City of Guelph
Corporate Asset Management Plan 2025 – Updating the 2024 AMP

May 2025

Document History

Date	Comment
Dec. 1, 2024	Begin the begin
April 12, 2025	Draft 1 mostly complete; ready for review
April 16, 2025	Consolidation of all service area chapters to single document
April 30, 2025	Final Version

Contributors

Several people and teams from across the City of Guelph have provided support, input and feedback through the process of preparing this asset management plan document. The following table thanks and recognizes them and identifies their roles and responsibilities.

Table E 1: List of Contributors to the Core AMP

Stakeholder Team	Roles and Responsibilities	Members
Corporate Asset Management **(CAM)**	• Corporate lead for the Asset Management Plan • Consolidate asset data (including GIS) and complete valuation, condition and renewal needs analysis • Develop specialized tools for analysis • Research levels of service and current asset management strategies • Coordinate with service area staff on asset and future needs details • Develop draft and final plan documents • Present and publish the final plan	Kevin Nelson Monica Silva Brian Goll Mark Pellegrino Tracey Lesage Spencer Stroszka-Li Djordje Dobric

Stakeholder Team	Roles and Responsibilities	Members
Capital Steering Committee:	Provide general oversight to the development of the AMP	Adam Fischer, Ania Orlowska, Antti Vikko, Bryan Ho-Yan, Colleen Gammie, Danna Evans, Gene Matthews, Glenn Marcus, Heather Yates, Reg Russwurm, Sara Sayyed, Shanna O'Dwyer, Stacey Dunnigan, Stephanie Devost, Teisha Colley-Balgrove, Terry Gayman, Emily Stahl, Aine Leadbetter, Ian Scott, Jennifer Charles, Jennifer Juste, Karen Newland, Kevin Yaraskavitch, Lisa Duarte, Luke Jefferson, Mallory Lemon, Marina Grassi, Nectar Tampacopoulos, Patricia Zukowski
Executive Team	• Approve the final asset management plan for publication.	Tara Baker, Jayne Holmes, Colleen Clack-Bush, Gene Matthews
Finance	• Contributing relevant financial and budget information; reviewing and analysing the 2021-2045 Capital Plan • Analysing the Sustainability Target	Shanna O'Dwyer Dylan Prince Patricia Zukowski
City Council	• Endorse the final asset management plan	

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Executive Summary

The City of Guelph is required to prepare a Corporate Asset Management Plan (AMP) and submit the plan to the Ontario Ministry of Infrastructure by July 1, 2025. The AMP is required to identify:

- A summary of the City's infrastructure assets that identifies their current replacement value, their condition, their average ages and how those metrics are determined
- The levels of service that the assets are currently providing and the costs to do so
- A ten-year forecast of the lifecycle management needs of the assets including costs to complete these needs
- Identification of annual funding that is projected to be available for the same ten-year period

State of the Assets

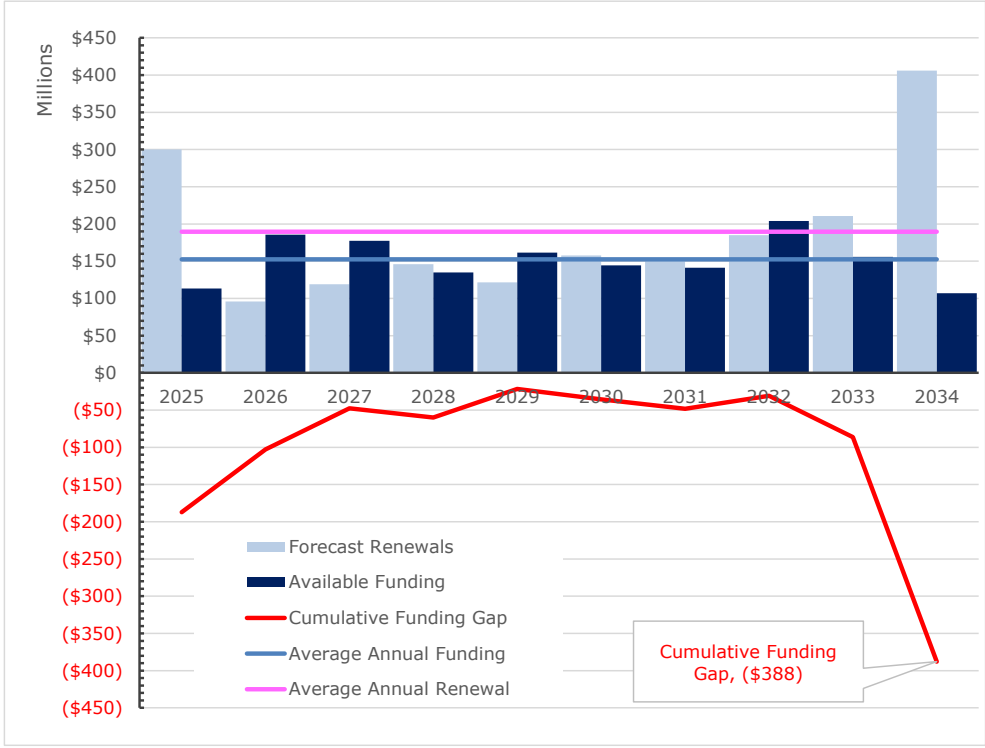
The 2024 City of Guelph Corporate AMP reported on over 200,000 City-owned assets with a total replacement value of approximately $7.7 billion, compared to $4.4 billion in 2020 (approximately $50,278 per resident in 2025 vs. $36,041 in 2020).

Renewal Needs

From 2024 to 2033 the forecast infrastructure renewals needs are estimated to equal almost $1.9 billion. These needs represent the normal replacement of aging assets that have either physically or functionally reached the end of their service lives.

During the same ten-year time period from 2025-2034 the forecast available funding in the City's reserve funds dedicated to asset infrastructure renewals is only expected to equal $1.53 billion. The result is a

Figure E 1: Forecast Renewal vs. Funding: All City Services



predicted $388 million negative funding gap over the ten-year period.

One of the reasons for this gap is the current deferred work backlog at the beginning of 2025. The total renewal forecast in 2025 is estimated to be $300 million. While some of this is work that would be planned for this year a significant portion represents work that has been deferred from previous years due to insufficient funding. There is also a predicted spike in renewal needs in 2034 where the $405 million in renewal needs for that year is more than double the ten-year average renewal value that is estimated at $189 million per year. A portion of the 2034 renewals includes need work projects that were initially on the City's capital budget removed during final reviews then being pushed outward in time.

Table E 2: Ten-year Summary of Needs vs. Funding

10-Year Total Renewal Forecast	10-Year Total Funding Forecast	10-Year Forecast Total Gap
$1,894,674,759 ($1.89 million)	$1,525,379,016 ($1.53 billion)	-$387,886,180 (-$388 million)

The impacts of the funding gap will not affect any of the critical services that the City delivers, nor any legislated requirements related to the assets or services. These are high priority activities that will remain so and will receive the appropriate attention to their needs to ensure those services remain in good functional condition. But the resulting increase in deferred renewal work will result in risks to the City that will need to be addressed.

Asset renewals that are not completed generally result in a combination of increased regular maintenance needs, higher risk of unplanned asset failures and a reduction of capacity or service levels that can be delivered. These risks can be mitigated with the concentration on effective prioritization of both capital renewal and regular operations and maintenance tasks.

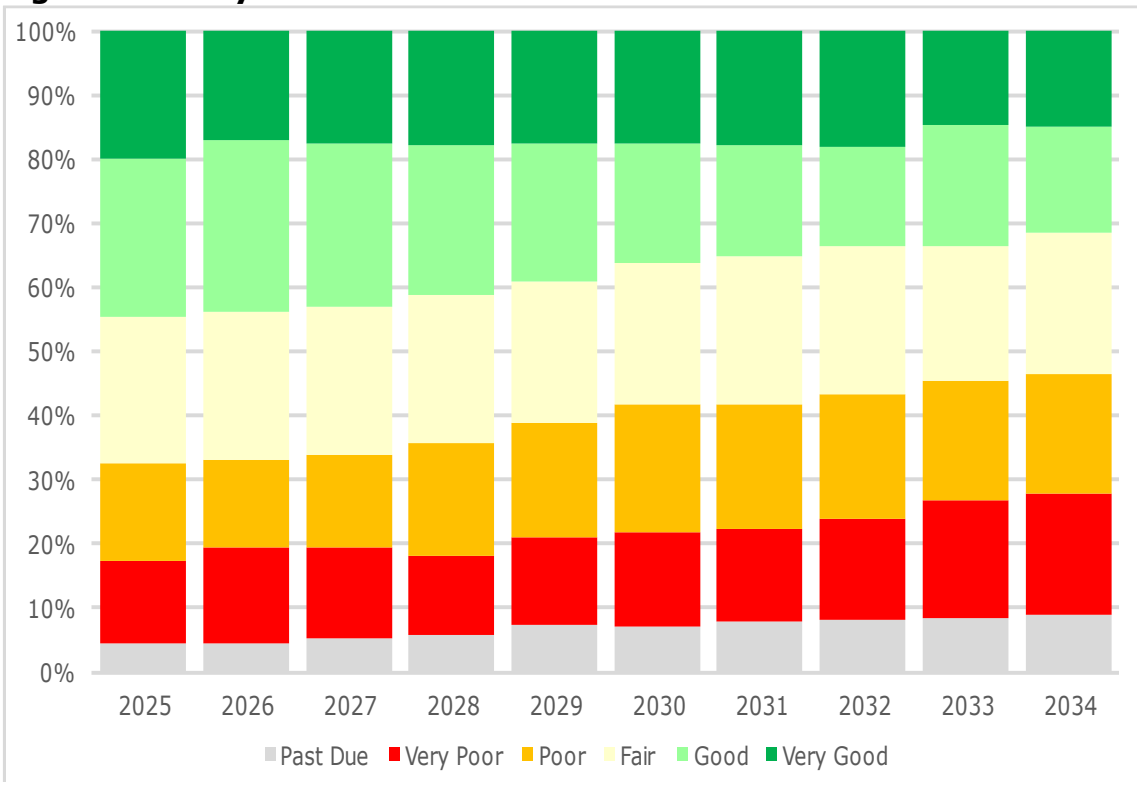
Climate Change

O. Reg 588/17. requires the AMP to address the issues related to the changing climate and how that will impact the City's assets. Guelph has been ahead of trends on this subject: many of the recommended actions identified in the Climate Adaptation Plan (CAP) that was prepared and approved in 2023 were adapted into the renewal needs included in the AMP. Further details on the risks facing each service area and the asset types they manage are identified in the specific chapter for each service. Also identified are some of the recommended mitigation strategies. The CAP should be referenced for full details.

Levels of Service

To meet the requirements of O.Reg 588/17 regarding future levels of service the City determined that representing the future condition of the assets was the best methodology to use. Each separate service area has its own specific LOS metrics. For the city as a whole the consolidated info on how the portfolio condition over the next ten-years will change based on the financial planning and strategies that were used to develop the final version of the City's MYCB was used as an indication of the possible LOS that can be delivered. Assets in "good" and "very good" condition can be considered as being better able to deliver their intended service with less risk of failure than assets in "very poor" or "past due" condition. Relating projects on the MYCB to the assets being renewed as a result of those projects would provide this review.

Figure E 2: City Asset Portfolio Condition Profile Over Time



This analysis shows that by the end of 2034 and compared to 2025 there is a projected increase in the value (and therefore quantity of) assets in the lower condition rating categories, with of course a related decrease in the value and quantity of assets in the higher conditions. This does not imply a direct decrease in the lessening of the Levels of Service delivered by the City: critical and priority services and assets will always be maintained to ensure they meet the levels of service expected of them. But these results do imply that there will be a higher risk of failure, and a higher need for increased maintenance and/or repair needs as the overall condition of the portfolio slowly decreases.

Sustainability

For many years Guelph has been working to attain a state of financial sustainability in its asset management practices, meaning the available funding matches the expected renewal needs. To complete this analysis an average of the total ten-year renewal forecast was used to set the sustainable renewal target value in 2025, and then this value was inflated in each subsequent year. This represents a balanced approach that is more likely to match the actual annual renewal needs that will be required compared to the theoretical model described above. Comparing the renewal needs to the funding strategies approved in the 2025 confirmed budget for both the tax supported and non-tax supported service completes the analysis of when the City might reach the point of sustainability.

For the tax-funded services the result predicts that the sustainable target funding will be reached around 2043 or 2044. This is the point when the revenue from municipal taxes will equal the forecast renewals for that year will continue to be greater than the forecast needs in future years. This is shown in Figure E 3 where the grey line represents the forecast renewals needs and the orange line the forecast funding.

