Town of Pelham

Corporate Asset Management Plan

2025

Pelham
NIAGARA

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Acronyms

Acronym	Definition
AMP	Asset Management Plan
BCI	Bridge Condition Index
CCTV	Closed Circuit Television
DWQMS	Drinking Water Quality Management Standard
ESL	Estimated Service Life
I&I	Inflow and Infiltration
IT	Information Technology
LOS	Levels of Service
O&M	Operations and Maintenance
O. Reg	Ontario Regulation
OSIM	Ontario Structure Inspection Manual
PACP	Pipeline Assessment and Certification Program
PCI	Pavement Condition Index
ROW	Right of Way

Definitions

Term	Definition
Asset Management Plan	Documented information that specifies the activities, resources and timescales required for an individual asset, or a grouping of assets, to achieve the organization's asset management objectives. The grouping of assets may be by asset type, asset class, asset system or asset portfolio. An asset management plan is derived from the strategic asset management plan. An asset management plan may be contained in, or may be a subsidiary plan of, the strategic asset management plan.
Asset Type	Grouping of assets having common characteristics that distinguish those assets as a group or class (for example, physical assets, information assets, intangible assets, critical assets, enabling assets, linear assets, information and communications technology (ICT) assets, infrastructure assets, moveable assets).
Continual Improvement	Recurring activity to enhance performance.
Level of Service	Parameters, or combination of parameters, which reflect social, political, environmental and economic outcomes that the organization delivers. The parameters can include safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost and availability.
Lifecycle	Stages involved in the management of an asset. The naming and number of the stages and the activities under each stage usually vary in different industry sectors and are determined by the organization.

Term	Definition
Objective	Result to be achieved. An objective can be strategic, tactical or operational. Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process). An objective can be expressed in other ways, e.g., as an intended outcome, a purpose, an operational criterion, an asset management objective or by using other words with similar meaning (e.g., aim, goal, or target). In the context of asset management systems, asset management objectives are set by the organization, consistent with the organizational objectives and asset management policy, to achieve specific measurable results.
Organization	Person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives. The concept of organization includes, but is not limited to, sole-trader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private.
Organizational Objective	Overarching objective that sets the context and direction for an organization's activities. Organizational objectives are established through the strategic level planning activities of the organization.
Performance	Measurable result. Performance can relate either to quantitative or qualitative findings. Performance can relate to the management of activities, processes, products (including services), systems or organizations. For the purposes of asset management, performance can relate to assets in their ability to fulfil requirements or objectives.
Policy	Intentions and direction of an organization as formally expressed by its top management.

Term	Definition
Preventative Action	Action to eliminate the cause of a potential nonconformity or other undesirable potential situation. Preventive action is taken to prevent occurrence and to preserve an asset's function, whereas corrective action is taken to prevent recurrence. Preventative action is normally carried out while the asset is functionally available and operable or prior to the initiation of functional failure.
Process	Set of interrelated or interacting activities which transforms inputs into outputs.
Requirement	Need or expectation that is stated, generally implied or obligatory. "Generally implied" means that it is custom or common practice for the organization and stakeholders that the need or expectation under consideration is implied. A specified requirement is one that is stated, for example in documented information.
Risk	Effect of uncertainty on objectives. An effect is a deviation from the expected — positive and/or negative. Objectives can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process). Risk is often characterized by reference to potential "events" and "consequences", or a combination of these. Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated "likelihood" of occurrence. Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.
Stakeholder	Person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity. A "stakeholder" can also be referred to as an "interested party".

Executive Summary

The Town of Pelham is a growing and vibrant community nestled in the heart of the Niagara Region, distinguished by its rich natural heritage, engaged residents, and commitment to sustainable development. As stewards of critical infrastructure and public assets, the Town recognizes the importance of responsible asset management in delivering essential services, supporting economic prosperity, and preserving quality of life for present and future generations.

This Asset Management Plan (AMP) provides a strategic framework to guide the maintenance, renewal, and enhancement of Pelham's infrastructure. Grounded in the Town's 2023–2027 Strategic Plan and aligned with provincial regulations (O.Reg. 588/17), this plan supports evidence-based decision-making and long-term financial sustainability. It reflects Pelham's dedication to proactive planning, continuous improvement, and environmental stewardship, all essential to building a resilient and livable community.

The asset management plan works to answer the following questions:

- What do we own and why?
- What is it worth and what condition is it in?
- What are the current service levels?
- What is our target, or proposed, service level?
- What activities do we employ to manage the assets and maintain those levels?
- What does it all cost?

The purpose of this Asset Management Plan is to define a coordinated approach, rooted in industry best practices, that enables the Town of Pelham to deliver sustainable Levels of Service (LOS) while effectively managing risk and minimizing total lifecycle costs. This plan presents forecast scenarios that assess current infrastructure investment needs against existing budget allocations to identify any potential infrastructure funding gaps, using the most accurate data available on the Town's asset portfolio.

With this plan, the Town fulfills all 2025 requirements set out under Ontario Regulation 588/17. Building upon the 2024 Asset Management Plan, this document offers a more detailed analysis of the infrastructure lifecycle activities needed to achieve the proposed levels of service, as well as the associated costs to meet those targets.

Town's Infrastructure Valuation and Condition Distribution

The Town of Pelham owns and manages approximately $989 million in assets across eight distinct service delivery groups. Each of these groups plays a critical role in supporting the delivery of essential services and enhancing the quality of life for residents throughout the community. Figure 1 shows the overall asset valuation for each asset category.

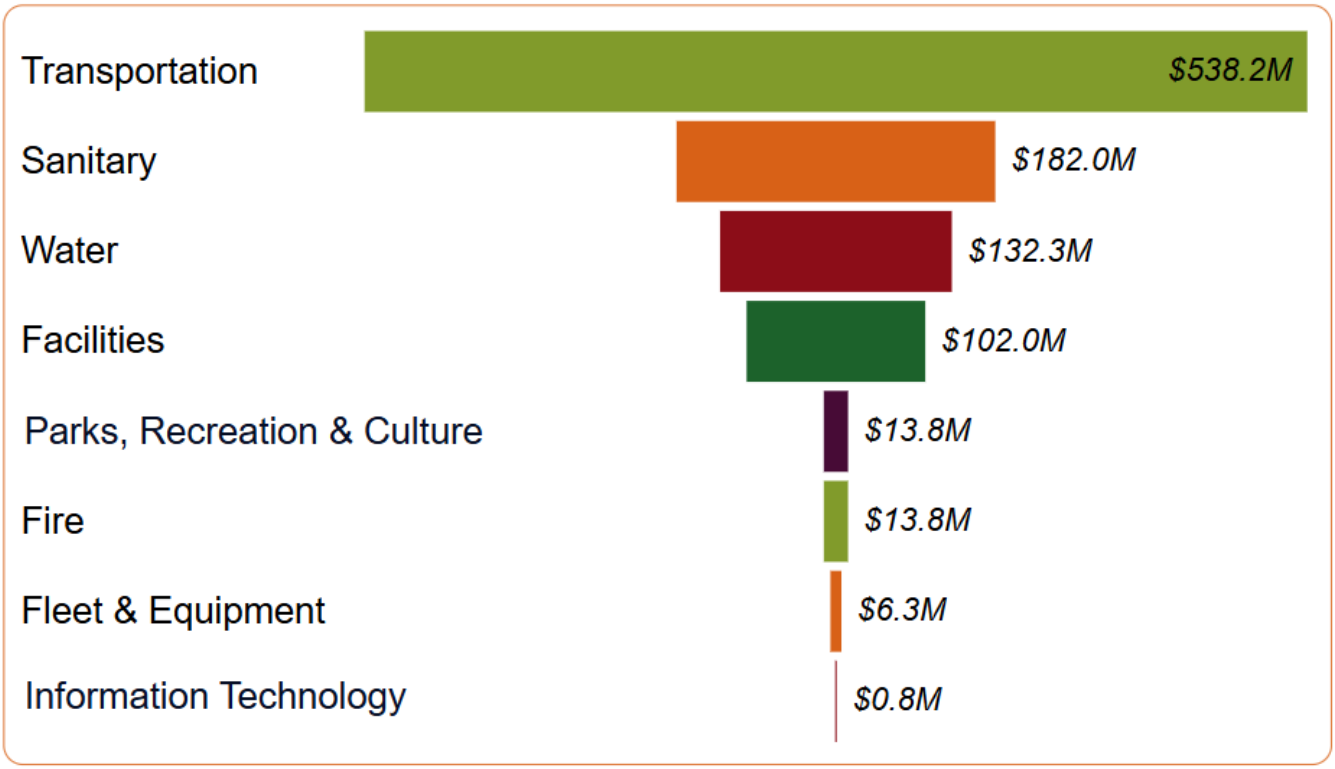


Figure 1: Overall Asset Valuation

Each asset category is presented in its own chapter, which includes detailed information on inventory and valuation, asset condition and age, levels of service, lifecycle management strategies, and data confidence and improvement plans. Asset condition serves as a key performance metric throughout this plan, enabling the Town to monitor progress toward service level targets and ensure the continued delivery of high-quality services to residents.

Figure 2 shows the overall asset condition by asset value. On average, assets in the Town are in Fair condition. Over two-thirds of assets in the Town are in Fair or better condition.

Figure 3 below compares asset conditions by category, weighted by replacement value. Comprehensive details for each asset type are provided in the respective chapters of this plan. The Town has made considerable efforts to gather and update data across all asset categories, including condition assessments where possible.

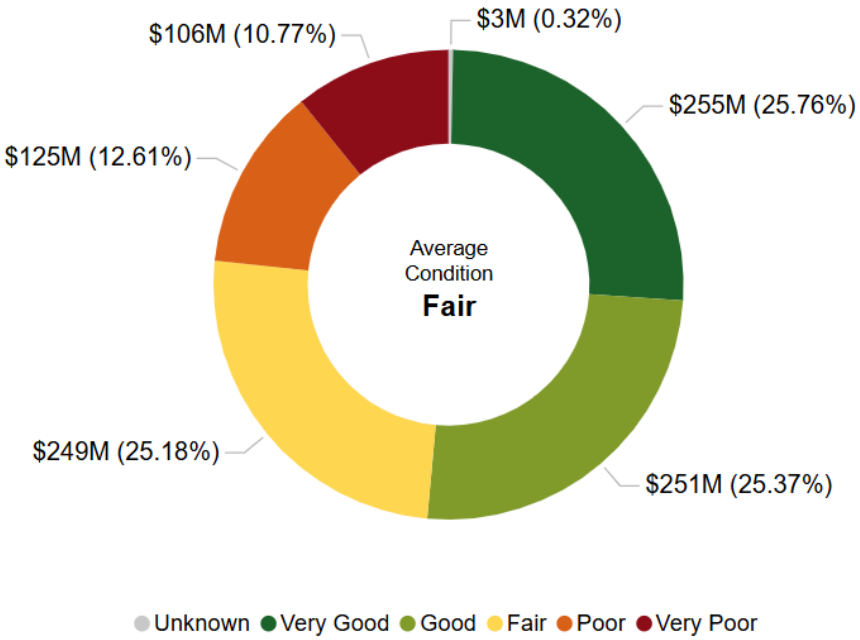


Figure 2: Overall Asset Condition Distribution (By Replacement Value)

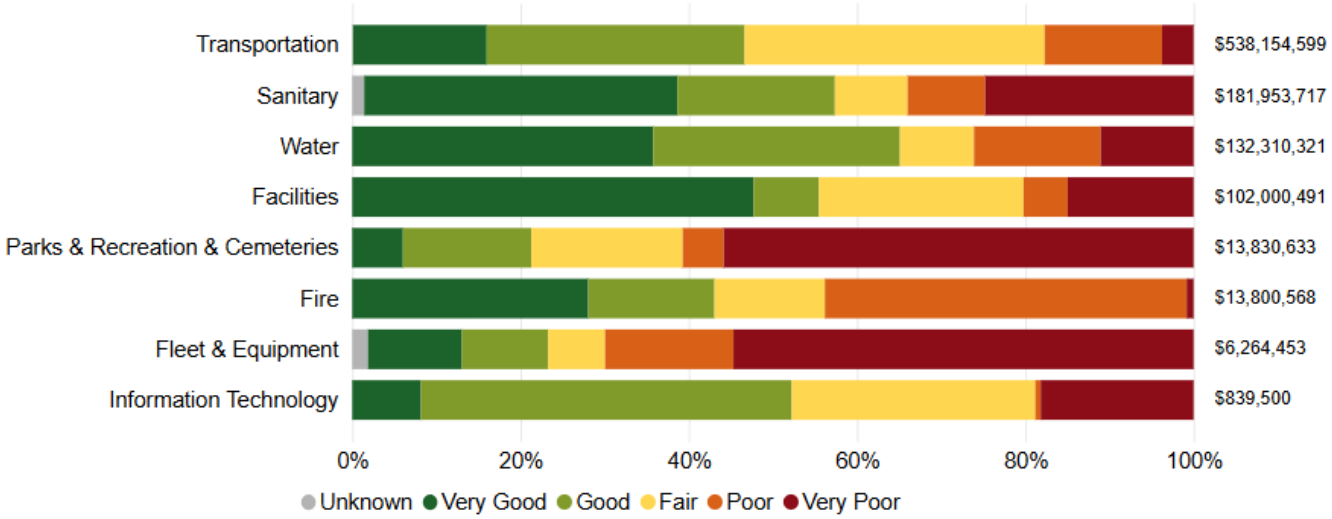


Figure 3: Asset Category Condition Profile (by Replacement Value)

Levels of Service

Levels of Service (LOS) metrics are essential performance indicators that guide the delivery of services associated with each asset category in this plan. These metrics align with the Town's strategic objectives and are informed by community needs, Council priorities, legislative and regulatory obligations, and the Town's financial capacity to sustain service delivery.

Ontario Regulation 588/17 prescribes specific LOS metrics for core asset categories, including bridges and structures, roads, stormwater, wastewater, and water systems. For non-core assets,

the Town has developed additional LOS metrics in collaboration with internal staff. These are detailed within the individual asset category chapters.

This plan reports both the current performance and the proposed or target LOS for each asset type. Establishing these service levels enables the Town to define expectations, monitor service delivery, and evaluate how effectively infrastructure supports community needs.

Progress toward achieving the proposed LOS targets will be reviewed annually and reported to Council, as required by the regulation beginning in 2026. This ongoing evaluation will support continuous improvement and accountability in the Town's asset management practices.

Lifecycle Management

The Town of Pelham's Lifecycle Management Strategy provides a comprehensive framework for sustaining and enhancing Levels of Service (LOS) through well-planned, cost-effective asset interventions. This strategy outlines a range of lifecycle activities—grouped into, non-infrastructure solutions, operations and maintenance, renewal and replacement, growth and service improvements—designed to support asset performance and minimize risk throughout each asset's useful life.

A key objective of this plan is to understand and manage the full lifecycle cost of asset ownership. The strategy emphasizes forecasting infrastructure needs over a 10-year horizon, in alignment with Ontario Regulation 588/17, while maintaining current LOS and planning for targeted service improvements. Lifecycle activities and costs are tailored to each asset category and linked to the expected timing and frequency of interventions based on asset condition and service life.

Three forecasting scenarios assess the Town's capacity to meet service expectations under varying funding and performance conditions:

1. **Approved Budget** – Forecasts asset conditions over 10 years based on current Capital and Operating Budgets.
2. **Maintain Current Level of Service** – Estimates the investment needed to prevent further decline in asset condition, without budget constraints.
3. **Proposed Level of Service** – Identifies funding required to achieve the Town's target service levels, independent of current budgets.

These scenarios inform the financial strategy of the Asset Management Plan and provide a foundation for long-term planning, helping ensure the Town continues to deliver reliable, sustainable services to the community.

Financial Strategy

This financial strategy supports the Town's long-term asset management planning by aligning infrastructure investment with service delivery objectives and financial sustainability. Based on the Town's 2025 budget, it identifies and evaluates the funding required to maintain current levels

of service (LOS) and to achieve proposed LOS for all rate- and tax-supported assets. All financial forecasts are presented in 2025 dollars and exclude inflation.

The strategy outlines the average annual expenditures needed to sustain and improve infrastructure across all lifecycle activities—growth, non-infrastructure, operations and maintenance, rehabilitation, replacement, and service improvements. By comparing these needs to existing funding levels, the plan identifies potential funding gaps and informs future budget planning to ensure the Town's infrastructure remains in good repair.

While rate-supported assets (e.g., water and sanitary) show relatively minor funding gaps, tax-supported assets (e.g., transportation, fleet, facilities) exhibit more notable but manageable shortfalls, primarily in renewal and replacement needs. The analysis supports improved decision-making by clarifying where future funding should be targeted to mitigate risks, maintain service quality, and manage growth.

This strategy emphasizes that lifecycle investment planning, revenue stability, and cost efficiency are key to optimizing limited resources. It will inform future Town budgets, ensuring that expenditures align with long-term service and asset management goals.

Improvement and Monitoring

Asset management in the Town of Pelham is a process of continuous improvement, ensuring assets support current and future service needs efficiently and sustainably. This plan outlines how the Town has met the 2025 requirements of Ontario Regulation 588/17 and identifies priorities for ongoing enhancement.

Since the 2024 AMP, Pelham has made significant progress, including:

- Developing technical and qualitative Levels of Service (LOS) metrics for all asset categories.
- Improving asset condition assessments with detailed ratings and inspection data.
- Defining lifecycle strategies linked to service objectives and financial forecasts.
- Incorporating growth projections into planning and investment models.
- Establishing a long-term financial strategy to close funding gaps.

Looking ahead, the Town will shift focus from compliance to strategic refinement through:

- Annual AMP reviews to monitor progress and report to Council.
- Five-year updates that reflect new assets, condition data, and financial projections.
- Optimization of LOS targets, balancing service quality, cost, and risk.
- Advancing asset management maturity, with improved data systems, governance, and integration across municipal planning and budgeting.

These actions will position Pelham to deliver reliable, cost-effective services while adapting to growth, fiscal pressures, and community priorities.

1. Introduction

1.1. Purpose and Regulation

The Town of Pelham recognizes the vital role that infrastructure plays in supporting the delivery of essential services and maintaining a high quality of life for residents. To manage its infrastructure responsibly and sustainably, the Town has developed this comprehensive Asset Management Plan (AMP) to serve as a guiding document for decision-making related to both Core and Non-Core Assets.

The primary objectives of this AMP are to:

- Maximize the benefits of infrastructure investments
- Manage risks associated with asset performance and failure
- Provide and sustain appropriate levels of service for the community

Asset management is an ongoing, proactive process that includes understanding asset characteristics, assessing condition, defining and measuring levels of service, and planning for lifecycle maintenance and replacement. This Plan also supports broader corporate planning by:

- Meeting legislative and regulatory requirements
- Describing the current state of the Town's infrastructure
- Establishing long-term infrastructure and strategic plans
- Informing sustainable financial planning and annual budgeting
- Setting and evaluating levels of service
- Supporting asset-related decision-making and investment prioritization
- Strengthening applications for external funding (federal and provincial)

This AMP incorporates both Core assets (Transportation Assets: Roads, Bridges & Culverts, Stormwater, and Water, and Sanitary Systems) and Non-Core assets (Facilities, Fire Services, Information Technology, Parks, Recreation & Cemeteries). Together, these assets form the foundation of municipal service delivery and represent a significant public investment.

Figure 4 highlights the balance municipalities must strike among cost, level of service (LOS), and risk. Effective asset management requires informed decisions that consider the municipality's willingness to pay (cost), the desired performance or service outcomes (LOS), and the community's appetite for risk. As shown in Figure 4, increasing the level of service typically requires greater financial investment and may reduce risk, while reducing costs might necessitate accepting a higher level of risk or a lower level of service. The central concept of trade-off emphasizes that these three factors are interdependent; changes to one will inevitably affect the others. Municipalities must evaluate these trade-offs in alignment with community priorities, fiscal constraints, and long-term infrastructure sustainability.

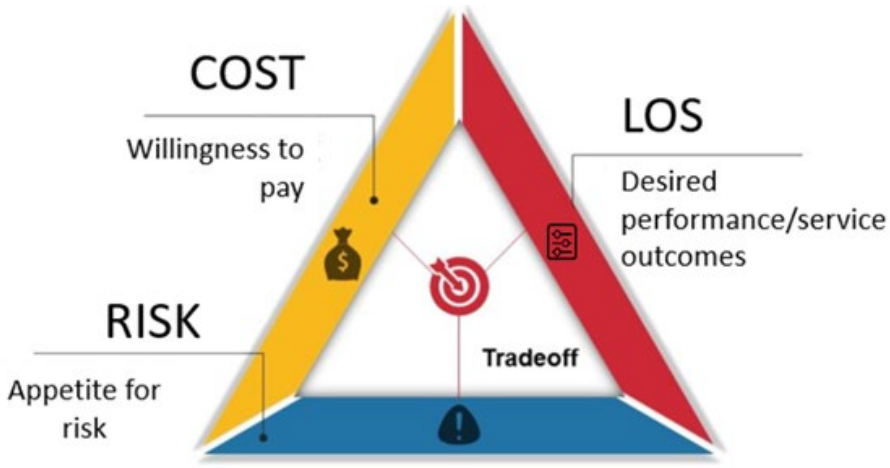


Figure 4: Asset Management Balance

Ontario Regulation 588/17 (O. Reg. 588/17) sets out a phased approach to asset management planning for municipalities across the province. Under this regulation, municipalities are required to:

- Develop a Strategic Asset Management Policy that integrates asset management into municipal planning
- Include considerations for climate change adaptation and mitigation
- Prepare and maintain an Asset Management Plan for all infrastructure assets
- Implement ongoing updates and reviews, including:
    - Annual updates to asset management processes starting in 2025
    - Formal review and update of the Policy and AMP at least once every five years

This Plan will meet 2025 regulatory requirements under O. Reg. 588/17, while also integrating asset management practices into the broader financial and strategic planning framework of the municipality. Figure 5 provides an overview of the O.Reg. 588/17 milestones.

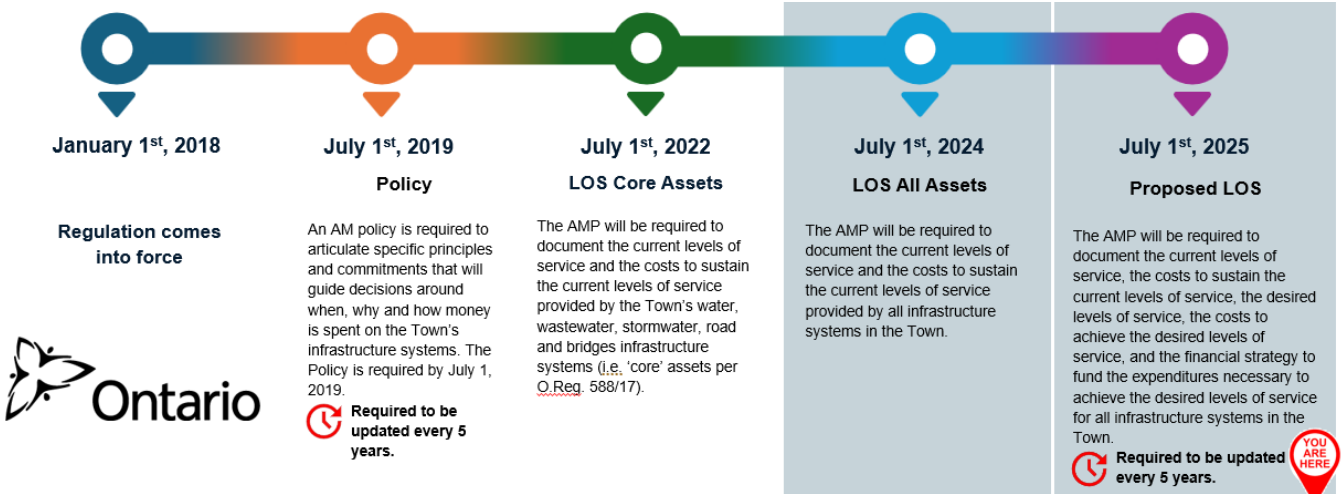


Figure 5: O.Reg. 588/17 Milestones

1.2. Asset Management Program in Pelham

The Town of Pelham's Asset Management Program is a comprehensive framework designed to ensure the sustainable, cost-effective delivery of municipal services by managing infrastructure assets throughout their lifecycle. This program encompasses strategic planning, detailed asset assessments, and integration with financial processes to support informed decision-making and long-term community well-being. The Town of Pelham's asset management journey is summarized below.

Strategic Asset Management Policy (2019)

Established in 2019, Pelham's Strategic Asset Management Policy formalizes the town's commitment to asset management by aligning it with broader strategic goals. The policy emphasizes:

- A service-focused approach to asset management, prioritizing the delivery of municipal services over mere financial valuation.
- Integration of asset management planning into annual budgets and long-term financial strategies.
- Consideration of climate change impacts and collaboration with local partners for sustainable infrastructure planning.

Asset Management Plan (2022)

The 2022 Asset Management Plan provides a detailed assessment of Pelham's core infrastructure assets, including roads, bridges, water and wastewater systems, and stormwater management facilities. Key components of the plan include:

- An inventory of core assets, detailing their condition, average age, and replacement costs.
- Evaluation of asset conditions to inform maintenance and rehabilitation priorities.
- Modeling of future capital costs beyond the traditional five-year planning horizon to anticipate budget pressures and infrastructure needs.

Non-Core Asset Management Plan (2024)

The 2024 Non-Core Asset Management Plan expands the town's asset management practices to include assets such as facilities, fire services, information technology, parks and trails, road signs, and sidewalks. This plan:

- Provides an inventory and assessment of non-core assets, evaluating their condition and service levels.
- Integrates non-core assets into the town's overall asset management framework to ensure comprehensive infrastructure planning.
- Supports compliance with Ontario Regulation 588/17, which mandates municipalities to develop asset management plans for all assets.

Natural Asset Management (2024)

A standout feature of Pelham's approach is its inclusion of natural assets—such as wetlands, forests, and riparian areas—as infrastructure systems that provide critical services like:

- Flood mitigation
- Stormwater management
- Water filtration

Through the Pelham Greenbelt Natural Asset Management Project, these ecosystems offer substantial value—estimated at over $585 million in stormwater management services. The Town's Municipal Natural Asset Management Plan (MNAMP) is a forward-thinking initiative that:

- Identifies and inventories key natural systems
- Evaluates their capacity to deliver municipal services
- Incorporates them into the broader asset management strategy alongside built assets
- This integration supports environmental sustainability and long-term cost efficiency by reducing reliance on more expensive engineered infrastructure

Asset Management Plan (2025)

The 2025 Asset Management Plan enhancements for the Town of Pelham are expected to significantly strengthen and mature the municipality's overall asset management program. These enhancements are in response to the next phase of compliance with Ontario Regulation 588/17, which requires municipalities to include levels of service and, more specifically proposed (or targets, for these levels of service, and lifecycle management strategies for all assets—core, non-core, and natural—by July 1, 2025.

1.3. Asset Management Stakeholder Roles & Responsibilities

The Town of Pelham Council is responsible for approving the Asset Management Plan, related budgetary decisions and representing the needs of the community and stakeholders, while ensuring that municipal services remain sustainable over the long term.

The Senior Leadership Team plays a critical role in allocating resources to meet planned objectives in service delivery, while managing associated risks. They are also committed to supporting the implementation of actions outlined in this plan and are prepared to adapt and improve how assets are managed, and services are delivered.

The Corporate Services Department is responsible for consolidating the asset register and ensuring asset valuations are accurate. The department develops supporting policies, such as those for capitalization and depreciation, and prepares asset sustainability and financial reports that incorporate depreciation in compliance with current accounting standards. Corporate Services also provides administrative and technical support for Asset Management (AM) and Geographic Information Systems (GIS).

The Planning Department maintains and updates the Town's Official Plan and prepares Secondary Plans for areas undergoing development expansion. These updates help anticipate impacts on existing assets and inform the acquisition of additional assets.

The Public Works Department is responsible for updating the asset register to reflect asset replacements and acquisitions. This includes recording replacement and renewal costs to support future budgeting and long-term financial planning.

1.4. Development & Methodology of Asset Management Plan

1.4.1. Asset Management Plan Scope

This Asset Management Plan (AMP) covers all infrastructure assets owned and managed by the Town of Pelham, including both Core and Non-Core Assets, in accordance with the requirements of Ontario Regulation 588/17.

The AMP provides a structured assessment of these assets, including their condition, average age, levels of service, and replacement costs, to support informed decision-making and long-term financial sustainability.

This comprehensive inclusion ensures that all Town assets are considered in asset management strategies, helping to prioritize maintenance, renewal, and investment across all service areas.

The AMP includes the following services:

- Water
- Sanitary
- Transportation (incl. Bridges/Structures & Stormwater)
- Corporate Facilities
- Parks, Recreation & Cemeteries
- Fire
- Fleet & Equipment
- Information Technology

The Town's natural assets are not included in the main body or analysis of this Asset Management Plan, as they are addressed in a separate AMP tailored to the distinct characteristics of this asset class. Additional information on these assets can be found in Appendix A.

Future updates to the AMP will continue to improve data quality, expand asset inventories, and refine performance targets, ensuring alignment with the Town's strategic objectives and regulatory commitments.

The AMP is organized into chapters based on each of the asset groups listed above. Each chapter provides a detailed overview of the State of the Infrastructure, Levels of Service, Lifecycle Management strategies, and an assessment of Data Confidence and improvement needs. These

chapters are followed by the Town's Financial Strategy and the Improvement and Monitoring Plan. A description of the methodology used for each section is provided below.

1.4.2. Asset Management Plan Assumptions & Limitations

This Asset Management Plan (AMP) encompasses all assets directly owned by the Town of Pelham. The following assumptions and limitations apply to the scope and content of this plan:

- This AMP was developed using the best available information. Where data gaps existed, reasonable assumptions based on professional judgement were applied. Asset-specific assumptions are detailed in the respective category chapters under "Data Confidence and Improvement".
- All financial figures, including those in the forecast, are presented in 2025 dollars unless otherwise noted.
- Service improvements are not included within the asset replacement cost estimates, unless specifically stated.
- Forecast scenarios rely on current replacement values (CRV), which may be subject to fluctuation. Every effort has been made to ensure these values reflect current market conditions. The timing and cost of lifecycle interventions were estimated based on staff expertise and industry standards but remain high-level estimates.
- The potential impacts of climate change have not been factored into replacement costs. This includes both sudden infrastructure demands caused by extreme weather events and the long-term effects of climate change on asset lifespans.
- The Town has not yet implemented a formal asset risk management strategy beyond what is required by legislation. This will be included in recommendations for improvement.
- The analysis assumes that capital budgets and reserve contributions will proceed as projected over the planning horizon.
- It is assumed that current budgets are adequate to support non-infrastructure solutions, operations and maintenance, and service improvement activities necessary to maintain current service levels.
- Growth-related capital infrastructure needs have been identified based on development charge-funded projects. It is assumed that these projects, and any growth assets identified by master plans have been properly budgeted and incorporated into the plan.

1.4.3. State of the Infrastructure

The State of the Infrastructure section offers a quantitative overview of the Town's infrastructure assets. Its primary purpose is to present a high-level summary of the asset inventory, including insights into asset age, condition, replacement value, and other key indicators, in accordance with O. Reg. 588/17. The information in this section is based on available datasets and supporting documentation, which have been reviewed for data confidence and validated through

consultation with Subject Matter Experts (SMEs). Each asset chapter includes a summary of inventory, replacement value, and the age and condition of the respective assets.

The asset register was compiled by Town staff using data from various sources to support effective asset management planning. The register includes key details such as:

- Asset Identifier
- Installation Date
- Current Replacement Value
- Estimated Useful Life
- Condition
- Asset-specific attributes

This comprehensive inventory forms the foundation for the analyses presented in the Asset Management Plan, including the State of Infrastructure, Levels of Service, Lifecycle Management Strategies and a Financial Strategy.

1.4.3.1. Asset Valuation & Replacement Values

Current Replacement Value (CRV) refers to the estimated cost to replace an existing asset with a similar one at current market rates. This value reflects present-day construction and material costs, accounting for inflation and market conditions. CRV is a critical metric in asset management, as it informs financial planning for asset replacement and future capital investment needs.

Best practice dictates that CRV should include all costs associated with constructing or replacing an asset with a comparable one. These may include engineering and design, project management, labour, materials, and other associated costs.

To ensure accuracy, Town staff undertook a comprehensive review and update of CRVs across all asset categories for this AMP. This process involved multiple strategies, including:

- Market assessments
- Review of recent contracts for similar assets (typically averaged over the past three years)
- Staff expertise and internal costing knowledge
- Engineering estimates
- Professional appraisals

This is an ongoing process that will continue to evolve as more data becomes available and market conditions change. The CRVs presented in this AMP represent the best available information at the time of writing and will be reassessed and refined as needed.

It is important to note that the values in this plan reflect current market conditions and may differ significantly from those in previous versions of the AMP. Unless otherwise specified, the CRVs do not include assumptions for growth, technological upgrades, or service enhancements.

1.4.3.2. Service Life

Estimated Service Life refers to the expected length of time an asset will remain functional and capable of delivering its intended service. This estimate is informed by a variety of factors, including design standards, historical performance, maintenance practices, environmental conditions, and advances in technology.

Estimating service life is a key component of asset management planning, as it supports long-term decision-making related to maintenance, rehabilitation, replacement, and capital investment. It enables effective budgeting, risk management, and performance optimization throughout the asset's lifecycle.

For the purposes of this AMP, Town staff reviewed and validated estimated service life values across all asset categories to ensure reliable forecasts for future infrastructure investment and spending needs.

1.4.3.3. Asset Condition

Applying consistent condition ratings across all asset categories is a fundamental component of effective asset management. By using standardized rating methodologies aligned with industry best practices, the Town enhances its ability to benchmark against other Canadian municipalities and gain a clear, organization-wide understanding of asset condition—regardless of asset type.

Condition ratings are expressed using a condition rating scale that reflects the current state of an asset. In this Asset Management Plan, condition data was gathered through various methods and then translated into a unified scale ranging from Very Poor to Very Good. Where formal condition assessments were available, the resulting data was applied directly to the standardized scale, as detailed within the individual asset category chapters.

In cases where condition assessments were not available, asset condition was estimated using the asset's remaining useful life in relation to its total expected service life. This approach assigns a condition category based on the percentage of remaining life, following the criteria outlined in Table 1.

Table 1: Condition Rating Scale

Condition	Age/ESL	Description
Very Good	>80% life remaining	The asset is fit for the future. It is well maintained, in good condition, new or recently rehabilitated.
Good	60-80% life remaining	The asset is adequate. It is acceptable and generally within the mid-stage of its expected service life.
Fair	40-60% life remaining	The asset requires attention. The asset shows signs of deterioration, and some elements exhibit deficiencies.

Condition	Age/ESL	Description
Poor	20-40% life remaining	There is an increasing potential for its condition to affect the service it provides. The asset is approaching the end of its service life, the condition is below the standard and a large portion of the system exhibits significant deterioration.
Very Poor	0-20% life remaining	The asset is unfit for sustained service. It is near or beyond its expected service life and shows widespread signs of advanced deterioration. Some assets may be unusable.
Unknown	N/A	Not enough data exists to determine condition.

1.4.3.4. Data Confidence

As the Town advances in its asset management journey, its planning processes will continue to evolve and improve. Each asset category chapter includes a data confidence assessment and a corresponding improvement plan that identifies specific opportunities for refinement within that category. Data sources are assigned a quality rating based on the criteria outlined in Table 2 . The Improvement and Monitoring Plan outlines broader, Town-wide or program-level opportunities to enhance asset management maturity over time.

Table 2: Data Confidence Rating Scale

Grade	Description	Criteria
A	Very High	Key data fields for asset management are complete within 5%. Data based on sound records, procedures, investigations and analysis, documented properly and recognized as the best method of assessment.
B	High	Key data fields for asset management are complete within 10%. Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation.
C	Medium	Key data fields for asset management are complete within 25%. Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported or extrapolated from a limited sample for which grade A or B data are available.
D	Low	Key data fields for asset management are complete within 50%. Data based on unconfirmed verbal reports and/or cursory inspection and analysis.
E	Very Low	Key data fields for asset management are less than 50% complete. None or very little data held.

1.4.4. Levels of Service

Levels of Service (LOS) describe the quality, functionality, and reliability of infrastructure services provided to the community. They serve as a key component of asset management by linking community expectations and performance standards to infrastructure planning, investment, and maintenance.

This AMP outlines both current and proposed Levels of Service for each asset category, as required by Ontario Regulation 588/17. The levels of service are used to:

- Measure how well assets are performing
- Guide infrastructure decision-making
- Communicate service expectations to the public
- Identify gaps between current performance and desired targets

LOS Structure

Levels of Service are typically defined using two perspectives:

- **Community Levels of Service:** Describe the service from the public's perspective using qualitative measures. For example, "Is it easy to walk across town on sidewalks in good condition?" or "Are parks safe and well-maintained?"
- **Technical Levels of Service:** Quantitative metrics used by staff and decision-makers to assess asset performance. For example, "Percentage of roads in good or better condition" or "Average age of water mains."

Each asset category within the AMP has associated Level of Service (LOS) metrics and Key Performance Indicators (KPI) metrics that support the provision of the respective service for each Town asset group.

Figure 6 illustrates how Levels of Service (LOS) are aligned with the Town of Pelham's 2023-2027 Strategic Plan. LOS serve as a bridge between infrastructure performance and the Town's broader goals, including Infrastructure Investment & Renewal, Community Development & Growth, and Environmental & Climate Adaptation.

By integrating LOS with strategic focus areas, the Town can:

- Prioritize infrastructure investments that advance strategic goals
- Track progress in delivering services that reflect community values
- Ensure long-term sustainability through evidence-based decisions

Strategic Priority	Levels of Service Attributes
Infrastructure Investment & Renewal	**Scope:** The extent and capacity of the service to meet community needs and regulatory requirements.
Environmental & Climate Adaptation	**Environmentally Sustainable:** Municipal services encourage preservation of the environment and quality of life.
Enhancing Capacity & Future Readiness	**Reliability:** Municipal services can be counted upon by customers with minimal service interruptions
Community Development & Growth	**Quality:** Residents, businesses and visitors have effective services.
Financial Health	**Affordability:** value is demonstrated for every municipal dollar spent

Figure 6: Strategic Alignment

This alignment reinforces Pelham's commitment to providing high-quality, reliable services that support its mission to be a caring, active, and sustainable community.

The process for defining Levels of Service (LOS) follows the requirements set out in Ontario Regulation 588/17, this process can be seen in Figure 7. Under the regulation, municipalities must report both the current performance of their assets (to meet 2024 AMP requirements) and the proposed or target performance (to meet 2025 AMP requirements). Since this Asset Management Plan aligns with the 2025 regulation, both current and target levels of service have been established as part of this plan.

The current LOS performance must be based on data collected within two calendar years prior to the year the plan is developed. The Town is also required to outline proposed LOS targets for each metric over the 10-year forecast period covered by this AMP.

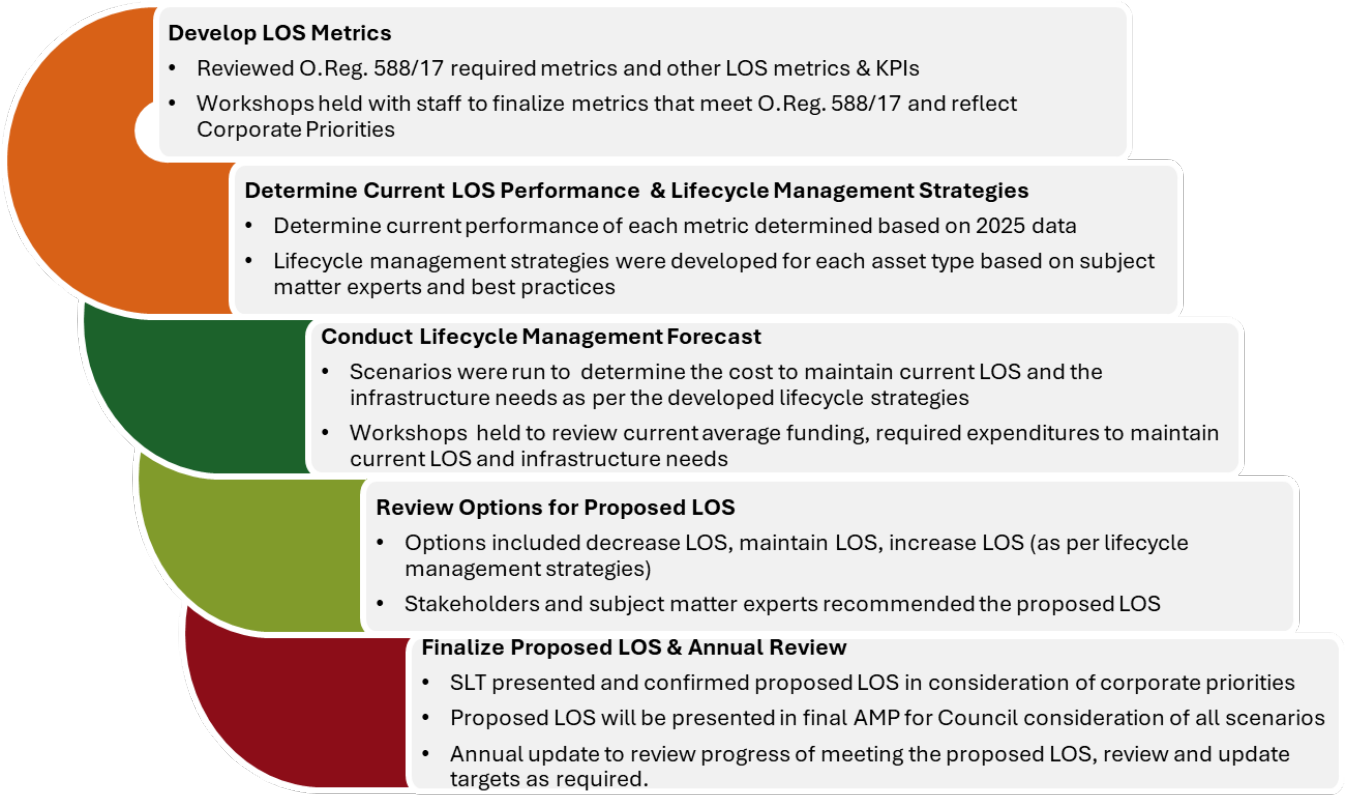


Figure 7: Level of Service Process

To establish realistic and meaningful Levels of Service (LOS) targets, the Town of Pelham followed a structured, collaborative process grounded in regulatory compliance, data-driven forecasting, and community priorities. This approach aimed to balance service delivery outcomes with affordability, risk, and long-term asset sustainability.

The process began with the development of LOS metrics, where the Town reviewed O. Reg. 588/17 requirements alongside other performance indicators and key performance metrics (KPIs). Workshops were held with Town staff to ensure that the selected metrics reflected both regulatory expectations and corporate priorities.

Once metrics were finalized, the Town proceeded to determine the current LOS performance and lifecycle management strategies. This involved assessing each asset's current performance using 2025 baseline data. Lifecycle strategies were developed by asset type, informed by best practices and expert input.

Next, the Town conducted a lifecycle management forecast, modeling scenarios to estimate the costs associated with maintaining current service levels and identifying infrastructure needs. These workshops also explored current funding levels and expenditures required to sustain service delivery, providing a foundation for future planning.

With this information, the Town reviewed strategic options for proposed LOS, evaluating the implications of:

- Decreasing LOS, which could reduce short-term costs but increase long-term risks such as asset failure, health and safety concerns, or regulatory non-compliance.
- Maintaining current LOS, continued delivery at existing performance levels.
- Increasing LOS, targeting improvements to enhance asset performance and community outcomes.

Following this evaluation, proposed LOS were finalized and confirmed by the Senior Leadership Team (SLT), ensuring alignment with corporate goals. These proposals were then incorporated into the final Asset Management Plan (AMP) for Council review and approval.

To ensure accountability and adaptability, the Town committed to an annual review of LOS targets, reporting to Council on progress and identifying any necessary adjustments in response to emerging needs or changing conditions. This ongoing review supports informed decision-making and helps ensure that service levels remain responsive, sustainable, and aligned with community expectations.

1.4.5. Lifecycle Management

The outcomes of the Lifecycle Management Strategy have been consolidated to provide a comprehensive view of the Town's capacity to sustain current Levels of Service (LOS) and achieve its target LOS across the organization.

The Lifecycle Management Strategy outlines a coordinated set of planned actions designed to ensure that municipal assets consistently deliver their intended Levels of Service in a cost-effective and sustainable manner, while also minimizing risk over their operational lifespan. This assessment focuses on identifying the key activities necessary to maintain and support each asset category throughout its lifecycle.

