwater asset types. The analysis illustrates that based primarily on condition assessment data, the majority of stormwater mains, catch basins, and manholes are in fair or better condition. No assessment condition data was available for ponds or storm pump stations.

Figure 29 Asset Condition - Stormwater Network – By Segment



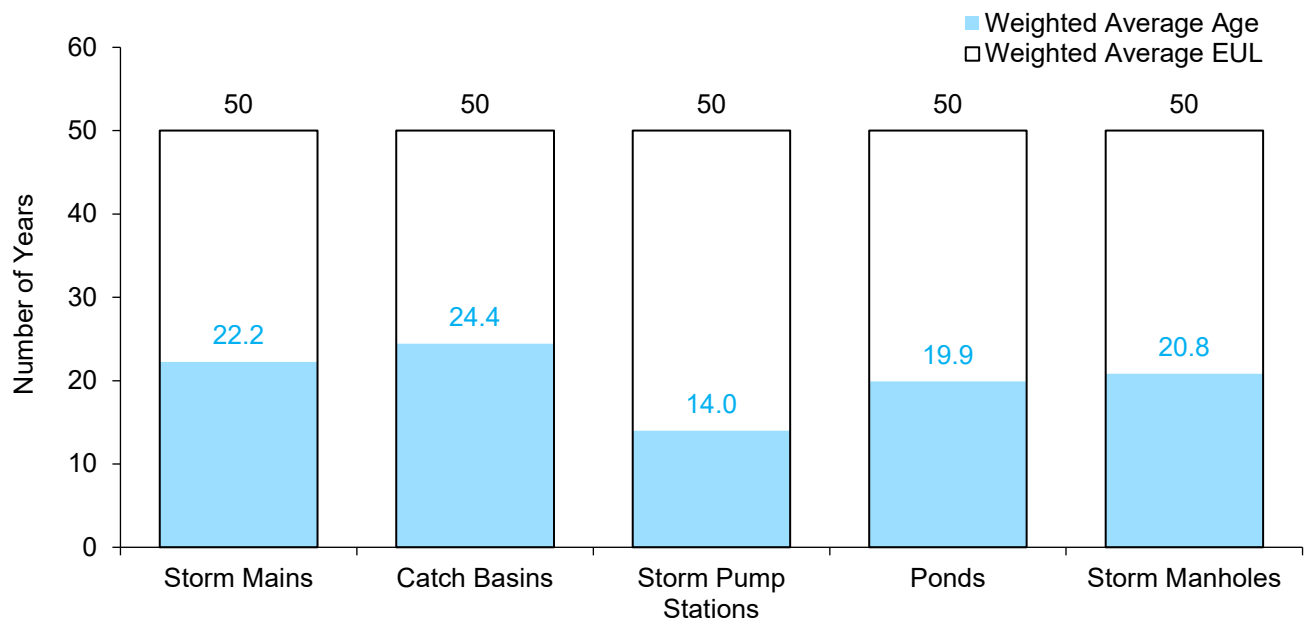
## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 31 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 30 Estimated Useful Life vs. Asset Age – Stormwater Network



The data reveals that on average, storm sewer mains will soon enter the latter stages of their expected design life, with an average age of 22.2 years against an EUL of 50 years. Similarly, catch basins and manholes will reach an EUL consumption ratio of 50% in the next 1-5 years. Age profiles and future CCTV inspections will help to identify mains in need of replacements and/or upgrades. Extensions to EULs for mains may also be considered based on performance history to date.

## Current Approach to Lifecycle Management

CCTV inspections for storm pipes were last conducted in 2019. Pipes were rated based on NAASCO PACP condition grading system. Storm assets have become a higher priority recently, and dedicated funding is set aside each year to meet anticipated replacement needs, particularly storm pipes located along arterial roads. Major work is coordinated with other projects, including roadwork, and water or sanitary replacements.

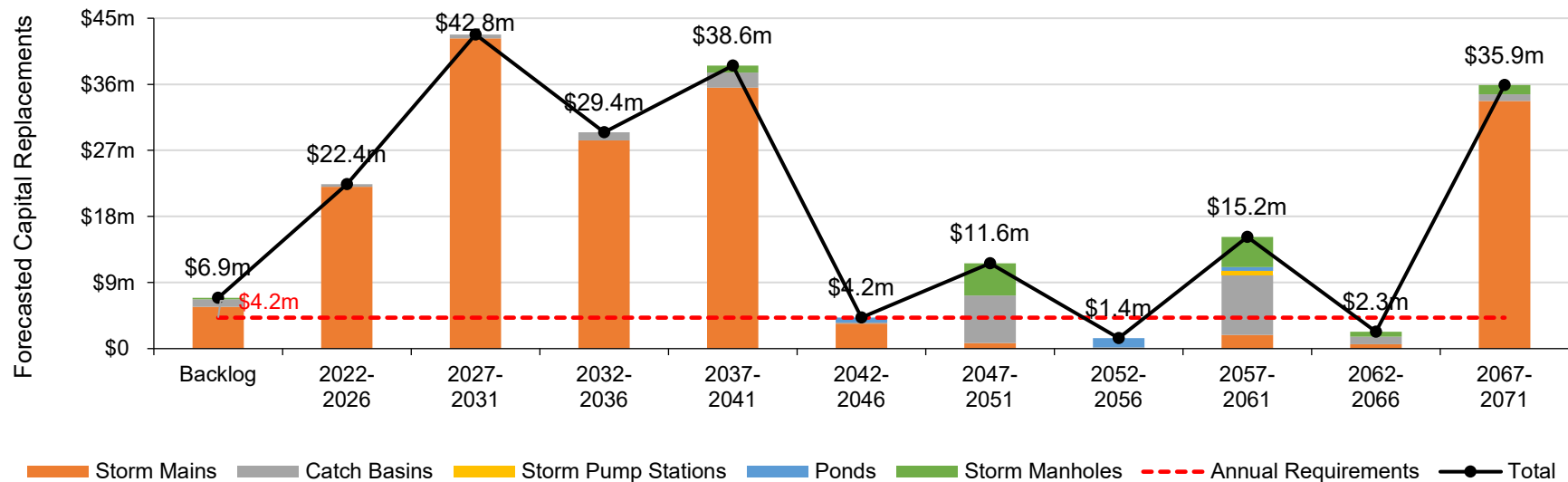
For linear underground infrastructure, pipe material can help identify assets that may be candidates for more proactive rehabilitation and replacement strategies. Some municipalities have proactive pipe replacement programs, e.g., replacing cast iron or ductile iron mains with PVC pipes. Trenchless relining of mains is also cost effective and extends the life of a structurally sound pipe by many decades.

## Forecasted Long-term Replacement Needs

Figure 32 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's storm network assets. This analysis was run until 2071 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$4.2 million for all assets in the stormwater network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The largest replacement spike is forecasted in the current decade as mains reach the end of their expected design life. The chart also illustrates a backlog of \$6.9 million. These projections and estimates are based on asset replacement costs, condition, and age analysis. They are designed to provide a long-term, portfolio-level overview of potential capital needs and should be used to support improved financial planning over several decades, including establishing dedicated reserves.

Figure 31 Forecasted Capital Replacement Requirements - Stormwater Network: 2022-2071



Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, it is unlikely that major storm infrastructure, particularly mains, will require replacements when their useful life is fully consumed. CCTV inspections may indicate lower requirements but may also reveal potential replacement backlogs. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

### 10-Year Replacement Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 18 System-generated 10-Year Replacement Forecast - Stormwater Network

| Segment             | 2022       | 2023          | 2024          | 2025          | 2026           | 2027           | 2028       | 2029           | 2030          | 2031          |
|---------------------|------------|---------------|---------------|---------------|----------------|----------------|------------|----------------|---------------|---------------|
| Storm Mains         | \$0        | \$4.1m        | \$7.0m        | \$0           | \$10.9m        | \$12.8m        | \$0        | \$26.1m        | \$0           | \$3.3m        |
| Catch Basins        | \$0        | \$0           | \$0           | \$297k        | \$26k          | \$0            | \$0        | \$0            | \$519k        | \$0           |
| Storm Pump Stations | \$0        | \$0           | \$0           | \$0           | \$0            | \$0            | \$0        | \$0            | \$0           | \$0           |
| Ponds               | \$0        | \$0           | \$0           | \$0           | \$0            | \$0            | \$0        | \$0            | \$0           | \$0           |
| Storm Manholes      | \$0        | \$0           | \$0           | \$0           | \$0            | \$0            | \$0        | \$0            | \$0           | \$0           |
| <b>Total</b>        | <b>\$0</b> | <b>\$4.1m</b> | <b>\$7.0m</b> | <b>\$297k</b> | <b>\$10.9m</b> | <b>\$12.8m</b> | <b>\$0</b> | <b>\$26.1m</b> | <b>\$519k</b> | <b>\$3.3m</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, especially condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the planned capital, operating, and maintenance expenditures as outlined in LaSalle's 2022-2027 Capital Plan. Data beyond 2027 is further projected for the purpose of this AMP using average annual growth rates.

Table 19 Planned Capital, Operating, and Maintenance Expenditures - Stormwater Network

| Expenditure             | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits      | \$113k        | \$116k        | \$118k        | \$120k        | \$123k        | \$125k        | \$128k        | \$130k        | \$133k        | \$135k        |
| Program Services        | \$60k         | \$61k         | \$62k         | \$64k         | \$65k         | \$66k         | \$68k         | \$69k         | \$70k         | \$72k         |
| <b>Sub-total</b>        | <b>\$173k</b> | <b>\$177k</b> | <b>\$180k</b> | <b>\$184k</b> | <b>\$188k</b> | <b>\$191k</b> | <b>\$195k</b> | <b>\$199k</b> | <b>\$203k</b> | <b>\$207k</b> |
|                         |               |               |               |               |               |               |               |               |               |               |
| Capital                 | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        | \$2.1m        |
| <b>Sub-total</b>        | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> |
| <b>Total</b>            | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> | <b>\$2.3m</b> |

Program services for storm sewers include annual storm sewer maintenance.

## Risk Analysis

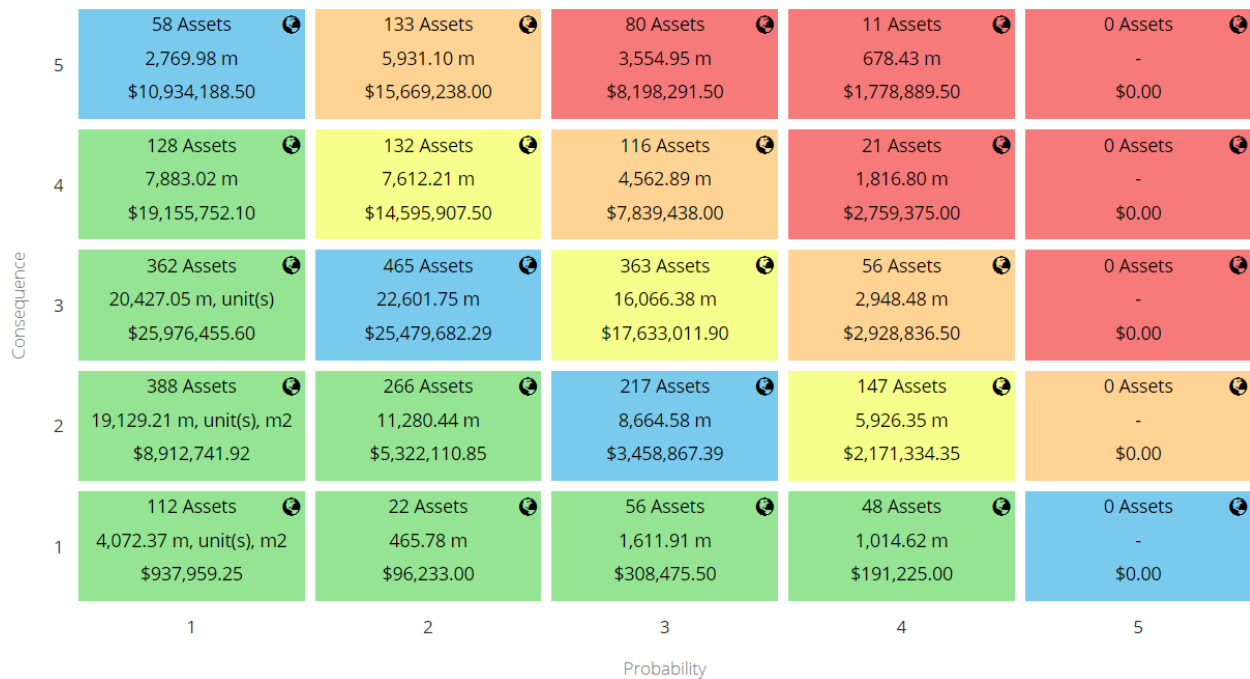
The risk matrices below are generated using available asset data, such as service life remaining, replacement costs, asset type, and pipe diameter. The risk ratings for assets without useful attribute data were calculated using only age, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager). See

**Risk** and Criticality section for further details on approach used to determine asset risk ratings and classifications.

Figure 32 Risk Matrix - Stormwater Network: Linear Only



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs associated with more frequent asset maintenance
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage
- Failure of stormwater assets can be particularly detrimental, causing excessive flooding, erosion, backups, road and bridge closures, environmental damage, and substantial property damage. Water quality may also be jeopardized, further exacerbating public health and safety challenges.
- Increased frequency of extreme weather events has made some communities even more vulnerable to flooding. These events can also create legal liabilities for the Town in the event of asset failure.

An asset's criticality rating, determined by the nature and magnitude of the consequences of its potential failure should be used to prioritize projects, particularly lifecycle management strategies. Using risk in conjunction with levels of service, and findings from standard CCTV inspections will assist in optimizing limited funds.

## Levels of Service

The tables that follow summarize LaSalle's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17.

Table 20 Ontario Regulation 588/17 Community Levels of Service - Stormwater Network

| Service Attribute | Qualitative Description                                                                                                                                                                                       | Current Level of Service                                                                                                                                                                                                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scope             | Description, which may include maps, of the user groups or areas of the Town that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system. | The majority of Town's municipal stormwater system is designed to provide protection from 5-year storm flows which is the standard for local storm sewer design guidelines. In addition, the Town operates stormwater management ponds, stormwater sewers, drains and catch basins to store, direct and control stormwater runoff. |

Table 21 Ontario Regulation 588/17 Technical Levels of Service - Stormwater Network

| Service Attribute | Qualitative Description                                                                  | Current Level of Service                                                                                                                                                    |
|-------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scope             | 1. Percentage of properties in municipality resilient to a 100-year storm.               | This information is being determined.                                                                                                                                       |
|                   | 2. Percentage of the municipal stormwater management system resilient to a 5-year storm. | The majority of Town's municipal stormwater system is designed to provide protection from 5-year storm flows which is the standard for local storm sewer design guidelines. |

# Water Network

LaSalle's Water Network comprises water distribution mains and hydrants, with a current replacement cost of \$91 million. The Town is responsible for 221 kilometres of mains.

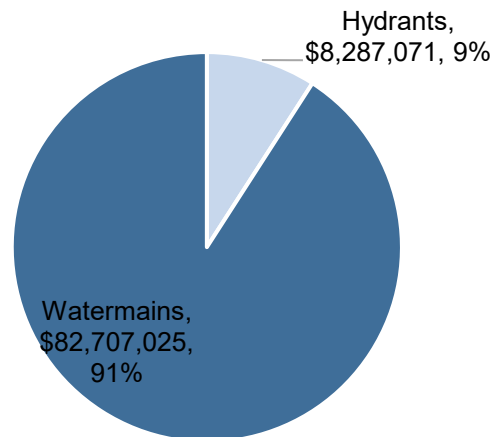
## Inventory and Valuation

Table 22 summarizes the quantity and current replacement cost of all water distribution assets available in the Town's asset register.

Table 22 Detailed Asset Inventory - Water Network

| Segment      | Quantity | Unit of Measure | Primary Replacement Cost Method | Replacement Cost    |
|--------------|----------|-----------------|---------------------------------|---------------------|
| Mains        | 221,705  | Meters          | Cost per unit                   | \$82,707,025        |
| Hydrants     | 1,282    | Assets          | Cost per unit                   | \$8,287,071         |
| <b>Total</b> |          |                 |                                 | <b>\$90,994,096</b> |

Figure 33 Portfolio Valuation – Water Network



Total Current Replacement Cost: \$90,994,096

## Asset Condition

Figure 35 summarizes the replacement cost-weighted condition of the Town's water distribution assets. Based on a combination of condition assessment and age data, approximately 93% of assets are in fair or better condition; the remaining 7% are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 34 Asset Condition - Water Network

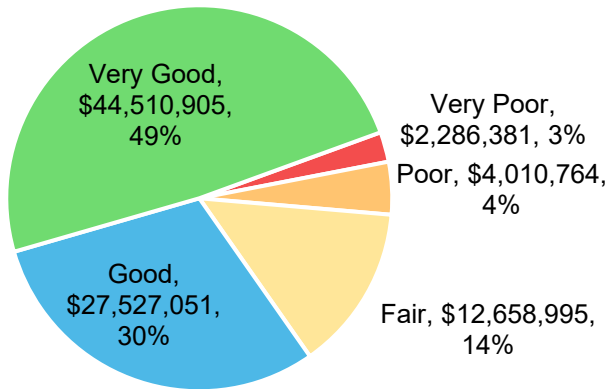
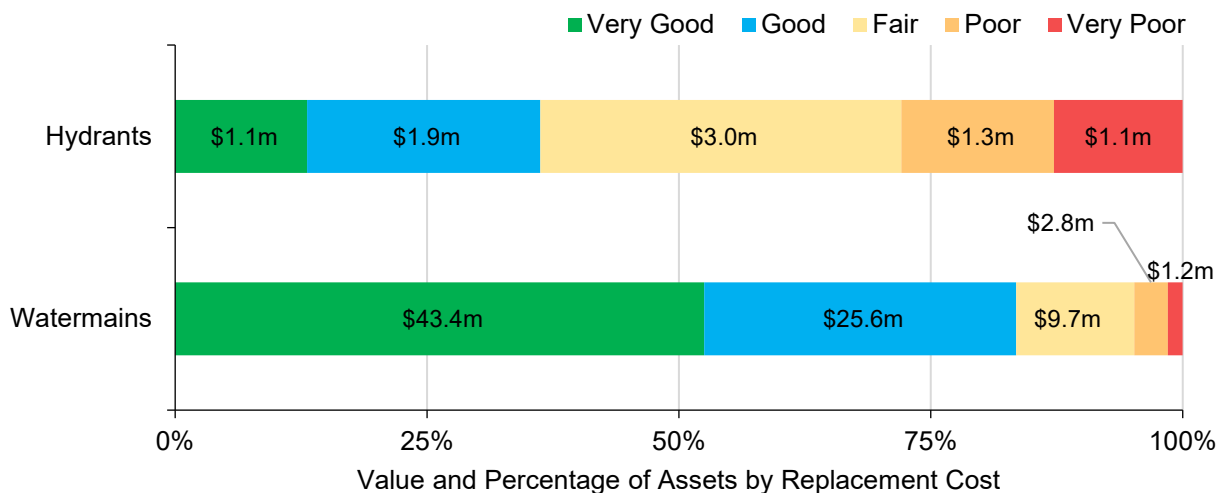


Figure 36 summarizes the condition of water assets. The analysis illustrates that mains with a current replacement cost of \$4 million are in poor or very poor condition. Similarly, hydrants with a total current replacement cost of \$2.4 million are in poor or worse condition, based on original installation dates.