Figure E 4 shows the prediction for the non-tax funded services is more optimistic. For these services it is estimated that the sustainable target may be reached around 2031.

In combination, the results of the analysis are predicting that the sustainability target funding for all city services assets will be reached around 2039. Refer to Figure E 5.

In all three scenarios the forecast renewal needs increase year by year but at a slower rate than the forecast funding levels, thus allowing the funding gap to close and sustainability to be reached. These results are based on the current funding strategy in place. Should there be any future reduction in the funding values compared to that strategy the funding gap will take longer to close, and reaching financial sustainability will be delayed, and asset conditions and levels of service will continue to decrease. It is best to avoid this possibility by at least ensuring that the infrastructure renewal needs continue to be funded following the strategy approved in the 2025 budget confirmation.

Figure E 3: Annual Sustainable Funding Level Gap: Tax Funded Services

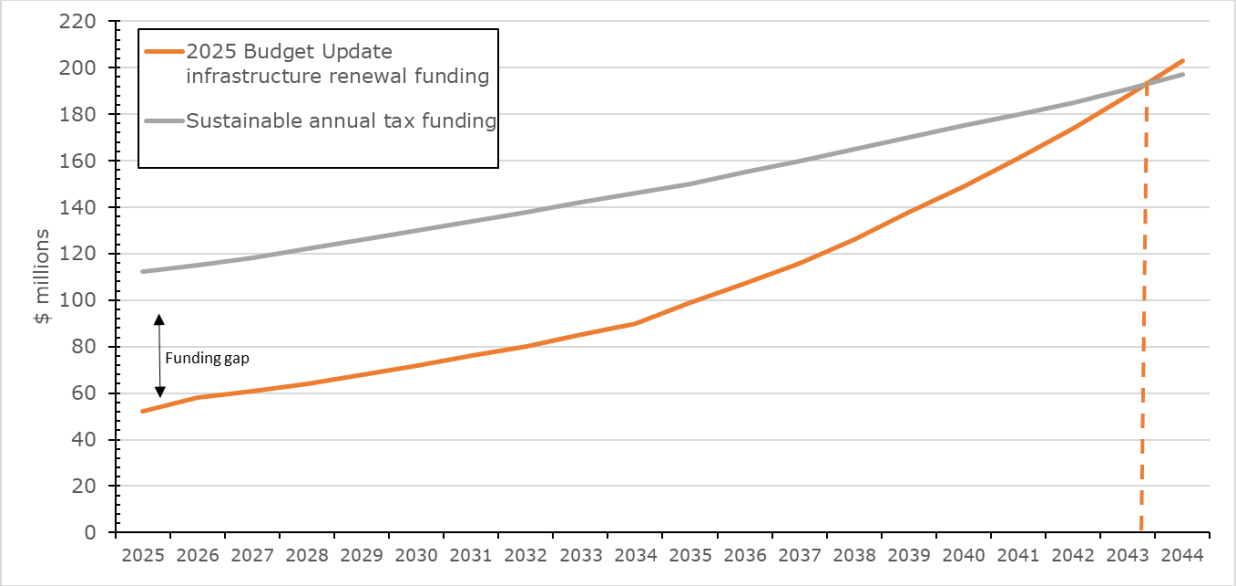


Figure E 4: Annual Sustainable Funding Level Gap: Non-tax Funded Services

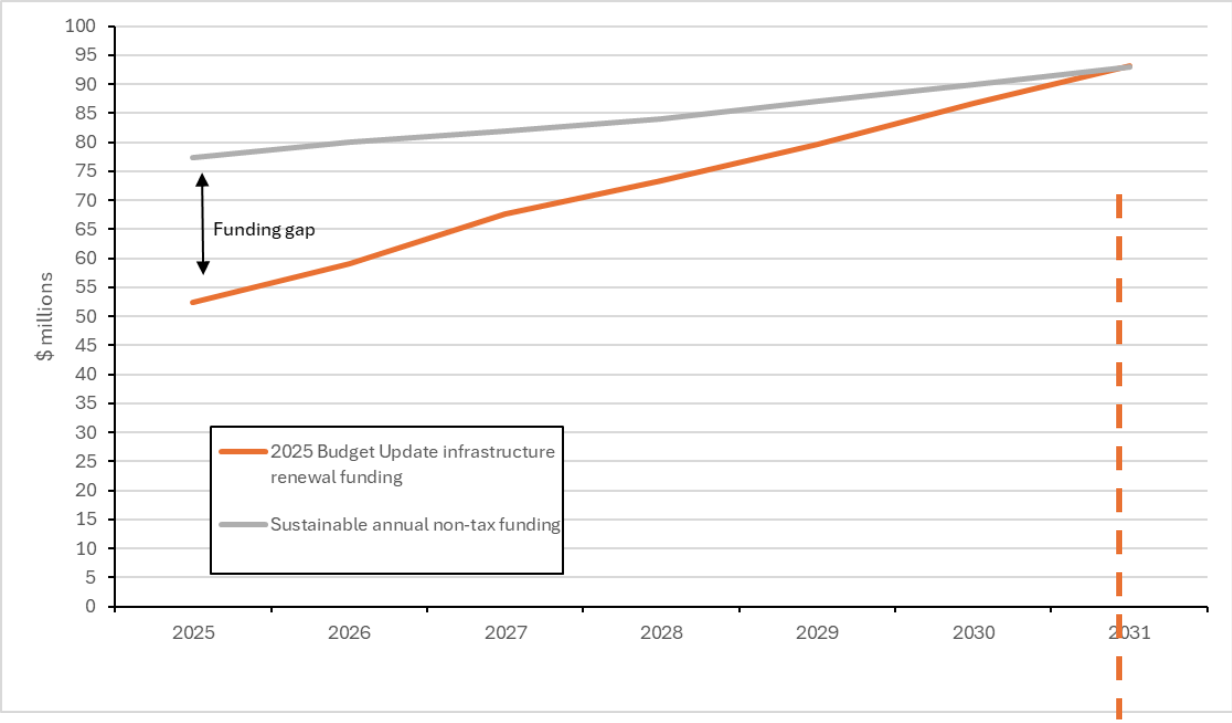


Figure E 5: Annual Sustainable Funding Level Gap: All City Funded Services

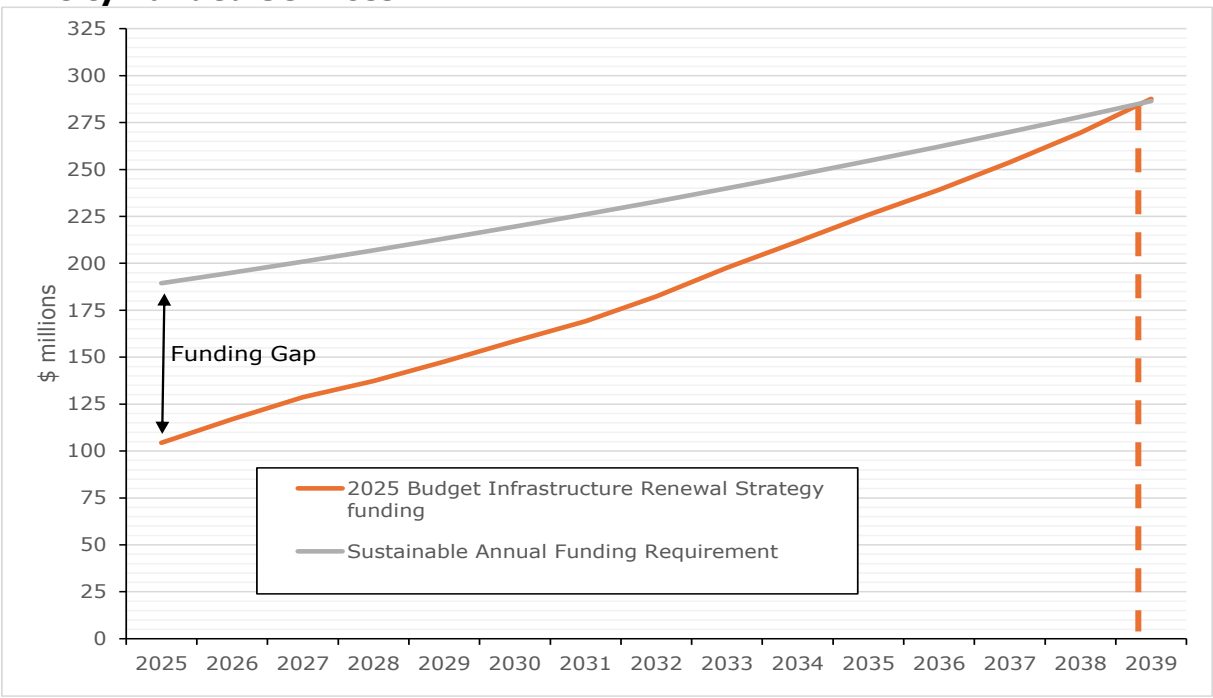


Table E 3: Annual Sustainable Funding Level Gap - Tax-funded Services (Part A) (all values in millions of dollars)

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2025 Budget Update IR Tax Funding	$52	$58	$61	$64	$68	$72	$76	$80	$85	$90
Sustainable annual tax funding required	$112	$115	$118	$122	$126	$130	$134	$138	$142	$146

Table E 4: Annual Sustainable Funding Level Gap - Tax-funded Services (Part B) (all values in millions of dollars)

Year	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
2025 Budget Update IR Tax Funding	$99	$107	$116	$126	$138	$149	$161	$174	$188	$203
Sustainable annual tax funding required	$150	$155	$160	$165	$170	$175	$180	$185	$191	$197

Table E 5: Annual Sustainable Funding Gap - Non-tax Services (all values in millions of dollars)

Year	2025	2026	2027	2028	2029	2030	2031
2025 Budget Update IR Tax Funding	$52.44	$59	$67.72	$73.31	$79.67	$86.6	$93.15
Sustainable annual tax funding required	$77	$80	$82	$84	$87	$90	$93

Beyond 2025

The 2025 AMP has been prepared using the best data that has been available for asset analysis. This has been the result of extensive work by the CAM team with the support of all service areas to improve the accuracy of the information available about the assets. This maturing of the City's AM processes is a central idea in asset management and will continue indefinitely.

The CAM team is actively involved with the development and implementation of the City's new Enterprise Asset Management (EAM) implementation. This work involves centralizing essential asset information to allow standardization of work processes and integration with multiple other tools, including The City's financial system and GIS. The implementation of this program will further enhance the idea of asset management at Guelph by simplifying the sharing of asset information from one group to another resulting in improved corporate knowledge and the ability to better track the needs, and history of the City's assets.

New analysis tools that can help with decision making and prioritize the multiple needs for the infrastructure across all the various services are being trialed. These tools use complex algorithms to analyze many different metrics about assets and compare those to budget information greatly simplifying the project prioritization process using better, quantitative data.

The work on expanding the City's information and management of Natural Assets will expand. Guelph has been a leader in this emerging area of asset management and looks to continue to improve the information available about natural assets and quantify the benefits and costs they provide the City. Long-term protection of these "green" assets is a major goal, and one that the City is well established in providing a focus on.

Continued and more integration between the Corporate Asset Management staff with the subject matter experts in each service area has proven very beneficial with improved asset information and improved understanding of the needs of the assets. The sharing of new tools and techniques to improve asset management planning is an expected outcome of these efforts.

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Asset Management Plan 2025: 2024 Recap and Updates

In July 2024 the City of Guelph submitted a Corporate Asset Management Plan (AMP) to the Ontario Ministry of Infrastructure in accordance with ONTARIO REGULATION 588/17 made under the INFRASTRUCTURE FOR JOBS AND PROSPERITY ACT, 2015. The primary focus of the 2024 AMP was:

- A summary of the City's infrastructure assets that identifies their current replacement value, their condition, their average ages and how those metrics are determined
- The levels of service that the assets are currently providing and the costs to do so
- A ten-year forecast of the lifecycle management needs of the assets required to maintain the levels of service being delivered as of 2024, including forecast costs to complete these needs
- Identification of annual funding that is projected to be available for the same ten-year period

The 2024 AMP was an in-depth review of the state of the City's assets and future needs across all service areas. This included a forecast of the future capital costs predicted to maintain the levels of service that the City's assets are currently delivering. In general, an AMP aims to answer the following seven questions for the needs of the entire City:

- What do you own?
- Where is it?
- What is it worth?
- What condition is it in?
- What required work has been deferred?
- What is the remaining useful lifecycle?
- Are the desired levels of service being delivered?

Knowing the answers to these seven questions makes it possible to make educated and data driven decisions around what work should be prioritized.