For the purposes of this plan, lifecycle activities are grouped into the following categories:

- **Non-Infrastructure Activities:** Policy-based or administrative approaches that contribute to effective asset management without direct capital investment—such as process improvements or demand management strategies.
- **Operations & Maintenance Activities:** Routine and reactive tasks, including inspections, regular maintenance, and emergency repairs, that ensure assets continue to operate safely and efficiently.
- **Renewal and Replacement Activities:** Major repairs or rehabilitation efforts aimed at extending the useful life of assets, as well as full asset replacements once renewal is no longer viable. This AMP places particular emphasis on assessing the needs for these activities.
- **Growth and Service Improvement:** Investments made to extend or expand infrastructure in response to growth, such as servicing new developments and /or enhancements made to improve service quality, reliability, or accessibility, independent of growth needs.

Examples include compliance with the Accessibility for Ontarians with Disabilities Act (AODA), implementation of new technologies, or adding services not previously offered by the Town.

Lifecycle activities specific to each asset class are detailed in the individual asset category chapters. These activities are aligned with the Town's asset hierarchy and are linked to the expected frequency of occurrence relative to each asset's Estimated Service Life. Each asset type has distinct lifecycle requirements, reflecting its function, usage, and condition over time.

The primary objective of asset management is to understand and plan for the full lifecycle cost of asset ownership. This includes evaluating the costs and timing of activities required to sustain service levels throughout an asset's life. The scope and key assumptions for the lifecycle forecasts included in this Asset Management Plan (AMP) are as follows:

- The AMP focuses on identifying infrastructure renewal, rehabilitation, and replacement needs to support informed capital investment decisions.
- Expenditures related to other lifecycle activities—such as non-infrastructure solutions, service improvements, and growth—are assumed to be adequately addressed through the Town's current Operating and Capital Budgets. These activities are still considered within the overall lifecycle cost analysis. The forecast does not account for any increases in current funding levels for these activities over the 10-year horizon. Future adjustments to funding are considered beyond the scope of this AMP.
- The current cost for operations and maintenance has been informed by the Town's budget, and estimates for future needs have been estimated based on the increase to the current replacement value of assets because of growth. This estimate may not fully reflect actual operational needs and should be subject to further review and refinement as part of the annual review of the AMP.

In accordance with O. Reg. 588/17, the AMP includes a 10-year outlook that considers the most cost-effective lifecycle interventions required to maintain service levels. This plan is built on the assumption that sustaining current asset performance (condition) will allow the Town to continue delivering services at current Levels of Service.

To support this approach, the AMP includes a performance-based assessment of lifecycle activity costs and asset conditions over the forecast period. Three forecasting scenarios are used to evaluate the Town's ability to meet service expectations and infrastructure needs under different funding and performance conditions. These scenarios help to assess long-term affordability, asset performance, and the sustainability of service delivery.

Scenario 1: Maintain Current Performance (Level of Service)

This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Current Funding Model

This scenario aims to keep the amount of assets in very poor condition consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service Target based on Lifecycle Strategies

This scenario forecasts the expenditure required to reach the Town's proposed level of service and is not constrained by the current budgets.

The insights gained from these scenarios form the foundation of the Financial Strategy outlined in this AMP.

1.4.6. Financial Strategy

The Financial Strategy is one of the key components within the AMP, as it puts the AMP into action. The financial strategy provides a way for the Town to integrate asset management planning with financial budgeting.

The Financial Strategy forecasts the total required annual expenditure for the Town to perform the lifecycle activities in alignment with the scenarios to maintain current performance and meet proposed levels of service targets.

The scenarios for each asset category will be combined to assess the Town's forecasted expenditure to understand the full cost of achieving the current levels of service and proposed LOS over the 10-year forecast period. Expenditure forecasts will be compared to the capital budget forecasts to determine if an infrastructure gap is present. Strategies to address this gap will also be discussed.

1.4.7. Improvement & Monitoring

As the Town continues to advance in its asset management journey, the processes and practices related to Asset Management Planning will evolve and become more refined. Each chapter includes a data confidence assessment and improvement plan to identify specific opportunities for enhancement. On a broader scale, the Improvement and Monitoring Plan outlines strategies to support overall program maturity and continuous improvement across the Town.

This section highlights key areas for improvement to help the Town of Pelham achieve its asset management objectives and strengthen long-term service delivery.

1.5. Asset Management Pressures

The management of public assets faces various pressures that can impact its operations, strategies, and overall success. Some of these pressures include:

- **Market Volatility:** Asset managers must contend with unpredictable market conditions, including fluctuations in costs, inflation, supply chain disruptions, and availability of

vendors and labour. These challenges have become more pronounced since the COVID-19 pandemic, making long-term planning for asset needs more difficult.

- **Aging Infrastructure**: Many municipalities are challenged by aging infrastructure that no longer meets expected service levels. Maintaining and upgrading these assets requires substantial investment, often exceeding available funding and resources.
- **Data Management & Technology Adoption**: Effective asset management depends on accurate data and the ability to analyze it to support informed decision-making. Implementing and maintaining modern technology systems can be challenging due to competing departmental priorities and the fast-evolving nature of digital tools. Additionally, increased emphasis on cybersecurity and data integrity adds further complexity to technology adoption.
- **Environmental Regulations**: Municipalities must adhere to environmental standards governing air and water quality, waste management, and land use. Compliance often necessitates investments in infrastructure upgrades and mitigation measures. Additionally, considerable staff time is needed for data tracking and reporting to maintain compliance.
- **Budget Constraints & Funding Options**: Municipalities frequently work with limited budgets, necessitating the prioritization of competing needs. To support asset management and other infrastructure projects, municipalities must explore various funding and financing options. Securing reliable funding and obtaining favorable financing terms can be challenging.
- **Limited Human Resources**: Municipalities often encounter difficulties in attracting and retaining skilled staff with the necessary expertise.
- **Limited Funding**: Municipalities are under pressure from the public to maintain low taxes and rates, while still meeting required levels of service
- **Regulatory Changes**: Municipalities must adjust to ongoing regulatory shifts, including changes to reporting requirements, which may necessitate updates to asset management processes and systems.
- **Political & Public Pressure**: Asset management decisions frequently face political and public scrutiny. Balancing the diverse needs and preferences of stakeholders, such as elected officials, residents, and businesses, can be challenging and sometimes contentious.
- **Population Growth & Urbanization**: As populations grow and urbanize, the demand on municipal infrastructure and services intensifies. Municipalities must address the needs for housing, transportation, utilities, and public amenities, all while ensuring sustainable development and maintaining a balanced asset portfolio.
- **Resilience & Sustainability Goals**: Growing pressure to integrate resilience and sustainability into asset management practices requires prioritizing green infrastructure, renewable energy, and sustainable transportation solutions in planning and management efforts.

- **Climate Change & Natural Disasters**: Climate change presents major challenges for municipal asset management, with an increased risk of extreme weather events like floods and storms. Municipalities must invest in resilience measures to safeguard infrastructure and communities from climate-related risks, which may also lead to the need for costly repairs, rehabilitation, or replacement of assets sooner than expected.

Overall municipal asset management involves navigating a complex array of financial, regulatory, environmental, and social pressures to efficiently manage infrastructure and provide services to residents.

1.6. Growth

The Town of Pelham is projected to experience significant growth over the next two decades. In alignment with the Provincial Directive, the Region of Niagara has developed the Niagara 2041 Growth Plan, which sets a population target of 25,260 for Pelham. According to the most recent census, the Town's population currently exceeds 18,000. To support this growth, new infrastructure—such as roads, watermains, and sewers will be necessary.

By proactively managing its existing assets, the Town will be better equipped to plan for future development and ensure the efficient delivery of infrastructure services. While growth is expected to be gradual, the current pace and scale of development are not anticipated to significantly affect the 10-year lifecycle forecasts for core assets. Growth-related capital needs have been forecasted based on the Town’s capital budget and are assumed to be updated in alignment with the most recent Development Charges (DC) Background Study, Master Plans, and related planning documents. These projections reflect planned investments required to accommodate population growth and are funded primarily through development charges or other growth-related funding tools.

1.7. Climate Change

The impacts of climate change can have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change will impact on assets can vary significantly depending on the location and the type of services provided, as well as the way in which we respond and manage those impacts.

As a minimum the Town should consider both how to manage existing assets given the potential climate change impacts, and then also how to create resilience to climate change in any new works or acquisitions.

Opportunities identified to date for management of climate change impacts on existing assets are shown in Table 3.

Table 3: Managing the Impact of Climate Change on Assets

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Extreme Weather Events	Increased intensity, duration, and frequency of heavy rainfall, winter precipitation (i.e., freezing rain) and events such as thunder, hail or windstorms.	Number of wet days likely to increase; maximum precipitation on a single day is likely to increase.	Review and update the construction requirements to include Climate Adaptation strategies.
Precipitation	Extreme changes in precipitation projected for the spring and winter months.	Number of wet days likely to increase; maximum precipitation on a single day is likely to increase.	Increase the maintenance on the non-core assets and additional clearing of leaves that cause blockages.
Temperature	Warming across seasons with severe warming occurring over fall and winter months.	More freeze-thaw cycles impacting the non-core assets.	Ensure construction methodology is suitable for a more adapting climate.

Additionally, the way in which the Town construct new assets should recognize that there is opportunity to build in resilience to climate change impacts.

Building resilience within the asset portfolio will have benefits:

- Assets will withstand the impacts of climate change.
- Services can be sustained.
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

Table 4 summarizes some asset climate change resilience opportunities.

Table 4: Building Asset Resilience to Climate Change

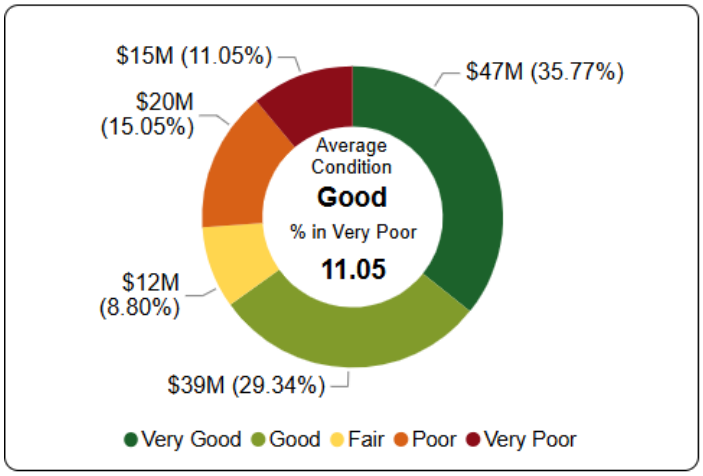
New Asset Description	Climate Change impact these assets mitigate?	Build Resilience in New Works
Stormwater management systems (e.g. culverts, detention ponds, green infrastructure)	**Extreme Weather Events -** increased intensity, duration, and frequency of heavy rainfall, winter precipitation (i.e. freezing rain) and events such as thunder, hail or windstorms.	Develop a comprehensive strategy to manage extreme weather events and emergencies.
Permeable pavement systems, bioswales, and urban green spaces	**Precipitation -** number of wet days likely to increase; maximum precipitation on a single day likely to increase.	Foster adaptive capacity in the design, construction, and maintenance of Town-owned infrastructure. Cultivate resiliency to heavy rainfall and flooding events.
Community cooling centres, HVAC upgrades in municipal buildings, shaded transit stops, and heat-resilient public spaces	**Temperature -** Warming across seasons with severe warming occurring over fall and winter months.	Create an extreme weather policy to minimize risks to Town's staff during extreme events including heavy rainfall, extreme heat, and extreme cold.

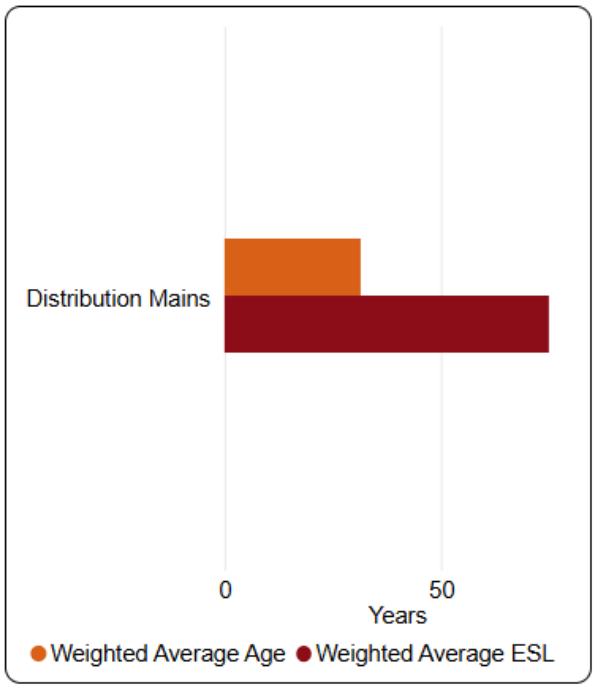
The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this Asset Management Plan.

2. Water

The Town of Pelham will strive to provide safe, clean drinking water of adequate pressure and flow with minimum service interruptions. The Town is committed to maintaining and investing in its water infrastructure to ensure reliability, protect public health, and support current and future community needs.

Asset Category	Replacement Value
Distribution Mains	$132,310,000
Total	**$132,310,000**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
No Gap	$274 k

2.1. State of the Infrastructure

Water infrastructure is a vital component of the Town's underground network, ensuring the delivery of clean and safe drinking water to residents and businesses. In the Town of Pelham, the water system operates as a two-tier model. The Niagara Region owns and manages the water treatment plant, related facilities, and the transmission watermains that transport water to the municipality. The Town of Pelham, in turn, owns and operates approximately 84 km of distribution watermains, along with various supporting assets.

2.1.1. Asset Valuation

The Water asset category includes watermains and accompanying appurtenances (including hydrants, valves, services, and curb stops) with a total estimated replacement value of $132M. The Town has taken comprehensive steps to ensure that asset replacement values reflect current market conditions for comparable infrastructure. By analyzing recent purchases and estimating present-day replacement costs, the Town aims to provide accurate valuations that account for both market trends and the specific characteristics of its assets. Table 5 outlines the inventory and corresponding current replacement value for the assets included in this Asset Management Plan (AMP).

Table 5: Inventory and Current Replacement Value (Water)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Distribution Mains	84,829	m	$132.3M
Total			**$132.3M**

2.1.2. Asset Condition

Condition was assigned to Water assets based on age/estimated service life. The condition rating scale is shown below Table 6.

Table 6: Condition Rating Scale (Water)

Condition	Age/ESL
Very Good	>80% life remaining
Good	60-80% life remaining
Fair	40-60% life remaining
Poor	20-40% life remaining
Very Poor	0-20% life remaining
Unknown	Not enough data exists to determine condition

Figure 8 shows the overall condition distribution of Water assets as a percentage of their replacement value. On average, the Town's Water assets are in good condition, with over 73% of assets classified as fair or better.

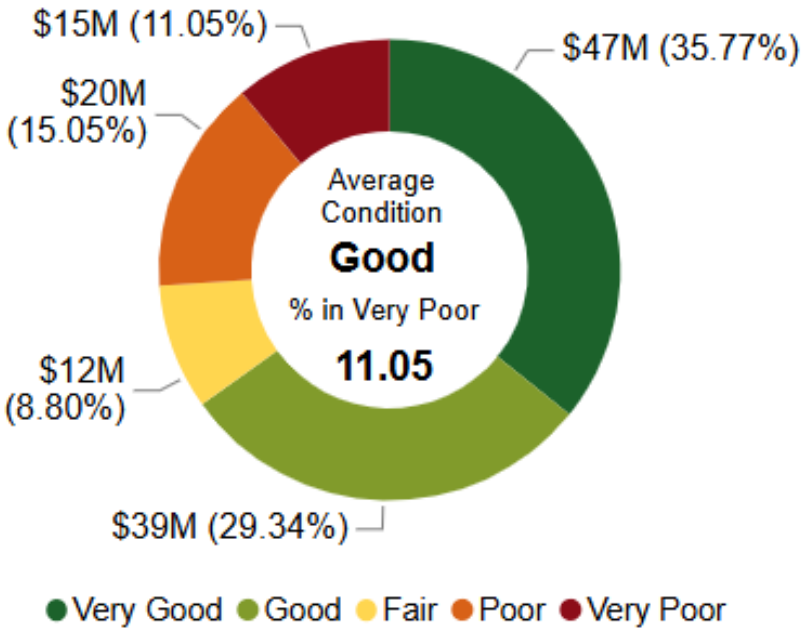


Figure 8: Condition Distribution by Replacement Value (Water)

Figure 9 shows the condition distribution of Water assets broken down by asset category. The assets in very poor condition mostly make up watermains that are cast iron material. The Town has implemented a replacement program for these pipes and has approximately 8.7 km of watermain remaining that have been identified for replacement.

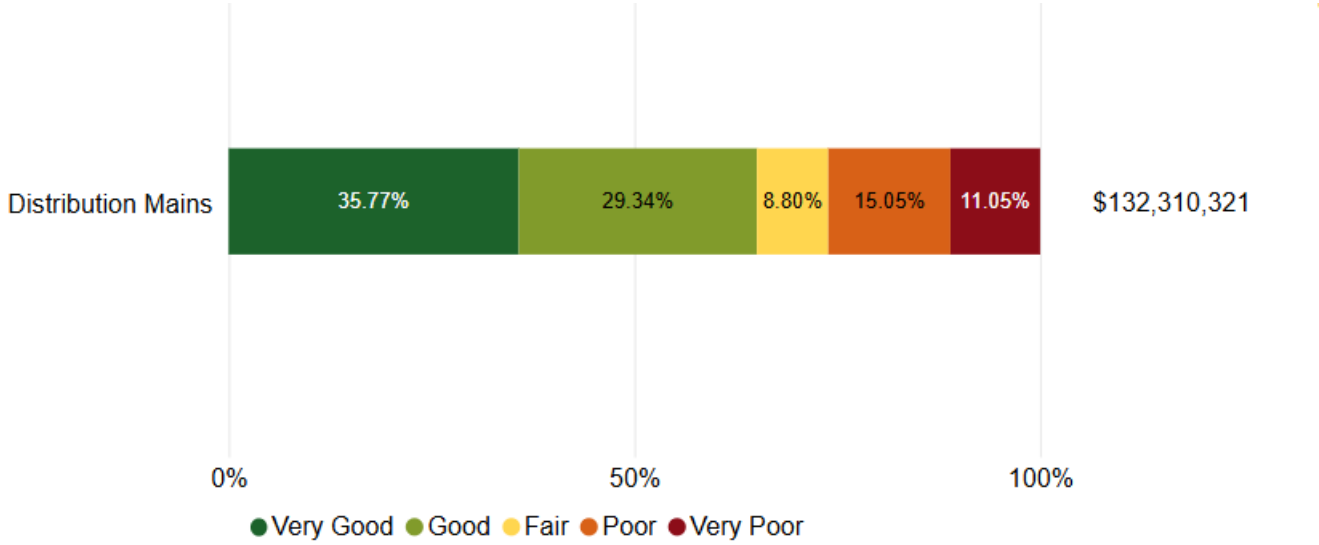
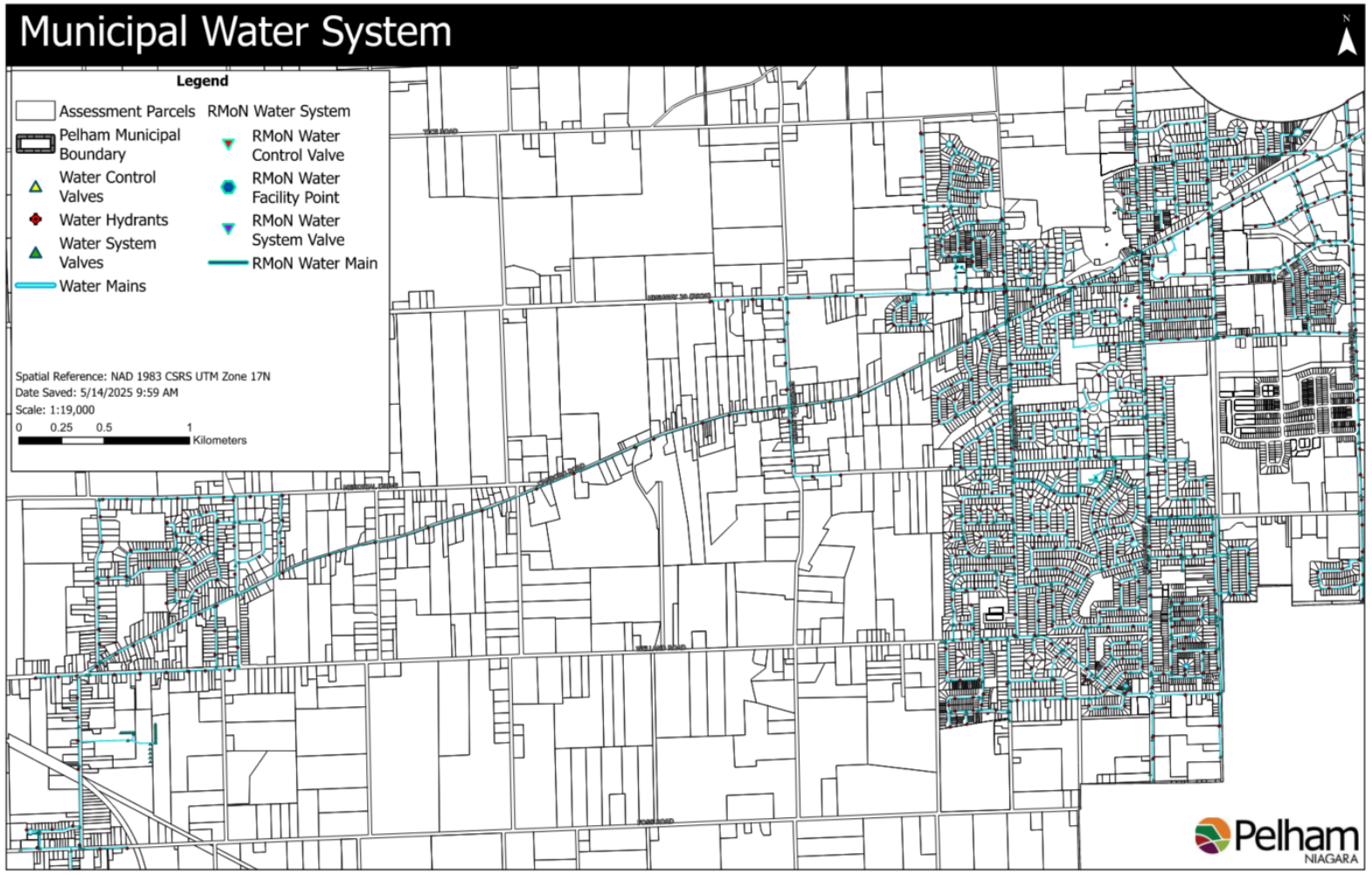


Figure 9: Condition Distribution by Asset Category (Water)

2.2. Level of Service

Community Level of Service Objective	The Town is committed to delivering reliable and cost-effective water services while safeguarding the environment and the community.



Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 7: O.Reg. 588/17 Levels of Service (Water)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Scope	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system.	See Municipal Water System Map	See Municipal Water System Map
Scope	Description, which may include maps of the user groups or areas of the municipality that have fire flow.	See Municipal Water System Map	See Municipal Water System Map
Scope	Percentage of properties connected to the municipal water system.	55%	55%
Scope	Percentage of properties where fire flow is available.	90%	90%
Reliability	Description of boil water advisories and service interruptions.	0	0
Reliability	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.	5	5
Reliability	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.	0	0

Table 8: Corporate Levels of Service (Water)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	11.1%	9.0%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	3.3%	3.3%

Table 9: Key Performance Indicators (Water)

LOS Attribute	Key Performance Indicator	Current Performance
Scope	% Watermains maintained in conformance with defined lifecycle strategies	70%
Quality	% of total replacement cost of assets in good to very good condition	65%
Reliability	% of water loss	15%

2.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Water service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

2.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining long-term functionality, reliability, and sustainability of water infrastructure. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By following best practices in asset management, including preventive maintenance and timely repairs, the Town can extend asset life, reduce major repair costs, and provide consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 10 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 10: Lifecycle Activities with Asset Management Practices (Water)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Monitoring with leak detection program and district metering program	Bi-annual for Cast Iron
Water Master Plan	3 years
DWQMS Risk Assessment	Annual
Operations and Maintenance Activities	
Fire flow prevention; hydrant watermain preventative measure. Monitoring with hydrant flow tests for fire flow/hydrants	Annual program
DWQMS Infrastructure Maintenance Procedure, Repair Procedure, and Infrastructure Review Procedure. Monitor other watermain-related items	On-going
Valve exercising program	1/4 per year
Hydrant flow and code program	On-going
Dead end flushing program	Twice a year
Replacement of old cast iron watermains	As needed
PRV Pressure Reducing Valve maintenance	Annual
Renewal and Replacement Activities	
Cast Iron Replacement Program	As needed
Growth and Service Improvement	
New Assets	Driven by growth

2.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 2.3.1 to guide work planning and estimate future expenditure needs for water assets. These strategies, along with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery.

Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are included in the total lifecycle activities, and are documented in the Scenario Comparison in Figure 11 and Table 11. These activities are informed based on the Town's operating and capital budgets. For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities, and costs are sufficient to meet community expectations, with the exception of operations and maintenance. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

Operations and maintenance, while being informed by the Town's operating budget, have been reviewed for potential increased expenditures required to service growth, as documented below. The operations and maintenance costs associated with growth are shown in Figure 12.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Water assets based on the scenarios described can be found in Figure 10 and the associated costs and comparison of these scenarios can be found in Figure 11 and Table 11.

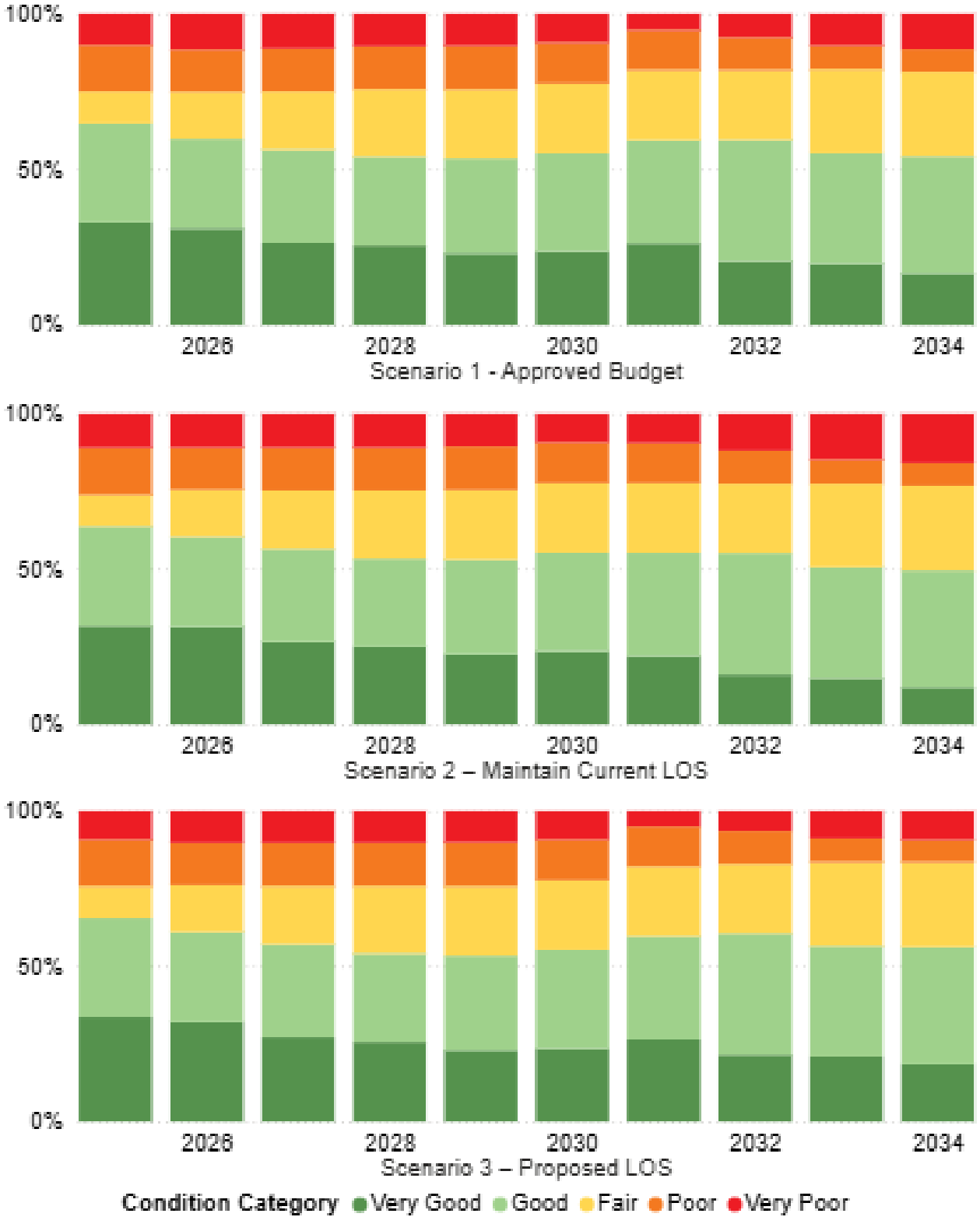


Figure 10: Condition Profile for Service Level Scenarios (Water)

Figure 10 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

The anticipated annual funding for renewal, rehabilitation and replacement activities for Water is $1,219,327. This scenario reflects a gradual decline in asset condition from 2026 to 2034. While "Good" condition assets remain the largest category, there is a clear trend of increasing proportions in the "Fair," "Poor," and "Very Poor" categories. Meanwhile, the share of assets in "Very Good" condition consistently decreases over time. This indicates that under the approved budget, investment levels are insufficient to maintain current infrastructure health, resulting in the slow but steady deterioration of the overall asset base. The condition distribution for the anticipated funding scenario is shown in Figure 10.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

It was determined that an annual budget of $580,711 for renewal, rehabilitation, and replacement activities is required to sustain current performance levels for the Water asset portfolio. While this level of investment prevents rapid deterioration and stabilizes the overall condition profile compared to Scenario 1, it does not support meaningful improvement. The proportion of assets in “Good” condition remains relatively unchanged, while gradual increases in the “Fair” and “Poor” categories indicate a slow but ongoing decline. The “Very Poor” category grows only marginally, suggesting that the funding level is sufficient to defer more severe degradation, but not to reverse existing deficits. This scenario represents a status quo or "holding pattern" approach- insufficient to achieve long-term sustainability, optimize asset performance, or meet evolving service expectations.

Scenario 3: Proposed Level of Service

Scenario 3 determines the annual expenditure required to achieve the Town’s proposed level of service. For water assets, the proposed level of service is to improve the current performance. The annual expenditures were determined based on asset renewal, rehabilitation, and replacement needs.

It was determined that an annual budget of $580,711 for renewal, rehabilitation and replacement activities is needed to maintain performance for Water. There is a capital infrastructure gap of $242,297. The performance forecast for scenario 3 is shown in Figure 10.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making. Figure 11 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Water has a gap of $274,031 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary renewal, rehabilitation, and replacement activities for Water assets.

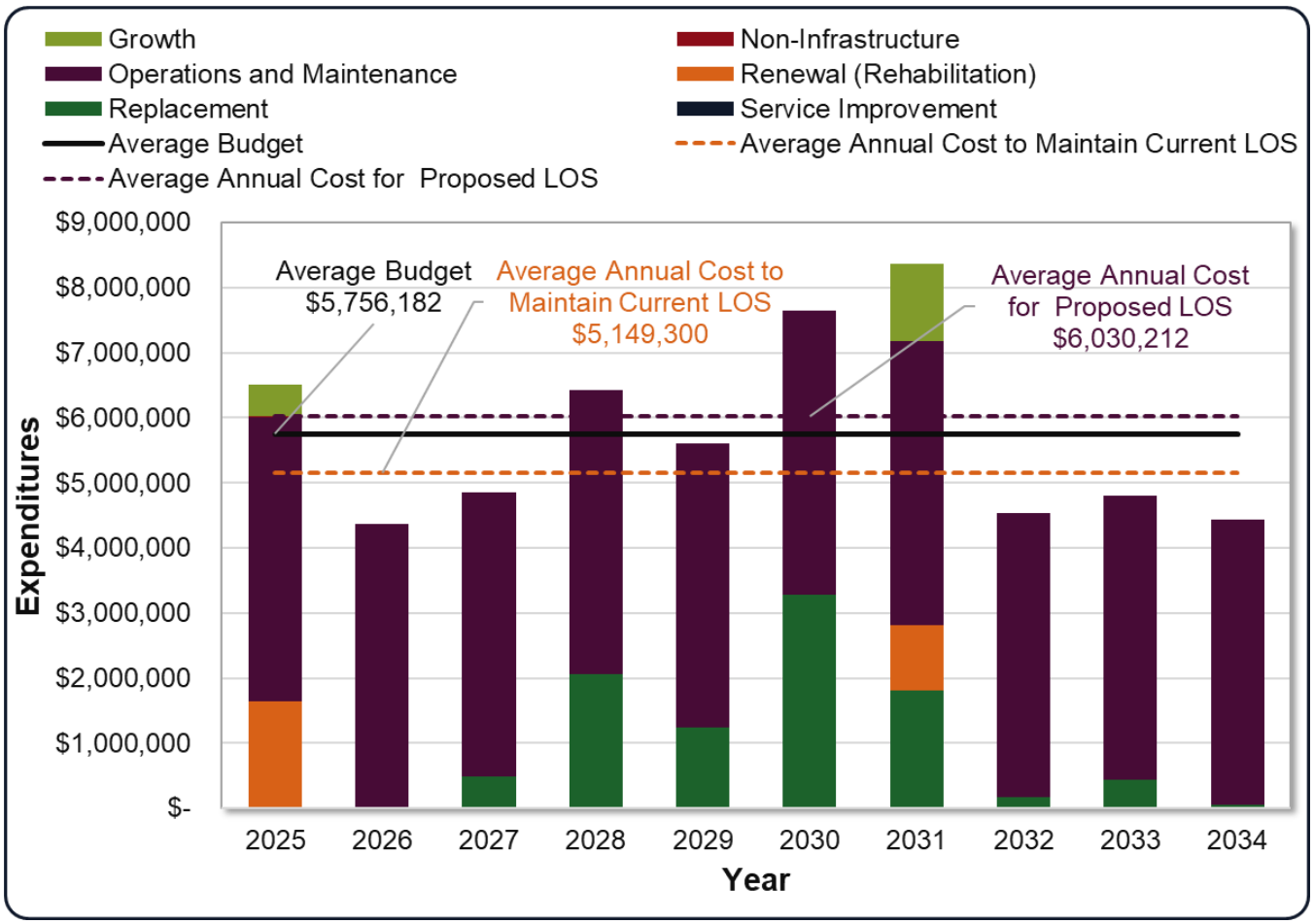


Figure 11: Lifecycle Expenditure Scenario Comparison (Water)

The growth, and operations and maintenance expenditures are shown in greater detail in Figure 12 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Water assets based on these growth expenditures, which have been informed by the Town's budget.

In order to understand if additional funding is needed for Water operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Water operations and maintenance will be required for the increasing asset portfolio.

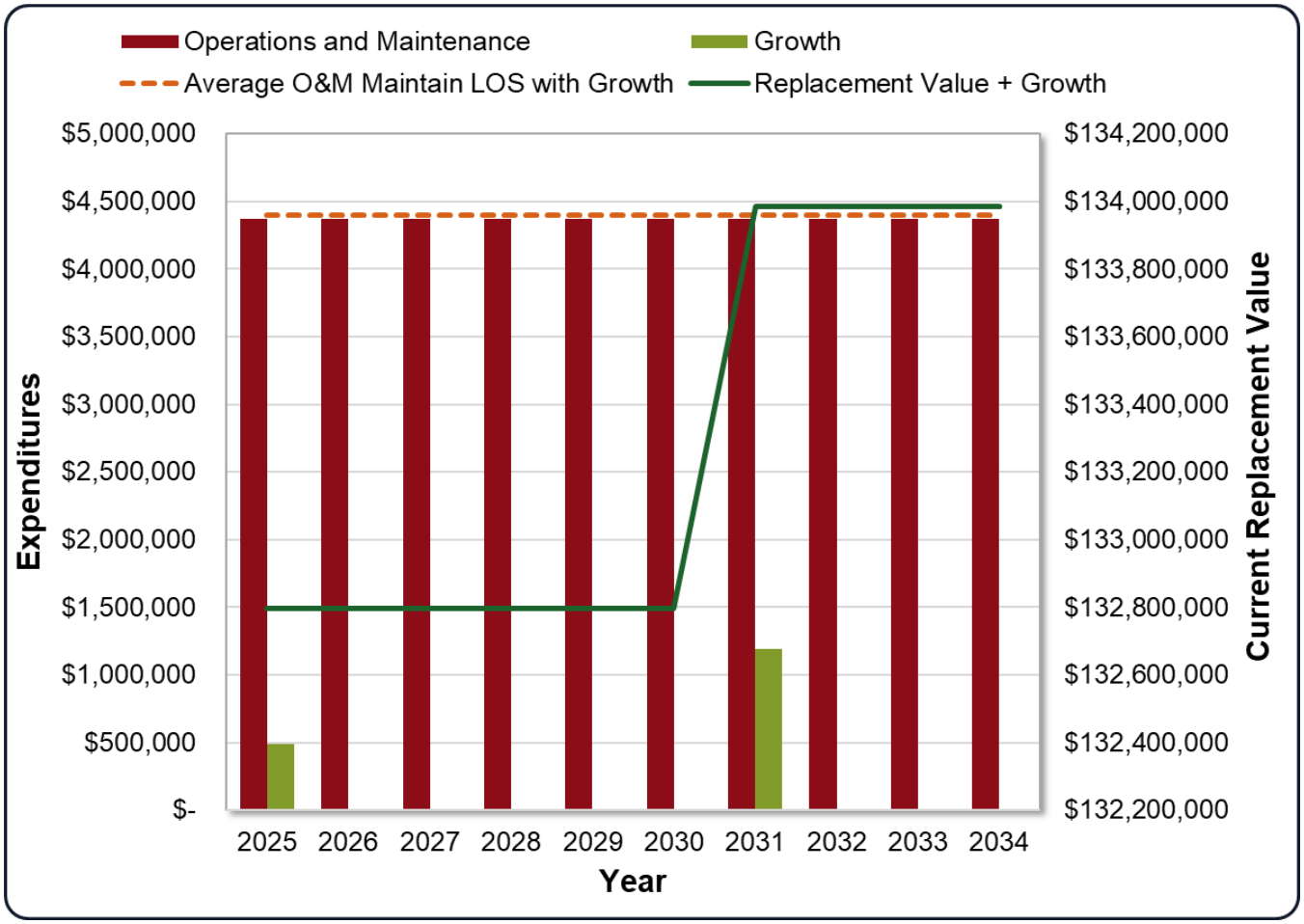


Figure 12: Operations & Maintenance & Growth Graph (Water)

In addition to the capital gap, a further $31,734 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. An operational assessment should be conducted to identify opportunities to optimize maintenance which can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 11 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $274,031 for Water assets to meet the proposed service levels.

Table 11: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Water)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$167,519	$167,519	$167,519
Non-Infrastructure	$1,100	$1,100	$1,100
Renewal, Rehabilitation & Replacement	$1,219,327	$580,711	$1,461,624
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$1,387,946**	**$749,330**	**$1,630,243**
Capital Infrastructure Gap		**No Gap**	**$242,297**
Operations & Maintenance	**$4,368,236**	**$4,399,970**	**$4,399,970**
Operations Gap		**$31,734**	**$31,734**
Total Expenditures	**$5,756,182**	**$5,149,300**	**$6,030,212**
Total Funding Gap		**No Gap**	**$274,031**
Gap as Percentage of CRV		**No Gap**	**0.21%**

2.4. Data Confidence & Improvement

Table 12 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 12: Data Confidence (Water)

Asset Type	Data Source	Data Confidence
Distribution Mains	GIS	B

2.4.1. Recommendations for Improvement

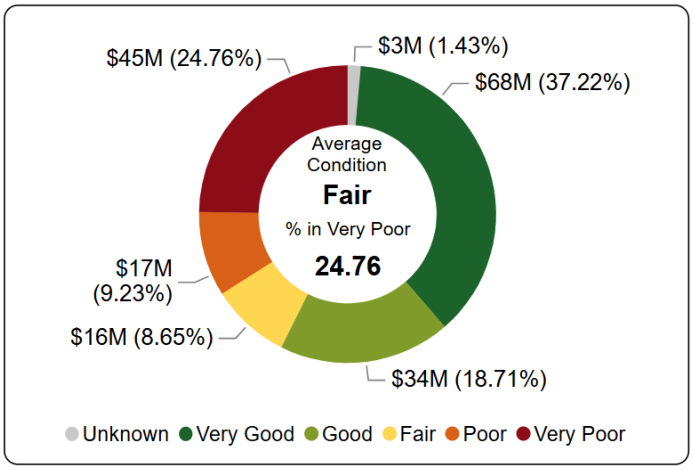
Opportunities for improvement for the Water System include:

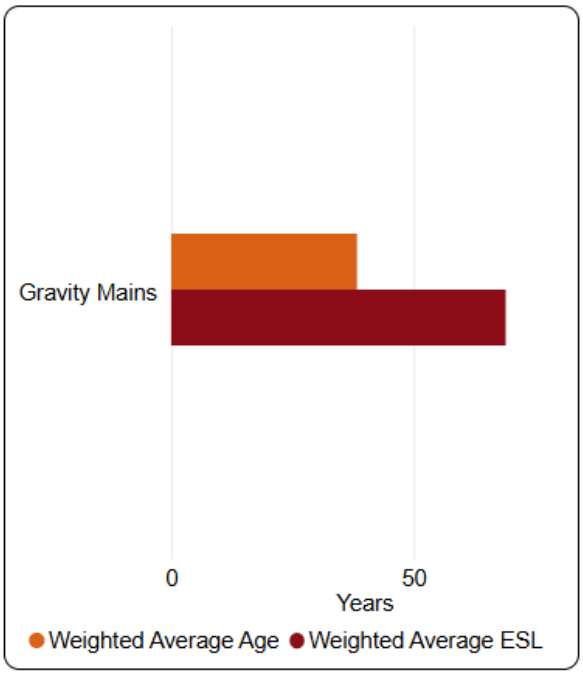
- Fill any remaining gaps on watermain system data
- Although age and estimated service life is commonly used to determine condition for watermains, develop more in-depth process to assign condition of watermains that takes into account other factors such as watermain breaks, capacity, fire flow, etc.

3. Sanitary

The Town provides a safe and reliable sanitary sewer system that protects public health and the environment. Regular maintenance and upgrades ensure efficient sanitary collection across the community.

Asset Category	Replacement Value
Gravity Mains	$182 M
Total	**$182 M**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
$690 k	$690 k

3.1. State of the Infrastructure

The Town of Pelham is responsible for collecting wastewater discharged into its municipal sanitary sewer system and conveying it to the Niagara Region's system for treatment. Once transferred, the Region's infrastructure, supported by five Regional sewage pumping stations—Park Lane, Hurricane Road, Daimler Woods, Foss Road, and Timmsdale—transports the wastewater to the Welland Wastewater Treatment (these assets are not included under this plan as they are owned and managed by the Region).

Pelham's sanitary network comprises approximately 68 km of municipal mains, providing service to an estimated 4,873 accounts and 7,441 properties, representing about 65% of the Town's total properties. The serviced areas primarily include Fonthill, Ridgeville, and Fenwick. The system features gravity mains ranging from 150 mm to 500 mm, with no overflows or combined sewers included in the Town's infrastructure.

3.1.1. Asset Valuation

The Town has taken comprehensive steps to ensure that asset replacement values reflect current market conditions for comparable infrastructure. By analyzing recent purchases and estimating present-day replacement costs, the Town aims to provide accurate valuations that account for both market trends and the specific characteristics of its assets. Table 13 outlines the inventory and corresponding current replacement values for the assets included in this Asset Management Plan (AMP).

Table 13: Inventory and Current Replacement Value (Sanitary)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Gravity Mains	68,161	m	$182.0M
Total			**$182.0M**

3.1.2. Asset Condition

The condition of Sanitary assets is assessed using either established condition rating criteria or an age-based approach, depending on the data available.

Table 14 outlines the process for assigning condition ratings to different types of sanitary assets. Industry-standard condition rating systems, such as NASSCO's Pipeline Assessment Certification Program (PACP) Scores, are employed to assess the condition of sewers. These assessments help identify the current condition, capital expenditure needs, and inform long-term capital planning. When inspection-based condition scores are unavailable, asset age and remaining estimated service life are used as a basis for determining condition.

