
WORKING TOGETHER

Table of Contents

1.0 Executive Summary

1.1 Background

Blandford-Blenheim Township is located within the County of Oxford in the heart of South-Western Ontario, offers all of the conveniences of urban living while enjoying the serenity of country life. Our location, and proximity to many large economic centers via Highways 401 and 403 make Blandford-Blenheim an ideal place to live, work, and visit.

This Asset Management Plan (AMP) sets out a strategic framework that will guide future investments that support economic growth and respond to changing needs in a fiscally responsible manner. The Township's asset management program forms a strong foundation for sound asset management principles well into the future.

The development of a long-term, sustainable plan requires an analysis of lifecycle costs using a combination of proactive lifecycle strategies and replacement only strategies. Through these lifecycle strategies, the Township is able to determine an average annual investment requirement, which forms the basis for annual contributions into capital reserves. This helps smooth the impact on property taxes, helping with predictability and sustainability. Each AMP appendix will identify if the current annual contribution is in-line with the required investment based on the proposed level of service, in turn allowing for a long-term financial plan to be developed for managing and reducing any identified gaps.

In addition to meeting the provincially mandated AMP requirements, this AMP establishes a strategic framework for managing these assets, aligning assets with service objectives, documenting core practices and procedures, and guiding the action and investment needed to meet key business goals. To be eligible for certain capital grants, municipalities must have an AMP and demonstrate the particular need of a project to the social, economic or environmental priorities of the community.

This AMP is based on current information available with a goal to identify plans to address gaps in data and procedures. Improvement opportunities will be listed within each asset appendix. The AMP is designed to be a living document that will be reviewed annually and revised in response to changing environmental, social and economic needs within our community. The annual update process will ensure that staff are working through each budget cycle with up-to-date information on our assets.

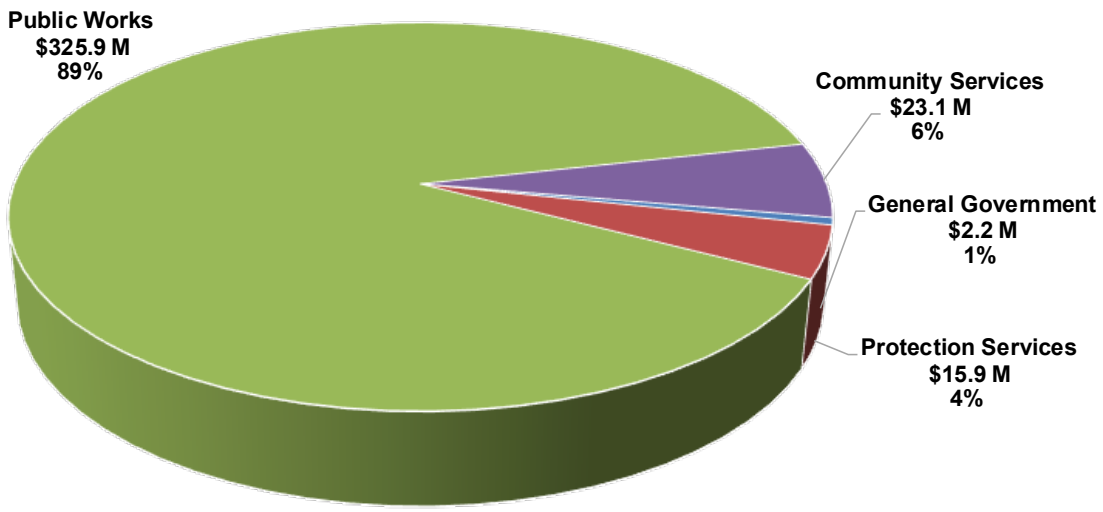
Table 1.1.1 reflects a summary of the replacement value of the Township's assets identified throughout the 2025 Asset Management Plan appendices. The overall replacement cost is approximately $367 million.

Table 1.1.1 Asset Inventory Summary (millions)

Asset Appendix	Replacement Value	Required Annual Investment (100% Funded)	Annual Investment Target	2025 Budget Investment	Annual Investment Surplus/(Deficit)
General Government	$2.20	$0.04	$0.035	$0.035	$ -
Protection Services	15.90	0.68	0.48	0.29	(0.18)
Public Works	325.88	6.29	4.11	2.26	(1.85)
Community Services	23.10	0.69	0.28	0.12	(0.15)
Total	**$367.08**	**$7.70**	**$4.91**	**$2.71**	**($2.18)**

PROPOSED INVESTMENT DEFICIT

$2.2 MILLION



2.0 Introduction

2.1 Importance of Asset Management

Asset Management strives to continually improve the long-term management of assets. The following is a list of benefits that asset management programs and processes achieve:

- Reduced lifecycle cost (i.e. total operating, maintenance and capital resources) of providing services.
- Reduced risk exposure to the Township by ensuring that assets are managed in a manner that matches the risk that their failure represents to the delivery of services.
- An informed and transparent decision-making process that provides Council with the knowledge that they need to make decisions regarding capital expenditures, operating costs and revenue requirements (i.e. property tax levels and user fees).
- A mechanism to ensure that the services that are delivered, through the use of assets, can be provided at a sustainable level that is affordable.

2.2 Alignment to Strategic Plan

The initiatives contained within this AMP support the themes as set out in the 2025-2028 Council Strategic Plan.

- Responsible and Strategic Growth This plan sets out a strategic framework that will guide future investments that support economic growth and respond to changing needs in a fiscally responsible manner.
- Community Well-Being and Inclusivity Asset management planning processes ensure assets are maintained in a manner that allows our local economy to prosper.
- Engaged and Informed Community Asset management planning allows council to make informed decisions.
- Excellence in Public Service Asset management planning processes ensure assets are maintained in a manner that provides the required level of service in order to enhance the quality of life for all our citizens.

2.3 Alignment to Other Plans and Policies

The comprehensive asset management approach will also review other plans and initiatives in place to ensure that asset management activities align with these plans and initiatives.

- Official Plan The County of Oxford's Official Plan helps guide municipal decisions with respect to infrastructure, public services and other investments.
- Capital Plan The capital plan consists of a capital budget and capital implementation program over a 10-year horizon, built in alignment with asset lifecycle needs. The plan identifies capital projects, provides a planning schedule and identifies financing sources.

- By-Laws, Policies and Procedures The AMP incorporates requirements from various asset related by-laws, policies and procedures, including the Development Charges Background Study.
- Regulations The AMP aligns with senior level government regulations.

2.4 Purpose and Development Methodology

The purpose of the AMP is to set out how the Township's assets will be managed in accordance with various plans and policies; and legislation, to ensure that the Township is capable of providing sustainable levels of service.

The output from the AMP serves as a framework for the Township's capital planning process, including reconstruction and rehabilitation strategies, maintenance, repair activities, ongoing operations, and financial planning.

The asset management planning process begins with the Council Strategic Plan, aligned with the public's expectations and government regulations. The process evaluates the state of our assets, which is determined by current conditions and performance assessment for each asset component. This assists in forecasting a sustainable funding level and identifies if a funding surplus or deficit exists. Performance measures are established and tracked to provide an understanding of the current levels of service. This framework guides the development of proposed levels of service and indicates performance measures used to evaluate progress in achieving the proposed levels of service.

The asset management strategy component of the planning process provides a detailed analysis within each appendix. This analysis is based on best practices and industry standards employed to manage the assets. This component includes a comprehensive review based on clearly identified rehabilitation strategies that trigger specific lifecycle events. The ideal lifecycle strategy takes into consideration return on investment, risk assessment and prioritization of projects. The next step in the planning cycle is developing the financial strategy. This is an integral component of the capital plan. All possible revenue sources are considered for each of the asset needs, such as, grants (including the Ontario Community Infrastructure Fund and Canada Community Building Fund), reserves, development charges, debt, user fees, and tax levy. This stage of the process is reviewed and developed concurrently with the operating and capital budget process to ensure the plan is sustainable, both technically and financially.

2.5 Plan Content

This AMP complies with the requirements of O.Reg. 588/17 and the provincial government directives and is structured to provide consistency and ease of understanding for readers. For each service area appendix, the following sections are included:

- State of Assets
- Levels of Service

- Asset Management Strategy
- Financial Strategy

2.6 Resources

At the organizational level, the asset management program involves collaboration among various departments – public works, community services, protective services, planning, finance, and more.

The Township utilizes software applications for capital asset long-term financial planning and analysis. The systems include:

- Comprehensive asset inventory including condition ratings, replacement costs, anticipated useful lives and lifecycle activities.
- Decision support system in order to assess replacement activities of existing assets.
- Asset accounting for Public Sector Accounting Board (PSAB) purposes in accordance with PSAB 3150.

2.7 Plan Scope

The AMP utilizes a long-term strategic planning window of 100-years. Having a long-term strategic planning window allows the plan to model the exceptionally long service lives of some assets (i.e. underground assets of stormwater, road bases, etc.). Although the accuracy of a long-term planning window is highly subject to assumptions and estimates, it allows decision makers to better assess the asset funding requirements, and sustainably fund asset lifecycle needs.

2.8 Planning Framework

The Township will align asset management planning with the Province of Ontario's land-use planning framework, including any relevant policy statement issued under section 3(1) of the Planning Act and any Provincial Plans that are in effect, as well as with the County of Oxford's Official Plan. The objective being to ensure that assets and public service facilities are provided in a coordinated, efficient and cost-effective manner and that planning for assets and public service facilities is coordinated and integrated with land use planning so that they are financially viable over their lifecycle and available to meet current and projected needs.

The Oxford County Official Plan is the policy document that establishes the overall land use strategy for the Township. The policies and land use schedules contained in the Official Plan establish locational and development review requirements for various land uses (residential, commercial, industrial, institutional, parks, etc.), set out how agricultural land and other natural features and cultural heritage resources are to be protected and provide direction on how environmental constraints are to be addressed. The Official Plan also helps to guide municipal decisions with respect to asset management, public services and other investments. The Official Plan anticipates that growth to both population and employment will continue to be experienced during the planning period.

In order to ensure an up-to-date basis for designating sufficient lands for settlement and employment purposes, for establishing capital improvement programs for municipal assets and for planning for public services, the County reviews and updates population, household and employment forecasts for the County and Area Municipalities (including the Township) for the planning period set out in the Provincial Planning Statement (i.e. up to 30 years) on a regular basis (e.g. every 5 years). The last formal growth forecast updates were approved by Council in 2020. However, the County is currently in the process of updating these forecasts based on the most recent Ministry of Finance forecasts. The initial draft growth forecast updates from that project (set out in Table 2.8.1 below) indicate that the Township is generally expected to experience higher growth than was identified for the same periods in the previous 2020 forecasts. Similarly, the 2024 Development Charges Background Study completed an analysis of shorter-term growth projections based on updated information, that resulted in projections to 2034 that substantially exceed the figures identified in the 2020 forecasts.

As such, staff will continue to monitor growth to ensure that capital projects designed to service growth are timed appropriately, including finalizing the current growth forecast updates later in 2025, to ensure they reflect current growth drivers and trends, as well as recently updated Provincial policy direction (i.e. Increased planning horizon and use of Ministry of Finance forecasts as the base).

Table 2.8.1 Township of Blandford-Blenheim Growth Projections

	2026	2031	2036	2041	2046
Population	8,400	9,000	9,400	9,900	10,300
Households	2,990	3,200	3,385	3,580	3,760
Employment	1,985	2,165	2,325	2,425	2,545

2.9 Commitment to Engagement

The Township will provide information and seek input on asset management planning through:

- Opportunities for residents and other stakeholders to provide input across a range of channels (e.g., online, in person, written submissions);
- Coordinated planning between interrelated assets by pursuing collaborative approaches with Oxford County and neighbouring municipalities, and other asset owning agencies wherever viable and beneficial; and
- Our partnerships and relationships with external parties are important to maintaining service delivery. We rely on partnerships to aid in the delivery of services and improvements to our assets. We highly value our partnerships and recognize the benefits of working with them to secure safe and effective delivery, incorporate leading practices and techniques, and achieve efficiencies in delivery.

This document is made publicly available on the Township's website as required by O. Reg. 588/17. The Township will also respond to and facilitate information requests for any background information and reports used in the creation of this plan.

2.10 Improvement Plan

Improved asset management planning is vital to the long-term sustainability of assets throughout the province. The Township is committed to monitoring the industry, implementing best practices as they evolve, and updating asset management data on a continuous basis as new information is received (i.e. the Bridge Needs Study is completed every two years providing updated conditions). This continuous improvement process helps ensure that the right capital projects are targeted with each budget cycle. Throughout each service area appendix, areas of improvement are identified.

3.0 State of Township Assets

3.1 Data Confidence

The quality and completeness of asset data is critical to effective asset management, accurate financial forecasts, and informed decision-making. For this reason, it is important to know what the reliability of the information is for the levels of service, asset management strategy (lifecycle activities and risk) and financial strategy. Table 3.1.1 provides a description of the data confidence grades used to classify the reliability of asset data within each service area appendix.

Table 3.1.1: Data Confidence Grading Scale

Confidence Grades	Description
A - Highly reliable	Data is based on sound records, procedures, investigations, and analysis, documented appropriately and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B – Reliable	Data is based on sound records, procedures, investigations, and analysis, documented appropriately but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C – Uncertain	Data is 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. Dataset is substantially complete but up to 50% is extrapolated data and accuracy is estimated ± 25%
D - Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E – Unknown	None or very little data held

3.2 Inventory

Assets are identified within each appendix by component and quantity. The current inventory and replacement cost figures capture inventory within newly constructed subdivisions which the Township is aware of and anticipates assuming ownership of. Growth related asset needs identified in the Development Charges Background Study and the Capital plan are not included in current inventory and replacement costs, however they are included for the purposes of determining lifecycle needs and the annual requirement. It is important to include both the unassumed and growth assets to ensure that lifecycle activities are planned and funded accordingly.

3.3 Valuation

Replacement cost valuation is forward-looking and accounts for changes in technology, engineering standards, climate change and other factors. Replacement costs may be based on current tender prices (adjusted where staff feel cost increases are due to temporary economic situations), provided as part of condition assessments or other studies, or based on the Consumer Price Index. Tariffs may have significant impacts on replacement costs of the Township's assets, including the cost to complete lifecycle activities. The exact impact is unknown and difficult to predict; therefore, the costs presented throughout this plan are not reflective of potential tariff impacts.

3.4 Condition Assessment Approach

There are numerous investigative techniques in order to determine and track the physical condition of an asset portfolio. The techniques used are often asset specific and tied to the nature of service or degradation level of the asset and can be grouped into categories. The specific approach used for each service area is identified in the related appendix. For assets, without a standardized approach to condition assessment scoring, information from visual inspections, failure records and other maintenance related observations are used in establishing the condition of the asset. Given the complexities and accessibility of some assets, not all assets allow for a visual or performance-based condition assessment; in these cases, a theoretical age-based condition rating is used.

The condition scale and visual inspection ratings are based on the following approach:

- Very Good - Asset is well maintained with no noticeable defects.
- Good - Asset may show signs of minor deterioration and may require some maintenance.
- Fair - Deterioration evident, function affected. Asset may require on-going monitoring.
- Poor - Serious deterioration, function inadequate. Asset may require ongoing monitoring.
- Critical - No longer functional, general or complete failure. Asset may require extensive monitoring.

As the physical condition assessments are completed at a point in time, the asset management system will project the condition to the end of a specified year based on the lifecycles defined in the individual profiles. This allows for a more accurate reflection of the current condition. Projected conditions presented in this report are based on December 31, 2024.

3.5 Useful Life

Asset estimated useful lives, based on a run to failure strategy, are identified within each appendix. Assets may undergo a continual process of repair, rehabilitation and refurbishment to maintain their intended purpose. By using lifecycle strategies, the Township is able to extend the overall life of certain assets, ensuring that each asset is maintained in the most sustainable manner.

It should be noted that anticipated useful lives, based purely on age, can provide a misleading view on the asset replacement requirements. In many cases assets that are properly constructed and maintained may outlive their anticipated useful life and continue providing service. In other cases, due to poor workmanship and lack of proactive maintenance, assets may fail before they fulfill their anticipated useful life.

4.0 Levels of Service

4.1 Levels of Service Context

The structure of the Levels of Service (LOS) framework was developed to align with international best practices including the International Infrastructure Management Manual (IPWEA, 2015). The framework includes the mandatory measures to meet the requirements of Ontario Regulation (O.Reg.) 588/17 by including both community and technical levels of service. The metrics in this framework may be expanded upon as the Township continues to improve its data collection and reporting processes.

This framework helps establish a relationship between the current LOS being provided by the Township's assets, and the associated operating and capital expenditures required to achieve the proposed LOS. The framework puts into perspective the definition and measurement of service performance in alignment with the Township's mission and vision.

Community or Customer levels of service are statements that describe quantifiable metrics of the service delivery outcomes from the perspective of the customer, expressed in non-technical terms. Technical levels of service metrics are quantifiable metrics applied against assets that are subject-matter specific inputs or outputs supported by the day-to-day activities of staff.

Identifying levels of service (LOS) ensures that asset management decisions are:

- Based on impact to customers, the community and the environment;
- Focused to deliver the required level of service;
- Aligned with the strategic goals of the Township; and
- Considered and optimally balanced with risk and financial cost.

It is important to define and quantify the levels of service within each service area as key indicators of asset needs and the basis for investment decisions. Service levels communicate to Council and the residents the state and trend of the Township's assets. Funding scenarios can be created based on different service levels, which allows Council to set priorities on the proposed service level for each asset type.

Levels of service take into consideration:

- Legislative and regulatory requirements: These requirements prevent levels of service from declining below a certain standard. (i.e. Minimum Maintenance Standards for municipal highways, building codes and the Accessibility for Ontarians with Disabilities Act)
- Corporate goals and objectives: These goals and objectives define the Township's priorities, and guide future spending.
- Customer needs: The expectations of the public have a direct impact on the level of service demanded from our assets.
- Industry standards and best management practices

4.2 External Trends and Issues

There are always external factors that are beyond the control of the Township that can influence the level of service achieved from our assets. Performing an analysis of these factors will ensure that the performance targets are well-aligned with the environment which the Township operates in.

The following are known external trends/issues impacting levels of service:

- Aging assets: older assets may burden the Township and may require a higher funding investment to maintain safety and reliability.
- Inflation index for construction projects: inflation rates that increase at a rate greater than expected could result in a shortage of funding to complete asset lifecycle needs.
- Environmental factors and Climate change: unusual weather events can significantly impact the condition of assets, changing the timeframes for required lifecycle activities.
- Changes in senior level government funding: changes in funding levels or priorities will require the Township to take another look at our ability to fund our asset management needs.
- Uncertainty of growth forecasts: may result in increased deterioration, the need for additional assets and upgrades to service growth quicker than expected.

5.0 Asset Management Strategy

5.1 Procurement Methods

The Township's Procurement By-law sets out guidelines for the Township and staff to ensure that all purchases of materials, supplies and services is at the lowest possible cost while obtaining the level of quality and service that is required by the Township.

The key objectives of the Procurement By-law are to:

- ensure that the procurement process is open and fair and is maintained in an honest and impartial manner; and

- to promote and uphold the integrity in the purchasing process and protect Council, vendors and staff involved by providing clear direction and assigning appropriate accountabilities.

Procurements may include joint contracts with internal divisions and external municipalities/agencies through capital planning or development-related asset planning. To ensure the most efficient allocation of resources and funds, the Township will consider bundling projects when issuing tenders, to realize cost-benefits and economies of scale.

5.2 Risks Associated with the Strategy

Risk management frameworks are developed to assist with the prioritization of investments within the capital planning period. The Township's risk management framework was developed so that it could be integrated with lifecycle management and levels of service strategies to support the development of the Township's Asset Management Plan. This is achieved by identifying the key components of risk as well as the impacts the specific asset will have on the overall delivery of services in the event of failure or disruption. The preferred approach is to implement a triple bottom line analysis approach to evaluate:

- Social impacts of asset failure, including impacts to customers, businesses and the Township's reputation;
- Environmental impacts of asset failure; and
- Economic impacts of failure including the cost of remediation.

In the context of asset management, risk is the multiple of the consequence of an asset failing and the probability that the event will occur. Probability of failure (POF) is a representation of the probability or likelihood that a failure event for an asset will occur. The POF is tied to asset condition and is based on condition data, deterioration modelling and available failure reports. The probability of failure will increase throughout the asset's lifecycle as it degrades. Consequence of failure is based on weighted parameters specific to each asset component based on their financial, social, and environmental impact, and provides an understanding of asset criticality and the impact of asset failure. These parameters include aspects such as replacement cost and distance to environmentally sensitive areas. The Township's asset management software includes risk information in each of the asset profiles.

5.3 Lifecycle Analysis

The lifecycle management strategy is the set of planned actions that should enable assets to provide users with the proposed level of service in a sustainable way, while achieving acceptable levels of risk and the lowest lifecycle costs required to provide that level of service. Lifecycle considerations for assets include industry benchmarking, consultant recommendations, available budget and other inputs, to determine the right activity for an asset at a specific point in time. The goal of this assessment is to capture the deterioration model for each asset component. Understanding the optimal budget at which lifecycle activities sustain the proposed LOS at the lowest lifecycle cost is

one of the main objectives of the lifecycle planning component of the AMP. The lifecycle activities impacting condition and useful life are contained within profiles in the Township's asset management system.

Lifecycle considerations for assets include analysis of the timing to carry out key asset management activities including inspection, maintenance, repair, and replacement. For some assets, replacement needs are based on a run to failure strategy, as this is the most economical.

The lifecycle activity types that are considered for managing assets include:

- Non-Infrastructure Solutions Actions or policies that can lower costs or extend useful lives.
- Maintenance Including regularly scheduled inspection and maintenance, or more significant maintenance associated with unexpected events. These activities do not improve the overall condition of the asset, nor increase its useful life.
- Rehabilitation / Renewal Significant treatments designed to extend the useful life of the asset.
- Replacement Occurs at the end of the useful life and/or when rehabilitation is no longer an option.
- Disposal Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed by the Township to provide services.
- Expansion / Growth Planned activities required to extend services to previously un-serviced areas, expand services to meet growth demands, or increase the level of service being provided.

5.4 Climate Change

Impacts of climate change are being experienced around the world and are expected to be a significant and unavoidable financial burden on municipalities. Municipalities must include a commitment in their asset management planning to address the vulnerabilities of climate change with respect to operations, levels of service and lifecycle management. Two of the largest threats to southwestern Ontario are extreme heat and extreme precipitation, both of which are already being experienced and will continue to increase in severity. Consideration must be given to anticipated costs, mitigation and adaptation approaches and disaster planning. Natural assets enhance climate resiliency (flood protection/erosion control), purify the air, support biodiversity, improve water quality, and contribute to overall environmental health and sustainability.

Climate Risks

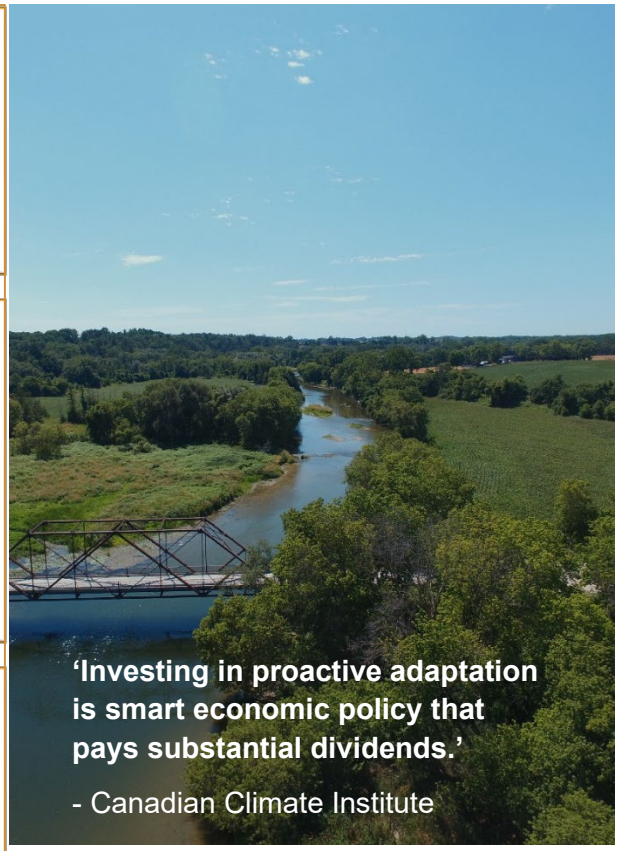
- Potential increased service disruptions with more frequent and severe weather events.
- Potential increased maintenance and replacement costs due to damage and impact of severe weather.

Climate Adaptation Measures

- Consider climate change impacts when designing, constructing and maintaining assets, while considering affordability and co-benefits.
- Consider technology and best practices to minimize service disruption and increase resiliency.
- Consider altering inspection and renewal to support resiliency.
- Consider regulation changes and best practices in the industry.

Climate Mitigation Opportunities

- Invest in assets that will provide environmental benefits and reduce wear and tear on existing assets.
- Invest and retrofit assets and services to support Renewable Energy and Net-Zero initiatives.
- Invest in technology to increase the efficiency of assets.