Figure 35 Asset Condition - Water Network – By Segment



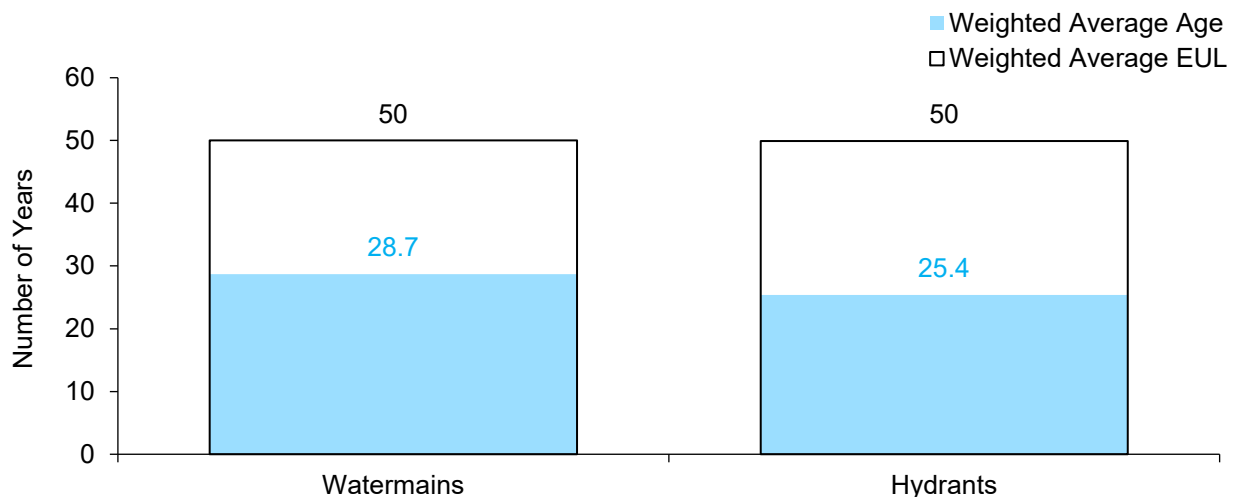
## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 37 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 36 Estimated Useful Life vs. Asset Age – Water Network



The data reveals that on average, water mains are in the latter stages of their expected design life, with an average age of 28.7 years against an EUL of 50 years. Similarly, hydrants have an average age of 25.4 years, against an EUL of 50 years.

A substantial portion of the Town's water mains were installed prior to 1970; the oldest distributions mains in the Town's asset register date back to 1925. These assets have now exceeded their estimated design life but continue to remain in service.

## Current Approach to Lifecycle Management

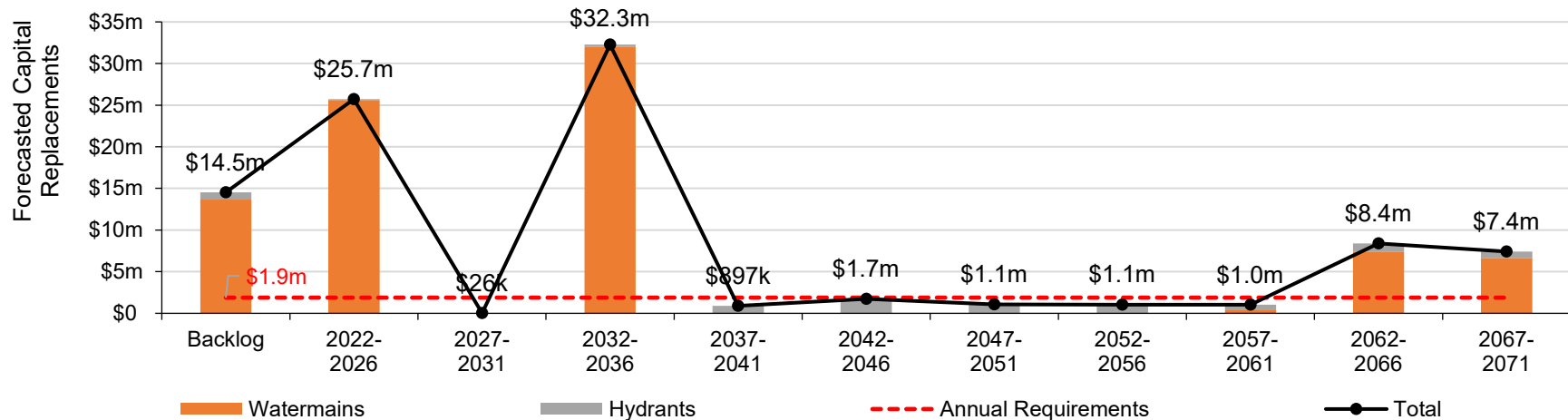
The Town currently does not have a programmatic approach to assessing its water infrastructure. Safety issues and watermain breaks within a system drive rehabilitation or replacement activities. No relining program is in place, and cathodic protection is being reviewed to protect ductile and cast iron pipes from corrosion. Cathodic protection reduces main breaks, reduces repairs, and extends the life of older distribution mains, thereby lowering the total lifecycle costs. Main replacements are completed based on pipe age and opportunity to bundle projects with roadwork.

## Forecasted Long-term Replacement Needs

Figure 38 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's water distribution assets. This analysis was run until 2071 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$1.9 million for all assets in the water network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates a backlog of \$14.5 million, dominated by distribution mains installed prior to the early 1970s that have exceeded their useful life. Replacement needs are high over the next 15 years, rising to \$32.3 million between 2032 and 2036. These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level overview of potential capital needs and should be used to support improved financial planning over several decades.

Figure 37 Forecasted Capital Replacement Requirements - Water Network: 2022-2071



Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most mains may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. A robust risk framework, particularly main break history for cast and ductile iron mains, and alignment with roadwork will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

### 10-Year Replacement Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 23 System-generated 10-Year Replacement Forecast - Water Network

| Segment      | 2022         | 2023         | 2024           | 2025         | 2026        | 2027        | 2028       | 2029        | 2030        | 2031        |
|--------------|--------------|--------------|----------------|--------------|-------------|-------------|------------|-------------|-------------|-------------|
| Watermains   | \$0          | \$0          | \$25.6m        | \$0          | \$0         | \$0         | \$0        | \$0         | \$0         | \$0         |
| Hydrants     | \$46k        | \$26k        | \$7k           | \$13k        | \$7k        | \$7k        | \$0        | \$7k        | \$7k        | \$7k        |
| <b>Total</b> | <b>\$46k</b> | <b>\$26k</b> | <b>\$25.6m</b> | <b>\$13k</b> | <b>\$7k</b> | <b>\$7k</b> | <b>\$0</b> | <b>\$7k</b> | <b>\$7k</b> | <b>\$7k</b> |

These projections are generated in Citywide and rely only on available asset data, including quantities, replacement costs, and age. They can be different from actual capital forecasts. Consistent data updates, especially available condition, actual design life based on performance, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the planned capital, operating, and maintenance expenditures as outlined in LaSalle's 2022-2027 Capital Plan. Data beyond 2027 is further projected for the purpose of this AMP using average annual growth rates.

Table 24 Planned Capital, Operating, and Maintenance Expenditures- Water Network

| Expenditure             | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits      | \$1.1m        | \$1.1m        | \$1.1m        | \$1.1m        | \$1.2m        | \$1.2m        | \$1.2m        | \$1.2m        | \$1.3m        | \$1.3m        |
| Vehicle/Equipment       | \$20k         | \$20k         | \$21k         | \$21k         | \$22k         | \$22k         | \$22k         | \$23k         | \$23k         | \$24k         |
| Program Services        | \$3.5m        | \$3.6m        | \$3.6m        | \$3.7m        | \$3.8m        | \$3.9m        | \$3.9m        | \$4.0m        | \$4.1m        | \$4.2m        |
| <b>Sub-total</b>        | <b>\$4.6m</b> | <b>\$4.7m</b> | <b>\$4.8m</b> | <b>\$4.9m</b> | <b>\$5.0m</b> | <b>\$5.1m</b> | <b>\$5.2m</b> | <b>\$5.3m</b> | <b>\$5.4m</b> | <b>\$5.5m</b> |
| Capital                 |               |               |               |               |               |               |               |               |               |               |
| <b>Sub-total</b>        | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.8m</b> |
| <b>Total</b>            | <b>\$6.4m</b> | <b>\$6.5m</b> | <b>\$6.6m</b> | <b>\$6.7m</b> | <b>\$6.8m</b> | <b>\$6.9m</b> | <b>\$7.0m</b> | <b>\$7.1m</b> | <b>\$7.2m</b> | <b>\$7.3m</b> |

Program services for water include the annual purchase of water supply from the City of Windsor (\$2 million), meter maintenance, water testing, overhead allocation, and other expenses incurred to support delivery of clean and safe drinking water to residents.

## Risk Analysis

The risk matrices below are generated using available asset data, such as service life remaining, replacement costs, asset type, and pipe diameter. The risk ratings for assets without useful attribute data were calculated using only age, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager). See

**Risk** and Criticality section for further details on approach used to determine asset risk ratings and classifications.

Figure 38 Risk Matrix - Water Network



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Failure of water distribution assets can lead to severe and adverse consequences, including boil water advisories, service shutoffs, and disruption and damage to other infrastructure services and assets, such as roadways
- Missed opportunities for cost savings and increases in lifecycle costs
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

An asset's criticality rating, determined by the nature and magnitude of the consequences of its potential failure should be used to prioritize projects, particularly lifecycle management strategies.

## Levels of Service

The tables that follow summarize LaSalle's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17.

Table 25 Ontario Regulation 588/17 Community Levels of Service - Water Network

| Service Attribute | Qualitative Description                                                                                                                                                                                                                                                                                           | Current Level of Service                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Scope             | <ol style="list-style-type: none"> <li>1. Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system.</li> <li>2. Description, which may include maps, of the user groups or areas of the municipality that have fire flow.</li> </ol> | More than 99% of all properties, excluding vacant land, within LaSalle are connected to the municipal water system and have fire flow. |
| Reliability       | Description of boil water advisories and service interruptions.                                                                                                                                                                                                                                                   | The Town experienced 19 water main breaks in 2020. No boil water advisories have been issued in the last two years.                    |

Table 26 Ontario Regulation 588/17 Technical Levels of Service - Water Network

| Service Attribute | Qualitative Description                                                                                                                                                                                                                                                                                                                                                                        | Current Level of Service    |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Scope             | <ol style="list-style-type: none"> <li>1. Percentage of properties connected to the municipal water system.</li> <li>2. Percentage of properties where fire flow is available.</li> </ol>                                                                                                                                                                                                      | <p>99.89%</p> <p>99.89%</p> |
| Reliability       | <ol style="list-style-type: none"> <li>1. The number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system.</li> <li>2. The number of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system.</li> </ol> | <p>0.0</p> <p>0.00021</p>   |

# Sanitary Network

LaSalle's Sanitary Network comprises wastewater collection mains, manholes, and pump stations, with a current replacement cost of \$106 million. The Town is responsible for 162 kilometres of mains and 19 sanitary pump stations.

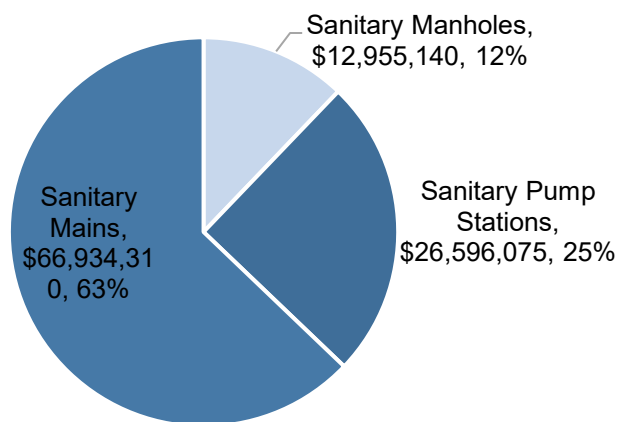
## Inventory and Valuation

Table 22 summarizes the quantity and current replacement cost of all sanitary infrastructure assets available in the Town's asset register. The 19 pump stations are componentized into 102 individual assets.

Table 27 Detailed Asset Inventory - Sanitary Network

| Segment                | Quantity | Unit of Measure | Primary Replacement Cost Method | Replacement Cost     |
|------------------------|----------|-----------------|---------------------------------|----------------------|
| Sanitary Mains         | 161,511  | Meters          | Cost per unit                   | \$66,934,310         |
| Sanitary Manholes      | 1,779    | Assets          | Cost per unit                   | \$12,955,140         |
| Sanitary Pump Stations | 19       | Assets          | User-defined                    | \$26,596,075         |
| <b>Total</b>           |          |                 |                                 | <b>\$106,485,525</b> |

Figure 39 Portfolio Valuation – Sanitary Network



Total Current Replacement Cost: \$106,485,525

## Asset Condition

Figure 35 summarizes the replacement cost-weighted condition of the Town's Sanitary distribution assets. Based on age data, 88% of assets are in fair or better condition, with the remaining 12% in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 40 Asset Condition - Sanitary Network

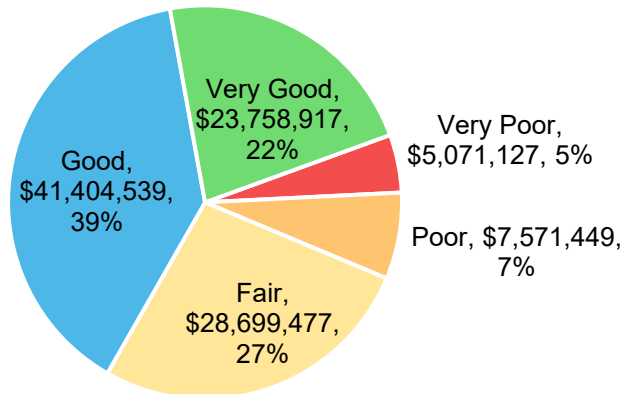
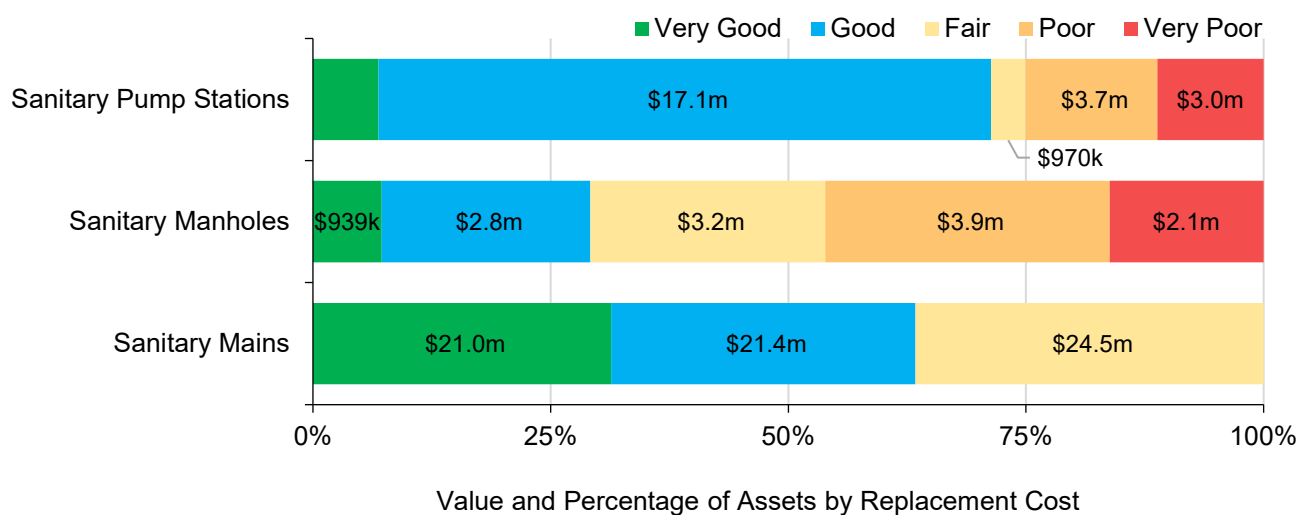


Figure 36 summarizes the age-based condition of sanitary assets. The analysis illustrates that pump station assets with a current replacement cost of \$6.7 million are in poor or worse condition, having exceeded their expected design life. Based on age, all sanitary mains are in fair or better condition.

Figure 41 Asset Condition - Sanitary Network – By Segment



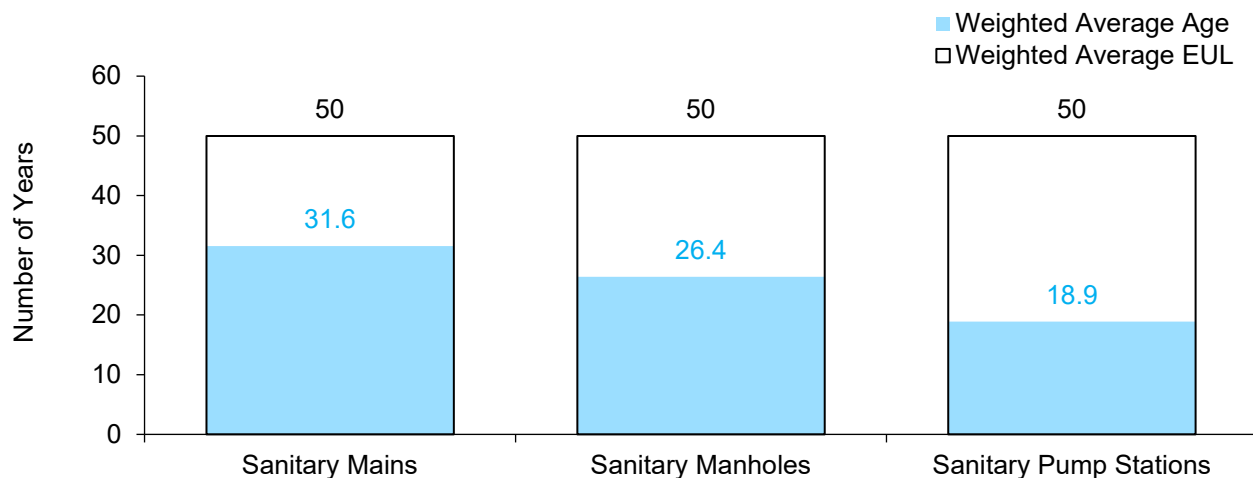
## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

In conjunction with condition data, an asset's age profile provides a more complete summary of the state of infrastructure. It can help identify assets that may be candidates for further review through condition assessment programs; inform the selection of optimal lifecycle strategies; and improve planning for potential replacement spikes.

Figure 37 illustrates the average current age of each asset type and its estimated useful life. Both values are weighted by the replacement cost of individual assets.

Figure 42 Estimated Useful Life vs. Asset Age – Sanitary Network



The data reveals that on average, sanitary mains and manholes are in the latter stages of their expected design life, with an average age of 31.6 years and 26.4 years, respectively, against an EUL of 50 years. The analysis also shows that while pump station assets have consumed less than 50% of their useful life, a component level review and analysis would be required to establish more granular and meaningful age profiles.