Table 14: Condition Rating Scale (Sanitary)

Condition	Age/ESL	PACP Condition Rating
Very Good	>80% life remaining	0 or 1
Good	60-80% life remaining	2
Fair	40-60% life remaining	3
Poor	20-40% life remaining	4
Very Poor	0-20% life remaining	5
Unknown	Not enough data exists to determine condition	Not enough data exists to determine condition

Figure 13 shows the overall condition of Sanitary assets as a percentage of their replacement value. The Town's Sanitary assets, on average, are in fair condition, with over 64% of assets classified as fair or better. As the Town continues to gather more accurate CCTV inspection data for the entire sanitary network, the condition assessments in future AMPs may differ significantly.

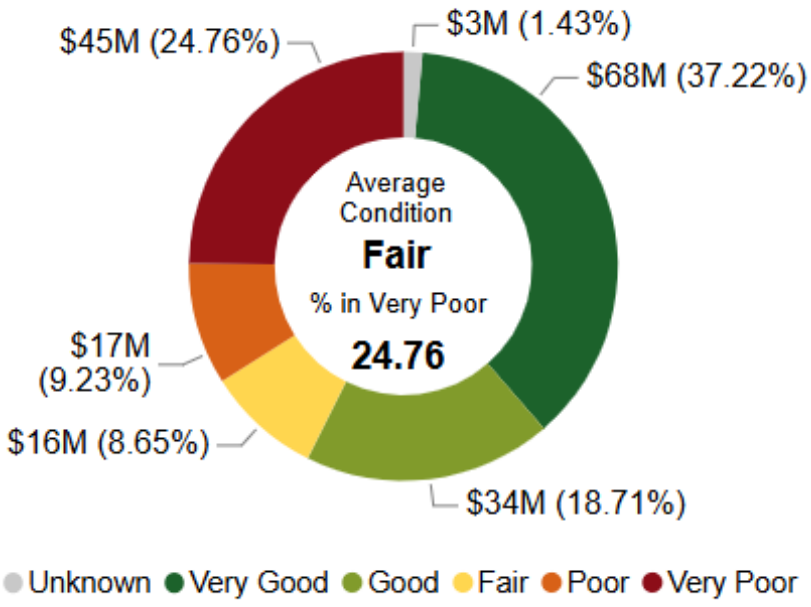


Figure 13: Condition Distribution by Replacement Value (Sanitary)

Figure 14 shows the condition distribution of Sanitary assets broken down by asset category. The assets in very poor condition mostly make up gravity mains that are asbestos cement material totaling approximately 16.7 kms with an average age exceeding the estimated service life span of 50 years.

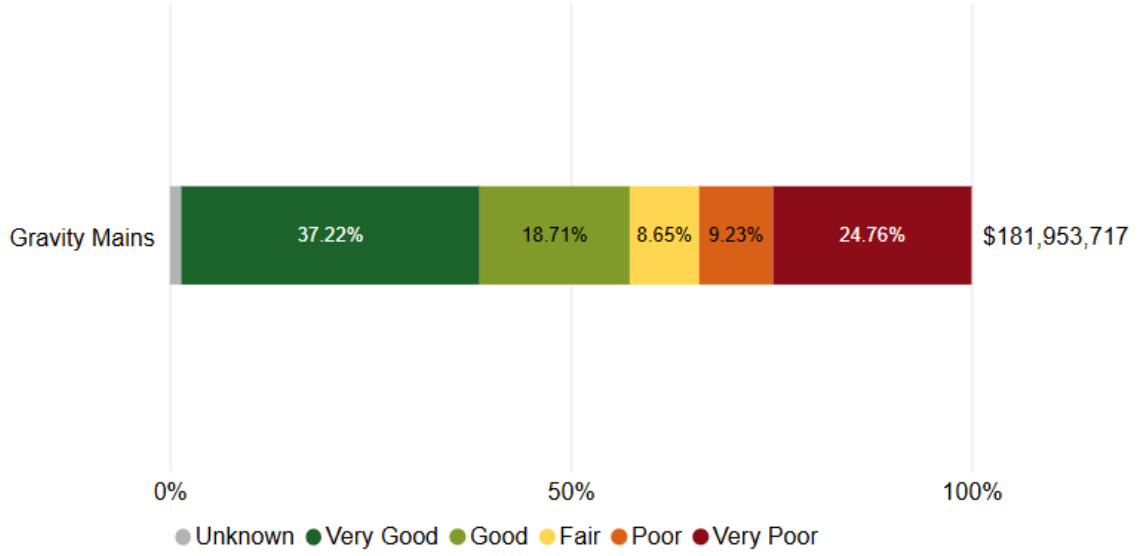
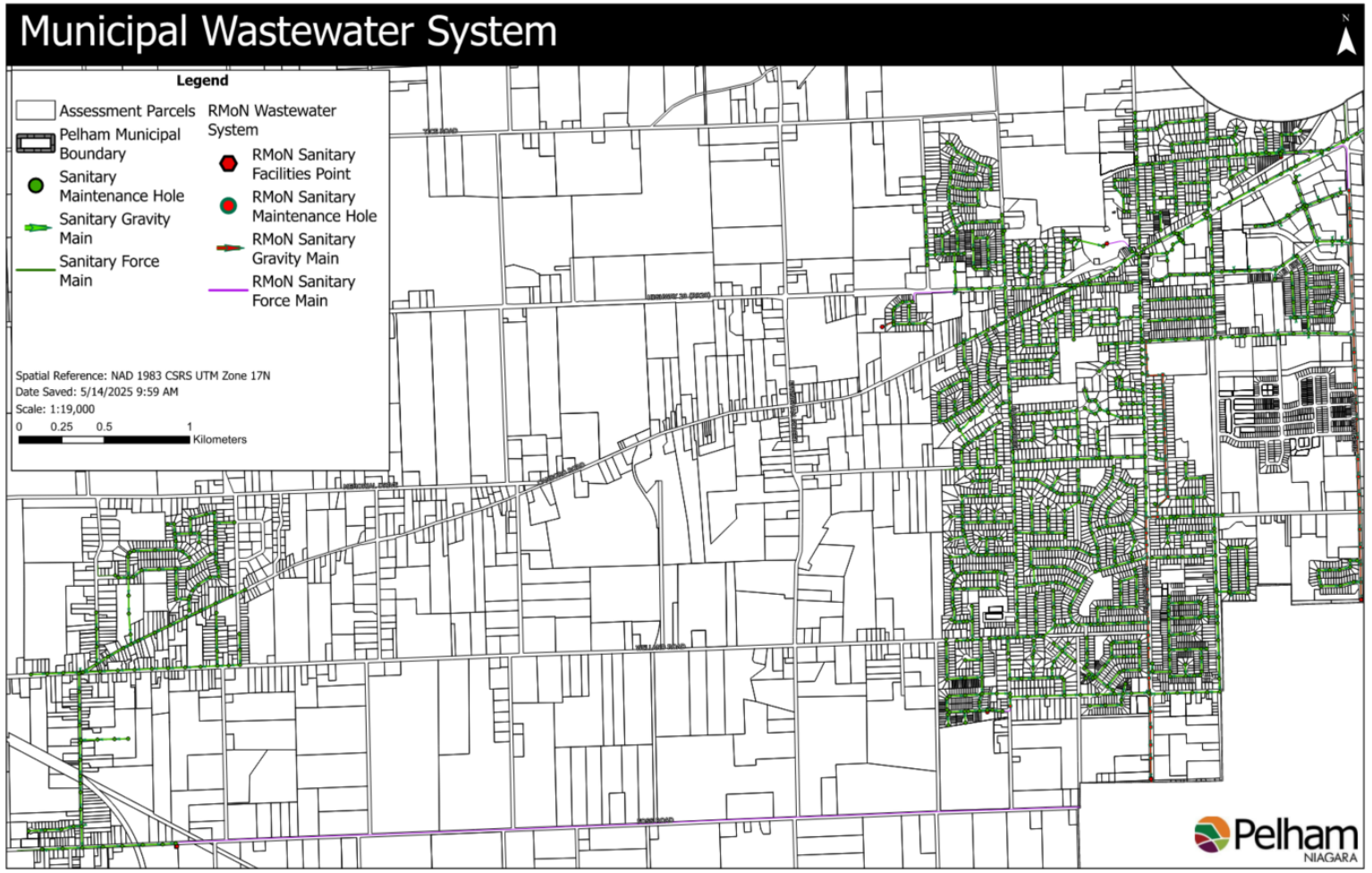


Figure 14: Condition Distribution by Asset Category (Sanitary)

3.2. Level of Service

Community Level of Service Objective	The Town is committed to delivering reliable and cost-effective sanitary services while safeguarding the environment and the community.



Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 15: O.Reg. 588/17 Levels of Service (Sanitary)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Scope	Description, which may include maps of the user groups or areas of the municipality that are connected to the municipal sanitary system.	See Municipal Wastewater System Map	See Municipal Wastewater System Map
Scope	Percentage of properties connected to the municipal wastewater system.	70%	70%
Reliability	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	N/A	N/A
Reliability	Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches.	N/A	N/A
Reliability	Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes.	N/A	N/A
Reliability	Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3 (O.Reg.)	I&I Study	N/A
Reliability	Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system.	N/A - Region	N/A

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Reliability	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.	N/A	N/A
Reliability	The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system.	<1	N/A
Reliability	The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.	N/A	N/A

Table 16: Corporate Levels of Service (Sanitary)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	24.76%	24.76%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	2.02%	2.02%

Table 17: Key Performance Indicators (Sanitary)

LOS Attribute	Key Performance Indicator	Current Performance
Scope	% Sewer mains maintained in conformance with defined lifecycle strategies	25%
Quality	% of total replacement cost of assets in good to very good condition	56%
Reliability	Bypass Pumping Incidents and volume	1

3.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Sanitary service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

3.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining long-term functionality, reliability, and sustainability of sanitary infrastructure. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By following best practices in asset management, including preventive maintenance and timely repairs, the Town can extend asset life, reduce major repair costs, and provide consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 18 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 18: Lifecycle Activities with Asset Management Practices (Sanitary)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Inspection of Sanitary networks using movable and stationary (zoom) televised inspection	Annual 1/3 of system
Flow and level monitoring	As required
GIS for record management	As required
Inflow and infiltration monitoring	As required
Wastewater Master Plan	3 years
Operations and Maintenance Activities	
Maintenance and inspection programs (cleaning and flushing, minor repairs and maintenance hole repairs).	Regularly (unscheduled or unplanned emergency activities)
Maintenance hole adjustments and minor sewer repairs	Regularly (unscheduled or unplanned emergency activities)
Spot repairs	As identified
Renewal and Replacement Activities	
Replacement of sewers	As required
Growth and Service Improvement	
New Assets	Driven by growth

3.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 3.3.1 to guide work planning and estimate future expenditure needs for sanitary assets. These strategies, along with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery.

Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are included in the total lifecycle activities, and are documented in the Scenario Comparison in Figure 16 and Table 19. These activities are based on the Town's operating and capital budgets. For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities, and costs are sufficient to meet community expectations, except for operations and maintenance. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

Operations and maintenance, while being informed by the Town's operating budget, have been reviewed for potentially increased expenditures required to service growth, as documented below. The operations and maintenance costs associated with growth are shown in Figure 17.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Sanitary assets based on the scenarios described can be found in Figure 15, and the associated costs and comparison of these scenarios can be found in Figure 16 and Table 19.

Figure 15: Condition Profile for Service Level Scenarios (Sanitary)

Figure 15 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

Scenario 1 projects a steady decline in asset condition. The proportion of assets in the "Very Poor" and "Poor" categories increases gradually, while those in "Good" and "Very Good" condition decline. The anticipated annual funding for renewal, rehabilitation and replacement activities for Sanitary is $829,825. The condition distribution for the anticipated funding scenario is shown in . Overall condition decreases in this scenario.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

It was determined that an annual budget of $1,443,244 for renewal, rehabilitation and replacement activities is needed to maintain performance for Sanitary. Asset conditions remain relatively stable under this scenario. The distribution across condition categories shows only minor fluctuations, suggesting that the level of investment is enough to prevent further decline. While some deterioration still occurs, it is less pronounced compared to Scenario 1.

Scenario 3: Proposed Level of Service

For sanitary assets, the proposed level of service is to maintain the current performance. This scenario demonstrates the best asset condition outcomes over the 10-year period. It was determined that $1,443,244 for renewal, rehabilitation and replacement activities is needed to maintain performance for Sanitary.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 16 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Sanitary has a gap of $689,760 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary activities for Sanitary assets.

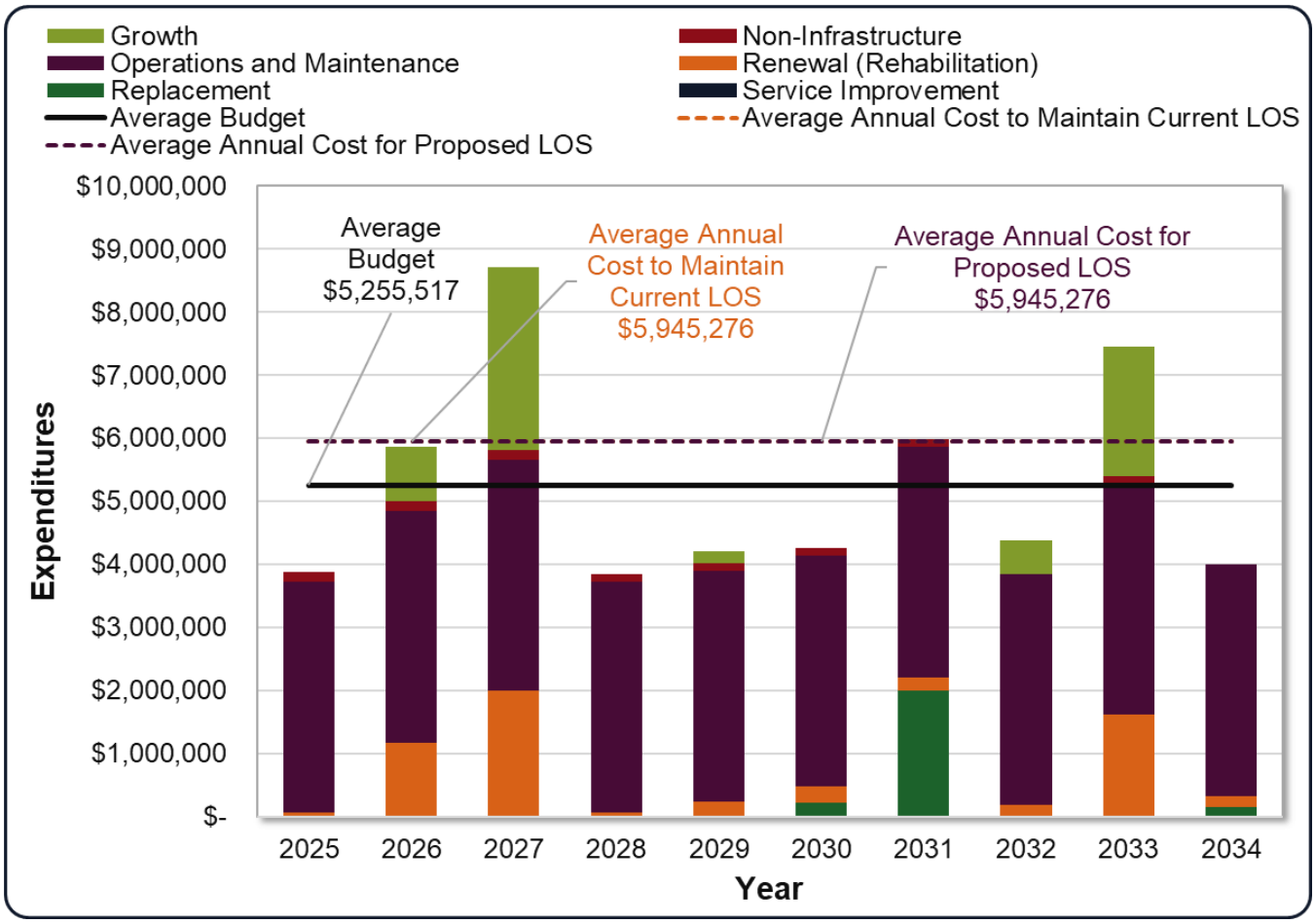


Figure 16: Lifecycle Activities Expenditure Scenario Comparison (Sanitary)

The growth, and operations and maintenance expenditures are shown in greater detail in Figure 17 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Sanitary assets based on these growth expenditures, which have been informed by the Town's budget.

In order to understand if additional funding is needed for Sanitary operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Sanitary operations and maintenance will be required for the increasing asset portfolio.

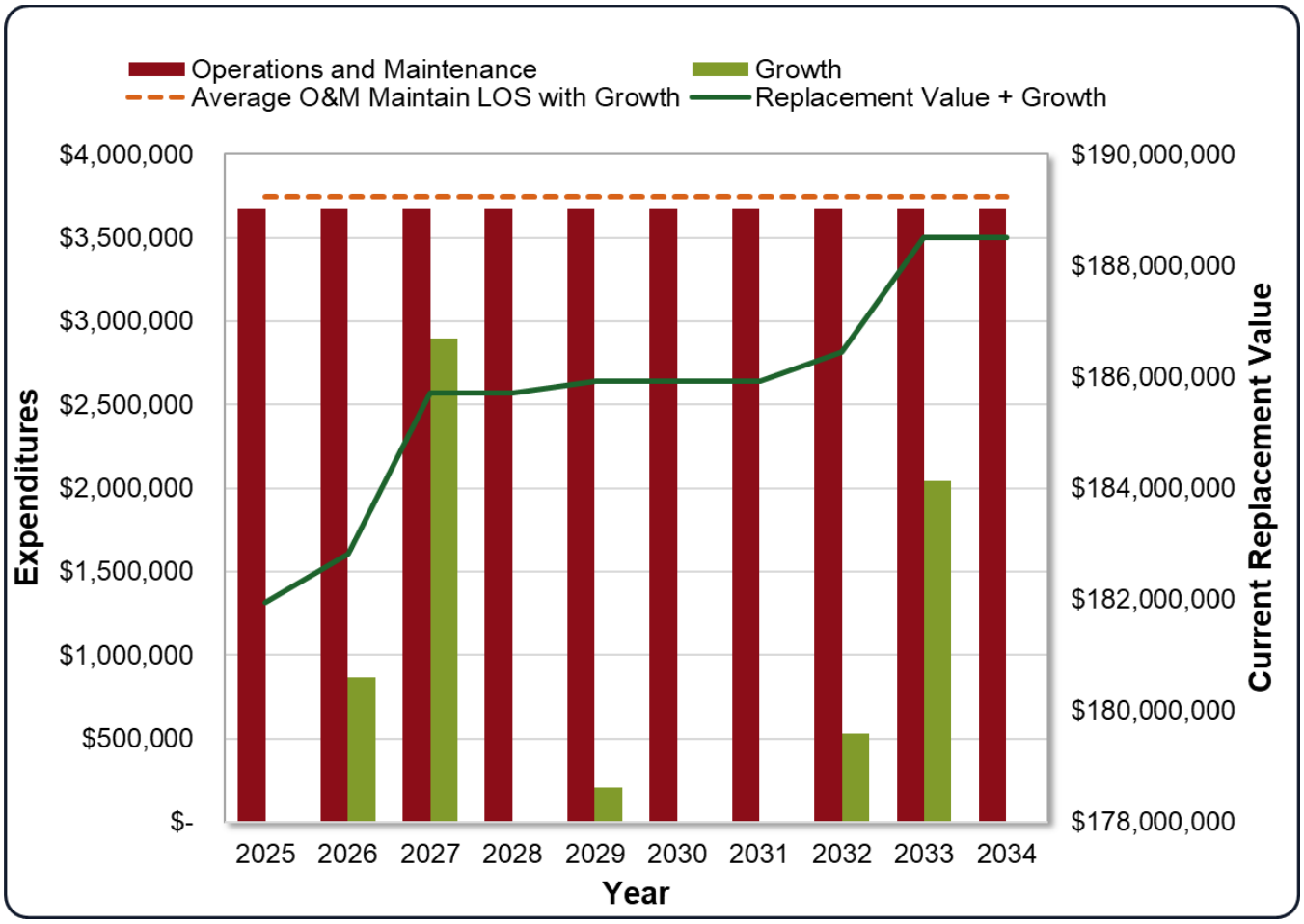


Figure 17: Operations & Maintenance & Growth Graph (Sanitary)

In addition to the capital gap, a further $76,341 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. Optimizing maintenance and leveraging new technologies can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 19 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $689,760 for Sanitary assets to meet the proposed service levels.

Table 19: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Sanitary)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$653,900	$653,900	$653,900
Non-Infrastructure	$102,500	$102,500	$102,500
Renewal, Rehabilitation & Replacement	$829,825	$1,443,244	$1,443,244
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$1,586,225**	**$2,199,644**	**$2,199,644**
Capital Infrastructure Gap		**$613,419**	**$613,419**
Operations & Maintenance	**$3,669,292**	**$3,745,633**	**$3,745,633**
Operations Gap		**$76,341**	**$76,341**
Total Expenditures	**$5,255,517**	**$5,945,276**	**$5,945,276**
Total Funding Gap		**$689,760**	**$689,760**
Gap as Percentage of CRV		**0.38%**	**0.38%**

3.4. Data Confidence & Improvement

Table 20 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 20: Data Confidence (Sanitary)

Asset Type	Data Source	Data Confidence
Gravity Mains	Shapefile (GIS) & CCTV Inspection Records	B

3.4.1. Recommendations for Improvement

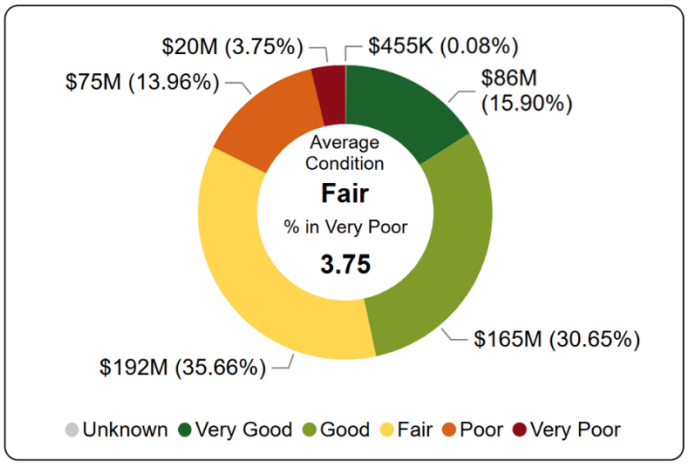
Opportunities for improvement for the Sanitary System include:

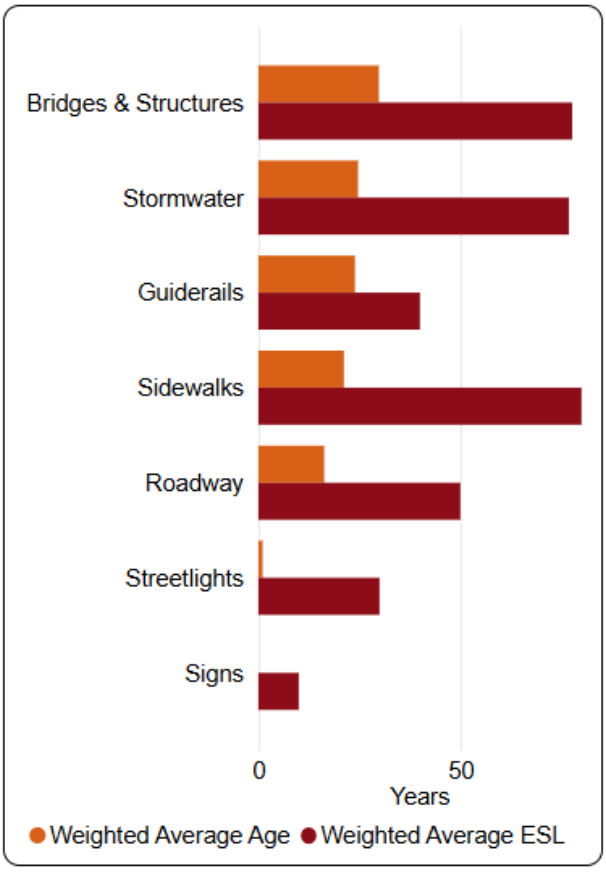
- Continue efforts to fill in gaps to CCTV/PACP scores where updated information is not available.
- Assess data derived from CCTV data and continue to develop lifecycle strategies based on assessments completed

4. Transportation

The Town of Pelham is committed to expanding transportation options throughout the town while promoting safety, minimizing environmental impact, optimizing traffic flows, managing stormwater effectively and keeping infrastructure in a state of good repair.

Asset Category	Replacement Value
Bridges & Structures	$15,865,000
Guiderails	$1,154,000
Roadway	$377,606,644
Sidewalks	$15,727,000
Signs	$1,950,000
Stormwater	$114,076,000
Streetlights	$11,773,000
Total	**$538,154,599**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
$16 M	$16 M

4.1. State of the Infrastructure

The Town is responsible for a range of transportation and stormwater infrastructure that supports mobility, safety, and environmental management. This includes roads, sidewalks, lighting, traffic control features, bridges, culverts, and stormwater systems. Ongoing maintenance is necessary to ensure these assets remain safe, reliable, and effective in serving the community's daily needs and long-term growth.

4.1.1. Asset Valuation

The Town has taken comprehensive steps to ensure that asset replacement values reflect current market conditions for comparable infrastructure. By analyzing recent purchases and estimating present-day replacement costs, the Town aims to provide accurate valuations that account for both market trends and the specific characteristics of its assets. Table 21 outlines the inventory and corresponding current replacement values for the assets included in this Asset Management Plan (AMP).

Table 21: Inventory and Current Replacement Value (Transportation)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Bridges and Structures	24	Each	$15.9M
Guiderails	2	km	$1.2M
Roadway	248	km	$377.6 M
Sidewalks	93	km	$15.7M
Signs	2,601	Each	$2.0M
Stormwater	48	km	$114.1M
Streetlights	1,504	Each	$11.8M
Total			**$538.2 M**

4.1.2. Asset Condition

The condition of transportation assets—including stormwater infrastructure, roads, bridges, culverts, and sidewalks—is assessed using a mix of inspection-based and age-based approaches. Where data is available, the Town uses standardized methods such as the Pipeline Assessment Certification Program (PACP) to evaluate stormwater pipes, and Bridge Condition Index (BCI) ratings from Ontario Structure Inspection Manual (OSIM) inspections for bridges and large culverts (greater than 3m). Road condition is assessed using the Pavement Condition Index (PCI), which measures surface wear and structural integrity. When inspection data is unavailable, asset condition is estimated based on age and remaining service life. These assessments guide

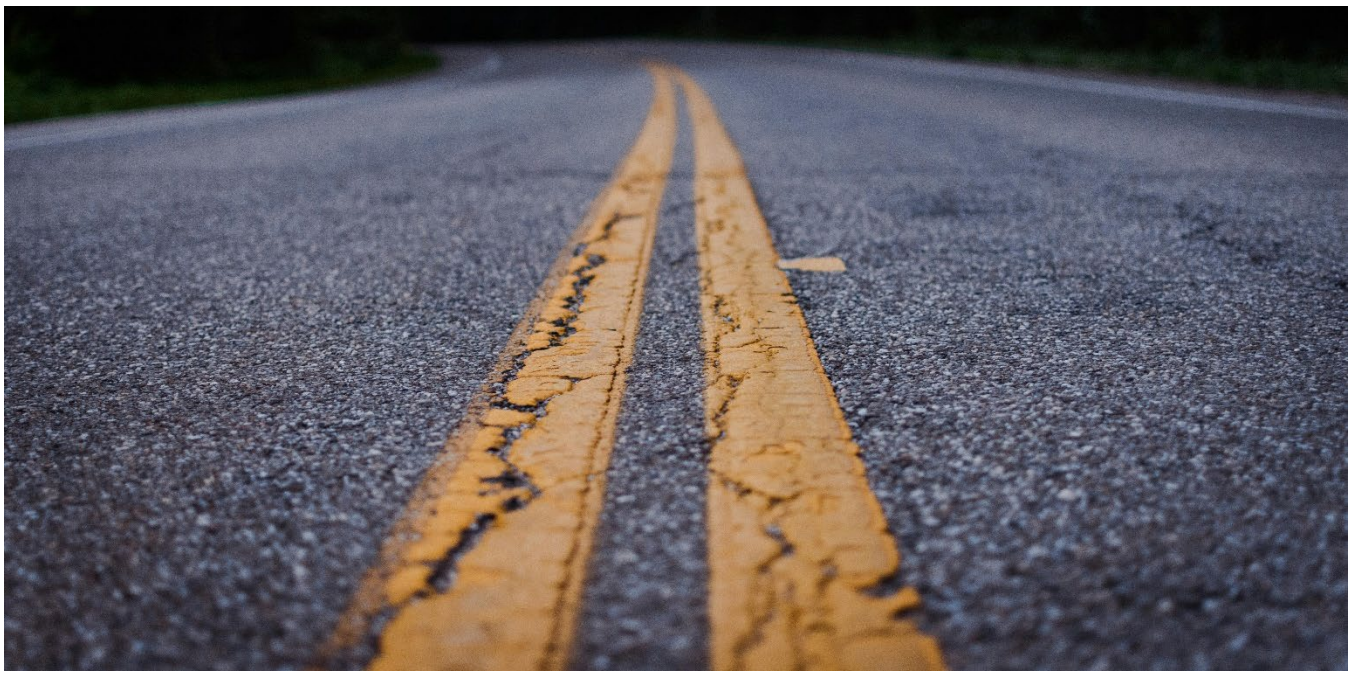
maintenance planning, capital investment, and long-term infrastructure management. Table 22 outlines the process for assigning condition ratings to different types of transportation assets.

Table 22: Condition Rating Scale (Transportation)

Condition	Age/ESL	Storm Pipe PACP Condition Rating	Roads	Bridges & Culverts >3m	Sidewalk Inspection
Very Good	>80% life remaining	0 or 1	PCI 100→85	BCI 100→80	Very Good
Good	60-80% life remaining	2	PCI 85→70	BCI 80→60	Good
Fair	40-60% life remaining	3	PCI 70→55	BCI 60→40	Fair
Poor	20-40% life remaining	4	PCI 55→40	BCI 40→20	Poor
Very Poor	0-20% life remaining	5	PCI 40→0	BCI 20→0	Very Poor
Unknown*	N/A	N/A	N/A	N/A	N/A

*Note: Not enough data exists to determine condition

Figure 18 shows the overall condition distribution of Transportation assets as a percentage of their replacement value. On average, the Town's Transportation assets are in fair condition, with over 82% of assets classified as fair or better.



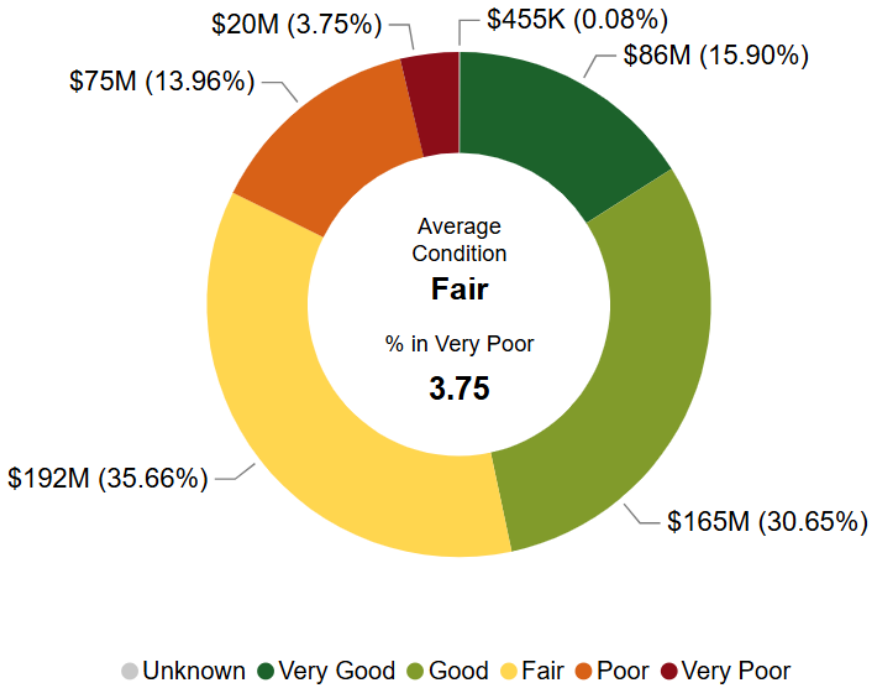


Figure 18: Condition Distribution by Replacement Value (Transportation)

Figure 19 shows the condition distribution of Transportation assets broken down by asset category.

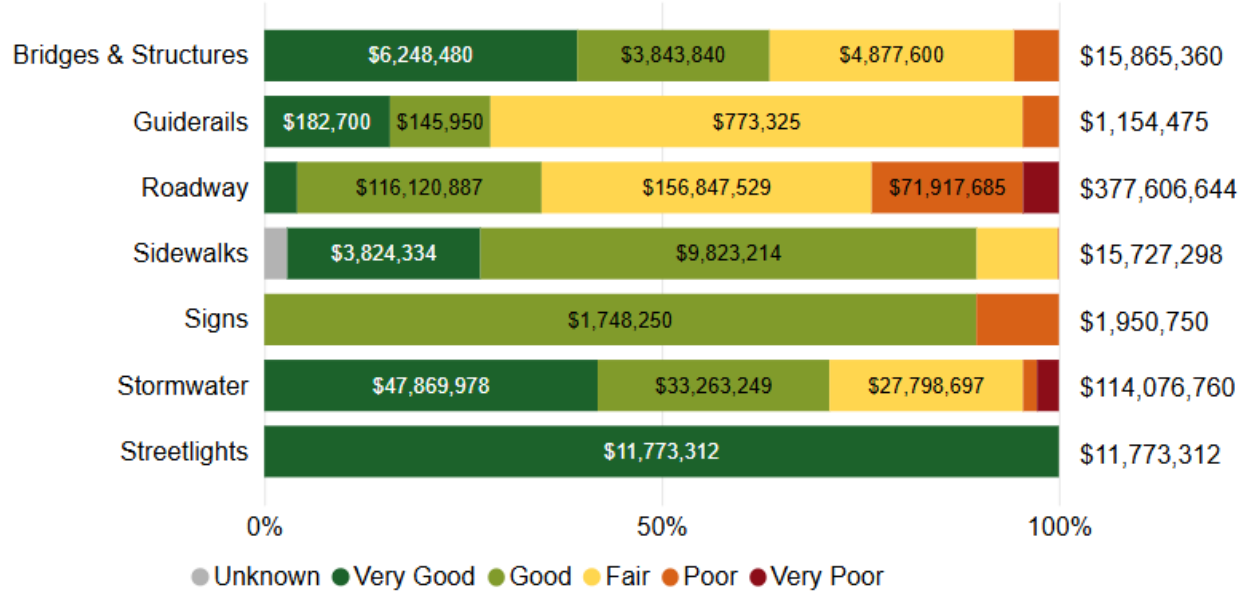
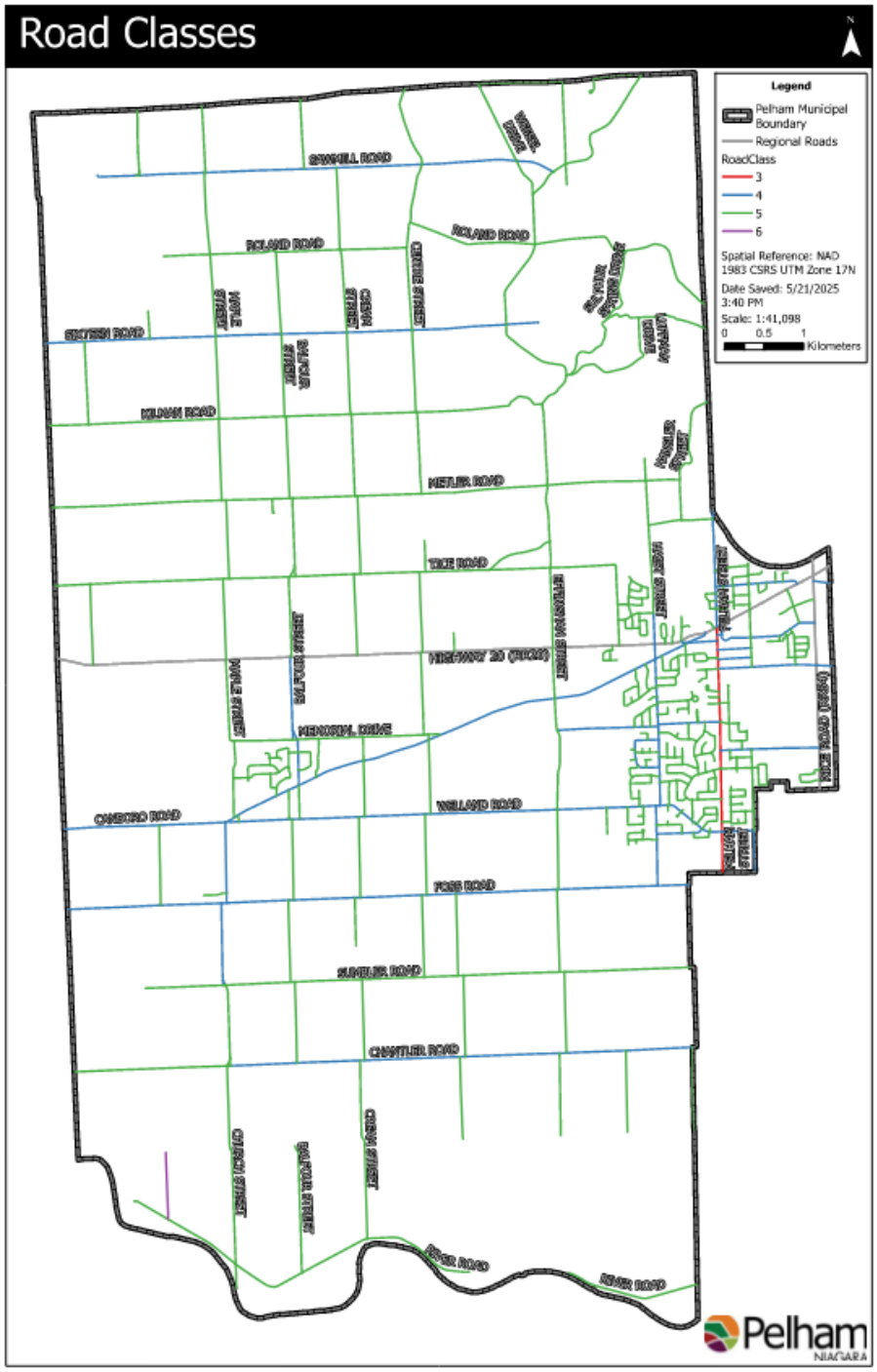


Figure 19: Condition Distribution by Asset Category (Transportation)

4.2. Level of Service

Community Level of Service Objective	The Town is committed to delivering reliable and cost-effective transportation services while safeguarding the environment and the community.



Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 23: O.Reg. 588/17 Levels of Service (Transportation)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Road Network – Scope	Description, which may include maps, of the road network in the municipality and its level of connectivity.	See Road Classes Map (page 20)	N/A
Road Network – Scope	Number of lane-kilometres of each of arterial roads, collector roads and local roads as a proportion of square kilometres of land area of the municipality.	See Road Classes Map (page 20)	N/A
Road Network – Quality	Description or images that illustrate the different levels of road class pavement condition.	See Road Classes Map (page 20)	See Road Classes Map (page 20)
Road Network – Quality	For paved roads in the municipality, the average pavement condition index value	65	Maintain
Road Network – Quality	For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor).	N/A	N/A
Bridges & Structures – Scope	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	OSIM Regulated	N/A
Bridges & Structures – Scope	Percentage of bridges in the municipality with loading or dimensional restrictions.	0	Maintain

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Bridges & Structures – Quality	Description or images of the condition of culverts and how this would affect use of the culverts.	OSIM Regulated	N/A
Bridges & Structures – Quality	For bridges in the municipality, the average bridge condition index value.	90	Maintain
Bridges & Structures – Quality	For structural culverts in the municipality, the average bridge condition index value.	90	Maintain
Stormwater – Scope	Description, which may include maps, of the user groups or areas of the municipality that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	See Municipal Stormwater Management System Map (Appendix B)	See Municipal Stormwater Management System Map (Appendix B)
Stormwater – Scope	Percentage of properties in municipality resilient to a 100-year storm.	40%-50%	Maintain
Stormwater – Scope	Percentage of the municipal stormwater management system resilient to a 5-year storm.	100%	Maintain

Table 24: Corporate Levels of Service (Transportation)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	3.75%	3.75%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	1.42%	1.42%

Table 25: Key Performance Indicators (Transportation)

LOS Attribute	Key Performance Indicator	Current Performance
Road Network		
Quality	% of total replacement cost of assets in good to very good condition	47%
Quality	Km of roads have PCI <50	37%
Scope	% of sidewalks at least 1.5m wide	45%
Scope	% of sidewalks that meet accessibility standards	Fair
Quality	Average condition of sidewalks	Good
Scope	% of streetlights that are LED - Parks	5%
Bridges & Structures		
Scope	Percentage of OSIM recommendations completed	75%
Scope	Percentage of assets receiving routine maintenance	25%
Stormwater		
Quality	% of system assessed for condition annually	30%
Scope	Storm pond - remaining capacity	20%

4.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Transportation service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

4.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining long-term functionality, reliability, and sustainability of transportation infrastructure. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By following best practices in asset management, including preventive maintenance and timely repairs, the Town can extend asset life, reduce major repair costs, and provide consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 26 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 26: Lifecycle Activities with Asset Management Practices (Transportation)

Asset Category	Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities		
Bridges & Culverts	Culverts (<3m) and ditches data collection	As needed
Roadways	Transportation Master Plan	5 years
Roadways	Roads Needs Study	2 years
Roadways	Half load season on rural roads to manage roadway deterioration	As required
Roadways	Scheduled inspections and patrols	As defined in Minimum Maintenance Standards (MMS)
Sidewalk	Visual inspections of sidewalks	Annual, as defined by MMS
Stormwater	OGS inspections	As required
Stormwater	Storm pond sediment surveys and inspections	As required
Stormwater	Sewer CCTV Program	Annually
Operations and Maintenance Activities		
Bridges & Culverts	Culverts (<3m) ditch cleaning	As required
Guiderails	Patrols/Inspections	As required
Roadways	Maintenance to address erosion	As required
Roadways	Erosion control activities and ditch maintenance to maintain road drainage	As required
Roadways	Pothole repair	As required
Roadways	Street sweeping	Twice a year
Roadways	Salting, sanding and snow removal	As required

Asset Category	Asset Management Practices / Planned Actions	Frequency Associated with Practices
Roadways	Pavement marking	Annually
Sidewalk	Sidewalk grinding and minor cold patch repairs	As required
Sidewalk	Lifting and Jacking	As required
Stormwater	OGS and catch basin flushing/cleaning	As required
Stormwater	Outlet inspections	As required
Stormwater	Storm pond dredging / cleaning	As required
Stormwater	Maintenance hole adjustments	As required
Stormwater	Storm system flushing	As required
Streetlights	Annual Inspection	Annually
Renewal and Replacement Activities		
Roadways	Integrate replacement of all ROW assets	As required
Roadways	Resurfacing (urban and semi-urban single lift, rural- expanded asphalt, urban and semi-urban double lift)	As required
Roadways	Surface grinding and full depth asphalt removal/repaving	As required
Roadways	Replacement/reconstruction of road	As required
Roadways	Signalized intersection maintenance/replacement	As required
Sidewalk	Replace sidewalk panel	As required
Stormwater	Replacement of storm sewers	As required
Growth and Service Improvement		
All	New Assets	Driven by growth

4.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 4.3.1 to guide work planning and estimate future expenditure needs for transportation assets. These strategies, along

with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery.

Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are included in the total lifecycle activities, and are documented in the Scenario Comparison in Figure 21 and Table 27. These activities are based on the Town's operating and capital budgets. For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities, and costs are sufficient to meet community expectations, except for operations and maintenance. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

Operations and maintenance, while being informed by the Town's operating budget, have been reviewed for potentially increased expenditures required to service growth, as documented below. The operations and maintenance costs associated with growth are shown in Figure 22.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Transportation assets based on the scenarios described can be found in Figure 20, and the associated costs and comparison of these scenarios can be found in Figure 21 and Table 27.