6.0 Financial Strategy

6.1 Proposed Levels of Service Review

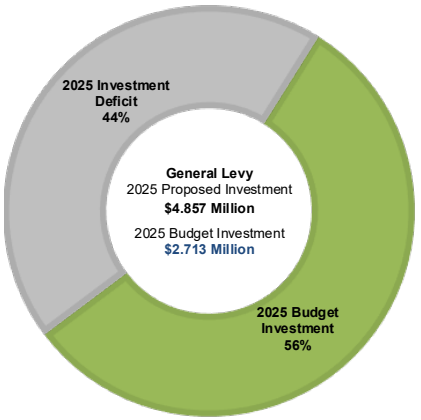
Staff reviewed multiple levels of service scenarios for each appendix centered around budget, condition or useful life depending on the type of asset, using a decision support module within asset management software. The analysis and outputs are subject to the existing capabilities of the system, with staff in regular communication with the software provider for future system enhancements. Each scenario is reviewed over a 100-year period to identify the proposed sustainable level of service, while continuing to balance risk to the service provided.

Based on the recommended scenarios, the proposed investment represents the amount of capital funding required to renew and maintain existing assets so services can continue to be delivered at the desired level. Utilizing an average annual figure for the investment, over a charge based on actual expenditures, helps smooth the impact on residents, helping with predictability and sustainability.

Table 6.1.1 below reflects the proposed investment based on 2025 owned assets, whereas the recommendations within each service area are based on the analysis over the entire scenario period, and include anticipated asset needs to service growth. The analysis is completed on an annual basis prior to each budget cycle to ensure recommendations are based on current information. Significant investment increases are required to ensure lifecycle needs are completed in a sustainable manner.

Table 6.1.1 Investment Summary (millions)

Asset Appendix	2025 Proposed Investment	2025 Budget Investment	2025 Investment Surplus/(Deficit)
General Government	$0.035	$0.035	$-
Protection Services	0.440	0.292	(0.148)
Public Works	4.112	2.261	(1.851)
Community Services	0.270	0.125	(0.145)
Total	**$4.857**	**$2.713**	**($2.144)**



6.2 Lifecycle Requirements

Based on the proposed investment level, lifecycle needs over the next 100 years are determined in current dollars. These estimates assume that all work can be completed, as indicated, and do not consider future changes due to environmental factors, new maintenance techniques, and unidentified growth. The asset management software includes overdue lifecycle activities in the current year where funding is available.

6.3 Funding Gap Analysis

A financial plan is a critical component of the AMP and brings the AMP into action. A sound financial plan demonstrates that the Township has integrated the AMP into financial planning and budgets, and that it has utilized all available funding tools.

In addition to targeting and prioritizing the investment needed to maintain existing assets, there are also planning processes in place to determine the additional assets and expansion of existing assets (e.g. the widening of structures) needed to meet growing demands through population increases or demand for new services (e.g. active transportation). The projects targeted to meet growth are funded primarily through Development Charges (DC) – the mechanism that enables recovery of growth-related capital expenditures from new development.

Where possible, lifecycle activities are planned in collaboration with activities across service areas to minimize disruption and to achieve cost efficiencies. The availability of funding by other municipalities for shared assets will also have an impact on the timing of lifecycle projects. In the event of constraints, either financial or resource related, the Township will prioritize projects based on risk and impact to an asset's useful life and serviceability based on timing of recommended lifecycle strategies. This may result in assets of a higher condition being prioritized over assets in a lower condition to achieve the best value from dollars invested.

Prioritizing the focus on the use of funds from capital reserves on existing asset lifecycle needs, helps ensure that the Township can maintain existing assets in a state of good repair and continue to deliver on the levels of service that residents depend on. Use of these reserves to expand the Township's asset base, or on non-asset related activities, adds risk to the Township's ability to maintain assets in a state of good repair, which in turn could lead to a reduced level of service being provided.

The Township will integrate findings from the AMP in the creation of the capital and operating budgets, and its long-term financial plan. Sound financial analysis will be encompassed in asset management planning for the AMP to be a sought-after guide to employees for long-term planning. The 10-year capital plan may not reflect all lifecycle needs identified by the asset management system due to internal resource limitations, limitations on external subject matter availability, and financial limitations.

The AMP will be referenced in preparation of the capital plan to assist with:

- Identifying all potential revenues, costs, and project timing (including operating, maintenance, replacement and decommissioning) associated with asset lifecycle decisions;
- Evaluating each significant new (growth related) asset, including considering the impact on future operation costs;
- Utilizing risk to prioritize projects where constraints exist; and
- Incorporating new revenue tools and alternative funding strategies where possible.

This section of each service area AMP will identify an approach to funding changes to achieve the proposed levels of service, recognizing that the recommended approach may differ based on current funding levels and the level of the gap to achieve the proposed service level. The approach does not include the potential for a contribution from an operating surplus. Within this section of each service area AMP the required investment level includes an inflationary estimate of 1.7% for 2026 based on the Q4 2024 non-residential building construction price index for the London area as the most recently available inflation figure at the time of completing this AMP, and then 2.5% for each subsequent year. The proposed investment level may be increased by the same inflationary figure depending on the funding strategy with the 2026 Budget request incorporating the Q2 2025 inflation figures. The approach will be subjet to review and approval through each budget cycle and may include strategies such as:

a. use of available reserve balances;
b. use of debt;
c. increase in levy contributions; and
d. increase or introduce user fees.

Tables 6.3.1 below summarize the proposed investment changes identified throughout each service area appendix. The capital contribution figure noted includes the anticipated contribution increases resulting from growth. The percentage of levy increase presented is based on the 2025 approved budget. It should be noted that 10.6% of the 12.9% increase proposed in 2026 would not have an impact on the levy as it is the reallocation of the annual contributions to the Working Capital Reserve, which is currently utilized to fund projects across a variety of portfolios.

Table 6.3.1 General Levy Investment Summary (millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Required Investment	$4.86	$4.98	$5.14	$5.27	$5.40	$5.53	$5.67	$5.81	$6.01	$6.16	$6.31
Capital Contribution	2.71	2.71	3.69	3.95	4.18	4.41	4.65	4.89	5.14	5.39	5.60
Inflation	-	0.04	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.12
Proposed Investment Change	-	0.94	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.09	0.07
Unfunded Requirement	2.15	1.29	1.23	1.10	1.00	0.89	0.79	0.68	0.67	0.56	0.51
% Levy Increase	-	12.9%	2.8%	2.9%	3.0%	3.1%	3.1%	3.2%	2.6%	2.7%	2.6%

Drawing reserve balances to zero would likely result in an increased investment level in the subsequent 10-year period to fund anticipated asset lifecycle needs. Reserves are also utilized to fund emergency or unplanned expenses. A minimal or fully committed reserve balance would limit the ability to fund these types of expenses. Consideration needs to be given to a minimum balance the Township should maintain based on these risks.

When evaluating asset funding requirements and shortfalls, it is important to consider intergenerational equity which refers to the fairness between generations. From an asset perspective this speaks to who should pay for assets that have long-term benefits. For assets such as fleet and equipment with short lives, 10 years or less, the current generation receives the full benefit of the asset and should be responsible for the asset's financing. For assets with longer lives, such as facilities or bridges, multiple generations will receive the benefit and establishing fairness for the asset financing is more difficult.

General Government

Table of Contents

1.0 Introduction

Administration facilities provide safe and efficient work and meeting places for Township staff, Council, other organizations, and members of the public. Staff maintain these facilities assets, allowing them to meet functional requirements along with building and safety codes, all while operating in a safe and efficient manner. The administrative buildings provide space for staff workstations, equipment, and material; provide modern and effective meeting places; and support the Township in delivering front-line and administrative services. Also included in this portfolio is Buildings and Drainage Services, offering zoning, building code information and technical advice.

This AMP focuses on those assets related to the general administration of the Township, including the Municipal Office, Cemeteries and Building/Drainage Services.

The quality and completeness of the data used in this plan as indicated in Table 1.0.1, relies on inventory and assessments by staff. Additional enhancements to the attributes used for assessing risk are required, along with other improvement areas as indicated in Table 1.0.2.

Table 1.0.1 – Data Confidence

		Risk	AM Data Analysis			
Asset Component	**Inventory Completeness**	**Attribute Data**	**Service Life**	**Age**	**Condition**	**Replacement Cost**
Building/Drainage Services	A	B	A	A	A	A
Facilities	B	C	B	B	B	B
Cemeteries	C	C	B	B	C	B

Table 1.0.2 – Status of improvement opportunities

Improvement Opportunity	Year Identified	Status	Notes
Update attributes to further enhance the risk profile in the asset management software.	2025	Not Started	Competing higher priorities have prevented this from being undertaken.
Refine asset inventory.	2025	Ongoing	Further refine the inventory of the Administration Office and Cemetries by picking up missing assets and further componentizing others.

2.0 State of Assets

2.1 Inventory

Table 2.1.1 displays the Township's current inventory and the associated replacement costs, average age and anticipated useful life for each component. The anticipated useful lives exclude the management strategies that the Township utilizes to extend the overall life beyond this estimate.

Replacement costs were estimated based on staff reviews, historical construction costs and inflation rates.

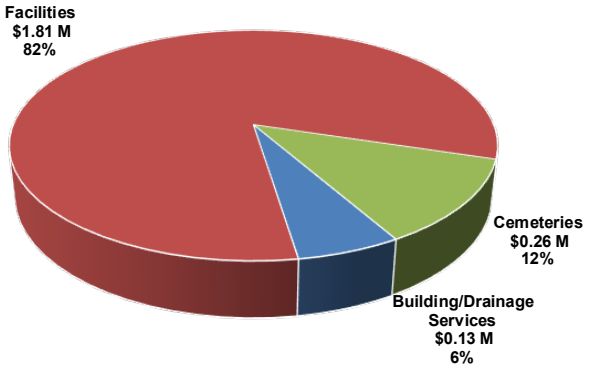


Table 2.1.1 - Inventory

Asset Component	Unit	Current Inventory	Replacement Cost	Average Age (years)	Anticipated Useful Life (years)
Building/Drainage Services	each	3	$129,448	5	4-10
Facilities	bldg	1	1,811,968	18	20-100
Cemeteries	each	3	262,798	34	20-50
Total Replacement Cost			**$2,204,214**		

2.2 Condition Assessment Approach

The assessment approach utilizes a combination of physical assessments, asset attributes, as well as established anticipated useful lives.

Township staff have completed preliminary assessments and documented the current condition of assets to identify capital repairs and replacements which may affect the continued operation of the property over the next ten (10) years.

Building Condition Assessments (BCAs) assess and document the current condition of facilities to identify capital repairs and replacements which may affect the continued operation of the property over the next ten (10) years and provide an assessment as to the level of accessibility for each property. Replacement costs are also requested as a part of this process. The township anticipates completing BCAs within the next 2 years.

2.3 Current Condition

The indicator measure in each condition is based on percentage of replacement costs as opposed to the number of assets.

Condition ratings within this portfolio are typically age based, and due to the run-to-failure or planned replacement nature it is typical to see a distribution between various conditions. The assets rated as poor and critical may continue to provide acceptable service levels and will be monitored by staff.

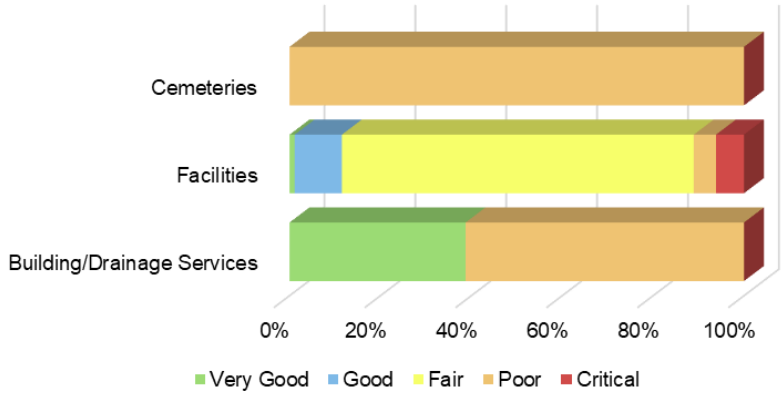


Table 2.3.1 - Condition Profile

Asset Component	Very Good	Good	Fair	Poor	Critical	Average Condition Rating
Building/Drainage Services	39%	0%	0%	61%	0%	Fair
Facilities	1%	10%	78%	5%	6%	Fair
Cemeteries	0%	0%	0%	100%	0%	Poor
Overall Total	**3%**	**9%**	**63%**	**20%**	**5%**	

3.0 Levels of Service

Corporate Objective

The objective of the service is to provide well maintained buildings, structures and properties appropriate to the services being delivered.

Legislative Requirements

The Township is required to maintain minimum standards based on governing directives. These include, but are not limited to, Technical Standards and Safety Authority (TSSA), Electrical Safety Authority (ESA), National Plumbing Code of Canada (NPC), Fire Code, Ontario Building Code, Designated Substance List (DSL) and additional Ministry of Labour (MOL) requirements.

The Accessibility for Ontarians with Disabilities Act, 2005[1] was developed with the purpose of ensuring that accessibility for Ontarians with disabilities is achieved on or before January 1, 2025. The Township ensures that each new build / renovation complies with the standards developed under this Act.

Customer Levels of Service

The following statements form our qualitative descriptions of the customer level metrics required under O.Reg. 588/17.

- *The Townships administration facilities are used by staff, Council, other organizations, and members of the public, with the Township committed to providing safe, and accessible spaces.*
- *Blandford-Blenheim Buildings Services offers zoning, building code information and technical advice and to be of assistance during the entire construction process.*
- *Blandford-Blenheim Drainage Services oversees the maintenance and construction of all municipal drains throughout the municipality.*

Table 3.0.1 includes the metric the Township has established for this portfolio, and the estimated performance over the upcoming 10-year period based on the recommended financial strategy, as required under the Infrastructure for Jobs and Prosperity Act, 2015 - O.Reg. 588/17. A consistent annual target is not established as this portfolio is based on a run to failure / run to planned useful life strategy, therefore will result in fluctuations in condition ratings.

[1] https://www.ontario.ca/laws/statute/05a11

Table 3.0.1 - Performance Measures with Estimated Performance

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
QUALITY											
Average condition value											
-	50%	49%	50%	48%	47%	45%	43%	42%	40%	38%	33%
RELIABILITY											
% of General Government assets in poor or critical condition											
-	26%	21%	18%	18%	31%	31%	33%	33%	35%	35%	39%

4.0 Asset Management Strategy

4.1 Lifecycle Activities and Planned Actions

To cost effectively maintain facilities and structures at the established service levels, the right maintenance or rehabilitation activity needs to be completed at the ideal time throughout the asset's lifecycle. The use of the facility also plays a role in when maintenance is completed. Staff will also complete similar lifecycle activities across buildings in this portfolio and others where possible to maximize economies of scale and achieve the best benefit to the Township.

To minimize disruption where possible, maintenance is planned during periods a unit is vacant. Where this is not possible staff will attempt to work with tenants to minimize disruption.

Examples of lifecycle activities considered in the overall sustainable management of this portfolio are described in table 4.1.1.

Table 4.1.1 - Lifecycle Activities

Strategy	Lifecycle Activity
Non-Infrastructure Solutions	• Building Condition Assessments (BCA) **Trigger: Ongoing**
Maintenance	• Routine and preventative maintenance programs • Snow removal and landscaping at facilities **Trigger: Ongoing**
Rehabilitation / Renewal	• Major and minor rehabilitations **Trigger: Fair**
Replacement	• Occurs at the end of the useful life and/or when rehabilitation is no longer an option • May also occur to increase service levels **Trigger: Poor/Critical**
Disposal	• Activities associated with disposing of an asset once it has reached the end of its useful life **Trigger: Poor/Critical**
Expansion / Growth	• Implementation of a new service • Changes to accessibility requirements **Trigger: Development**

4.2 Risk Strategy

For this portfolio, the probability of failure is based on the projected condition and the consequence of failure is based on the replacement cost of the asset. Staff are working to further enhance the risk profiles as not all attributes recommended for inclusion (including social and environmental metrics) are currently tracked within the asset management systems.

Table 4.2.1 illustrates the risk ratings at a summary level. Areas of concern are addressed through demand maintenance or included in the subsequent budget cycle as appropriate. The inspection and review process helps mitigate the likelihood of any unanticipated asset failures. Staff will continue to monitor the higher risk assets, review, and/or complete physical inspections to further validate needs and plan for lifecycle strategies accordingly.

Table 4.2.1 - Risk Profile

Asset Component	Very High	High	Moderate	Low	Very Low	Average Risk Rating
Building/Drainage Services	0%	0%	0%	0%	100%	Very Low
Facilities	57%	0%	0%	14%	29%	High
Cemeteries	0%	0%	98%	0%	2%	Low

4.3 Climate Change

Facilities are directly impacted by climate change weather events such as rainstorms and flooding, high winds, extreme heat, extreme cold, significant snowfall and frequent freeze and thaw cycles. A facility can also contribute to climate change with its carbon footprint.

As part of the asset management planning process, the Township will consider the risks and vulnerabilities of capital assets to climate change and the resulting actions that may be required. Commitment will be made to the development of tailored actions that make the best use of our resources to mitigate and adapt to climate change, in accordance with our local reduction targets, financial capacity and stakeholder support. Climate change resiliency will be identified as a design criterion for asset renewal/replacement projects as part of the Township's capital plan.

5.0 Financial Strategy

5.1 Proposed Levels of Service Review

Staff reviewed 4 scenarios over a 100-year period as described below. The current reserve balances are factored into each scenario as available funding to complete existing asset lifecycle needs. This results in a similar condition outlook for approximately 20 years as the system draws down the reserve balance to fund capital needs. The Building/Drainage Services assets are excluded from the scenarios and financial recommendations as they are funded by dedicated reserves through the Drainage Act and Building Permit Fees.

Risk mitigation measures are similar across all scenarios. Evolving work environments, such as work from home opportunities, naturally allow for risk mitigation in the event of facility failure, or to complete more extensive system replacements dictated by lifecycle needs. This mitigation measure would not be ideal in the long term as it would result in additional strain on the services provided by Information Technology.

Under all scenarios the replacement of the administrative office is deferred beyond its estimated end of life. Debenture funding would be utilized if the facility is at risk of not providing services and replacement is unable to be deferred until reserve balances are sufficient to fund the complete project.

Scenario A

This scenario is based on the 2025 budgeted contribution to the reserves of approximately $35,000, representing approximately 87% funded based on lifecycle needs. Maintaining funding at this level results in all the lifecycle needs of the components of the building being replaced with little to no deferred projects.

Scenario B

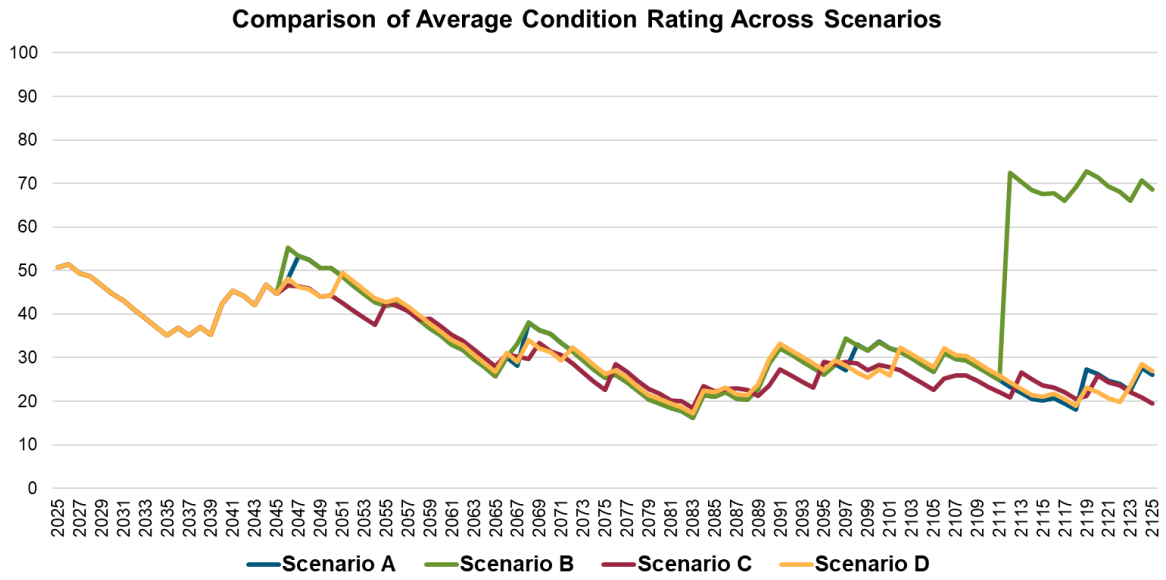
Staff initially ran this scenario assuming unlimited resources to achieve the lifecycle needs of all assets in this portfolio. This generated an average annual requirement of approximately $40,000, which staff used to re-run the analysis. The result is a realistic expectation of what can be achieved on an annual basis in maintaining the long-term lifecycle needs. This is considered the fully funded scenario, resulting in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 100-year scenario period.

Scenario C

This scenario decreased funding to the portfolio from the 2025 approved budget, to approximately 70% of the fully funded requirement based on lifecycle needs. Under this scenario, more asset replacements will require deferrals compared to scenario A, occurring within the next 20 years, resulting in increased risk and an increased percentage of assets in poor and critical condition, decreasing the average network condition.

Scenario D

This scenario decreased funding to the portfolio from the 2025 approved budget, to approximately 80% of the fully funded requirement based on lifecycle needs. Under this scenario, more asset replacements will require deferrals compared to scenario A, occurring within the next 30 years, resulting in increased risk and an increased percentage of assets in poor and critical condition, decreasing the average network condition.



Based on the analysis, staff are recommending Scenario A, the proposed level of service is to maintain funding at 87% of the fully funded scenario. This scenario was chosen as it ensures the lifecycle replacement of the various components within the portfolio, except for the replacement of the Administration Office. This replacement is projected for a later date, and as that time approaches, additional funding options or sources can be explored.

As an internal service, general government is not included in the Budget Survey. Through the budget survey, residents provide input on forward facing services. General Government is crucial to the efficient delivery of forward-facing services.

Table 5.1.1 – Scenario Summary

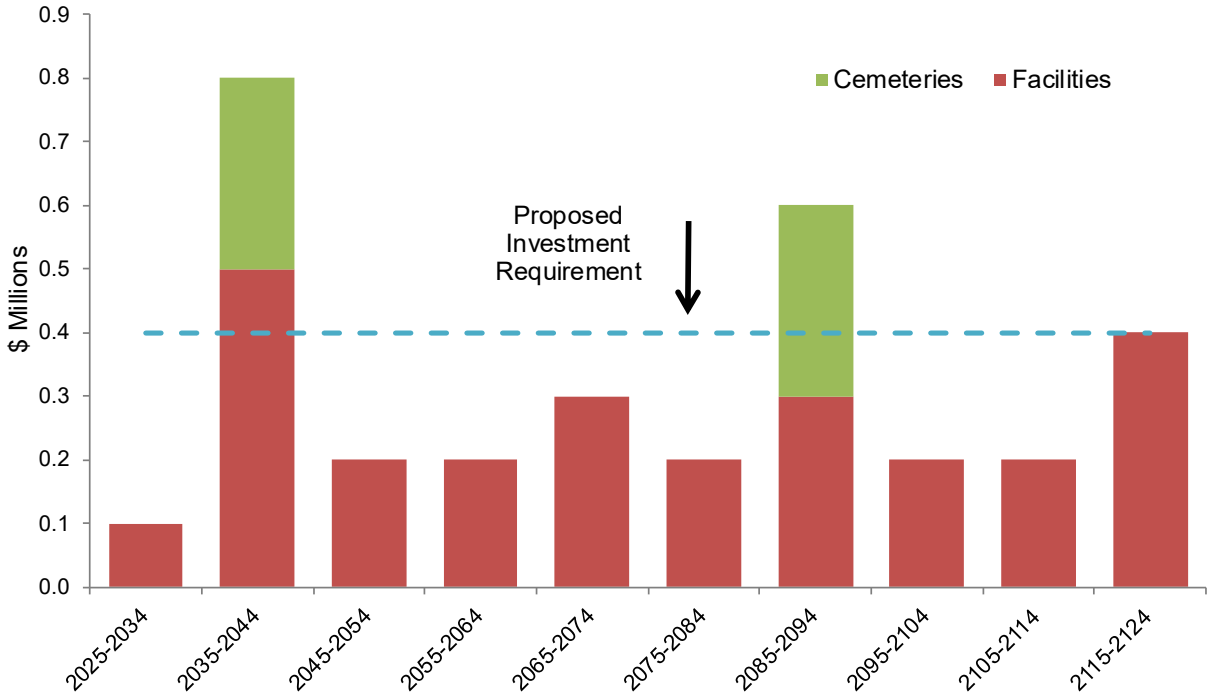
	Annual Investment	Average Condition	Average Risk	% of assets in poor or critical condition
Scenario A	**$35,000**	**Poor**	**High**	**62%**
Scenario B	40,000	Poor	Moderate	55%
Scenario C	28,000	Poor	High	63%
Scenario D	32,000	Poor	High	62%

5.2 Lifecycle Requirements

Based on the proposed level of service, the cost estimates to support the lifecycle needs over the next 100 years are determined in current dollars as summarized in Table 5.2.1.