O.Reg 588/17 further requires that the City submit an updated AMP by July 1, 2025. The purpose of the AMP remains the same with the added requirement that the City:

i. Identify **proposed** levels of service that the municipality proposes to provide by the end of the ten-year period identified in the previous AMP
ii. A lifecycle management and financial strategy to meet those proposed levels of service

Further, it is required to

iii. Provide an explanation of why the proposed levels of service are appropriate for the municipality
iv. Prepare a lifecycle management and financial strategy that identifies the lifecycle activities

and the estimated annual costs to support those activities for each of the next 10 years,

v. Provide an explanation of the options examined by the municipality to maximize the funding projected to be available

vi. Describe how the municipality will manage risks associated with not undertaking any of the lifecycle activities identified

The City of Guelph Corporate Asset Management team has continued efforts to build on programs and planning already in place to accomplish these requirements and the 2025 AMP builds on the information presented in 2024. While CAM continuously improve the data and analysis capabilities that are used in the production of the AMP for most service areas the infrastructure asset renewal needs presented in 2024 were again used for 2025.

The City's infrastructure assets are categorized into 17 different categories that match the types of services that are delivered by the City. For each asset category, the levels of service that the municipality proposes to provide for each of the 10 years from 2025-2034 have been developed based on the results from 2024.

Where the 2024 AMP analysis was based on a draft version of the MYCB the 2025 AMP analysis work included a review of the anticipated annual funding projected to be available to undertake lifecycle activities by using the final version of the MYCB. The information available also included proposed funding beyond 2027, in some cases as far as 2049,

The draft version MYCB that was available in spring 2024 recommended a 2024 tax levy increase of 8.52% to generate the needed tax revenue to be able to deliver everything identified in the budget. However, in February 2024 Mayoral Direction 2024-B2[i] identified that "A total property tax impact of not more than 4%, with the increase apportioned proportionally between the City and local boards and shared service providers based upon the 2024 adopted net expenditure budget."

All City departments and services participated in a budget and project review to reduce operating and capital budgets resulting in several projects related to asset infrastructure being removed from the MYCB. In short, the asset renewal needs vs. funding forecast and therefore the sustainability forecast presented in 2024 required revision because the funding values in that analysis changed with the approval of the final version of the MYCB by Council in November 2024.

This final version of the budget has been used to re-review the impact on the forecast infrastructure renewals and prepare forecast Levels of Service that the City will be able to deliver based on this budget. The updated 2025 AMP includes a re-analysis of the forecasts made in 2024 plus an LOS review that includes a prediction of how the City assets will deteriorate over the next ten (10) years based on the approved MYCB.

One of the predictions from the 2024 renewal needs versus funding analysis was the City would be operating with a capital needs backlog until approximately 2044. That is, there would be insufficient funding available to complete all of the predicted, needed capital renewal work in the ten-year forecast period that the AMP looks at. This situation

necessitates the assigning of priorities to certain capital works over others with an emphasis on projects that present the greatest benefit to the City and mitigates the highest potential risks faced as a result of deteriorating infrastructure, a normal process through use and the passage of time. Not having sufficient funding in a given year means the value of needed renewal work grow and level of service delivery could be negatively impacted: at best the LOS would remain at current levels, at worst the LOS would decrease.

However, despite a growing backlog from 2025 onwards the available funding for capital renewals was also predicted to continue to grow year over year. This is due to the City's strategic planning to address the renewal needs over time while also planning for the growth of the City with new or enhanced assets replacing the existing portfolio. City staff are also planning for mid-life renewals of assets when possible, a strategy that will extend the useful service of assets at a lower cost than a complete replacement. These efforts showed that around 203 the backlog begins to lessen ultimately being totally cleared around 2044. Beyond that point the reserve fund balances were expected to continue to grow and while the need for continuing asset renewals never ends the value of funding outweighs that need after this point. This marks the predicted point of financial sustainability where the available funding equals or exceeds the needs.

The 2024 AMP also identified the functional performance of the City's assets and service delivery by measuring the performance of the service against a series of defined metrics specific to each service area (asset category). The **level of service** metrics (LOS) are connected to the City's Strategic plan and provide focus and direction to help identify what the assets should deliver, in turn helping to identify priorities where City resources should be committed. The LOS metrics represent the expectations of the community while taking into consideration the costs of service delivery. LOS metrics are a combination of technical and community based themes: as per O.Reg 588/17 the LOS metrics are categorized into "technical" values based on quantitative data wherever possible, and "community" values that are more qualitative, or subjective in nature.

Immediately following the approval of the 2024 AMP the Corporate Asset Management Team (CAM) began consultations with staff in all City departments to identify what future priorities are for each service, potential risks facing each service (and as a result the City) and what the future LOS targets might be.

2025 Introduction

The 2025 budget confirmation process focused on prioritization of the City's needs to balance moving strategic priorities forward with affordability pressures; this process included both new investments proposed in the 2025 adopted budget, as well as existing services in the base budget.

The overriding themes that emerged from the development of the 2025 budget confirmation included[ii]:

- Prioritizing housing by advancing investments that enable and service growth.
- Investing in maintaining City assets in a state of good repair to support uninterrupted delivery of high priority services.
- Striving for affordability for the community by prioritizing new investments and existing services using the same set of criteria

2025-2034 Capital budget and forecast Capital prioritization framework

To achieve a balanced capital budget – meaning projected capital revenues and debt capacity are sufficient to fund projected capital costs – a capital prioritization framework was developed to guide decision-making. An early version of this framework was reported to Council through the 2025 Budget Confirmation Planning Report[iii], and staff have further refined the details over time. This framework was applied to all capital projects, including those presented as contingent on funding in the MYCB.

High priority projects that remain in the 10-year capital budget:

- Medium or high priority capital projects aimed at maintaining a state of good repair
- Housing-enabling infrastructure in priority areas
- Mandated or legislated projects
- Projects eliminating safety concerns
- Projects with a grant commitment or specific funding source

Low priority projects that were deferred within or from the 10-year capital budget:

- Low priority capital projects aimed at maintaining a state of good repair
- Housing-enabling infrastructure outside priority areas
- Amenities that support a growing community
- Service enhancements without a grant commitment
- To meet the affordability target, all programs, services and projects were ranked and prioritized based on several criteria including meeting the City's housing targets, maintaining City assets

in a state of good repair, and fulfilling legislated requirements.

A capital project priority matrix was developed and used by staff to rate each project, using the directions listed above. The end result of the work by City staff to deliver a budget that met the stated goals that reflect the needs of the City while considering the financial impact on the community is best summarized by the following:

> "The draft 2025 budget update presents a funded, 10-year capital plan, as directed by Council last year, and I am just so thrilled to have this achievable plan from which we can facilitate effective service delivery discussions with Council" explained Tara Baker, chief administrative officer. "The Mayor and City staff worked collaboratively to develop the draft budget update, and while there are reductions from what we had planned, the City is still making significant investment in environmental initiatives, housing-enabling infrastructure including downtown placemaking enhancements, and the modernization of City service delivery, all guided by our Strategic Plan."

The MYCB accomplishes several objectives

- Meets the affordability target set out in the Mayoral Budget Directive.
- Presents a fully funded 10-year capital budget and forecast that enables the City to meet its part of the Housing Pledge and maintain high priority assets.
- Leverages existing grant opportunities and leaves space for future grants to help mitigate tax increases.
- Includes significant investment in revitalizing the downtown streetscape.
- Advances environmental goals through ongoing investment in transit, electrification, and active transportation.

All of the above was strongly considered when working to develop the LOS targets as required by O.Reg588/17. Prioritizing investment in housing and housing-enabling infrastructure means that funding for some other City projects and initiatives has been reduced or deferred. The City remains committed to these initiatives but anticipates it will take longer to reach these goals.

The risks of not completing needed work were considered in the Capital Prioritization work that resulted in the final MYCB using the directions for High and Low priority projects. Work that is identified as needed but was not funded consists of work that should not have an impact on the services delivered to the community.

As time progresses the infrastructure renewal needs will continue to be monitored Any ne needs that do arise that might be considered high priority will be reviewed against the other high priority work.

Levels of Service

Levels of Service (LOS) are a critical component of asset management, defining the standards and expectations for the performance and quality of assets. This section explores how Levels of Service are established, monitored, and adjusted to meet the needs of stakeholders and ensure optimal asset functionality. By setting clear benchmarks, organizations can effectively manage resources, prioritize maintenance, and enhance customer satisfaction. Understanding and implementing appropriate Levels of Service is essential for achieving long-term sustainability and operational efficiency.

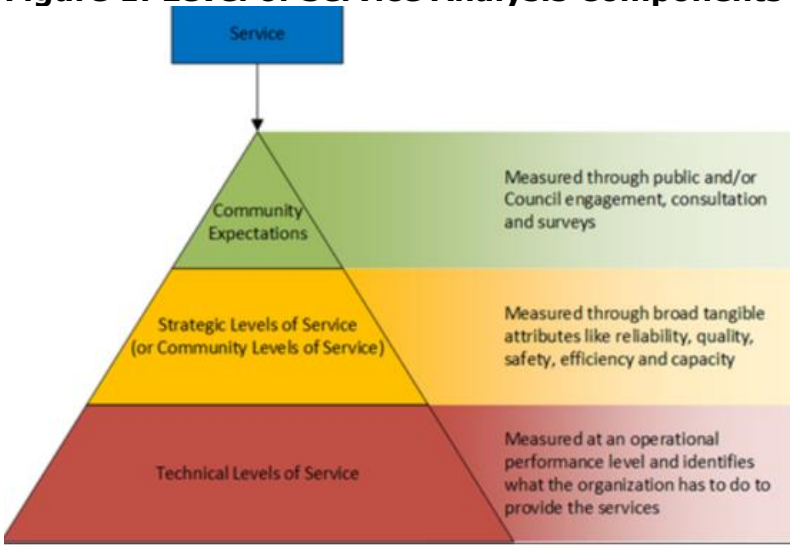
The City of Guelph used the Municipal Finance Officers Association of Ontario (MFOA) Asset Management Framework document as references for this work. The MFOA's Asset Management Framework document has identified three steps to the LOS Analysis as shown in Figure 1. This framework mirrors the requirements for LOS under O.Reg 588/17 for technical and community LOS but adds community expectations, which are also referred to as desired levels of service.

LOS metrics are divided into two categories:

- Community LOS measure how the community receives the services using attributes like reliability, quality, safety, efficiency and capacity.
- Technical LOS measure how well the services are being delivered using quantitative, operational and technical measures. Technical LOS often relate to attributes like cost to deliver services, levels of compliance with legislation, condition of the assets measured using design standards etc.

Samples of Community and Technical LOS as they relate to the core asset types are included in Appendix B.

Figure 1: Level of Service Analysis Components



For the Core assets there are two sets of LOS metrics that the City must measure against – those defined by O. Reg. 588/17 and specifically detailed in the regulation, and those defined internally by City staff.

The City Asset Management (AM) team began efforts to develop an internal LOS framework in late 2017 and early 2018 when a separate LOS Framework document was developed for each service area. These frameworks formed the baseline for the LOS presented

in the 2021 Core AMP. For the 2024 AMP, LOS were developed for all service areas to establish the current level of service the City provides.

Future Levels of Service Targets

What is a future level of service target?

O.Reg 588/17 requires that the City identify the performance of each asset category for the next ten years as well as the lifecycle activities that would be required to provide the future level of service. Examples of future levels of service measures include operating efficiency or energy usage. In addition to the proposed level of service targets, the City is also required to demonstrate that the target is appropriate based on things like risk, attainability, and affordability.

How is the City determining its future level of service targets?

The final version of the MYCB approved in November 2024 is a capital plan which aligns with many of the criteria described in O.Reg 588/17 for how proposed levels of service should be determined. It provides a spending plan for a 10-year period (2025-2034) which is fully funded and the City has the capacity to implement. The projects included on the budget were determined and approved through a detailed prioritization effort by a multi-departmental team using the City's strategic plan and the identified capital prioritization framework to guide the decision making. Asset Management Plan 2025:
2024 Recap and ".

The MYCB represents:

The risk of not doing any identified work combined with the affordability of the work was key to deciding the inclusion of, and the prioritization of each project on the MYCB.

In total, the MYCB will allow the City to make significant investments toward strategic plan initiatives such as the environment and housing while balancing the renewal needs of existing infrastructure.

Each individual service area (i.e. department) already has a list of current levels of service metrics which best represent the asset levels of service in their portfolio. These more detailed metrics are useful at the service area level of detail, but to represent the LOS being delivered by the City as a whole it was determined that the best way to show how the future needs were being addressed was to use the overall condition of the assets and how that will change over time.