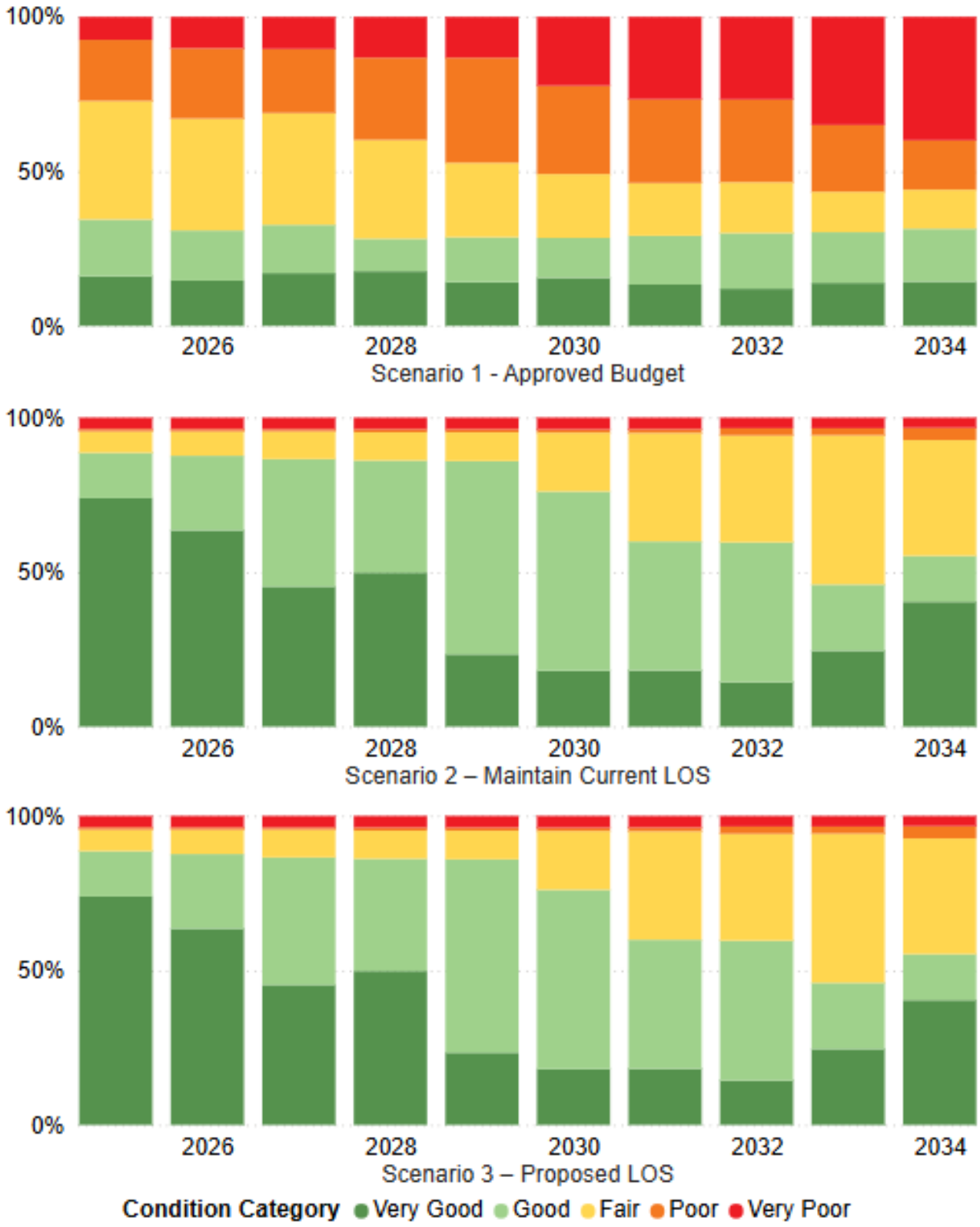


Figure 20: Condition Profile for Service Level Scenarios (Transportation)

Figure 20 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

The anticipated annual funding for renewal, rehabilitation and replacement activities for Transportation is $5,069,345. Over time, there's a visible increase in assets rated as “Poor” and “Very Poor,” while the share of “Very Good” and “Good” assets remains limited. This suggests that the current approved funding is insufficient to prevent deterioration.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

Asset conditions in this scenario remain relatively stable throughout the 10 years. While there are some fluctuations, especially around the mid-point of the forecast, the share of assets in "Good" and "Very Good" condition generally remains higher compared to Scenario 1. There is some growth in the "Fair", but the increase is modest. This suggests that maintaining the current LOS requires more funding than the approved budget, but it effectively prevents the sharp deterioration seen in Scenario 1.

Scenario 3: Proposed Level of Service

For Transportation assets, the proposed level of service is to maintain the current performance. This scenario demonstrates the best asset condition outcomes over the 10-year period. It was determined that an annual budget of $20.93 million for renewal, rehabilitation and replacement activities is needed to maintain performance for Transportation. There is a capital infrastructure gap of $15.86 million.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 20 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Transportation has a gap of $16 million to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary activities for Transportation assets.

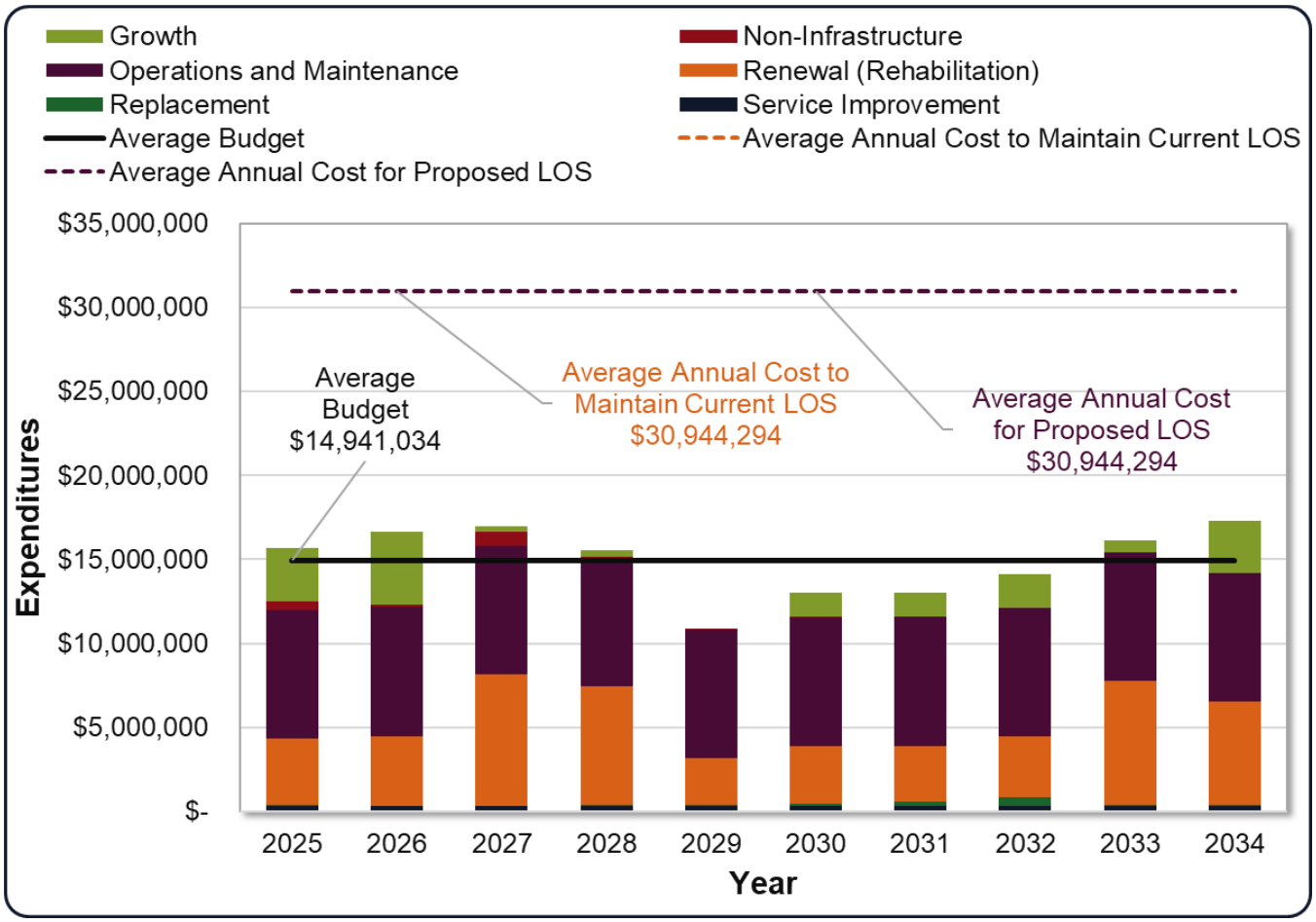


Figure 21: Lifecycle Expenditure Scenario Comparison (Transportation)

Growth and operations and maintenance expenditures are shown in greater detail in Figure 22 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Transportation assets based on these growth expenditures, which have been informed by the Town's budget.

In order to understand if additional funding is needed for Transportation operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Transportation operations and maintenance will be required for the increasing asset portfolio.

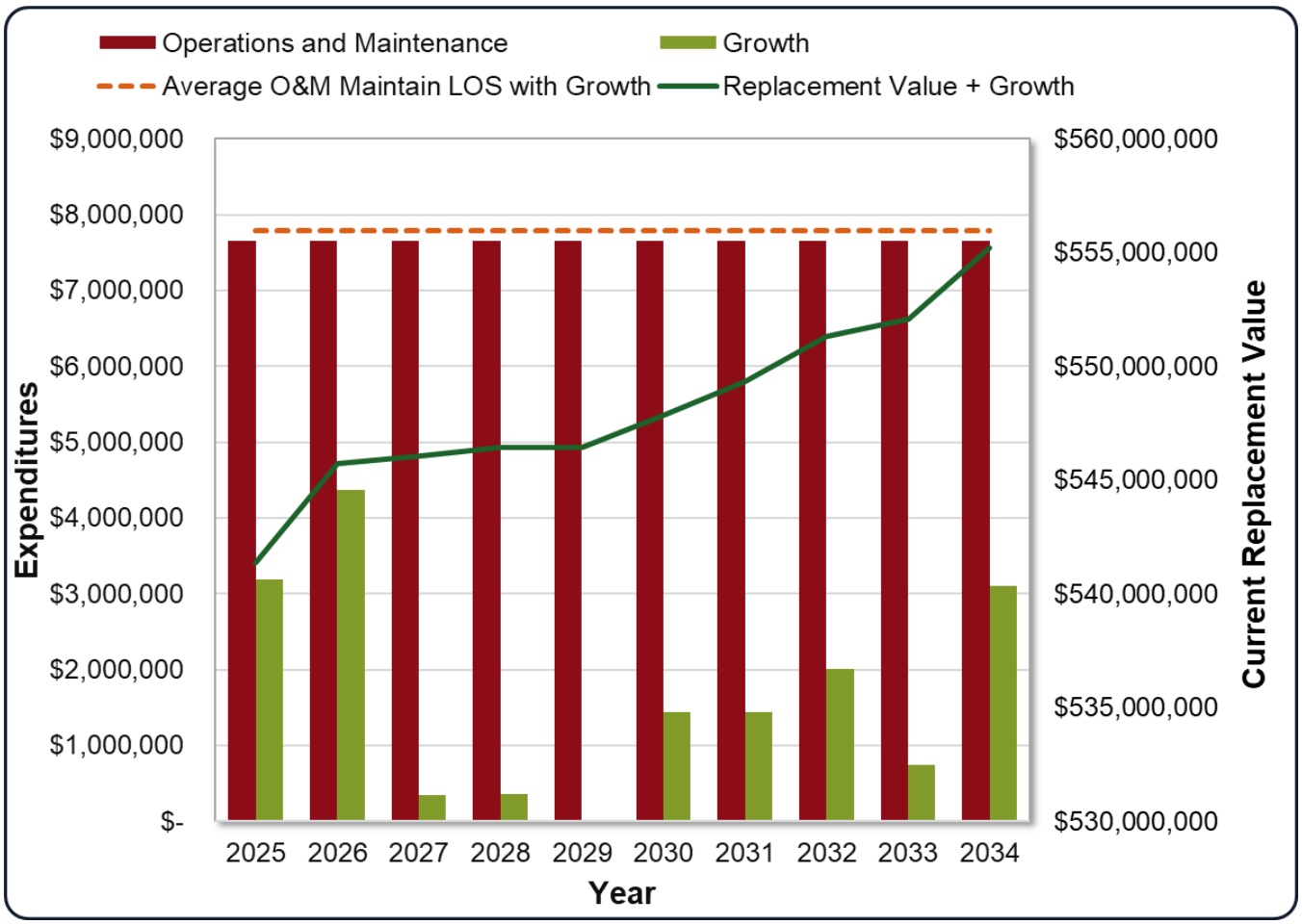


Figure 22: Operations & Maintenance & Growth Graph (Transportation)

In addition to the capital gap, a further $142,554 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. Optimizing maintenance and leveraging new technologies can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 27 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $16 M for Transportation assets to meet the proposed service levels.

Table 27: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Transportation)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$1,703,640	$1,703,640	$1,703,640
Non-Infrastructure	$163,057	$163,057	$163,057
Renewal, Rehabilitation & Replacement	$5,069,345	$20,930,052	$20,930,052
Service Improvement	$350,000	$350,000	$350,000
Total Capital Expenditures	**$7,286,042**	**$23,146,748**	**$23,146,748**
Capital Infrastructure Gap		**$15,860,707**	**$15,860,707**
Operations & Maintenance	**$7,654,992**	**$7,727,551**	**$7,727,286**
Operations Gap		**$142,554**	**$142,554**
Total Expenditures	**$14,941,034**	**$30,944,294**	**$30,944,294**
Total Funding Gap		**$16,003,260**	**$16,003,260**
Gap as Percentage of CRV		**2.97%**	**2.97%**

4.4. Data Confidence & Improvement

Table 28 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 28: Data Confidence (Transportation)

Asset Type	Data Source	Data Confidence
Bridges & Structures	Bridge & Culvert Inspection Database	A
Guiderails	Excel Spreadsheet	C
Roadway	Shapefile (GIS) & Road Needs Study	B
Road Crossing Culverts	Spreadsheet	C
Sidewalks	Shapefile (GIS)	B
Signs	Excel Spreadsheet	A
Stormwater	Shapefile (GIS)	B

Asset Type	Data Source	Data Confidence
Streetlights	Excel Spreadsheet	B

4.4.1. Recommendations for Improvement

Opportunities for improvement for Transportation assets include:

Streetlights, Guiderails, Signs, Road Crossing Culverts

- Spatially map and track attributes in the GIS to support asset management and decision-making.
- Review Estimated Service Lives and Replacement Values

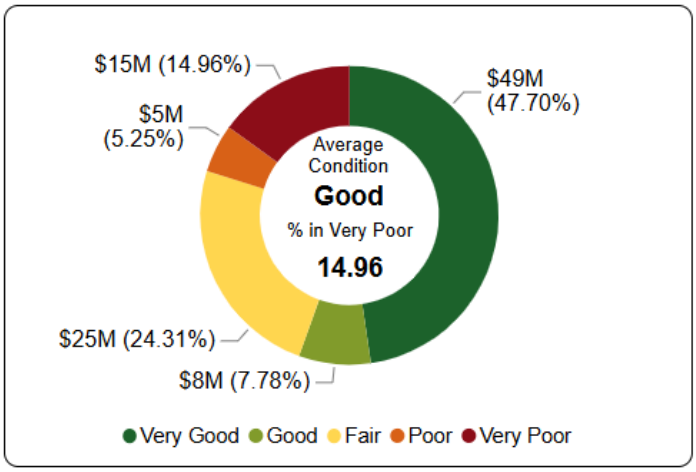
Stormwater Assets

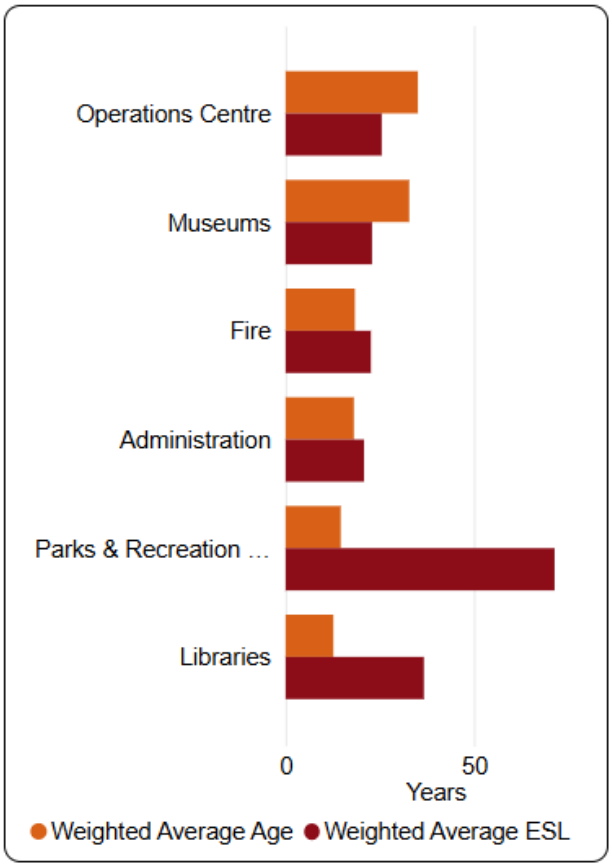
- Continue to fill gaps and assess condition for the storm sewers, where age is currently being used using CCTV or zoom camera inspections.
- Assess data derived from CCTV data and continue to develop lifecycle strategies based on assessments completed.

5. Corporate Facilities

The Town of Pelham provides facilities for residents to use as a place of gathering and recreation and to foster a sense of community and culture. Properly managing these facilities will ensure that they can continue to offer benefits to residents and the community.

Asset Category	Replacement Value
Administration	$7,248,000
Fire	$19,370,000
Libraries	$8,159,000
Museums	$1,235,000
Operations Centre	$7,150,000
Parks, Recreation & Cemeteries	$58,839,000
Total	**$102,001,000**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
$2.2 M	$2.6 M

5.1. State of the Infrastructure

The Town is responsible for maintaining a wide range of corporate facilities that support municipal operations and community services. These include the Administration Offices, Fire Stations, Operations Centre, Libraries, Museums, and various Parks and Recreation buildings including the Meridian Community Centre. The Town also manages Cemetery buildings and multiple storage facilities located throughout the municipality. These facilities are essential for delivering public services, supporting staff, and providing accessible spaces for residents. Regular maintenance and ongoing inspections are necessary to preserve the functionality, safety, and longevity of these buildings. Proactive upkeep not only helps prevent costly repairs but also ensures that facilities continue to meet operational standards and serve the evolving needs of the community.

5.1.1. Asset Valuation

The Town has taken comprehensive steps to ensure that asset replacement values reflect current market conditions for comparable infrastructure. By analyzing recent purchases and estimating present-day replacement costs, the Town aims to provide accurate valuations that account for both market trends and the specific characteristics of its assets. Table 29 outlines the inventory and corresponding current replacement values for the assets included in this Asset Management Plan (AMP).

Table 29: Inventory and Current Replacement Value (Corporate Facilities)

Facility Name	Count	Quantity Unit	2024 Estimated Replacement Value
Administration	26	Each	$7.2M
Fire	95	Each	$19.4M
Libraries	29	Each	$8.2M
Museums	23	Each	$1.2M
Operations Centre	41	Each	$7.2M
Parks & Recreation & Cemeteries	110	Each	$58.8M
Total			**$102M**

5.1.2. Asset Condition

Condition was assigned to Corporate Facilities assets based on age/estimated service life. The condition rating scale is shown below Table 30 .

Table 30: Condition Rating Scale (Corporate Facilities)

Condition	Age/ESL
Very Good	>80% life remaining
Good	60-80% life remaining
Fair	40-60% life remaining
Poor	20-40% life remaining
Very Poor	0-20% life remaining
Unknown	Not enough data exists to determine condition

Figure 23 shows the overall condition distribution of Corporate Facilities assets as a percentage of their replacement value. On average, the Town's Corporate Facilities assets are in good condition, with nearly 80% of assets classified as fair or better.

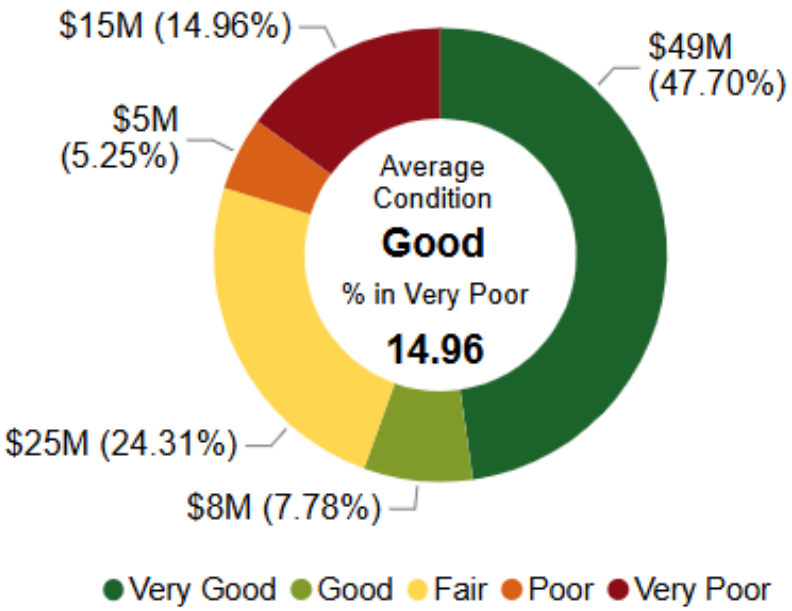


Figure 23: Condition Distribution by Replacement Value (Corporate Facilities)

Figure 24 shows the condition distribution of Corporate Facilities assets broken down by asset category.

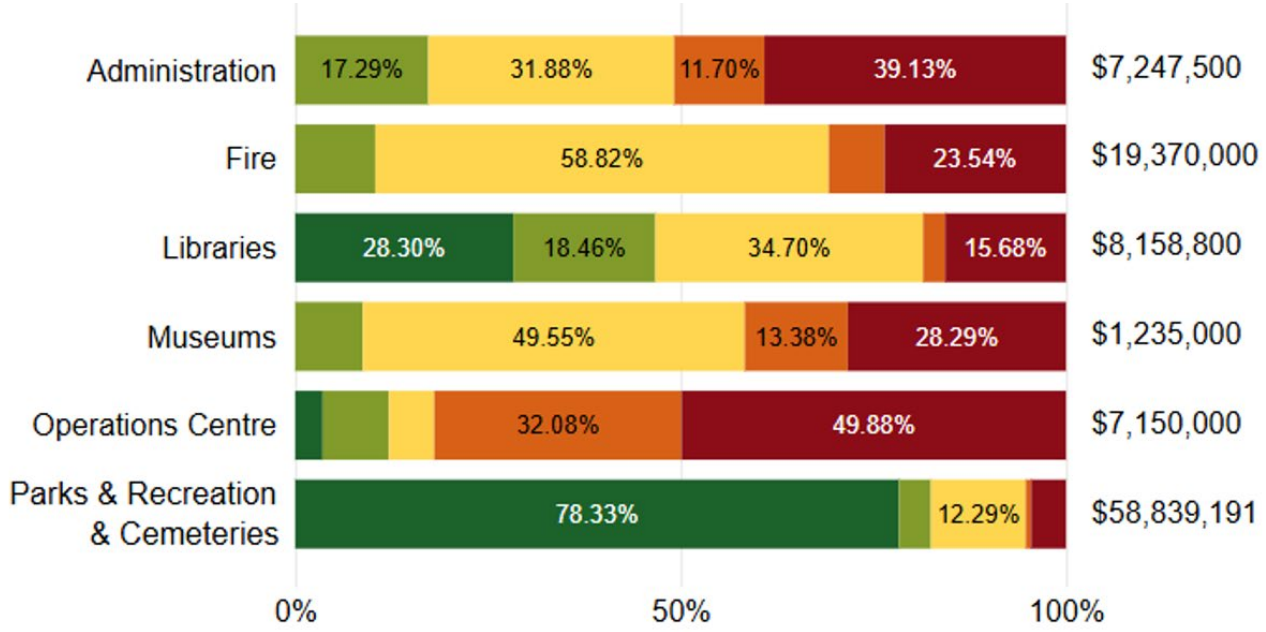
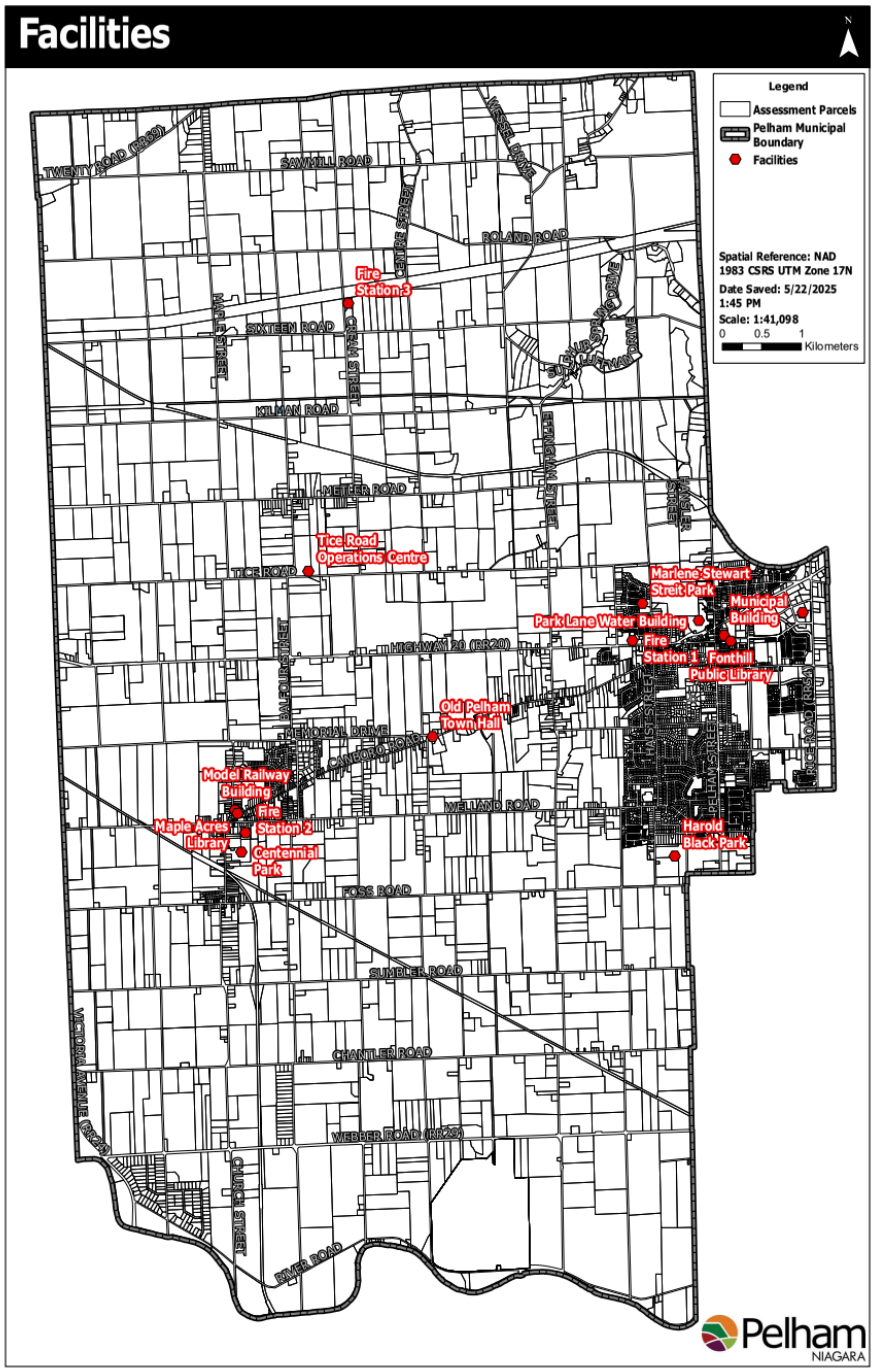


Figure 24: Condition Distribution by Asset Category (Corporate Facilities)

5.2. Level of Service

Community Level of Service Objective	The Town is committed to the maintenance of quality facilities for residents to use as a place of gathering and recreation and to foster a sense of community and culture.



Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 31: Corporate Levels of Service (Corporate Facilities)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	15.0%	9.8%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	4.4%	4.4%

Table 32: Key Performance Indicators (Corporate Facilities)

LOS Attribute	Key Performance Indicator	Current Performance
Scope	% Facilities in conformance with defined lifecycle strategies	18%
Quality	Buildings below "good" FCI condition	82
Scope	Number of facilities AODA compliant	All but 5
Quality	% of total replacement cost of assets in good to very good condition	18%
Sustainability	Annual electric energy consumption per square foot	$47.00
Sustainability	Annual natural gas consumption per square foot	54 kBtu
Sustainability	Annual water consumption per square foot	$9.00
Reliability	Number of non-scheduled shut down days of facility services	1

5.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Corporate Facilities service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

5.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining long-term functionality, reliability, and sustainability of Corporate Facilities. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By following best practices in asset management, including preventive maintenance and timely repairs, the Town can extend asset life, reduce major repair costs, and provide consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 33 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 33: Lifecycle Activities with Asset Management Practices (Corporate Facilities)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Building Condition Assessments	Every 5 years
Operations and Maintenance Activities	
Staff Inspections	Monthly health & safety; Reactive
Reactive Maintenance	Daily
Renewal and Replacement Activities	
Replacement of major components	As needed based on condition
Preventative Maintenance	As per BCA - review
Growth and Service Improvement	
Expansion/New Facilities	As identified
New Technology	As identified
AODA Compliance	Annually

5.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 5.3.1 to guide work planning and estimate future expenditure needs for Corporate Facilities assets. These strategies, along with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery.

Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are included in the total lifecycle activities, and are documented in the Scenario Comparison in Figure 26 and Table 34. These activities are based on the Town's operating and capital budgets. For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities, and costs are sufficient to meet community expectations, except for operations and maintenance. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

Operations and maintenance, while being informed by the Town's operating budget, have been reviewed for potentially increased expenditures required to service growth, as documented below. The operations and maintenance costs associated with growth are shown in Figure .

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Corporate Facilities assets based on the scenarios described can be found in Figure 25, and the associated costs and comparison of these scenarios can be found in Figure 26 and Table 34.

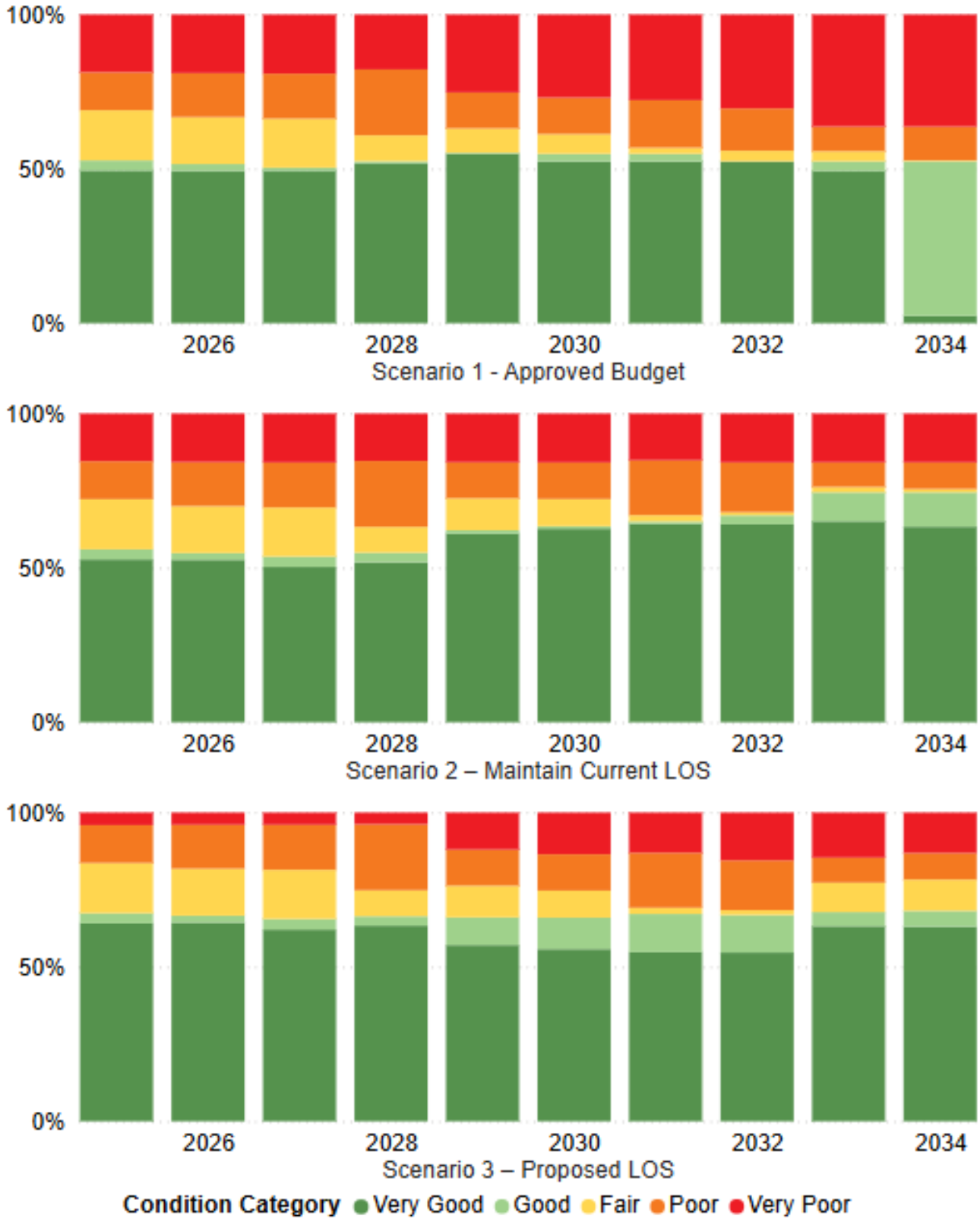


Figure 25: Condition Profile for Service Level Scenarios (Corporate Facilities)

Figure 25 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

The anticipated annual funding for renewal, rehabilitation and replacement activities for Corporate Facilities is $1,237,710. Asset conditions remain relatively stable in the short term, with a consistent share of assets in “Very Good” condition through to 2032. However, by 2034, there is a shift of assets in “Very Good” drop to “Good”. Despite this, “Very Poor” assets remain high for most of the period, indicating that the approved budget is insufficient leading to long-term deterioration.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

It was determined that an annual budget of $3,247,525 for renewal, rehabilitation and replacement activities is needed to maintain performance for Corporate Facilities. There is a capital infrastructure gap of $2,009,815. The performance forecast for scenario 2 is shown in Figure 25. This scenario provides a moderate investment level aimed at maintaining the existing standard. It shows better outcomes than Scenario 1, with a larger share of assets in “Good” and “Very Good” condition over time. There is a gradual reduction in "Poor" and "Very Poor" assets, especially after 2030.

Scenario 3: Proposed Level of Service

It was determined that an annual budget of $3,694,477 for renewal, rehabilitation and replacement activities is needed to maintain performance for Corporate Facilities. There is a capital infrastructure gap of $2,456,767. The proposed LOS yields the best outcomes, maintaining the highest proportion of assets in “Good” condition and gradually increasing those in “Very Good.” Meanwhile, assets in “Fair,” “Poor,” and “Very Poor” conditions decrease over time, demonstrating that increased investment results in consistent and long-term improvement in overall asset quality.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 26 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Corporate Facilities has a gap of $2,618,624 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary renewal, rehabilitation, and replacement activities for Corporate Facilities assets.

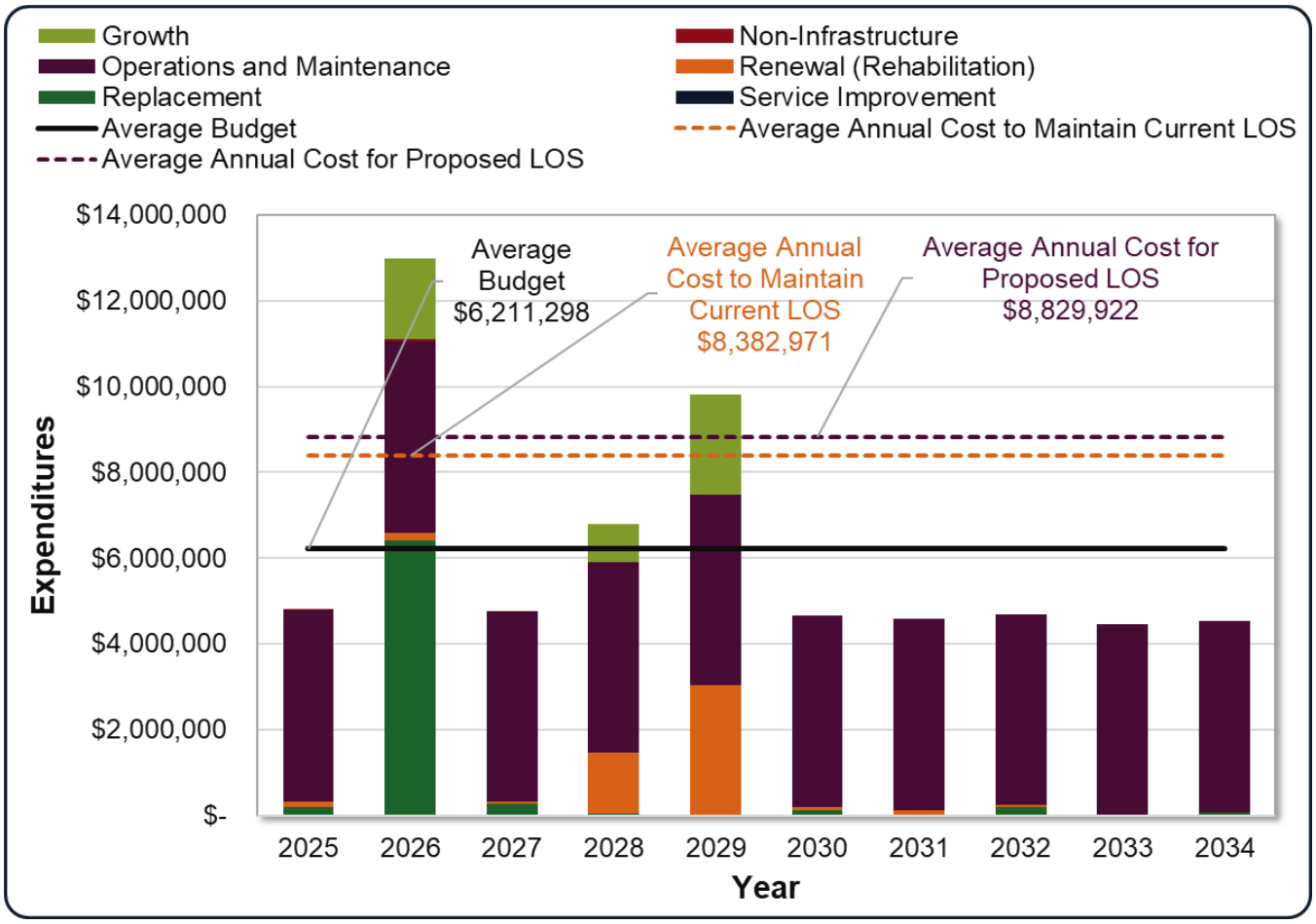


Figure 26: Lifecycle Expenditure Scenario Comparison (Corporate Facilities)

The growth, and operations and maintenance expenditures are shown in greater detail in Figure 27 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Corporate Facilities assets based on these growth expenditures, which have been informed by the Town's budget

In order to understand if additional funding is needed for Corporate Facilities operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Corporate Facilities operations and maintenance will be required for the increasing asset portfolio.

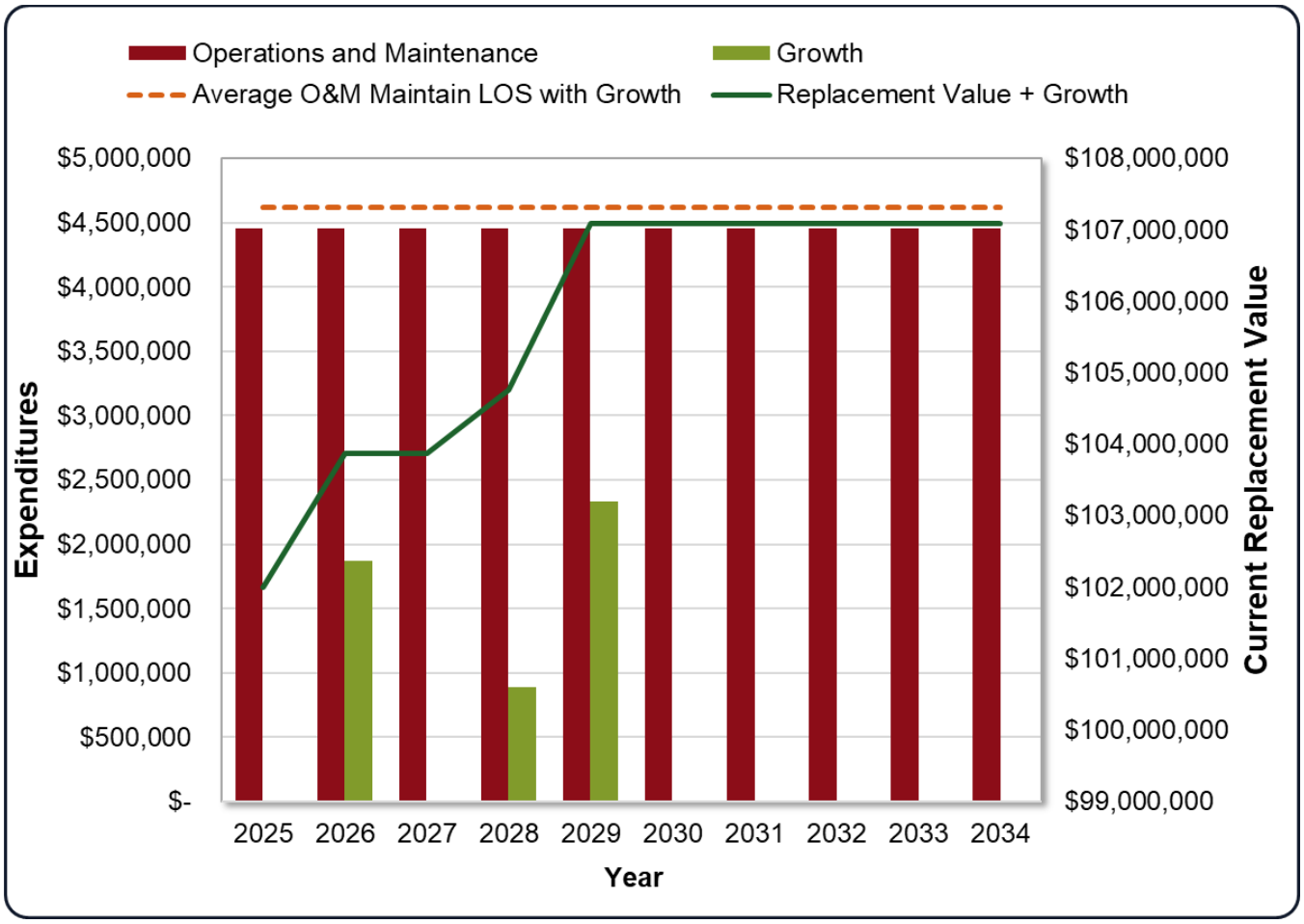


Figure 27: Operations & Maintenance & Growth Graph (Corporate Facilities)

In addition to the capital gap, a further $161,858 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. Optimizing maintenance and leveraging new technologies can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 34 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $2,618,624 for Corporate Facilities assets to meet the proposed service levels.

Table 34: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Corporate Facilities)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$509,140	$509,140	$509,140
Non-Infrastructure	$8,500	$8,500	$8,500
Renewal, Rehabilitation & Replacement	$1,237,710	$3,247,525	$3,497,972
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$1,755,350**	**$3,765,165**	**$4,212,117**
Capital Infrastructure Gap		**$2,009,815**	**$2,456,767**
Operations & Maintenance	**$4,455,948**	**$4,617,806**	**$4,617,806**
Operations Gap		**$161,858**	**$161,858**
Total Expenditures	**$6,211,298**	**$8,382,971**	**$8,829,922**
Total Funding Gap		**$2,171,673**	**$2,618,624**
Gap as Percentage of CRV		**2.13%**	**2.57%**

5.4. Data Confidence & Improvement

Table 35 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 35: Data Confidence (Corporate Facilities)

Asset Type	Data Source	Data Confidence
Administration	BCAs & Spreadsheet	B
Fire	BCAs & Spreadsheet	B
Libraries	Staff Observation, Spreadsheet & BCAs	B
Museums	BCAs & Spreadsheet	B
Operations Centre	BCAs & Spreadsheet	B
Parks & Recreation & Cemeteries	Staff Observation, Spreadsheet & BCAs	B

BCAs were not available for two newer buildings, MCC and Maple Acres Library. For Parks & Recreation & Cemeteries ratings were based on ESL, with some data from BCA. The BCA data while provides a reliable assessment of the facilities are a few years old now, and any work that has been completed since inspection has not been tracked against the BCAs.