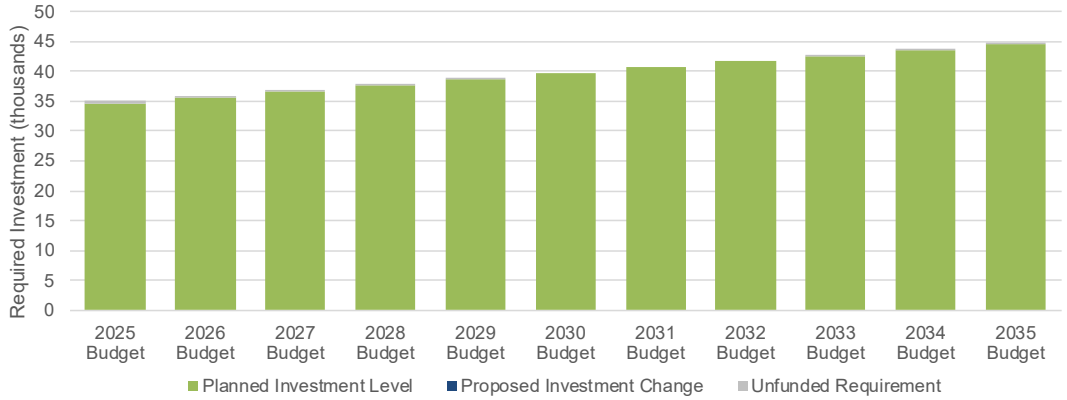
Table 5.2.1 - Lifecycle Requirements (millions)

Asset Component	2025-2034	2035-2044	2045-2054	2055-2064	2065-2074	2075-2084	2085-2094	2095-2104	2105-2114	2115-2124
Facilities	$0.1	$0.5	$0.2	$0.2	$0.3	$0.2	$0.3	$0.2	$0.2	$0.4
Cemeteries	-	0.3	-	-	-	-	0.3	-	-	-
Totals	**$0.1**	**$0.8**	**$0.2**	**$0.2**	**$0.3**	**$0.2**	**$0.6**	**$0.3**	**$0.2**	**$0.4**



5.3 Funding Gap Analysis

This portfolio is funded by an annual contribution from property taxes to the Office Property and Equipment reserves.



Planned Investment Level

Inflationary increases are included in Table 5.3.1 in both the required investment and planned investment figures.

Proposed Investment Change

Aside from the inflationary increase, staff are not proposing any further increases to the contribution level for the 2026 budget, as the current funding aligns with the proposed service level. Maintaining reserves help ensure a contingency is in place should unanticipated failures or events occur. Staff will continue to monitor actual rates of inflation to determine if changes to the level of service or funding strategy should be considered in response to changing economic conditions.

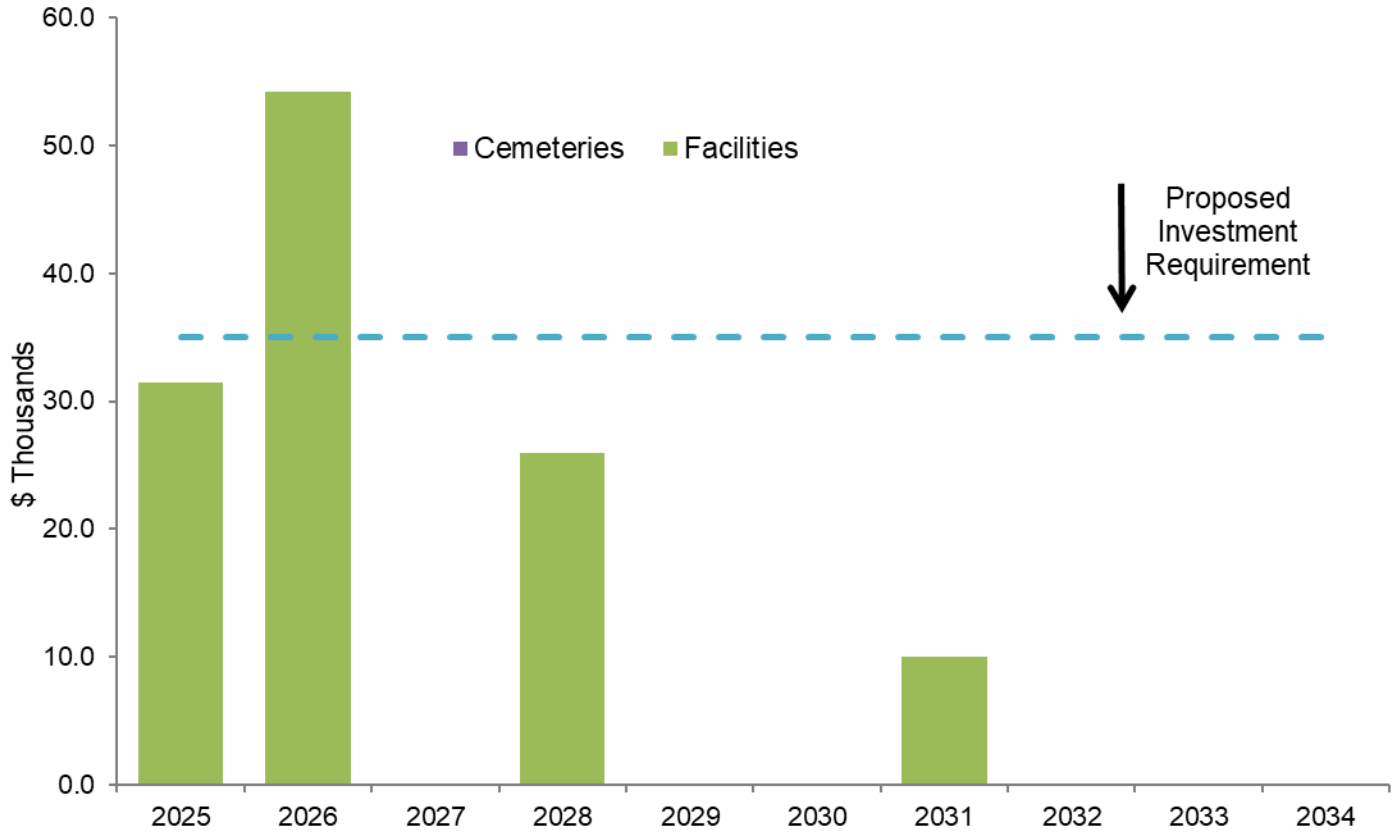
Table 5.3.1 – Comparing the required investment to the proposed investment (thousands)

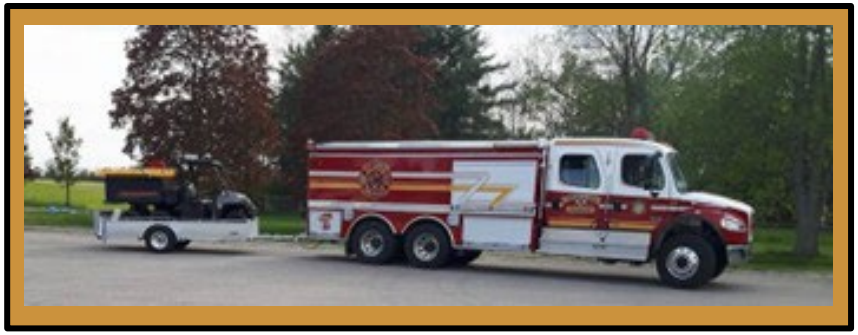
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Required Investment	$35.00	$35.88	$36.77	$37.69	$38.63	$39.60	$40.59	$41.60	$42.64	$43.71	$44.80
Planned Investment Level	34.62	35.62	36.62	37.62	38.62	39.62	40.62	41.62	42.62	43.62	44.62
Proposed Investment Change	-	-	-	-	-	-	-	-	-	-	-
Unfunded Requirement	0.38	0.26	0.15	0.07	0.02	-	-	-	0.03	0.09	0.18

Based on the funding strategy proposed, the lifecycle cost needs to be reviewed in preparation of the long-term capital plan for the 2026 Budget process are as follows:

Table 5.3.2 - Lifecycle Requirements (thousands)

Asset Component	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Facilities	$31.5	$54.2	$-	$26.0	$-	$-	$10.0	$-	$-	$-
Cemeteries	-	-	-	-	-	-	-	-	-	-
Totals	**$31.5**	**$54.2**	**$-**	**$26.0**	**$-**	**$-**	**$10.0**	**$-**	**$-**	**$-**






PLATTSVILLE FIRE STATION

Table of Contents

1.0 Introduction

The mission of Blandford-Blenheim Emergency Services is to protect the lives and property of our citizens and visitors by providing prompt and professional services in the event of fire, accident, medical emergency, disaster or any other event which may threaten the public welfare.

The Township's protection services assets are categorized into various components, because of differing life spans and maintenance strategies. They are assets related to our fire hall facilities, fleet, and equipment. The equipment is made up of components including bunker gear, extrication tools, hoses, SCBA systems, thermal imaging cameras, communication tools and other general fire equipment. Fleet includes tankers, pumpers, and various trucks.

Like many of our assets, our protection services assets are facing increased challenges because of aging assets, increased costs and increasing demand due to growth in our communities. Our investment in these assets must therefore be balanced to optimize investment for renewal with the growing needs of our community.

The quality and completeness of the data used in this plan as indicated in Table 1.0.1, relies on inventory and assessments by staff. Additional enhancements to the attributes used for assessing risk are required, along with other improvement areas as indicated in Table 1.0.2.

Table 1.0.1 – Data Confidence

		Risk	AM Data Analysis			
Asset Component	**Inventory Completeness**	**Attribute Data**	**Service Life**	**Age**	**Condition**	**Replacement Cost**
Equipment	A	B	A	A	A	A
Facilities	B	C	B	A	B	B
Fleet	A	A	A	A	A	A

Table 1.0.2 – Status of improvement opportunities

Improvement Opportunity	Year Identified	Status	Notes
Update attributes to further enhance the risk profile in the asset management software.	2025	Not Started	Competing priorities have prevented this from being undertaken.
Refine asset inventory.	2025	Ongoing	Further refine the inventory of the Fire Halls.

2.0 State of Assets

2.1 Inventory

Table 2.1.1 displays the Township's current inventory and the associated replacement costs, average age and anticipated useful life for each component. The anticipated useful lives exclude the management strategies that the Township utilizes to extend the overall life beyond this estimate.

Replacement costs were estimated based on staff reviews, historical costs and inflation rates.

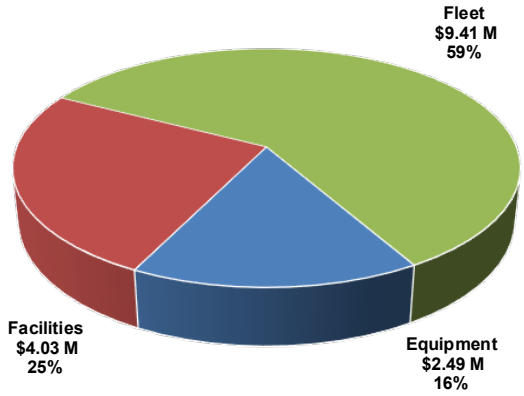


Table 2.1.1 - Inventory

Asset Component	Unit	Current Inventory	Replacement Cost	Average Age (years)	Anticipated Useful Life (years)
Equipment	each	781	$2,494,409	6	4-20
Facilities	bldg	4	4,025,070	18	20-100
Fleet	each	12	9,412,435	16	7-25
Total Replacement Cost			**$15,931,915**		

2.2 Condition Assessment Approach

The assessment approach utilizes a combination of physical assessments, asset attributes, as well as established anticipated useful lives. Township staff have completed preliminary assessments and documented the current condition of assets to identify capital repairs and replacements which may affect the continued operation over the next ten (10) years.

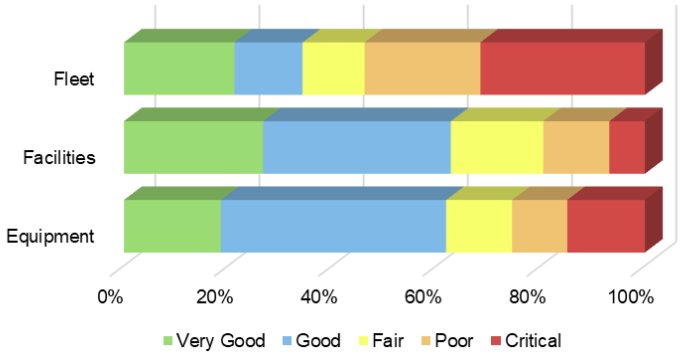
The Township inspects all fire equipment on a yearly basis with higher intervals for higher risk equipment. The Township follows the Fire Underwriters Survey and other insurance and fire department organizations to come up with minimum requirements. The Office of the Fire Marshal collects data on fire equipment and fleet used in fires. Any equipment is automatically repaired or replaced if it fails a test. Therefore, assets could conceivably require greater changeover year-to-year based on equipment usage over the course of a year.

Building Condition Assessments (BCAs) assess and document the current condition of facilities to identify capital repairs and replacements which may affect the continued operation of the property over the next ten (10) years and provide an assessment as to the level of accessibility for each property. Replacement costs are also requested as a part of this process. The township anticipates completing BCAs within the next 2 years.

2.3 Current Condition

The indicator measure in each condition is based on percentage of replacement costs as opposed to the number of assets.

The critical fleet assets are related to older pumpers and tankers. These assets are planned for replacement within the 10-year capital budget. Condition ratings within this portfolio are typically age based, and due to the run-to-failure or planned replacement nature it is typical to see a distribution between various conditions. The assets rated as poor and critical may continue to provide acceptable service levels and will be monitored by staff.



Longer delivery times that may result from outside industry pressures, result in fleet remaining in service longer than originally anticipated, resulting in lower average condition ratings. Through the annual budget cycle, staff identify assets with long delivery times to request early procurement approval to more closely align new unit delivery times with anticipated replacement timing.

Table 2.3.1 - Condition Profile

Asset Component	Very Good	Good	Fair	Poor	Critical	Average Condition Rating
Equipment	19%	42%	13%	11%	15%	Fair
Facilities	27%	35%	18%	13%	7%	Good
Fleet	21%	13%	12%	22%	32%	Fair
Overall Total	**22%**	**24%**	**13%**	**18%**	**23%**	

3.0 Levels of Service

Corporate Objective

The corporate objective of protection services is to provide fire protection services to the residents and visitors of Blandford-Blenheim Township.

Legislative Requirements

Ontario firefighters are governed by the Fire Protection and Prevention Act Ontario Regulation 213/07, and the Township has a Council approved Establishing and Regulating By-law which sets service levels for the municipality.

The Township is required to maintain minimum standards based on governing directives. These include, but are not limited to, Technical Standards and Safety Authority (TSSA), Electrical Safety Authority (ESA), National Plumbing Code of Canada (NPC), Fire Code, Ontario Building Code, Designated Substance List (DSL) and additional Ministry of Labour (MOL) requirements.

The Accessibility for Ontarians with Disabilities Act, 2005[1] was developed with the purpose of ensuring that accessibility for Ontarians with disabilities is achieved on or before January 1, 2025. The Township ensures that each new build / renovation complies with the standards developed under this Act.

Customer Levels of Service

The following statements form our qualitative descriptions of the customer level metrics required under O.Reg. 588/17.

- *Blandford-Blenheim Fire Service protects the lives and property of our citizens and visitors by providing prompt and professional services in the event of fire, accident, medical emergency, disaster or any other event which may threaten the public welfare.*

Table 3.0.1 includes the metric the Township has established for this portfolio, and the estimated performance over the upcoming 10-year period based on the recommended financial strategy, as required under the Infrastructure for Jobs and Prosperity Act, 2015 - O.Reg. 588/17. A consistent annual target is not established as this portfolio is based on a run to failure / run to planned useful life strategy, therefore will result in fluctuations in condition ratings.

[1] https://www.ontario.ca/laws/statute/05a11

Table 3.0.1 - Performance Measures

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
QUALITY											
Average condition value											
-	50%	49%	47%	49%	47%	44%	47%	45%	42%	44%	43%
RELIABILITY											
% of General Government assets in poor or critical condition											
-	41%	46%	45%	40%	40%	41%	46%	48%	50%	44%	43%

4.0 Asset Management Strategy

4.1 Lifecycle Activities and Planned Actions

To cost effectively maintain assets at the established service levels, the right maintenance or rehabilitation activity needs to be completed at the ideal time throughout the asset's lifecycle. Staff will also complete similar lifecycle activities across buildings in this portfolio and others where possible to maximize economies of scale and achieve the best benefit to the Township.

For protective services assets, replacement needs typically follow a "run to planned lifecycle" strategy if the assets are consistently passing their annual checks. This is usually the most cost-effective approach and follows provincial and federal standards. Staff will constantly monitor industry trends and best practices, assessing lifecycle activities to ascertain if implementing them would add value.

Examples of lifecycle activities considered in the overall sustainable management of this portfolio are described in table 4.1.1.

Table 4.1.1 - Lifecycle Activities

Strategy	Lifecycle Activity
Non-Infrastructure Solutions	• Ongoing collaboration meetings with other Fire Chiefs in Oxford County • Building Condition Assessments (BCA's) • Regular equipment inspections and testing **Trigger: Ongoing**
Maintenance	• Minor repairs • Ongoing preventative maintenance checks for all equipment and fleet **Trigger: Ongoing**
Rehabilitation / Renewal	• Major and minor rehabilitations **Trigger: Fair/Poor**
Replacement	• Occurs at the end of the useful life • May also occur to increase service levels **Trigger: Poor/Critical**
Disposal	• Activities associated with disposing of an asset once it has reached the end of its useful life **Trigger: Poor/Critical**
Expansion / Growth	• New assets requirements as part of Township growth **Trigger: Development**

4.2 Risk Strategy

For this portfolio, the probability of failure is based on the projected condition and the consequence of failure is based on the replacement cost of the asset. Staff are working to further enhance the risk profiles as not all attributes recommended for inclusion (including social and environmental metrics) are currently tracked within the asset management systems.

Table 4.2.1 illustrates the risk ratings at a summary level. While a significant percentage of fleet assets have a major risk rating, this is not a direct indication that these assets are at a high risk of failure (refer to section 2.2 for information on the condition of the assets in this portfolio). Areas of concern are addressed through demand maintenance or included in the subsequent budget cycle as appropriate. The inspection and review process helps mitigate the likelihood of any unanticipated asset failures. Staff will continue to monitor the higher risk assets, review, and/or complete physical inspections to further validate needs and plan for lifecycle strategies accordingly.

Table 4.2.1 - Risk Profile

Asset Component	Very High	High	Moderate	Low	Very Low	Average Risk Rating
Equipment	0%	3%	0%	32%	65%	Very Low
Facilities	12%	1%	41%	22%	25%	Low
Fleet	73%	14%	0%	1%	11%	Very High

4.3 Climate Change

Facilities are directly impacted by climate change weather events such as rainstorms and flooding, high winds, extreme heat, extreme cold, significant snowfall and frequent freeze and thaw cycles. A facility can also contribute to climate change with its carbon footprint.

As part of the asset management planning process, the Township will consider the risks and vulnerabilities of capital assets to climate change and the resulting actions that may be required. Commitment will be made to the development of tailored actions that make the best use of our resources to mitigate and adapt to climate change, in accordance with our local reduction targets, financial capacity and stakeholder support. Climate change resiliency will be identified as a design criterion for asset renewal/replacement projects as part of the Township's capital plan.

5.0 Financial Strategy

5.1 Proposed Levels of Service Review

Staff reviewed 4 scenarios over a 100-year period as described below. The current reserve balance is factored into each scenario as available funding to complete existing asset lifecycle needs.

Under all scenarios, except for Scenario B, the replacement of the fire halls is deferred beyond their estimated end of life. Debenture funding would be utilized if the facility is at risk of not providing services and replacement is unable to be deferred until reserve balances are sufficient to fund the complete project.

Scenario A

This scenario is based on the 2025 budgeted contribution to the Fire Department reserve of approximately $292,000, representing approximately 43% funded based on lifecycle needs. Maintaining funding at this level would result in reduced overall condition of the portfolio, increased risk of failure, increased maintenance costs and staff time, and the highest number of assets in the poor/critical condition rating over the long term. The Township recognizes it is planning on utilizing Working Capital funds for replacements within this portfolio.

Scenario B

Staff initially ran this scenario assuming unlimited resources to achieve the lifecycle needs of all assets in this portfolio. This generated an average annual requirement of approximately $680,000, which staff used to re-run the analysis. The result is a realistic expectation of what can be achieved on an annual basis in maintaining the long-term lifecycle needs. This is considered the fully funded scenario, resulting in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 100-year scenario period.

Scenario C

This scenario increased funding to the portfolio from the 2025 approved budget, to approximately 60% of the funding requirement, or approximately $408,000 based on lifecycle needs. Under this scenario, fewer asset replacements will require deferrals compared to scenario A, however there is still a significant risk and percentage of assets in poor and critical condition.

Scenario D

This scenario increased funding to the portfolio from the 2025 approved budget, to approximately 70% of the funding requirement, or approximately $476,000 based on lifecycle needs. Under this scenario, fewer asset replacements will require deferrals compared to scenarios A and C, resulting in reduced risk and a reduced percentage of assets in poor and critical condition, increasing the average network condition.

Based on the analysis, staff are recommending Scenario D, the proposed level of service is to increase funding to 70% of the fully funded scenario. This scenario was chosen as it ensures the lifecycle replacement of the various equipment, fleet and facility components within the portfolio with minimal deferrals, excluding the replacement of the Fire Halls. These replacements, except for the planned Princeton Fire Hall, are projected for a later date, and as that time approaches, additional funding options or sources will be explored.

The recommendation to increase funding is in line with responses from the 2025 budget survey, where 86% of respondents indicated that the service level related to Fire Services should be maintained or enhanced.

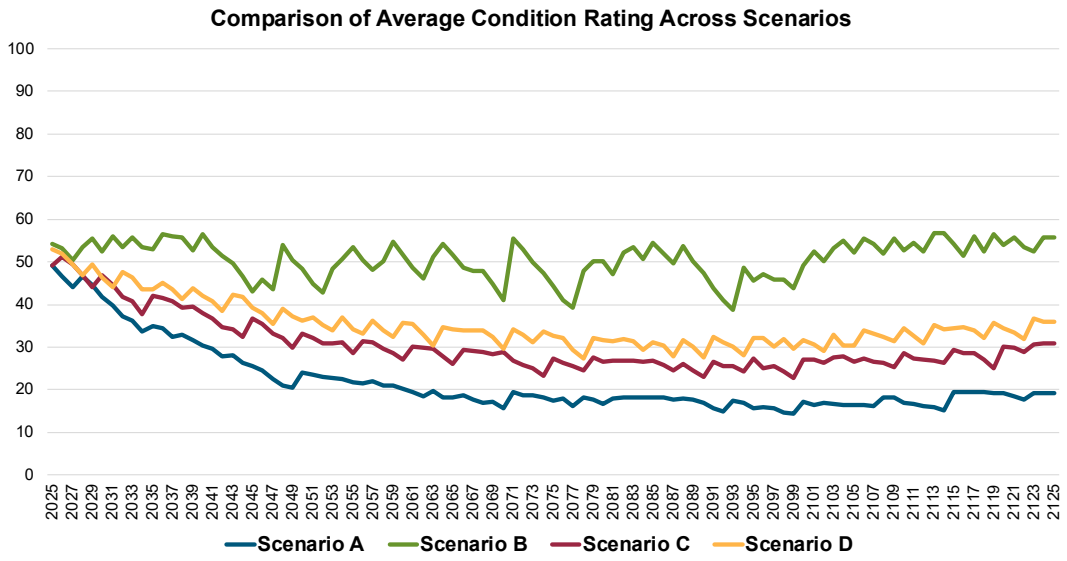


Table 5.1.1 – Scenario Summary

	Annual Investment	Average Condition	Average Risk	% of assets in poor or critical condition
Scenario A	$292,000	Poor	Low	73%
Scenario B	680,000	Fair	Very Low	37%
Scenario C	408,000	Poor	Low	62%
Scenario D	**476,000**	**Poor**	**Low**	**56%**

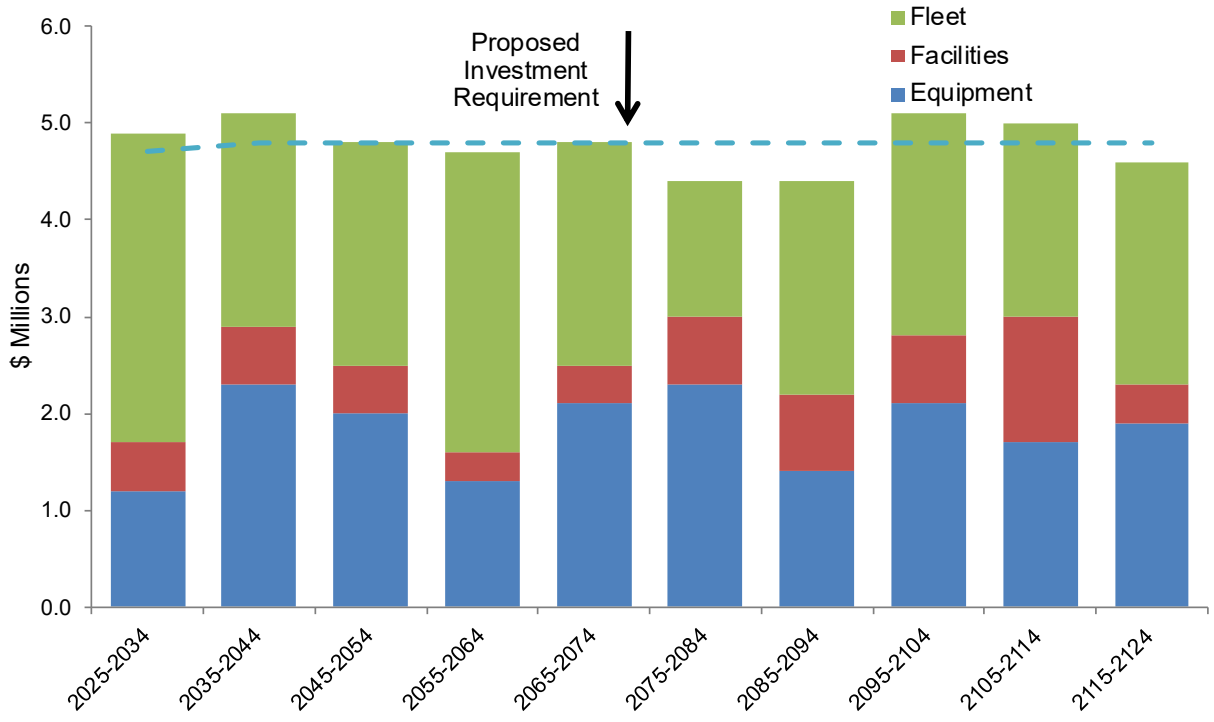
PROPOSED SERVICE LEVEL DEFICIT $0.184 MILLION

5.2 Lifecycle Requirements

Based on the proposed level of service, the cost estimates to support the lifecycle needs over the next 100 years are determined in current dollars as summarized in Table 5.2.1.