The changing condition of the asset portfolio – and therefore future levels of service – are mostly determined by the projects included on the final version of the MYCB. The work done by City staff to review the projects on the first version of the MYCB and then modifying that list to meet the requirements of the Mayor and Council to ensure the MYCB was affordable while still addressing the City's Strategic Goals was determined to meet the requirements of O.Reg 588/17 as outlined in the section titled "

- The lifecycle management strategy: projects on the MYCB address the lifecycle renewal needs of the City's assets and therefore its services delivered

- The financial strategy: the funding sources for each project on the MYCB are identified and include tax revenue, user fees, government program grants and other sources. The MYCB is fully funded through these sources
- Risk management: through the process of finalizing the list of projects on the MYCB the risks of not doing each project were considered along with the criticality of the project work on the services delivered by the City
- The projects on the MYCB represent the goals of the City's Strategic Plan which is prepared with some public consultation to identify the desires of the Community and represent the themes of affordability, keeping the City's assets in a state of good repair, prioritizing the cost of and need for more housing, and addressing climate change issues.

Therefore, as each project on the MYCB is completed, the overall condition of the City's asset portfolio changes. Many assets (and therefore the services delivered by those assets) are being improved and based on the work done to prioritize the capital budget the completed work includes assets and services deemed important to the community. However, the MYCB is not able to address all the needs and so some assets and services will continue to deteriorate.

How are future LOS targets calculated?

Tracking the condition of assets and how those conditions change over time is the basic method of calculating LOS targets. Starting with the current condition of an asset and using accepted deterioration models for each asset type the future condition state of an asset can be modelled. Then, by factoring in information regarding the timing of work affecting each asset (i.e. the MYCB project plans) an even more detailed ten-year asset condition forecast can be prepared that when consolidated at a service category level, or the whole city level will demonstrate how the state of the assets changes over time.

This is explained in further detail below.

Step 1: Determine asset condition score:

The condition of each asset is measured using a scale from 5 to 0 (very good to past-due). An asset with a condition of 5 would be brand new and in very good condition with a low risk of failure and a lower need for regular or unplanned maintenance or repair. An asset with a rating of 0 is considered to be "past due" or at the end of its useful life and should be planned for renewal. As will be discussed in other sections of the AMP, an asset with a rating of 1 or 0 does not mean it has failed but it is generally identified as a priority for future renewal due to the increased risk of failure and the likely higher maintenance needs. Each numerical condition score is related to a text rating for ease of discussion. (see Appendix B: Condition Rating Definitions)

Step 2: Establish asset estimated useful life (EUL). This is defined as the number of years that an asset is expected to remain in service performing its intended function. The EUL is applied per each asset type and is based on engineering and maintenance best practices. For some assets the EUL can be measured in decades while for others the EUL can be less than five years.

The EUL is a metric that is recorded for all City assets and so does not require any new or extra work.

Step 3: Determine the Asset Deterioration Rate.

All assets deteriorate over time through normal use, with each type of asset deteriorating differently depending on function, material, etc. Even two assets of the same type could deteriorate differently depending on the specific environment each is installed in, but for ease of calculation an average rate of deterioration is used for each asset type. To calculate the deterioration rate, the brand new

$$\text{Deterioration Rate} = \frac{\text{perfect condition}}{\text{score}}$$

condition rating of 5 is divided by the EUL. The equation for this is represented by:

To predict the condition of an asset at any point in the future:

$$\text{Future Condition} = \text{Current Condition} - (\text{Future age} \times \text{deterioration rate})$$

For example: a brand new road which has an estimated useful life of 25 years would have a deterioration rate of 5/25 or -0.2 condition points per year. So a road that is ten-years old will have a condition rating score of:

$$5 - (10 \times 0.2) = 3 \quad \text{(Fair)}$$

Step 4: identify all the assets already approved for renewal or replacement

The review of the projects in the City's capital plan (MYCB) was completed to identify what assets are scheduled to be replaced, and in what years. Upon completion of this step an assumption was made that after the project year the affected assets would have their condition score reset to "5" (very good, or brand new). In the year after the renewal the normal deterioration rates begin to take effect again.

Step 5: Forecast Future Asset Condition

Using each asset's deterioration rate, the condition rating for the next ten years can be calculated. When the individual scores for each asset are summed together a model of the condition of the whole service area portfolio can be created, and then a model of the whole city's changing asset condition can be created.

The final results use the estimated replacement value[1] and the condition of each asset to complete an analysis that combines the value of the City's assets at each condition level per year beginning in 2025 and extending until 2034. The resulting charts represent the percentage of the City's asset portfolio at each condition level, thus providing a general picture of the levels of service the City is delivering. The same

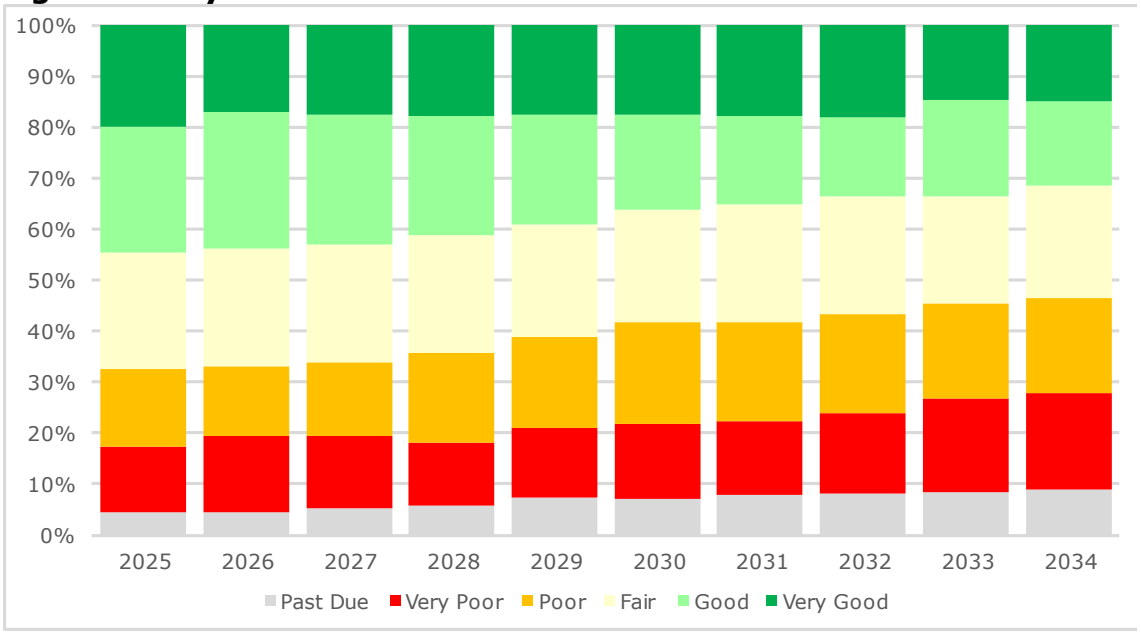
[1] All dollar values in the LOS analysis are in 2025 current year values (i.e. they are not inflated in the analysis)

exercise was repeated for each individual service area, as will be seen in following chapters.

What are the results?

The work completed in the 2025 AMP captures the projected results of the next ten years based on currently approved capital spending plans. With this information it is possible to interpret the changing condition of a municipal asset portfolio by looking at how the percentage of assets in very poor and past due condition changes over time. Fluctuations in all the different condition ratings are predicted over the next ten years, however, assets rated as very poor and past due are expected to be higher by the end of the decade. This can be seen graphically in Figure 2 which represents the forecast LOS targets for the City as a whole (i.e. all City Services). In 2025, just over 4% of the City's portfolio is rated as past due but that value is expected to climb to 8.6%. Assets in very poor condition in 2025 represent 12.5% of the portfolio and are projected to rise to 18.4% by 2034. These increases in the lower condition rating categories are offset by decreases in the higher ratings.

Figure 2: City Asset Portfolio Condition Profile Over Time



This implies that there will be a need for more preventative and operational maintenance repairs to ensure safe and reliable asset performance and to minimize the risk of failure of an asset and its related service. The risk of more unplanned or emergency repairs will increase. Not completing required work also means that the City's infrastructure backlog continues to grow.

Implementing more and technologically improved midlife maintenance and rehabilitation strategies can help extend the lifespans of assets in good and fair condition which would help mitigate the risks associated with a growing backlog of work and assets in worsening condition.

A similar analysis as completed for the whole city was repeated for each service area and these are presented in the following chapters. While not all services are forecast to have results similar to that shown in Figure 2, this is the general trend.

Where are we going from here?

The results so far represent targets based on the approved capital budget. The next step in the City's LOS journey will be to determine the **desired** level of service for all asset types, a crucial step in the AM maturity process. This will involve engaging more extensively with City Council and the community on both the satisfaction with current LOS and what is desired moving forward.

The results from this consultation will allow the City another metric to use to prioritize the needed renewal work, gain a better understanding of what services and therefore assets are important to the community and to develop a better long-term strategy for managing both the current LOS delivery while progressing toward the desired levels of service. Through all of this, a major goal will be to ensure that desired LOS will be attainable while being affordable for the City.

This effort has already begun - at the start of February 2025, the City began its first community engagement on asset levels of service. Asset management is in general an area of municipal government which removed from the public's awareness. As such this engagement set out to be both informative by explaining how good asset management planning can help the community while at the same time allowing an opportunity for the community to provide feedback. Participants were aware of some but not all the City's assets. While all assets were of importance particular emphasis placed on active transportation such as bike lanes, sidewalks, and trails as well as the City's natural assets and their unique needs. Participants also supported the data driven approach to managing the asset levels of service and identified a need to keep the community involved in asset management.

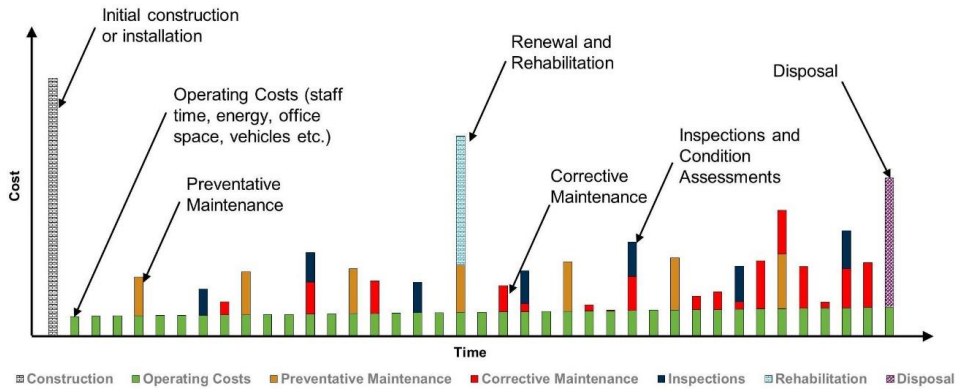
City council will have the opportunity to provide their input on their desired levels of service in preparation for the next Asset Management Plan update in 2028. In the meantime, the corporate asset management team will continue to bring asset management and levels of service into the conversation with the community.

Circular Economy

Growing a circular economy (CE) is recognized by the Ellen McArthur Foundation (EMF) to be a powerful mechanism for addressing global issues like waste, pollution, and climate change while supporting a thriving economy that can benefit everyone[iv]. Integrating CE into the City's asset management (AM) principles and practices has significant potential to advance the City's economic, social, and environmental goals and objectives – including those specific to the AM program[v,vi].

Despite significant alignment between CE and AM through a shared focus on life cycle management and a desire to maximize an asset's value[vii], AM does not inherently incorporate CE practices and philosophies'. Traditional AM follows a linear-economy model where resources are secured, utilized to their maximum life, and then discarded as waste (Figure 3).

Figure 3: Asset Lifecycle Activities and Costs



Alternatively, CE is a systems solution framework that promotes a closed-loop resource model where products and materials are kept in circulation at their highest value for as long as possible. This is achieved through processes such as reducing resource demands, maintenance, reuse, refurbishment, remanufacturing, recycling, and composting. Materials and services are considered holistically throughout their entire lifecycle with a focus on long-term economic, social, and environmental benefits. A circular economy system is based on three principles: eliminate waste and pollution, circulate products and materials at their highest value for as long as possible, and regenerate nature. As such, CE offers a novel perspective for AM that changes the way we view, value, and manage our assets.

The Institute of Asset Management[viii] envisions "an asset management system that is restorative and regenerative by design and aims to perpetually keep products, components, and materials near their highest utility and value. The asset life cycle is a continuous positive development cycle that preserves and enhances natural capital, optimizes resource yields, and minimizes system risks by managing finite stocks and renewable flows."