## **Current Approach to Lifecycle Management**

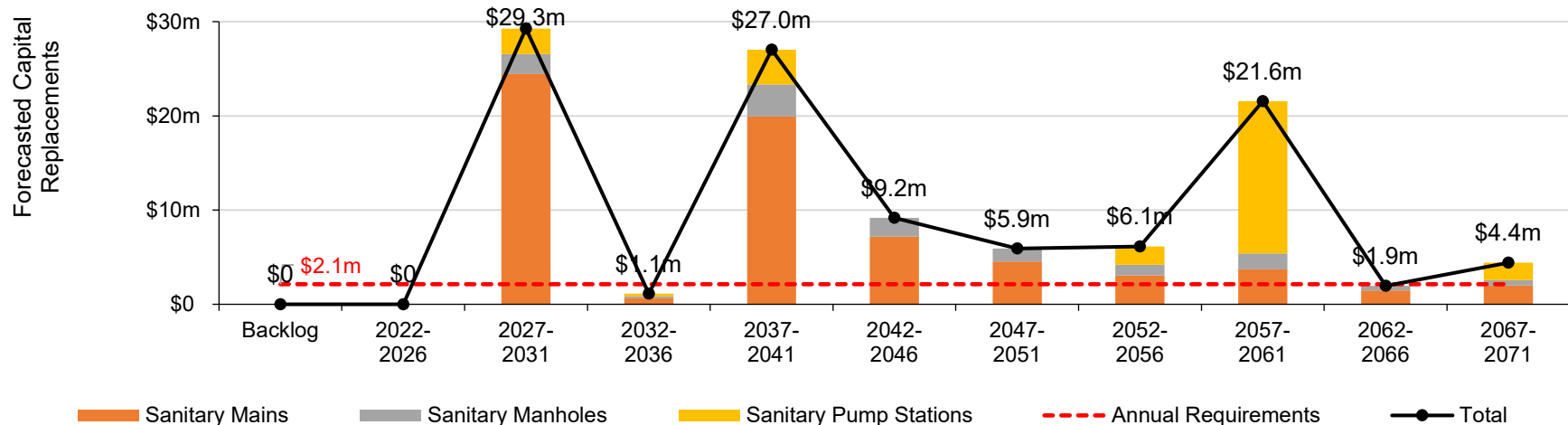
The Town conducts standard CCTV inspections of sewer mains on a rotating basis, accounting for approximately 25% of the sanitary network with each section. Regular flushing and manhole inspection is conducted. Sewer pump stations undergo structural reviews and repairs or replacements each year (growth driven).

## Forecasted Long-term Replacement Needs

Figure 38 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's Sanitary distribution assets. This analysis was run until 2071 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$2.1 million for all assets in the Sanitary network. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

The chart illustrates a backlog of \$5.7 million, dominated by pumphouses and distribution mains. Replacement needs are high and consistent throughout the forecast horizon, rising to \$11.6 million between 2027 and 2031, and peaking again between 2057 and 2061. These projections and estimates are based on asset replacement costs and age analysis. They are designed to provide a long-term, portfolio-level overview of potential capital needs and should be used to support improved financial planning over several decades.

Figure 43 Forecasted Capital Replacement Requirements - Sanitary Network: 2022-2071



Often, the magnitude of replacement needs is substantially higher than most municipalities can afford to fund. In addition, most assets may not need to be replaced. However, quantifying and monitoring these spikes is essential for long-term financial planning, including establishing dedicated reserves. In addition, a robust risk framework will ensure that high-criticality assets receive proper and timely lifecycle intervention, including replacements.

### 10-Year Replacement Forecast

The table below summarizes the projected cost of lifecycle activities (capital replacement only) that will need to be undertaken over the next 10 years to support current levels of service. These projections are generated in Citywide and rely only on age data.

Table 28 System-generated 10-Year Replacement Forecast - Sanitary Network

| Segment                | 2022       | 2023       | 2024       | 2025       | 2026       | 2027       | 2028       | 2029          | 2030          | 2031           |
|------------------------|------------|------------|------------|------------|------------|------------|------------|---------------|---------------|----------------|
| Sanitary Mains         | \$0        | \$0        | \$0        | \$0        | \$0        | \$0        | \$0        | \$2.2m        | \$6.6m        | \$15.6m        |
| Sanitary Manholes      | \$0        | \$0        | \$0        | \$0        | \$0        | \$0        | \$0        | \$210k        | \$562k        | \$1.3m         |
| Sanitary Pump Stations | \$0        | \$0        | \$0        | \$0        | \$0        | \$0        | \$0        | \$500k        | \$0           | \$2.2m         |
| <b>Total</b>           | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$0</b> | <b>\$2.9m</b> | <b>\$7.2m</b> | <b>\$19.2m</b> |

These estimates are developed at the portfolio level, illustrate replacement needs only, and are built on available asset data, including quantities, replacement costs, and age. They can be different from actual capital forecasts. Consistent data updates, especially condition, and asset acquisitions and disposals will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the planned capital, operating, and maintenance expenditures as outlined in LaSalle's 2022-2027 Capital Plan.

Table 29 Planned Capital, Operating, and Maintenance Expenditures- Sanitary Network

| Expenditure              | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance  |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits       | \$313k        | \$320k        | \$326k        | \$332k        | \$339k        | \$346k        | \$353k        | \$360k        | \$367k        | \$374k        |
| Long-term Debt Repayment | \$412k        | \$412k        | \$412k        | \$412k        | \$412k        | \$412k        | \$0           | \$0           | \$0           | \$0           |
| Vehicle/Equipment        | \$8k          | \$8k          | \$8k          | \$9k          | \$9k          | \$9k          | \$9k          | \$9k          | \$10k         | \$10k         |
| Program Services         | \$2.4m        | \$2.4m        | \$2.5m        | \$2.5m        | \$2.6m        | \$2.6m        | \$2.7m        | \$2.7m        | \$2.8m        | \$2.8m        |
| <b>Sub-total</b>         | <b>\$3.1m</b> | <b>\$3.2m</b> | <b>\$3.2m</b> | <b>\$3.3m</b> | <b>\$3.3m</b> | <b>\$3.4m</b> | <b>\$3.0m</b> | <b>\$3.1m</b> | <b>\$3.2m</b> | <b>\$3.2m</b> |
| Capital                  |               |               |               |               |               |               |               |               |               |               |
| <b>Sub-total</b>         | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> | <b>\$1.7m</b> |
| <b>Total</b>             | <b>\$4.8m</b> | <b>\$4.9m</b> | <b>\$4.9m</b> | <b>\$5.0m</b> | <b>\$5.0m</b> | <b>\$5.1m</b> | <b>\$4.7m</b> | <b>\$4.8m</b> | <b>\$4.8m</b> | <b>\$4.9m</b> |

Program services for sanitary infrastructure include ongoing maintenance of sanitary assets including sewer lines, pump stations, SCADA as well as operating expenses incurred for the safe collection and treatment of wastewater.

## Risk Analysis

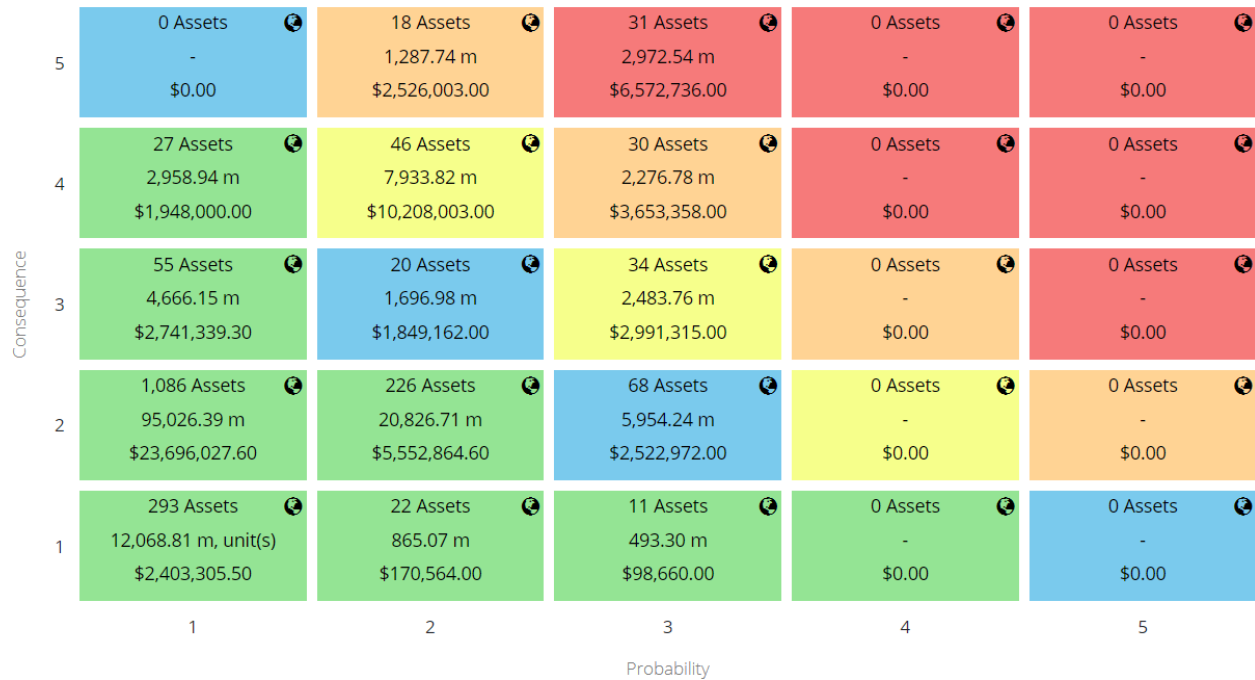
The risk matrices below are generated using available asset data, such as service life remaining, replacement costs, asset type, and pipe diameter. The risk ratings for assets without useful attribute data were calculated using only age, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager). See

[Risk](#) and Criticality section for further details on approach used to determine asset risk ratings and classifications.

Figure 44 Risk Matrix - Sanitary Network: Linear Only



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage
- Failure of wastewater treatment and distribution assets can lead to severe consequences, including sewage backups, service shutoffs, environmental contamination, and disruption and damage to other infrastructure services and assets, such as roadways.

An asset's criticality rating, determined by the nature and magnitude of the consequences of its potential failure should be used to prioritize projects, particularly lifecycle management strategies.

## Levels of Service

The tables that follow summarize LaSalle's current levels of service with respect to prescribed KPIs under Ontario Regulation 588/17.

Table 30 Ontario Regulation 588/17 Community Levels of Service - Sanitary Network

| Service Attribute | Qualitative Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Current Level of Service                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Scope             | Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Approximately 90% of the Town's properties are connected to the municipal wastewater collection system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Reliability       | <ol style="list-style-type: none"> <li>1. Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes.</li> <li>2. Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches.</li> <li>3. Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes.</li> <li>4. Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3.</li> <li>5. Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system.</li> </ol> | <ol style="list-style-type: none"> <li>1. The Town has no combined sewers. Overflow structures for the sanitary sewers are in place should the sanitary system operate at a level over capacity. There is no guaranteed protection to prevent backups into homes; however, these do mitigate that risk.</li> <li>2. Emergency wastewater overflows are channeled into drains, not into habitable areas.</li> <li>3. Stormwater can enter the sanitary sewer system in many ways. The two most common forms of inflow and infiltration are cracks and joint misalignments within the sanitary sewers and storm connections improperly connected into sanitary sewer system. An example of improper connections would include sump pumps, weeping tiles, or downspouts that are connected into the sanitary sewer and not the storm. With heavy rainfall events, sanitary sewers may experience a volume of water and sewage that exceeds its designed capacity. In some cases, this can cause water and/or sewage to backup into homes.</li> <li>4. The Town of Lasalle has engineering, construction, and material standards for new sanitary infrastructure and the Town design manual is constantly under review to ensure it is always up to date.</li> <li>5. The Town does not have a sewage treatment plant. All sewage is pumped to the City of Windsor Lou Romano Treatment Plant.</li> </ol> |

Table 31 Ontario Regulation 588/17 Technical Levels of Service - Sanitary Network

| Service Attribute | Qualitative Description                                                                                                                                                                                        | Current Level of Service |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Scope             | Percentage of properties connected to the municipal wastewater system.                                                                                                                                         | 89.97%                   |
| Reliability       | 1. The number of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system. | 0                        |
|                   | 2. The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system.                                                   | 0                        |
|                   | 3. The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.                                             | 0                        |

# Growth Core Assets

The Town of LaSalle is a growing community, with a 2021 population of 32,721, an 8.4% increase from the last census period in 2016. The County of Essex's official plan (2014) estimates that LaSalle's population will grow to 35,470 by 2031. Total employment is expected to reach 8,303 by mid-2030.

## Impact of Growth on Infrastructure

The magnitude and type of population growth will have direct implications on capital, operating, and maintenance costs associated with asset ownership. The ongoing lifecycle costs associated with infrastructure will vary by asset type and criticality. As part of its 2022 budget, the Town has identified \$56.7 million in significant infrastructure projects, including the Malden Road Phase 1 and Phase 2 construction (\$22.7 million) and pumping stations for its sanitary and storm infrastructure (\$34 million).

It is difficult to reliably estimate how additional infrastructure would increase annual expenditures related to operations and lifecycle management of the assets. Based on the Town's current annual capital, operating, and maintenance expenditures associated with each asset category, Table 1 illustrates how these costs may scale with infrastructure growth using two approaches: the first relies on the annual reinvestment rate (total annual capital, operating, and maintenance spending per category as a percentage of current replacement cost), whereas the second estimates annual costs per unit of infrastructure (linear only).

Under the reinvestment rate approach, the analysis shows that, based on current replacement costs, for every \$1,000,000 of new roadway constructed, \$59,000 would be required to fund the associated annual capital, operating, and maintenance costs. Alternatively, each kilometer of new roadway constructed would increase annual capital, operating, and maintenance costs by \$33,000.

Both approaches have limitations and can produce dramatically different results. The reinvestment rate approach requires accurate and precise replacement costs. Further, the reinvestment rate can vary by asset type, e.g., arterial vs. local, and by pipe diameter and/or material. The per unit approach assumes costs scale in a linear manner and no efficiencies are gained through the procurement process.

Both approaches are susceptible to fluctuating market conditions, including labour, fuel, and material costs. In addition, both approaches reflect current levels of service, which may or may not be adequate.

Table 32 Capital, Operating, and Maintenance Costs as a Percentage of Current Replacement Cost

| Asset Category               | Annual O&M expenditures | O&M expenditures as a percentage of replacement cost | Annual capital expenditures | Capital expenditures as a percentage of replacement cost | Total capital and O&M costs as a percentage of replacement cost | O&M expenditures per unit       | Capital expenditures per unit  | Total expenditures per unit     |
|------------------------------|-------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|-----------------------------------------------------------------|---------------------------------|--------------------------------|---------------------------------|
| Road Network (Roadways only) | \$1.5m                  | 1.3%                                                 | \$5.4m                      | 4.6%                                                     | 5.9%                                                            | \$7 per meter of roadway        | \$26 per meter of roadway      | \$33 per meter of roadway       |
| Bridges & Culverts           | NA*                     | NA                                                   | \$1.1m                      | 1.9%                                                     | 1.9%                                                            | NA                              | NA                             | NA                              |
| Storm Network                | \$173k                  | 0.08%                                                | \$2.1m                      | 1.0%                                                     | 1.1%                                                            | \$1 per meter of storm main     | \$10 per meter of storm main   | \$11 per meter of storm main    |
| Water Network                | \$4.6m                  | 5.1%                                                 | \$1.8m                      | 2.0%                                                     | 7.1%                                                            | \$21 per meter of watermain     | \$8 per meter of watermain     | \$29 per meter of watermain     |
| Sanitary Network             | \$3.1m                  | 2.5%                                                 | \$1.7m                      | 1.6%                                                     | 4.1%                                                            | \$17 per meter of sanitary main | \$8 per meter of sanitary main | \$25 per meter of sanitary main |

\*Bridges are managed as part of the road network.

# Financial Strategy Core Assets

Each year, the Town of LaSalle makes important investments in its infrastructure's maintenance, renewal, rehabilitation, and replacement to ensure assets remain in a state of good repair. Given the magnitude of infrastructure needs, it is common for most municipalities, including LaSalle, to experience annual shortages in funding needs. Achieving full-funding for infrastructure programs can take many years, and should be phased-in gradually to reduce excessive burden on taxpayers. LaSalle faces the added pressure of growth, which places yet more burden on infrastructure programs.

This financial strategy is designed for LaSalle's existing asset portfolio, and is based on two key inputs: the average annual capital requirements and the average annual funding typically available for capital purposes. The annual requirements are based on the replacement cost of assets and their serviceable life, and where available, lifecycle modeling. This figure is calculated for each individual asset, and aggregated to develop category-level values.

Only reliable and predictable sources of funding are used to benchmark funds that may be available in any given year. For the purpose of this AMP, these funding sources include:

- property taxation;
- water and wastewater rates;
- the Canada Community-Building Fund (CCBF), formerly the federal Gas Tax Fund; and,
- the Ontario Community Infrastructure Fund (OCIF).

Although provincial and federal infrastructure programs can change with evolving policy, CCBF and OCIF are considered as permanent and predictable.

# Annual Capital Requirements

Table 33 outlines the total average annual capital requirements for existing assets in each asset category. Based on a replacement cost of \$612 million, annual capital requirements total \$14.8 million for the five core asset categories analyzed in this document. The table also illustrates the equivalent target reinvestment rate (TRR), calculated by dividing the system-generated annual capital requirements by the total replacement cost of each asset category. The cumulative target reinvestment for these five categories is estimated at 2.4%.

Table 33 Average Annual Capital Requirements

| Asset Category     | Replacement Cost     | Annual Capital Requirements | Equivalent Target Reinvestment Rate |
|--------------------|----------------------|-----------------------------|-------------------------------------|
| Road Network       | \$148,886,931        | \$5,778,813                 | 3.9%                                |
| Bridges & Culverts | \$55,373,373         | \$768,325                   | 1.4%                                |
| Stormwater Network | \$210,641,617        | \$4,215,343                 | 2.0%                                |
| Water Network      | \$90,994,096         | \$1,882,248                 | 2.1%                                |
| Sanitary Network   | \$106,485,525        | \$2,130,110                 | 2.0%                                |
| <b>Total</b>       | <b>\$612,381,541</b> | <b>\$14,774,838</b>         | <b>2.4%</b>                         |

Although there is no industry standard guide on optimal annual investment in infrastructure, the TRRs above provide a useful benchmark for organizations. In 2016, the Canadian Infrastructure Report Card (CIRC) produced an assessment of the health of municipal infrastructure as reported by cities and communities across Canada. The CIRC remains a joint project produced by several organizations, including the Federation of Canadian Municipalities (FCM), the Canadian Society of Civil Engineers (CSCE), the Canadian Network of Asset Managers (CNAM), and the Canadian Public Works Association (CPWA).

The 2016 version of the report card also contained recommended reinvestment rates that can also serve as benchmarks for municipalities. The CIRC suggest that, if increased, these reinvestment rates can “stop the deterioration of municipal infrastructure.” The report card contains both a range for reinvestment rates that outlines the lower and upper recommended levels, as well as current municipal averages. Table 34 provides the CIRC lower and upper reinvestment rate targets for relevant asset groups. The table shows that, on average, municipalities are well below the recommended target reinvestment rates.

Table 34 Canadian Infrastructure Report Card (CIRC) Reinvestment Rate Targets

| Asset Category                | Lower Target | Upper Target | Municipal Average in 2016 |
|-------------------------------|--------------|--------------|---------------------------|
| Road Network (inc. sidewalks) | 2.0%         | 3.0%         | 1.1%                      |
| Bridges & Culverts            | 1.0%         | 1.5%         | 0.8%                      |
| Stormwater Network (linear)   | 1.0%         | 1.3%         | 0.3%                      |
| Water Network (linear)        | 1.0%         | 1.5%         | 0.9%                      |
| Water Network (non-linear)    | 1.7%         | 2.5%         | 1.1%                      |
| Sanitary Network (linear)     | 1.0%         | 1.3%         | 0.7%                      |
| Sanitary Network (non-linear) | 1.7%         | 2.5%         | 1.4%                      |

## Current Infrastructure Funding Framework

Table 35 details the total average annual funding available in LaSalle for infrastructure purposes for the five core asset categories only. In addition to own-source revenue streams, namely property taxation and water and wastewater rates, the table also includes CCBF and OCIF as these are considered stable revenue sources. We use this total funding, inclusive of OCIF and CCBF, as a baseline and to determine funding deficits. As the focus of this strategy is LaSalle's current asset portfolio, expenditures on growth assets or capacity upgrades are not included.