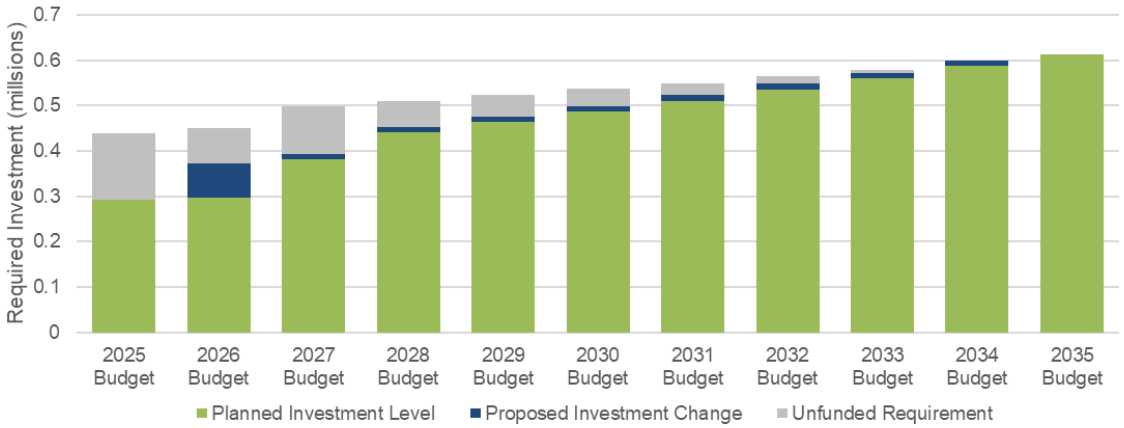
Table 5.2.1 - Lifecycle Requirements (millions)

Asset Component	2025-2034	2035-2044	2045-2054	2055-2064	2065-2074	2075-2084	2085-2094	2095-2104	2105-2114	2115-2124
Equipment	$1.2	$2.3	$2.0	$1.3	$2.1	$2.3	$1.4	$2.1	$1.7	$1.9
Facilities	0.5	0.6	0.5	0.3	0.4	0.7	0.8	0.7	1.3	0.4
Fleet	3.2	2.2	2.3	3.1	2.3	1.4	2.2	2.3	2.0	2.3
Totals	**$4.9**	**$5.1**	**$4.8**	**$4.7**	**$4.8**	**$4.4**	**$4.4**	**$5.1**	**$5.0**	**$4.6**



5.3 Funding Gap Analysis

This portfolio is funded by an annual contribution from the property tax levy to the Fire Department reserve.



Planned Investment Level

Inflationary increases are included in Table 5.3.1 in both the required investment and planned investment figures. Included in the planned investment in 2027 is additional contributions for the lifecycle needs of growth assets once purchased.

Proposed Investment Change

A reallocation of the current Working Capital Reserve contribution of $64,000 is proposed for 2026. An increase of approximately $12,000 (0.16% on 2025 levy) is proposed for 2026 through 2034, at which point the target investment level would be reached. Maintaining the reserve helps ensure a contingency is in place should unanticipated failures or events occur. Staff will continue to monitor, actual rates of inflation, to determine if changes to the level of service or funding strategy should be considered in response to changing economic conditions.

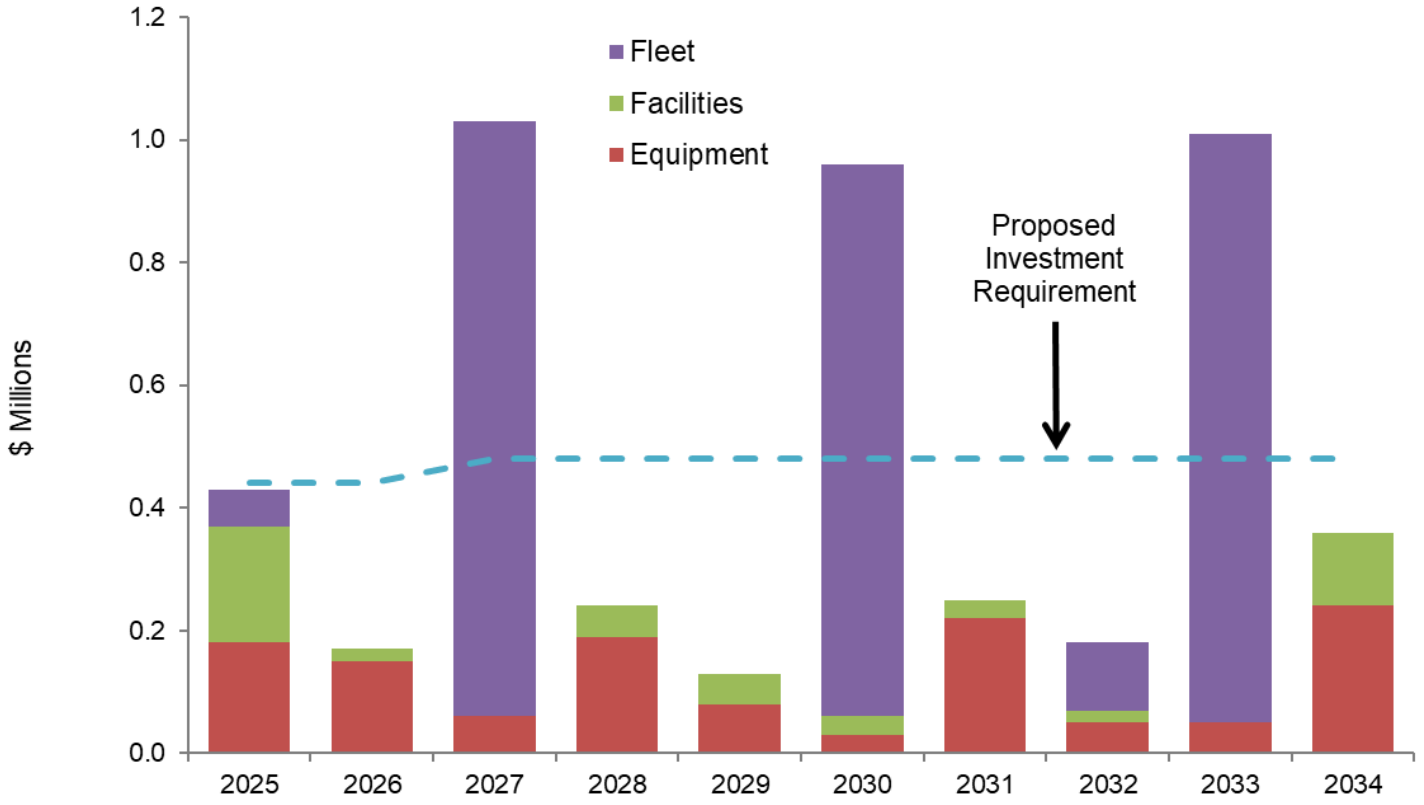
Table 5.3.1 – Comparing the required investment to the proposed investment (millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Required Investment	$0.44	$0.45	$0.50	$0.51	$0.52	$0.54	$0.55	$0.56	$0.58	$0.59	$0.61
Planned Investment Level	0.29	0.30	0.38	0.44	0.46	0.49	0.51	0.54	0.56	0.59	0.61
Proposed Investment Change	-	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	-
Unfunded Requirement	0.15	0.08	0.11	0.06	0.05	0.04	0.03	0.02	0.01	-	-

Based on the funding strategy proposed, the lifecycle cost needs to be reviewed in preparation of the long-term capital plan for the 2026 Budget process are as follows:

Table 5.3.2 - Lifecycle Requirements (millions)

Asset Component	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Equipment	$0.18	$0.15	$0.06	$0.19	$0.08	$0.03	$0.22	$0.05	$0.05	$0.24
Facilities	0.19	0.02	-	0.05	0.05	0.03	0.03	0.02	-	0.12
Fleet	0.06	-	0.97	-	-	0.90	-	0.11	0.96	-
Totals	**$0.43**	**$0.17**	**$1.03**	**$0.24**	**$0.13**	**$0.96**	**$0.25**	**$0.18**	**$1.01**	**$0.36**



Public Works

Table of Contents

1.0 Introduction

The Township maintains a diverse transportation network to provide safe and effective means to keep our communities moving and connected. Roads located within the Township are under the care of either the Township of Blandford-Blenheim or the County of Oxford. The Township is responsible for the construction and maintenance of all roads under their jurisdiction. The Township has shared ownership of boundary roads with the neighbouring municipality. Replacements costs noted throughout this appendix relate to the Township's share of the costs.

The Township's public works assets are categorized into various components, because of differing life spans and maintenance strategies. They are bridges and structural culverts, collector and local roads (including paved and un-paved surfaces); road appurtenances which include guide rails, street lights, sidewalks and retaining walls; works yards; fleet and equipment; and stormwater assets including culverts, catchbasins, storm pipes and stormwater management facilities.

The quality and completeness of the data used in this plan as indicated in Table 1.0.1, largely stems from the completion of the bi-annual Bridge Needs Study data, the Roads Needs study along with asset inventories completed by staff and consultants. Additional enhancements to the attributes used for assessing risk are required, along with other improvement areas as indicated in Table 1.0.2.

Table 1.0.1 – Data Confidence

		Risk	AM Data Analysis			
Asset Component	**Inventory Completeness**	**Attribute Data**	**Service Life**	**Age**	**Condition**	**Replacement Cost**
Bridges	A	B	A	A	C	A
Structural Culverts > 3m	A	B	A	A	C	A
Collector Road[1]	A	B	A	B	B	B
Local Road[2]	A	B	A	B	B	B
Roadside Appurtenances	A	B	A	B	B	A
Sidewalks	A	B	B	B	B	B
Street Lighting	A	B	B	A	B	B
Facilities	B	C	B	B	B	C
Fleet and Equipment	A	B	A	A	A	A

[1] "Collector Roads" means Class 3 and Class 4 highways as determined under the Table to section 1 of Ontario Regulation 239/02
[2] "Local Roads" means Class 5 and Class 6 highways as determined under the Table to section 1 of Ontario Regulation 239/02

		Risk	AM Data Analysis			
Asset Component	**Inventory Completeness**	**Attribute Data**	**Service Life**	**Age**	**Condition**	**Replacement Cost**
Urban Storm[3]	A	B	A	B	B	B
Rural Storm	B	B	B	C	C	B

Table 1.0.2 – Status of improvement opportunities

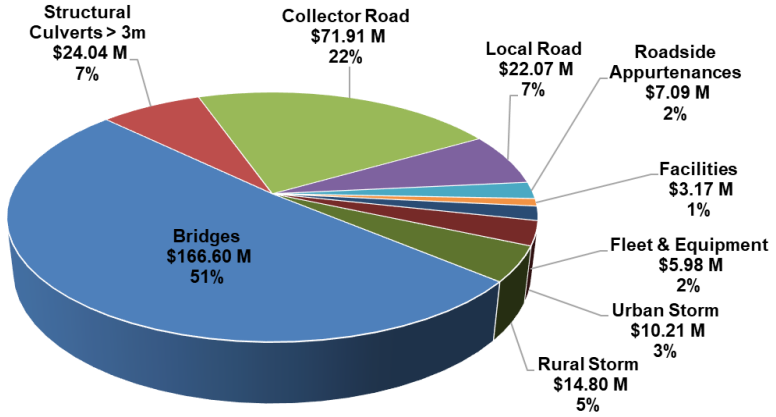
Improvement Opportunity	Year Identified	Status	Notes
Review Bridge Condition Index values as part of the 2025 Bridge Needs Study.	2025	New	Existing Bridge Condition Index values from the 2021 and 2023 Bridge Needs Study do not align with existing MTO bridge and culvert curves. Will review during 2025 study.
Continue to improve data confidence.	2025	Ongoing	Further refine the inventory of the works yards.
Refine asset components and lifecycle strategies and document lifecycle history.	2025	Ongoing	Preliminary work completed on asset components (HVAC) with additional work ongoing across the portfolio (other facility components, furniture and equipment, streetlights, beacons, and guide rails).
Update attributes to further enhance the risk profile in the asset management software.	2025	Not Started	Competing priorities have prevented this from being undertaken.
Refine road asset end of life lifecycle strategies.	2025	New	During the development of scenarios for this AMP, it was determined that not all rural roads require a complete replacement at end of life. A 50-year life was utilized instead of 100 years as staff investigate which roads will require full replacement and develop an appropriate strategy for those that do not.
Incorporate assets being maintained under the operating budget.	2025	New	Gravel roads maintenance and a significant portion of the rural storm infrastructure is currently funded form the operating budget and have been excluded from the financial plan.

[3] "Urban Storm" includes the Townships assessment of Municipal Drains with the Town boundaries.

2.0 State of Assets

2.1 Inventory

Table 2.1.1 displays the Township's current inventory and the associated replacement costs, average age and anticipated useful life for each component. The anticipated useful lives exclude the management strategies that the Township utilizes to extend the overall life beyond this estimate.



The replacement cost for collector and local roads are based on the 2019 Road Needs Study utilizing inflation. Replacement costs for the bridges and structural culverts were provided within the 2023 Bridge Needs Study. The replacement cost for other assets is based on current tender prices where available and inflation. The cost of guide rail end treatments can have a significant impact on the overall cost per meter. The lengths identified for collector and local roads reflect only the Township's share of boundary roads.

Table 2.1.1 - Inventory

Asset Component	Unit	Current Inventory	Replacement Cost	Average Age (years)	Anticipated Useful Life (years)
Bridges	each	58	$166,602,221	58	75
Structural Culverts > 3m	each	34	24,037,478	48	50
Collector Road	lane-km	540	71,911,902	38	25
Local Road	lane-km	122	22,074,080	28	25
Roadside Appurtenances	length (km)	7.1	2,520,738	26	30
Sidewalks	length (km)	24.5	3,273,792	33	50
Street Lighting	each lights/poles	620	1,296,346	12	20 to 60
Facilities	bldg.	2	3,171,361	36	10 to 100
Fleet and Equipment	each	58	5,982,662	7	5 to 25
Urban Storm	length (km)	20.2	10,209,508	27	20 to 90
Rural Storm	length (km)	18.3	14,798,129	32	20 to 90
Total Replacement Cost			**$325,878,215**		

2.2 Condition Assessment Approach

The assessment approach for the assets in this portfolio utilizes a combination of physical assessments, asset attributes, such as material, as well as established anticipated useful lives. Given the complexities and accessibility of some assets, not all assets allow for a visual or performance-based condition assessment. For assets which have not been visually inspected an age-based condition rating is being used based on anticipated useful lives.

A Bridge Needs Study is required to be conducted every two years to comply with the Public Transportation and Highway Improvement Act and Ontario Regulation 104/97, as amended. Structure inspections are to be performed under the direction of a professional engineer. The study evaluates the structural and serviceability of individual elements and recommends required improvements. The Ministry of Transportation (MTO) has developed an Ontario Structure Inspection Manual (OSIM), which is used to complete the inspections. The OSIM has specified condition states for each material type and where required, for specialized elements. Once inspections have been completed, the Bridge Condition Index (BCI) for each structure is determined based on the MTO methodology. The BCI determined helps to schedule maintenance and rehabilitation work and is not a direct indication of the safety of the bridge. In general, for a bridge with a BCI value:

- Greater than 70 - Repair work is not usually required within the next five years.
- Between 60 and 70 - Repair work is usually recommended within the next five years.
- Less than 60 - Repair work is usually recommended within the next year.

A new structure would have a BCI value of 100 and the value will decline over time. Monitoring the rate of decline in the BCI and comparing this with the anticipated rate provides valuable long-term asset management information. The reduction in BCI, in theory is a function of many factors, including traffic volume, heavy transport vehicles, use of de-icing chemicals, exposure to the elements and the type of structure. Each structure will decline at its own rate; however, it is reasonable to expect that the decline begins slowly and accelerates as the structure gets older.

Other factors are also considered in the prioritization of our structure rehabilitation recommendations including:

- State of deterioration and estimated length of prolonged useful life are considered against asset management needs through a cost/benefit analysis.
- Impacts of rehabilitation methods on users based on the length of detour or alternate access.

During OSIM inspections, the condition and effectiveness of roadside safety measures on the approaches to the structures is reviewed. Where no roadside safety systems are present, recommendations are made to identify whether consideration should be given to installing roadside safety systems (i.e., guide rail and end treatments).

Table 2.2.1 illustrates how the BCI score ratings align with the Township's standard condition scale.

Table 2.2.1 - BCI Score Ratings[4]

Asset Component	Very Good BCI Score of 90-100	Good BCI Score of 70-89	Fair BCI Score of 50-69	Poor BCI Score of 40-49	Critical BCI Score of 0-39
Bridges					
Structural Culverts					

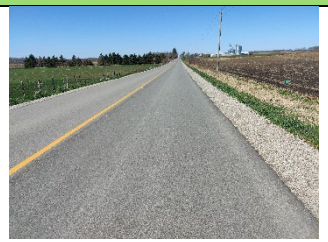
The BCI values from the 2023 Bridge Needs Study are currently considered high and do not align with the MTO standards above. A custom condition rating scale has been employed for this AMP to more accurately report on condition values.

The state of the collector and local road assets is determined based on the Pavement Condition Index (PCI). The PCI is calculated from the Ride Comfort Rating (RCR) and the Distress Manifestation Index (DMI). The Ministry of Transportation developed a formula to determine the cumulative impacts of the various surface distresses, to determine the DMI for each road section. The higher the calculated DMI the better overall condition of the road surface. The PCI tells us what the current condition of the road segment is and can help determine the rate of deterioration of that segment by comparing PCI values over time. It helps to identify immediate maintenance and rehabilitation requirements, as well as provide a base for establishing a long-term maintenance strategy. Table 2.2.2 illustrates how the PCI values align with the Township's standard condition scale.

[4] All images are of Non-Township assets and are general representations of the condition at the time the photo was taken. Assets may have undergone lifecycle strategies since the date of the image impacting its condition.

The Township conducts a Road Needs Study every ten years to provide an overview of the condition of the various road segments. The condition information utilized is based on the 2019 Road Needs Study, prepared by RJ Burnside and Associates Ltd. Conditions have been adjusted for road segments that have had work completed since being evaluated in the study.

Table 2.2.2 - PCI Score Ratings[5]

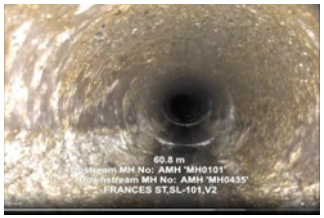
Asset Component	Very Good PCI Score of 85-100	Good PCI Score of 70-84	Fair PCI Score of 55-69	Poor PCI Score of 40-54	Critical PCI Score of 0-39
Collector and Local roads	 Non-Township asset	 Non-Township asset			

The Pipeline Assessment Certificate Program (PACP) is the North American Standard for pipeline defect identification and assessment[6]. Closed-circuit television (CCTV) is the principal method of inspecting drains and sewers. In this process, a small robotic crawler vehicle with the CCTV camera attached is lowered into the pipe to complete the inspections. A structural rating, on a scale of 0-5, is assigned using sewer condition assessment standards, with 0 representing an asset with minimal structural deficiencies and 5 representing assets on the verge of failure. Table 2.2.3 illustrates how the PACP score ratings align with the Township's standard condition scale.

The Township has completed limited CCTV inspections of its stormwater mains, typically on an as needed bases when looking at reconstruction projects. Due to a lack of sewer ratings, the age and material of the assets are used to assign conditions to our stormwater network assets.

[5] Unless otherwise noted, all images are of Township assets and are general representations of the condition at the time the photo was taken. Assets may have undergone lifecycle strategies since the date of the image impacting its condition.
[6] https://www.nassco.org/content/pipeline-assessment-pacp

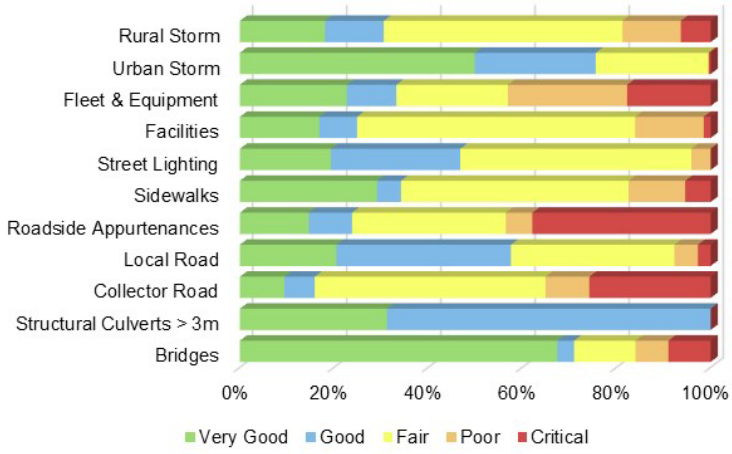
Table 2.2.3 - PACP Score Ratings[7]

Asset Component	Very Good PACP Score of 0 or 1	Good PACP Score of 2	Fair PACP Score of 3	Poor PACP Score of 4	Critical PACP Score of 5
Storm Pipes					

Building Condition Assessments (BCAs) assess and document the current condition of facilities to identify capital repairs and replacements which may affect the continued operation of the property over the next ten (10) years and provide an assessment as to the level of accessibility for each property. Replacement costs are also requested as a part of this process. The township anticipates completing BCAs within the next 2 years.

2.3 Current Condition

The indicator measure in each condition is based on percentage of replacement costs as opposed to the number of assets. Continued completion of lifecycle strategies identified through the Road Needs Study, and Bridge Needs Study will help maintain the overall condition rating of the related assets.



It should be noted that it is not sustainable or practical for the Township to maintain assets to a high level, as the Townships roadways are considered lower class roads, seeing less traffic and therefore do not carry the same level of criticality as County or MTO roads.

Accurate age and condition data was unavailable for many of the rural storm assets, and therefor an assumed installation date of 1975 based on Blandford-Blenheim Township's incorporation was applied, attributing to the large critical condition rating. Many of these assets, such as driveway culverts, are on a run to failure model.

[7] All images are of Non-Township assets and are general representations of the condition at the time the photo was taken.

Table 2.3.1 - Condition Profile

Asset Component	Very Good	Good	Fair	Poor	Critical	Average Condition Rating
Bridges	67%	4%	13%	7%	9%	Good
Structural Culverts > 3m	31%	69%	0%	0%	0%	Fair
Collector Road	9%	6%	49%	9%	26%	Fair
Local Road	20%	37%	35%	52%	3%	Good
Roadside Appurtenances	15%	9%	33%	6%	37%	Poor
Sidewalks	30%	5%	48%	12%	5%	Good
Street Lighting	19%	27%	50%	4%	0%	Fair
Facilities	17%	8%	59%	15%	1%	Fair
Fleet and Equipment	23%	11%	24%	24%	18%	Fair
Urban Storm	50%	26%	24%	0%	0%	Good
Rural Storm	18%	12%	52%	12%	6%	Fair
Overall Total	**44%**	**13%**	**25%**	**7%**	**11%**	

3.0 Levels of Service

Table 3.0.1 includes metrics required under the Infrastructure for Jobs and Prosperity Act, 2015 - O.Reg. 588/17, as well as additional metrics the Township has included.

Corporate Objective

The objective of Public Works, which includes the collection of stormwater, is to ensure people and goods are able to move safely and efficiently throughout the Township and to efficiently provide reliable stormwater services and protect the community from flooding and associated property damage. The inventory includes a number of assets located on boundary roads with neighbouring municipalities in which the Township and the neighbouring municipality share in the maintenance activity costs. Service agreements are in place to ensure that service levels are maintained.

Legislative Requirements

In addition to Ontario Regulation 104/97, as amended, specifying the requirements for biennial inspections, Ontario Regulation 239/02 specifies the Maintenance Standards for bridge decks. The maintenance requirement is based on the highway classification associated with the bridge or structural culvert.

Ontario Regulation 239/02[8] specifies the Maintenance Standards for Municipal Highways. It covers such items as, but not limited to, patrolling frequency, snow accumulation, potholes, and regulatory/warning signs and traffic signals. The level of service provided by the Township for winter maintenance meets the level required by Ontario Regulation 239/02.