5.4.1. Recommendations for Improvement

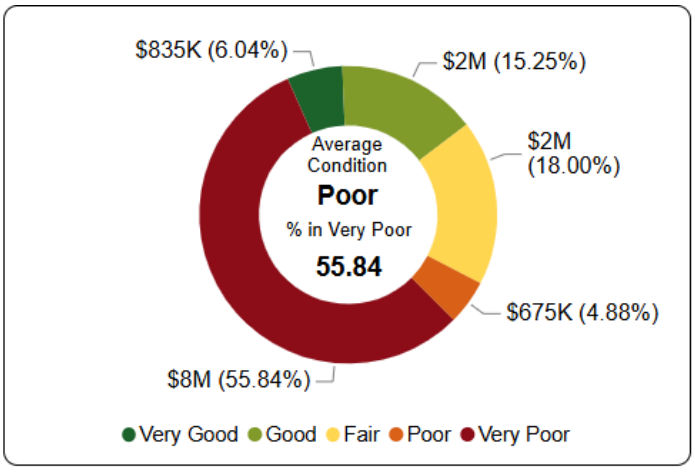
Opportunities for improvement for Corporate Facilities include:

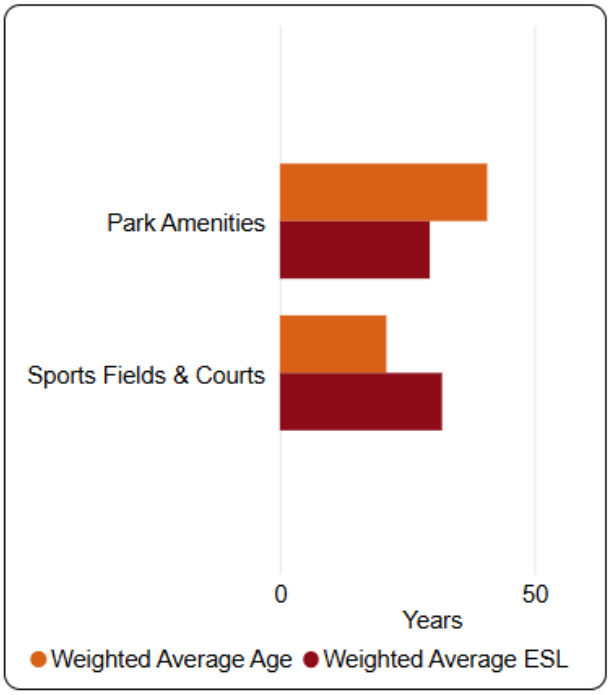
- Inventory/Asset Register – create and add into a repository to track work against this inventory and keep up to date.
- Document processes, regular intervals for condition assessments.
- Develop and implement an inspection and preventative maintenance program and evaluate the effectiveness and suitability of interventions.
- As work is completed, review cost estimates for their accuracy, continue to update information as new/improved information becomes available.

6. Parks, Recreation & Cemeteries

The Town of Pelham is committed to providing high-quality parks, recreation, and cemetery services that enhance the well-being of the community. The proper maintenance of safe, accessible parks and amenities, as well as the respectful care and upkeep of public cemeteries will support a vibrant and active community.

Asset Category	Replacement Value
Park Amenities	$11,850,000
Sports Fields & Courts	$1,980,000
Total	$13,830,000





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
$558 k	$625 k

6.1. State of the Infrastructure

The Town is responsible for the care and maintenance of its Parks, Recreation, and Cemetery assets, which provide essential spaces for community activities, sports, and reflection. These include sports fields and courts such as baseball and T-ball diamonds, soccer pitches, tennis and pickleball courts, and all-purpose courts. Park amenities include playgrounds, splash pads, skate parks, walking paths and trails, pavilions, shade structures, an outdoor pool, a bandshell, and various monuments, memorials, and cenotaphs. The Town also maintains cemetery buildings and associated parks equipment.

Regular maintenance is critical to ensure these spaces remain safe, accessible, and enjoyable for all users. Ongoing care helps preserve the quality and longevity of these assets while supporting active living and community well-being.

6.1.1. Asset Valuation

The Town has taken comprehensive steps to ensure that asset replacement values reflect current market conditions for comparable infrastructure. By analyzing recent purchases and estimating present-day replacement costs, the Town aims to provide accurate valuations that account for both market trends and the specific characteristics of its assets. Table 36 outlines the inventory and corresponding current replacement values for the assets included in this Asset Management Plan (AMP).

Table 36: Inventory and Current Replacement Value (Parks, Recreation & Cemeteries)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Park Amenities	28	Each	$11.9M
Sports Fields & Courts	14	Each	$2.0M
Total			**$13.8M**

6.1.2. Asset Condition

Condition was assigned to Parks, Recreation and Cemeteries assets based on age/estimated service life. The condition rating scale is shown below Table 37.

Table 37: Condition Rating Scale (Water)

Condition	Age/ESL
Very Good	>80% life remaining
Good	60-80% life remaining
Fair	40-60% life remaining
Poor	20-40% life remaining
Very Poor	0-20% life remaining
Unknown	Not enough data exists to determine condition

Figure 28 shows the overall condition distribution of Parks & Recreation & Cemeteries assets as a percentage of their replacement value. On average, the Town's Parks & Recreation & Cemeteries assets are in poor condition, with less than 40% of assets classified as fair or better.

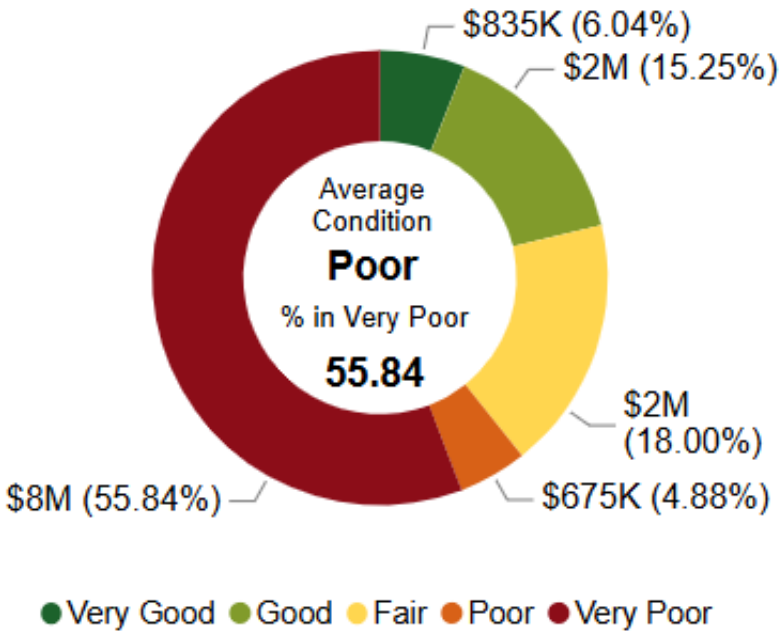


Figure 28: Condition Distribution by Replacement Value (Parks, Recreation & Cemeteries)

Figure 29 shows the condition distribution of Parks & Recreation & Cemeteries assets broken down by asset category.

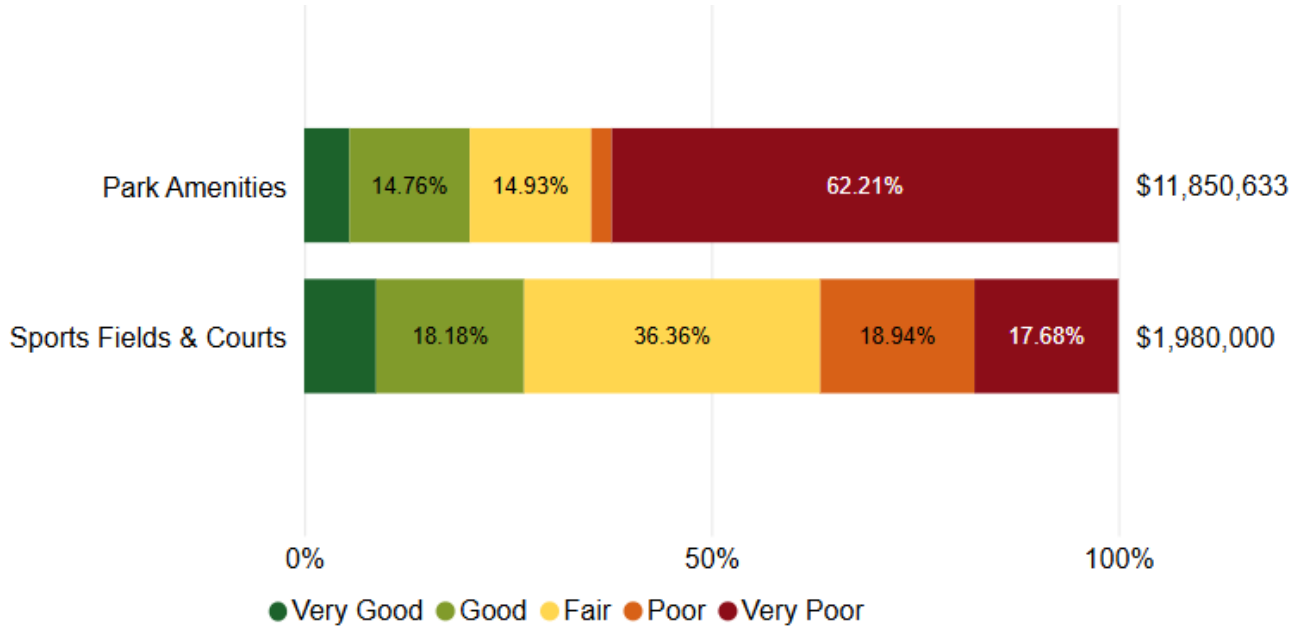
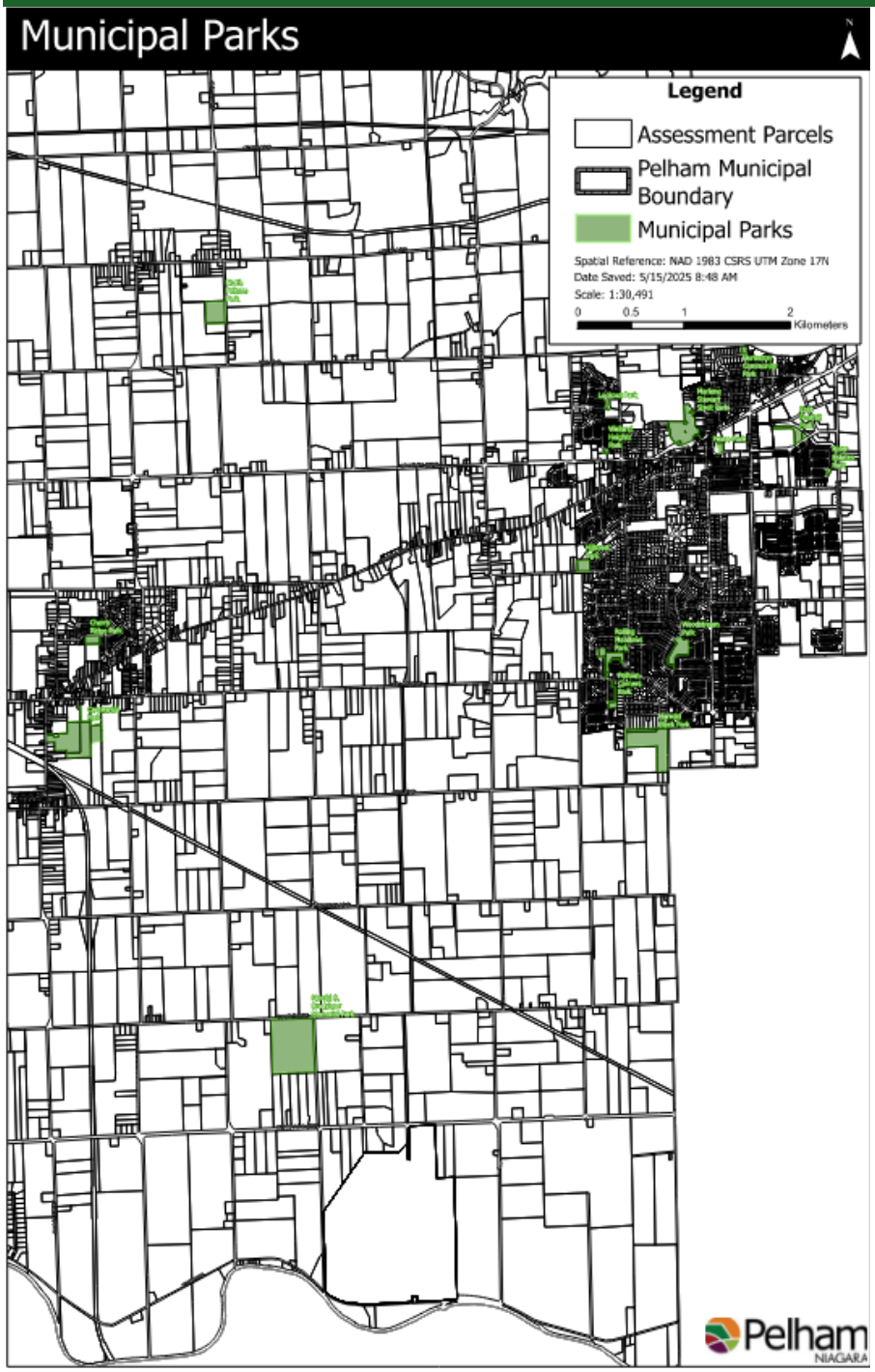


Figure 29: Condition Distribution by Asset Category (Parks & Recreation & Cemeteries)

6.2. Level of Service

Community Level of Service Objective	The Town is committed to providing high-quality parks, recreation, and cemetery services that enhance the well-being of the community.



Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 38: Corporate Levels of Service (Parks & Recreation & Cemeteries)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	55.8%	8.6%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	6.1%	6.1%

Table 39: Key Performance Indicators (Parks & Recreation & Cemeteries)

LOS Attribute	Key Performance Indicator	Current Performance
Scope	Hectares of parks per thousand residents	2.2 ha per 1000 Res
Scope	Number of parks provided to citizens	22
Scope	Number of cemetery plots and cremation plots available	TBD
Scope	All Parkland in Municipality as a percent of Total Area of Municipality	350+
Quality	% of total replacement cost of assets in good to very good condition	21%
Scope	% of park assets that are AODA compliant	100%

6.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Parks & Recreation & Cemeteries service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

6.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining long-term functionality, reliability, and sustainability of Parks, Recreation and Cemeteries assets. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By following best practices in asset management, including preventive maintenance and timely repairs, the Town can extend asset life, reduce major repair costs, and provide consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 40 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 40: Lifecycle Activities with Asset Management Practices (Parks & Recreation & Cemeteries)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Recreation Masterplan	3-5 years
Condition assessments (includes accessibility)	As needed
Operations and Maintenance Activities	
Planned Maintenance (PM)	As identified, based on condition report
Inspections	Monthly, daily, weekly for playgrounds & splashpads; Annually for parks
Deficiencies/Reactive Maintenance	As needed
Fencing repairs	As needed
Sanding/painting, concrete renewal, etc.	As needed
Rubber/Playground surface replaced	As identified
Grooming, grass cutting, line and general field/court maintenance	Daily
Renewal and Replacement Activities	
Replace	End of useful life
Growth and Service Improvement	
New Assets	In line with development

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Improved lighting	As identified
Accessibility improvements	In line with asset replacements

6.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 6.3.1 to guide work planning and estimate future expenditure needs for Parks, Recreation and Cemeteries assets. These strategies, along with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery.

Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are included in the total lifecycle activities, and are documented in the Scenario Comparison in Figure 31 and Table 41. These activities are based on the Town's operating and capital budgets. For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities, and costs are sufficient to meet community expectations, except for operations and maintenance. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

Operations and maintenance, while being informed by the Town's operating budget, have been reviewed for potentially increased expenditures required to service growth, as documented below. The operations and maintenance costs associated with growth are shown in Figure 32.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Corporate Facilities assets based on the scenarios described can be found in Figure 30, and the associated costs and comparison of these scenarios can be found in Figure 31 and Table 41.

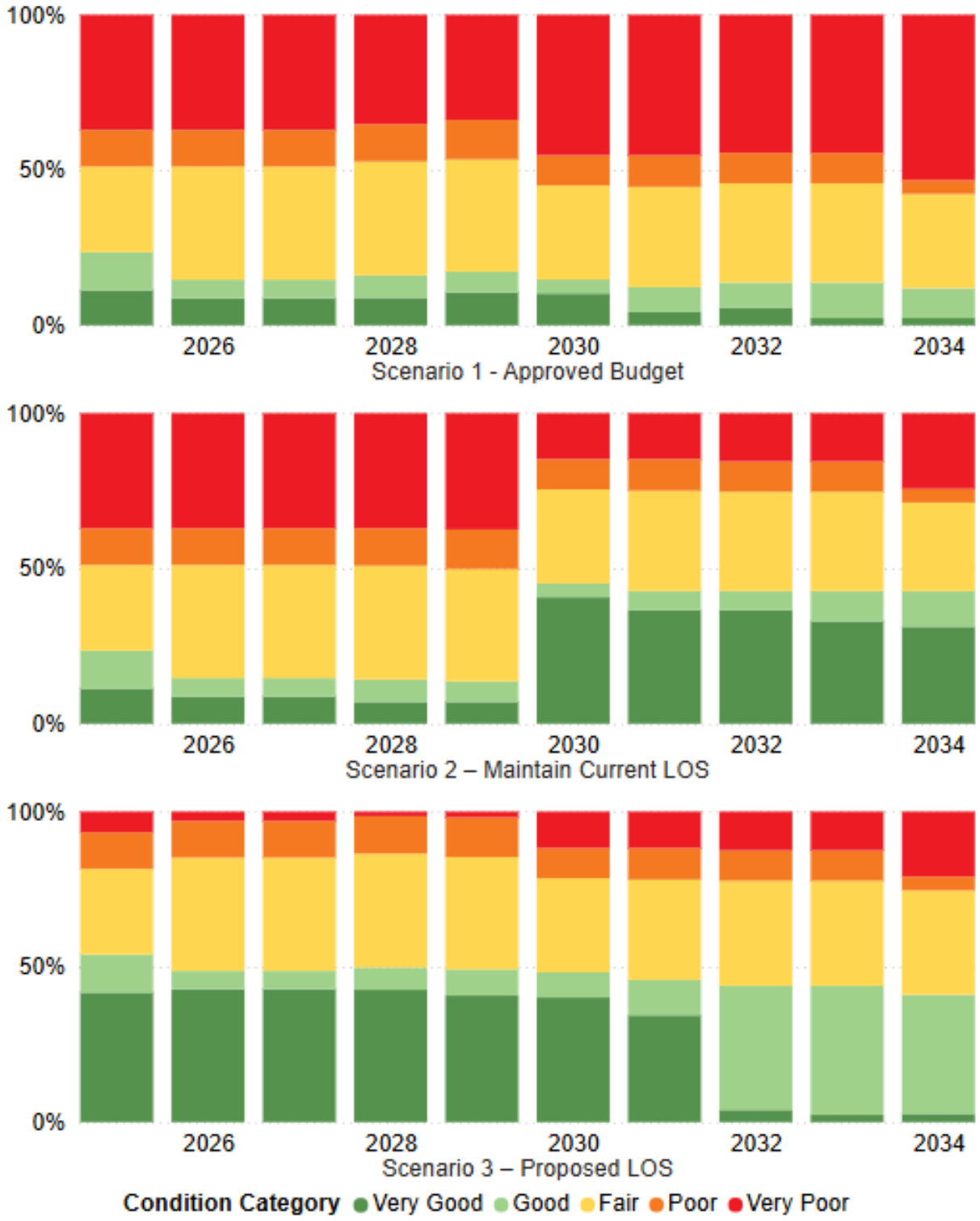


Figure 30: Condition Profile for Service Level Scenarios (Parks & Recreation & Cemeteries)

Figure 30 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

The anticipated annual funding for renewal, rehabilitation and replacement activities for Parks & Recreation & Cemeteries is $386,300. Under the approved budget, asset conditions steadily decline over the 10-year period. The share of assets in "Very Good" and "Good" condition gradually decreases, while those in "Fair," "Poor," and especially "Very Poor" categories increase significantly. This scenario illustrates that current funding levels are inadequate to prevent long-term deterioration.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

It was determined that an annual budget of $772,267 for renewal, rehabilitation and replacement activities is needed to maintain performance for Parks & Recreation & Cemeteries with a capital infrastructure gap of $385,967. Maintaining the current level of service stabilizes asset conditions somewhat, with "Very Good" and "Good" assets slightly increasing over time. While there is still some growth in the "Fair" and "Poor" categories, the rise in "Very Poor" assets is more moderate compared to Scenario 1. This scenario slows the rate of decline but does not fully reverse it.

Scenario 3: Proposed Level of Service

For Parks & Recreation & Cemeteries, the proposed level of service is to improve the current performance. The proposed level of service results in clear improvement across all asset condition categories. Assets in "Very Good" and "Good" condition grow steadily, while those in "Fair," "Poor," and "Very Poor" categories decline throughout the period. The annual expenditures were determined based on asset renewal, rehabilitation, and replacement needs. It was determined that an annual budget of $839,767 for renewal, rehabilitation and replacement activities is needed to maintain performance for Parks & Recreation & Cemeteries. There is a capital infrastructure gap of $453,467.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 31 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Parks, Recreation and Cemeteries has a gap of $625,718 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary renewal, rehabilitation, and replacement activities for Parks, Recreation and Cemeteries assets.

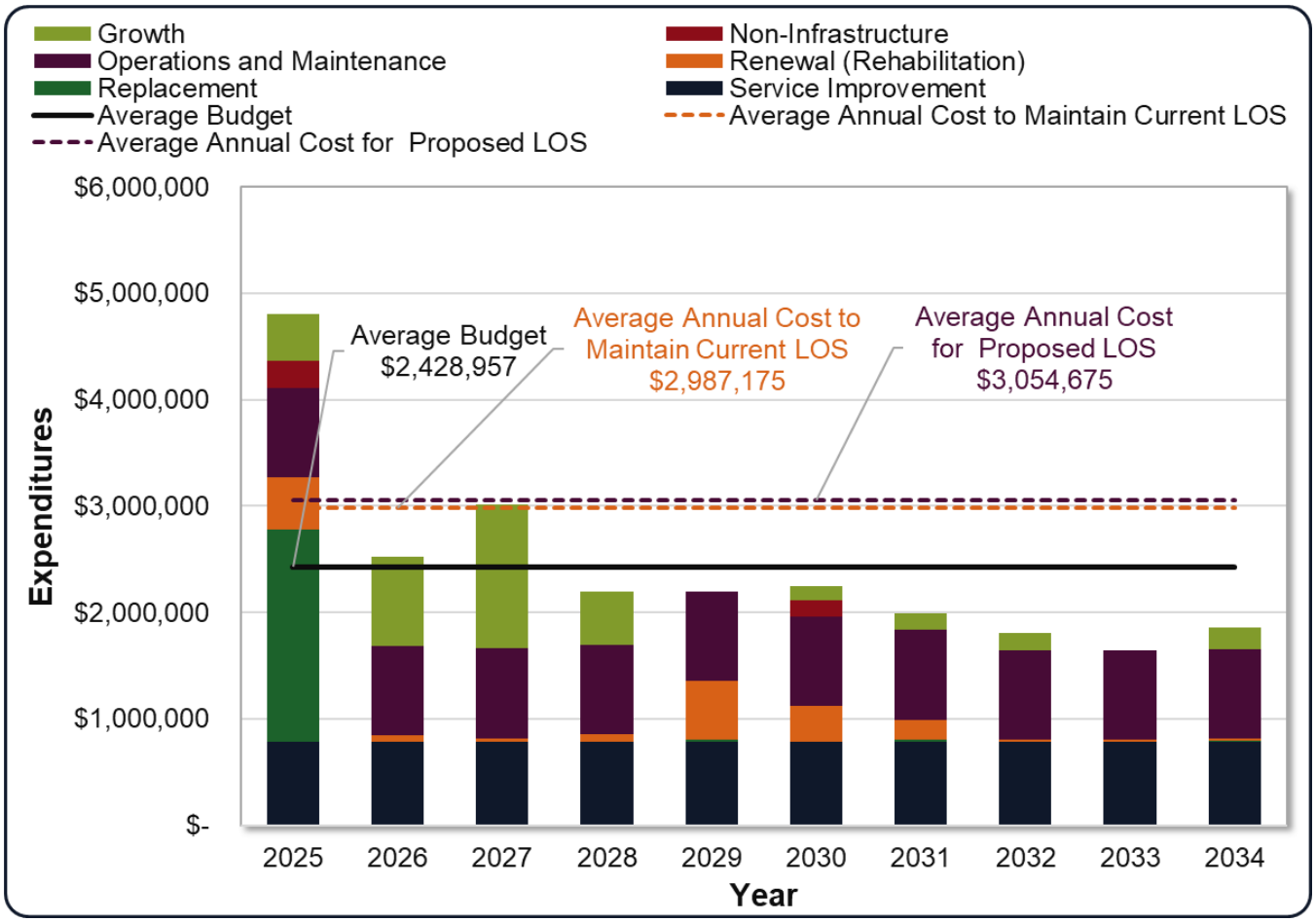


Figure 31: Lifecycle Expenditure Scenario Comparison (Parks & Recreation & Cemeteries)

The growth, and operations and maintenance expenditures are shown in greater detail in Figure 32 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Parks, Recreation & Cemeteries assets based on these growth expenditures, which have been informed by the Town's budget.

In order to understand if additional funding is needed for Parks, Recreation & Cemeteries operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Parks, Recreation & Cemeteries operations and maintenance will be required for the increasing asset portfolio.

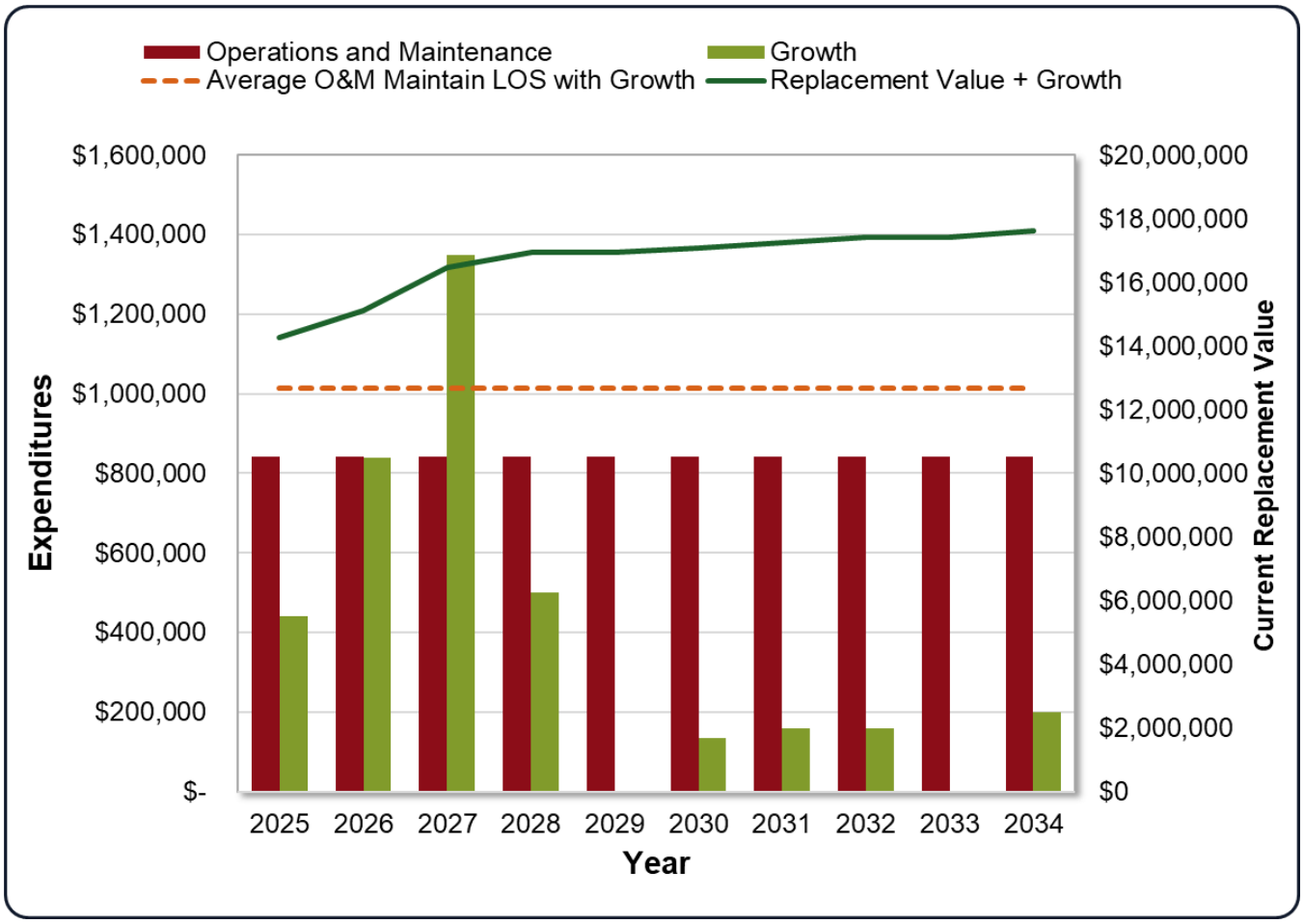


Figure 32: Operations & Maintenance & Growth Graph (Parks & Recreation & Cemeteries)

In addition to the capital infrastructure gap, a further $172,251 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. Optimizing maintenance and leveraging new technologies can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 41 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $625,718 for Parks, Recreation and Cemeteries to meet the proposed service levels.

Table 41: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Parks & Recreation & Cemeteries)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$378,500	$378,500	$378,500
Non-Infrastructure	$40,000	$40,000	$40,000
Renewal, Rehabilitation & Replacement	$386,300	$772,267	$839,767
Service Improvement	$781,000	$781,000	$781,000
Total Capital Expenditures	**$1,585,800**	**$1,971,767**	**$2,039,267**
Capital Infrastructure Gap		**$385,967**	**$453,467**
Operations & Maintenance	**$843,157**	**$1,015,408**	**$1,015,408**
Operations Gap		**$172,251**	**$172,251**
Total Expenditures	**$2,428,957**	**$2,987,175**	**$3,054,675**
Total Funding Gap		**$558,218**	**$625,718**
Gap as Percentage of CRV		**4.04%**	**4.52%**

6.4. Data Confidence & Improvement

Table 42 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources. For the purposes of this AMP, information on park assets was compiled through several sources. It is recommended that the Town assess its park assets and begin tracking these assets for future use in asset management planning. Many assets were missing replacement values to fully understand the needs of these assets.

Table 42: Data Confidence (Parks & Recreation & Cemeteries)

Asset Type	Data Source	Data Confidence
Park Amenities	Spreadsheet	C
Sports Fields & Courts	Spreadsheet	C

6.4.1. Recommendations for Improvement

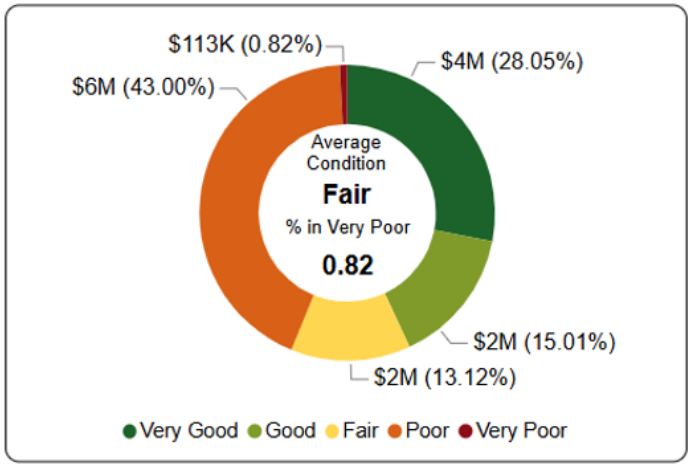
Opportunities for improvement for Parks, Recreation & Cemeteries include:

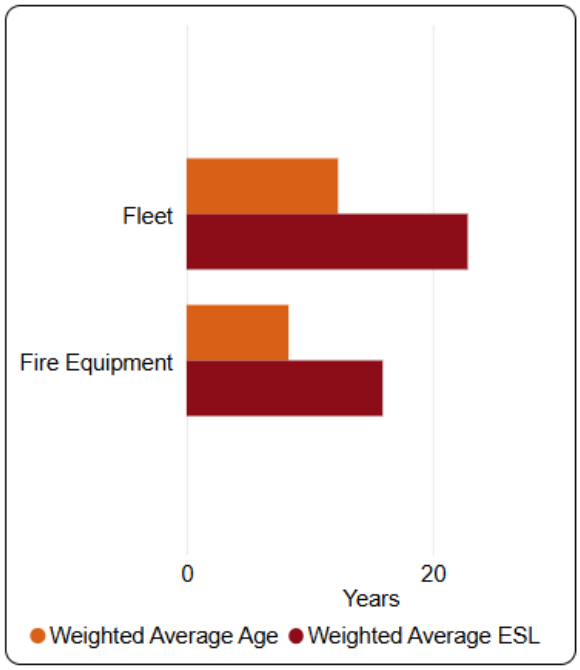
- Inventory/Asset Register: create an asset inventory as an asset register; continue to improve, keep up to date, add any necessary assets to the list (signage), continue to review and update replacement values.
- Spatially map and track attributes in the GIS to support asset management and decision-making.
- Acquire condition data.
- Develop and implement an inspections and preventative maintenance program for monuments, splash pads, playgrounds, courts, etc.

7. Fire

The Town of Pelham is committed to the safety of the community by providing fast and effective emergency response, fire protection and public safety education.

Asset Category	Replacement Value
Fire Equipment	$2,310,568
Fleet	$11,490,000
Total	**$13,800,568**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
$410 k	$21 k

7.1. State of the Infrastructure

Fire Services is an essential part of community infrastructure, providing critical services that contribute to public safety, well-being, and resilience. They play an important role in keeping the community safe through education, community engagement, and front-line service delivery. The Town has three fire stations throughout the municipality which are included in the Facilities Chapter of this AMP. Fire Fleet and Equipment that is used to support Fire services are represented in this chapter.

7.1.1. Asset Valuation

Fire Services maintains a fleet and equipment inventory with a total estimated replacement value of approximately $13.8 million. A detailed breakdown of these assets and their estimated replacement costs is provided in Table 43. The Town has made every effort to base these values on current market rates for comparable assets. By analyzing recent purchases and updating estimates accordingly, the Town ensures the replacement values reflect both present market conditions and the specific nature of its assets.

Table 43: Inventory and Current Replacement Value (Fire)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Fire Equipment	518	Each	$2.3M
Fire Fleet	16	Each	$11.5M
Total			**$13.8M**

7.1.2. Asset Condition

Condition was assigned to assets in Fire assets based on age/estimated service life. The condition rating scale is shown below in Table 44.

Table 44: Condition Rating Scale (Fire)

Condition	Age/ESL
Very Good	>80% life remaining
Good	60-80% life remaining
Fair	40-60% life remaining
Poor	20-40% life remaining
Very Poor	0-20% life remaining
Unknown	Not enough data exists to determine condition

Figure 33 shows the overall condition distribution of Fire assets as a percentage of their replacement value. On average, the Town's Fire assets are in fair condition, with over 56% of assets classified as fair or better.

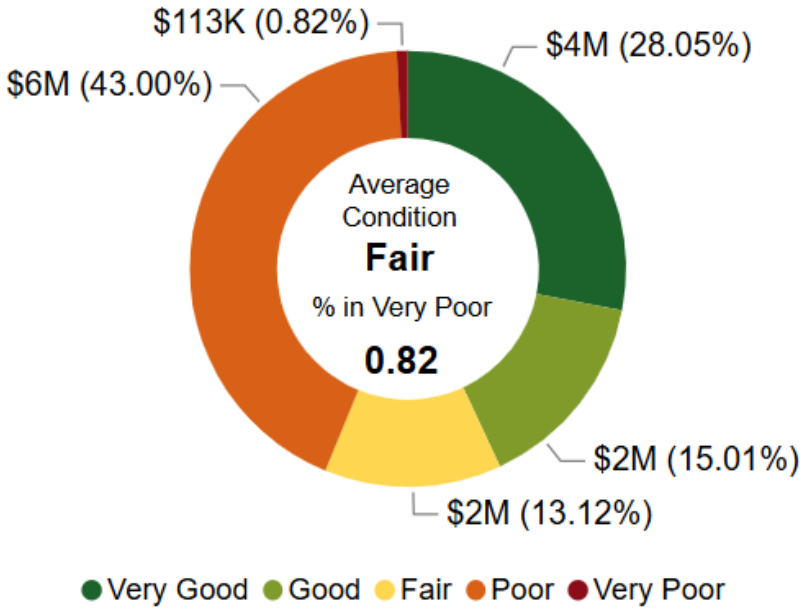


Figure 33: Condition Distribution by Replacement Value (Fire)

Figure 34 shows the condition distribution of Fire assets broken down by asset category.

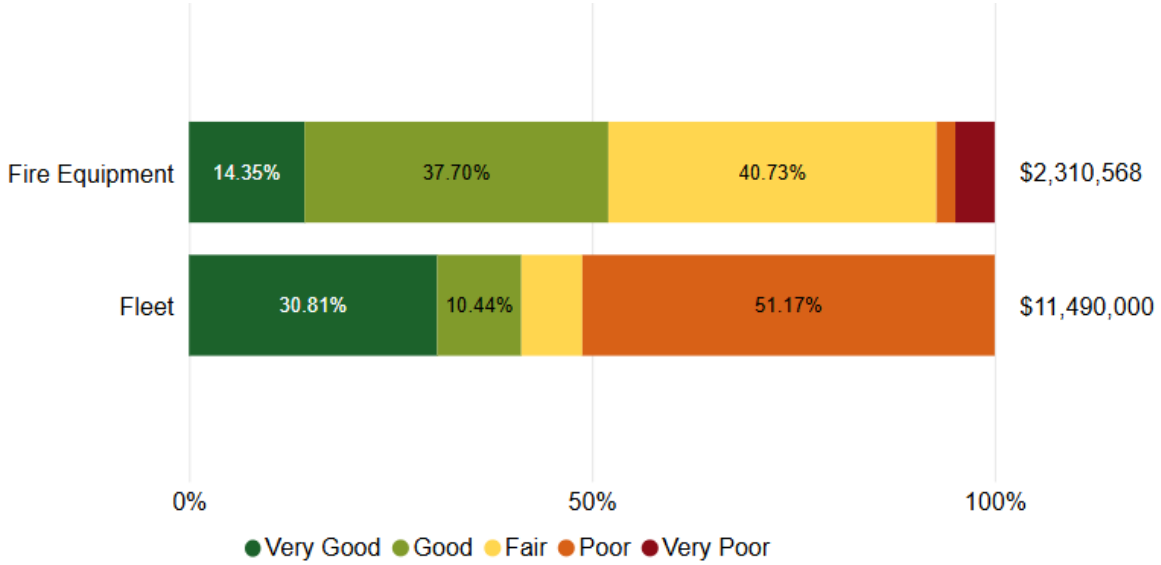


Figure 34: Condition Distribution by Asset Category (Fire)

7.2. Level of Service

Community Level of Service Objective	The Town is committed to the safety of the community by providing fast and effective emergency response, fire protection and public safety education.

Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 45: Corporate Levels of Service (Fire)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	0.8%	26.9%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	15.1%	15.1%

Table 46: Key Performance Indicators (Fire)

LOS Attribute	Key Performance Indicator	Current Performance
Quality	% of total replacement cost of assets in good to very good condition	43.1%
Scope	% of fire assets in conformance with lifecycle strategy	75

7.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy for Fire Services is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. Fire service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

7.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining the long-term functionality, reliability, and sustainability of Fire Services infrastructure. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By applying best practices in asset management, including preventive maintenance and timely repairs, the Town can extend the life of Fire assets, reduce the need for major repairs, and deliver consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 47 highlights key lifecycle activities that support the performance and longevity of Emergency Services infrastructure. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 47: Lifecycle Activities with Asset Management Practices (Fire)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Fire Master Plan	As required
Space Planning	As required
Contingency Planning	As required

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Other technical studies and assessments	As required
Operations and Maintenance Activities	
Planned Maintenance	As required
Reactive Maintenance	As required
Equipment inspections	Daily
Purchase of personal protective and rescue equipment, small equipment, and materials	As legislated or as required (10 years or less)
Renewal and Replacement Activities	
Re-build Engines	As needed
Replacement	End of service life
Growth and Service Improvement	
New Assets	Driven by growth to maintain LOS. As identified through planning and studies

7.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 7.3.1 to guide work planning and estimate future expenditure needs for Corporate Facilities assets. These strategies, along with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery.

Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are included in the total lifecycle activities, and are documented in the Scenario Comparison in Figure 36 and Table 48. These activities are based on the Town's operating and capital budgets. For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities, and costs are sufficient to meet community expectations, except for operations and maintenance. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

Operations and maintenance, while being informed by the Town's operating budget, have been reviewed for potentially increased expenditures required to service growth, as documented below. The operations and maintenance costs associated with growth are shown in Figure 37.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Fire assets based on the scenarios described can be found in Figure 35 and the associated costs and comparison of these scenarios can be found in Figure 36 and Table 48.

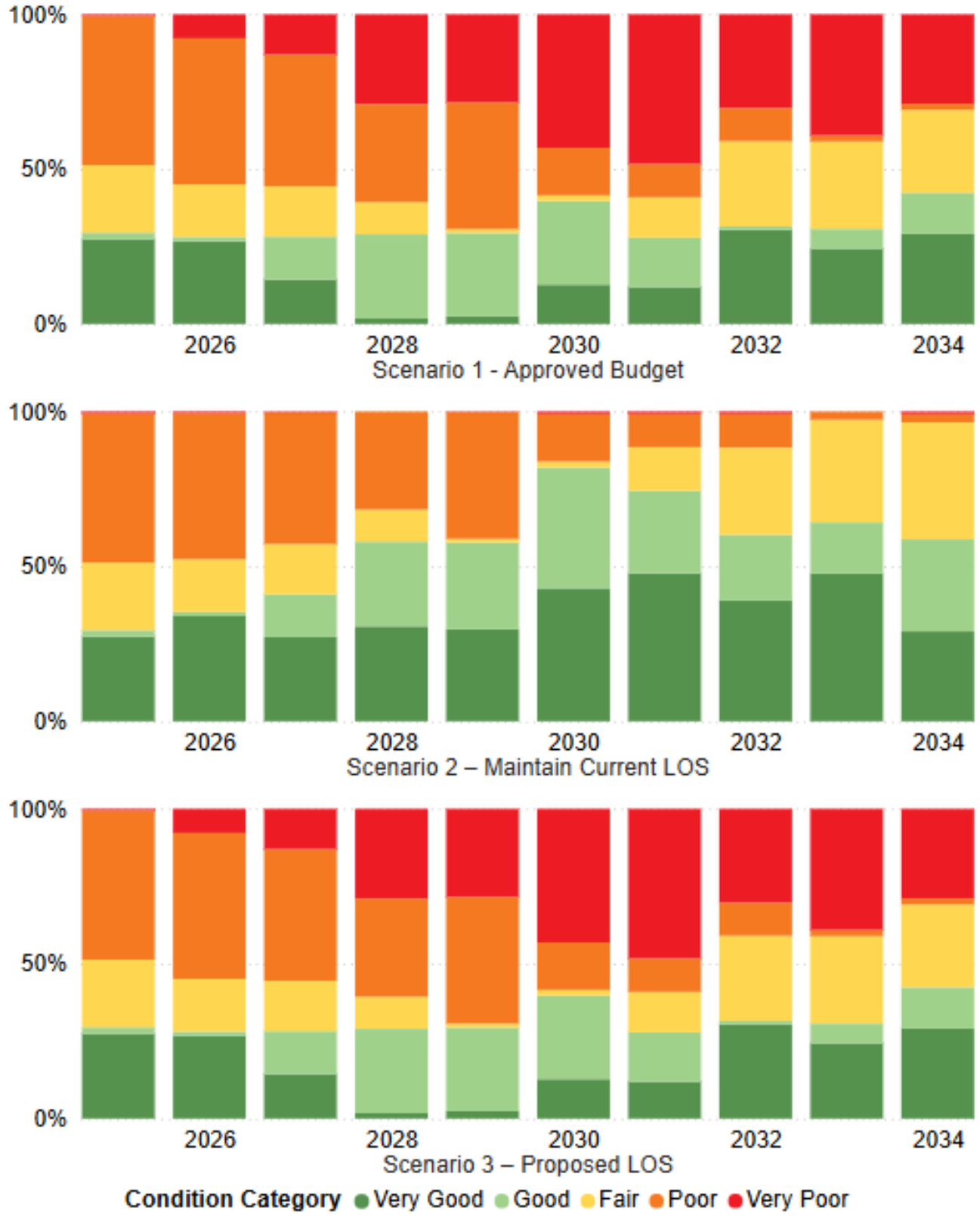


Figure 35: Condition Profile for Service Level Scenarios (Fire)

Figure 35 shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

The anticipated annual funding for renewal, rehabilitation and replacement activities for Fire is $600,500. Under the approved budget scenario shows a gradual decline in asset condition over time. While a reasonable proportion of assets remain in “Fair” to “Good” condition early on, the percentage of assets in “Poor” and “Very Poor” condition increases steadily through 2034. This scenario reflects the limitations of the current funding level in sustaining long-term asset performance.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

Scenario 2 shows a noticeable improvement. Assets in “Good” and “Very Good” condition increase steadily, and by 2034, most assets are in acceptable or better condition. This scenario demonstrates how maintaining current service levels can enhance overall asset performance. It was determined that an annual budget of $1 million for renewal, rehabilitation and replacement activities is needed to maintain performance for Fire. There is a capital infrastructure gap of $401,407 to maintain current performance.