Table 35 Allocation of Average Annual Infrastructure Funding by Asset Category

| Asset Category     | Primary Own-source Funding Stream | Allocated to Infrastructure | OCIF               | CCBF             | Average Annual Funding Available |
|--------------------|-----------------------------------|-----------------------------|--------------------|------------------|----------------------------------|
| Road Network       | Property Tax                      | \$3,440,000                 | \$1,011,600        | \$903,600        | \$5,355,200                      |
| Bridges & Culverts | Property Tax                      | \$400,000                   | \$674,400          | \$0              | \$1,074,400                      |
| Stormwater Network | Property Tax                      | \$2,137,000                 | \$0                | \$0              | \$2,137,000                      |
| Water Network      | Water Rates                       | \$1,780,000                 | \$0                | \$0              | \$1,780,000                      |
| Sanitary Network   | Wastewater Rates                  | \$1,690,000                 | \$0                | \$0              | \$1,690,000                      |
| <b>Total</b>       |                                   | <b>\$9,447,000</b>          | <b>\$1,686,000</b> | <b>\$903,600</b> | <b>\$12,036,600</b>              |

The table illustrates that for LaSalle's core infrastructure portfolio, a total of \$12 million is available annually for capital needs. For roads and bridges, senior government programs, namely OCIF and CCBF, account for 40% of the total available funding (on average).

Within the next two to three years, the Town will be reducing its annual contribution to the storm sewer/drainage reserve by approximately \$1,000,000 to fund an annual debt payment related to a large storm sewer project. The total project cost is estimated at \$37,100,000 and will be funded through storm reserves (\$7.26m), the Government of Canada's Disaster Mitigation and Adaptation Fund (\$14.84m), and debt issuance (\$15m).

This project will see the replacement of the current gravity-based storm water and sanitary overflow outlets with five new storm water pumping stations and a new sanitary bypass pumping station. These important upgrades will help reduce the impact of flooding for approximately 30,000 people who live and work in the LaSalle area. This project is also expected to save \$7.63 for every dollar invested in long-term savings on flood-related recovery and replacement costs.

## Current Funding Levels and Infrastructure Deficits

Table 36 summarizes how current funding levels compare with funding required for each asset category. At existing levels, LaSalle is funding 81% of annual capital requirements for its five core asset categories. This creates a total annual funding deficit of \$2.7 million for both tax- and rate-funded asset categories.

Table 36 Current Funding Position vs. Required Funding

| Asset Category     | Annual Capital Requirements | Average Annual Funding Available | Annual Infrastructure Deficit | Funding Level |
|--------------------|-----------------------------|----------------------------------|-------------------------------|---------------|
| Road Network       | \$5,778,813                 | \$5,355,200                      | \$423,613                     | 93%           |
| Bridges & Culverts | \$768,325                   | \$1,074,400                      | -\$306,075                    | 140%          |
| Stormwater Network | \$4,215,343                 | \$2,137,000                      | \$2,078,343                   | 51%           |
| Water Network      | \$1,882,248                 | \$1,780,000                      | \$102,248                     | 95%           |
| Sanitary Network   | \$2,130,110                 | \$1,690,000                      | \$440,110                     | 79%           |
| <b>Total</b>       | <b>\$14,774,838</b>         | <b>\$12,036,600</b>              | <b>\$2,738,238</b>            | <b>81%</b>    |

Table 37 compares LaSalle's target vs. actual reinvestment rates. It shows that, while LaSalle's actual reinvestment rates are below the system-generated targets, they are well-within the CIRC recommended range for each asset category and are higher than other municipalities based on CIRC's 2016 average.

Table 37 Target vs. Actual Reinvestment Rates

| Asset Category     | System-generated Target Reinvestment Rate | LaSalle Actual Reinvestment Rate | CIRC Range | CIRC 2016 Municipal Average |
|--------------------|-------------------------------------------|----------------------------------|------------|-----------------------------|
| Road Network       | 3.9%                                      | 3.6%                             | 2.0%-3.0%  | 1.1%                        |
| Bridges & Culverts | 1.4%                                      | 1.9%                             | 1.0%-1.5%  | 0.8%                        |
| Stormwater Network | 2.0%                                      | 1.0%                             | 1.0%-1.3%  | 0.3%                        |
| Water Network      | 2.1%                                      | 2.0%                             | 1.1%-2.5%  | 0.9%-1.1%                   |
| Sanitary Network   | 2.0%                                      | 1.6%                             | 1.0%-2.5%  | 0.7%-1.4%                   |

# Closing Funding Gaps Core Assets

Eliminating annual infrastructure funding shortfalls is a difficult and long-term endeavour for municipalities. It can require many years to reach full funding for current assets.

This section outlines how the Town of LaSalle can close annual funding deficits using own-source revenue streams, i.e., property taxation and utility rates, and without the use of additional debt for existing assets. Separate analysis is provided for tax- and rate-funded assets.

## Tax-Funded Assets

For 2022, the Town of LaSalle's forecasted property tax revenue totals \$40,131,900. Annual capital requirements for tax-funded categories total \$10,762,481 against available funding of \$8,566,600. This creates an annual funding deficit of \$2,195,881. To close this annual gap, property tax revenue would need to increase by 5.5%. This would allow LaSalle to meet 100% of the average annual requirements for tax-funded categories.

Table 38 Increase Needed in Property Taxation Revenue to Meet Annual Infrastructure Needs

| 2022 Property Taxation Revenue | Additional Revenue Needed for Infrastructure | % Increase Needed |
|--------------------------------|----------------------------------------------|-------------------|
| \$40,131,900                   | \$2,195,881                                  | 5.5%              |

To achieve this increase, several scenarios have been developed using phase-in periods ranging from five to 20 years. Shorter phase-in periods may place too high a burden on taxpayers, whereas a phase-in period beyond 20 years may see a continued deterioration of infrastructure, leading to larger backlogs.

Table 39 Phasing in Tax Increases

| Total % Increase Needed in Annual Property Taxation Revenues | Phase-in Period |          |          |          |
|--------------------------------------------------------------|-----------------|----------|----------|----------|
|                                                              | 5 Years         | 10 Years | 15 Years | 20 Years |
| 5.5%                                                         | 1.1%            | 0.5%     | 0.4%     | 0.3%     |

Funding 100% of annual capital requirements ensures that major capital events, including replacements, are completed as required. Under this scenario, projects are unlikely to be deferred to future years. This delivers the highest asset performance and customer levels of service.

## Rate-Funded Assets

For 2022, the Town of LaSalle's forecasted water rate revenues total \$6,261,300. Annual capital requirements for the water network total \$1,882,248, against available funding of \$1,780,000. This creates an annual funding deficit of \$102,248. To close this annual gap, the Town's water revenues would need to increase by 1.6%. This would allow LaSalle to meet 100% of the average annual requirements for water infrastructure.

Similarly, wastewater rate revenues are forecasted to be \$4,367,700 in 2022. Average annual requirements for LaSalle's wastewater assets total \$2,130,110, against available funding of \$1,690,000, creating an annual deficit of \$440,110. Rate revenues would need to increase by 10.1% to close this funding gap.

Table 40 Increase Needed in Water and Wastewater Rate Revenues to Meet Annual Infrastructure Needs

| Category         | 2022 Rate Revenues | Additional Revenue Needed for Infrastructure | % Increase Needed |
|------------------|--------------------|----------------------------------------------|-------------------|
| Water Network    | \$6,261,300        | \$102,248                                    | 1.6%              |
| Sanitary Network | \$4,367,700        | \$440,110                                    | 10.1%             |

To achieve these increases, several scenarios have been developed using phase-in periods ranging from five to 20 years. As with tax-funded assets, short phase-in periods may require excessive rate increases, whereas more protracted timeframes may lead to larger backlogs and more unpredictable spending on emergency repairs and replacements.

Table 41 Phasing in Rate Increases

| Category         | Total % Increase Required in Rate Revenues | Phase-in Period |          |          |          |
|------------------|--------------------------------------------|-----------------|----------|----------|----------|
|                  |                                            | 5 Years         | 10 Years | 15 Years | 20 Years |
| Water Network    | 1.6%                                       | 0.3%            | 0.2%     | 0.1%     | 0.1%     |
| Sanitary Network | 10.1%                                      | 1.9%            | 1.0%     | 0.6%     | 0.5%     |

### Lowering Target Funding Levels

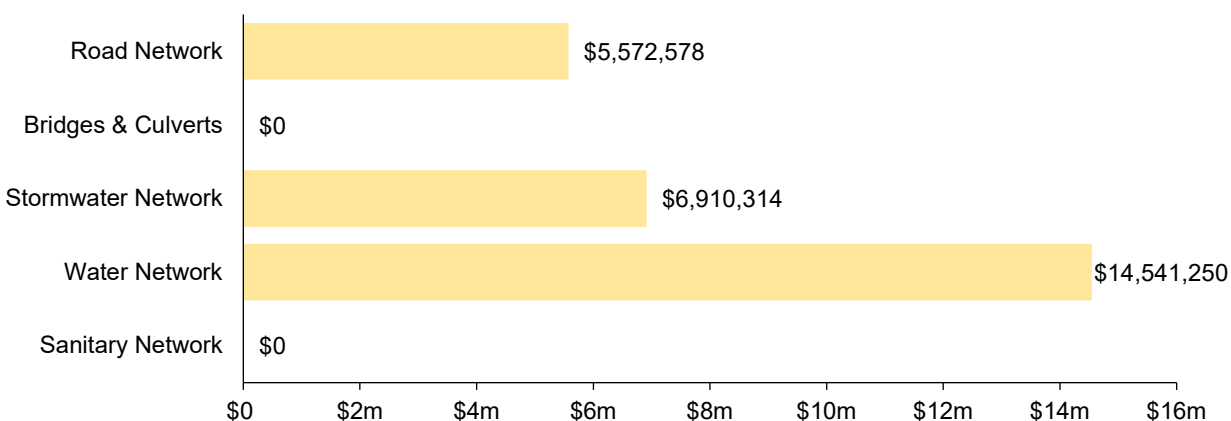
The above scenarios assume that the Town should target full funding for the five core asset classes analyzed in this AMP. That is, it should strive to meet 100% of its average annual requirements of \$14.8 million. If this target funding level is reduced, the total tax revenue and rate increases required would also decrease. However, this approach is not desirable as it reduces the Municipality's financial capacity to maintain its infrastructure in a state of good repair, yielding the following potential consequences:

- lower levels of service, including reduced asset performance and increased rate of asset failures;
- with a longer replacement cycle, assets may remain in service beyond their useful life;
- continuation of the 'worst-first' or reactive approach to infrastructure management and project selection;
- reduced customer service levels and increases in citizen complaints;
- potential reputational damage;
- increased risk to public health and safety;
- project deferrals or cancellations, leading to further accumulation of existing infrastructure backlogs.

### Infrastructure Backlogs

The annual tax and rate increases proposed are designed to eliminate annual infrastructure deficits. However, they do not address existing backlogs. Figure 46 shows that the current infrastructure backlog totals approximately \$27 million across core infrastructure. However, as sanitary assets did not have condition assessment data available, age was used to estimate backlog figures. As a result, the figure below may be an under- or overstatement of actual asset needs. Condition assessment data will be essential in developing more accurate and credible estimates.

Figure 45 Current Infrastructure Backlog by Asset Category



Eliminating backlogs will require additional funding and project prioritization, ideally through continuous improvements and application of LaSalle's risk models to augment staff judgement. This risk-based approach will ensure that project selection is objective, supports delivery of the Town's service level targets, and is in line with long-term strategic objectives.

## Reserve Levels and Use of Debt

Table 42 summarizes the size of current infrastructure reserves for the five core asset categories. Across all asset categories in this AMP, infrastructure reserves total \$37.8 million, or 6.2% of the total current replacement value of assets. These reserves are available for use for various infrastructure-related expenditures as needed and for potential tax stabilization.

Table 42 Infrastructure Reserve Levels

| Reserve                                  | Closing Balance at December 31, 2021 |
|------------------------------------------|--------------------------------------|
| Roads & Bridges                          | \$10,654,394                         |
| Roads                                    | \$367,191                            |
| Storm Water                              | \$7,801,170                          |
| Water (excludes Water Emergency Reserve) | \$10,854,061                         |
| Sanitary                                 | \$8,116,510                          |
| <b>Total</b>                             | <b>\$37,793,326</b>                  |

To put this in perspective, using \$500,000 as an average home price for Windsor-Essex, the typical homeowner in LaSalle would have approximately \$31,000 on hand for major housing expenditures.

There is considerable debate in the municipal sector on the appropriate level of reserves that an organization should have on hand. No clear guideline has gained widespread acceptance. Factors that LaSalle should consider when determining its capital reserve requirements include breadth of services provided today and in the future; age and condition of infrastructure; use and level of debt; economic condition and outlook; and internal reserve and debt policies.

# Recommendations and Key Considerations

## Financial Strategies

1. Review feasibility of adopting a full-funding scenario that achieves 100% of average annual requirements for the core asset categories analyzed in this AMP. This involves:
  - a. implementing a 1.1% annual tax increase over a 5-year phase-in period and allocating the full increase in revenue toward tax-funded asset categories;
  - b. implementing a 0.3% rate increase for water, and a 1.9% increase for sanitary, over a 5-year phase-in period;
  - c. continued allocation of OCIF and CCBF funding as previously outlined in Table 35;
  - d. using risk frameworks and staff judgement to prioritize projects, particularly to aid in elimination of existing infrastructure backlogs;

We note that the above recommendations do not account for cost increased due to inflation, supply chain issues, and fluctuations in commodity prices.

## Asset Management Program Development

1. The Town of LaSalle has completed a comprehensive corporate asset management strategy and a detailed data gap analysis of each asset category. The strategy contains a prioritized list of recommendations to help improve the Town's asset management maturity. Of particular significance is addressing critical data gaps to ensure the inventory is complete, current, and accurate. These include:
  - a. Improve componentization of buildings and facilities to allow for more accurate long-term forecasting at the individual asset level (e.g., components and elements)
  - b. Regularly integrate asset condition and other attribute data with the Town's asset register, Citywide.
  - c. Asset management planning is highly sensitive to replacement costs. Periodically update replacement costs based on recent projects, invoices, or estimates, as well as condition assessments, or any other technical reports and studies. Material and labour costs can fluctuate due to local, regional, and broader market trends, and substantially so during major world events. As a result, accurately estimating the replacement cost of like-for-like assets can be challenging. Ideally, several recent projects over multiple years should be used. Staff judgement and historical data can help attenuate extreme and temporary fluctuations in cost estimates and keep them realistic.

2. Continuously review, refine, and calibrate lifecycle and risk profiles to better reflect actual practices and improve capital projections. In particular:
  - a. the timing of various lifecycle events, the triggers for treatment, anticipated impacts of each treatment, and costs;
  - b. the various attributes used to estimate the likelihood and consequence of asset failures, and their respective weightings.
3. Similar to replacement costs, an asset's established serviceable life can have dramatic impacts on all projections and analyses, including condition, long-range forecasting, and financial recommendations. Periodically reviewing and updating these values to better reflect in-field performance and staff judgement is recommended.
4. Risk models and matrices can play an important role in identifying high-value assets, and developing an action plan which may include repair, rehabilitation, replacement, or further evaluation through condition assessments. As a result, project selection and the development of multi-year capital plans can become more strategic and objective. Initial models have been built into Citywide for all asset groups. These models reflect current data, which was limited. As the data evolves and new attribute information is obtained, these models should also be refined and updated.
5. Although Ontario Regulation 588/17 requires reporting on specific, prescribed KPIs for the Town's core assets, municipalities have discretion on the KPIs they select to track the performance of their non-core assets, such as buildings and vehicles. This information will be required for the 2024 iteration of the AMP. KPIs should be established for all non-core asset groups to support regulatory compliance. Further, as available, data on current performance should be centralized and tracked to support any calibration of service levels ahead of O. Reg's 2025 requirements on proposed levels of service.

# Non-Core Assets

## Facilities

The Town is responsible for the operations and capital upkeep of several facilities used both for municipal operations and public services. Facilities include:

Town Municipal Office

Fire Hall

Police Headquarters

Recreation and Community Centres

Public Works

The Town facility assets are recorded in an asset management software system. The following table provides summary information about facility assets based on a December 2023 effective date:

## Inventory and Valuation

Table 43 summarizes the quantity and current replacement cost of the Town's various facilities assets as available in its primary asset management register, Citywide.

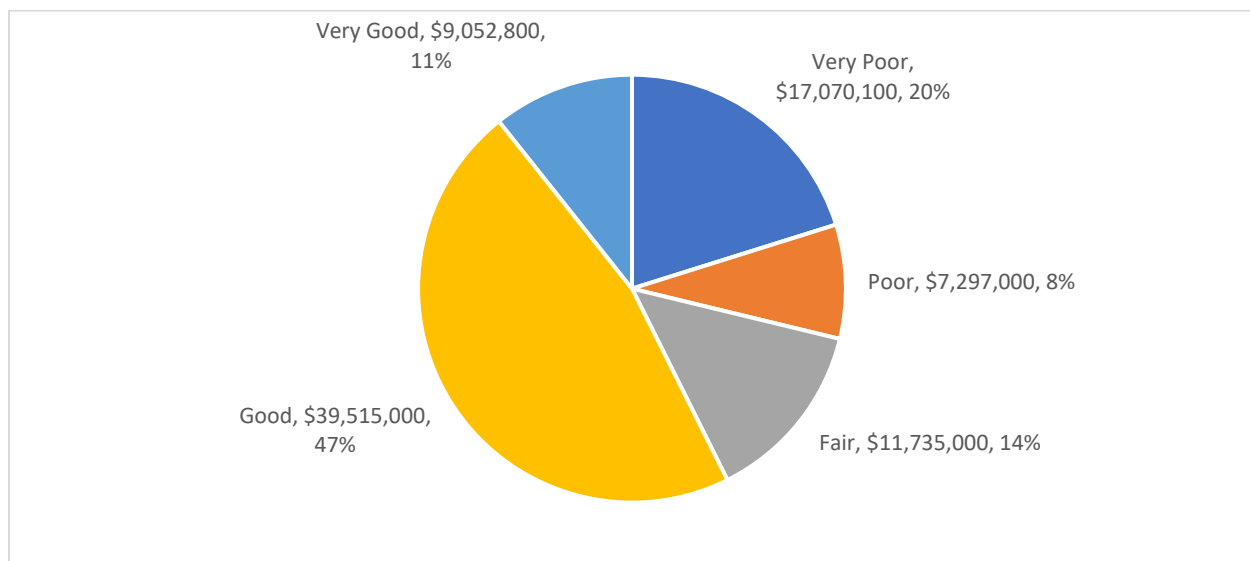
Table 43 Detailed Asset Inventory – Facilities

| Segment                    | Quantity | Primary Replacement Cost Method | Replacement Cost    |
|----------------------------|----------|---------------------------------|---------------------|
| General Government         | 1        | CPI                             | \$17,797,200        |
| Public Works               | 1        | CPI                             | \$10,132,600        |
| Park & Recreation Services | 6        | CPI                             | \$45,329,300        |
| Protective Services        | 3        | CPI                             | \$11,410,700        |
| <b>Total</b>               |          |                                 | <b>\$84,669,800</b> |

## Asset Condition

Figure 47 summarizes the replacement cost-weighted condition of the Town's facilities. Based on age-based condition, 71% of facility assets are in fair or better condition; the remaining 27% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 47 Asset Condition - Facilities



## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

Figure 48 illustrates the average current age of each asset type and its estimated useful life.