Ontario does not currently have a regulation specifically for stormwater management. Under the Ontario Water Resources Act (OWRA) Section 53, stormwater infrastructure requires an Environmental Compliance Approval (ECA), formerly a Certificate of Approval (C of A), for its establishment, alteration, extension, and replacement. Operations, maintenance, and reporting requirements are typically identified in ECA condition(s) if applicable.

The Township is required to maintain minimum standards based on governing directives. These include, but are not limited to, Technical Standards and Safety Authority (TSSA), Electrical Safety Authority (ESA), National Plumbing Code of Canada (NPC), Fire Code, Ontario Building Code, Designated Substance List (DSL) and additional Ministry of Labour (MOL) requirements.

[8] https://www.ontario.ca/laws/regulation/020239

The Accessibility for Ontarians with Disabilities Act, 2005[9] was developed with the purpose of ensuring that accessibility for Ontarians with disabilities is achieved on or before January 1, 2025. The Township ensures that each new build / renovation complies with the standards developed under this Act.

Based on the vehicles contained within the Township's fleet we are required to carry a Commercial Vehicle Operator's Registration (CVOR) certificate[10]. Operator responsibilities include the mechanical safety condition of the vehicle. Commercial Vehicle Safety Alliance (CVSA) safety inspections are completed annually and are included as part of the CVOR record.

Customer Levels of Service

The following statements form our qualitative descriptions of the customer level metrics required under O.Reg. 588/17.

- *The Township's bridges and structural culverts are used by all types of vehicles on the road, including heavy transport vehicles, motor vehicles, farm equipment, horse and buggy, emergency vehicles, pedestrians, and cyclists.*
- *Included in Table 2.2.1 are images illustrating each condition category for structures.*
- *Bridge assets that are not maintained in a state of good repair could result in bridge weight restrictions, which significantly impact goods movements.*
- *Culverts, which are typically used for water conveyance, that are not maintained in a state of good repair, could negatively impact drainage of adjacent lands by reducing flood resilience and increasing flooding susceptibility that results in property damage, crop failure, and damage to the road asset. Culvert failure can compromise the structural integrity of the road and become a significant risk to public safety and negatively impact other essential services (emergency services) that rely on the road network.*
- *The Township's transportation network provides a safe and efficient multi-modal transportation system, which moves people and goods into and through the Township while meeting the present and future needs of residents and businesses.*
- *The Township's stormwater network works to mitigate the risk of flooding throughout the township, in combination with Oxford County systems.*
- *Stormwater infrastructure, which is resilient to the 5-year storm, will be considered as any Township stormwater main which has been designed to convey/treat/detain runoff from storm events up to the 5-year event.*
- *The township has undertaken a two-part analysis to determine properties resilient to the 100-year storm. Properties that have structures that lie within 1.5m of the 100-year floodline are considered not resilient. Outside of the 100-year floodline, overland flow routes were determined, ultimately directing runoff from the 100-year event to a downstream receiver. Where there are instances of sags in the road*

[9] https://www.ontario.ca/laws/statute/05a11
[10] http://www.mto.gov.on.ca/english/trucks/commercial-vehicle-operators-registration.shtml

profile, all properties which front the road within the sag limits are considered as non-resilient. Also, properties which have an entrance leading to a structure at a lower elevation than the road grade is considered as non-resilient.

As a further illustrative example of our community levels of service, maps are included as figure 3.0.3 showing the connectivity of our road network and figure 3.0.4 showing the resiliency to a 100-year storm.

Table 3.0.1 - Performance Measures

Key Service Attribute	LOS Statement	Performance Measure	2023	2024	Target
Safety	Providing an operational and accessible transportation network that is safe for all modes and uses of the transportation network	% of bridges in the municipality with loading or dimensional restrictions	6.6%	5.3%	N/A
		# of lane-kilometers of collector roads as a proportion of square kilometers of land area of the municipality	540 lane-km to 385 km^2 of land area	540 lane-km to 385 km^2 of land area	N/A
		# of lane-kilometers of local roads as a proportion of square kilometers of land area of the municipality	122 lane-km to 385 km^2 of land area	122 lane-km to 385 km^2 of land area	N/A
		% of properties in municipality resilient to a 100-year storm	93.6%	93.6%	TBD
		% of the municipal stormwater management system resilient to a 5-year storm (urban areas and settlement villages)	74.7%	76.2%	TBD
Quality	Maintaining transportation network in a state of good repair	For bridges in the municipality, the average bridge condition index value	93.4	93.4	TBD
		For structural culverts >3m in the municipality, the average bridge condition index value	86.5	87.5	TBD
		Average Pavement Condition Index (for collector paved roads)	54	51	65
		Average Pavement Condition Index (for local paved roads)	71	72	65
		Average Surface Condition (for unpaved roads)	Fair	Fair	Fair
Reliability	Providing a transportation network that is reliable	% of structural culverts >3m in poor or critical condition	-	0%	TBD

Key Service Attribute	LOS Statement	Performance Measure	2023	2024	Target
		% of bridges in poor or critical condition	-	16%	TBD
		% of roads with surface area in poor or critical condition (PCI < 55)	-	52%	TBD

Table 3.0.2 - Performance Measures with Estimated Performance

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bridges and Structural Culverts											
QUALITY											
Average condition value											
-	93%	93%	93%	92%	92%	92%	91%	91%	90%	90%	90%
RELIABILITY											
% of assets in poor or critical condition											
-	14%	16%	16%	19%	20%	18%	18%	18%	17%	17%	15%
Roads – Hard Top											
QUALITY											
Average condition value											
-	52%	56%	53%	53%	51%	49%	49%	50%	53%	53%	54%
RELIABILITY											
% of assets in poor or critical condition											
-	55%	46%	49%	44%	48%	44%	52%	48%	44%	40%	35%
Other Public Works Assets											
QUALITY											
Average condition value											

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
-	61%	53%	53%	51%	50%	49%	47%	48%	49%	49%	48%
RELIABILITY											
% of assets in poor or critical condition											
-	18%	25%	23%	26%	30%	29%	40%	38%	38%	44%	44%

Figure 3.0.3 Road Network Connectivity

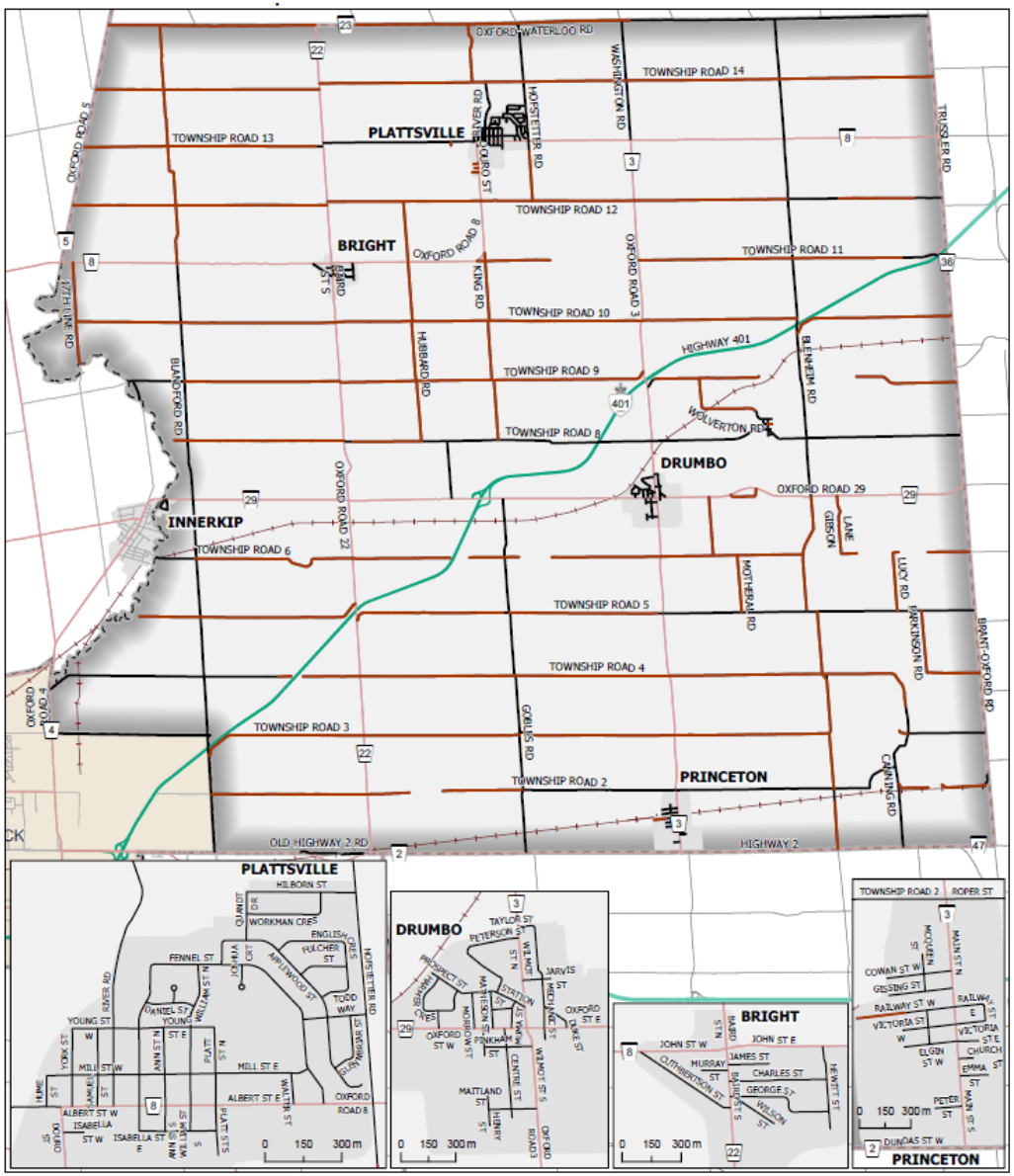
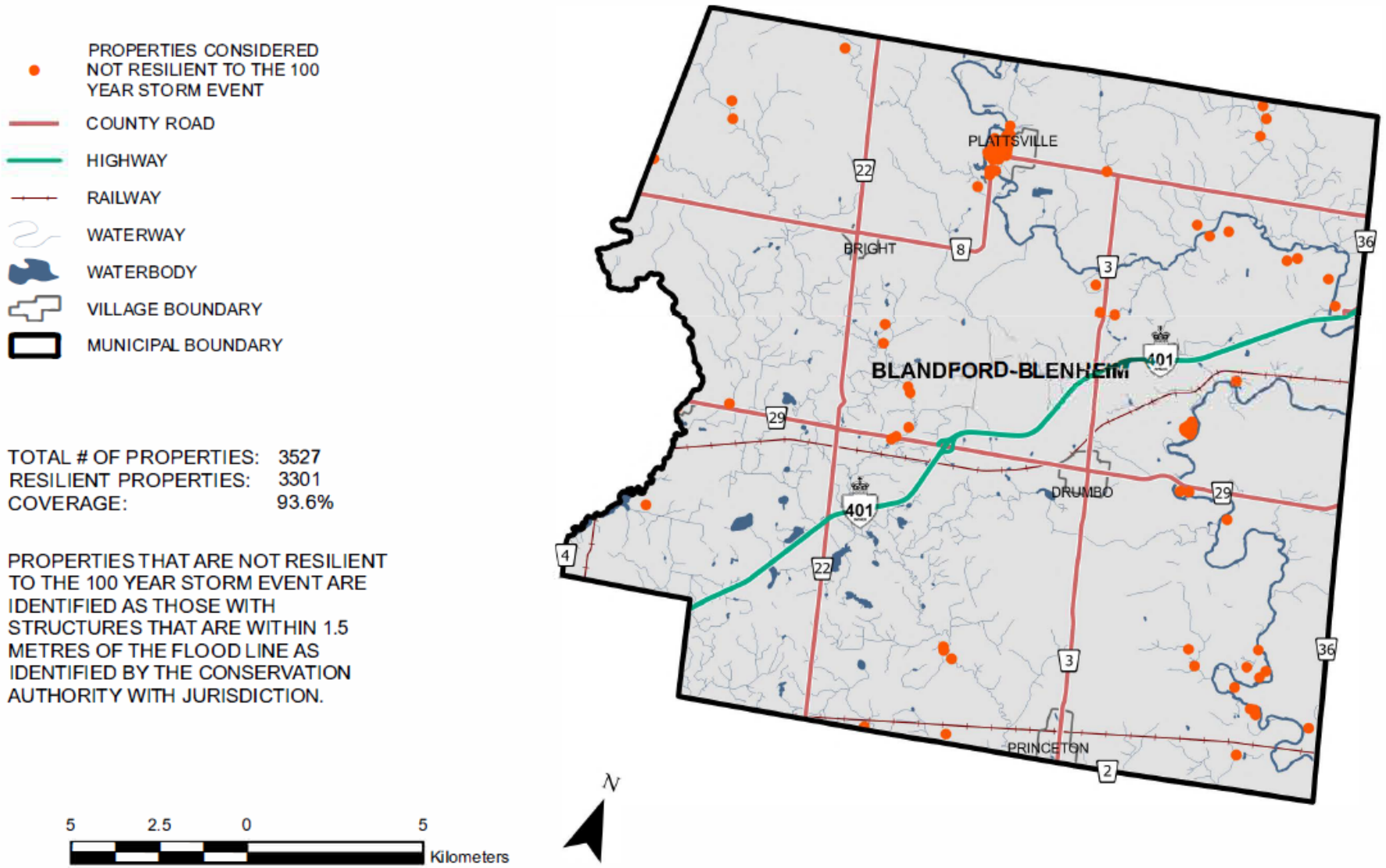


Figure 3.0.4 100-Year Storm Resiliency



4.0 Asset Management Strategy

4.1 Lifecycle Activities and Planned Actions

Routine maintenance requires minimal effort to maintain the useful life of the structure, provided maintenance is completed within 1-2 years as identified in the Bridge Needs Study. Safety critical elements are identified during the inspection process if in immediate need of repair. All safety concerns are addressed in a timely manner.

The most effective improvement in a structure's useful life can be achieved by completing rehabilitations while the structure has a BCI between 50 and 69. Depending on the span size, structures may undergo one or two rehabilitations, or replacement if rehabilitation is not cost effective. Weather factors may also influence the actual life achieved. It is possible to have assets exceed the anticipated useful lives defined, as well as assets that require replacement prior to the end of their anticipated useful life.

The rehabilitation and replacement activities impacting condition and useful life are contained within profiles in the Township's asset management system and align with OSIM curves from the Ministry of Transportation (MTO).

The Township has developed various maintenance strategies depending on the asset component and type of surface. These strategies align with the Road Needs Study.

Routine maintenance requires minimal effort to maintain the useful life of our road network. Safety critical elements are identified during the inspection process to determine if any assets need immediate repair. All safety concerns are addressed in alignment with minimum maintenance standard requirements.

The most effective improvement in a road's useful life can be achieved by completing rehabilitations while the roadway has a PCI between 45 and 65. Although PCI is a measure of the overall condition of the roadway surface, other factors are considered when prioritizing maintenance.

Weather factors and actual traffic flow will also influence the actual life achieved. It is possible to have segments that exceed the anticipated useful lives defined, as well as segments that require replacement prior to the end of their anticipated useful life.

For stormwater assets, replacement needs are based on a run to failure strategy, as this is typically the most economical. Township staff will continue to monitor industry trends and best practices, evaluating any lifecycle activities to determine if there is value to implementing them.

As part of capital works project analysis, determinations of whether the roadway replacement or rehabilitation should occur is reviewed. This process is fully integrated with the renewal needs of the underground assets, such as drinking water, wastewater and stormwater. This integrated approach ensures the renewal projects for these service areas are delivered with optimal timing to increase value and minimize disruption to our communities.

Examples of lifecycle activities considered in the overall sustainable management of this portfolio are described in table 4.1.1.

Table 4.1.1 - Lifecycle Activities

Strategy	Lifecycle Activity
Non-Infrastructure Solutions	• CCTV inspections • Bridge Needs Study (BNS) • Roads needs study **Trigger: Ongoing**
Maintenance	• Pothole repairs • Minor repairs include slope erosion, cracking, damaged guide rails • Catchbasin cleaning **Trigger: Ongoing**
Rehabilitation / Renewal	• Major and minor structure rehabilitations • Partial depth asphalt removal / repaving • Storm main lining **Trigger: PCI between 45 and 65 or Fair/Poor**
Replacement	• Occurs at the end of the useful life and/or when rehabilitation is no longer an option • May also occur to increase service levels **Trigger: PCI < 50, Poor/Critical**
Disposal	• Activities associated with disposing of an asset once it has reached the end of its useful life **Trigger: Poor/Critical**
Expansion / Growth	• New roads and storm sewers as part of subdivision development **Trigger: Development/Storm Resiliency**

4.2 Risk Strategy

For this portfolio the probability of failure is based on the projected condition. The consequence of failure for roads assets contains economic consequences (weighted at 65% of the overall consequence scoring), social consequences (weighted at 20% of the overall consequence scoring) and Health and Safety consequences (weighted at 15% of the overall consequence scoring). The consequence of failure for other public works assets are based on the replacement cost of the asset. Staff are working to further enhance the risk profiles as not all attributes recommended for inclusion are currently tracked within the asset management systems.

Table 4.2.1 illustrates the risk ratings at a summary level. While a significant percentage of bridges and structural culverts have a major risk rating, this is not a direct indication that these structures are at a high risk of failure (refer to section 2.2 for information on the condition of the assets in this portfolio). In addition to the Road Needs Study and Bridge Needs Study process, staff complete regular inspections. Areas of concern are addressed through demand maintenance or included in the subsequent budget cycle as appropriate. The inspection and review process helps mitigate the likelihood of any unanticipated asset failures. Staff will continue to monitor the higher risk assets, review, and/or complete physical inspections to further validate needs and plan for lifecycle strategies accordingly.

Table 4.2.1 - Risk Profile

Asset Component	Very High	High	Moderate	Low	Very Low	Average Risk Rating
Bridges	29%	4%	0%	66%	1%	Moderate
Structural Culverts > 3m	30%	43%	0%	7%	20%	High
Collector Road	32%	39%	13%	16%	0%	High
Local Road	0%	7%	12%	52%	29%	Low
Roadside Appurtenances	0%	0%	0%	39%	61%	Very Low
Sidewalks	0%	0%	0%	6%	94%	Very Low
Street Lighting	0%	0%	0%	0%	100%	Very Low
Facilities	36%	16%	5%	7%	36%	Moderate
Fleet and Equipment	16%	28%	24%	13%	19%	Moderate
Urban Storm	0%	0%	0%	3%	97%	Very Low
Rural Storm	0%	0%	0%	9%	91%	Very Low

4.3 Climate Change

Transportation assets are directly exposed to the events and impacts of climate change. The Winter Control section of Roads Maintenance Standards is dedicated to maintaining roads during winter events from minor snowfalls to ice storms. The Township manages a fleet of specialized vehicles and equipment to provide winter control services. Other weather events, such as substantial amounts of rainfall, can rapidly impact the function and condition of transportation assets.

Facilities are directly impacted by climate change weather events such as rainstorms and flooding, high winds, extreme heat, extreme cold, significant snowfall and frequent freeze and thaw cycles. A facility can also contribute to climate change with its carbon footprint. Climate change resiliency is included as a design criterion for facilities as part of the Township's capital plan, as well as climate change mitigation by way of GHG emissions reductions.

Currently, risks and potential impacts resulting from a changing climate pose minimal effects to fleet assets as they are designed to face all types of weather events. However, strategies can be undertaken to reduce emissions from fleet assets, such as transitioning to lower emission alternative fuels, more efficient internal combustion engine options, more effective operation of fleet assets, and conducting regular reviews to ensure fleet is sized properly and utilized effectively to support service delivery.

As part of the asset management planning process, the Township will consider the risks and vulnerabilities of capital assets to climate change and the resulting actions that may be required. Commitment will be made to the development of tailored actions that make the best use of our resources to mitigate and adapt to climate change, in accordance with our local reduction targets, financial capacity and stakeholder support. Climate change resiliency will be identified as a design criterion for asset renewal/replacement projects as part of the Township's capital plan.

5.0 Financial Strategy

The proposed levels of service analysis were conducted in four stages: the first focused on the bridges and structural culverts assets, the second on the hard top roadway assets, the third on fleet and equipment assets and the fourth covered all other transportation assets. This approach allowed for a more appropriate analysis of the portfolio, selecting sperate funding levels and metrics to be utilized such as the Pavement Condition Index (PCI) for roadways. The recommendations from all the proposed scenarios are then used to inform the development of the overarching financial strategy. The 2025 budgeted contribution to reserves and reserve balances were split between the analysis based on the needs of the fully funded scenarios. The financial strategy and scenarios exclude rural storm and gravel roads. Gravel roads maintenance and a significant portion of the rural storm infrastructure is currently funded from the operating budget.

5.1 Proposed Levels of Service Review (Bridge and Structural Culverts)

As the design and construct process for structures occurs over a multi-year period and the Township aligns upcoming work in the asset management software with recommendations from the Bridge Needs Study, the lifecycle needs under all scenarios are consistent for the majority of the first decade. Since the BCI's for Blandford-Blenheim's structures does not align with MTO standards, the scenarios are based on a percentage of the fully funded scenario, and the condition profiles have been modified to suit the township's BCI ratings.

It is important to note that under the existing and two proposed scenarios, a bottleneck occurs in approximately 40 years as a significant number of structures are anticipated to require lifecycle activities. Staff do not anticipate having the internal resources available to complete all activities the year they are due and therefore we see a decline in the condition rating under each scenario. Projected lifecycle needs in the bottleneck period may naturally be deferred based on regular updates to condition information as assets progress through their lifecycle. If required, the bottleneck could be further mitigated using debenture funding and external resources to aid in managing projects.

Scenario A

This scenario is based on an estimate of the Bridges and Structural Culverts portion of the 2025 budgeted contribution to the Public Works reserve, along with the Township's anticipated annual Ontario Community Infrastructure Fund (OCIF) and Canada Community Benefit Fund (CCBF) grants. It results in an overall average condition of critical, the highest number of assets in poor or critical condition and lifecycle needs would be deferred increasing the risk of failure and further degradation of bridge and culvert conditions.

Scenario B

Staff initially ran this scenario assuming unlimited resources to achieve the lifecycle needs of all assets in this portfolio. This generated an average annual requirement of approximately $3,216,000, which staff used to re-run the analysis. The result is a realistic expectation of what can

be achieved on an annual basis in maintaining the long-term lifecycle needs. This is considered the fully funded scenario, resulting in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 100-year scenario period.

Scenario C

Under this scenario staff looked at targeting an annual contribution to the reserve of 60% of the fully funded scenario or approximately $1,930,000 annually over the 100-year period. The increased funding would raise the overall average condition of the portfolio; however, it would still be considered critical, primarily due to the bottleneck at the 40-year mark. Deferral of lifecycle needs would still be required under this scenario. It should be noted that a custom condition rating scale has been employed due to the high BCI values.

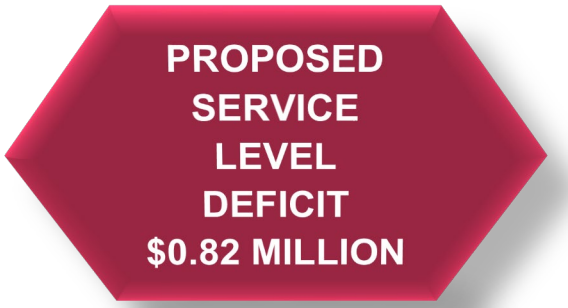
Scenario D

Under this scenario staff looked at targeting an annual contribution to the reserve of 70% of the fully funded scenario or approximately $2,251,000 annually over the 100-year period. The increased funding would raise the overall average condition of the portfolio to poor, reducing the risk level. Deferral of lifecycle needs would still be required under this scenario. It should be noted that a custom condition rating scale has been employed due to the high BCI values.