Scenario 3: Proposed Level of Service

Scenario 3 determines the annual expenditures required to achieve the Town’s proposed level of service. For fire assets, the proposed level of service was determined based on asset renewal, rehabilitation, and replacement needs. It was determined $612,807 for renewal, rehabilitation and replacement activities is needed to maintain performance for Fire. There is a capital infrastructure gap of $12,307.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 36 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Fire has a gap of $20,751 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary renewal, rehabilitation, and replacement activities for Fire assets.

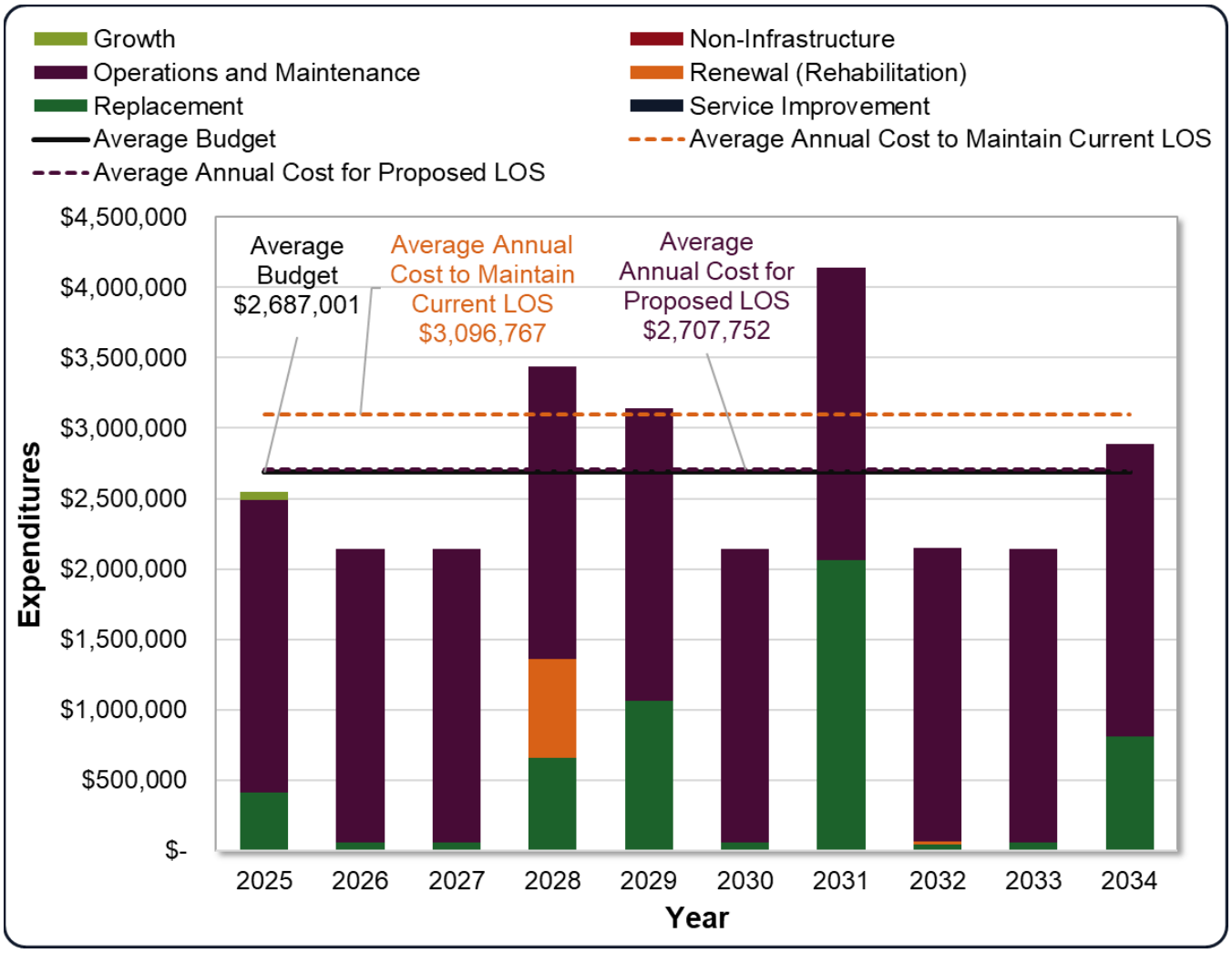


Figure 36: Lifecycle Expenditure Scenario Comparison (Fire)

The growth, and operations and maintenance expenditures are shown in greater detail in Figure 37 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Fire assets based on these growth expenditures, which have been informed by the Town's budget

In order to understand if additional funding is needed for Fire operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Fire operations and maintenance will be required for the increasing asset portfolio.

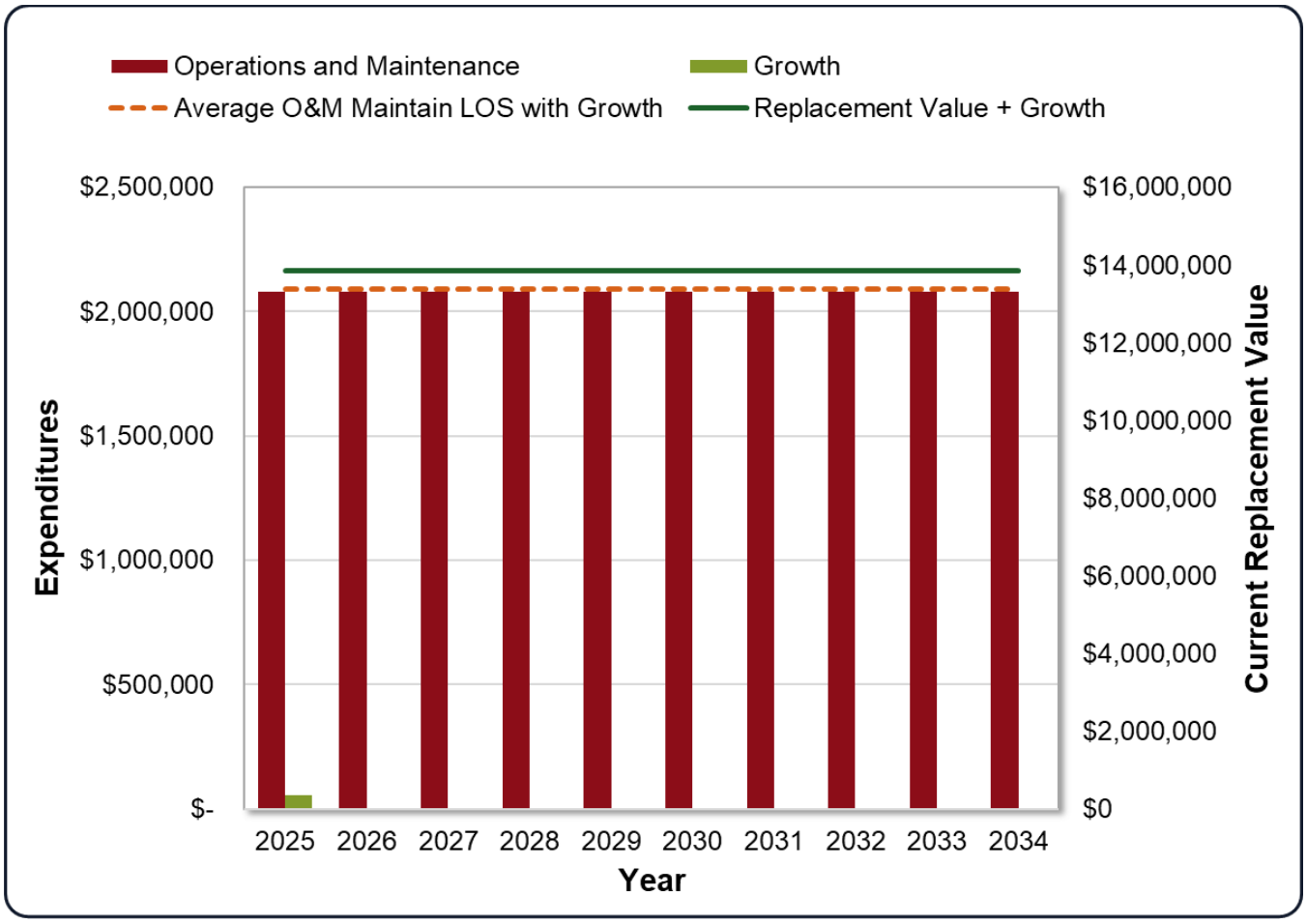


Figure 37: Operations & Maintenance & Growth Graph (Fire)

In addition to the capital gap, a further $8,444 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. Optimizing maintenance and leveraging new technologies can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 48 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $20,751 for Fire assets to meet the proposed service levels.

Table 48: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Fire)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for PLOS Scenario
Capital Costs			
Growth	$5,600	$5,600	$5,600
Non-Infrastructure	$0	$0	$0
Renewal, Rehabilitation & Replacement	$600,500	$1,001,907	$612,807
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$606,100**	**$1,007,507**	**$618,407**
Capital Infrastructure Gap		**$401,407**	**$12,307**
Operations & Maintenance	**$2,080,901**	**$2,089,345**	**$2,089,345**
Operations Gap		**$8,444**	**$8,444**
Total Expenditures	**$2,687,001**	**$3,096,852**	**$2,707,752**
Total Funding Gap		**$409,851**	**$20,751**
Gap as Percentage of CRV		**2.97%**	**0.15%**

7.4. Data Confidence & Improvement

Table 49 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 49: Data Confidence (Fire)

Asset Type	Data Source	Data Confidence
Fire Equipment	Spreadsheet	C
Fire Fleet	Spreadsheet	B

7.4.1. Recommendations for Improvement

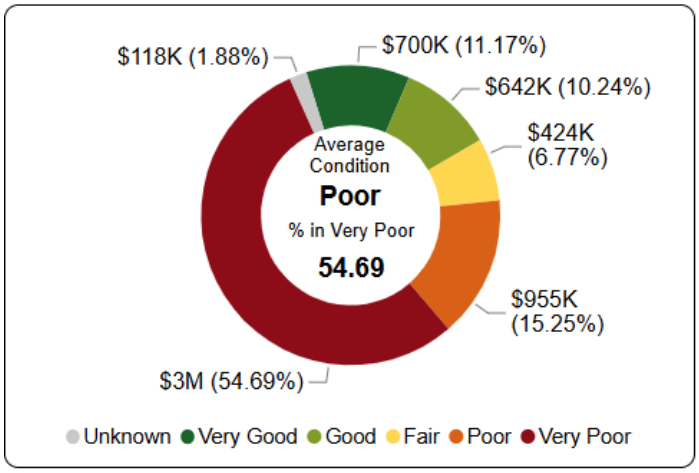
Opportunities for improvement for Fire assets include:

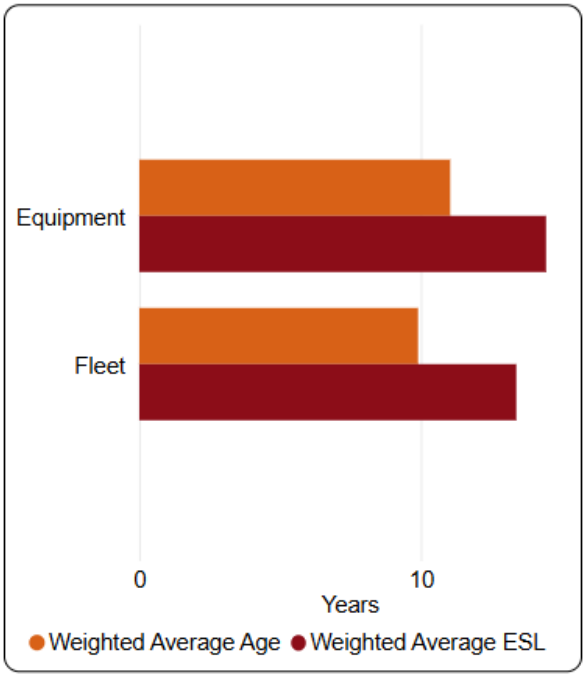
- Inventory/Asset Register: create an asset inventory as an asset register; continue to improve, keep up to date, add any necessary assets to the list, continue to review replacement values.
- Continue to maintain asset register for additions, disposals, and information on year, make, model, replacement values and estimated service life.
- Track maintenance and their cost for fleet assets to assist in future asset management planning.

8. Fleet & Equipment

The Town is committed to the proper maintenance of Fleet & Equipment assets, which is essential for the delivery of high-quality services to residents. The proper management of Fleet assets is crucial to ensure operations run smoothly.

Asset Category	Replacement Value
Equipment	$2,535,449
Fleet	$3,729,004
Total	**$6,264,453**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
No Gap	$183 k

8.1. State of the Infrastructure

Fleet Services plays a vital role as a support function within the Town, ensuring that all municipal departments have access to the vehicles and equipment they need—kept in good working condition—to deliver high-quality services to residents.

Effective management of Fleet assets is essential to maintaining smooth operations and ensuring reliable service delivery. These assets provide functional, dependable, and well-maintained vehicles and equipment that enable Town departments to perform their duties and deliver essential municipal services. The following sections provide an overview of the Town's Fleet and Equipment asset portfolio.

8.1.1. Asset Valuation

Fleet has equipment, small and large vehicles, and trailers with a total estimated replacement value of $6.3M. The asset inventory and current estimated replacement value is shown in Table 50.

Table 50: Inventory and Current Replacement Value (Fleet and Equipment)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Fleet	27	Each	$3.7M
Equipment	42	Each	$2.5M
Total			**$6.3M**

8.1.2. Asset Condition

Condition was assigned to assets in Fleet and Equipment assets based on age/estimated service life. The condition rating scale is shown below in Table 51.Figure 38 shows that Fleet and Equipment assets are on average in Poor condition with the average age of all assets less than their estimated service life.

Table 51: Condition Rating Scale (Fleet & Equipment)

Condition	Age/ESL
Very Good	>80% life remaining
Good	60-80% life remaining
Fair	40-60% life remaining
Poor	20-40% life remaining
Very Poor	0-20% life remaining
Unknown	Not enough data exists to determine condition

Figure 38 shows the overall condition distribution of Fleet & Equipment assets as a percentage of their replacement value. On average, the Town's Fleet & Equipment assets are in poor condition, with less than 30% of assets classified as fair or better.

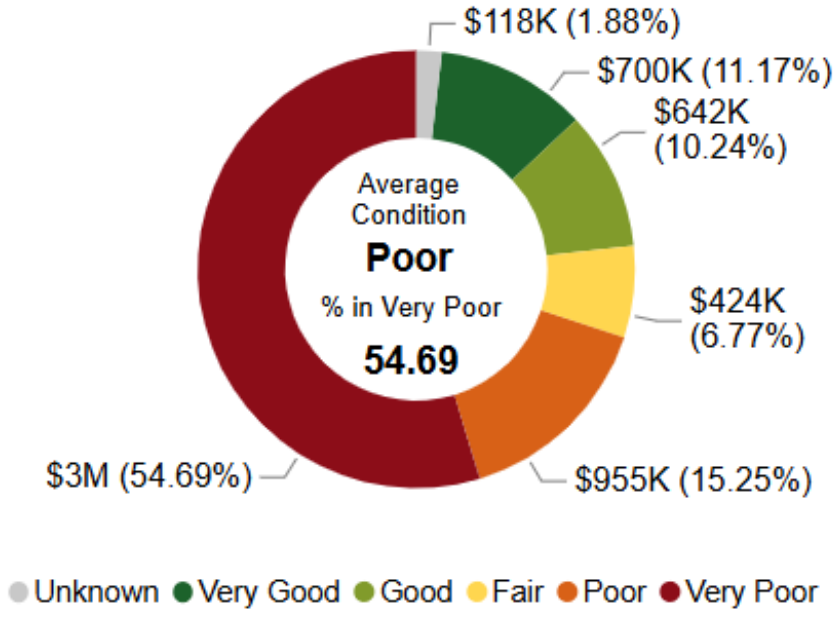


Figure 38: Condition Distribution by Replacement Value (Fleet & Equipment)

Figure 39 shows the condition distribution of Fleet & Equipment assets broken down by asset category.

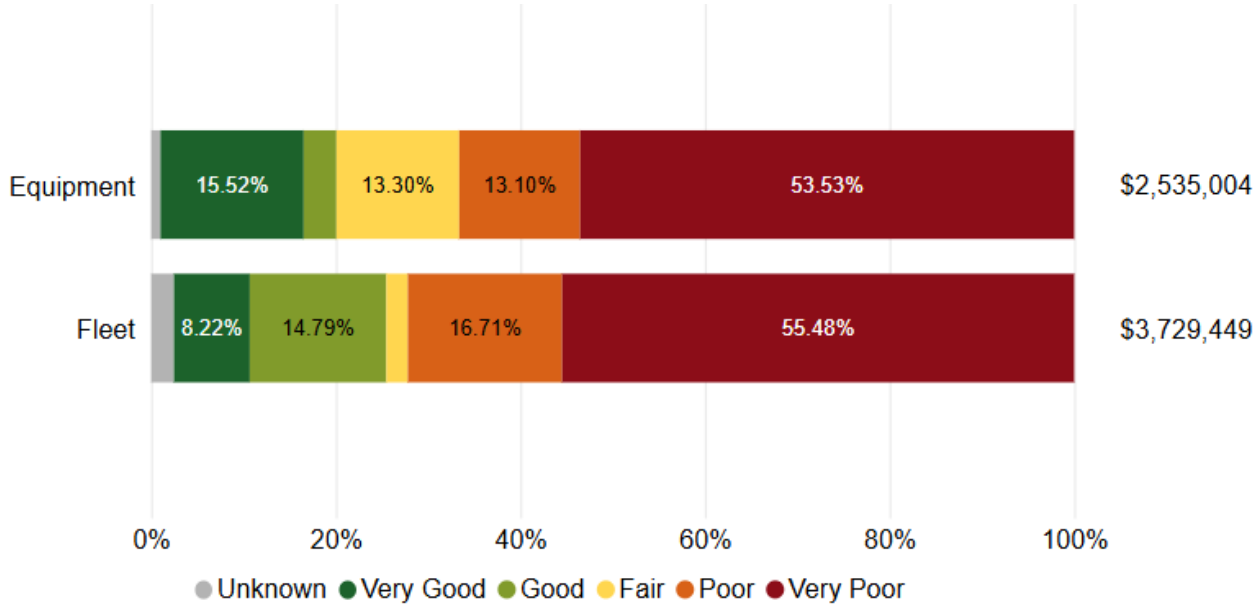


Figure 39: Condition Distribution by Asset Category (Fleet and Equipment)

8.2. Level of Service

Community Level of Service Objective	The Town is committed to the proper maintenance of Fleet & Equipment, which is essential for the delivery of high-quality services to residents.

Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 52: Corporate Levels of Service (Fleet & Equipment)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	54.7%	18.2%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	17.1%	17.1%

Table 53: Key Performance Indicators (Fleet & Equipment)

LOS Attribute	Key Performance Indicator	Current Performance
Quality	% of total replacement cost of assets in good to very good condition	25%
Affordability	% of replacement value in reserves	5%
Environmentally Sustainable	# of Electric Vehicles (or percentage of electric vehicles)	3
Scope	% of fleet vehicles in conformance with lifecycle strategy	5%
Environmentally Sustainable	# of public charging stations	10

8.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Fleet & Equipment service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

8.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining the long-term functionality, reliability, and sustainability of Fleet & Equipment infrastructure. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By applying best practices in asset management, including preventive maintenance and timely repairs, the Town can extend the life of Fleet & Equipment assets, reduce the need for major repairs, and deliver consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 54 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 54: Lifecycle Activities with Asset Management Practices (Fleet & Equipment)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Feasibility studies (new requests, leasing programs vs capital acquisitions)	As required
Operations and Maintenance Activities	
MTO inspections	As required
Reactive maintenance (damage, accidents, breakdowns. etc.)	As required
Daily inspections (completed by assigned operator)	Daily
H&S inspections (completed by assigned operator)	As required
Hoist inspections	As required
Seasonal inspections on seasonal equipment	Seasonally
Renewal and Replacement Activities	
Replacement of equipment	As Required
Growth and Service Improvement	
New Vehicles and related equipment	As Required
Commissioning of Vehicle	As Required

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Vehicle Upgrade	As Required
New technology	As Required
Fleet upgrade requiring new equipment (user group request)	As Required
AVL - GPS Tracking and Monitoring	As Required

8.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Section 9.3.1 to guide work planning and estimate future expenditure needs for Fleet and Equipment assets. These strategies, along with the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery. Funding requirements for other lifecycle activities—such as non-infrastructure solutions, service improvements, operations and maintenance, and growth—are addressed in the Scenario Comparison in Figure 41 and Table 55, based on the Town's operating and capital budgets.

For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities and costs are sufficient to meet community expectations. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Fleet and Equipment assets based on the scenarios described can be found in Figure 40, and the associated costs and comparison of these scenarios can be found in Figure 41and Table 55.

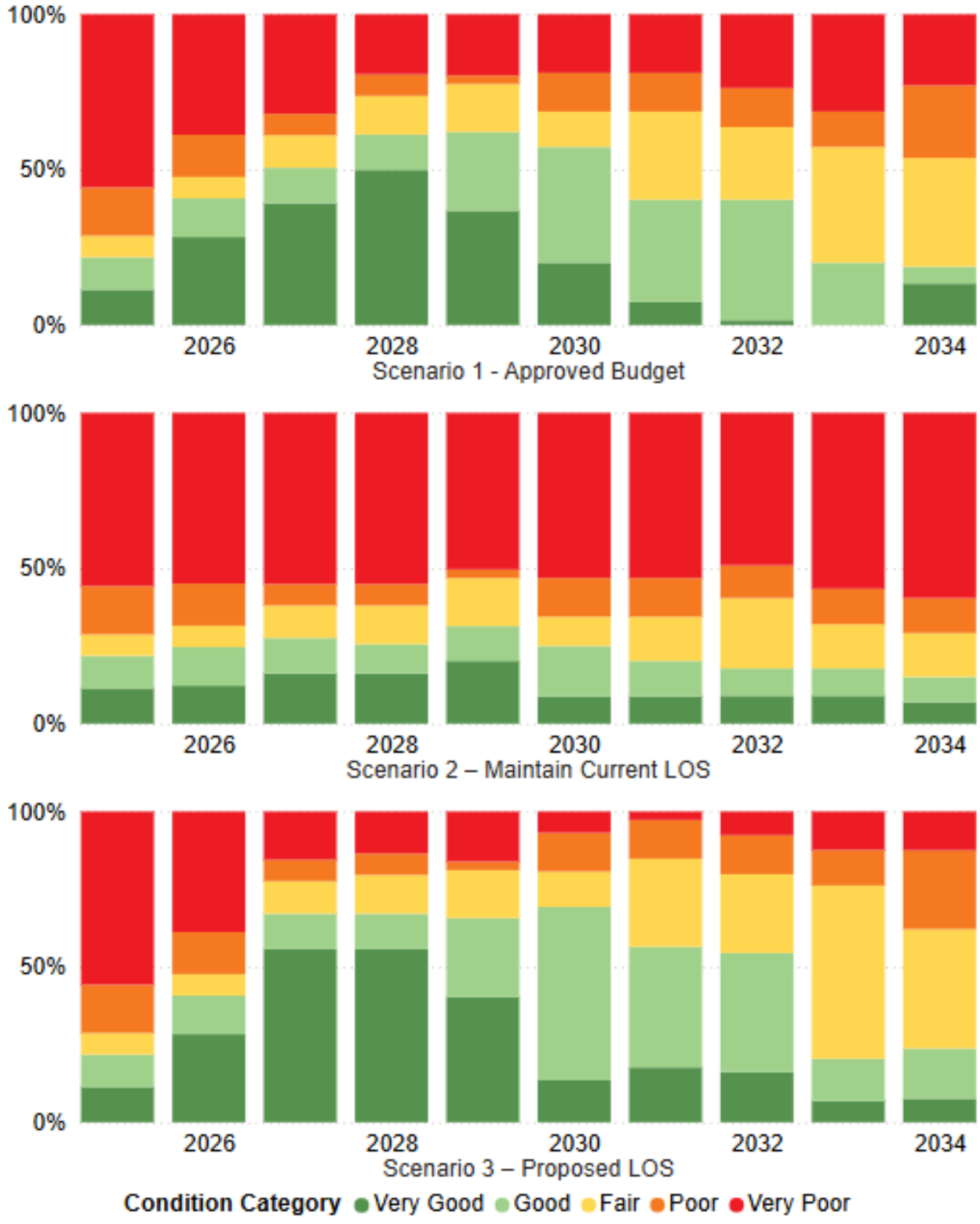


Figure 40: Condition Profile for Service Level Scenarios (Fleet & Equipment)

Figure 40 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

Scenario 1 sees significant fluctuation, with a sharp drop in assets in "Very Good" condition and increasing portions in "Poor" and "Very Poor" categories by 2034. This suggests limited ability to sustain or improve current asset health under existing funding levels. The anticipated annual funding for renewal, rehabilitation and replacement activities for Fleet and Equipment is $449,250. Overall condition decreases in this scenario.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

Scenario 2 shows more consistent results, but the proportion of assets in "Very Poor" condition remains high throughout the forecast period. This approach does not meaningfully improve the overall condition of the asset base, as it is strictly maintaining the high proportion of assets in "Very Poor" condition. It was determined that an annual budget of $208,951 for renewal, rehabilitation and replacement activities is needed to maintain the current performance for Fleet and Equipment with no gap. This scenario requires less expenditures than the Approved Budget scenario because it is less costly to maintain assets in "Very Poor". It shows that the Town is taking steps to improve the condition of its fleet and equipment assets.

Scenario 3: Proposed Level of Service

The Proposed Level of Service scenario demonstrates marked improvement. Assets in "Very Good" and "Good" condition increase significantly, especially by 2028 and 2032, while those in "Poor" and "Very Poor" condition decline. This scenario highlights the benefits of proactive investment, with a strong shift toward better-performing infrastructure over time. It was determined that a budget of $510,679 for renewal, rehabilitation and replacement activities is needed to achieve the proposed levels of service. There is a funding gap of approximately $61,429 compared to current anticipated funding levels.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 41 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Fleet & Equipment has a gap of $182,627 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary renewal, rehabilitation, and replacement activities for Fleet & Equipment assets.

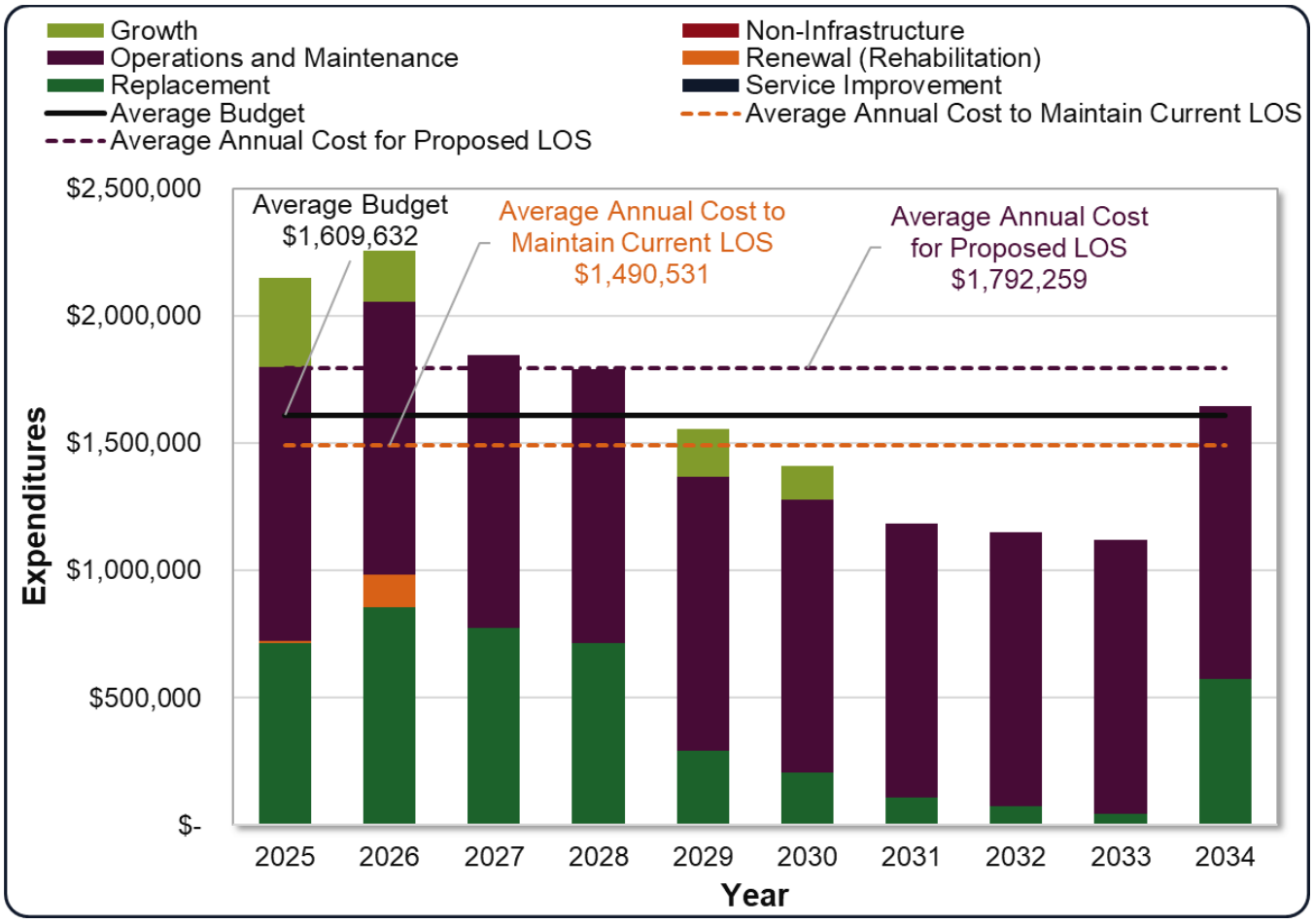


Figure 41: Lifecycle Expenditure Scenario Comparison (Fleet & Equipment)

The growth, and operations and maintenance expenditures are shown in greater detail in Figure 42 which estimates the annual funding required for operations and maintenance to accommodate growth. The figure also shows the estimated increase in replacement value of Fleet and Equipment assets based on these growth expenditures.

In order to understand if additional funding is needed for Fleet and Equipment operations and maintenance to support growth, the current O&M spending was compared to the current replacement value to determine the current percent being spent on these activities. This percentage was then applied to the anticipated future replacement value (with the addition of capital growth expenditures) to estimate future spending requirements for O&M. Based on this analysis, it is anticipated that additional support for Fleet & Equipment Fleet and Equipment operations and maintenance will be required for the increasing asset portfolio.

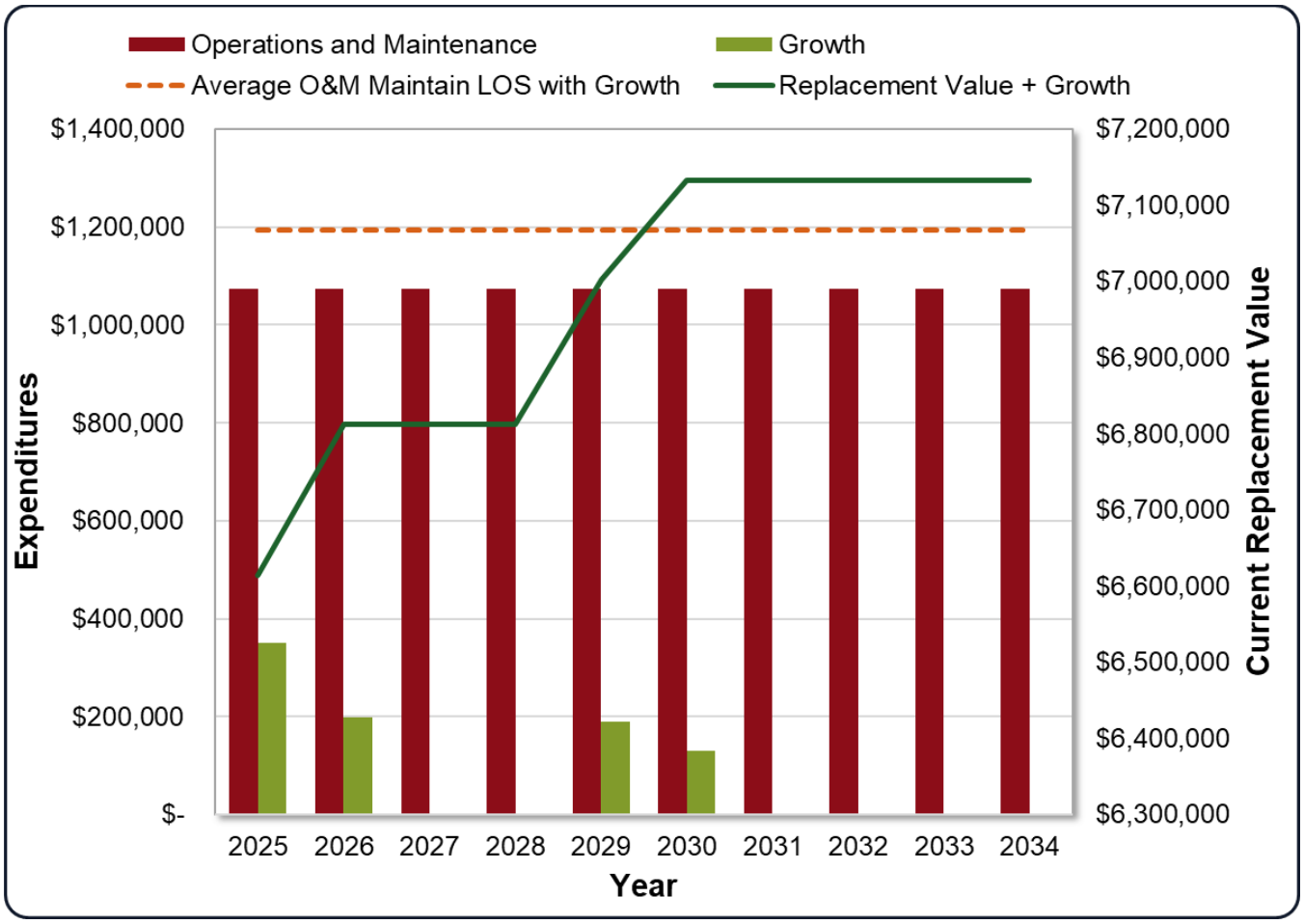


Figure 42: Operations & Maintenance & Growth Graph (Fleet & Equipment)

In addition to the capital gap, a further $121,198 in annual O&M expenditures will be required to accommodate growth. This analysis assumes that the amount currently spent on O&M is adequate to meet the Town's current needs, the identified additional cost required is strictly to address growth. Optimizing maintenance and leveraging new technologies can enhance operational efficiency and extend the lifespan of assets, ensuring that assets are being provided and maintained at the lowest possible cost.

Table 55 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $182,627 for Fleet & Equipment assets to meet the proposed service levels.

Table 55: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Fleet & Equipment)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$86,800	$86,800	$86,800
Non-Infrastructure	$0	$0	$0
Renewal, Rehabilitation & Replacement	$449,250	$208,951	$510,679
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$536,050**	**$295,751**	**$597,479**
Capital Infrastructure Gap		**No Gap**	**$61,429**
Operations & Maintenance	**$1,073,582**	**$1,194,780**	**$1,194,780**
Operations Gap		**$121,198**	**$121,198**
Total Expenditures	**$1,609,632**	**$1,490,531**	**$1,792,259**
Total Funding Gap		**No Gap**	**$182,627**
Gap as Percentage of CRV		**No Gap**	**2.92%**

8.4. Data Confidence & Improvement

Table 56 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 56: Data Confidence (Fleet & Equipment)

Asset Type	Data Source	Data Confidence
Equipment	Spreadsheet	B
Fleet	Spreadsheet	B

8.4.1. Recommendations for Improvement

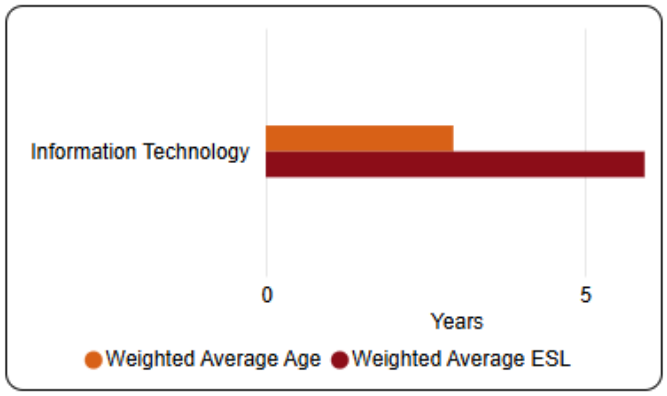
Opportunities for improvement for Fleet and Equipment assets include:

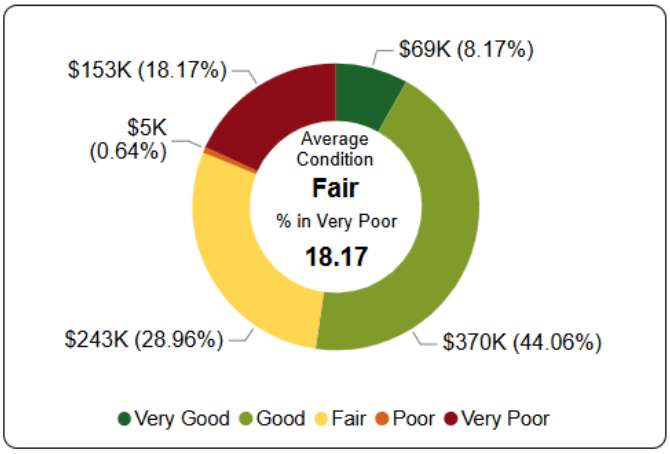
- Inventory/Asset Register: create an asset inventory as an asset register; continue to improve, keep up to date, add any necessary assets to the list, continue to review replacement values.
- Identify source of truth for asset register for fleet.
- Continue to maintain asset register for additions, disposals, and information on year, make, model, replacement values and estimated service life.
- Track maintenance and their cost for fleet assets to assist in future asset management planning.

9. Information Technology

The Town of Pelham is committed to delivering secure, reliable, and innovative technology services that support municipal operations and enhance public access to information. The IT team ensures the integrity of critical systems, supports staff and technology needs, and drives digital solutions that improve service delivery to the community.

Asset Category	Replacement Value
Audio Visual Equipment	$65,000
Cell Phone	$48,700
Desktop Computer	$5,400
Internet Supplier	$8,000
Laptop	$209,600
LED Screen	$14,400
Monitor	$39,000
Network - Firewall	$8,000
Network - Switch	$58,700
Network - Wireless AP	$90,400
Printer	$35,800
Security System	$6,300
Server	$24,000
Tablet	$56,900
Teleworker	$500
Video Surveillance	$108,000
Virtual Server	$60,000
Water Meter Panel	$800
Total	**$839,500**





Average Annual Infrastructure Gap to Maintain Current Level of Service	Average Annual Infrastructure Gap to Meet Proposed Level of Service
$37.4 k	$51.5 k

9.1. State of the Infrastructure

Information Technology supports service delivery across the entire Town by enhancing operational efficiency. Hardware and software assets enable staff to carry out their daily responsibilities effectively. Information Technology plays a vital role in modernizing and optimizing municipal operations. Information Technology is key to delivering essential services and supporting operations across all Town departments. The following sections provide an overview of the asset portfolio managed by the Town's Information Technology Services.

9.1.1. Asset Valuation

Information Technology consists of various hardware assets, with a total estimated replacement value of approximately $839,500.

To ensure these values reflect current market conditions, the Town has conducted a detailed review. This involved analyzing recent purchases and estimating present-day replacement costs to produce accurate valuations that consider both market trends and the specific characteristics of each asset.

Due to this complexity, software assets have not been included in the valuation of Information Technology assets. They will be further assessed and refined in future updates. The ongoing cost of software assets though, is included as part of the operational cost of Information Technology assets. The transition from traditional on-premises software to a Software-as-a-Service (SaaS) model, may significantly affect how services are delivered. Unlike conventional infrastructure, the replacement cost of software is more difficult to define, as it includes not only licensing fees but also implementation costs—both of which can vary widely based on the system's size and complexity. SaaS solutions typically involve lower upfront capital investment but require ongoing annual fees recorded as operating expenses. Furthermore, these assets do not follow a regular replacement cycle like other infrastructure components.

Table 57 presents the current Information Technology hardware inventory along with the corresponding estimated replacement values.

Table 57: Inventory and Current Replacement Value (Information Technology)

Asset Type	Count	Quantity Unit	2024 Estimated Replacement Value
Audio Visual Equipment	1	Each	$65K
Cell Phone	74	Each	$48.7K
Desktop Computer	3	Each	$5.4K
Internet Supplier	1	Each	$8K
Laptop	95	Each	$209.6K
LED Screen	12	Each	$14.4K
Monitor	1	Each	$39K
Network - Firewall	1	Each	$8K
Network - Switch	19	Each	$58.7K
Network - Wireless AP	74	Each	$90.4K
Printer	8	Each	$35.8K
Security System	5	Each	$6.3K
Server	2	Each	$24K
Tablet	50	Each	$56.9K
Teleworker	1	Each	$0.5K
Video Surveillance	30	Each	$108K
Virtual Server	4	Each	$60K
Water Meter Panel	1	Each	$0.8K
Total			**$839.5K**

9.1.2. Asset Condition

Condition was assigned to assets in Information Technology based on age/estimated service life. The condition rating scale is shown below in Table 58. Figure 43 shows that Fire assets are on average in Poor condition with the average age of all assets less than their estimated service life.

As shown in Figure 43, many IT assets are in Fair condition, with most of the assets' average age being less than their expected service life.

Table 58: Condition Rating Scale (Information Technology)

Condition	Age/ESL
Very Good	>80% life remaining
Good	60-80% life remaining
Fair	40-60% life remaining
Poor	20-40% life remaining
Very Poor	0-20% life remaining
Unknown	Not enough data exists to determine condition

Figure 43 shows the overall condition distribution of Information Technology assets as a percentage of their replacement value. On average, the Town's Information Technology assets are in fair condition, with over 81% of assets classified as fair or better.