Figure 48 Estimated Useful Life vs. Asset Age – Facilities

| Asset Component Type                                | Estimated Useful Life | Average Age (weighted by replacement cost) |
|-----------------------------------------------------|-----------------------|--------------------------------------------|
| Interior Features (flooring and fixtures)           | 10 years              | 10.8 years                                 |
| Interior Features (furniture and fixtures)          | 15 years              | 8.8 years                                  |
| Mechanical (heating, cooling, plumbing, electrical) | 20 years              | 11 years                                   |
| Arenas and Pools                                    | 25 years              | 15 years                                   |
| Structural Component of Building                    | 50 years              | 12 years                                   |

The useful life of each asset component was determined by the depreciation rates used for accounting purposes.

## Lifecycle Management Strategy

The Town's facilities assets are managed through the following maintenance, inspection, rehabilitation, and replacement processes:

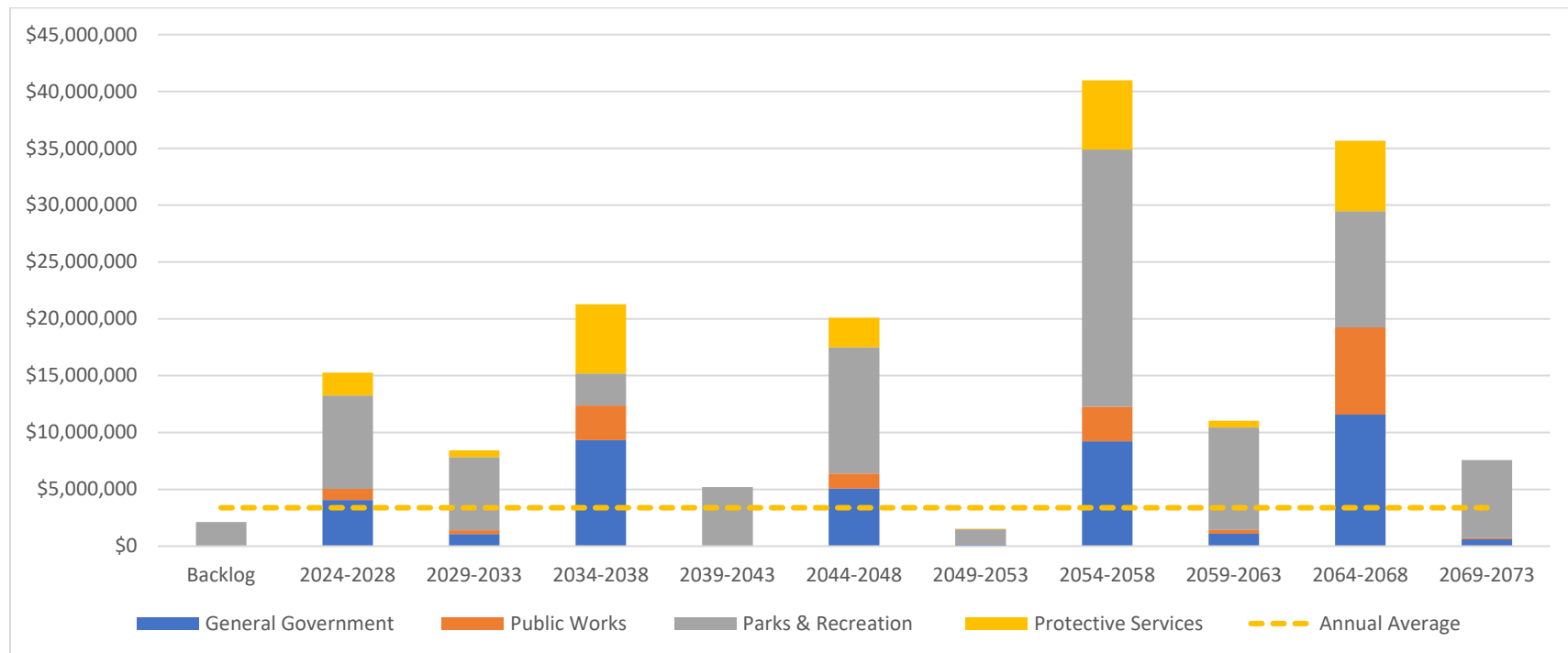
| Activity Type                | Description of Current Strategy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance & Inspection     | Inspections and servicing are completed as per a pre-determined timetable which meets or exceeds minimum maintenance standards depending on a variety of factors. The municipality works with their service contractors to establish the schedule to minimize unscheduled repairs and maximize life expectancy. Examples include HVAC inspections conducted quarterly or in some cases bi-monthly; generator checks conducted monthly and more detailed testing bi-annually, elevators conducted monthly, etc. |
|                              | Servicing reports are reviewed by management staff and typically most if not, all recommendations are accepted and followed.                                                                                                                                                                                                                                                                                                                                                                                   |
|                              | Building Condition Assessments (BCA) are completed on all facility assets periodically. The data collected through these assessments identifies recommended repairs and replacement schedules. This information is central to the selection of long-term capital projections. In some cases, the BCA recommends more detailed studies to better understand the existing state, functionality, and risks. This can assist with developing infrastructure management solutions accordingly.                      |
| Rehabilitation & Replacement | Historically many asset replacements have been reactive based on asset component failure. As BCA are completed the Town intends to become more proactive in their asset lifecycle activities.                                                                                                                                                                                                                                                                                                                  |
|                              | Currently, capital projects are forecasted based on a 10-year planning horizon. Generally, clarity of projects is highest in the first 1-4 years of the plan with projects planned in years 5 and beyond more likely to change over time.                                                                                                                                                                                                                                                                      |

## Forecasted Long-term Replacement Needs

Figure 49 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's facilities. This analysis was run until 2073 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$3.1 million for all facilities. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections are based on available data, such as age, replacement costs, and expected useful life. They are designed to provide a long-term overview of potential capital needs and should be used to support improved financial planning over several decades. It is highly unlikely that all assets will require full reconstruction or replacement. Further, with proactive lifecycle management strategies outlined previously, the life of most assets can be extended by many years in a cost-effective manner.

Figure 49 Forecasted Capital Replacement Requirements - Facilities: 2024-2073



### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 44 System-generated 10-Year Capital Replacement Forecast - Facilities

| Segment             | 2024          | 2025          | 2026         | 2027          | 2028          | 2029          | 2030          | 2031         | 2032          | 2033          |
|---------------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|
| General Government  | \$4.0m        | \$0.0         | \$37.0k      | \$0.0         | \$0.0         | \$1.0m        | \$16.0k       | \$1.5k       | \$55.0k       | \$0.0         |
| Public Works        | \$984.8k      | \$0.0         | \$0.0        | \$0.0         | \$9.8         | \$6.2k        | \$0.0         | \$0.0        | \$0.0         | \$4.5k        |
| Parks & Recreation  | \$0.0         | \$286.3k      | \$38.2k      | \$336.0k      | \$7.5m        | \$9.5k        | \$151.0k      | \$72.8k      | \$1.0mk       | \$5.1m        |
| Protective Services | \$1.9m        | \$0.0         | \$0.0        | \$84.0        | \$0.0         | \$0.0         | \$0.0         | \$0.0        | \$0.0         | \$0.0         |
| <b>Total</b>        | <b>\$6.9m</b> | <b>\$286k</b> | <b>\$75k</b> | <b>\$420k</b> | <b>\$7.5m</b> | <b>\$1.0m</b> | <b>\$167k</b> | <b>\$74k</b> | <b>\$1.0m</b> | <b>\$5.1m</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, particularly condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the forecasted capital, operating, and maintenance expenditures as outlined in LaSalle's 2024-2029 Capital Plan. Data beyond 2029 is further projected for the purpose of this AMP using average annual growth rates.

Table 45 Planned Capital, Operating, and Maintenance Expenditures- Facilities

| Expenditure             | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          | 2032          | 2033          |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits      | \$1.7m        | \$2.0m        | \$2.0m        | \$2.1m        | \$2.2m        | \$2.2m        | \$2.3m        | \$2.4m        | \$2.5m        | \$2.6m        |
| Facility Expenses       | \$2.5m        | \$2.6m        | \$2.6m        | \$2.7m        | \$2.8m        | \$2.8m        | \$2.9m        | \$3.0m        | \$3.0m        | \$3.1m        |
| Equipment Expenses      | \$208k        | \$212k        | \$216k        | \$220k        | \$225k        | \$229k        | \$233k        | \$238k        | \$243k        | \$248k        |
| <b>Sub-total</b>        | <b>\$4.4m</b> | <b>\$4.8m</b> | <b>\$4.8m</b> | <b>\$5.0m</b> | <b>\$5.2m</b> | <b>\$5.2m</b> | <b>\$5.4m</b> | <b>\$5.6m</b> | <b>\$5.7m</b> | <b>\$5.9m</b> |
| Capital                 |               |               |               |               |               |               |               |               |               |               |
| <b>Sub-total</b>        | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.4m</b> |
| <b>Total</b>            | <b>\$7.8m</b> | <b>\$8.2m</b> | <b>\$8.2m</b> | <b>\$8.4m</b> | <b>\$8.7m</b> | <b>\$8.7m</b> | <b>\$8.8m</b> | <b>\$9.0m</b> | <b>\$9.1m</b> | <b>\$9.3m</b> |

Facilities expenses include maintenance to utility infrastructure (ie: electrical, plumbing, and natural gas) as well as repair of doorways, flooring, roofing, interior and exterior wall repair (including painting), etc. This constant ongoing maintenance, which includes cleaning, preserves facilities in good repair.

The equipment varies significantly and includes but is not limited to facilities related to arenas, aquatics and fitness. The equipment also covers a wide range of unique pieces that includes HVAC systems, lighting, arena refrigeration, sound systems, etc. Some maintenance activities are dictated through regulation and in other cases we meet or exceed manufacturer's recommendations. Equipment expenses rise as equipment becomes dated and parts become more difficult to find. In addition, some of our equipment is very complicated and/or requires specialized servicing and training that is beyond our staff expertise. Ensuring safe and properly operating equipment contributes to fewer disruptions in service.

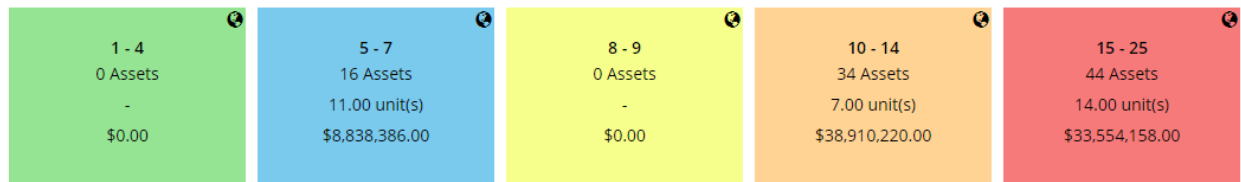
## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager)

Figure 50 Risk Matrix - Facilities



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Misallocation of funds leading to over- or under-investments
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

## Levels of Service

The tables that follow summarize LaSalle's selected metrics and levels of service under Ontario Regulation 588/17.

Table 46 Ontario Regulation 588/17 Levels of Service - Facilities

| Core Value     | Level of Service Statement                                                                                                                     | Community Level of Service                                                                                                                                                                                                                                                                                | Technical Level of Service                              |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Quality        | Appropriate actions and interventions are taken to ensure the regular safe use of facility assets so that they can provide important services. | Using recent assessed condition information vehicle assets range from very poor (20%) to very good (11%) and are on average in fair condition. Facility assets include diverse assets that service the Town's protection services, public works, parks and recreation and general government departments. | Weighted Average Condition of Assets: 55                |
| Sustainability | There are long-term plans in place for the renewal and replacement of facilities assets                                                        | Facility investments are generally planned 10 years out and consider the asset's age, condition, utility, and cost-benefit analysis of replacement.                                                                                                                                                       | Current vs Target Capital Reinvestment Rate 0.75% vs 4% |

## Fleet and Fleet Equipment

The Town owns a variety of fleet and fleet equipment assets that are central to the Town's daily operations. The Town of LaSalle's Fleet and Fleet Equipment has a current replacement cost of \$9.7 million. For reporting purposes these assets have been segmented based on similar function. These segments, and examples of common assets included in them, is detailed below:

Transportation Services: predominately comprised of pick-up, heavy duty pick up trucks dump trucks and snow plows.

Environmental Services: predominately comprised of cargo vans, pick-up and heavy-duty pick-up trucks.

Parks: a small assortment of pick-up trucks to support the transportation and work requirements of parks and recreation staff.

Protective Services: an assortment of Fire trucks, including Engines, Ladder trucks and Rescue vehicles and Command vehicles. Also included are fleet vehicles utilized by Building services, By-Law Enforcement and LaSalle Police Services.

### Inventory and Valuation

Table 47 summarizes the quantity and current replacement cost of the Town's various fleet assets as available in its primary asset management register, Citywide.

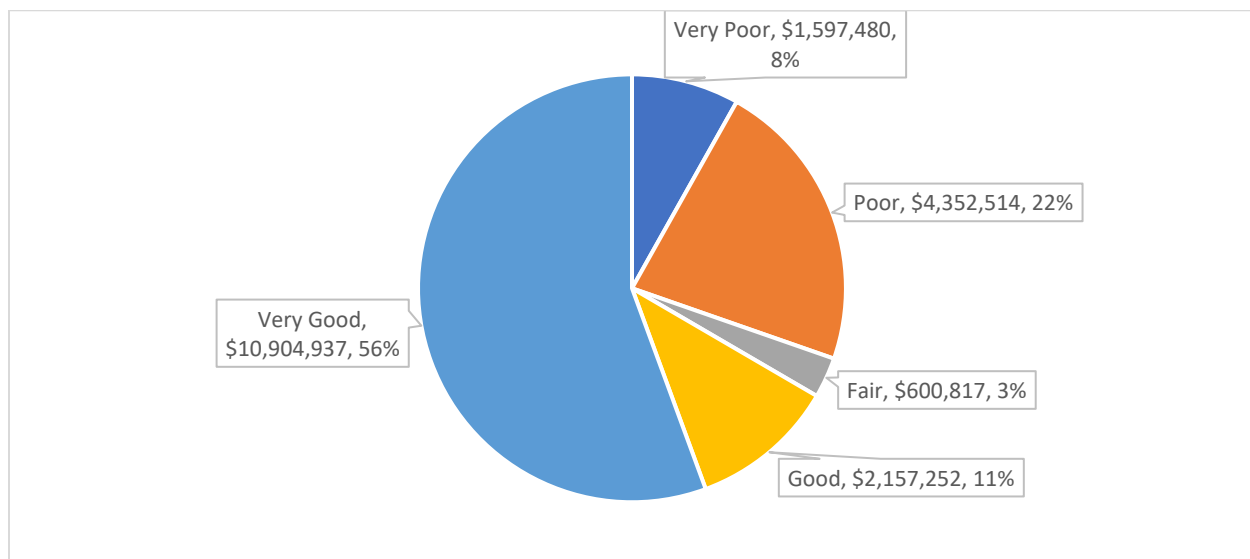
Table 47 Detailed Asset Inventory – Fleet and Fleet Equipment

| Segment                 | Quantity | Primary Replacement Cost Method | Replacement Cost   |
|-------------------------|----------|---------------------------------|--------------------|
| Transportation Services | 24       | CPI                             | \$3,133,812        |
| Environmental Services  | 10       | CPI                             | \$577,484          |
| Park Services           | 15       | CPI                             | \$704,644          |
| Protective Services     | 35       | CPI/User Defined                | \$5,355,024        |
| <b>Total</b>            |          |                                 | <b>\$9,770,964</b> |

## Asset Condition

Figure 51 summarizes the condition of the Town's fleet and fleet equipment. Most fleet and fleet equipment assets have been for condition by the Town's staff mechanics, where no condition assessment exists age- based condition has been utilized. Based on this combination of assessed and age-based condition approach, 70% of fleet and fleet equipment assets are in fair or better condition; the remaining 30% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 51 Asset Condition – Fleet and Fleet Equipment



## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

Figure 52 illustrates the average current age of each asset type and its estimated useful life.

Figure 52 Estimated Useful Life vs. Asset Age – Fleet and Fleet Equipment

| Asset Component Type                       | Estimated Useful Life | Average Age (weighted by replacement cost) |
|--------------------------------------------|-----------------------|--------------------------------------------|
| Light Duty/ Medium Duty (low volume) Fleet | 10 years              | 7 years                                    |
| Light Duty(high volume)/Medium Duty Fleet  | 5-8 years             | 10 years                                   |
| Specialized Fleet (Fire)                   | 15-25 years           | 15 years                                   |

The useful life of each asset component was determined by the depreciation rates used for accounting purposes.

## Lifecycle Management Strategy

The Town's fleet assets excluding LaSalle Fire and LaSalle Police Services are managed through the following maintenance, inspection, rehabilitation, and replacement processes:

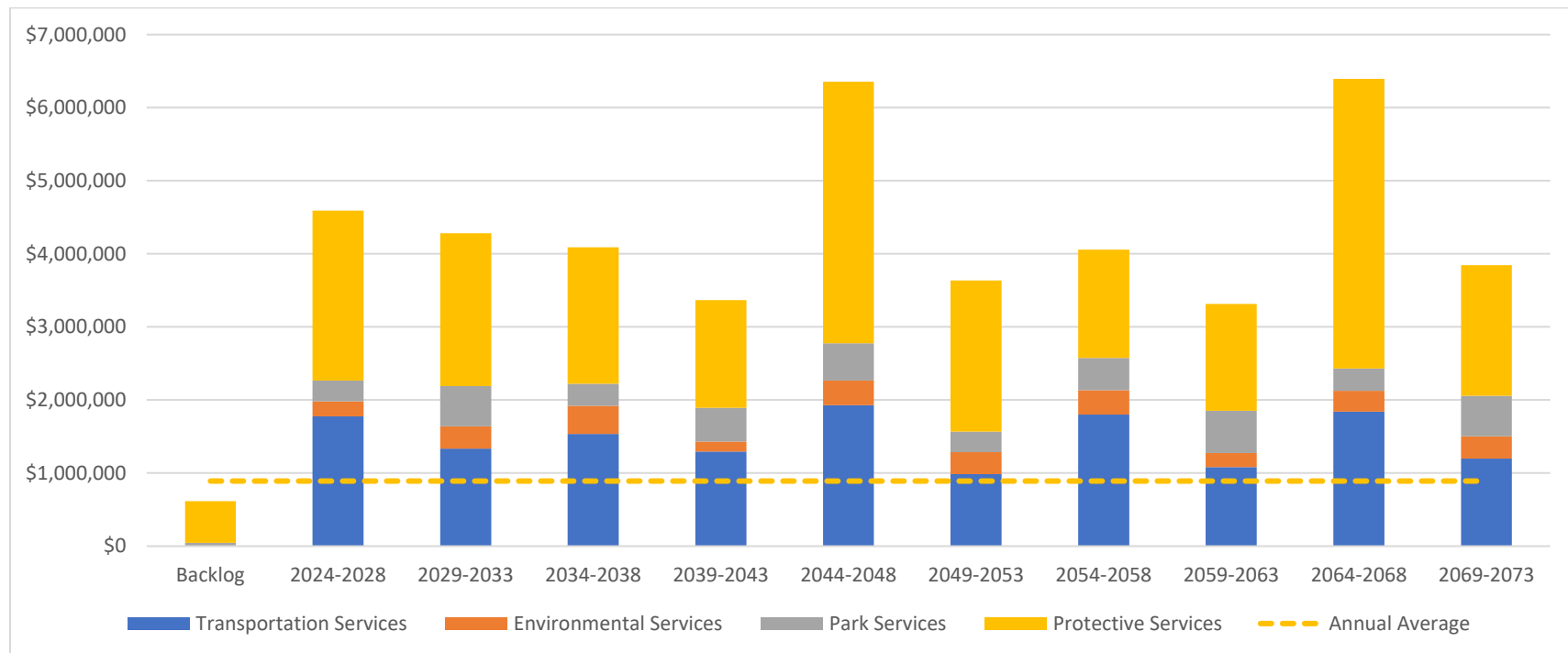
| Activity Type                | Description of Current Strategy                                                                                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance & Inspection     | Light duty vehicles (ex Pickup Trucks) are inspected three times per year.                                                                                                                                                                                                                                                                                  |
|                              | Heavy duty vehicles (ex Plow Trucks) are inspected two times per year.                                                                                                                                                                                                                                                                                      |
|                              | Additional fleet inspections occur from time to time when issues with each specific unit come up. These are typically also completed by on-staff mechanics.                                                                                                                                                                                                 |
| Rehabilitation & Replacement | Light duty vehicles – 10 years                                                                                                                                                                                                                                                                                                                              |
|                              | Heavy duty vehicles – 10 years                                                                                                                                                                                                                                                                                                                              |
|                              | Fleet replacement decisions consider asset downtime, maintenance costs, and value on-trade in against the total cost of ownership and the asset's existing utility. A well performing fleet asset will continue to be utilized beyond its expected useful life; in contrast a poor performing asset may be replaced in advance of its expected useful life. |

## Forecasted Long-term Replacement Needs

Figure 53 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's fleet. This analysis was run until 2073 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$891,000 for fleet. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections are based on available data, such as age, replacement costs, and expected useful life. They are designed to provide a long-term overview of potential capital needs and should be used to support improved financial planning over several decades. It is highly unlikely that all assets will require full reconstruction or replacement. Further, with proactive lifecycle management strategies outlined previously, the life of most assets can be extended by many years in a cost-effective manner.