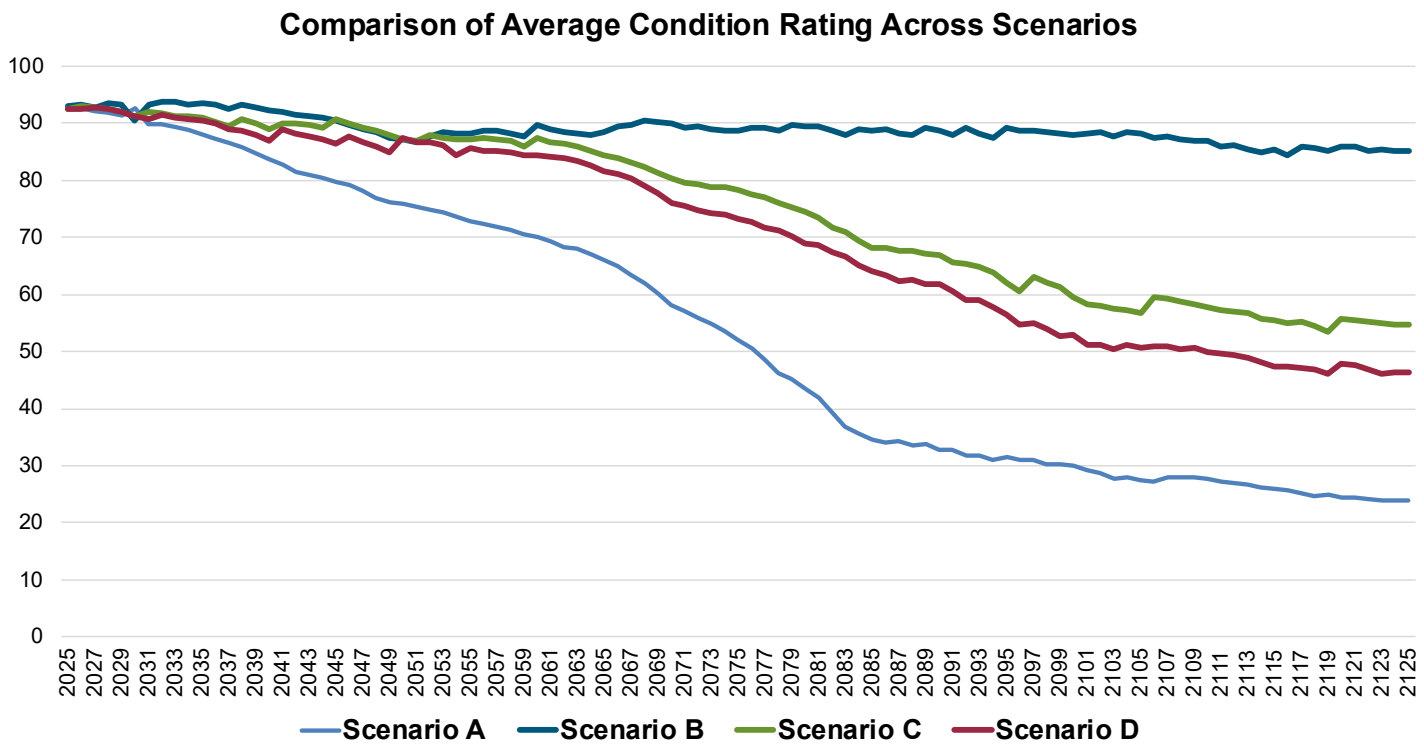
Based on the analysis, staff are recommending Scenario C, which results in an annual investment level of approximately $1.9 million. This allows lifecycle events on our bridges and culverts with minimal deferrals over the next 40 years. This recommendation is in line with the 2025 Budget Survey responses where 89% of respondents indicated that the service level related to roads and bridges should be maintained or increase. As projects will be prioritized based on risk, staff feel this proposed service level and funding approach will not result in any structures posing a health and safety risk to the community.

Table 5.1.1 – Scenario Summary

	Annual Investment	Average Condition[11]	Average Risk	% of assets in poor or critical condition
Scenario A	$1,113,000	Critical	Moderate	56%
Scenario B	3,216,000	Fair	Low	13%
Scenario C	**1,930,000**	**Critical**	**Low**	**38%**
Scenario D	2,251,000	Poor	Low	32%



[11] custom condition rating scale created for Bridges and Structural Culverts as previous ratings do not align with MTO standards.


Comparison of Average Condition Rating Across Scenarios
100
90
80
70
60
50
40
30
20
10
0
2025
2027
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2113
2115
2117
2119
2121
2123
2125
Scenario A
Scenario B
Scenario C
Scenario D

5.2 Proposed Levels of Service Review (Roadway Assets)

Staff reviewed multiple scenarios over a 50-year period as many rural road replacements are forecasted in the 50-to-100-year range and the Township is still investigating the needs and costs of complete rural road replacements, which would include all granulars.

Scenarios B, C and D were initially run using unlimited resources to achieve lifecycle needs. Staff then took the average investment requirement to create a subsequent scenario utilizing the investment as the restriction. The result is a realistic expectation of what can be achieved on an annual basis in maintaining the long-term system needs.

Scenario A

This scenario is based on an estimate of the Roads portion of the 2025 budgeted contribution to the Public Works reserve, along with the Township's anticipated annual Ontario Community Infrastructure Fund (OCIF) and Canada Community Benefit Fund (CCBF) grants. It results in an average Pavement Condition Index value (PCI) of 40 which is considered poor, the highest number of assets in poor or critical condition and lifecycle needs would be deferred increasing the risk of failure and further degradation of road conditions.

Scenario B

This scenario is considered the fully funded scenario and results in maintaining a 73 PCI which is considered good condition. This scenario results in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 50-year scenario period.

Scenario C

This scenario is based on maintaining a 60 PCI which is considered fair condition. This scenario results in a reduced risk and percentage of assets in poor or critical condition compared to Scenario A.

Scenario D

This scenario is based on maintaining a 65 PCI which is considered fair condition. This is in line with the current average PCI of the Township's Road network. This scenario results in a small decrease in risk and percentage of assets in poor or critical condition when compared to Scenario C.

Based on the analysis, staff are recommending Scenario C. The proposed level of service is maintained at an average PCI of 60, which results in an annual investment level of approximately $1.63 million.

This recommendation is in line with the 2025 Budget Survey responses where 89% of respondents indicated that the service level related to roads and bridges should be maintained or increase.

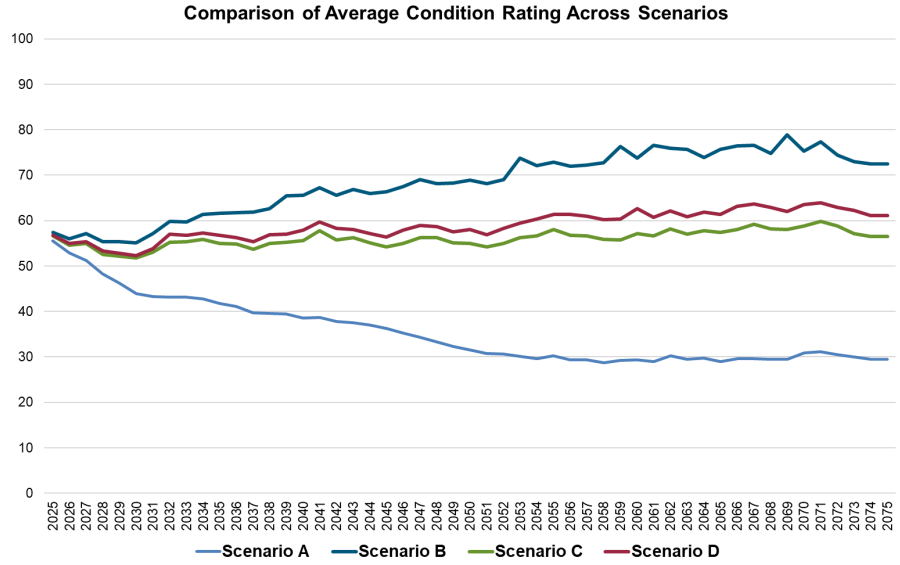


Table 5.2.1 – Scenario Summary

	Annual Investment	Average Condition	Average Risk	% of assets in poor or critical condition
Scenario A	$768,000	Poor	High	58%
Scenario B	2,219,000	Good	Moderate	19%
Scenario C	**1,632,000**	**Fair**	**Moderate**	**31%**
Scenario D	1,745,000	Fair	Moderate	27%

PROPOSED SERVICE LEVEL DEFICIT $0.86 MILLION

5.3 Proposed Levels of Service Review (Fleet and Equipment)

Staff reviewed multiple forward-looking scenarios over a 100-year period as described below. The current reserve balance is factored into each scenario as available funding to complete existing asset lifecycle needs.

Scenario A

This scenario is based on an estimate of the Fleet and Equipment portion of the 2025 budgeted contribution to the Public Works reserve, along with the Township's anticipated annual Ontario Community Infrastructure Fund (OCIF) and Canada Community Benefit Fund (CCBF) grants. It results in an overall average condition of poor, the highest number of assets in poor or critical condition, and lifecycle needs would be deferred increasing the risk of failure.

Scenario B

Staff initially ran this scenario assuming unlimited resources to achieve the lifecycle needs of all assets in this portfolio. This generated an average annual requirement of approximately $536,000, which staff used to re-run the analysis. The result is a realistic expectation of what can be achieved on an annual basis in maintaining the long-term lifecycle needs. This is considered the fully funded scenario, resulting in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 100-year scenario period.

Scenario C

Under this scenario staff looked at targeting an annual contribution to the reserve of 60% of the fully funded scenario or approximately $322,000 annually over the 100-year period. The increased funding would still result in an average condition of the portfolio of poor. Deferral of lifecycle needs would still be required under this scenario.

Scenario D

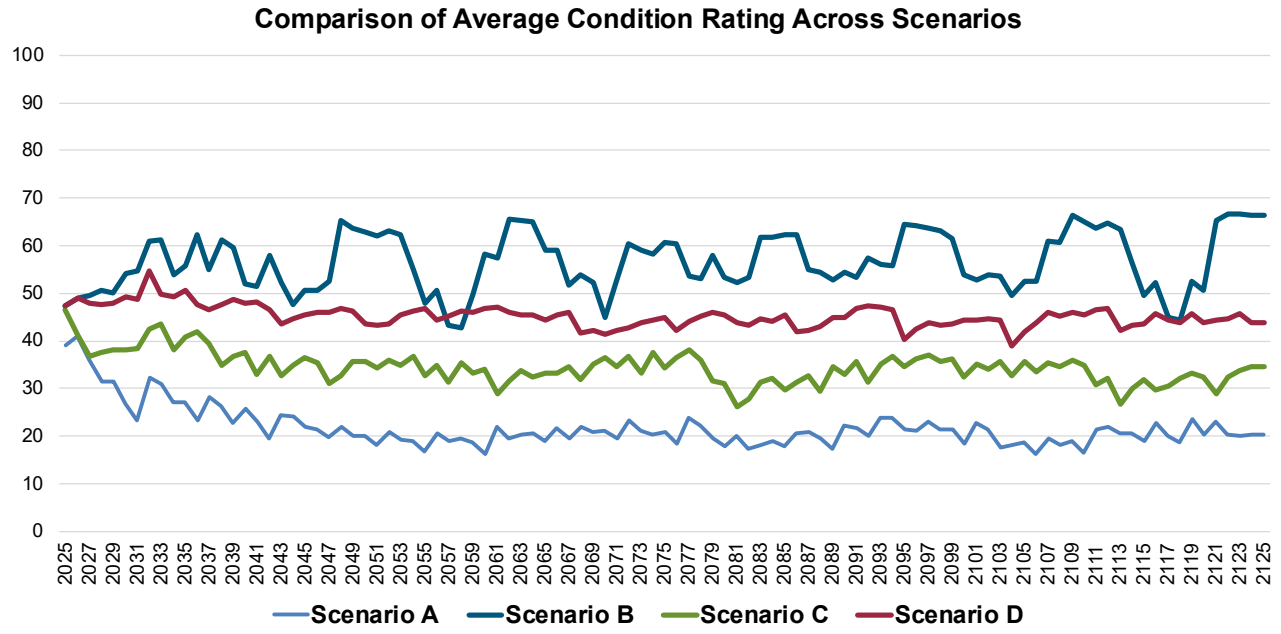
Under this scenario staff looked at targeting an annual contribution to the reserve of 80% of the fully funded scenario or approximately $429,000 annually over the 100-year period. The increased funding would result in the overall average condition of the portfolio to be fair, reducing the risk level. Deferral of some lifecycle needs may still be required under this scenario.

Based on the analysis, staff are recommending Scenario D, the proposed level of service target is 80% funded. Staff review replacement costs for each budget for all assets under this portfolio. This approach should result in fewer significant replacement cost increases with a reduced need for significant increases over the annual investment requirement. Through the budget survey, residents provide input on forward facing services. Fleet and equipment are crucial to the efficient delivery of forward-facing services.

Table 5.3.1 – Scenario Summary

	Annual Investment	Average Condition	Average Risk	% of assets in poor or critical condition
Scenario A	$193,000	Poor	High	73%
Scenario B	536,000	Fair	Low	30%
Scenario C	322,000	Poor	Moderate	57%
Scenario D	**429,000**	**Fair**	**Moderate**	**44%**

PROPOSED SERVICE LEVEL DEFICIT $0.236 MILLION



5.4 Proposed Levels of Service Review (All Other Public Works Assets)

Staff reviewed multiple scenarios over a 100-year period to ensure assets with long useful lives were incorporated in the analysis. As there are less short-term needs in these scenarios, the average anticipated condition of the portfolio is the same under all scenarios for approximately 8 years.

Under all scenarios except for fully funded, the replacement of the public works yards is deferred beyond their estimated end of life. Debenture funding would be utilized if the facility is at risk of not providing services and replacement is unable to be deferred until reserve balances are sufficient to fund the complete project.

Scenario A

This scenario is based on an estimate of all other public works assets portion of the 2025 budgeted contribution to the Public Works reserve, along with the Township's anticipated annual Ontario Community Infrastructure Fund (OCIF) and Canada Community Benefit Fund (CCBF) grants. It results in an overall average condition of poor, the highest number of assets in poor or critical condition and lifecycle needs would be deferred increasing the risk of failure. Deferrals are projected within 10 years under this scenario.

Scenario B

Staff initially ran this scenario assuming unlimited resources to achieve the lifecycle needs of all assets in this portfolio. This generated an average annual requirement of approximately $322,000, which staff used to re-run the analysis. The result is a realistic expectation of what can be achieved on an annual basis in maintaining the long-term lifecycle needs. This is considered the fully funded scenario, resulting in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 100-year scenario period.

Scenario C

Under this scenario staff looked at targeting an annual contribution to the reserve of 50% of the fully funded scenario or approximately $161,000 annually over the 100-year period. Under this scenario, fewer asset replacements will require deferrals compared to scenario A, however there is still a significant risk and percentage of assets in poor and critical condition. Deferrals are projected within 20 to 30 years under this scenario.

Scenario D

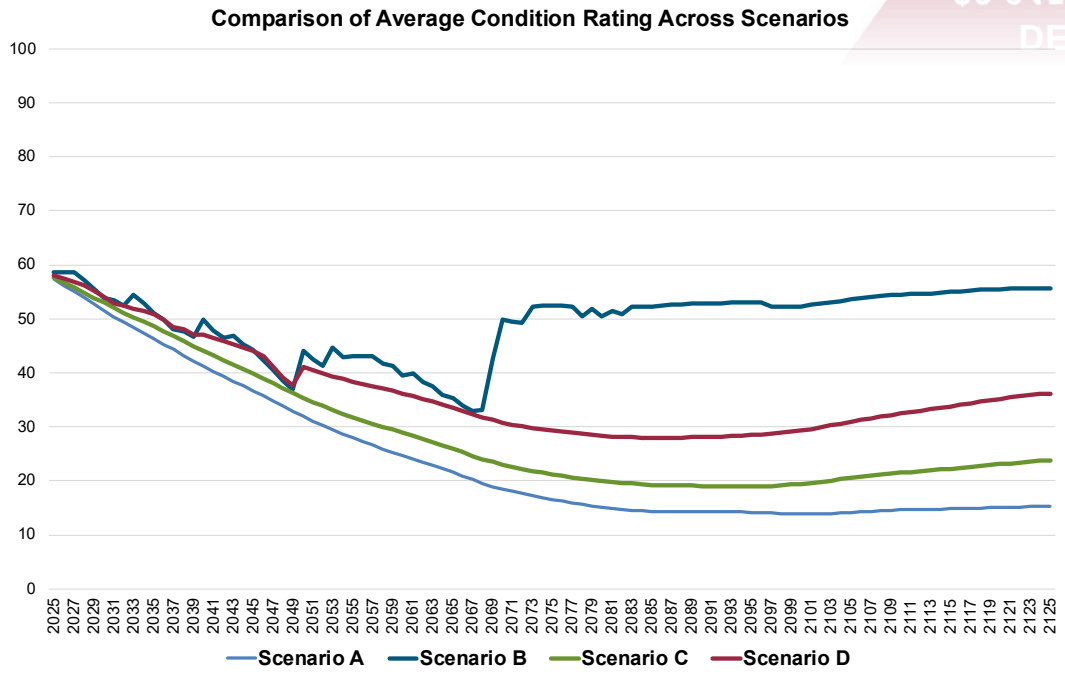
Under this scenario staff looked at targeting an annual contribution to the reserve of 70% of the fully funded scenario or approximately $226,000 annually over the 100-year period. Under this scenario, asset replacement deferrals are not required, other than the public works yards.

Based on the analysis, staff are recommending Scenario C, the proposed level of service target is to achieve 50% funding for this portfolio. Staff identified an improvement area to look at lifecycle strategies for various facility components as it may be beneficial in the long-term to not anticipate a run-to-failure strategy for some assets. Once incorporated this may result in reductions to the annual investment required.

Table 5.4.1 – Scenario Summary

	Annual Investment	Average Condition	Average Risk	% of assets in poor or critical condition
Scenario A	$116,000	Poor	Very Low	69%
Scenario B	322,000	Fair	Very Low	37%
Scenario C	**161,000**	**Poor**	**Very Low**	**64%**
Scenario D	225,000	Poor	Very Low	55%

PROPOSED SERVICE LEVEL DEFICIT $0.045 MILLION

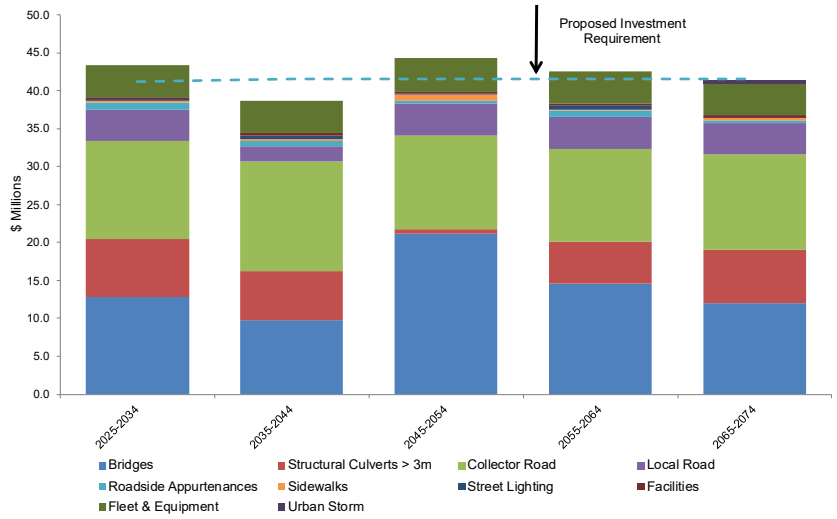


5.5 Lifecycle Requirements

Based on the proposed level of service, the cost estimates to support the lifecycle needs over the next 50 years are determined in current dollars as summarized in Table 5.5.1.

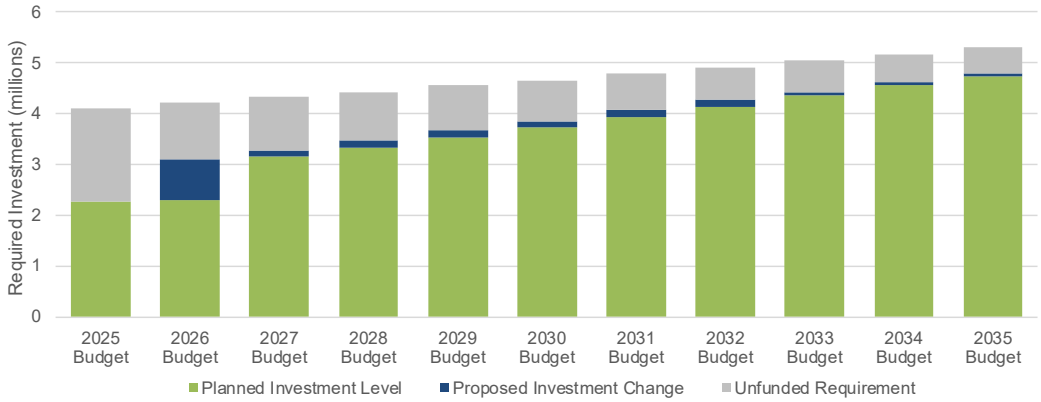
Table 5.5.1 - Lifecycle Requirements (millions)

Asset Component	2025-2034	2035-2044	2045-2054	2055-2064	2065-2074
Bridges	$12.8	$9.8	$21.2	$14.6	$12.0
Structural Culverts > 3m	7.6	6.4	0.6	5.5	7.1
Collector Road	13.0	14.5	12.3	12.2	12.5
Local Road	4.1	2.0	4.2	4.3	4.1
Roadside Appurtenances	1.0	0.7	0.4	0.8	0.4
Sidewalks	0.2	0.2	0.8	0.1	0.3
Street Lighting	0.2	0.5	0.1	0.6	0.1
Facilities	0.3	0.3	0.3	0.2	0.3
Fleet and Equipment	4.2	4.3	4.4	4.3	4.1
Urban Storm	-	-	-	-	0.5
Totals	**$43.4**	**$38.7**	**$44.3**	**$42.6**	**$41.7**



5.6 Funding Gap Analysis

This portfolio is funded by an annual contribution to the Public Works reserve and the use of Ontario Community Infrastructure Funding (OCIF) and Canada Community-Building Funding (CCBF).



Planned Investment Level

Inflationary increases are included in Table 5.6.1 in both the required investment and planned investment figures. A debt obligation is fulfilled in 2035 with those funds being re-invested to reserves as the debt balance declines and fully in 2035.

Proposed Investment Change

A reallocation of the current Working Capital Reserve contribution of $681,000 is proposed for 2026. Additional increases of $117,000 (1.55% on 2025 levy) are proposed for 2026 through 2032. The proposed contribution is reduced to $64,000 (0.84% on 2025 levy) in 2033 through 2035 as the debt obligation re-investments increase. Staff will continue to monitor, actual rates of inflation to determine if changes to the level of service or funding strategy should be considered in response to changing economic conditions.

Table 5.6.1 – Comparing the required investment to the proposed investment (millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Required Investment	$4.11	$4.21	$4.32	$4.43	$4.54	$4.65	$4.77	$4.89	$5.05	$5.18	$5.31
Planned Investment Level	2.26	2.29	3.15	3.34	3.54	3.73	3.94	4.14	4.36	4.56	4.73
Proposed Investment Change	-	0.80	0.12	0.12	0.12	0.12	0.12	0.12	0.06	0.06	0.06
Unfunded Requirement	1.85	1.13	1.05	0.97	0.89	0.80	0.72	0.63	0.63	0.55	0.51

Based on the funding strategy proposed, the lifecycle cost needs to be reviewed in preparation of the long-term capital plan for the 2026 Budget process are as follows:

Table 5.6.2 - Lifecycle Requirements (millions)

Asset Component	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bridges	$1.82	$0.72	$0.68	$0.16	$3.34	$0.13	$-	$-	$-	$-
Structural Culverts > 3m	0.25	0.88	0.13	0.67	-	0.91	-	2.46	0.71	4.34
Collector Road	1.44	0.35	0.80	0.69	0.95	0.64	1.17	1.29	1.13	1.44
Local Road	0.24	0.81	0.42	0.59	0.39	0.76	0.28	0.22	0.38	0.02
Roadside Appurtenances	0.21	0.06	0.07	0.14	0.12	0.13	0.09	0.01	-	0.03
Sidewalks	0.04	0.07	-	-	-	0.01	-	0.04	-	-
Street Lighting	-	-	-	-	-	-	0.05	-	-	0.13
Facilities	-	-	0.03	-	0.02	-	-	0.10	0.15	-
Fleet and Equipment	0.09	0.57	0.11	0.31	0.34	-	0.54	0.49	0.40	0.43
Urban Storm	-	-	0.10	-	-	-	-	-	-	-
Totals	**$4.09**	**$3.46**	**$2.29**	**$2.56**	**$5.16**	**$2.58**	**$2.13**	**$4.62**	**$2.77**	**$6.39**

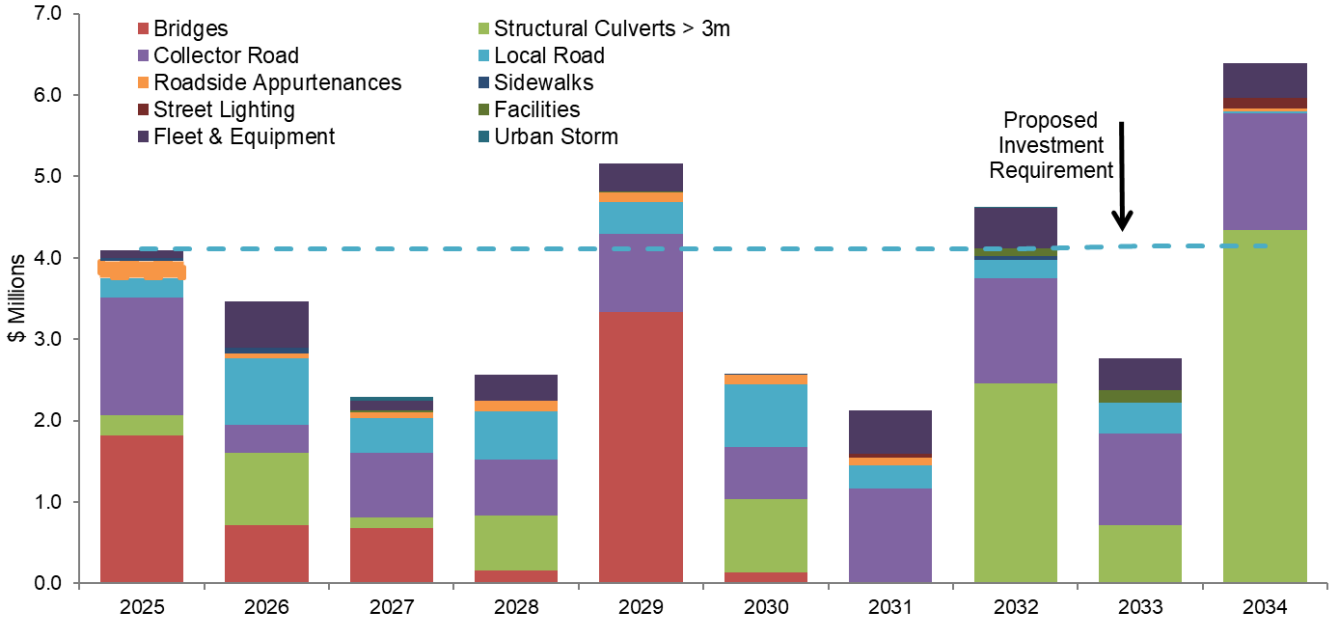


Table of Contents

1.0 Introduction

The Community Services Department of the Township of Blandford-Blenheim offers many different avenues for individuals to improve or enjoy their quality of life. Together with our community partners, we deliver recreational programs and services and maintain and operate a variety of facilities such as municipal parks and sports fields, community halls and the Plattsville Memorial Community Arena.