From a CE perspective, assets do not have an 'end-of-life' and activities that enable material circulation – rather than disposal – is desirable to keep resources within the City's value chain (IAM, 2022). Many asset management activities – e.g., maintenance and life extension work – do align with a circular model, but this work generally occurs at mid-end life stages; there is much that can be done to maximize our assets' value[ix]. CE can be embedded into AM in many ways to optimize current assets, design assets – from the beginning of life – for a closed-loop economy, and explore new circular products, strategies, operating models, and services (Figure 4). Example activities include asset procurement that prioritizes reuse, adaptable uses or ease of repair, asset refurbishment, repurposing assets for new needs, pursuing "as a service" business models, and reporting on circularity metrics.

Benefits of integrating CE with AM

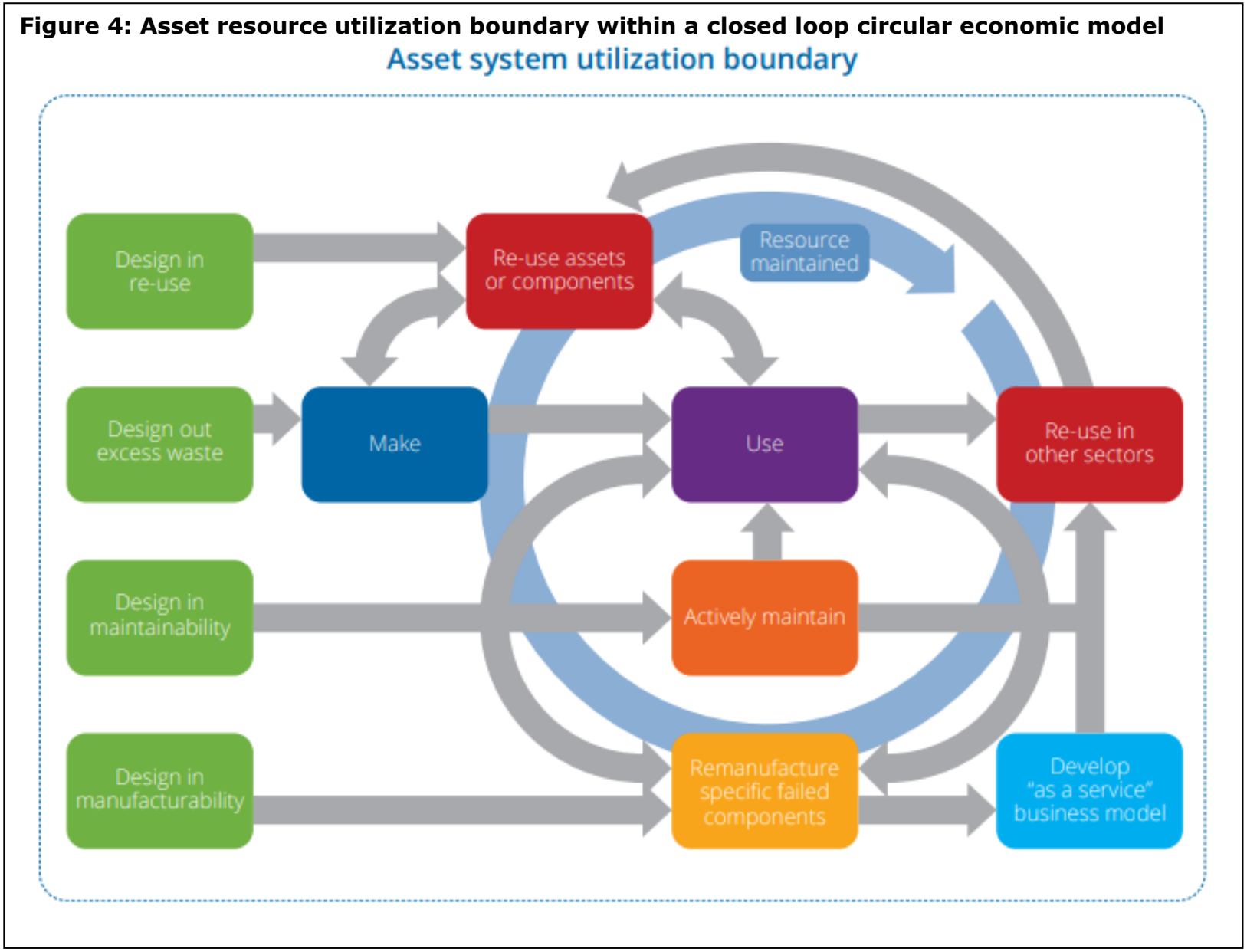
Asset management has a key role in growing a circular economy, and incorporating CE philosophies can enhance the desirable outcomes of successfully implemented AM programs. Guelph's asset management program goals include:

- providing service levels that meet expectations and ensure a high-quality of life for Guelph residents,
- Managing risks,
- Demonstrating long-term, sustainable (financial and environmental) lifecycle planning, and
- Ensuring accountability, transparency, and engagement.

Circular asset management can provide greater understanding about assets – their state, operations, and performance – which allows for better service delivery and more confident decision making about future assets. Through consideration for long-term social, economic, and environmental benefits, a circular AM approach can have more positive community impacts. Retaining resources in our value chain reduces dependence on global markets and resource availability, making Guelph more resilient to interruptions in supply chains and increased demands for more limited resources. Comprehensive asset use achieves greater value for money and means fewer resources need to be invested into replacing assets. Finally, asset management that embeds CE has the potential for significant environmental benefits, especially as it relates to the built environment. The built environment – particularly due to its size and longevity - has an enormous environmental impact in terms of material extraction, resource demands, natural habitat destruction, and carbon emissions. Circular asset management can minimize – if not eliminate – these undesirable urban impacts due to the core principles on which CE is founded.

To maximize our asset management program's benefits, it will be invaluable to consider what circular activities are currently embedded in our AM principles and practices. Then, explore how we can further adopt CE to add greater value to the organization by furthering our economic, social, and environmental goals.

Figure 4: Asset resource utilization boundary within a closed loop circular economic model



Housing Enabling Infrastructure

The City of Guelph is forecast to grow to 208,000 people and 116,000 jobs by 2051. In addition to the 60,000 residential units that we currently have, we will need an additional 26,000 units to support the City's growth. Development charges can sometimes be mismatched with the timing of needs to fund the growth infrastructure. In these instances, debt financing is used to cover the shortfall. Provincial housing initiatives have resulted in lowered development charge revenues which are used to support growth infrastructure. Property tax revenues are being used to offset this loss of funding which in turn reduces available funding for infrastructure renewal.

In 2024, the City entered into a funding agreement with the Canada Mortgage and Housing Corporation for $21.4 million as part of the Housing Accelerator Fund (HAF). Funding will be provided in 4 annual installments. The first installment of $5.3 million was received in January 2024 and the last installment is conditional on the City’s housing performance. The City has developed an action plan to incent an additional 739 units over the previous average because of HAF. Funding will be used to support housing initiatives, including affordable housing, and housing and community related infrastructure.

As per Schedule 1a: Urban Structure of the City of Guelph Official Plan, growth will be focused to Strategic Growth Areas (SGAs) (copied here in Table 1). For example, the SGAs at Gordon Street in Clair-Maltby, the Guelph Innovation District, and the Downtown are expected to see the following density targets at build-out:

Table 1: Identified Strategic Growth Areas

Name	Density Target
Gordon Street in Clair-Maltby	200 residents and jobs per hectare
Guelph Innovation District	100 residents and jobs combined per hectare
Downtown	200 residents and jobs combined per hectare

These SGAs in particular will require more growth-related infrastructure: in some cases infrastructure is either non-existent (in Clair-Maltby and the Guelph Innovation District) or requires significant replacement (in the Downtown) because the existing infrastructure is either too small, or has reached the end of a functional service life, or both.

Long term operating impacts will be seen on the existing infrastructure, example, some of the existing infrastructure will require upsizing to support the new housing.

The State of the City's Assets

Quick Facts

City of Guelph - State of the Assets 2025	
Total Replacement Value	$7,709,969,068
Number of assets	~200,000
Average Condition	Fair
10-Year Forecast Renewal need	$1,894,674,759
10-Year Forecast Funding	$1,525,379,016
Projected deferred work backlog at end of 10-year forecast period	($387,886,180)

State of the Assets – Introduction Infrastructure Asset Inventory Replacement Value

The 2025 AMP is an extension of the work presented in 2024. For that reason the replacement values of the assets calculated in 2024 were used in the 2025 analysis.

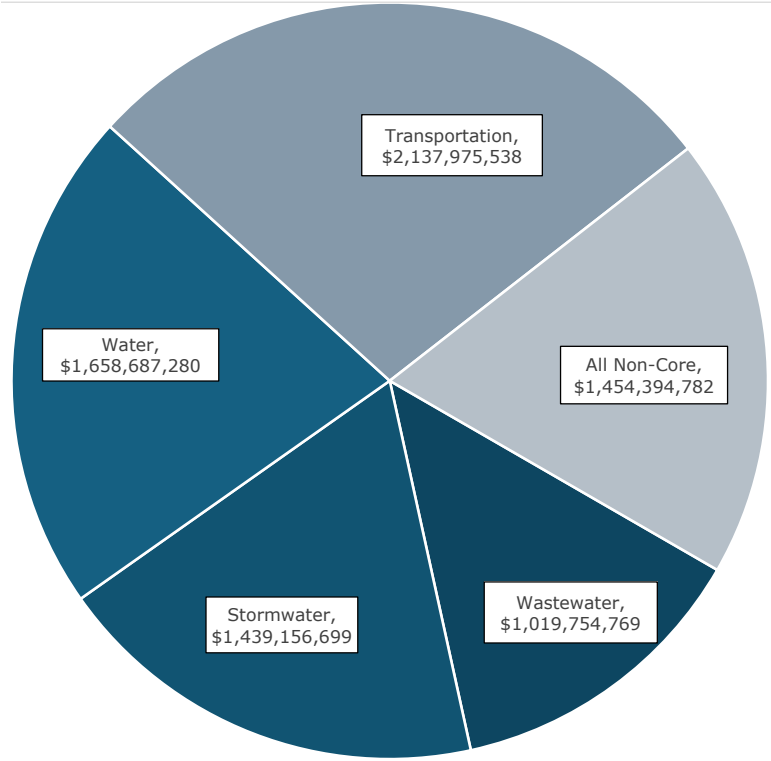
In 2024 the City of Guelph Corporate AMP reported on over 200,000 City-owned assets with a total replacement value of approximately $7.7 billion. Approximately 80% of the City's assets are considered "core" infrastructure types[x]. These include all the asset types in the transportation (roads, bridges, etc.), water, wastewater and stormwater services. All other service types are considered "non-core". The distinction is not representative of the importance of any service category but more an acknowledgement that the core asset types represent a majority of the City's infrastructure needs.

The difference in value of the core and non-core assets is very clear in Figure 5 where the value of the non-core assets is separated from the core assets in their own pie-chart. summarizes the same information.

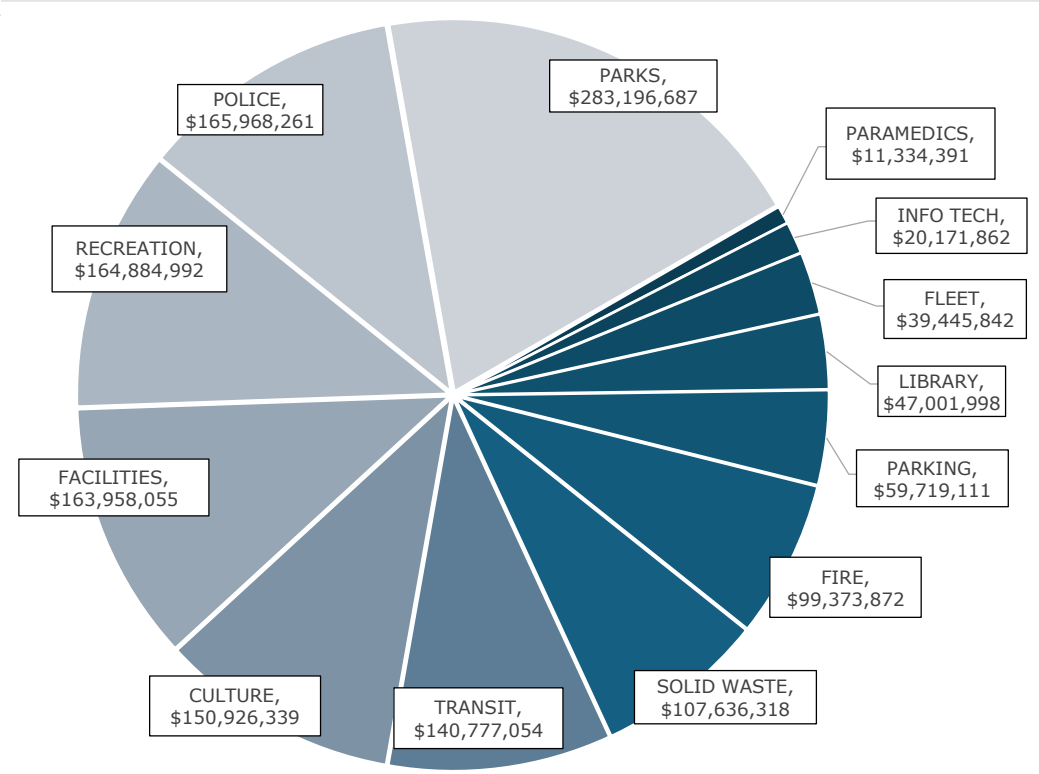
Table 2: Replacement Value of City Infrastructure Assets per Service Area