Figure 53 Forecasted Capital Replacement Requirements - Fleet: 2024-2073



### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 48 System-generated 10-Year Capital Replacement Forecast - Fleet

| Segment                 | 2024            | 2025            | 2026            | 2027            | 2028           | 2029          | 2030            | 2031            | 2032            | 2033            |
|-------------------------|-----------------|-----------------|-----------------|-----------------|----------------|---------------|-----------------|-----------------|-----------------|-----------------|
| Transportation Services | \$494.0k        | \$41.0k         | \$619.7k        | \$327.5k        | \$292.4k       | \$125.7k      | \$0.0           | \$328.9k        | \$520.5k        | \$358.9k        |
| Environmental Services  | \$79.6k         | \$34.8k         | \$91.4k         | \$0.0           | \$0.0          | \$84.9k       | \$127.5k        | \$57.6k         | \$0.0           | \$34.8k         |
| Parks& Recreation       | \$78.7k         | \$8.3k          | \$106.8k        | \$42.8k         | \$48.7k        | \$108.0k      | \$60.8k         | \$228.4k        | \$65.9k         | \$88.2k         |
| Protective Services     | \$161.7k        | \$120.0k        | \$95.9k         | \$0.0           | \$1.9m         | \$1.2m        | \$588.4k        | \$153.5k        | \$0.0           | \$111.5k        |
| <b>Total</b>            | <b>\$814.0k</b> | <b>\$204.1k</b> | <b>\$913.8k</b> | <b>\$370.3k</b> | <b>\$2.24m</b> | <b>\$1.5m</b> | <b>\$776.7k</b> | <b>\$768.4k</b> | <b>\$586.4k</b> | <b>\$593.4k</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, particularly condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the forecasted capital, operating, and maintenance expenditures as outlined in LaSalle's 2024-2029 Capital Plan. Data beyond 2029 is further projected for the purpose of this AMP using average annual growth rates.

Table 49 Planned Capital, Operating, and Maintenance Expenditures- Fleet

| Expenditure             | 2024   | 2025   | 2026   | 2027   | 2028   | 2029   | 2030   | 2031   | 2032    | 2033    |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| Operating & Maintenance |        |        |        |        |        |        |        |        |         |         |
| Wages and Benefits      | \$234k | \$241k | \$248k | \$255k | \$262k | \$269k | \$277k | \$285k | \$293k  | \$303k  |
| Equipment Expenses      | \$602k | \$617k | \$632k | \$648k | \$664k | \$680k | \$697k | \$714k | \$732k  | \$750k  |
| Sub-total               | \$836k | \$858k | \$880k | \$903k | \$926k | \$949k | \$974k | \$999k | \$1.02m | \$1.05m |
| Capital                 |        |        |        |        |        |        |        |        |         |         |
| Sub-total               | \$891k | \$891k | \$891k | \$891k | \$891k | \$891k | \$891k | \$891k | \$891k  | \$891k  |
| Total                   | \$1.7m | \$1.7m | \$1.8m | \$1.8m | \$1.8m | \$1.8m | \$1.9m | \$1.9m | \$1.9m  | \$1.9m  |

Equipment expenses include fuel, fuels systems, maintenance, mechanic supplies and small capital equipment. The equipment covers a wide range of unique pieces such as light duty, medium duty and specialized vehicles. Of these vehicles many are outfitted with additional equipment. Equipment (maintenance) expenses rise as equipment becomes dated and parts become more difficult to find. In addition, some of our equipment is very complicated and/or requires specialized servicing and training that is beyond our staff expertise. Ensuring safe and properly operating equipment contributes to fewer disruptions in service.

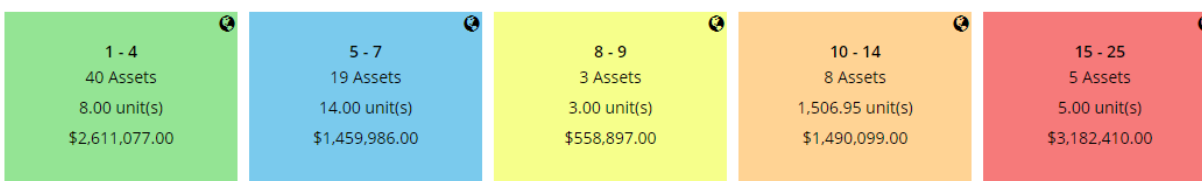
## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager).

Figure 54 Risk Matrix - Fleet



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Misallocation of funds leading to over- or under-investments
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

## Levels of Service

The tables that follow summarize LaSalle's selected metrics and levels of service under Ontario Regulation 588/17.

Table 50 Ontario Regulation 588/17 Levels of Service - Fleet

| Core Value     | Level of Service Statement                                                                                                                  | Community Level of Service                                                                                                                                                                                                                                                                          | Technical Level of Service                                   |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Quality        | Appropriate actions and interventions are taken to ensure the regular safe use of fleet assets so that they can provide important services. | Using recent assessed condition information fleet assets range from very poor (8%) to very good (56%) and are on average in fair condition. Fleet assets include diverse assets that service the Town's protection services, public works, parks and recreation and general government departments. | Weighted Average Condition of Assets:<br><br>48              |
| Sustainability | There are long-term plans in place for the renewal and replacement of fleet assets                                                          | Fleet investments are generally planned 10 years out and consider the asset's age, condition, utility, and cost-benefit analysis of replacement.                                                                                                                                                    | Current vs Target Capital Reinvestment Rate: 6.21% Vs. 9.12% |

## Machinery and Equipment

The Town owns a variety of machinery and equipment assets. These assets are primarily utilized by parks and recreation, transportation services, environmental services and protective services. All of these assets are important to the Town's daily operations and the Town's effectiveness of providing a high level of service. Town of LaSalle's Machinery and Equipment has a current replacement cost of \$14.1 million. For reporting purposes these assets have been segmented based on similar function. These segments, and examples of common assets included in them, is detailed below:

**Transportation Services:** predominately comprised of large equipment such loaders, graders and other equipment such as trailers, storage containers and sign boards.

**Environmental Services:** predominately comprised of pumps, generators, transmission, and detection equipment.

**Parks & Recreation:** various equipment to operate and maintain parks and various assets at the Town's recreational complex including fitness equipment and equipment to operate the ice pads and pool.

**Protective Services:** assets used by protective services include radios, extraction equipment and other assets related to fire and police services.

## Inventory and Valuation

Table 51 summarizes the quantity and current replacement cost of the Town's various machinery and equipment assets as available in its primary asset management register, Citywide.

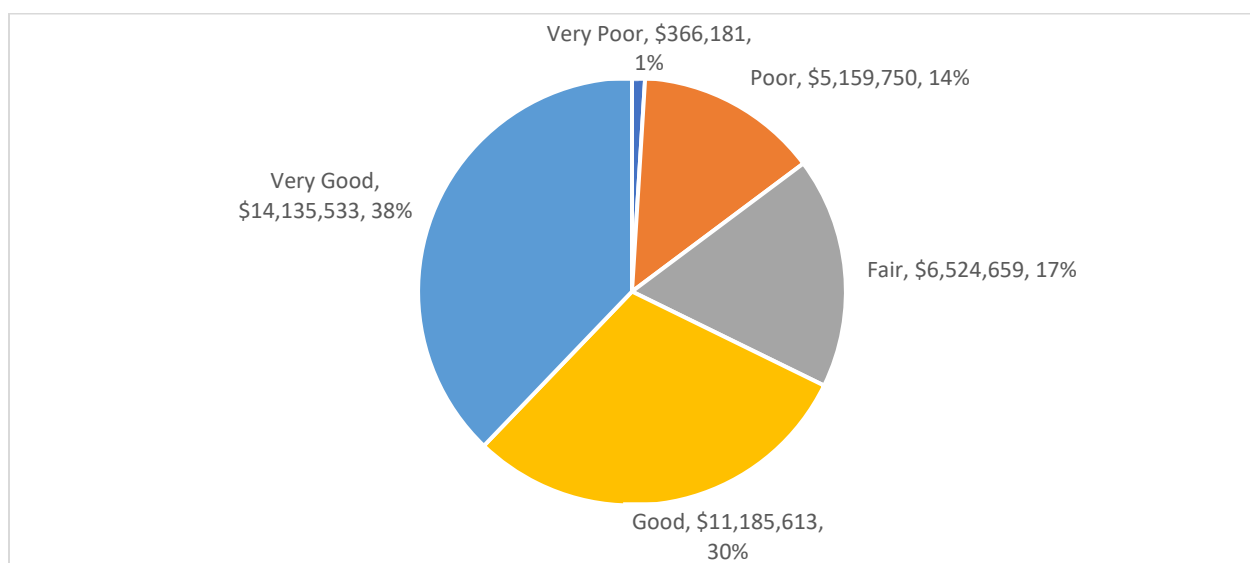
Table 51 Detailed Asset Inventory – Machinery and Equipment

| Segment                    | Quantity | Primary Replacement Cost Method | Replacement Cost    |
|----------------------------|----------|---------------------------------|---------------------|
| Environmental Services     | 17       | CPI                             | \$3,599,023         |
| Park & Recreation Services | 163      | CPI                             | \$4,644,917         |
| Protective Services        | 15       | CPI                             | \$1,207,046         |
| Transportation Services    | 72       | CPI                             | \$4,684,547         |
| <b>Total</b>               |          |                                 | <b>\$14,135,533</b> |

## Asset Condition

Figure 55 summarizes the condition of the Town's machinery and equipment. Most machinery and equipment assets have been for condition by the Town's staff mechanics, where no condition assessment exists age- based condition has been utilized. Based on this combination of assessed and age-based condition approach, 85% of machinery and equipment assets are in fair or better condition; the remaining 15% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 55 Asset Condition –Machinery and Equipment



## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

Figure 56 illustrates the average current age of each asset type and its estimated useful life.

Figure 56 Estimated Useful Life vs. Asset Age – Machinery and Equipment

| Asset Component Type          | Estimated Useful Life | Average Age (weighted by replacement cost) |
|-------------------------------|-----------------------|--------------------------------------------|
| Environment Services          | 10-20 years           | 12 years                                   |
| Parks and Recreation Services | 10-20 years           | 7 years                                    |
| Protective Services           | 4-20 years            | 15 years                                   |
| Transportation Services       | 10-20 years           | 10 years                                   |

The useful life of each asset component was determined by the depreciation rates used for accounting purposes.

## Lifecycle Management Strategy

The Town's Machinery and Equipment assets excluding LaSalle Fire and LaSalle Police Services are managed through the following maintenance, inspection, rehabilitation, and replacement processes:

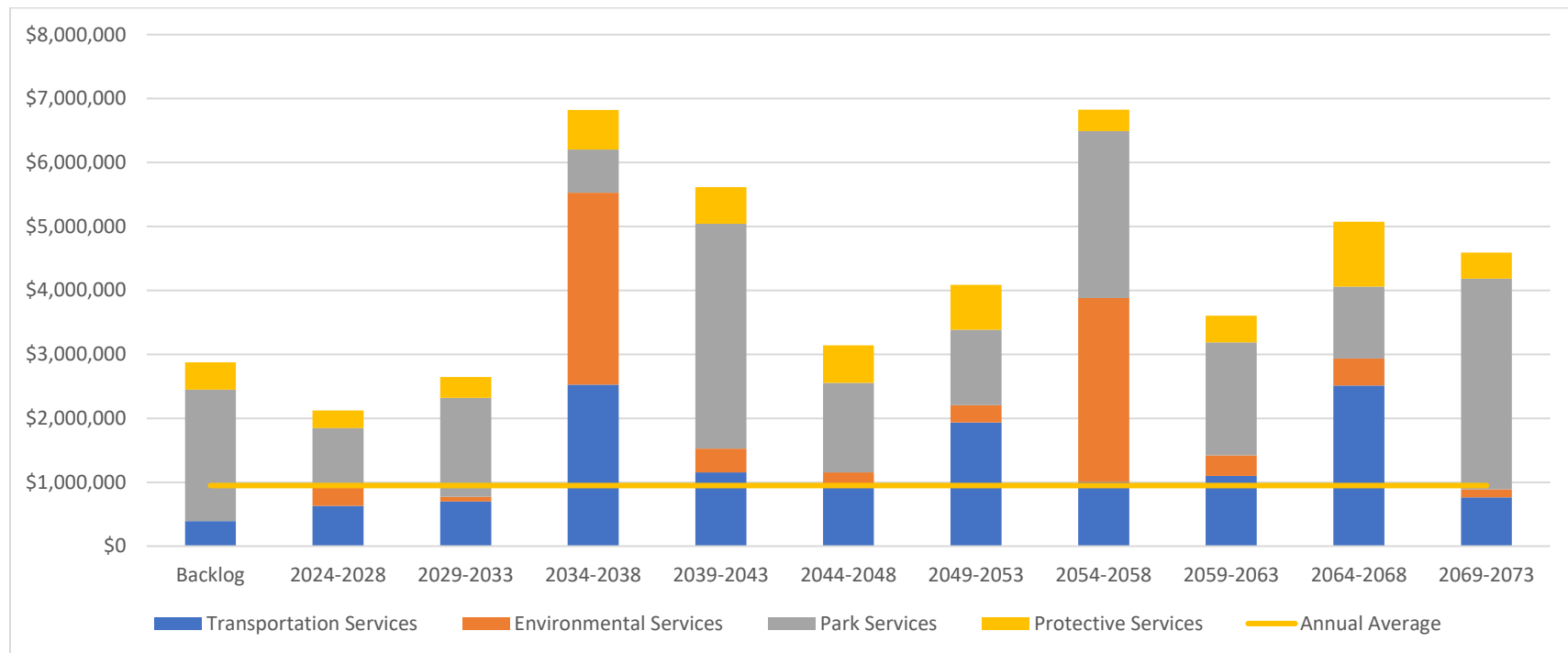
| Activity Type                | Description of Current Strategy                                                                                                                                                                                                                                                      |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance & Inspection     | Machinery and equipment assets used in the summertime (i.e./ mowers) are inspected each spring.                                                                                                                                                                                      |
|                              | All identified repairs are completed in house.                                                                                                                                                                                                                                       |
|                              | Staff are required to complete pre-use inspections of all commercial machinery and equipment assets. Any identified issues are escalated to supervisory review and if needed to the mechanic for inspection and safety determination.                                                |
|                              | All staff are trained in Standard Operating Procedures (SOP) for each equipment. Upon use, staff are expected to complete a visual inspection of the assets based on the SOP.                                                                                                        |
| Rehabilitation & Replacement | Where an asset is in otherwise good repair, failing components may be rehabilitated or replaced.                                                                                                                                                                                     |
|                              | To ensure there are equipment back-ups on hand, the Town's replacement schedule seeks where possible to have two assets of the same type with one older and other newer. This reduces the chances of both assets failing simultaneously and mitigates resultant operational impacts. |
|                              | Replacement decisions consider the assets age, condition, and performance.                                                                                                                                                                                                           |

## Forecasted Long-term Replacement Needs

Figure 57 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's machinery and equipment. This analysis was run until 2073 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$948,000 for machinery and equipment. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections are based on available data, such as age, replacement costs, and expected useful life. They are designed to provide a long-term overview of potential capital needs and should be used to support improved financial planning over several decades. It is highly unlikely that all assets will require full reconstruction or replacement. Further, with proactive lifecycle management strategies outlined previously, the life of most assets can be extended by many years in a cost-effective manner.

Figure 57 Forecasted Capital Replacement Requirements – Machinery and Equipment: 2024-2073



### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 52 System-generated 10-Year Capital Replacement Forecast – Machinery and Equipment

| Segment                 | 2024           | 2025            | 2026            | 2027            | 2028            | 2029            | 2030            | 2031            | 2032            | 2033            |
|-------------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Transportation Services | \$0.0          | \$193.6k        | \$37.1k         | \$36.5k         | \$362.3k        | \$214.7k        | \$71.6k         | \$145.6k        | \$133.6k        | \$134.3k        |
| Environmental Services  | \$12.3k        | \$0.0           | \$16.3k         | \$189.1k        | \$78.4k         | \$0.0           | \$21.4k         | \$8.2k          | \$26.9k         | \$17.9k         |
| Parks & Recreation      | \$27.5k        | \$147.9k        | \$457.3k        | \$23.1k         | \$265.6k        | \$163.0k        | \$110.1k        | \$543.5k        | \$187.6k        | \$539.2k        |
| Protective Services     | \$0.0          | \$32.9k         | \$0.0           | \$0.0           | \$240.2k        | \$2.5k          | \$32.1k         | \$0.0           | \$192.2k        | \$99.5k         |
| <b>Total</b>            | <b>\$39.8k</b> | <b>\$374.4k</b> | <b>\$510.7k</b> | <b>\$248.7k</b> | <b>\$946.5k</b> | <b>\$380.2k</b> | <b>\$697.2k</b> | <b>\$697.3k</b> | <b>\$540.3k</b> | <b>\$790.9k</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, particularly condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the forecasted capital, operating, and maintenance expenditures as outlined in LaSalle's 2024-2029 Capital Plan. Data beyond 2029 is further projected for the purpose of this AMP using average annual growth rates.