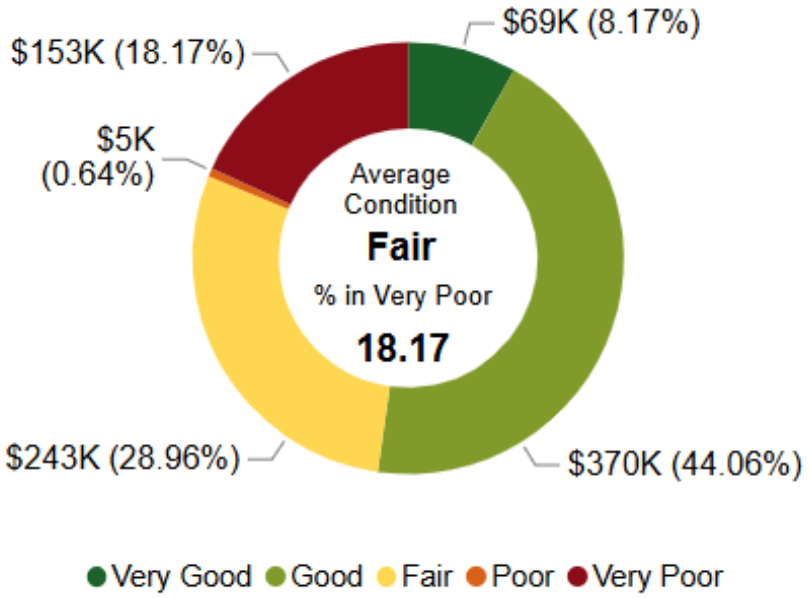


Figure 43: Condition Distribution by Replacement Value (Information Technology)

Figure 44shows the condition distribution of Information Technology assets broken down by asset category.

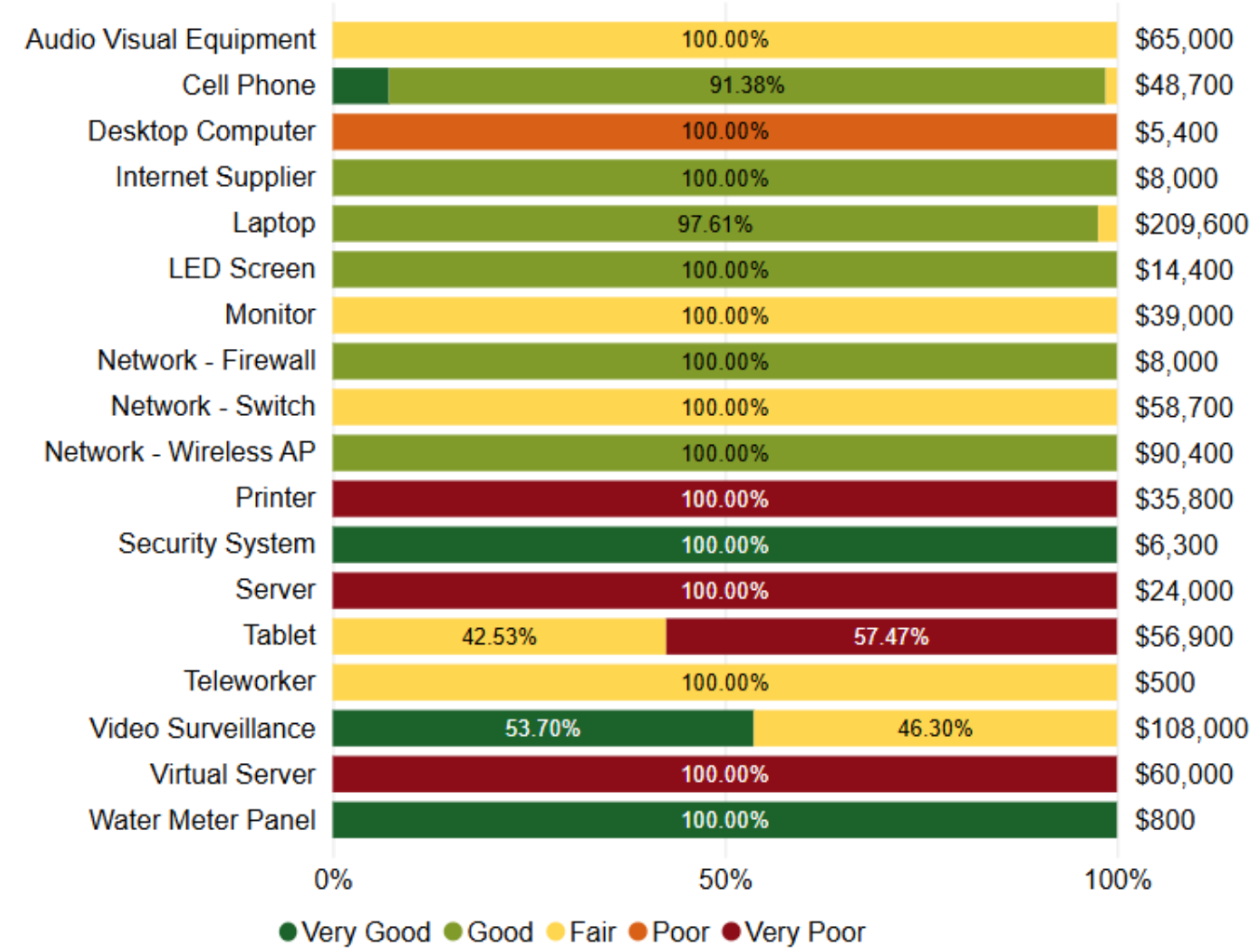


Figure 44: Condition Distribution by Asset Category (Information Technology)

9.2. Level of Service

Community Level of Service Objective	The Town is committed to delivering secure, reliable, and innovative technology services that support municipal operations and enhance public access to information.

Levels of service (LOS) are defined as parameters that reflect the quality and extent of services a municipality delivers to its residents. These parameters play a key role in determining infrastructure needs, resource allocation, and the overall cost of service delivery. In this Asset Management Plan (AMP), current LOS are presented using both legislated and Town-defined metrics. These are described from the perspective of community experience and may include a combination of qualitative and technical measures.

Table 59: Corporate Levels of Service (Information Technology)

LOS Attribute	Performance Measure	Current Performance	Proposed Performance
Quality	Percent of Current Replacement Value of Assets in Very Poor Condition	18.7%	12.2%
Affordability	Percent of Current Replacement Value Spent on Operations & Maintenance	100%	100%

Table 60: Key Performance Indicators (Information Technology)

LOS Attribute	Key Performance Indicator	Current Performance
Affordability	% of replacement value in reserves	100%
Quality	% of total replacement cost of hardware assets in good to very good condition	90%
Scope	% assets maintained in conformance with defined lifecycle strategies	85%
Scope	% of servers that are hyperconverged	100%

9.3. Lifecycle Management Strategy

The objective of the Lifecycle Management Strategy is to outline a series of planned actions, informed by best practices, aimed at maintaining a sustainable level of service (LOS), minimizing risk, and achieving the lowest possible lifecycle cost. The Information Technology service area oversees a range of lifecycle activities for its assets, including design, planning, construction, maintenance, repair, rehabilitation, disposal and eventual replacement.

9.3.1. Lifecycle Activities

Lifecycle activities are essential for maintaining long-term functionality, reliability, and sustainability of Information Technology assets. These activities manage assets throughout their entire lifespan—supporting efficient, cost-effective, and resilient service delivery.

By following best practices in asset management, including preventive maintenance and timely repairs, the Town can extend asset life, reduce major repair costs, and provide consistent, high-quality service to residents. Lifecycle strategies also help mitigate risks associated with asset ownership, as outlined in Section 10.5.

Table 61 highlights key lifecycle activities that ensure infrastructure remains operational and efficient. These activities fall under four categories: non-infrastructure activities, operations and maintenance activities, renewal and replacement activities, and growth and service improvement.

Table 61: Lifecycle Activities with Asset Management Practices (Information Technology)

Asset Management Practices / Planned Actions	Frequency Associated with Practices
Non-Infrastructure Activities	
Other technical studies and assessments	As required
Monitor recalls on assets to ensure proper functionality	Auto updates monthly
Strategic Plan	As required
Contingency and Redundancy Planning	As required
Operations and Maintenance Activities	
Planned Maintenance (PM) - updates on firmware and software	As required
Service Requested Maintenance	As required
Alerts for software updates and defective equipment	Monthly
Purchase of small equipment and materials	As required
Software licensing	Annually
Renewal and Replacement Activities	
Replacement	As required - when assets reach end of service life or are no longer fit for purpose; no longer supported
Growth and Service Improvement	
New Assets	Driven by growth
New Technology	As identified

9.3.2. Funding the Lifecycle Strategy

The Town uses the lifecycle management strategies outlined above in Table 61 to guide work planning and estimate future expenditure needs for sanitary assets. These strategies, along with

the scenarios below, form the basis for identifying the investments required to maintain current service levels and existing infrastructure.

The three scenarios focus specifically on the costs associated with renewal, rehabilitation, and replacement—key activities for keeping infrastructure in good repair and ensuring continued service delivery. Funding requirements for other lifecycle activities—such as non-infrastructure activities, operations and maintenance, and growth and service improvements —are addressed in the Scenario Comparison in Figure 46 and Table 62, based on the Town's operating and capital budgets.

For the purposes of this Asset Management Plan (AMP), it is assumed that the outlined activities and costs are sufficient to meet community expectations. This AMP does not include an analysis of potential cost optimizations. Growth-related needs are based on planned projects funded through development charges or in response to population growth.

An overview of the scenarios that were evaluated for the purposes of this AMP include:

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period, should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

The impacts to the condition profile of the Town's Information Technology assets based on the scenarios described can be found in , and the associated costs and comparison of these scenarios can be found in Figure 46 and Table 62.

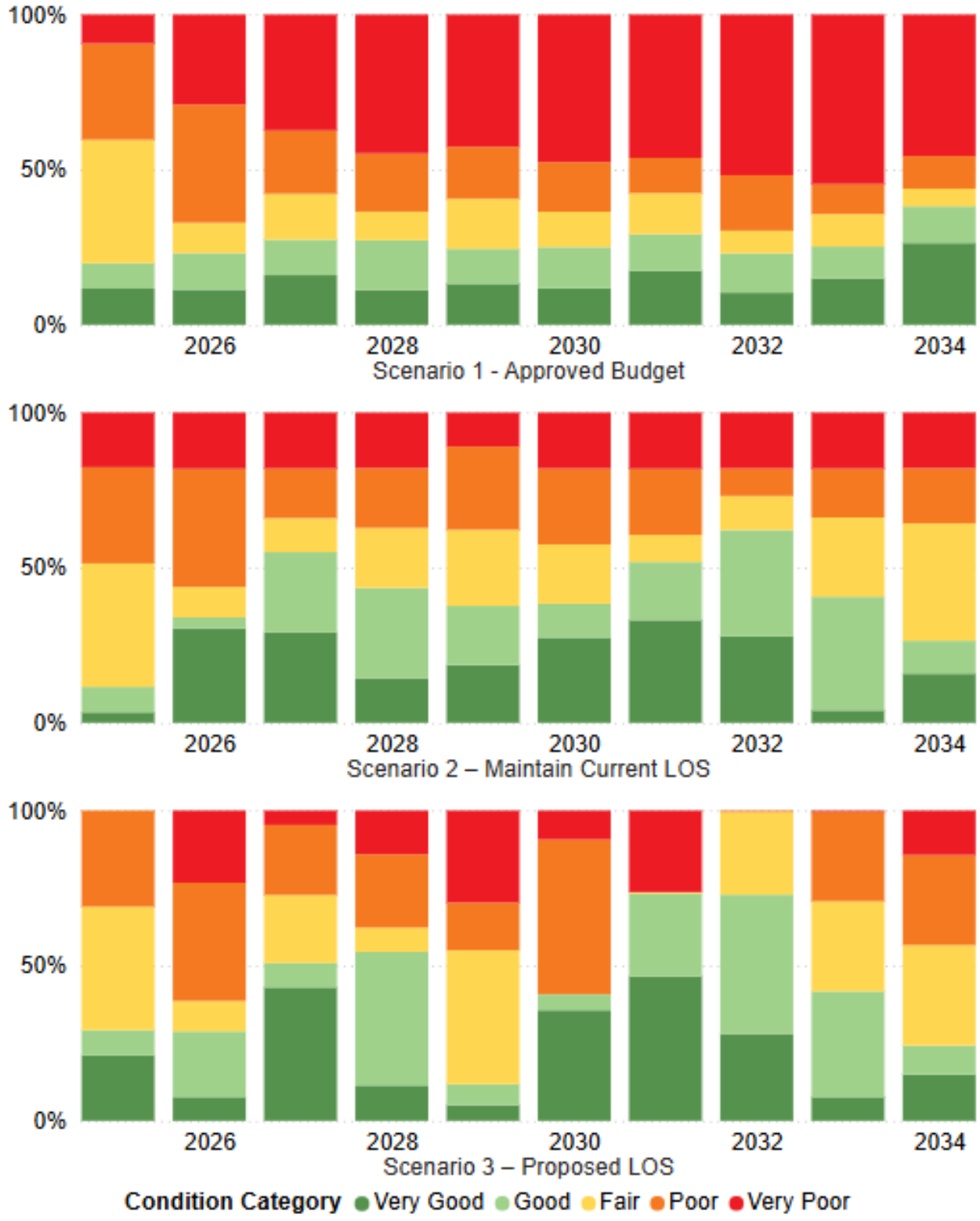


Figure 45: Condition Profile for Service Level Scenarios (Information Technology)

Figure 45 above shows the impact on the condition of the assets based on the Approved Budget, Maintain Current LOS and Proposed LOS forecast scenarios.

Scenario 1 – Approved Budget

Scenario 1 looks at the impact of current anticipated funding on the asset performance (condition) over the 10-year forecast period. The anticipated annual funding for renewal, rehabilitation and replacement activities for Information Technology is $110,840. Overall condition decreases in this scenario. Asset conditions decline steadily under the approved budget scenario. “Poor” condition assets remain elevated throughout the period, while those in “Fair” condition steadily decline, indicating many assets are transitioning into worse categories. Meanwhile, assets in “Good” and “Very Good” condition remain limited.

Scenario 2: Cost to Maintain Current Performance (Level of Service)

Under this scenario, asset conditions remain more stable compared to the approved budget scenario. The share of assets in “Good” and “Very Good” condition increases moderately over time however deterioration still occurs. It was determined that an annual budget of $148,270 is required to maintain performance for Information Technology assets, highlighting a funding gap of $37,430.

Scenario 3: Proposed Level of Service

In this scenario, asset conditions show significant improvement and yields the most positive outcome, with substantial reductions in “Poor” and “Very Poor” assets. This scenario demonstrates the value of increased investment, with proactive renewal strategies significantly improving overall infrastructure condition. It was determined that a budget of $162,310 for renewal, rehabilitation and replacement activities is needed to achieve the proposed levels of service. There is a funding gap of $51,470.

By comparing the above scenarios, Town staff can determine if there are any gaps in funding to address infrastructure needs which helps to support informed decision-making.

Figure 46 shows the anticipated spending on each lifecycle activity based on the current budget, compared to the average annual spending required to maintain the current level of service and to meet the proposed level of service. This scenario comparison indicates that Information Technology has a gap of $51,470 to achieve the proposed LOS. This funding gap underscores the challenges faced by the Town in adequately funding the necessary renewal, rehabilitation, and replacement activities for Information Technology assets.

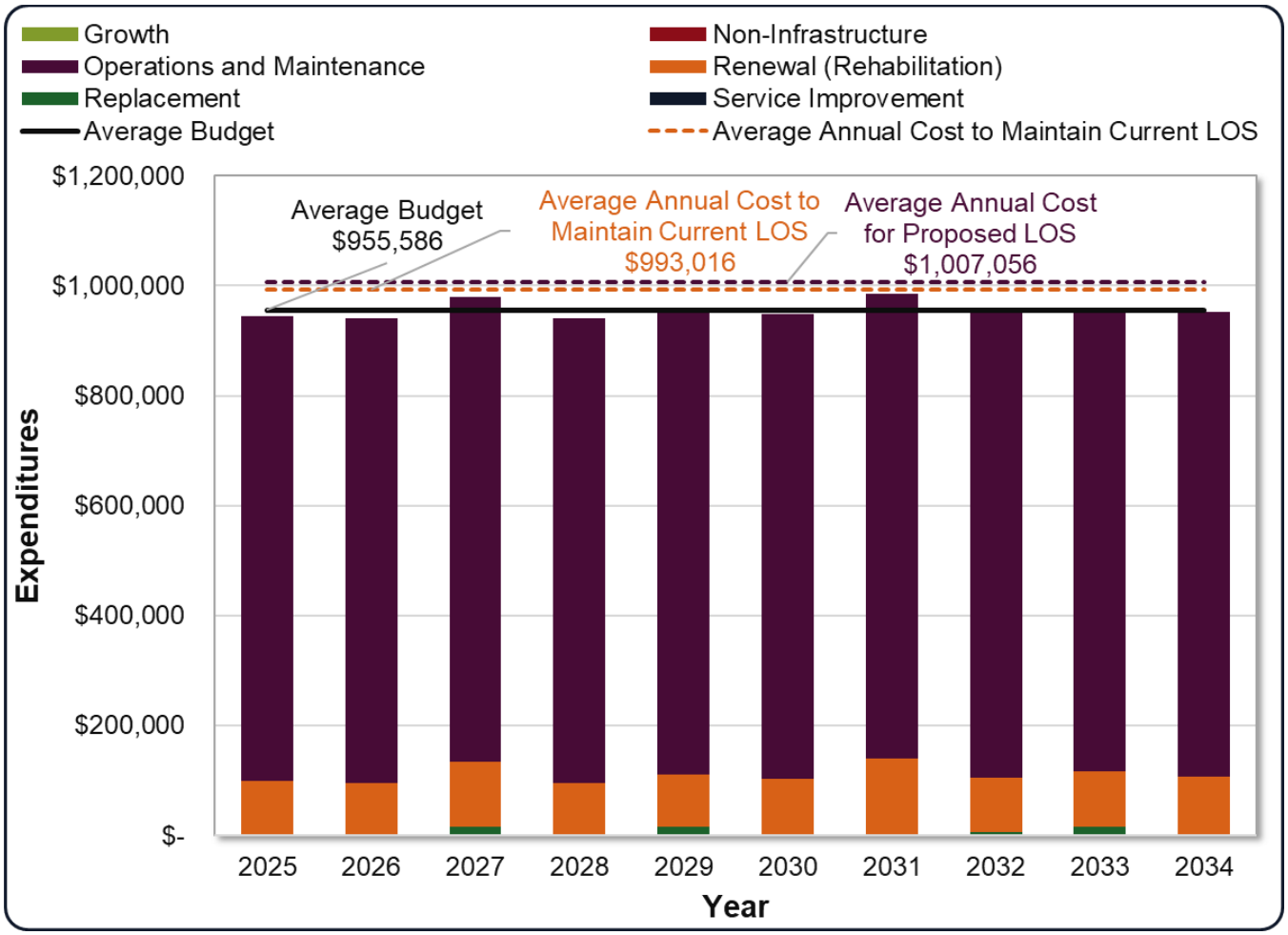


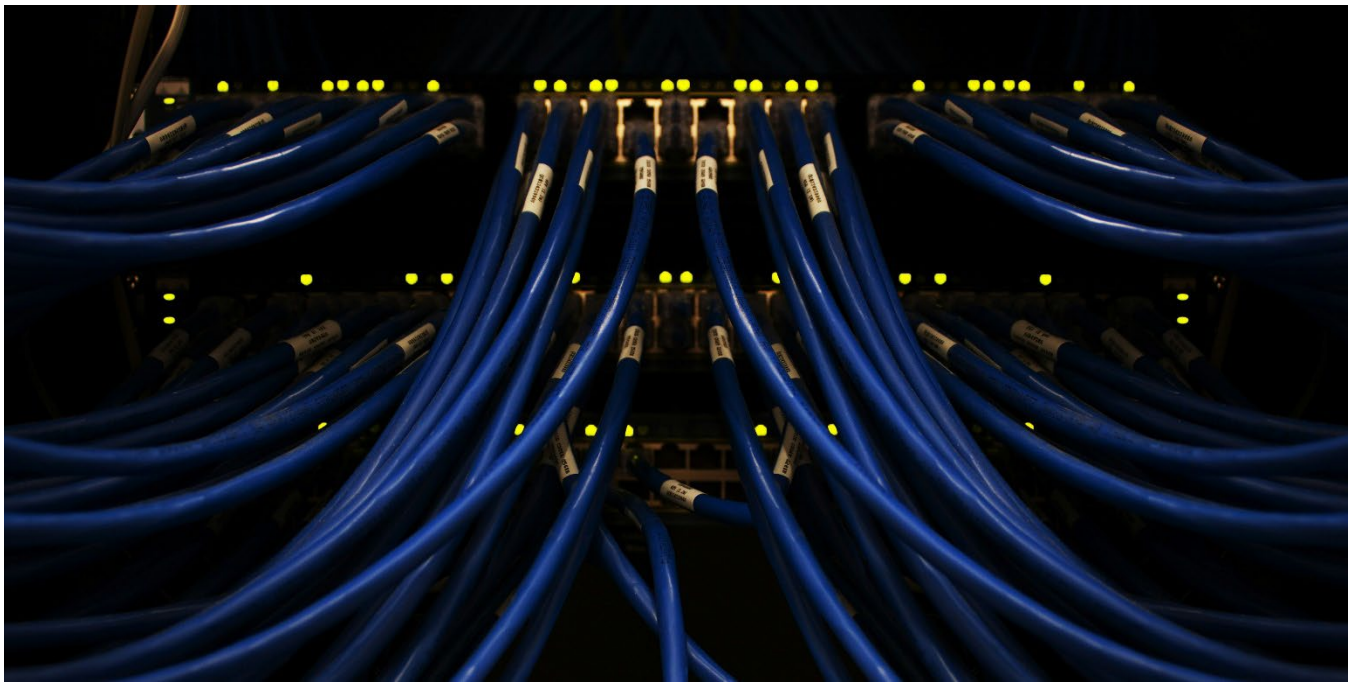
Figure 46: Lifecycle Expenditure Scenario Comparison (Information Technology)

No growth has been forecast for growth for Information Technology assets, so no additional annual O&M expenditures will be required to accommodate growth. Information Technology should consider reviewing future needs required to for software and technology. This is a quickly evolving asset category in terms of hardware and software and is required by all departments to ensure efficient services.

Table 62 provides a detailed comparison of the estimated average annual investments and funding gap for each scenario. Overall, there is an average annual funding gap of $51,470 for Information Technology assets to meet the proposed service levels.

Table 62: Lifecycle Activity Investments & Average Annual Infrastructure Gap (Information Technology)

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS
Capital Costs			
Growth	$0	$0	$0
Non-Infrastructure	$0	$0	$0
Renewal, Rehabilitation & Replacement	$110,840	$148,270	$162,310
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$110,840**	**$148,270**	**$162,310**
Capital Infrastructure Gap		**$37,430**	**$51,470**
Operations & Maintenance	**$844,746**	**$844,746**	**$844,746**
Operations Gap		**$0**	**$0**
Total Expenditures	**$955,586**	**$993,016**	**$1,007,056**
Total Funding Gap		**$37,430**	**$51,470**
Gap as Percentage of CRV		**4.46%**	**6.13%**



9.4. Data Confidence & Improvement

Table 63 outlines the main data sources and overall confidence in the data used for this AMP. Data confidence is based on how many assumptions needed to be made and the reliability of the data sources.

Table 63: Data Confidence (Information Technology)

Asset Type	Data Source	Data Confidence
Hardware	Spreadsheet	B
Software	No Data	N/A

9.4.1. Recommendations for Improvement

Opportunities for improvement for Information Technology assets include:

- Continue to review and update asset inventory, expand on any assets not captured within this plan.
- Develop asset register and strategies for software, as this is a large operational, and sometimes capital, expense for the Town.

10. Financial Strategy

This financial strategy outlines critical inputs and considerations to guide the development of future Town budgets, ensuring alignment between funding allocations and the long-term sustainability of service delivery to the community.

The financial strategy in this AMP is based on the Town's 2025 budget to determine the funding available to support infrastructure. All forecasted amounts are presented in 2025 dollars, and no inflationary measures have been applied to future needs. This financial strategy provides an analysis of the average annual funding available, the expenditures required to maintain the current LOS, as well as the ideal expenditures to achieve the proposed LOS identified throughout this plan.

The scenarios provided in this AMP analyze the renewal, rehabilitation and replacement lifecycle activity costs required to meet current and proposed LOS. These activities are essential to ensure that infrastructure remains in a state of good repair and continues to provide services to residents. Details of the expenditures and funding for the remaining lifecycle activities—non-infrastructure, service improvements, operations and maintenance, and growth—have been reported to reflect the full lifecycle cost of the Town's assets and services and are informed by the operating and capital budgets for the Town. Operations and maintenance expenditures have been analyzed to determine an approximate expenditure required to accommodate growth but has not been analyzed to determine if the current spending is adequate to meet the continued operation of the assets. All other lifecycle activities have been assumed to meet the needs of the Town.

10.1. Budget Overview

The Town's budget process is designed to allocate resources in a way that supports service delivery, preserves existing infrastructure, and funds the development of new assets. To accomplish this, the budget aims to align projected expenditures with available revenues and is organized into two main categories.

Operating Budget: The operating budget funds the daily operations of Town services. Expenditures include staff salaries, equipment, maintenance, materials and supplies, utilities, and contracted services.

Capital Budget: The capital budget supports all of the Town services for major repairs, renovating and replacing existing assets, acquiring and constructing new assets to support growth or strategic investment. Funding for the capital budget is from property taxes, development charges, user fees and charges, and grants from senior levels of government. Financing capital works can be from existing reserves and reserve funds and/or from the issuance of municipal debt.

The Town also has a Water and Wastewater budget, as these assets are funded through rates, and not the tax levy. For the purposes of this AMP, these are referred to as the rate supported assets.

For the purposes of this AMP, the 2025 Capital and Operating Budgets for both rate and tax supported assets have been analyzed for expenditures related to the assets identified in this plan, and were split into the following lifecycle categories to capture the full lifecycle costs associated with Town assets:

- Growth
- Non-Infrastructure Activities
- Operations & Maintenance
- Rehabilitation
- Replacement
- Service Improvements

The identification of the lifecycle categories of the budget ensures that expenditures for renewal and replacement activities of existing infrastructure are able to be compared to the forecasted expenditure requirements, as money available for growth, and other lifecycle expenditures should not be confused as money available to support existing infrastructure.

The results of this financial strategy have been split between tax and rate supported assets.

10.1.1. Funding Sources

The Town obtains revenue from various sources to fund the expenditures in the operating and capital budgets. Revenue sources include, but are not limited to, property taxes, user rates, development charges, and federal and provincial funding (grants and subsidies). These revenues are then used to fund all aspects of municipal service delivery and include the funding of capital expenditures and associated debt servicing costs.

An overview of the Town's revenues to fund the budgets is included in Figure 47.

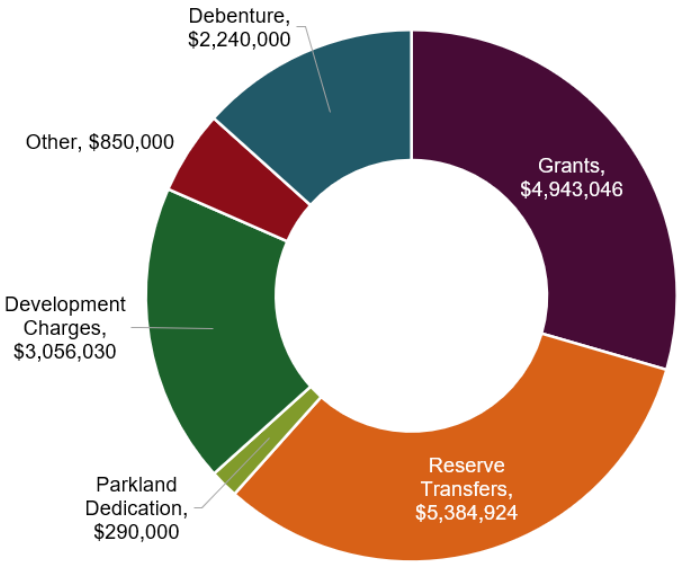


Figure 47: Town of Pelham 2025 Capital Funding Sources

10.2. Forecasting Approach and Assumptions

The AMP identifies the financial resources required to support lifecycle expenditures necessary to maintain current LOS and achieve proposed LOS across all asset categories. Forecasts within this AMP are based on both rate and tax-supported assets to align with the Town's budgeting framework. The financial strategy is built on the following key assumptions:

Lifecycle Cost Considerations: Projected costs include all major lifecycle activities including growth, non-infrastructure activities, operations and maintenance, rehabilitation, replacement, and service improvements to support long-term asset sustainability. Assumptions for non-infrastructure, growth, and service improvements are based on the Town's 10-year capital and operating budgets and are assumed to be sufficient to meet LOS targets. The forecasted results determined the expenditure required for rehabilitation and replacement activities.

Operations and Maintenance: O&M requirements are estimated using current spending levels. Future needs are based on maintaining the existing percentage of the current replacement value allocated to O&M, adjusted for expected asset growth.

Lifecycle Forecasts: Forecasts for both current and proposed LOS focus on rehabilitation and replacement needs. Lifecycle strategies are developed under three scenarios: The approved budget, maintaining current LOS and achieving proposed LOS.

Growth Expenditures: Growth-related were based on the current budget, based on activities funded by development charges. This should continually be reviewed and updated based on any updates to the development charge study and master plans.

Revenue Stability: IT is assumed that available revenues over the 10-year forecast period will support anticipated operating and capital expenditures.

Funding Gaps and Mitigation: the AMP identifies potential funding shortfalls and outlines possible financial and non-financial strategies to address them. The Town is expected to determine the appropriate actions through its annual budget and capital planning process, balancing risk and LOS objectives.

Cost Efficiency: It is assumed that the lifecycle strategies outlined in this plan enable service delivery at the lowest possible long-term cost, based on the current data. The Town will continue to explore opportunities to further reduce costs, through such efficiencies that are not included in this forecast.

Funding Optimization: The AMP assumes the Town has optimized all available funding sources through its Capital and Operating Budget development for both Tax and Rate-Supported services.

10.3. Projected Expenditures & Infrastructure Gap

The AMP seeks to identify the financial resources necessary to support lifecycle expenditures that maintain current LOS and achieve proposed LOS across all asset categories. The financial strategy considers projected lifecycle costs, including growth, non-infrastructure activities, operations and maintenance, renewal and rehabilitation, replacement and service improvements.

To determine the appropriate proposed LOS for each asset category, the Town evaluated multiple scenarios as part of this process.

Scenario 1: Approved Budget – This scenario forecasts the condition of the assets over the 10-year forecast period should the Town continue to fund the asset portfolio as planned in the Capital and Operating Budget.

Scenario 2: Maintain Current Level of Service – This scenario aims to keep the amount of assets in very poor consistent over the forecast period, using the current asset register and condition profile as the starting point, without the current funding constraint.

Scenario 3: Proposed Level of Service – This scenario forecasts the expenditures required to reach the Town's proposed level of service and is not constrained by the current budgets.

10.3.1. Projected Expenditures

The results have been broken out to rate and tax supported assets to reflect the different sources of revenue of these asset categories, and in alignment with the Town's budgets. Figure 48 and Figure 49 compare the average budget, the average annual cost to maintain current LOS and achieve proposed LOS, which includes the expenditures for all lifecycle activities. The bars shown are the anticipated budget expenditures, while the lines show the averages for all scenarios over the 10-year forecast period.

For rate supported assets, the average annual budget of $11 million, is closely aligned to the current level of service scenario, indicating that the Town is already budgeting to maintain the current level of service for water and sanitary assets. The total expenditures required to meet proposed LOS is approximately $12 million, which is an average annual funding gap of $964 thousand for rate supported assets.

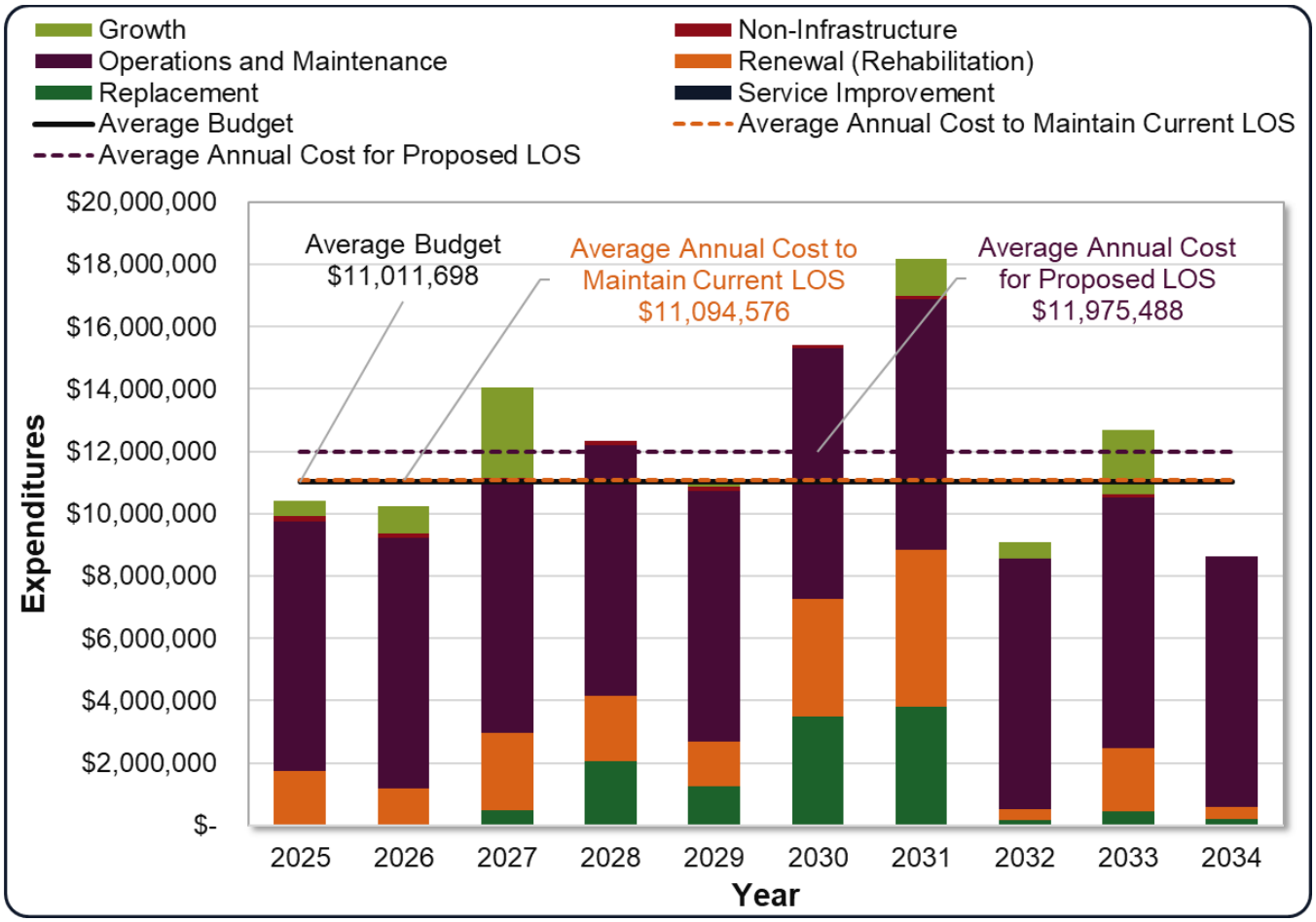


Figure 48: Rate Supported Lifecycle Activity Expenditure Scenario Comparison

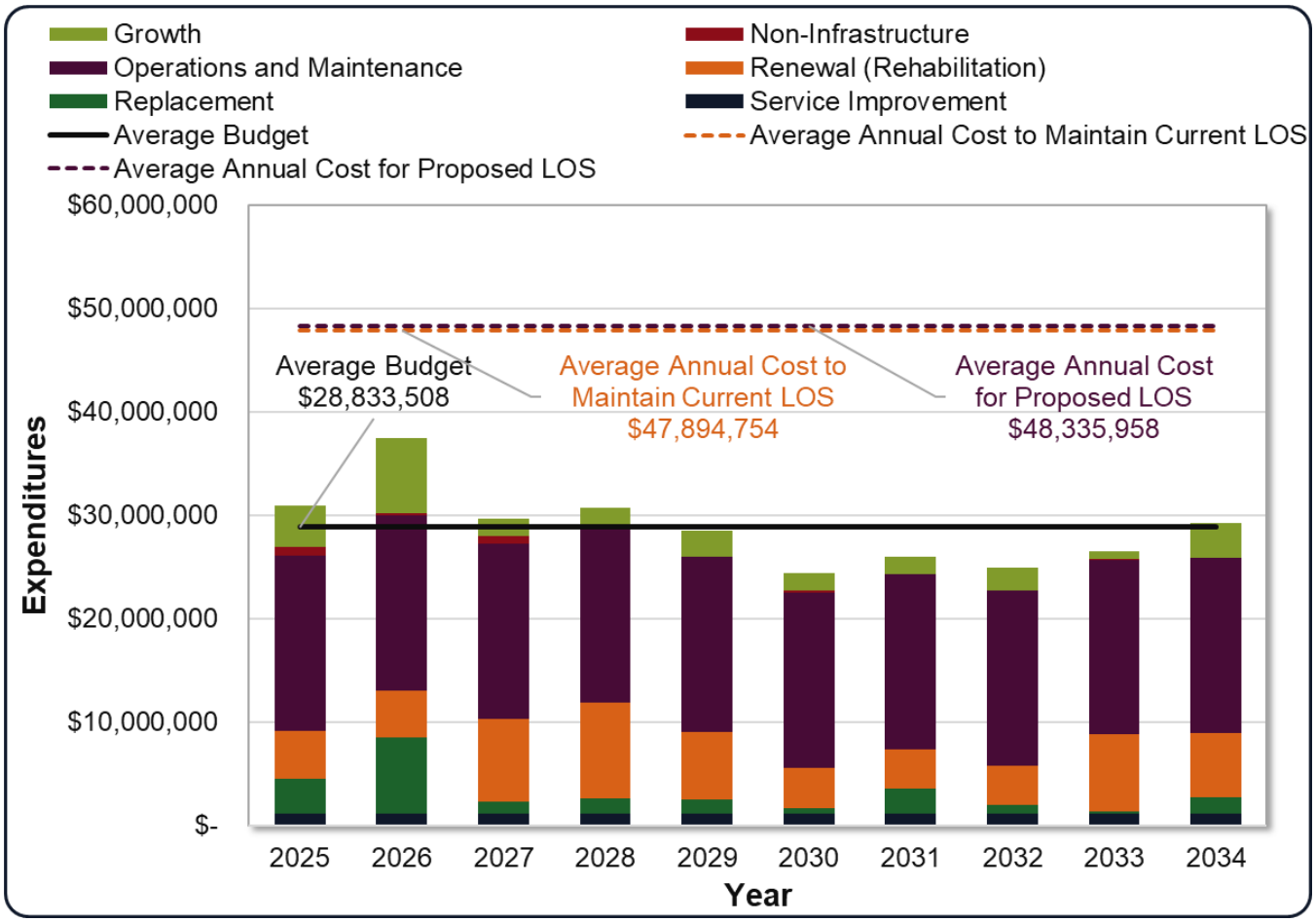


Figure 49: Tax Supported Lifecycle Activity Expenditure Scenario Comparison

The current average budget for tax supported assets is $28.8 million. To maintain current LOS and proposed LOS, the expenditures required is $47.9 million and $48.3 million respectively.

While acknowledging that funding constraints are a reality, there is a significant gap for tax supported assets to continue to provide services at the current levels. This analysis emphasizes the importance of strategic planning and investment to optimize the performance and longevity of infrastructure to continue to provide services now, and into the future, for the community.

10.3.2. Infrastructure Gap

Like many municipalities, the Town faces ongoing challenges in consistently delivering rehabilitation and replacement activities for its assets due to funding limitations, resource constraints, and competing priorities. These challenges contribute to the accumulation of an infrastructure backlog, where essential work identified in lifecycle management plans is deferred or delayed.

The infrastructure gap reflects the annual gap between the investment needed to maintain both current and achieve proposed LOS, and the available budget. This funding gap is calculated by

comparing the forecasted 10-year costs against the required expenditures required to sustain current LOS and achieve proposed LOS targets.

Closing this gap will require a strategic approach that includes clear prioritization, long-term planning, and the exploration of alternative funding sources or financing mechanisms. It is critical for the Town to develop and implement comprehensive strategies that balance immediate infrastructure needs with long-term financial sustainability to ensure the reliable delivery of essential services to the community.

Table 64 and Table 65 shows the average lifecycle expenditures for rate and tax supported assets and the infrastructure gap.

Table 64: Rate-Supported Assets Lifecycle Activity Expenditures & Average Annual Infrastructure Gap

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for PLOS
Capital Costs			
Growth	$821,419	$821,419	$821,419
Non-Infrastructure	$103,600	$103,600	$103,600
Renewal, Rehab & Replacement	$2,049,151	$2,023,955	$2,904,867
Service Improvement	$0	$0	$0
Total Capital Expenditures	**$2,974,170**	**$2,948,974**	**$3,829,886**
Capital Infrastructure Gap		**No Gap**	**$855,716**
Operations & Maintenance	**$8,037,528**	**$8,145,602**	**$8,145,602**
Operations Gap		**$108,074**	**$108,074**
Total Expenditures	**$11,011,698**	**$11,094,576**	**$11,975,488**
Total Funding Gap		**$82,878**	**$963,790**
Gap as Percentage of CRV		**0.03%**	**0.31%**

For rate supported assets, which include water and sanitary assets, the Town is currently budgeting approximately what is required to meet current levels of service and maintain assets in the approximate condition they are currently in. The average annual budget of $11.01 million is closely aligned with the $11.09 million required to sustain current LOS, resulting in a minimal funding gap of just $82,878—or 0.03% of the Current Replacement Value (CRV). To achieve a Proposed Level of Service (PLOS), the estimated cost increases slightly to $11.98 million, representing a funding gap of $963,790 (0.31% of CRV). The largest portion of this relates to

capital needs for Renewal, Rehab & Replacement, while operations and maintenance requirements are largely being met.

Table 65: Tax-Supported Lifecycle Activity Expenditures & Average Annual Infrastructure Gap

Lifecycle Activity	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for PLOS
Capital Costs			
Growth	$2,683,680	$2,683,680	$2,683,680
Non-Infrastructure	$211,557	$211,557	$211,557
Renewal, Rehab & Replacement	$7,853,945	$26,308,887	$26,750,091
Service Improvement	$1,131,000	$1,131,000	$1,131,000
Total Capital Expenditures	**$11,880,182**	**$30,335,124**	**$30,776,328**
Capital Infrastructure Gap		**$18,454,942**	**$18,896,146**
Operations & Maintenance	**$16,953,326**	**$17,559,630**	**$17,559,630**
Operations Gap		**$606,304**	**$606,304**
Total Expenditures	**$28,833,508**	**$47,894,754**	**$48,335,958**
Total Funding Gap		**$19,061,246**	**$19,502,450**
Gap as Percentage of CRV		**1.60%**	**1.63%**

For tax-supported assets, which include transportation; corporate facilities; parks and recreation and cemeteries; fire; fleet and equipment; and information technology, the Town is currently budgeting significantly below the level required to maintain current levels of service (LOS) and asset condition. The current average annual budget is approximately $28.83 million, whereas maintaining existing LOS would require $47.9 million annually. This results in a funding gap of about $19.06 million per year, equivalent to 1.60% of the Current Replacement Value (CRV). The largest portion of this gap is in capital expenditures, particularly for Renewal, Rehab & Replacement, where the current budget of $7.85 million falls well short of the $26.31 million needed to maintain current LOS. Operations and maintenance spending is closer to target but still falls short by about $606,304 annually. To meet a Proposed Level of Service (PLOS), the required annual investment rises slightly to $48.34 million, increasing the funding gap to $19.50 million, or 1.63% of CRV.

In summary, while the gap for tax-supported assets is more pronounced than for rate-supported assets, it is still relatively moderate in proportion to the overall asset base. Targeted increases in capital renewal funding would significantly reduce the shortfall.

Figure 50 shows the current replacement value (CRV) by asset category with transportation assets making up the largest portion.

Figure 51shows the gap by asset category, with transportation making up the largest portion of the gap. While this is a significant gap, the Town continues to get updated condition data.