Service	Portfolio Value	% of Total
FACILITIES	$163,958,055	2.1%
CULTURE	$150,926,339	2.0%
FIRE	$99,373,872	1.3%
FLEET	$39,445,842	0.5%
INFO TECH	$20,171,862	0.3%
LIBRARY	$47,001,998	0.6%
PARAMEDICS	$11,334,391	0.1%
PARKING	$59,719,111	0.8%
PARKS	$283,196,687	3.7%
POLICE	$165,968,261	2.2%
RECREATION	$164,884,992	2.1%
SOLID WASTE	$107,636,318	1.4%
STORMWATER	$1,439,156,699	18.7%
TRANSIT	$140,777,054	1.8%
TRANSPORTATION	$2,137,975,538	27.7%
WASTEWATER	$1,019,754,769	13.2%
WATER	$1,658,687,280	21.5%
TOTAL	**$7,709,969,068**	

Figure 5: Total Value of the City's Assets



Core Asset Types



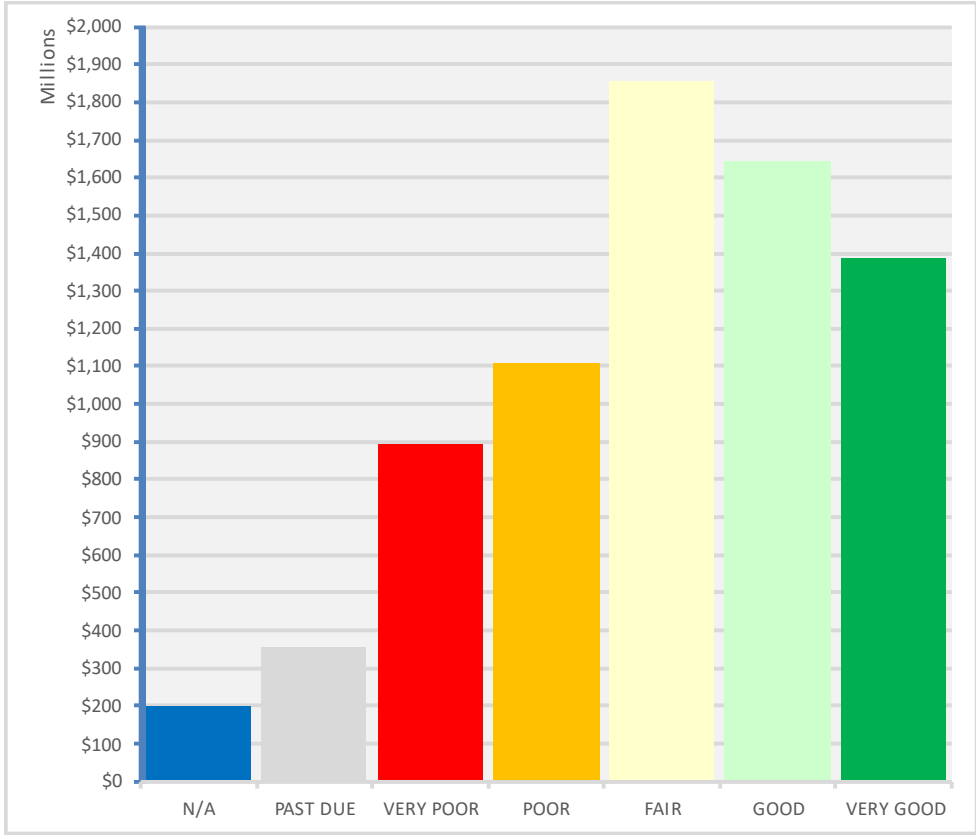
Non-Core Types

State of The Assets -Condition

For most of the service area categories the condition information from 2024 were reused in 2025: while the City's Corporate Asset Management and other service area teams continued the monitoring of the assets conditions throughout 2024 as normal, the passage of less than one-year of time does not make a significant difference in the City's overall asset condition ratings. There are some exceptions to this, most notably with the transportation services where road condition information collected in late 2024 was delivered to the City.

The average condition of the City's assets is considered "fair" and meeting the expected levels of service delivery. This is a trend that has remained steady since the City's first Corporate AMP in 2017. However, because this is an average rating there are both positive and negative exceptions to this status.

Figure 6: Condition of the City Assets by Replacement Value



Importantly about 63% of the City's assets are considered in "fair", "good" or "very good" condition. The counter to this is that there remains 31% in less than "fair" condition, including about $900 million worth of assets assessed in "very poor" condition, and another $355 million assessed as "past due" (or alternatively "deferred") from being completed in previous years. A "past due" condition rating does not define an asset that is no longer functional, but it does identify a potential value of work that should be planned for, "Past due" assets are at higher risk of unplanned failures and generally require more regular maintenance. Refer to Table 3 and Figure 6 where the condition analysis presented graphically and in tabular form.

Table 3: Infrastructure Assets Value per Condition Rating

Condition	Value	% of Total
Very Good	$1,386,349,278	17.98%
Good	$ 1,641,957,591	21.30%
Fair	$1,852,819,840	24.03%
Poor	$1,108,546,084	14.38%
Very Poor	$894,257,029	11.60%
Past Due	$355,079,454	4.61%
N/A	$198,116,470	2.57%

Infrastructure Renewal Needs – General Information

The analysis that contributes to the asset condition and renewal needs results presented in the Corporate AMP does not identify any specific needs or specific projects but is intended to present the infrastructure renewal needs of the City at a high summary level to help prioritize the areas and asset categories that require attention and help City staff establish strategies to address those needs. The data for each individual asset is available to staff and will be used to generate specific project needs at a more granular level of detail.

The value of the City's infrastructure renewal (IR) needs represents the forecast costs to replace existing assets as they reach the end of their service lifecycles. Any needs for expansion of the asset base, increasing the capacity of a given asset, or changing the function of the existing asset are not included in the renewal forecast because these are considered growth actions and therefore funded from different sources. The expected end of service date per each individual asset is plotted and the replacement value of the individual asset is used to represent the renewal cost at that date[2]. The sum of the renewal costs of the City asset inventory per year is calculated to determine the annual IR forecast.

Although most of the analysis used the same condition info and thus the same predicted asset replacement year as was reported in 2024 there were exceptions to this that included some of the major core asset classes, particularly roads. In these cases the revised and updated condition information resulted in differences to the predicted renewal dates and costs. Most of the differences resulted in extending the renewal date further in the future than was predicted in the previous analysis, therefore lowering the annual IR forecast over the ten-year forecast period.

Important to consider is that an IR analysis represents a theoretical model of **all** renewal needs that are predicted based on the information available. The renewal date is based on the estimated date when an asset will reach a condition status of "past due". As will be detailed in following sections the "past-due" date is not necessarily an absolute: with good maintenance

[2] All initial financial values used in the IR vs. Funding forecast are in 2025 current year dollar values.

and planned mid-life renewals or upgrades many asset types can remain in functional service well beyond the predicted renewal date.

Therefore, the annual renewal values are possibly a larger value than what a more detailed, asset and/or project specific detailed budget exercise would determine as required. The scope of the AMP, which includes the needs of 200,000 assets across 17 City services is simply too large to be able to calculate the needs with absolute precision. For the purposes of identifying and prioritizing the City's major needs over the next ten years the methods used are considered satisfactory at providing the first-level review of the City's needs.

The 2025 IR analysis has determined that in the ten-year period between 2025 and 2034 the City's total IR forecast totals approximately $1,894,674,759 ($1.89 billiob), or an average of $189 million per year.

Forecast Funding Availability

At the time the 2024 AMP was endorsed by City Council efforts were still underway to finalize the City's Multi-Year Capital Budget (MYCB). The forecast funding reported in 2024 represented the best information available at the time the AMP was completed where the 2025 AMP considers the MYCB that was formally approved by Council in November 2024: the revised funding values from this final version of the MYCB been used in the 2025 AMP to complete the necessary analysis.

The funding values represent the approved capital funding for projects on the MYCB that are determined to affect infrastructure assets and considered as renewal work. The focus on the renewal needs of existing City assets means that the AMP funding analysis does not include any work related to expanding the City's asset base due to growth of the City, or "upsizing" an existing asset to provide enhanced services. Funding sources from Development Charges was excluded form this analysis, as was any other funding source specifically identified to be directed towards growth projects. In other words, only funding from identified infrastructure renewal reserve funds was used (including some other government level grants). Growth and service-enhancement type work is addressed separately in the AMP. The total identified available funding for the period between 2025 and 2034 was $1,525,379,016 ($1.53 billion), or an average of $152 million annually.

Funding vs. Renewal

IR vs. Funding: All City Services

A simple review of the forecast renewal totals compared to the forecast available funding quickly shows a funding shortfall. Table 4 summarizes the difference in the two values while Figure 7: Forecast Renewal vs. Funding: All City Services presents the ten-year forecast graphically.

For the ten-year period between 2025 and 2034 the initial funding gap is estimated to be approximately $369 million. With consideration for inflation impacting the annual shortfall the total funding gap in 2034 is estimated at $388 million.

This is a smaller gap than was identified in the 2024 AMP. The reasons for the difference include a refined approach to predicting the annual renewal as part of the continuous work done to manage the City's asset inventory.

The available funding is also lower than was highlighted in 2024, representative of the reduced revenue resulting from the reduction of the City's annual tax rate increase from what was predicted in early 2024 to the final approved value in Nov. 2024.

Figure 7: Forecast Renewal vs. Funding: All City Services

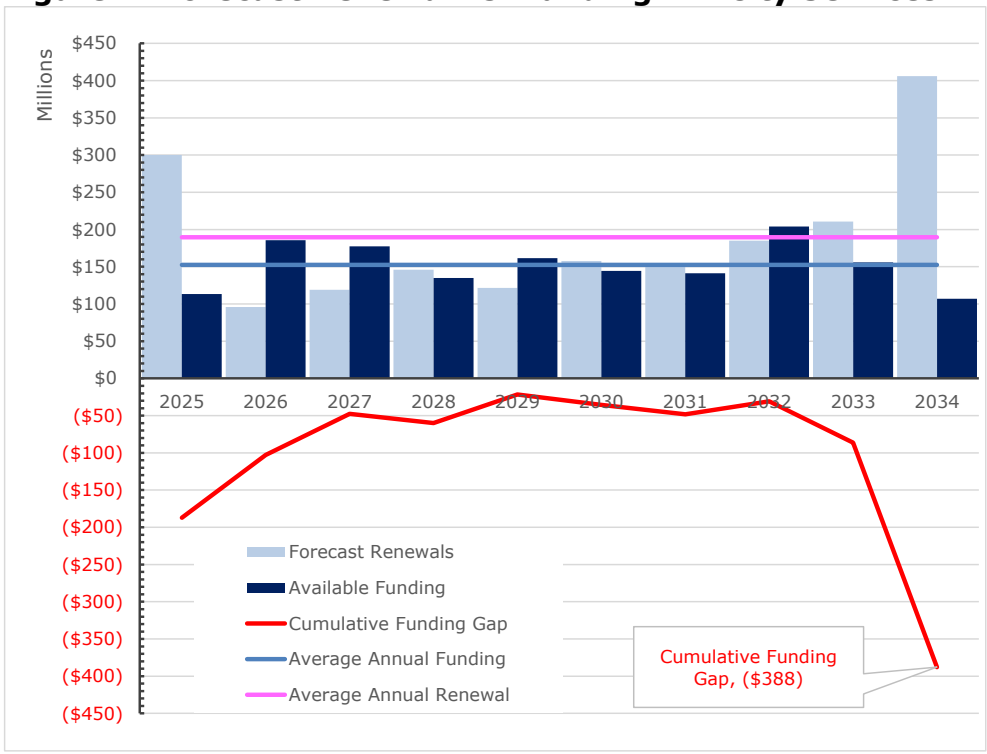


Table 4: Ten-year Summary of Needs vs. Funding

10-Year Total Renewal Forecast	10-Year Total Funding Forecast	10-Year Forecast Total Gap[3]
$1,894,674,759 ($1.89 billion)	$1,525,379,016 ($1.53 billion)	-$387,886,180 (-$388 million)

A closer review of Figure 7: Forecast Renewal vs. Funding: All City Services shows two distinct trends:

- In most years between 2025-2034 the annual funding is close to matching or greater than the forecast renewals
- The exception to the previous point occur in 2025 and 2034

The implication of this is that moving beyond 2025 the City's strategy for addressing infrastructure needs is sound but there remains a backlog of unfunded needed work from many previous years. Without an increase in funding the gap will continue to *grow, as evidenced by the increase in renewal needs in 2034.*

The impacts of the funding gap will not affect any of the critical services that the City delivers, nor any legislated requirements related to the assets or services. Part of the prioritization methodology in addressing infrastructure renewal needs is the risk associated with any given asset. Those assets that should they fail would result in an essential or critical service to the residents and businesses of the City no longer being available are considered highest priority for renewal and will always be renewed and maintained to the highest conditions.