The Township's community services assets are categorized into various components, as a result of differing life spans and maintenance strategies. They are assets related to our facilities (arena and community halls), fleet/equipment, and various park amenities.

The quality and completeness of the data used in this plan as indicated in Table 1.0.1, relies on inventory and assessments by staff. Additional enhancements to the attributes used for assessing risk are required, along with other improvement areas as indicated in Table 1.0.2.

Table 1.0.1 – Data Confidence

		Risk	AM Data Analysis			
Asset Component	**Inventory Completeness**	**Attribute Data**	**Service Life**	**Age**	**Condition**	**Replacement Cost**
Arena	B	C	B	A	B	B
Community Centres	B	C	B	B	B	B
Fleet and Equipment	A	B	A	A	A	A
Parks	A	B	A	A	B	B

Table 1.0.2 – Status of improvement opportunities

Improvement Opportunity	Year Identified	Status	Notes
Update attributes to further enhance the risk profile in the asset management software.	2025	Not Started	Competing priorities have prevented this from being undertaken.
Refine asset inventory.	2025	Ongoing	Further refine the facilities inventory.

2.0 State of Assets

2.1 Inventory

Table 2.1.1 displays the Township's current inventory and the associated replacement costs, average age and anticipated useful life for each component. The anticipated useful lives exclude the management strategies that the Township utilizes to extend the overall life beyond this estimate.

Replacement costs were estimated based on staff reviews, historical construction costs and inflation rates.

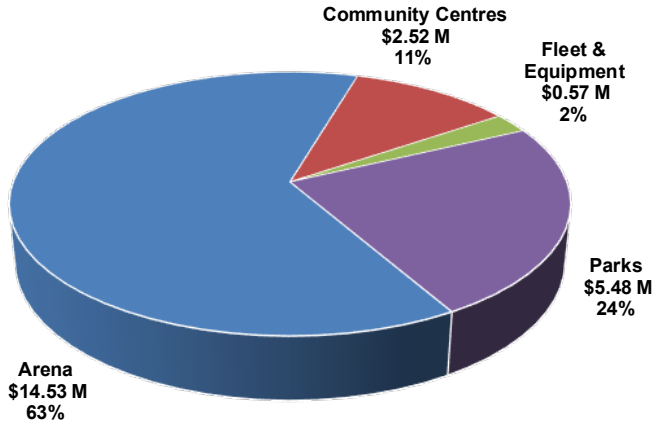


Table 2.1.1 - Inventory

Asset Component	Unit	Current Inventory	Replacement Cost	Average Age (years)	Anticipated Useful Life (years)
Arena	bldg	1	$14,527,970	30	20-100
Community Centres	bldg	2[1]	2,524,572	40	20-100
Fleet and Equipment	each	14	566,478	10	7-20
Parks	parks	4	5,477,641	17	10-40
Total Replacement Cost			**$23,096,661**		

2.2 Condition Assessment Approach

The assessment approach utilizes a combination of physical assessments, asset attributes, as well as established anticipated useful lives. Township staff have completed preliminary assessments and documented the current condition of assets to identify capital repairs and replacements which may affect the continued operation of the property over the next ten (10) years.

Building Condition Assessments (BCAs) assess and document the current condition of facilities to identify capital repairs and replacements which may affect the continued operation of the property over the next ten (10) years and provide an assessment as to the level of accessibility for each property. Replacement costs are also requested as a part of this process. The township anticipates completing BCAs within the next 2 years.

[1] Richwood Hall substructure is not planned for replacement; however its components are included.

2.3 Current Condition

The indicator measure in each condition is based on percentage of replacement costs as opposed to the number of assets.

Condition ratings within this portfolio are typically age based, and due to the run-to-failure or planned replacement nature it is typical to see a distribution between various conditions. The assets rated as poor and critical may continue to provide acceptable service levels and will be monitored by staff.

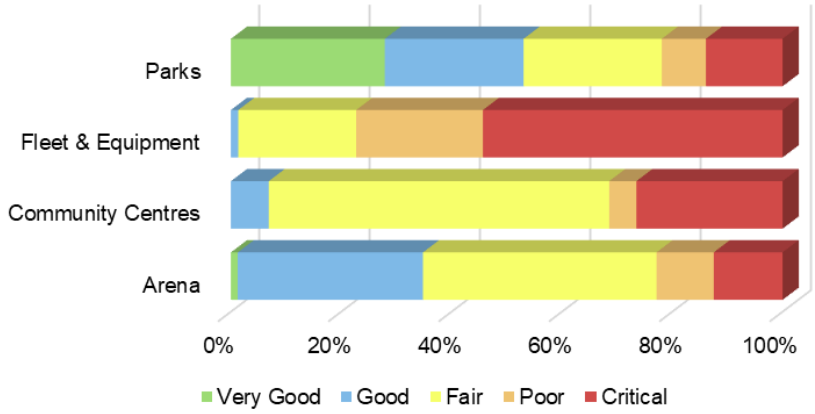


Table 2.3.1 - Condition Profile

Asset Component	Very Good	Good	Fair	Poor	Critical	Average Condition Rating
Arena	1%	34%	43%	10%	12%	Fair
Community Centres	0%	7%	61%	5%	27%	Fair
Fleet and Equipment	0%	1%	21%	23%	55%	Poor
Parks	28%	25%	25%	8%	14%	Fair
Overall Total	**7%**	**28%**	**40%**	**10%**	**15%**	

3.0 Levels of Service

Corporate Objective

The corporate objective of community services is to deliver recreational programs and services and maintain and operate a variety of facilities such as municipal parks and sports fields, the Plattsville Memorial Community Arena and community halls.

Legislative Requirements

The Township is required to maintain minimum standards based on governing directives. These include, but are not limited to, Technical Standards and Safety Authority (TSSA), Electrical Safety Authority (ESA), National Plumbing Code of Canada (NPC), Fire Code, Ontario Building Code, Designated Substance List (DSL) and additional Ministry of Labour (MOL) requirements.

The Accessibility for Ontarians with Disabilities Act, 2005[2] was developed with the purpose of ensuring that accessibility for Ontarians with disabilities is achieved on or before January 1, 2025. The Township ensures that each new build / renovation complies with the standards developed under this Act.

Customer Levels of Service

The following statements form our qualitative descriptions of the customer level metrics required under O.Reg. 588/17.

- *The Township's community services portfolio provides for the ongoing creation and preservation of a Healthy, Enthusiastic and Engaged Community, ever guided in all endeavors by the principles of Sustainability, Inclusivity, Diversity and Quality.*

Table 3.0.1 includes the metric the Township has established for this portfolio, and the estimated performance over the upcoming 10-year period based on the recommended financial strategy, as required under the Infrastructure for Jobs and Prosperity Act, 2015 - O.Reg. 588/17. A consistent annual target is not established as this portfolio is based on a run to failure / run to planned useful life strategy, therefore will result in fluctuations in condition ratings.

[2] https://www.ontario.ca/laws/statute/05a11

Table 3.0.1 - Performance Measures

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
QUALITY											
Average condition value											
-	51%	52%	50%	48%	46%	44%	42%	41%	39%	39%	38%
RELIABILITY											
% of Community Services assets in poor or critical condition											
-	25%	24%	27%	29%	28%	28%	56%	55%	54%	52%	53%

4.0 Asset Management Strategy

4.1 Lifecycle Activities and Planned Actions

To cost effectively maintain assets at the established service levels, the right maintenance or rehabilitation activity needs to be completed at the ideal time throughout the asset's lifecycle. The use of the facility also plays a role in when maintenance is completed. Staff will also complete similar lifecycle activities across buildings in this portfolio and others where possible to maximize economies of scale and achieve the best benefit to the Township.

For many community services assets, replacement needs typically follow a "run to failure" strategy as long as the assets remain safe for users. This is usually the most cost-effective approach and follows provincial and federal standards. Staff will constantly monitor industry trends and best practices, assessing lifecycle activities to ascertain if implementing them would add value.

Examples of lifecycle activities considered in the overall sustainable management of this portfolio are described in table 4.1.1.

Table 4.1.1 - Lifecycle Activities

Strategy	Lifecycle Activity
Non-Infrastructure Solutions	• Inspections • Building Condition Assessments **Trigger: Ongoing**
Maintenance	• Routine and preventative maintenance programs • Equipment cleaning **Trigger: Ongoing**
Rehabilitation / Renewal	• Major and minor rehabilitations, based on asset component where cost effective **Trigger: Fair/Poor**
Replacement	• Occurs at the end of the useful life • May also occur to increase service levels **Trigger: Poor/Critical**
Disposal	• Activities associated with disposing of an asset once it has reached the end of its useful life **Trigger: Poor/Critical**
Expansion / Growth	• New facilities as part of subdivision development • Changes to accessibility requirements **Trigger: Development**

4.2 Risk Strategy

For this portfolio, the probability of failure is based on the projected condition and the consequence of failure is based on the replacement cost of the asset. Staff are working to further enhance the risk profiles as not all attributes recommended for inclusion (including social and environmental metrics) are currently tracked within the asset management systems.

Table 4.2.1 illustrates the risk ratings at a summary level. Areas of concern are addressed through demand maintenance or included in the subsequent budget cycle as appropriate. The inspection and review process helps mitigate the likelihood of any unanticipated asset failures. Staff will continue to monitor the higher risk assets, review, and/or complete physical inspections to further validate needs and plan for lifecycle strategies accordingly.

Table 4.2.1 - Risk Profile

Asset Component	Very High	High	Moderate	Low	Very Low	Average Risk Rating
Arena	51%	25%	0%	15%	9%	High
Community Centres	74%	0%	4%	13%	9%	High
Fleet and Equipment	0%	20%	0%	35%	45%	Low
Parks	0%	5%	7%	41%	47%	Very Low

4.3 Climate Change

Facilities are directly impacted by climate change weather events such as rainstorms and flooding, high winds, extreme heat, extreme cold, significant snowfall and frequent freeze and thaw cycles. A facility can also contribute to climate change with its carbon footprint.

As part of the asset management planning process, the Township will consider the risks and vulnerabilities of capital assets to climate change and the resulting actions that may be required. Commitment will be made to the development of tailored actions that make the best use of our resources to mitigate and adapt to climate change, in accordance with our local reduction targets, financial capacity and stakeholder support. Climate change resiliency will be identified as a design criterion for asset renewal/replacement projects as part of the Township's capital plan.

5.0 Financial Strategy

5.1 Proposed Levels of Service Review

Staff reviewed 4 scenarios over a 100-year period as described below. The current reserve balances are factored into each scenario as available funding to complete existing asset lifecycle needs.

Under all scenarios except for fully funded, the replacement of the arena and community centre are deferred beyond their estimated end of life. Debenture funding would be utilized if the facility is at risk of not providing services and replacement is unable to be deferred until reserve balances are sufficient to fund the complete project.

Scenario A

This scenario is based on the 2025 budgeted contribution to the reserves of approximately $125,000, representing approximately 18% funded based on lifecycle needs. Maintaining funding at this level would result in reduced overall condition of the portfolio, increased risk of failure, increased maintenance costs and staff time, and the highest number of assets in the poor/critical condition rating over the long term. This funding scenario does not result in a sustainable service.

Scenario B

Staff initially ran this scenario assuming unlimited resources to achieve the lifecycle needs of all assets in this portfolio. This generated an average annual requirement of approximately $691,000, which was used to re-run the analysis. The result is a realistic expectation of what can be achieved on an annual basis in maintaining the long-term lifecycle needs. This is considered the fully funded scenario, resulting in the lowest risk, and lowest achievable percentage of assets in poor or critical condition over the 100-year scenario period.

Scenario C

This scenario increased funding to the portfolio from the 2025 approved budget, to approximately 40% of the funding requirement, or approximately $276,000 based on lifecycle needs. Under this scenario, fewer asset replacements will require deferrals compared to scenario A, however there is still a significant risk and percentage of assets in poor and critical condition.

Scenario D

This scenario increased funding to the portfolio from the 2025 approved budget, to approximately 60% of the funding requirement, or approximately $415,000 based on lifecycle needs. Under this scenario, fewer asset replacements will require deferrals compared to scenarios A and C, resulting in reduced risk and a reduced percentage of assets in poor and critical condition, increasing the average network condition.

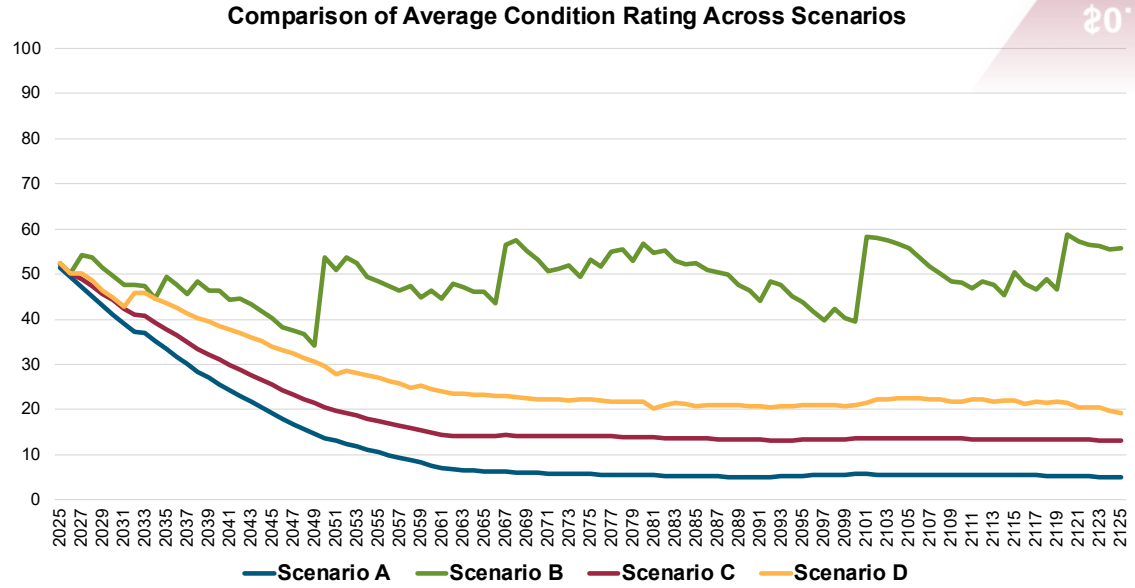
Based on the analysis, staff are recommending Scenario C, the proposed level of service is to increase funding to 40% of the fully funded scenario. The Township has recently been successful in securing grant funding and is optimistic about receiving more in the future. Additionally, our strong community fundraising efforts for various park improvements will continue to contribute to funding these initiatives.

The recommendation to increase funding is in line with responses from the 2025 budget survey, where 83% of respondents indicated that the service level related to Parks and Recreation should be maintained or enhanced.

Table 5.1.1 – Scenario Summary

	Annual Investment	Average Condition	Average Risk	% of assets in poor or critical condition
Scenario A	$125,000	Critical	Very High	86%
Scenario B	691,000	Fair	High	41%
Scenario C	**276,000**	**Poor**	**Very High**	**77%**
Scenario D	415,000	Poor	Very High	67%

PROPOSED SERVICE LEVEL DEFICIT $0.151 MILLION

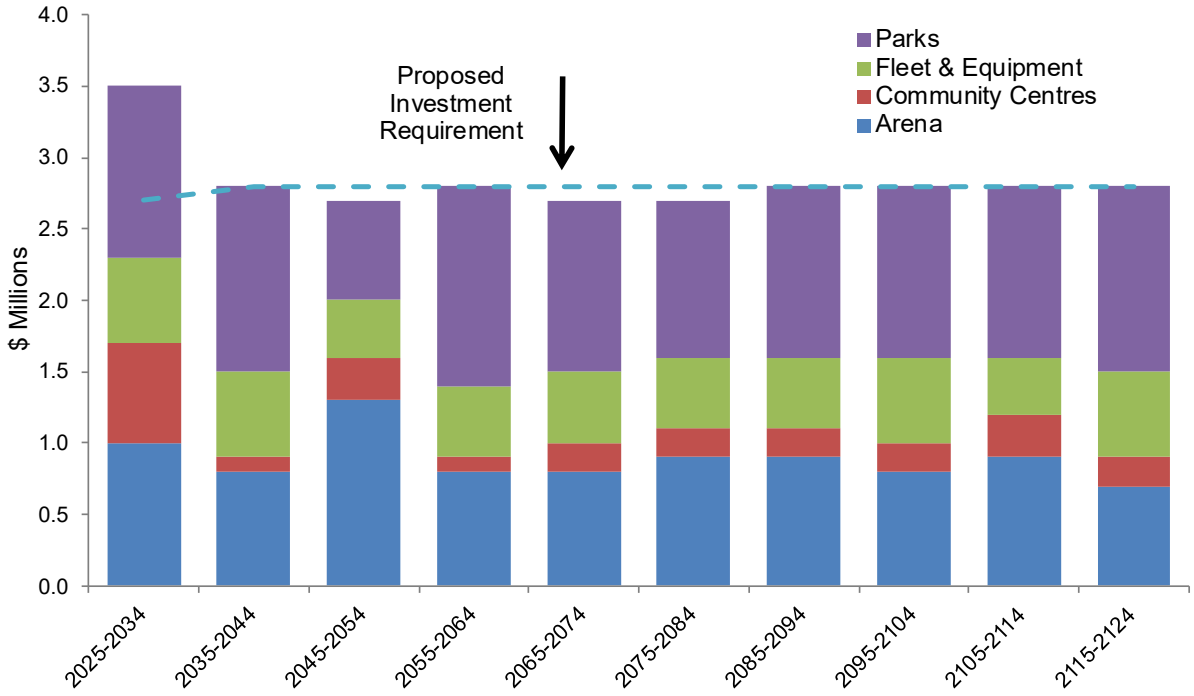


5.2 Lifecycle Requirements

Based on the proposed level of service, the cost estimates to support the lifecycle needs over the next 100 years are determined in current dollars as summarized in Table 5.2.1.

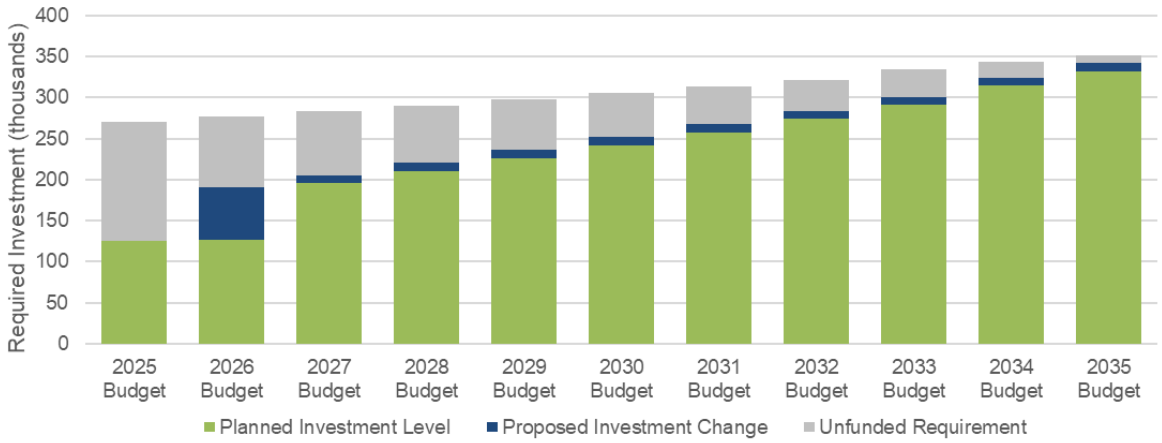
Table 5.2.1 - Lifecycle Requirements (millions)

Asset Component	2025-2034	2035-2044	2045-2054	2055-2064	2065-2074	2075-2084	2085-2094	2095-2104	2105-2114	2115-2124
Arena	$1.0	$0.8	$1.3	$0.8	$0.8	$0.9	$0.9	$0.8	$0.9	$0.7
Community Centres	0.7	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.2
Fleet and Equipment	0.6	0.6	0.4	0.5	0.5	0.5	0.5	0.6	0.4	0.6
Parks	1.2	1.3	0.7	1.4	1.2	1.1	1.2	1.2	1.2	1.3
Totals	**$3.5**	**$2.8**	**$2.7**	**$2.8**	**$2.7**	**$2.7**	**$2.8**	**$2.8**	**$2.8**	**$2.8**



5.3 Funding Gap Analysis

This portfolio is funded by an annual contribution from property taxes and user fees to the Arena, Parks and Recreation, Vehicles and Equipment, and Community Centers reserves.



Planned Investment Level

Inflationary increases are included in Table 5.3.1 in both the required investment and planned investment figures. Also included in the planned investment in 2033 is additional contributions for the lifecycle needs of growth assets once constructed.

Proposed Investment Change

A reallocation of the current Working Capital Reserve contribution of $54,000 is proposed for 2026. An increase of approximately $10,000 (0.13% on 2025 levy) is proposed for 2026 through 2035. Maintaining the reserve helps ensure a contingency is in place should unanticipated failures or events occur. Staff will continue to monitor, actual rates of inflation, to determine if changes to the level of service or funding strategy should be considered in response to changing economic conditions.

Table 5.3.1 – Comparing the required investment to the proposed investment (thousands)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Required Investment	$270.00	$276.75	$283.67	$290.76	$298.03	$305.48	$313.12	$320.95	$334.97	$343.34	$351.93
Planned Investment Level	124.67	126.67	195.86	210.54	226.22	241.90	257.59	274.27	290.95	314.64	332.32
Proposed Investment Change	-	64.18	9.68	9.68	9.68	9.68	9.68	9.68	9.68	9.68	9.68
Unfunded Requirement	145.33	85.90	78.13	70.54	62.13	53.89	45.85	36.99	34.33	19.03	9.93

Based on the funding strategy proposed, the lifecycle cost needs to be reviewed in preparation of the long-term capital plan for the 2026 Budget process are as follows:

Table 5.3.2 - Lifecycle Requirements (thousands)

Asset Component	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Arena	$15.60	$45.00	$45.42	$13.37	$65.76	$51.39	$159.43	$160.00	$38.18	$38.00
Community Centres	139.32	6.20	-	32.50	12.50	344.57	16.00	11.50	51.78	5.50
Fleet and Equipment	12.22	-	111.99	61.08	-	173.39	61.08	34.22	-	76.35
Parks	247.64	138.18	55.72	101.81	139.33	2.68	15.00	42.39	172.45	152.71
Totals	**$414.78**	**$189.38**	**$213.13**	**$208.76**	**$217.59**	**$572.03**	**$251.51**	**$248.11**	**$262.41**	**$272.56**

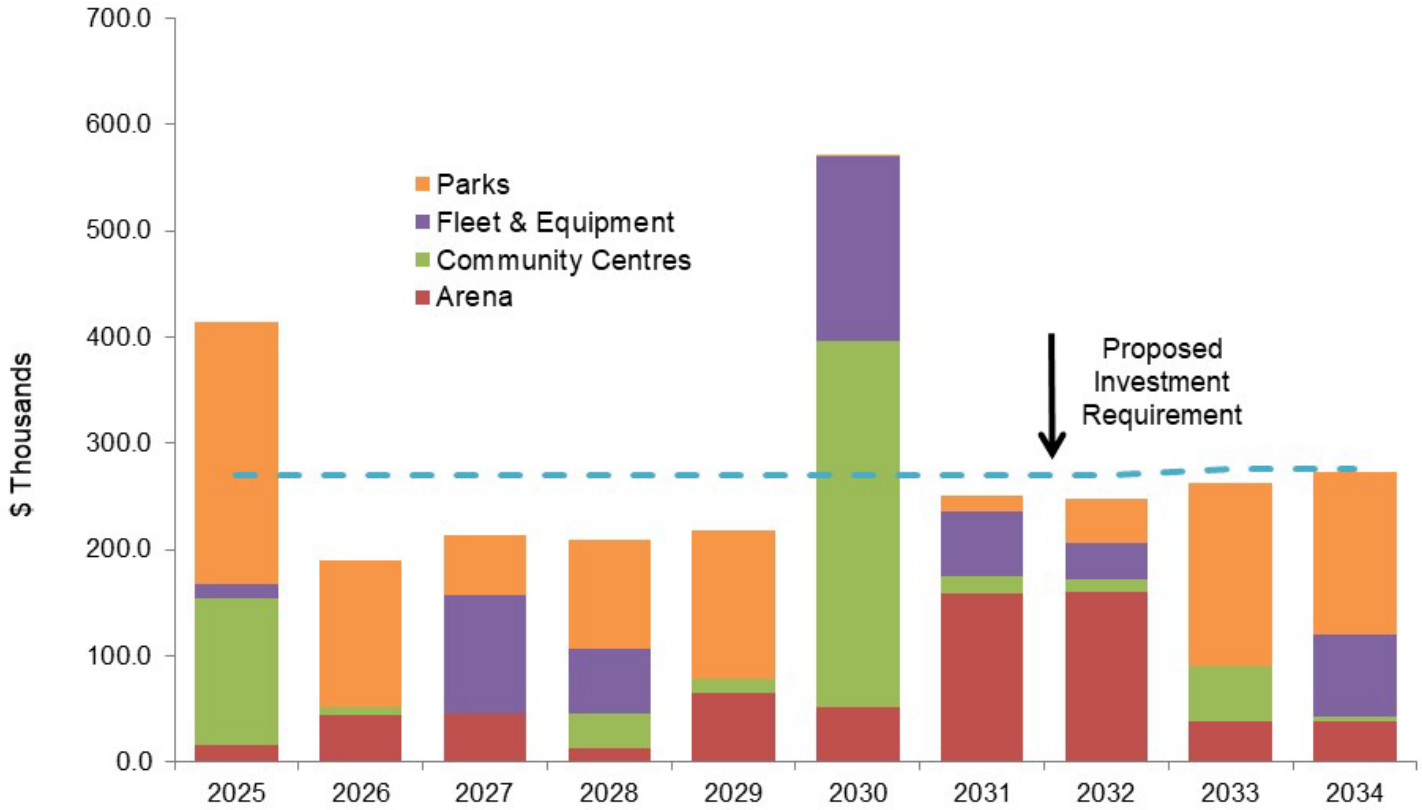


Table of Contents

1.0 Introduction

The Township of Blandford-Blenheim recognizes the critical role that natural assets play in providing essential services and enhancing community resilience and have begun the process of incorporating these assets into our asset management planning and financial reporting. Natural assets provide numerous societal, economic and environmental benefits for climate resilience. Traditionally, these benefits are often undervalued or go unrecognized in financial processes, leading to an increased risk of mismanagement and loss of natural infrastructure.