Table 53 Planned Capital, Operating, and Maintenance Expenditures- Machinery & Equipment

| Expenditure             | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          | 2032          | 2033          |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits      | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           | \$0           |
| Equipment Expenses      | \$602k        | \$617k        | \$632k        | \$648k        | \$664k        | \$680k        | \$697k        | \$714k        | \$732k        | \$750k        |
| <b>Sub-total</b>        | <b>\$602k</b> | <b>\$617k</b> | <b>\$632k</b> | <b>\$648k</b> | <b>\$664k</b> | <b>\$680k</b> | <b>\$697k</b> | <b>\$714k</b> | <b>\$732k</b> | <b>\$750k</b> |
| Capital                 |               |               |               |               |               |               |               |               |               |               |
|                         | \$183k        | \$188k        | \$192k        | \$197k        | \$202k        | \$207k        | \$212k        | \$217k        | \$223k        | \$228k        |
| <b>Sub-total</b>        | <b>\$183k</b> | <b>\$188k</b> | <b>\$192k</b> | <b>\$197k</b> | <b>\$202k</b> | <b>\$207k</b> | <b>\$212k</b> | <b>\$217k</b> | <b>\$223k</b> | <b>\$228k</b> |
| <b>Total</b>            | <b>\$785k</b> | <b>\$805k</b> | <b>\$824k</b> | <b>\$845k</b> | <b>\$866k</b> | <b>\$887k</b> | <b>\$909k</b> | <b>\$931k</b> | <b>\$955k</b> | <b>\$978k</b> |

Equipment expenses include fuel, fuels systems, maintenance, mechanic supplies and small capital equipment. The equipment covers a wide range of unique pieces such as light duty, medium duty and specialized vehicles. Of these vehicles many are outfitted with additional equipment. Equipment (maintenance) expenses rise as equipment becomes dated and parts become more difficult to find. In addition, some of our equipment is very complicated and/or requires specialized servicing and training that is beyond our staff expertise. Ensuring safe and properly operating equipment contributes to fewer disruptions in service.

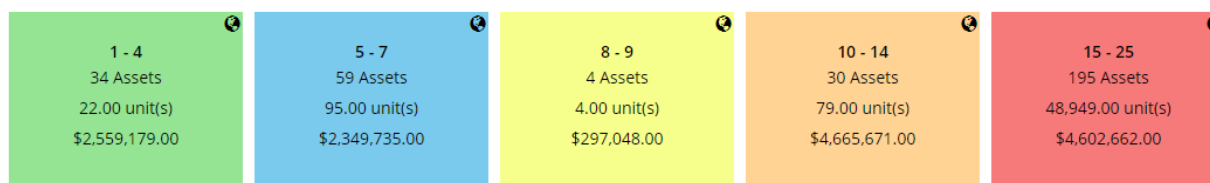
## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager).

Figure 58 Risk Matrix - Machinery & Equipment



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Misallocation of funds leading to over- or under-investments
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

## Levels of Service

The tables that follow summarize LaSalle's selected metrics and levels of service under Ontario Regulation 588/17.

Table 54 Ontario Regulation 588/17 Levels of Service - Machinery & Equipment

| Core Value     | Level of Service Statement                                                                                                                                    | Community Level of Service                                                                                                                                                                                                                                                                                                                                                          | Technical Level of Service                                   |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Quality        | Appropriate actions and interventions are taken to ensure the regular safe use of machinery and equipment assets so that they can provide important services. | Using age-based condition and recent assessed condition information where available machinery and equipment assets range from very poor to very good (95%) and are on average in fair (52%) condition. Machinery and Equipment assets include diverse assets that service the Town's protection services, environmental services, parks and recreation and transportation services. | Weighted Average Condition of Assets:<br><br>52%             |
| Sustainability | There are long-term plans in place for the renewal and replacement of machinery and equipment assets.                                                         | Fleet investments are generally planned 10 years out and consider the asset's age, condition, utility, and cost-benefit analysis of replacement.                                                                                                                                                                                                                                    | Current vs Target Capital Reinvestment Rate: 1.05% Vs. 6.71% |

# Information Technology Equipment

The Town owns a variety of technology equipment assets that are critical to the internal operations of the Town providing means of communication, organization, and execution for operations and public infrastructure projects. The Town of LaSalle's Technology Equipment has a current replacement cost of \$3.7 million. For reporting purposes these assets have been segmented into two groups based on similar function software and hardware.

## Inventory and Valuation

Table 55 summarizes the quantity and current replacement cost of the Town's various information technology assets as available in its primary asset management register, Citywide.

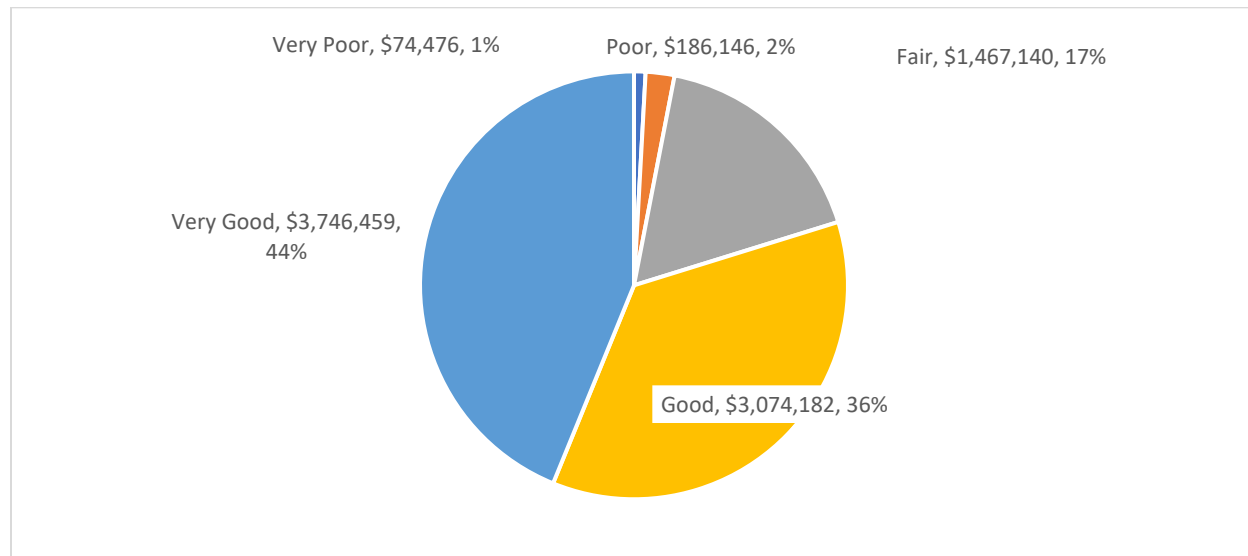
Table 55 Detailed Asset Inventory – Information Technology Equipment

| Segment      | Quantity | Primary Replacement Cost Method | Replacement Cost   |
|--------------|----------|---------------------------------|--------------------|
| Software     | 12       | CPI                             | \$533,197          |
| Hardware     | 111      | CPI                             | \$3,213,262        |
| <b>Total</b> |          |                                 | <b>\$3,746,459</b> |

## Asset Condition

Figure 59 summarizes the condition of the Town's information technology equipment. Age-based condition assessment has been utilized for software and hardware equipment. Based on this condition assessments where available and age-based condition approach, 97% of information technology equipment assets are in fair or better condition; the remaining 3% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 59 Asset Condition – Information Technology Equipment



## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

Figure 60 illustrates the average current age of each asset type and its estimated useful life.

Figure 60 Estimated Useful Life vs. Asset Age – Information Technology Equipment

| Asset Component Type | Estimated Useful Life | Average Age (weighted by replacement cost) |
|----------------------|-----------------------|--------------------------------------------|
| Software             | 4-10 years            | 9 years                                    |
| Hardware             | 4-10 years            | 7.5 years                                  |

The useful life of each asset component was determined by the depreciation rates used for accounting purposes.

## Lifecycle Management Strategy

The Town's Information Technology assets are managed through the following maintenance, inspection, rehabilitation, and replacement processes:

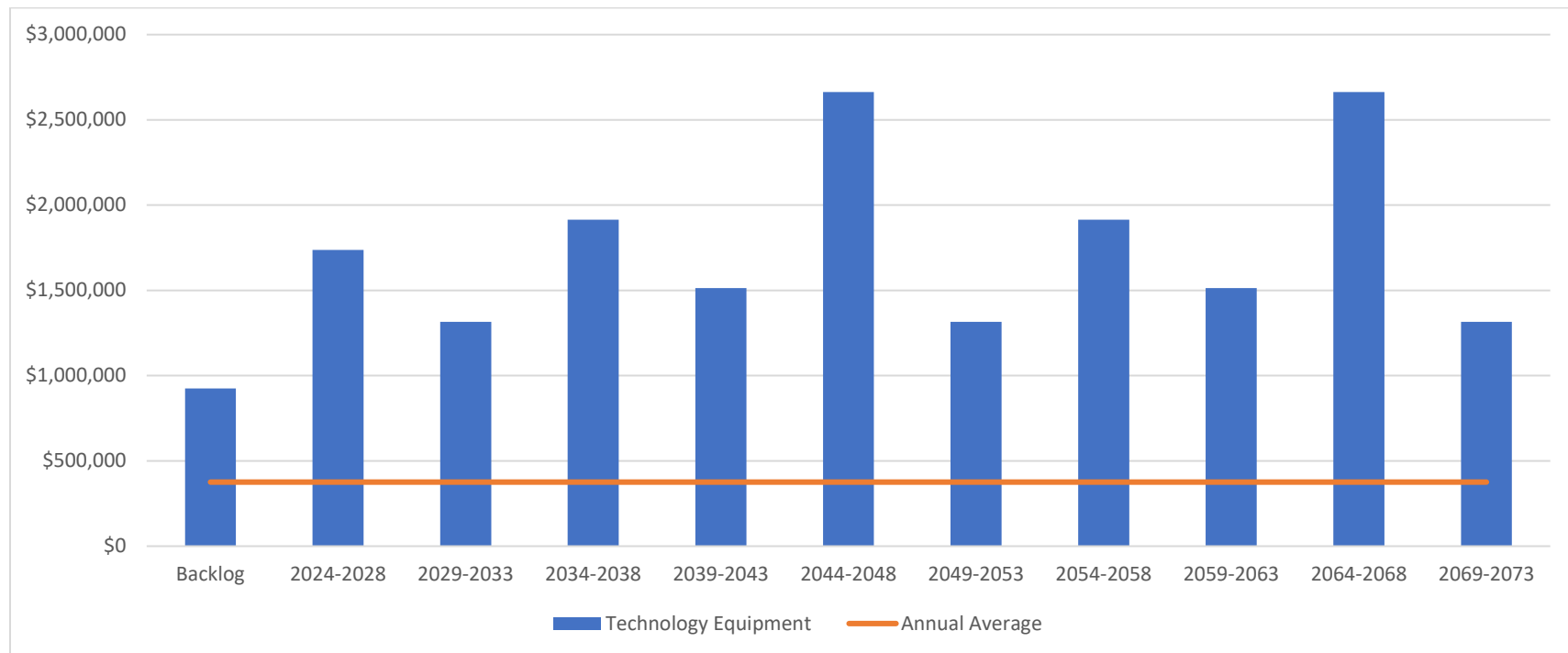
| Activity Type                | Description of Current Strategy                                                                                                                                                                                                                                                                                   |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance & Inspection     | Information Technology equipment inspections and maintenance are scheduled as well as performed on an ongoing basis to promote safe, secure and the required performance capability that meets the needs of the municipality.                                                                                     |
| Rehabilitation & Replacement | Assets are replaced on an as needed basis or as part of a larger replacement program. Replacement is generally based on the asset's age relative to its expected useful life or in the event of asset failure. Other considerations also include the user's needs and whether existing assets can meet that need. |

## Forecasted Long-term Replacement Needs

Figure 61 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's Technology Equipment. This analysis was run until 2073 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$375,800 for Technology Equipment. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections are based on available data, such as age, replacement costs, and expected useful life. They are designed to provide a long-term overview of potential capital needs and should be used to support improved financial planning over several decades. It is highly unlikely that all assets will require full reconstruction or replacement. Further, with proactive lifecycle management strategies outlined previously, the life of most assets can be extended by many years in a cost-effective manner.

Figure 61 Forecasted Capital Replacement Requirements – Information Technology Equipment: 2024-2073



### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 56 System-generated 10-Year Capital Replacement Forecast – Information Technology Equipment

| Segment                          | 2024          | 2025           | 2026           | 2027          | 2028          | 2029           | 2030          | 2031            | 2032            | 2033           |
|----------------------------------|---------------|----------------|----------------|---------------|---------------|----------------|---------------|-----------------|-----------------|----------------|
| Information Technology Equipment | \$605k        | \$69.4k        | \$22.9k        | \$267k        | \$772k        | \$69.4k        | \$22.k        | \$267.5k        | \$863.3k        | \$92.8k        |
| <b>Total</b>                     | <b>\$605k</b> | <b>\$69.4k</b> | <b>\$22.9k</b> | <b>\$267k</b> | <b>\$772k</b> | <b>\$69.4k</b> | <b>\$22.k</b> | <b>\$267.5k</b> | <b>\$863.3k</b> | <b>\$92.8k</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, particularly condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the forecasted capital, operating, and maintenance expenditures as outlined in LaSalle's 2024-2029 Capital Plan. Data beyond 2029 is further projected for the purpose of this AMP using average annual growth rates.

Table 57 Planned Capital, Operating, and Maintenance Expenditures- Information Technology Equipment

| Expenditure                                                                   | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | 2033           |
|-------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Operating & Maintenance                                                       |                |                |                |                |                |                |                |                |                |                |
| Wages and Benefits                                                            | \$791k         | \$813k         | \$835k         | \$858k         | \$881k         | \$906k         | \$930k         | \$955k         | \$980k         | \$999k         |
| Communication, Licensing, Equipment and other Information Technology Expenses | \$799k         | \$860k         | \$923k         | \$934k         | \$946k         | \$958k         | \$970k         | \$982k         | \$994k         | \$1.0m         |
| <b>Sub-total</b>                                                              | <b>\$1.59m</b> | <b>\$1.67m</b> | <b>\$1.76m</b> | <b>\$1.80m</b> | <b>\$1.83m</b> | <b>\$1.86m</b> | <b>\$1.90m</b> | <b>\$1.94m</b> | <b>\$1.97m</b> | <b>\$1.99m</b> |
| Capital                                                                       |                |                |                |                |                |                |                |                |                |                |
| <b>Sub-total</b>                                                              | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  | <b>\$376k</b>  |
| <b>Total</b>                                                                  | <b>\$1.9m</b>  | <b>\$2.0m</b>  | <b>\$2.1m</b>  | <b>\$2.2m</b>  | <b>\$2.2m</b>  | <b>\$2.2m</b>  | <b>\$2.3m</b>  | <b>\$2.3m</b>  | <b>\$2.3m</b>  | <b>\$2.4m</b>  |

Information technology communication expenses include multiple forms of communication with respect to operating activities including corporate land and mobile phone services. Licensing expenses covers the wide range of software licensing used in municipal operations, including financial, administrative, and operational software used in providing environmental, recreation and protective services. In addition, the equipment and information services continue to increase in complexity and requires specialized servicing and training. Ensuring safe, secure, and properly operating information technology equipment contributes to the Town's service levels.

## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager).

Figure 62 Risk Matrix – Information Technology Equipment



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Misallocation of funds leading to over- or under-investments
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

## Levels of Service

The tables that follow summarize LaSalle's selected metrics and levels of service under Ontario Regulation 588/17.

Table 58 Ontario Regulation 588/17 Levels of Service – Information Technology Equipment

| Core Value     | Level of Service Statement                                                                                                                                   | Community Level of Service                                                                                                                                                                                                                                   | Technical Level of Service                                |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Quality        | Appropriate actions and interventions are taken to ensure the regular safe use of information technology assets so that they can provide important services. | Using recent age-based condition information technology assets range from very poor (1%) to very good (44%) and are on average in good condition. Information technology assets include software and hardware assets that service all the Town's operations. | Weighted Average Condition of Assets:<br><br>61%          |
| Sustainability | There are long-term plans in place for the renewal and replacement of information technology assets.                                                         | Information technology investments are generally planned 10 years out and consider the asset's age, condition, utility, and cost-benefit analysis of replacement.                                                                                            | Current vs Target Capital Reinvestment rate: 6.61% vs 10% |

# Land Improvement

Land Improvement assets represent a variety of asset types that serve to improve the utility and enjoyment of outdoor spaces. Land Improvement assets are managed by several different departments with the shared goal of keeping assets in a state of good repair, through ongoing maintenance, repair, and replacement. The Town facility assets are recorded in an asset management software system. The following table provides summary information about facility assets based on a December 2023 effective date:

## Inventory and Valuation

Table 59 summarizes the quantity and current replacement cost of the Town's various land improvement assets as available in its primary asset management register, Citywide.

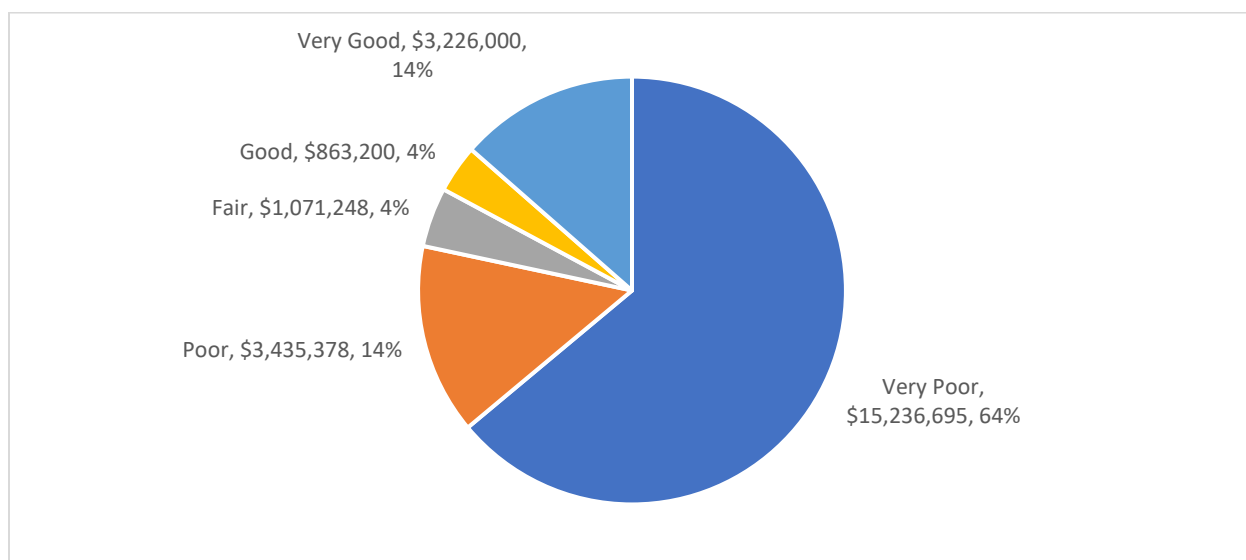
Table 59 Detailed Asset Inventory – Land Improvement

| Segment                   | Quantity | Primary Replacement Cost Method | Replacement Cost    |
|---------------------------|----------|---------------------------------|---------------------|
| Parks, Fields and Courts  | 146      | CPI                             | \$19,319,939        |
| Landscape and Streetscape | 27       | CPI                             | \$2,688,102         |
| Parking Lots              | 24       | CPI                             | \$1,824,484         |
| <b>Total</b>              |          |                                 | <b>\$23,832,525</b> |

## Asset Condition

Figure 63 summarizes condition of the Town's land improvements. Based on age-based condition, 22% of facility assets are in fair or better condition; the remaining 78% of assets are in poor to very poor condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 63 Asset Condition – Land Improvement



## Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently. As assets age, their performance diminishes, often more rapidly as they approach the end of their design life.

Figure 64 illustrates the average current age of each asset type and its estimated useful life.