[3] Annual funding gaps are carried over to the following year with a 3% inflation value added

IR vs. Funding: Tax Services

City tax funded services include the roads and transportation related assets as well as fire, parks, culture and recreation, waste collection and management, transit and the City's administration needs. The renewal forecast predicts a total combined need of approximately $999 million between 2025-2034 compared to a forecast funding availability of $907 million.

With the consideration of annual inflation on an unfunded work being carried over to the following year this situation results in a funding shortfall of approximately $95 million. Table 5 and Figure 8 presents the renewal vs. funding analysis for the period 2025-2034.

The majority of this gap is related to the needs of the roads and transportation services: approximately $783 million of the total tax-funded renewal predicted is related to the roads, bridges and related infrastructure supporting the transportation needs. This is a significant percentage of the need and represents the significance of the transportation network to the overall performance of the City. The service area with the next largest forecast renewals are the fire services and the facilities assets.

Figure 8: Forecast Renewal vs. Funding: Tax Services

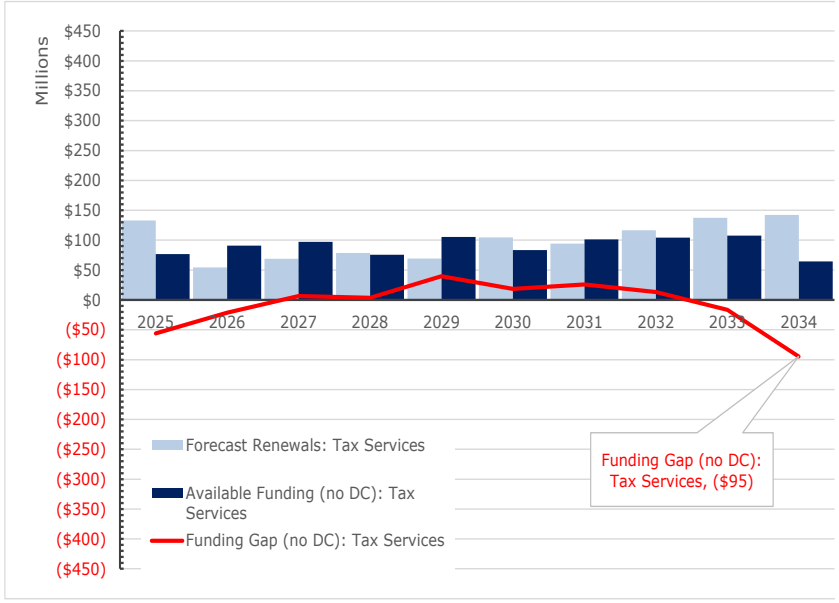


Table 5: Ten-year Summary of Needs vs. Funding: Tax Funded Services

10-Year Total Renewal Forecast	10-Year Total Funding Forecast	10-Year Forecast Total Gap[4]
$998,946,817 ($999 million)	$906,973,061 ($907 million)	-$94,787,544 (-$95 million)

[4] Annual funding gaps are carried over to the following year with a 3% inflation value added

Some of these renewal needs may be covered by the funding for expanding or upsizing assets provided by development charges (DC) – where an asset planned for replacement is up-sized at the same time with a larger version with the funding for this type of work applied through development charges. Although there are many situations like this the gap would still not be closed completely. DC funding is discussed in following sections.

As with the City's overall renewal vs. funding analysis in most years between 2025 and 2034 the forecast funding is close to or exceeds the forecast renewal need. The major exceptions to this are in 2025 and 2034. This suggests that in general the City's infrastructure renewal funding strategy is correct, but the impact of the unfunded work backlog from historical years will remain a challenge for many years to come.

The funding gaps indicate potential large impacts to the condition of the roads with other services being impacted to a lesser degree. There have already been impacts to these areas: required renewal work has been postponed to both identified road works and the facilities. The impact of deferring needed work is assets further deteriorating in condition leading to increased functional breakdowns and emergency repairs, as well as a negative impact to the image of the City.

Closing the gap in the next ten-years would only be possible with increases in tax revenue and/or increases in other government funding grants, neither of which is highly probable to happen. Therefore, the best strategy to minimize the negative effects of the funding gap will be to effectively prioritize the renewals to ensure those that present the greatest risk to the City are addressed first. This strategy is already in place and staff in all service areas, the City's Engineering and Transportation Services team, and the Corporate Asset Management team work together to accomplish this on a regular cycle.

Additionally, efforts are beginning to focus more on mid-life renewal of assets where instead of delaying needed work to a time when an asset is so deteriorated that full replacement is the only option, cheaper and smaller renewal works are applied to assets when they still remain functional – normally around a "fair" condition rating. These smaller projects will not return an asset to "very good" or "as-new" condition, but completing a series of these types of projects over the entire lifecycle of an asset will extend the date when full replacement would be needed.

IR vs. Funding: Rate Services

The renewal funding for water, wastewater and stormwater management services, and part of the funding for the parking services is revenue from direct user fees. Users of the City's parking garages pay for parking while for the other three services there is a surcharge charged to residents and businesses connected to the City's water service based on the volume of water used.

As a result of these fees it is easier for the City to predict the funding that will be available to address the renewal needs, however, at the end of the ten-year period 2025-2034 there is a $213 million funding shortfall forecast with the consideration of the impact of inflation on the annual value of unfunded work in one year being carried over to the following year. Refer to Table 6 and Figure 9 which presents the forecast graphically.

Similar to the needs of the tax services, raising the service user fees is one possible strategy to be able to close the funding gap. While there are small increases to the rates each year it would be unacceptable to the Community to raise to a level where the gap can be fully closed in ten-years. Therefore, the same prioritized planning strategy that is needed for the tax funded services is required for the rate services. Because many of the water, wastewater and stormwater assets exist in the road rights-of-way a combined planning strategy already exists and will continue to focus on minimizing the risks associated with the funding gap.

Figure 9: Forecast Renewal vs. Funding: Rate Services

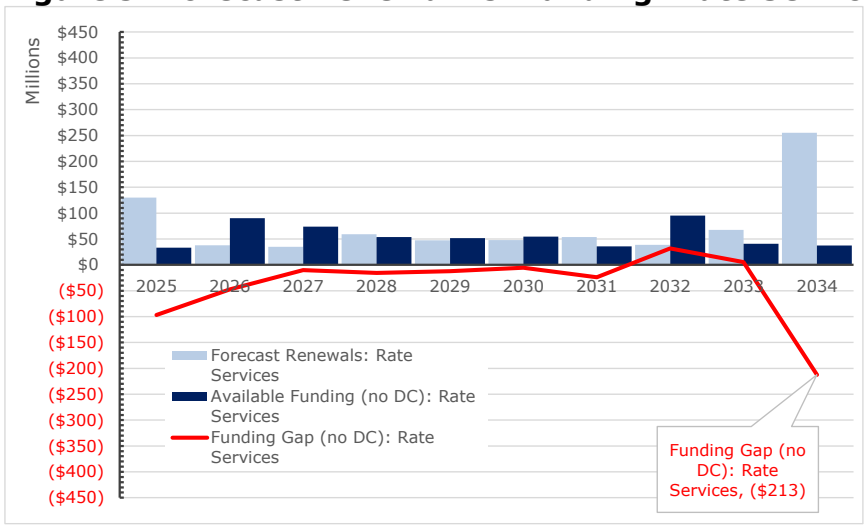


Table 6: Ten-year Summary of Needs vs. Funding: Rate Funded Services

10-Year Total Renewal Forecast	10-Year Total Funding Forecast	10-Year Forecast Total Gap[5]
$773,303,942 ($773 million)	$567,044,355 ($567 million)	-$212,597,368 (-$213 million)

[5] Annual funding gaps are carried over to the following year with a 3% inflation value added

Like the overall analysis and the tax funded services in most years beyond 2025 the available funding is near to or greater than the needed renewals with the major exceptions in 2025 and 2034. This suggests that in general the City's infrastructure renewal funding strategy is correct, but the impact of the unfunded work backlog from historical years will remain a challenge for many years to come.

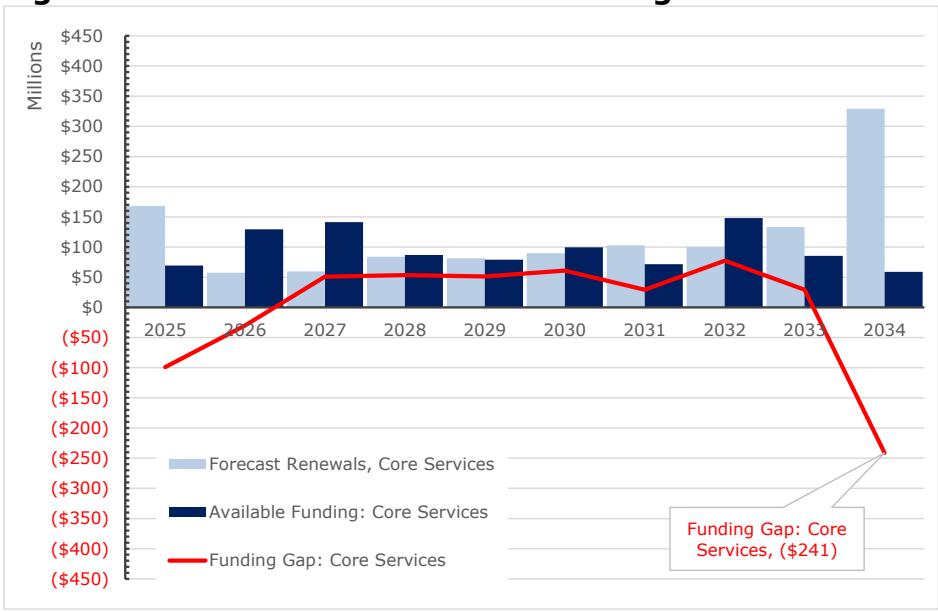
As with the tax-services the funding forecast used does not include any revenue from DC funding. Water, wastewater and stormwater assets are often replaced as part of a larger road right-of way renewal or replacement project and as discussed previously these projects do not replace every asset in a like-for-like manner but upsize the assets to improve future service levels in response to greater demand. An example of upsizing would be the replacement of an older sanitary waste collection pipe of 300mm diameter with a new pipe of 450mm diameter to accommodate the growth in population of the City. The impact of the DC funding on the growth of the City's asset base will be discussed further.

Mid-life renewal techniques also exist for the asset types included in the Rate funded category and have proven to be effective at extending the life of assets thus reducing the need for a full replacement. The City makes use of some of these techniques, however, there also remain may legacy assets (like cast-iron water distribution pipes) where replacement is the only acceptable solution. These challenges and the risks associated with the needs of each asset are recognized and used in prioritizing the needed renewal work.

IR vs. Funding: Core Services

The core assets are defined by O.Reg 588/17 as the assets that support the transportation services (roads etc.), water treatment and distribution, wastewater collection and treatment and stormwater management. For the City of Guelph these asset types comprise about 80% of the City's total asset base both by value and number of assets. The impact of the core assets to the City's ability to deliver services are considerable: they are highly visible to the community and it's probable that all residents and businesses make use of them daily, so it is worth reviewing the four services in combination. The results of the renewal vs. funding analysis on the core services only is shown in Table 7 and Figure 10: Forecast Renewal vs. Funding: Core Services.

Figure 10: Forecast Renewal vs. Funding: Core Services



The ten-year forecast predicts a renewal need of approximately $1.21 billion compared to approved funding of $0.97 billion ($969 million). When the impact of inflation on any unfunded work carried over from one year to the next is considered this results in a cumulative funding gap of approximately $241 million by 2034. The needs of the transportation services contribute to about half of the total gap with the other three services each contributing about equally. funded services combined with the large needs of the transportation services.

Because the Core service assets consist of the three largest rate the prioritization strategies discussed in previous sections apply here.