As natural asset management is a relatively new practice, standard terms and approaches for its integration into municipal asset management frameworks, which were originally designed exclusively for built and engineered assets, are still evolving. Overall, the intent of this AMP is to try to align natural asset planning and management with approaches and practices already in place for built and engineered assets, recognizing that natural assets have some unique attributes and functions as well as very different life cycles that do not always allow them to fit neatly into the same “boxes” as built and engineered assets. The Township is developing strategies to effectively manage and sustain our natural assets, ensuring their long-term viability and contribution to municipal service delivery. This approach supports a comprehensive, sustainable, and data-driven methodology to infrastructure investment, balancing financial stewardship with environmental and community well-being. This AMP is intended to document the available information for natural assets, including a summary of natural assets owned by the Township and provide a roadmap for how the Township will work toward fully achieving compliance with O.Reg. 588/17 for this portfolio, including the use of green infrastructure solutions.

To help understand some of the standard terms, definitions used throughout this portfolio have been provided in Table 1.0.1.

Table 1.0.1 – Definitions

Term	Definition
Aquifer	Underground shared water resources that are typically contained in sand, gravel and rock. Aquifers are replenished by rain and snow melt that seeps into the ground.
Areas of Natural and Scientific Interest (ANSI)	Represent areas of lands and waters containing important natural landscapes or features which have earth science values related to protection, appreciation, scientific study, or education. Such areas are identified and evaluated by the province and may be provincially, regionally or locally significant.
Green Infrastructure Asset	An infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems,

Term	Definition
	parklands, stormwater management systems, street trees, urban forests, natural channels and permeable surfaces.
Engineered (Green) Asset	Green infrastructure assets which have been designed to function like natural assets but are designs not found in nature (e.g., green roofs, permeable pavement, rain barrels etc.)[1]
Enhanced (Green) Asset	Green infrastructure assets which have been designed to act like natural assets (e.g., street trees, urban parks, stormwater management ponds etc.)
Natural Asset/Natural Infrastructure	Green infrastructure assets include the stock of natural resources or ecosystems that is relied upon, managed, or could be managed by a municipality, regional district, or other forms of local government for the sustainable provision of one or more municipal services.
Meadow and Thicket	Meadows and thickets are early successional communities which may turn into woodlands over time or may be maintained by natural or human disturbances like fire, flooding or mowing. Meadows are dominated by grasses and herbaceous species with tree and shrub cover of less than 25%, whereas thickets are dominated by shrubs and young or stunted trees.
Waterbodies	Non-linear, open water areas including lakes and ponds.
Watercourses	A linear, flowing and visible river, stream or creek and the surrounding floodplain areas. This includes seasonal streams that are dry during summer.
Wetlands	Wetlands are areas that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. This allows for the formation of hydric soils and supports water-loving or water-tolerant plants to grow. The four major types of wetlands are swamps, marshes, bogs and fens.
Woodlands	Means treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of woodland products. Woodlands include treed areas, woodlots or forested areas and vary in their level of significance at the local and provincial levels.

Figure 1.0.2 includes examples of natural, enhanced, and engineered green infrastructure assets.

[1] https://naturalassetsinitiative.ca/wp-content/uploads/2024/11/NAI-NAM-guidance-document-v105.pdf - page 10

Figure 1.0.2 – Green Infrastructure Assets

Natural Assets	Enhanced Assets	Engineered Assets
• Wetlands • Swamps • Forests • Meadows • Watercourses • Aquifers • Lakes and Ponds • Groundwater • Soils	• Rain gardens • Green roofs and walls • Bioswales • Street and park trees • Naturalized stormwater ponds • Manicured lawns	• Permeable pavement • Rain barrels • Cisterns • Dams • Perforated pipes • Infiltration trenches and galleries

The Township can only directly maintain and manage natural assets on lands under its ownership, or through a shared management agreement (e.g., with another public agency such as a Conservation Authority). However, it is also understood that natural assets on all lands within the municipality provide services to the broader community (e.g., such as air pollution control, cooling, water quantity and quality management, mental health benefits associated with views of green – even if one does not have access to this greenery, etc.).

Furthermore, it is not unusual for natural areas in private ownership to be transferred into public ownership as part of the municipal planning process, or through land securement initiatives with community partners, or as part of strategic initiatives to protect certain assets from risks and impacts (e.g. protection of drinking water). On this basis, this initial report focuses on those natural assets which are explicitly owned by the Township, identifies the broader system these assets are a part of and includes actions and timing to expand the asset inventory and assessment to a community wide framework in conjunction with other municipal partners.

While the Township doesn't have direct control of their groundwater and water purification, their lands in sourcewater protection areas can impact groundwater quality and quantity and therefore are included in this analysis. Surface water quality does directly affect Township services and quality for life and will continue to be a focus of this report and the Township's enforcement mechanisms.

The natural assets included in this plan are split into three separate but linked categories: terrestrial natural assets (e.g. woodlands, wetlands, meadows, etc.), aquatic assets (e.g. groundwater features, watercourses and waterbodies) and soil assets. Using the best available data and information, each asset area was spatially mapped over Township-owned properties to determine a listing of Township-owned natural assets. However, it should be acknowledged that many services that natural assets provide are part of a broad, interconnected system that does not cease at a property line. The end goal is to take a Township-wide approach to cataloguing natural assets and the services they provide.

There are several limitations related to defining natural asset inventory and providing maps of areas directly serviced by natural assets:

- Overlap Between Categories: While the three asset categories are largely mutually exclusive, certain categories may have functional overlap (e.g. wetlands are considered a terrestrial asset, however they may overlap with aquatic classes).
- Groundwater: Groundwater is critical to sustaining many of the wetland and watercourse features within the Township. Additionally, nearly 100% of the communities in Oxford County rely on groundwater for drinking water supply, whether through the 17 municipal drinking water systems or by private well. There are many challenges to quantifying the value that groundwater provides as a natural asset, both environmentally and socially. Defining the boundaries of groundwater can be extremely difficult requiring a detailed understanding of surface and subsurface geomorphology and hydrology. As a starting point, the best available information as it relates to Township owned properties and associated ground water studies have been captured. A more fulsome analysis on the boundaries and value of groundwater features is recognized as a gap to be filled as part of a subsequent project.
- Limitations in Ecological Data and Information: This analysis does not consider natural assets with respect to areas which may represent terrestrial linkages or corridors as these are not fully understood or mapped at a Township wide scale or property specific scale. In addition, habitat functions including the presence of unique characteristics such as areas of ground water discharge (seeps and springs), presence of species at risk or other significant species have not been assessed as part of this exercise.

Traditional built infrastructure and asset management plans have clear financial inputs and implications. Natural assets do not follow the same approach resulting in financial management practices that can be difficult to define. Table 1.0.3 documents some of the key differences between asset management practices of traditional built infrastructure and natural assets.

Table 1.0.3 – Differences between traditional built infrastructure and natural assets

Traditional Assets	Natural Assets
Specified useful life and lifecycle strategies.	No useful life, maintained in perpetuity.
Service capacity and replacement costs available when asset is put into service.	Capacity grows over time as does value of natural asset.
Quantifiable service(s).	Beyond specific service, numerous ecosystem benefits are difficult to quantify (i.e. Ecosystem benefits).

Traditional Assets	Natural Assets
Included in Tangible Capital Assets (TCA) financial reporting.	Not directly included in TCA financial reporting.
Exist within the municipal boundary with clear ownership.	May be part of a larger system with multiple jurisdictions and stewards.
Many available best practices and guides.	Few available best practices for natural asset management; development ongoing throughout Ontario.

Over time, there may be interest in working with neighbouring municipalities and Oxford County on an expanded plan that includes all natural assets that the County and Area Municipalities rely on for environmental services, regardless of ownership. This expansion would also attempt to quantify the broad range of ecosystem functions which provide direct and indirect ecological services from which the community benefits. Valuing the ecological services of natural assets can help inform decision-making and sustainable management, which can help ensure that the economic benefits of these assets are recognized and are appropriately protected, conserved or restored to help prevent costly mistakes and promoting long-term environmental and economic stability.

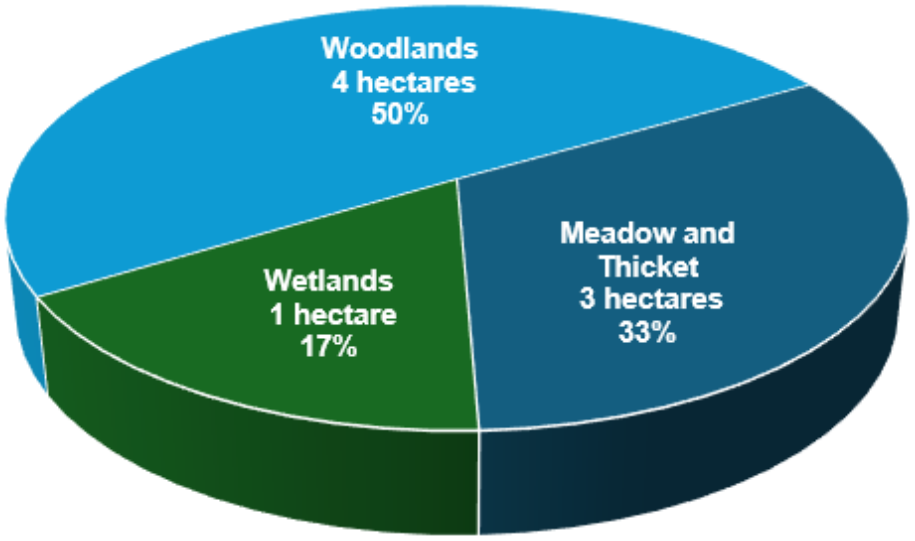
As the Township is just beginning its natural asset management journey, information is not currently available to populate all AMP sections for this portfolio. In conjunction with Oxford County, County and Township staff have discussed the County's Natural Asset Management Roadmap with the Natural Asset Initiative which was completed in the summer of 2024. This Roadmap, included as Figure 1.0.4, outlined a series of goals and competency areas to improve to include natural asset management in the financial planning framework. The implementation of the initial stages of this roadmap has already begun with the Township; the timeline for projects in 2026-2028 would be in conjunction with the County if Council supports this initiative. The roadmap is driven by multiple gaps noted throughout and will improve the Township's usage of green infrastructure while establishing the value natural assets provide to the Township. This will require further study and dedicated resources, including external expertise to ensure the roadmap's goals are met. A catered Natural Asset Management Roadmap can also be completed with the Township as part of this process.

Figure 1.0.4 – Improvement Roadmap

2025	2026	2027	2028
•Initial inventory and risk identification for Township owned assets •Conduct workshop to identify high level risks and threats to natural assets •Initial replacement costs, conditions where possible •Commence project to identify/inventory Township-owned street trees	•Identify Natural Asset Management targets with Township staff and Council •Enhancements to replacement costs, conditions and other improvements noted in AMP (annual commitment) •Identify and build the natural asset inventory to a wider scale, including completion of a detailed initial assessment of conditions and risks for all assets	•Further breakdown of replacement costs/valuation of natural assets based on all usages of the asset – carbon sequestration, stormwater resiliency, etc. •Develop funding strategies for natural asset areas that currently have no or limited direct funding/management plans or strategies such as biodiversity, soil health, pollination, and wetlands • Complete a service attribution and valuation for all natural assets, including improving replacement costs and completing a valuation for ecological services	•Review Natural Asset Management for the whole community to assess for gaps, develop targets to infom management and provide recommendations to address and assess areas which may have no/limited management or funding with a focused approach to biodiversity, climate change adaptation, and natural asset management

2.0 State of Assets

2.1 Inventory



The Township owns a total of 49 distinct properties across 46 hectares used to deliver various services throughout Blandford-Blenheim. As a starting point for creating the inventory, all properties were separated by their ecological land classification (ELC) to assess the different natural assets on each property using existing information from the draft Oxford Natural Heritage Systems Study, 2023 (ONHSS). Based on this assessment, woodlands account for the highest number of natural assets owned by the Township followed by thickets and wetlands. About 64% of Township owned land (including cemeteries, fire halls, stormwater management facilities, and parks across 30 hectares) does not have enough natural assets to meet the ELC threshold. The inventory in Table 2.1.1 below shows the Township owned natural assets along with the total natural assets based on available information. The identification of these assets will be an ongoing process that will include community engagement with local experts and community groups that will enhance the data confidence of these asset classes.

The average age and anticipated useful life of natural assets differs from traditional built infrastructure as natural assets grow their value over time and need to be maintained or protected from negative impacts of human interference in perpetuity, thereby requiring the inclusion of a variety of stakeholders in management practices.

Developing replacement costs for natural assets requires the full cost of the natural assets' ecological goods and services to be understood. This incorporates the functional impact of natural assets and their value in a holistic sense. Replacement valuation that does not replace the ecological goods and services that the asset creates is only replacing the direct asset and not the wider utility and function of the asset. Replacement costs will be developed as the Township progresses through the improvement roadmap.

Table 2.1.1 - Inventory

Asset Component	Unit	Current Inventory (Township owned)	Total Inventory (all lands within Township boundary)	Percentage of natural asset that is Township Owned	Percentage of Township Owned Land
Area of Natural and Scientific Interest (ANSI)	hectares	1.6	-	-	3.5%
Meadow and Thicket	hectares	2.8	1,913.2	0.1%	5.1%
Wetlands	hectares	1.4	5,382.7	0.03%	14.4%
Woodlands	hectares	4.3	7,419.6	0.1%	19.9%

3.0 Levels of Service

Natural assets on Township properties provide a variety of services throughout the Township, with the ecological condition of the natural asset directly impacting the level of service provided.

Much of the direct work with natural assets occurs through the Township's Drainage department that directly oversees the maintenance and construction of all municipal drains. Municipal drains are drainage systems that channel water off agricultural land or remove excess water that collects on properties. These include open ditches and closed tile systems in the ground, and interact with stormwater management ponds, culverts, bridges, streams and rivers. The Township's Drainage Superintendent works with landowners to ensure drains aren't causing downstream water quality issues and works with Bylaw, Township and County staff, and local conservation authorities to ensure the drains are not negatively impacting natural assets and water quality.

Additional work done with natural assets includes Oxford County's Woodlands Officer enforcing the County's Woodlands Conservation By-law, as well as through stewardship programs such as the Clean Water Program for Oxford County. The Woodlands Conservation by-law manages how lumber can be harvested from wooded properties within Oxford County, and there are reasonable limits put in place to limit the impact that harvesting and recreational activities have on the remaining natural assets. The Clean Water Program works with private landowners to manage and enhance natural assets on private property by helping provide funding for these projects where they meet program criteria.

Table 3.0.1 – Natural Asset Services

Service Provided	Aquifers / Sourcewater	Meadow and Thicket	Soils	Surface Water (Watercourses and Waterbodies)	Woodlands	Wetlands
Water storage of drinking water source	✓					
Water filtration through soil towards aquifer improves water quality	✓		✓		✓	✓
Carbon sequestration reduces and limits the impacts of medium to long term climate change	✓	✓	✓	✓	✓	✓
Soil quality leads to agricultural, biodiversity and water quality impacts		✓	✓		✓	
Soil erosion reductions meant to reduce impact on buildings, roads, and other infrastructure assets		✓			✓	
Biodiversity improvements lead to improved agricultural outcomes through pollination, improved wildlife health through protected habitats and food sources, and a wider variety of ecosystem biomass		✓	✓	✓	✓	✓
Stormwater management leads to a reduction of the impact of severe storms and floods and increases the filtering effect of water going into the watershed		✓		✓		✓
Recreational benefits lead to a human centered focus on access to natural areas for recreation and tourism		✓		✓	✓	✓
Tree canopy leads to local temperature, air quality improvements, wind and noise reductions combined with increased resiliency in urban and semi-urban settings		✓			✓	✓
Water quality improvements minimize the impacts of nitrates and other pollutants in sourcewater and surface water quality		✓	✓	✓	✓	✓

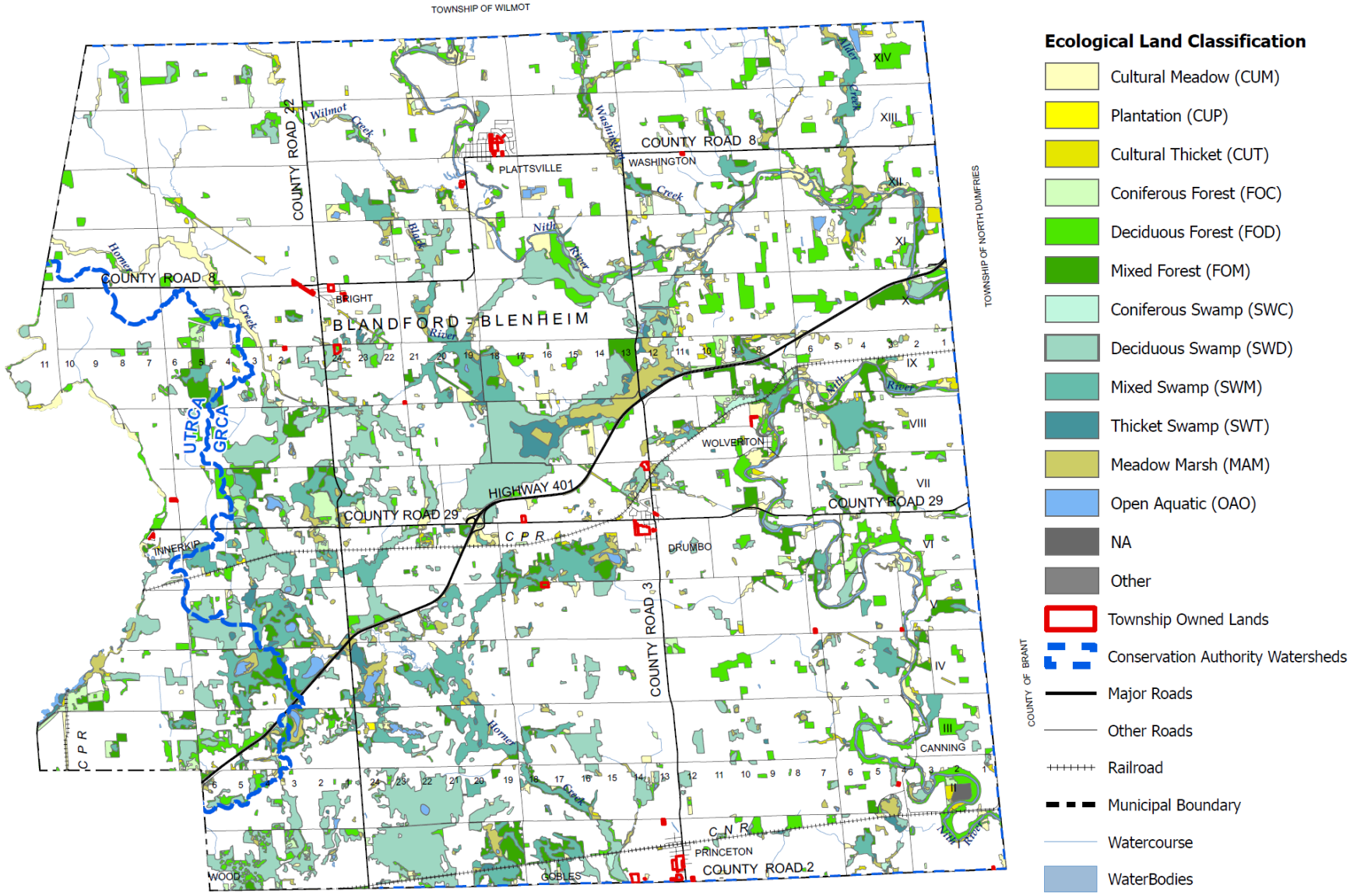
3.1 Terrestrial Assets

Terrestrial assets include woodlands, wetlands, meadows and thickets. For the terrestrial natural features asset type, the vegetation community mapping was used to establish a nested asset hierarchy aligned with those typically used in asset management. The relative level of coverage of each natural asset type across Township properties was then calculated based on the synthesis of the available data.

Terrestrial features are fixed polygons delineated using the applicable standard for vegetation community classification - the Ecological Land Classification (ELC) system for southern Ontario (Lee et al., 1998). These have been delineated by land property and include data on their terrestrial, aquatic, and soil attributes, and will be expended upon in the County's geographic information system (GIS) as more information is available. The attributes currently tracked include quantity, type, location, ownership (initially only Township-owned), watershed, subwatershed, soil type, and conservation authority. Figure 3.1.1 shows the ownership of ELC natural cover on Township owned land.

The Township does not currently have an inventory of street trees. The benefits of these trees include improving air quality, improving water filtration, stormwater management and soil quality, reducing soil erosion, and lowering local temperature, wind and noise disruptions. Conducting a tree assessment may assist the Township in improving traffic safety, increasing environmental and ecological benefits, and leading to increased property values.

Figure 3.1.1 – Terrestrial Assets Map



3.2 Aquatic Assets

The functions of surface water and watercourses include their ability to attenuate floods, filter and improve water quality, support recreational opportunities, and assimilate wastewater discharge. Watercourses and their surrounding floodplain areas reduce the pressure of floods when they naturally include buffers on either side of the watercourse that can slow runoff and absorb excess water (similar to wetlands). This buffer before agriculture/development land reduces the impacts of floods and the increased intensity of storms being seen in the Township.

Recreational opportunities are directly affected by surface water quality within the Township. Recreational opportunities for residents including fishing and boating along with other tourism activities are directly affected by low surface water quality. Lower water quality can lead to algae blooms, loss of fish habitat and species, and other signs of negative impacts to aquatic ecosystems and biodiversity overall.

Aquatic features are subsequently split into surface features and groundwater features. Surface features include watercourses which are dynamic continually moving systems whose boundaries have been based on a center polyline feature. To represent this in the inventory, linear measurements of watercourses were taken to calculate the total amount of land interacting with this watercourse to ascertain the possible influence owned lands can have in these areas. Similarly, groundwater features are represented in relation to their function for municipal drinking water sources and the asset inventory represents these areas building from available Source Water Protection information and supporting technical data relating to the operation of the County's supply wells.

3.3 Soil Assets

Soils are a vital natural asset, forming the foundation for food production, water filtration, biodiversity, and climate regulation, and are essential for many of the ecological functions and services we depend on. Fertile soils produce the vast majority of all food, supporting crop growth and livestock grazing. It also provides the timber, pulp and paper we rely on for housing, packaging and currency, among other things. It is also responsible for storing the bulk of the carbon found in terrestrial ecosystems and supports vital waterways by preventing erosion and enhancing water quality. Blandford-Blenheim has some of the best soil in the province based on the Canada Land Inventory (CLI). These soils support the vast agricultural industry and that is why all areas outside of settlements are considered part of the Township's prime agricultural area.

The review of soil attributes revealed that areas of lesser CLI soils within the Township typically overlap with areas of woodlands and wetlands and represent areas of organic soil. While these soils are considered to be of lower quality from an arability perspective, they are functionally important for slowly breaking down plant material, filtering contaminants out of water, providing habitat for wildlife, and represent important carbon sinks. These functions are necessary to slowly release essential nutrients through the soils system and cannot be completely replicated by artificial means.