Figure 64 Estimated Useful Life vs. Asset Age – Land Improvement

| Asset Component Type      | Estimated Useful Life | Average Age (weighted by replacement cost) |
|---------------------------|-----------------------|--------------------------------------------|
| Parks, Fields and Courts  | 15-20 years           | 23.3 years                                 |
| Parking Lots              | 15 years              | 22.5 years                                 |
| Landscape and Streetscape | 15-20 years           | 11.9 years                                 |

The useful life of each asset component was determined by the depreciation rates used for accounting purposes.

## Lifecycle Management Strategy

The Town's facilities assets are managed through the following maintenance, inspection, rehabilitation, and replacement processes:

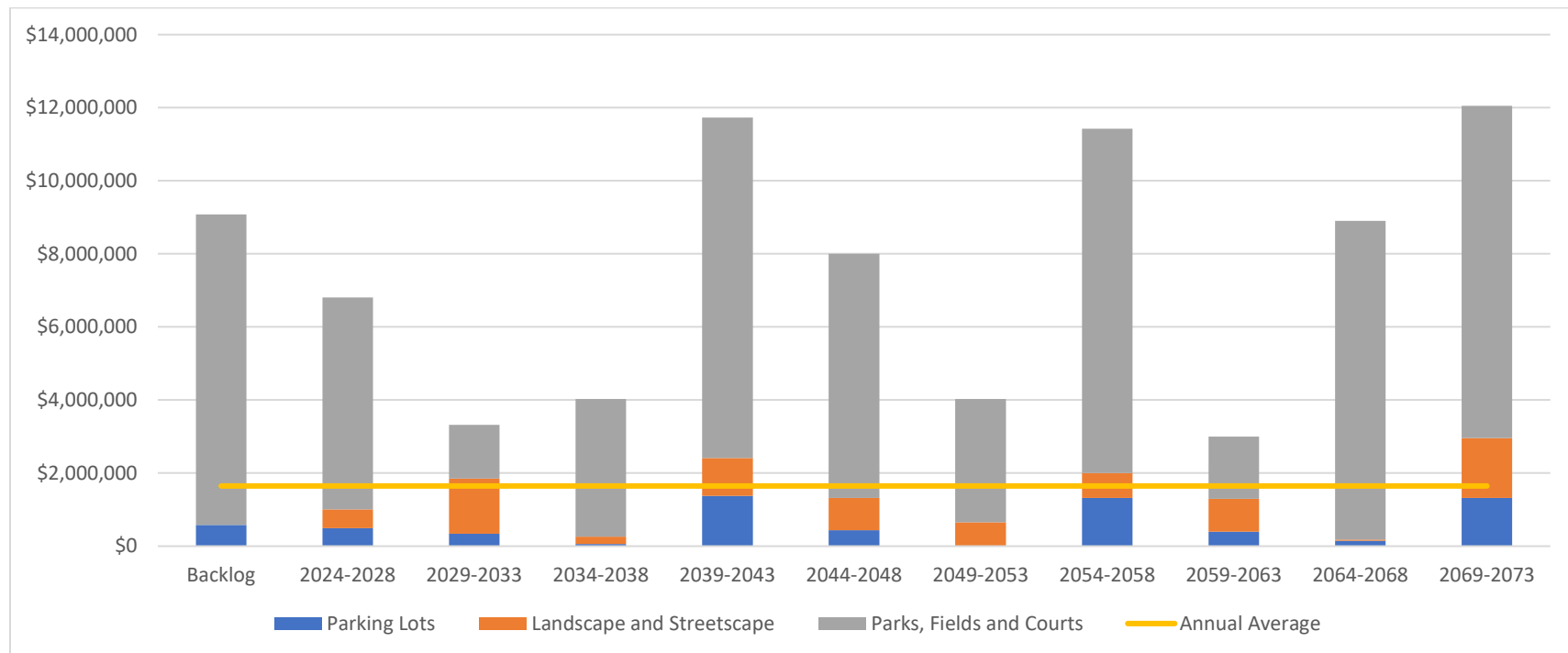
| Activity Type                | Description of Current Strategy                                                                                                                                                                                                                                                                           |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance & Inspection     | On a weekly basis grass is cut at Town parks. During this time, a walk-through inspection of park improvement assets is conducted, and work orders issued for identified deficiencies. The grass is cut on a 5 day rotation during rapid growth season, and a 7 day rotation during slower growth months. |
|                              | Courts are inspected regularly, and deficiencies repaired as necessary.                                                                                                                                                                                                                                   |
|                              | Residents can submit concerns to the Town regarding the state of Land improvement assets such as parks, courts fields etc. Concerns are reviewed, triaged and responded to accordingly.                                                                                                                   |
| Rehabilitation & Replacement | The Town of LaSalle has published and is in the process of developing a Parks and Recreation Master Plan. The purpose of doing so is to better understand current and projected future needs.                                                                                                             |
|                              | The Town of LaSalle continues to advance replacement and rehabilitation projects.                                                                                                                                                                                                                         |

## Forecasted Long-term Replacement Needs

Figure 65 illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's Land Improvements. This analysis was run until 2073 to provide a multi-decade overview and capture major fluctuations. LaSalle's average annual requirements (red dotted line) total \$1.6 million for all land improvements. Although actual spending may fluctuate substantially from year to year, this figure is a useful benchmark value for annual capital expenditure targets (or allocations to reserves) to ensure projects are not deferred and replacement needs are met as they arise.

These projections are based on available data, such as age, replacement costs, and expected useful life. They are designed to provide a long-term overview of potential capital needs and should be used to support improved financial planning over several decades. It is highly unlikely that all assets will require full reconstruction or replacement. Further, with proactive lifecycle management strategies outlined previously, the life of most assets can be extended by many years in a cost-effective manner.

Figure 65 Forecasted Capital Replacement Requirements – Land Improvement: 2024-2073



### 10-Year Replacement Needs

The table below summarizes the projected cost of lifecycle activities (replacement only) that will need to be undertaken over the next 10 years to support current levels of service.

Table 60 System-generated 10-Year Capital Replacement Forecast – Land Improvements

| Segment                   | 2024         | 2025          | 2026          | 2027            | 2028            | 2029          | 2030           | 2031            | 2032            | 2033            |
|---------------------------|--------------|---------------|---------------|-----------------|-----------------|---------------|----------------|-----------------|-----------------|-----------------|
| Parks, Fields, and Courts | \$0.0        | \$383.3k      | \$5.1m        | \$93.2k         | \$213.5k        | \$1.2m        | \$16.0k        | \$0.0           | \$45.2k         | \$187.9k        |
| Parking Lot               | \$0.0        | \$0.0         | \$0.0         | \$258.5k        | \$235.0k        | \$306.5k      | \$6.3k         | \$0.0           | \$29.8k         | \$0.0           |
| Landscape and Streetscape | \$0.0        | \$0.0         | \$207.9k      | \$305.8k        | \$0.0           | \$889.0k      | \$0.0          | \$483.8k        | \$45.2k         | \$0.0           |
| <b>Total</b>              | <b>\$0.0</b> | <b>\$383k</b> | <b>\$5.3m</b> | <b>\$657.5k</b> | <b>\$448.5k</b> | <b>\$2.4m</b> | <b>\$22.3k</b> | <b>\$483.8k</b> | <b>\$120.2k</b> | <b>\$187.9k</b> |

These projections are generated in Citywide and rely only on data available within the system, including quantities, replacement costs, condition, and age. These can be different from actual capital forecasts. Consistent data updates, particularly condition, and asset acquisitions and disposals, will improve the alignment between the system generated expenditure requirements, and the Town's capital expenditure forecasts.

### Planned Capital, Operating, and Maintenance Expenditures

The table below summarizes the forecasted capital, operating, and maintenance expenditures as outlined in LaSalle's 2024-2029 Capital Plan. Data beyond 2029 is further projected for the purpose of this AMP using average annual growth rates.

Table 61 Planned Capital, Operating, and Maintenance Expenditures- Land Improvements

| Expenditure                | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          | 2032          | 2033          |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Operating & Maintenance    |               |               |               |               |               |               |               |               |               |               |
| Wages and Benefits         | \$1.2m        | \$1.2m        | \$1.3m        | \$1.3m        | \$1.3m        | \$1.4m        | \$1.4m        | \$1.4m        | \$1.4m        | \$1.5m        |
| Parks Maintenance Expenses | \$415k        | \$417k        | \$427k        | \$438k        | \$448k        | \$459k        | \$470k        | \$480k        | \$491k        | \$501k        |
| Vollmer Complex Expenses   | \$198k        | \$203k        | \$208k        | \$213k        | \$218k        | \$224k        | \$230k        | \$235k        | \$241k        | \$247k        |
| <b>Sub-total</b>           | <b>\$1.8m</b> | <b>\$1.8m</b> | <b>\$1.9m</b> | <b>\$2.0m</b> | <b>\$2.0m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.1m</b> | <b>\$2.2m</b> |
| Capital                    |               |               |               |               |               |               |               |               |               |               |
| <b>Sub-total</b>           | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> | <b>\$1.6m</b> |
| <b>Total</b>               | <b>\$3.4m</b> | <b>\$3.4m</b> | <b>\$3.5m</b> | <b>\$3.6m</b> | <b>\$3.6m</b> | <b>\$3.7m</b> | <b>\$3.7m</b> | <b>\$3.7m</b> | <b>\$3.7m</b> | <b>\$3.8m</b> |

Parks Maintenance expenses include park grass mowing, parks tree maintenance, inspections services, equipment rental, Town flowers, and other day-to-day activities to keep parks at current service levels.

Vollmer Complex expenses include field fertilizer, seed, paint and other miscellaneous expenses related to the day to day activities of the Vollmer soccer and baseball fields.

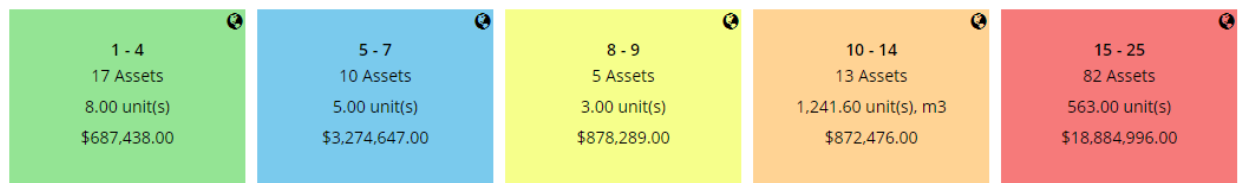
## Risk Analysis

The risk matrices below are generated using available asset data, such as condition, service life remaining and replacement costs. The risk ratings for assets without useful attribute data were calculated using only condition, service life remaining, and their replacement costs.

The matrix classifies assets based on their individual probability and likelihood of failure, each scored from 1 to 5. Their product generates a risk index ranging from 1-25. Assets with the highest criticality and likelihood of failure receive a risk rating of 25; those with lowest probability of failure and lowest criticality carry a risk rating of 1. As new data and information is gathered, the Town may consider integrating relevant information that improves confidence in the criteria used to assess asset risk and criticality.

These risk models have been built into the Town's Asset Management Database (CityWide Asset Manager).

Figure 66 Risk Matrix - Facilities



In addition to asset level risk, the Town may also face risk associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs
- Misallocation of funds leading to over- or under-investments
- Deferral of vital projects, or further lending and borrowing
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base
- A decline in public satisfaction with the Town's service standards and the resulting reputational damage

## Levels of Service

The tables that follow summarize LaSalle's selected metrics and levels of service under Ontario Regulation 588/17.

Table 62 Ontario Regulation 588/17 Levels of Service – Land Improvement

| Core Value     | Level of Service Statement                                                                                                                             | Community Level of Service                                                                                                                                                                                                                                                                                   | Technical Level of Service                                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Quality        | Appropriate actions and interventions are taken to ensure the regular safe use of land improvement assets so that they can provide important services. | Using age-based condition information land improvement assets range from very poor (64%) to very good (14%) and are on average in fair condition. Facility assets include diverse assets that service the Town's protection services, public works, parks and recreation and general government departments. | Weighted Average Condition of Assets: 31                    |
| Sustainability | There are long-term plans in place for the renewal and replacement of land improvement assets                                                          | Facility investments are generally planned 10 years out and consider the asset's age, condition, utility, and cost-benefit analysis of replacement.                                                                                                                                                          | Current vs Target Capital Reinvestment Rate: 2.11% Vs 6.91% |

## Growth Non-Core Assets

The Town of LaSalle is a growing community, with a 2021 population of 32,721, an 8.4% increase from the last census period in 2016. The County of Essex's official plan (2014) estimates that LaSalle's population will grow to 35,470 by 2031. Total employment is expected to reach 8,303 by mid-2030.

### Impact of Growth on Non-Core Assets

The magnitude and type of population growth will have direct implications on capital, operating, and maintenance costs associated with asset ownership. The ongoing lifecycle costs associated with these assets will vary by asset type and criticality. As part of its 2024 budget, the Town has identified \$5 million in various projects, including the purchase of a new Fire Aerial Tower (\$2.5 million) and various other fleet purchases (\$1 million).

It is difficult to reliably estimate how additional non-core assets would increase annual expenditures related to operations and lifecycle management of the assets. Based on the Town's current annual capital, operating, and maintenance expenditures associated with each asset category, Table 21 illustrates how these costs may scale with growth using the annual reinvestment rate (total annual capital, operating, and maintenance spending per category as a percentage of current replacement cost).

Under the reinvestment rate approach, the analysis shows that, based on current replacement costs, for every \$100,000 of new fleet purchased constructed, \$17,600 would be required to fund the associated annual capital, operating, and maintenance costs.

The reinvestment rate has limitations, and the approach requires accurate and precise replacement costs. Further, the reinvestment rate can vary by asset type, and is susceptible to fluctuating market conditions, including labour, fuel, and material costs.

Table 63 Capital, Operating, and Maintenance Costs as a Percentage of Current Replacement Cost

| Asset Category                   | Annual O&M expenditures | O&M expenditures as a percentage of replacement cost | Annual capital expenditures | Capital expenditures as a percentage of replacement cost | Total capital and O&M costs as a percentage of replacement cost |
|----------------------------------|-------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|-----------------------------------------------------------------|
| Facilities                       | \$4.4m                  | 5.2%                                                 | \$3.4m                      | 4.0%                                                     | 9.2%                                                            |
| Fleet and Fleet Equipment        | \$836k                  | 8.5%                                                 | \$891k                      | 9.1%                                                     | 17.6%                                                           |
| Machinery and Equipment          | \$602k                  | 4.3%                                                 | \$183k                      | 1.3%                                                     | 5.4%                                                            |
| Information Technology Equipment | \$1.6m                  | 40%                                                  | \$376k                      | 9.4%                                                     | 49.4%                                                           |
| Land Improvement                 | \$1.8m                  | 7.5%                                                 | \$1.6m                      | 6.7%                                                     | 14.2%                                                           |

# Financial Strategy Non-Core Assets

Each year, the Town of LaSalle makes important investments in its assets maintenance, renewal, rehabilitation, and replacement to ensure assets remain in a state of good repair. Given the magnitude of needs, it is common for most municipalities, including LaSalle, to experience annual shortages in funding needs. Achieving full-funding for infrastructure programs can take many years, and should be phased-in gradually to reduce excessive burden on taxpayers. LaSalle faces the added pressure of growth, which places an additional burden on programs.

This financial strategy is designed for LaSalle's existing asset portfolio, and is based on two key inputs: the average annual capital requirements and the average annual funding typically available for capital purposes. The annual requirements are based on the replacement cost of assets and their serviceable life, and where available, lifecycle modeling. This figure is calculated for each individual asset, and aggregated to develop category-level values.

Only reliable and predictable sources of funding are used to benchmark funds that may be available in any given year. For the purpose of this AMP, these funding sources include:

- property taxation

## Annual Capital Requirements Non-Core Assets

Table 64 outlines the total average annual capital requirements for existing assets in each asset category. Based on a replacement cost of \$171 million, annual capital requirements total \$7.6 million for the five core asset categories analyzed in this document. The table also illustrates the equivalent target reinvestment rate (TRR), calculated by dividing the system-generated annual capital requirements by the total replacement cost of each asset category. The cumulative target reinvestment for these five categories is estimated at 4.4%.

Table 64 Average Annual Capital Requirements

| Asset Category                   | Replacement Cost     | Annual Capital Requirements | Equivalent Target Reinvestment Rate |
|----------------------------------|----------------------|-----------------------------|-------------------------------------|
| Facilities                       | \$84,669,800         | \$3,383,367                 | 4.0%                                |
| Fleet and Fleet Equipment        | \$44,552,090         | \$891,042                   | 9.1%                                |
| Machinery and Equipment          | \$14,135,533         | \$948,065                   | 6.7%                                |
| Information Technology Equipment | \$3,746,459          | \$375,855                   | 9.4%                                |
| Land Improvement                 | \$23,832,525         | \$1,647,378                 | 6.9%                                |
| <b>Total</b>                     | <b>\$170,936,407</b> | <b>7,245,707</b>            | <b>4.2%</b>                         |

## Current Infrastructure Funding Framework

Table 65 details the total average annual funding available in LaSalle for the five non-core asset categories only. The Town utilizes own-source revenue streams, namely property taxation and excludes water and wastewater rates and allocation based grants such as Canada Community Building Fund and Ontario Community Infrastructure Fund as these have been allocated as funding sources for core assets. As the focus of this strategy is LaSalle's current asset portfolio, expenditures on growth assets or capacity upgrades are not included.

Table 65 Allocation of Average Annual Infrastructure Funding by Asset Category

| Asset Category                   | Primary Own-source Funding Stream | Average Annual Funding Available |
|----------------------------------|-----------------------------------|----------------------------------|
| Facilities                       | Property Tax                      | \$635,300                        |
| Fleet and Fleet Equipment        | Property Tax                      | \$606,000                        |
| Machinery and Equipment          | Property Tax                      | \$148,180                        |
| Information Technology Equipment | Property Tax                      | \$247,700                        |
| Land Improvement                 | Property Tax                      | \$503,000                        |
| <b>Total</b>                     |                                   | <b>\$2,140,180</b>               |

The table illustrates that for LaSalle's non-core asset portfolio, a total of \$2.1 million is available annually for capital needs.

## Current Funding Levels and Non-Core Asset Deficits

Table 66 summarizes how current funding levels compare with funding required for each asset category. At existing levels, LaSalle is funding 30% of annual capital requirements for its five non-core asset categories. This creates a total annual funding deficit of \$5.1 million.

Table 66 Current Funding Position vs. Required Funding

| Asset Category                   | Annual Capital Requirements | Average Annual Funding Available | Annual Infrastructure Deficit | Funding Level |
|----------------------------------|-----------------------------|----------------------------------|-------------------------------|---------------|
| Facilities                       | \$3,383,367                 | \$635,300                        | \$2,748,067                   | 19%           |
| Fleet and Fleet Equipment        | \$891,042                   | \$606,000                        | \$285,042                     | 68%           |
| Machinery and Equipment          | \$948,065                   | \$148,180                        | \$799,885                     | 16%           |
| Information Technology Equipment | \$375,855                   | \$197,000                        | \$128,855                     | 66%           |
| Land Improvement                 | \$1,647,378                 | \$503,000                        | \$1,144,378                   | 30%           |
| <b>Total</b>                     | <b>\$7,245,707</b>          | <b>\$2,140,803</b>               | <b>\$5,104,902</b>            | <b>30%</b>    |

## Closing Funding Gaps Non-Core Assets

Eliminating annual funding shortfalls is a difficult and long-term endeavor for municipalities. It can require many years to reach full funding for current assets. Financial strategies and increased funding opportunities will continue to be explored and brought forward annually through the Town's annual budget process.