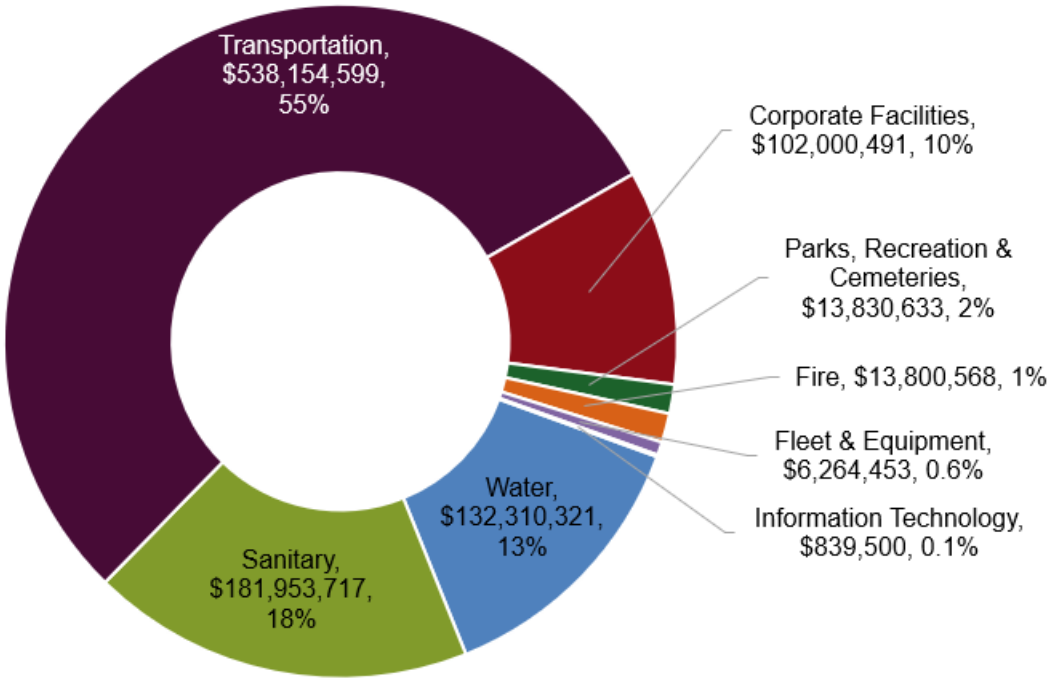


Figure 50: Current Replacement Value by Category (All Assets)

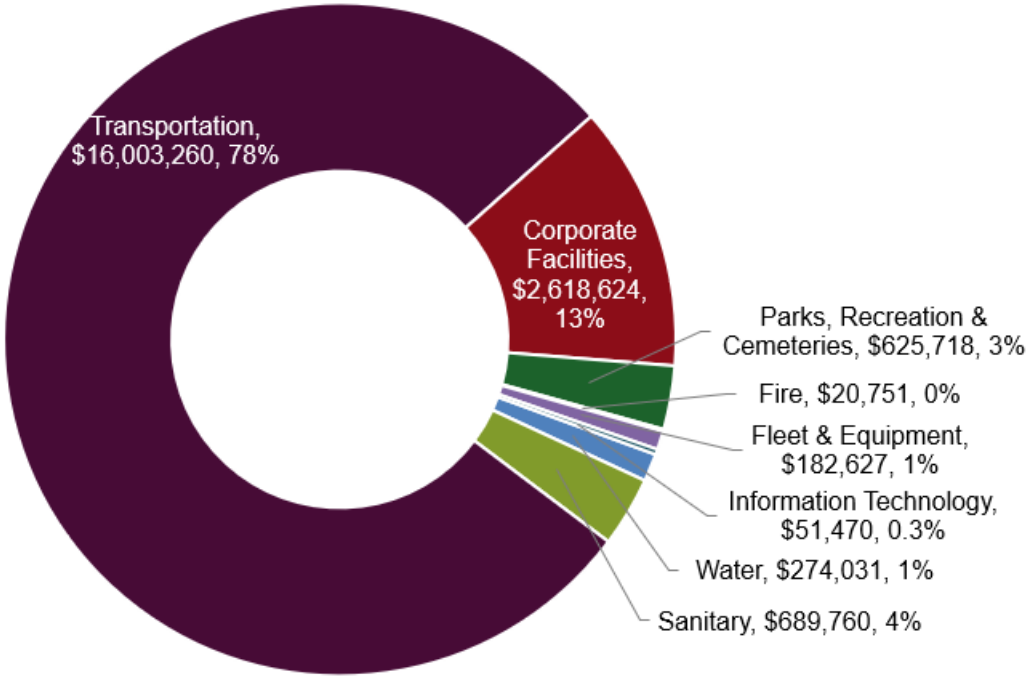


Figure 51: Infrastructure Gap by Asset Category (All Assets)

Table 66: All Asset Category Summary and Infrastructure Gap

Asset Category	Current Replacement Value	Average Annual Budget	Average Annual Cost to Maintain Current LOS	Average Annual Cost for Proposed LOS	Average Annual Gap for Proposed LOS	Gap as Percent of CRV
Water	$132,310,321	$5,756,182	$5,149,300	$6,030,212	**$274,031**	**0.21%**
Sanitary	$181,953,717	$5,255,517	$5,945,276	$5,945,276	**$689,760**	**0.38%**
Rate Supported Total	**$314,264,038**	**$11,011,698**	**$11,094,576**	**$11,975,489**	**$963,791**	**0.31%**
Transportation	$538,154,599	$14,941,034	$30,944,294	$30,944,294	**$16,003,260**	**2.97%**
Corporate Facilities	$102,000,491	$6,211,298	$8,382,971	$8,829,922	**$2,618.624**	**2.57%**
Parks, Recreation & Cemeteries	$13,830,633	$2,428,957	$2,987,175	$3,054,675	**$625,718**	**4.52%**
Fire	$13,800,568	$2,687,001	$3,096,767	$2,707,752	**$20,751**	**0.15%**
Fleet & Equipment	$6,264,453	$1,609,632	$1,490,531	$1,792,259	**$182,627**	**2.92%**
Information Technology	$839,500	$955,586	$993,016	$1,007,056	**$51,470**	**6.13%**
Tax Supported Total	**$674,890,244**	**$28,833,508**	**$47,894,754**	**$48,335,958**	**$19,502,450**	**2.89%**
All Asset Total	**$989,154,282**	**$39,845,206**	**$58,989,330**	**$60,311,446**	**$20,466,240**	**2.07%**

10.4. Risks of Infrastructure Gap

Failing to address the infrastructure gap or to implement the recommended lifecycle activities identified through the development of this AMP can lead to significant short- and long-term consequences. During the analysis of potential options and scenarios to establish appropriate targets for the proposed LOS, a range of risks were identified and carefully considered. These risks, summarized below, underscore the importance of proactive asset management:

Deterioration and Asset Failure: Without timely investments in renewal, rehabilitation, and replacement, infrastructure will continue to degrade, resulting in increased breakdowns, service disruptions, and potential safety hazards.

Reduced Operational Efficiency: Assets that are not maintained through proper lifecycle strategies become inefficient, contributing to service delays, downtime, and decreased productivity.

Escalating Costs: Delayed investment increases long-term costs. Postponed maintenance often leads to more frequent and costly emergency repairs or premature replacements, both of which are more expensive than timely interventions.

Inaccurate Forecasting: Many non-infrastructure activities—such as asset management planning and master plans—support accurate long-term forecasting. If these activities are not completed, the Town may face misaligned funding estimates and capacity shortfalls.

Service Disruptions: As assets deteriorate, the risk of unplanned failures and service interruptions increases, negatively impacting the community's access to essential services.

Decline in Quality of Life: Inadequate infrastructure can lead to issues such as traffic congestion, sewer backups, flooding, and limited access to services. Poorly maintained assets can also pose health and safety risks to residents.

Environmental Impacts: Aging and inefficient infrastructure may contribute to increased emissions or result in leaks and spills, such as untreated sewage entering the environment. These impacts also raise the risk of failing to meet environmental regulations.

Regulatory Non-Compliance: Assets in regulated areas, particularly water and transportation, must meet strict maintenance and reporting standards. Failure to comply can result in fines, legal action, or the loss of operating permits.

Erosion of Public Trust: Ongoing neglect of infrastructure can damage public confidence in the Town's ability to deliver services and manage its responsibilities effectively.

Economic Impacts: Poor infrastructure can impede local economic development by limiting business operations, discouraging investment, and reducing the reliability of municipal services.

Safety Risks: Failing or poorly maintained infrastructure may create unsafe conditions for residents, staff, and the broader community, potentially leading to accidents or injuries.

Effectively managing infrastructure requires sustained investment, proactive planning, and ongoing maintenance. By implementing the lifecycle strategies outlined in this AMP, the Town can reduce risk, improve service delivery, and ensure the long-term sustainability and resilience of its infrastructure and community.

10.5. Risk Mitigation Strategies

Ontario Regulation 588/17 requires that the Town identify how it will manage the risks associated with not implementing the lifecycle strategies needed to achieve the proposed levels of service (LOS). The Town actively addresses these risks through a range of strategies, including:

Maintenance and Rehabilitation Activities: The Town strives to maintain assets to the best extent possible within current funding constraints, extending asset life where feasible. Many assets have exceeded their expected service lives but are kept operational through targeted maintenance efforts until funding for replacement becomes available.

Preventative maintenance and routine servicing are applied across all asset classes to help ensure assets reach—or exceed—their expected service lives while remaining in a state of good repair.

Risk-Based Asset Prioritization: Asset interventions are prioritized based on risk, using staff expertise and condition data to guide the allocation of limited funding. Through the capital planning and annual budget process, higher-risk and higher-priority assets are targeted for renewal or replacement, allowing the Town to mitigate the most significant risks while optimizing investment timing and efficiency.

Updated Condition Assessments: The Town conducts ongoing condition assessments, particularly for high-risk assets, to ensure decisions are based on the most accurate and current information. Asset renewals and replacements are prioritized using these up-to-date needs assessments.

Regulatory and Compliance Standards: Maintaining compliance with all applicable regulatory and safety standards is a top priority, ensuring that infrastructure remains safe, functional, and legally compliant.

Pursuing Grant Opportunities: The Town actively seeks grant funding and partnership opportunities to increase the financial resources available for asset replacement and rehabilitation, helping to address the funding gap.

The Town remains committed to delivering the level of service expected by the community while managing risk in a fiscally responsible manner. As the Town explores longer-term strategies to address the infrastructure funding gap, these risk mitigation approaches will continue to be implemented and strengthened to minimize the impact of not meeting proposed LOS targets.

10.6. Funding Strategies and Recommendations

To address the Towyn's infrastructure gap, a balanced and thoughtful approach that combines both financial and non-financial strategies is essential. Many of the recommended non-financial strategies reflect industry best practices in asset management. Incremental implementation is encouraged to ensure strategies remain both practical and affordable. While progressive improvements in financial strategies will substantially help reduce the gap, prioritizing non-financial strategies is equally important to ensure long-term success.

10.6.1. Non-Financial Strategies

Levels of Service (LOS) Targets

The Town has proposed LOS targets that consider risk, affordability, and feasibility, tailored to the unique characteristics of each asset category. It is recommended that these metrics be reviewed and updated annually to evaluate progress and ensure that targets remain realistic, financially sustainable, and aligned with community expectations. Regular assessment will also support the Town's efforts to reduce the infrastructure gap in a measured and strategic way.

Asset Prioritization and Asset Management Practices

As the Town continues to advance its asset management program, effective asset prioritization becomes increasingly critical. Optimizing the use of limited financial resources by focusing on asset condition, criticality, and risk ensures that high-priority needs are addressed first, and that investments yield the greatest value.

Preventative maintenance and rehabilitation strategies are central to proactive asset management, helping to extend asset life and reduce the need for costly emergency repairs. Strengthening asset management practices can also lower operational costs. This includes using technology to assess asset conditions, maintaining robust asset registers, and leveraging data from maintenance management systems to inform long-term planning.

A mature asset management framework will empower the Town to make informed decisions, effectively prioritize investment, and ensure the ongoing sustainability of its infrastructure.

Asset Management Data and Systems

The Town should explore how to enhance asset management data and systems to improve asset management planning by enabling data-driven decision-making, improving accuracy in forecasting, and optimizing resource allocation. Systems include a centralized asset register, to track all assets owned by the Town, computerized management systems, and a decision support tool.

Asset management data and systems turn information into action. Investing in these tools ensures the Twon can management infrastructure responsibly, plan effectively for the future, and deliver reliable services to the community.

Efficiency Measures and Lower-Cost Alternatives

The Town continues to explore cost-effective service delivery methods. Some options—such as centralizing services, outsourcing, and adopting new technologies—may not yet be reflected in this AMP but offer potential future benefits. Ensuring that staff have adequate resources to maintain assets in good condition is also essential. One example is the relining and spot repairs of sanitary pipes, which enhances asset performance and extends service life at a lower cost than traditional open-cut replacements.

Community Engagement

Engaging residents on the importance of infrastructure investment can help build public understanding and support for future funding initiatives. Community input is also valuable when evaluating LOS targets and measuring performance.

Advocacy

The Town continues to advocate for increased funding from higher levels of government and to pursue collaborative opportunities with neighbouring municipalities to share resources and costs, enhancing efficiency and service delivery.

10.6.2. Financial Strategies

There are several financial strategies and funding tools available to support increased investment in infrastructure, as illustrated in Figure 52. When used in combination with non-financial strategies, these tools can play a vital role in addressing the Town's infrastructure gap.

Figure 52: Financial Management Tools

It is recommended that the Town pursue incremental improvements to its financial approach to ensure long-term community sustainability. These improvements should be carefully balanced with considerations of affordability and practical achievability to maintain responsible financial stewardship while meeting infrastructure needs.

Debt Financing

Debt is a financial tool that, when used responsibly, can play a valuable role in funding critical infrastructure. For the Town, a well-structured debt strategy can support long-term financial sustainability, when aligned with asset management objectives, and can help balance service deliver needs with taxpayer affordability.

Strategic use of deb can enable the Town to maintain service levels while addressing infrastructure priorities. Debt may be appropriate in several situations, including:

- Responding to urgent infrastructure needs;
- Leveraging grant programs that require matching municipal contributions;
- Managing cash flow for large, multi-year capital projects; and
- When debt servicing costs remain affordable within the Town's overall financial framework.

The Town currently has external debt in the form of debentures, issued by the Regional Municipality of Niagara, and borrowed short-term funds from the bank. As of December 31, 2024 the Town expects to have outstanding debentures of $24,274,670. As of December 31, 2024, the Town expects to have outstanding debentures of $24,274,670.

The Town's debt servicing costs, as a percentage of net revenues, are not projected to exceed the provincial annual repayment limit of 25%.

Divestitures

Selling non-essential assets to generate revenue and reduce maintenance costs where feasible. However, this is not an option for all asset types, such as linear infrastructure like watermains. Careful consideration of assets for possible divestitures should be undertaken prior to implementing this strategy. The asset's relevance to core services and community value should be evaluated, along with consideration of the asset's condition, financial implications, legal and regulatory review, engagement with stakeholders. The Town may consider alternative uses or partnerships for the asset rather than divestitures to ensure future community needs are met.

Grants & Contributions

The Town will continue to leverage and seek further available grants and contributions. Although these grants are challenging to estimate and forecast and should not be relied upon as a consistent future funding source, the Town can still leverage them to help address expenditures and alleviate financial pressures. The analysis within this AMP includes the funding currently available and forecast to be available for infrastructure, including Ontario Community Infrastructure Fund.

Growth & Development

Promoting development in strategically located, cost-efficient areas helps maximize tax and rate revenue while minimizing the financial burden of infrastructure and service expansion. By focusing growth in areas with existing utilities, transportation networks, and public services, the Town can enhance fiscal sustainability, reduce long-term maintenance costs, and improve overall efficiency. This approach supports responsible urban planning, encourages higher land productivity, and increases revenue. The Town continues to update and refine financing plans through the annual budget process to include additional revenues generated from growth.

To offset the cost of growth, the Town sets and collects development charges on residential development and re-development. The Town last updated their Development Charges Background Study in 2023 to ensure development charges provide the recovery of growth-related capital expenditures from new developments. It is imperative that master plans and development charge background studies are continually updated to ensure development charges are keeping pace with the rapidly changing infrastructure estimates to accommodate growth.

Reserve & Reserve Funds

Reserve and Reserve Funds are important financial management tools that allow the Town to set aside a portion of revenue over time to fund future infrastructure projects and respond to unforeseen events. Like a savings account, reserves provide stability and flexibility in asset management planning by helping fund asset renewal, major repairs and emergencies.

A common misconception is that reserves are a “slush fund.” In reality, their primary purpose is to ensure financial preparedness for planned infrastructure investments and to help the Town provide affordable, consistent services in the future. While reserves may be used in emergencies, they are also a key part in long-term capital planning. Reserve funds are allocated to capital projects through Council-approved budgets. Reducing annual contributions to reserves to limit short-term tax increases can lead to great financial pressures in the future, requiring higher tax increases to restore reserve balances and maintain service levels.

Leveraging reserve and reserve funds offers several key benefits:

- Supports long-term capital planning by spreading out infrastructure costs over time, minimizing the need for sudden tax increases or heavy reliance on debt.
- Manages risk and uncertainty by providing a financial bugger for unexpected asset failures or emergency repairs.
- Funds lifecycle asset management by providing dedicated reserve funds that allow for timely maintenance, rehabilitation, and replacement, avoiding costlier deferred work.
- Improves debt management and affordability by reducing the need for borrowing, helping the Town manage long-term debt obligations and taxpayer burden.

The Town approved S400-08 in 2020 which established guiding principles, primary objectives, key management and administrative responsibilities and standard of care for Reserves and Reserve

Funds managed by the Town. The Town operating budget includes reserve transfers, which are used to fund operating projects, capital projects and other significant expenditures.

The Town's Reserve and Reserve Fund Policy outlines general and minimum reserve targets based on the capital forecast. A phased strategy has been put in place to meet these minimum reserve targets, with specific milestones set for 2020-2024, 2025-2029, 20230-2034, and 2035-2039. The aim is for each reserve to reach its minimum target by 2039. Figure 53 outlines the 2024 year end projected capital and discretionary reserve fund balance versus the target balances previously established. The Town intends to update to update the minimum reserve targets upon the completion of this AMP.

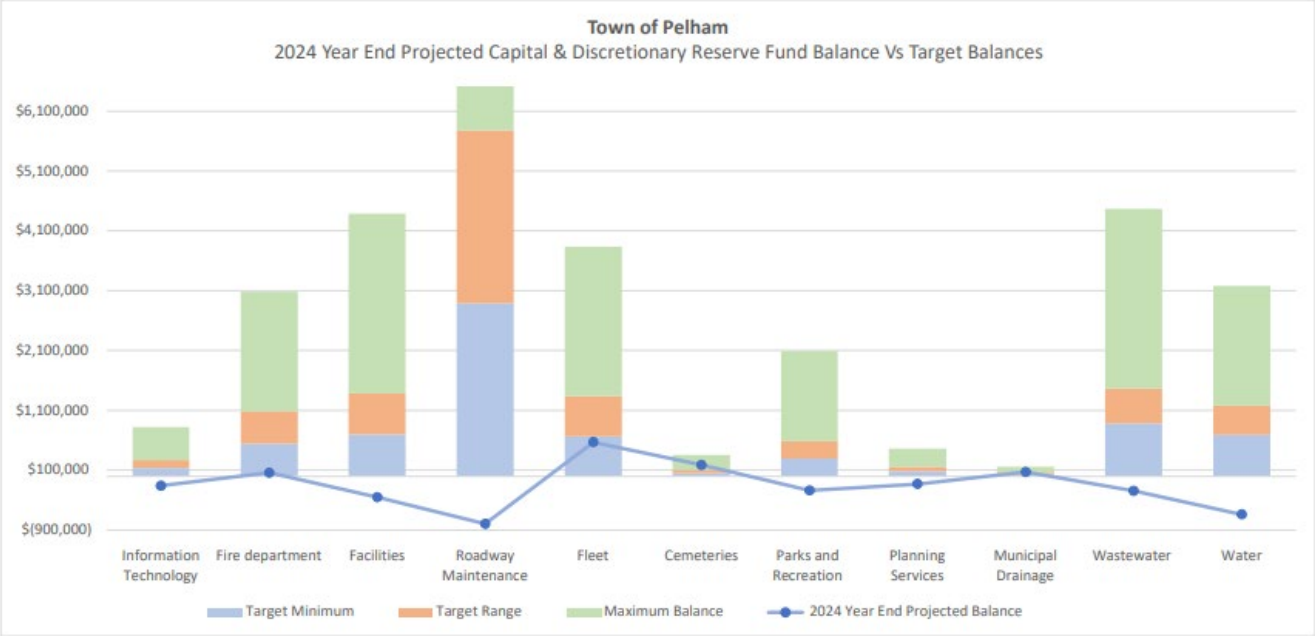


Figure 53: 2024 Year End Projected Capital & Discretionary Reserve Fund Balance Vs. Target Balances

An overview of the reserve positions related to the AMP categories can be found in Table 67 . This summary provides the 2025 projected reserve balance, the 2025 capital reserve contributions, and the annual expenditures required for renewal, rehabilitation, and replacement activities required to achieve the proposed LOS. This analysis shows that the Town's efforts to improve contributions to reserves have been successful for Fleet & Equipment and Information Technology but are still lacking in the other asset categories.

The average annual expenditure required to achieve proposed LOS as a percentage of the current replacement value provides the optimal annual target for reserve contributions. This percentage of replacement value takes into consideration the current condition and lifecycle strategies for Town assets. Higher percentages are required for assets with a lower estimated service life (like Information Technology and Fleet assets). While assets with longer life expectancies require a lower percentage.

Table 67: Reserve Overview

Asset Category	2025 Projected Reserve Balance (Dec. 31, 2025)	2025 Capital Reserve Transfers	Renewal & Replacement Annual Need to Achieve PLOS	Expenditure for PLOS as Percent of CRV	Reserve Contribution Shortage
Water	($218,563)	$1,091,848	$1,461,624	1.10%	($369,776)
Sanitary	($149,205)	$305,539	$1,443,244	0.79%	($1,137,705)
Transportation[1]	($146,773)	$2,886,300	$20,930,052	3.89%	($18,043,752)
Corporate Facilities[2]	$471,145	519,600	$3,694,477	3.62%	($3,174,877)
Parks, Recreation & Cemeteries[3]	($278,263)	$295,600	$839,767	6.07%	($544,167)
Fire	$202,650	$543,400	$612,807	4.44%	($69,407)
Fleet & Equipment	$380,907	$582,300	$510,679	8.15%	$71,621
Information Technology	($158,221)	$157,500	$162,310	19.33%	($4,810)
Total	**$103,677**	**$6,382,087**	**$29,654,958**	**1.97%**	**($23,272,871)**

[1] Includes Roadway Maintenance & Municipal Drainage

[2] Includes Facilities and Meridian Community Centre

[3] Includes Parks, Recreation and Cemeteries

These findings are largely in line with the Canadian Infrastructure Report Card recommended reinvestment rates, with some exceptions. Corporate Facilities and Parks show a higher need for reinvestment than recommended, which is a reflection of the current condition and the specific forecasted needs to achieve proposed LOS.

Taxation (Incremental Revenue Increases or Infrastructure Levy)

Incremental revenue increases can help close the infrastructure gap by gradually providing addition revenue to fund the long-term maintenance, renewal and improvement of the Town's infrastructure. An infrastructure levy for instance can play a role in providing this additional revenue through an incremental increase and provide consistent funding for infrastructure projects, support long-term asset management, spreading the financial impact over multiple years making it more manageable, and enhancing fiscal sustainability.

An incremental increase in the form of an infrastructure levy can provide a reliable and sustainable source of funding, enabling the Town to prioritize and address infrastructure needs over time without overburdening tax and rate payers or relying heavily on uncertain grants and external sources.

User Fees/Service Charges

The Town can implement or adjust user fees and charges as a financial strategy to help reduce the infrastructure gap, particularly in support of asset renewal and replacement needs. Aligning fees with the actual cost of service delivery, including long-term asset lifecycle costs—ensures that users contribute fairly to the ongoing sustainability of the services they benefit from. This approach promotes fiscal responsibility while reducing dependency on property taxes or external funding sources.

Fee structures should be reviewed and updated regularly to reflect inflation, changes in service demand, and the projected costs of maintaining assets in a state of good repair.

By adopting a comprehensive and balanced mix of financial, operational, and policy-based strategies, the Town can more effectively address its growing infrastructure gap. This integrated approach allows the Town to prioritize critical infrastructure investments, extend the life of existing assets through improved lifecycle management, and ensure that limited resources are directed where they will deliver the greatest value. Proactive planning and strategic investment are essential to maintaining and enhancing service delivery standards. This ensures the Town's infrastructure continues to meet the needs of current residents while also supporting future growth. Importantly, this strategy promotes fiscal sustainability by balancing affordability for residents with the ongoing need for infrastructure renewal and replacement.

It is intended the financial strategies outlined will also serve to guide future Town budgets, helping to establish appropriate funding levels needed to maintain quality municipal services.

11. Improvement & Monitoring

Asset management is fundamentally a process of continual improvement. This guiding principle ensures that assets are maintained and upgraded efficiently to meet both current and future levels of service.

Further to the specific recommendations for data improvements within the asset category chapters, this Improvement Plan outlines the Town's compliance with O. Reg. 588/17 and identifies key opportunities for further enhancement. The Town remains committed to advancing its asset management practices. This AMP meets the regulatory requirements of O. Reg. 588/17 and sets the stage for ongoing improvements in service levels, asset valuation and condition reporting, and future iterations of the Plan.

11.1. 2025 O.Reg. 588/17 Compliance

Following the approval of this plan by Council, this plan will meet the 2024 and 2025 regulatory requirements, which are outlined below.

2025 O.Reg. 588/17 Compliance Checklist

Asset Management Plan

- For core and all other municipal infrastructure assets included in the 2024 plan:
- The levels of service the municipality proposes to provide for each of the 10 years following the year in which all information required is included.
- An explanation of why the proposed levels of service are appropriate for the municipality based on the following:
    - The options for the proposed levels of service and the risks associated with those options to the long-term sustainability of the municipality.
    - How the proposed levels of service differ from the current levels of service.
    - Whether the proposed levels of service are achievable.
    - The municipality's ability to afford the proposed levels of service.
- The proposed performance of each asset category for each of the 10-year period
- A lifecycle management and financial strategy that sets out that includes an assessment of the full lifecycle activities required for 10 years and options, risks, and options to achieve the proposed LOS at the lowest cost.
- An estimate of the annual costs for each of the 10-year period.
- Identification of the annual funding projected to be available.
- Identification and explanation of any funding shortfalls and risks associated with not meeting proposed level of service by performing the required lifecycle activities.

11.2. Continued O. Reg. 588/17 Compliance

Once the Town achieves compliance with the 2025 requirements, O. Reg. 588/17 shifts from development to maintenance and continuous improvement.

11.2.1. Update Strategic Asset Management Policy

Regulation Reference: O.Reg. 588/17, Section 4

- Every municipality shall prepare its first strategic asset management policy by July 1, 2019, and shall review and, if necessary, update it at least every five years.

Recommendation: Report to Council with Updated Strategic Asset Management Policy to reflect current practices and priorities.

Purpose: Ensures the municipality manages their infrastructure assets in a strategic, transparent and sustainable way to support the delivery of services. The policy outlines a clear vision and commitment to asset management and outlines the municipality's approach to asset management, ensuring continued alignment with its goals, priorities and financial strategies. The policy's purpose is to establish guiding principles, clarify roles and responsibilities, support continuous improvement and promote transparency and accountability.

11.2.2. Annual Review and Progress Reporting

Regulation Reference: O. Reg. 588/17, Section 9

- Municipalities must conduct an annual review of its asset management progress on or before July 1 in each year
- The annual review must address:
    - The municipality's progress in implementing its asset management plan;
    - Any factors impeding the municipality's ability to implement its asset management plan; and
    - A strategy to address the factors described

Recommendation: Report to Council with any changes in State of the Infrastructure and Levels of Service. At this time the proposed levels of service targets can be reviewed.

Purpose: Ensure the AMP remains a living document aligned with service delivery and financial decisions. The annual update will provide required information for informed decision making.

11.2.3. Five-Year Plan Update

Regulation Reference: O. Reg. 588/17, Section 7

Requirement: Every municipality shall review and update its asset management plan at least five years after the year in which the plan is completed

Purpose: To ensure that the AMP remains accurate, relevant, and actionable in guiding the municipality's long-term infrastructure decisions. Asset management is a dynamic process, and regular updates allows the Town to respond to changing conditions, improve data, and align with evolving service and financial goals. Updates will keep the AMP current with:

- New assets
- Completed projects
- Updated condition data
- Service level shifts
- New financial projections

11.3. Improvement Plan

Annual Update Template

Objective: Create an annual AMP reporting template (can align with budget cycle)

- Collaborate with the Town to develop a reporting template in the preferred platform/file format.
- Design the template to align with the budget cycle and capture key updates on state of the infrastructure, levels of service and lifecycle activities.
- Test the template with staff and refine based on feedback.
- Establish a process for annual completion, review, and submission.

Benefits: By developing a reporting template for the annual update, it will ensure updates are consistent year over year to provide oversight on the changes being implemented within the Town's asset management progress, and progress of the implementation of the AMP.

Data Governance and Management

Objective: Develop asset data governance strategy to ensure appropriate roles and responsibilities are documented and assigned for data maintenance.

- Document "source of truth" for all asset registers and ensure registers developed for this AMP are kept up to date.
- Define roles and responsibilities for maintaining information on assets and data maintenance.
- Identify key fields required for asset management planning, and key data sources.
- Develop process and methodology to continue to review and update replacement values and estimated service lives.
- Formalize a corporate AM governance model, including:
  - Cross-department collaboration
  - KPIs for performance monitoring

Benefits: Implementing data governance and management improves the accuracy and reliability of asset data, supporting informed, evidence-based decisions. A formal governance model fosters

cross-department collaboration, accountability, and continuous improvement through performance monitoring.

AM System Improvements

Objective: To enhance the Town's asset management program by establishing a structured data management framework and ensuring staff have timely access to reliable asset information.

- Set up a data management framework so updates are efficient:
    - Complete review of current systems used for asset management, including asset register/data tracking, computerized maintenance management systems (CMMS), and decision support tools.
    - Develop road map for improvements
        - Develop asset hierarchy
        - Develop asset register
        - Implement improvements and identified integrations between systems
- Provide access to stakeholders to ensure staff have access to required information.
- Continue to fill any remaining gaps and maintain asset registers.

Benefits: The AM System Improvements enables efficient, informed decision-making for maintenance, rehabilitation, and replacement activities. It supports consistent data access across departments, reduces duplication of effort, and improves the accuracy and timeliness of asset information to guide planning and service delivery.

AM Dashboard Development

Objective: Develop AM dashboards based on asset registers and condition data so data updates and AM reporting is efficient and accessible to all stakeholders for decision support, asset management and long-term planning. Dashboards can be developed to provide line of site on asset condition, levels of service and completed lifecycle activities.

- Identify key performance indicators (KPIs) and data fields to include in dashboards.
- Select appropriate platform (e.g. GIS Dashboards) to build and manage dashboards.
- Design and configure dashboards tailored to user needs (e.g., Council, Public Works, Finance).
- Establish automated data connections or update protocols to ensure dashboards reflect current information.
- Train staff on accessing and interpreting dashboard data.
- Develop a process for ongoing maintenance, updates, and enhancements.

Benefits: Developing asset management dashboards improves decision-making by providing real-time, visual access to key data. It enhances transparency and collaboration by making consistent, up-to-date information accessible to all stakeholders. Dashboards also support long-term planning and communication by streamlining reporting, reducing manual data handling, and clearly conveying asset performance and needs.

Develop Asset Criticality and Risk Framework

Objective: Develop a framework to assess asset criticality and risk by evaluating the likelihood and consequence of asset failure. This will support prioritization of maintenance, renewal, and investment decisions based on risk exposure.

- Define criteria for assessing asset criticality (e.g., service impact, safety, regulatory compliance etc.).
- Identify and document consequences of failure for key asset classes.
- Develop a risk matrix or scoring system based on likelihood and consequence of failure.
- Apply the framework to existing asset data to assess and rank asset risks.
- Integrate criticality and risk scores into asset management planning and decision-making tools.
- Train staff on applying the framework and interpreting results.
- Establish a process for regularly reviewing and updating the framework and risk scores.

Benefit: A criticality and risk framework enables the Town to prioritize asset investments based on potential service disruptions, safety impacts, and financial risk. This approach improves the efficiency and defensibility of asset management decisions. It also helps direct limited resources to the most critical assets, supporting proactive maintenance and reducing the likelihood of costly failures.

Identify Critical Failure Modes

Objective: Identification of critical failure modes to ensure that the Town focuses on the assets and failures that can have the most impact on its ability to deliver services. All decisions about the refurbishment and replacement of an asset and the timing of these activities should be based on a sound determination of the asset's critical failure mode.

- Define what constitutes a critical failure for each major asset class, considering service disruption, safety, environmental, and financial impacts.
- Review historical failure data (e.g., watermain breaks, equipment downtime) to identify patterns and common failure modes.
- Consult with operations and maintenance staff to gather insights on asset performance and typical points of failure.
- Document failure modes and associated triggers or thresholds (e.g., number of failures, severity, age).
- Develop criteria to determine when rehabilitation or replacement should be triggered based on failure mode.
- Integrate failure mode data into asset management processes to inform lifecycle strategies and risk assessments.
- Establish a process for ongoing review and refinement of failure mode definitions as new data becomes available.

Benefit: Identification of critical failure modes will ensure that the Town focuses on the assets and failures that can have the most impact on its ability to deliver services. For example, watermains may fail before or after their estimated service life and require replacement after a specific threshold of watermain breaks has been reached.

Improve Lifecycle Management Strategies

Objective: Continue to expand and improve on lifecycle management strategies which can further assess the full lifecycle cost of assets, as well as help to enhance lifecycle forecasts. Identify lower cost alternatives for rehabilitation where appropriate.

- Review, refine and update lifecycle activity processes for all asset classes, including routine maintenance, rehabilitation, and replacement strategies.
- Analyze historical maintenance and rehabilitation data to refine cost assumptions and timing.
- Identify and evaluate lower-cost alternatives to full replacement (e.g., resurfacing, relining, or partial upgrades).
- Collaborate with departments to validate assumptions and align lifecycle activities with operational practices.
- Refine lifecycle costing models to reflect updated strategies.
- Develop a process for regularly reviewing and updating lifecycle strategies as new technologies or cost-saving measures emerge.

Benefit: This will allow the Town to ensure that all lifecycle activities are identified, improve the accuracy of forecasting, and ensure lower cost alternatives to replacement are included within the model.

Level of Service Optimization

Objective: Begin to refine and optimize LOS targets over time, based on:

- Budget trade-offs
- Risk tolerance
- Public feedback
- New technologies

This is where the Town moves from compliance to strategic asset management.

- Implement public consultation on service priorities.
- Use LOS modeling and cost-risk tradeoff analysis to adjust targets over time.
- Integrate asset planning more tightly into capital budget and master planning.

Benefits: This is where the Town moves from compliance to strategic asset management. Refining and optimizing levels of service targets allows the Town to balance service expectations with available resources, risk tolerance, and long-term sustainability.

Asset Management Maturity and Integration

Objective: Post-2025, the focus shifts toward maturity improvement, such as integrating AMP with budgeting, development charges, capital and master plans.

- Complete a maturity assessment (e.g., using FCM's AM Maturity Scale / IAM tools).
- Align Budgets to Lifecycle Activities: to assist in determining the whole lifecycle cost of assets, and to assess these costs, aligning the budget process with asset management defined lifecycle activities will provide more clarity and tie expenditures to asset management.

Benefits: Conducting a maturity assessment helps identify any remaining gaps and prioritize improvements. Aligning the budget process with asset management defined lifecycle activities will provide more clarity and tie expenditures to asset management.

11.3.1. Improvement and Monitoring Recommendation Benefits

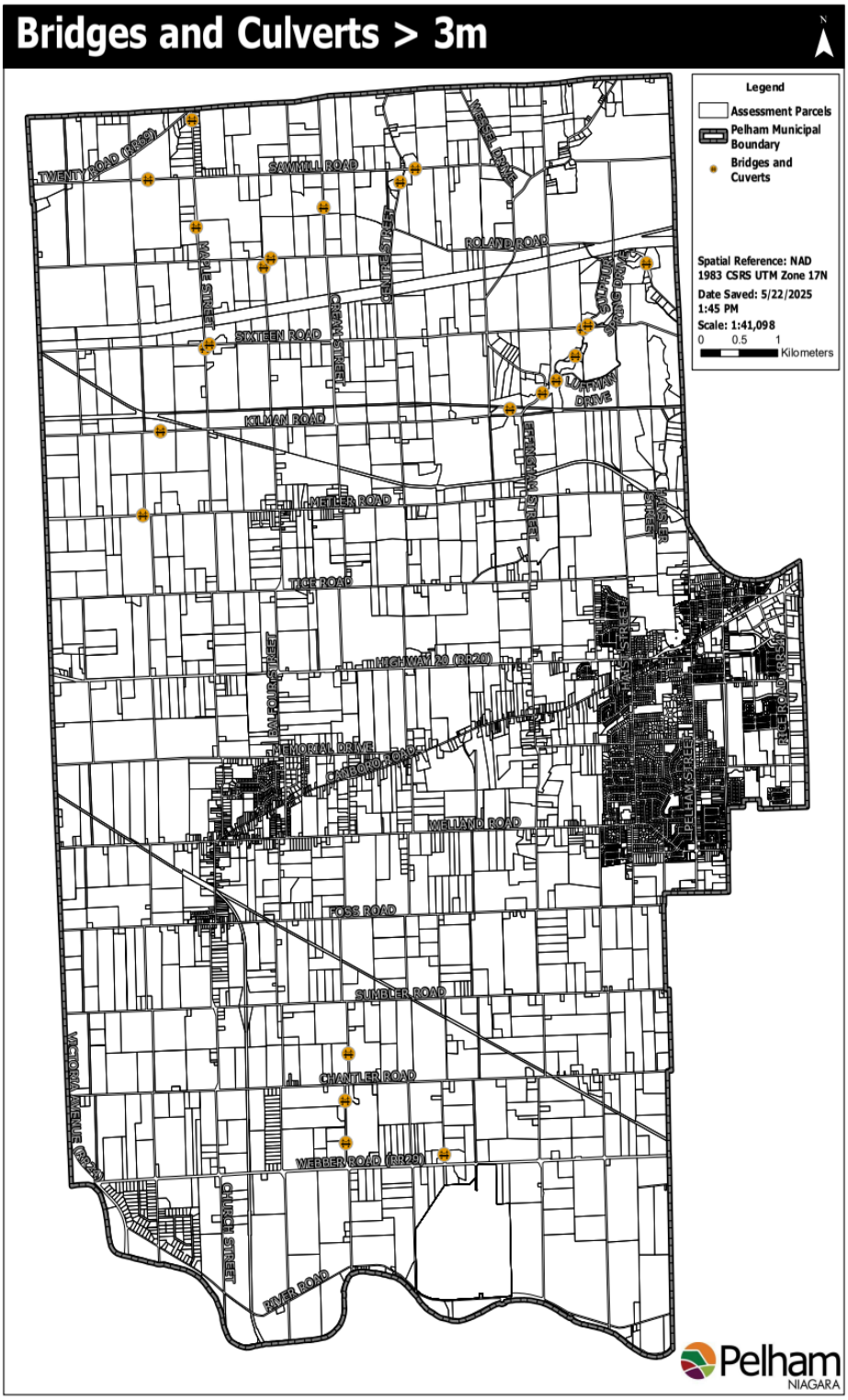
Enhancing asset management practices and acting on these recommendations offers a variety of benefits, including:

- Informed decision-making supported by accurate data for planning, budgeting, and prioritizing investments, ensuring transparency in determining when to maintain, renew, or replace assets.
- Cost efficiency achieved by extending asset lifespan through proactive maintenance, while minimizing emergency repairs and unexpected capital costs.
- Enhance service delivery by maintaining asset performance to meet public expectations and minimizing service interruptions.
- Strengthen risk management by identifying critical assets, evaluating the consequences of failure, and reducing financial, legal, and reputational risks.
- Regulatory Compliance with O.Reg.588/17.
- Support strategic planning and alignment by linking capital planning with organizational goals, community priorities, and long-term financial planning.
- Foster transparency and communication among Council, staff, and the public by clearly presenting asset needs and performance.

Appendix A

Natural Areas Asset Management Plan

Appendix B


Bridges and Culverts > 3m
N
Legend
Assessment Parcels
Pelham Municipal Boundary
Bridges and Culverts
Spatial Reference: NAD 1983 CSRS UTM Zone 17N
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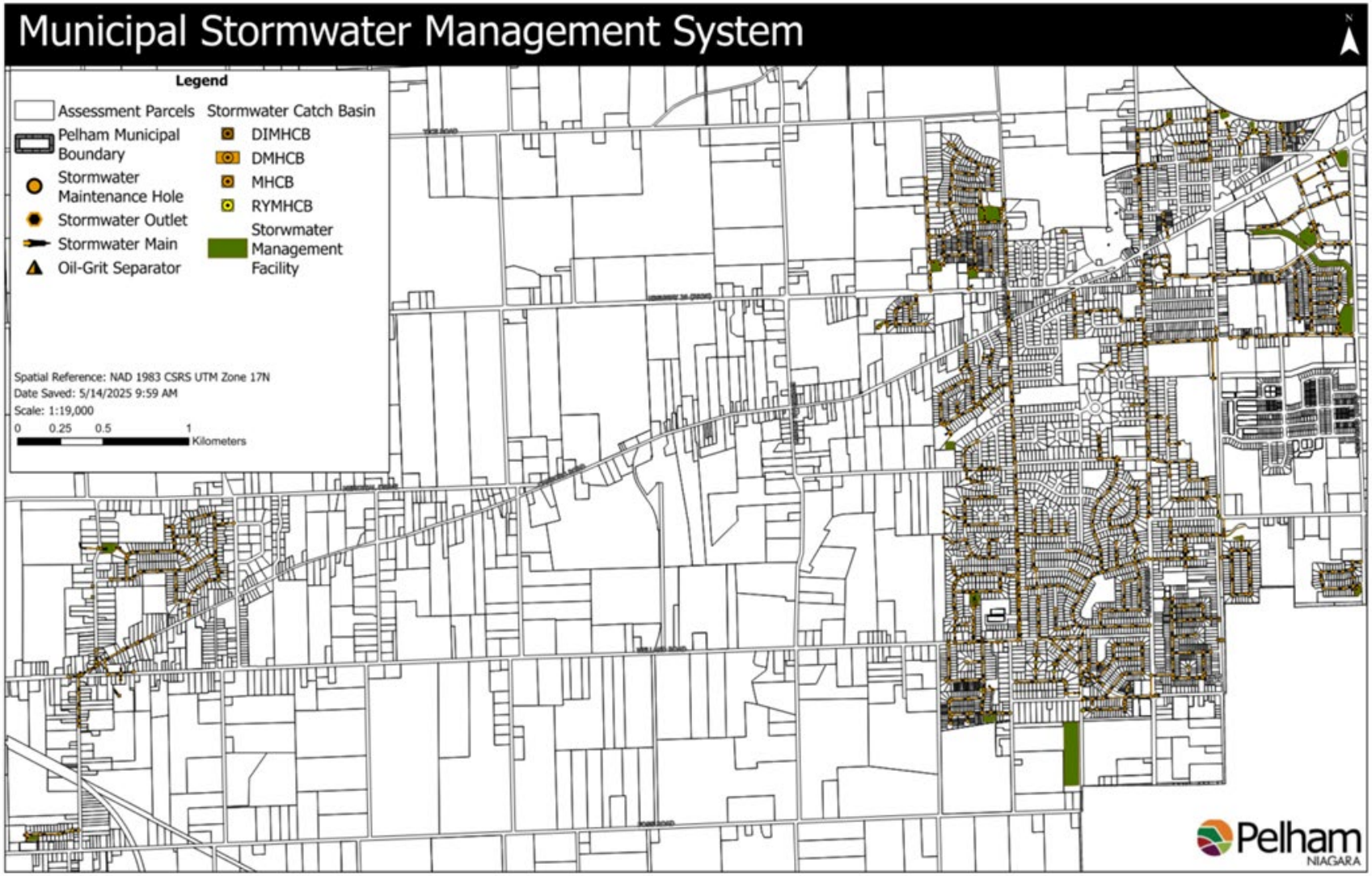
0 0.5 1
Kilometers
TWENTY ROAD (REGL)
SAWMILL ROAD
WESSEL DRIVE
ROLAND ROAD
MAPLE STREET
SIXTEEN ROAD
CREAN STREET
KILLAN ROAD
METLER ROAD
EFFINGHAM STREET
TICE ROAD
HIGHWAY 20 (RR20)
BALFOUR STREET
MEMORIAL DRIVE
CANBORO ROAD
WELLAND ROAD
FOSS ROAD
SUMBLER ROAD
CHANTLER ROAD
WEBBER ROAD (RR29)
VICTORIA AVENUE (RR24)
CHURCH STREET
RIVER ROAD
Pelham
NIAGARA

Appendix C


Municipal Stormwater Management System
Legend
Assessment Parcels
Pelham Municipal Boundary
Stormwater Maintenance Hole
Stormwater Outlet
Stormwater Main
Oil-Grit Separator
Stormwater Catch Basin
DIMHCB
DMHCB
MHCB
RYMHCB
Storwmater Management Facility
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Kilometers
Pelham
NIAGARA