Table 7: Ten-year Summary of Needs vs. Funding: Core Services

10-Year Total Renewal Forecast	10-Year Total Funding Forecast	10-Year Forecast Total Gap[6]
$1,205,891,977 ($1.21 billion)	$968,581,440 ($969 million)	-$241,178,013 (-$241 million)

[6] Annual funding gaps are carried over to the following year with a 3% inflation value added

IR vs. Funding: Non-Core Services

The non-core services represent about 20% of the City's total asset base but include several essential services like the City's administration and operations facilities, Guelph Fire Services, Guelph-Wellington Paramedic Services, Facilities and Energy Management, Guelph Transit, Parks, Culture and Recreation and the solid waste collection and management services. The needs of all of the non-core services with the exception of Parking are funded from the City's tax revenue.

The total renewal forecast for the non-core services is $689 million with forecast funding equal to $557 million resulting in a funding gap of $158 million at the end of 2034.

Figure 11: Forecast Renewal vs. Funding: Non-Core Services

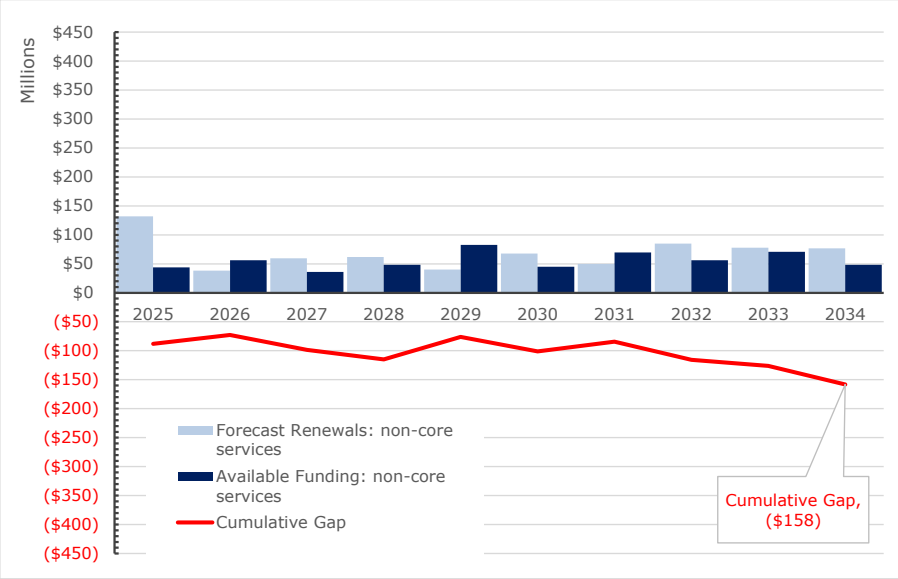


Table 8: Ten-year Summary of Needs vs. Funding: Non-Core Services

10-Year Total Renewal Forecast	10-Year Total Funding Forecast	10-Year Forecast Total Gap[7]
$688,782,782 ($689 million)	$556,797,576 ($557 million)	-$158,319,653 (-$158 million)

[7] Annual funding gaps are carried over to the following year with a 3% inflation value added

Growth Beyond 2025

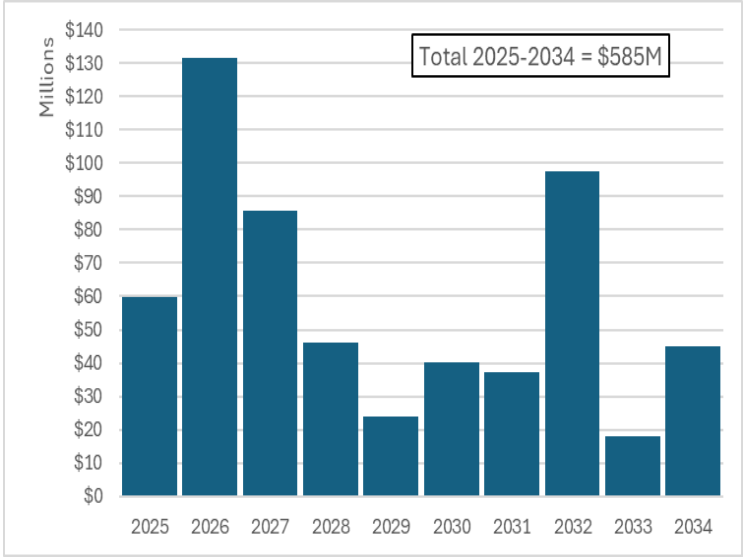
As of 2025 the City of Guelph owns, manages and is responsible for assets totaling approximately $7.7 billion. It is certain that as the City grows in population the services delivered will need to keep pace and so it will be necessary to construct new assets or expand the capacity or size of the existing assets: the total value of the City's infrastructure asset portfolio is sure to increase.

Much of the funding for new infrastructure assets come from development charges (DC) which are collected to fund capital works related to the following services:

- Roads
- Fire
- Police
- Transit
- Parks and Recreation
- Public works
- Library
- Ambulance and Paramedic services
- Waste collection and management
- Water collection, treatment and distribution
- Wastewater collection and treatment
- Stormwater management

According to the MYCB approximately $585 million in DC Funding is forecast and associated with specific projects between 2025 and 2034. While there is not a 1:1 relationship between the DC funding and total asset value, the $585 million can be used as a preliminary estimate for predicting how much the City's asset base will grow over the next ten-years. Figure 12 provides an overview of the annual DC funding pattern.

Figure 12: Total DC Funding 2025-2034



As stated, the DC funding is applied to new assets or to expand the services of existing assets, however, there is a relation to renewal of existing assets. For example, the majority of road right-of-way renewals involve more than a like-for-like asset replacement. The older assets being replaced will be built to new design and construction standards and will have sufficient capacity to accommodate and increased need for services that will come with growth.

Examples of this would include widening of the right-of-way, replacing an existing 300mm diameter pipe with a 450mm pipe, adding a cycle track alongside a road, etc. Likewise for other services the DC funding can be applied to activities like constructing a new park or expanding an existing recreation facility.

The identification of specific assets that will be upsized or will provide a service enhancement (and therefore

might qualify for DC funding to cover the renewal cost) is not always known when the renewal vs. funding analysis is completed, and it is an extremely complex analysis to include these factors. While some DC funding might be considered as contributing to renewal of an existing asset it is too difficult to determine how much of an impact there would be. Therefore, no DC funding is included in any of the analysis completed for the AMP.

According to the MYCB some of the projects with DC funding identified include:

- New fire trucks
- New parks and equipment within those parks
- Expansion of assets at the Water Resource Recovery Centre
- New sanitary pumping stations
- New water supply wells
- Expansion and upgrading equipment for water treatment
- New and expanded stormwater management facilities
- Several road right-of-way projects that will include increasing the capacity of the water distribution, wastewater collection, and stormwater collection assets in those rights-of-way

Already approved and in some cases under construction are major new assets such as:

- South End Community Centre
- Baker Street Parking and redevelopment
- New Guelph Library branch
- New Guelph Transit maintenance and administration facility

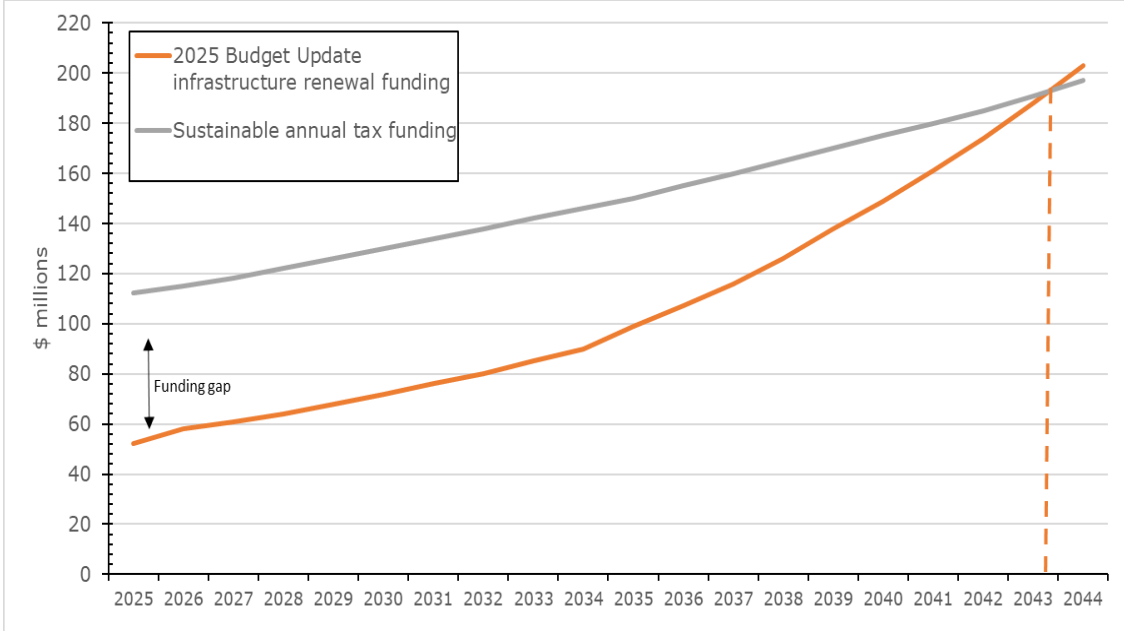
These new assets will come on-line in the next few years and provide enhanced services to the community. But they will also need to be incorporated in the City's future asset renewal and replacement needs plan to be able to identify appropriate future IR funding needs.

Within the ten-year forecast period of the 2025 AMP the greatest impact of any new asset will not be the increase to the City's asset base or the need for renewing those assets but instead will be felt in the day-to-day operations and maintenance costs related to those assets. All assets require costs like electric power, natural gas for HVAC. fuel for vehicles and the like to operate. And all assets require some level of maintenance to remain functionally effective to a maximum lifecycle. To maximize the lifecycle and effectiveness of the new assets the appropriate values of funding must be added to the already existing operations and maintenance budgets.

Sustainable Funding Targets

Since 2017, the City has been using asset management data to make better informed decisions on achieving sustainable capital renewal funding levels – the point where the available annual funding equals the annual forecast needs. The sustainable targets use the forecast renewal and replacement needs of the assets only and do not include maintenance. New assets built to provide services to the growing community or to enhance service levels, or which are assumed as part of the local service policy development process add to the inventory of assets that the City must maintain in perpetuity, including eventual replacement as they reach the end of their lifecycles. These assets have been factored into the plan to the extent that they are forecast in Service Delivery Master Plans and capital budgets and forecasts but generally do not impact the renewal needs in the next ten years. The sustainable funding analysis is completed with close cooperation of the City Financial Department staff.

Figure 13: Annual Sustainable Funding Level Gap – Tax-Supported ($ millions)



To complete this analysis an average of the total ten-year renewal forecast was used to set the sustainable renewal target value in 2025, and then this value was inflated in each subsequent year. This represents a balanced approach that is more likely to match the actual annual renewal needs that will be required compared to directly using the actual year-by-year renewal values which include "spike" years where predicted renewals would be significantly higher than the average, and likely not representative of how the annual capital budget would address the needs.

Comparing the renewal needs to the funding strategies approved in the 2025 confirmed budget for both the tax supported and non-tax supported service completes the analysis of when the City might reach the point of sustainability.

For the tax-funded services the result predicts that the sustainable target funding will be reached around 2043 or 2044. This is the point when the revenue from municipal taxes will equal the forecast renewals for that year will continue to be greater than the forecast needs in future years. This is shown in where the grey line represents the forecast renewals needs and the orange line the forecast funding.

The chart in Figure 13 shows the results of the tax-funded service sustainability review which is prepared using the data shown in Table 9 and Table 10.

Table 9: Annual Sustainable Funding Level Gap - Tax-funded Services (Part A) (all values in millions of dollars)

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2025 Budget Update IR Tax Funding	$52	$58	$61	$64	$68	$72	$76	$80	$85	$90
Sustainable annual tax funding required	$112	$115	$118	$122	$126	$130	$134	$138	$142	$146

Table 10: Annual Sustainable Funding Level Gap - Tax-funded Services (Part B) (all values in millions of dollars)

Year	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
2025 Budget Update IR Tax Funding	$99	$107	$116	$126	$138	$149	$161	$174	$188	$203
Sustainable annual tax funding required	$150	$155	$160	$165	$170	$175	$180	$185	$191	$197

The prediction for the non-tax funded services is more optimistic. For these services it is estimated that the sustainable target may be reached around 2031, as can be seen in Figure 14 based on the data in Table 11

These results are based on the Infrastructure renewal needs that were determined as part of the 2025 AMP analysis work.

Figure 14: Annual Sustainable Funding Level Gap – Non-Tax-Supported ($ millions)

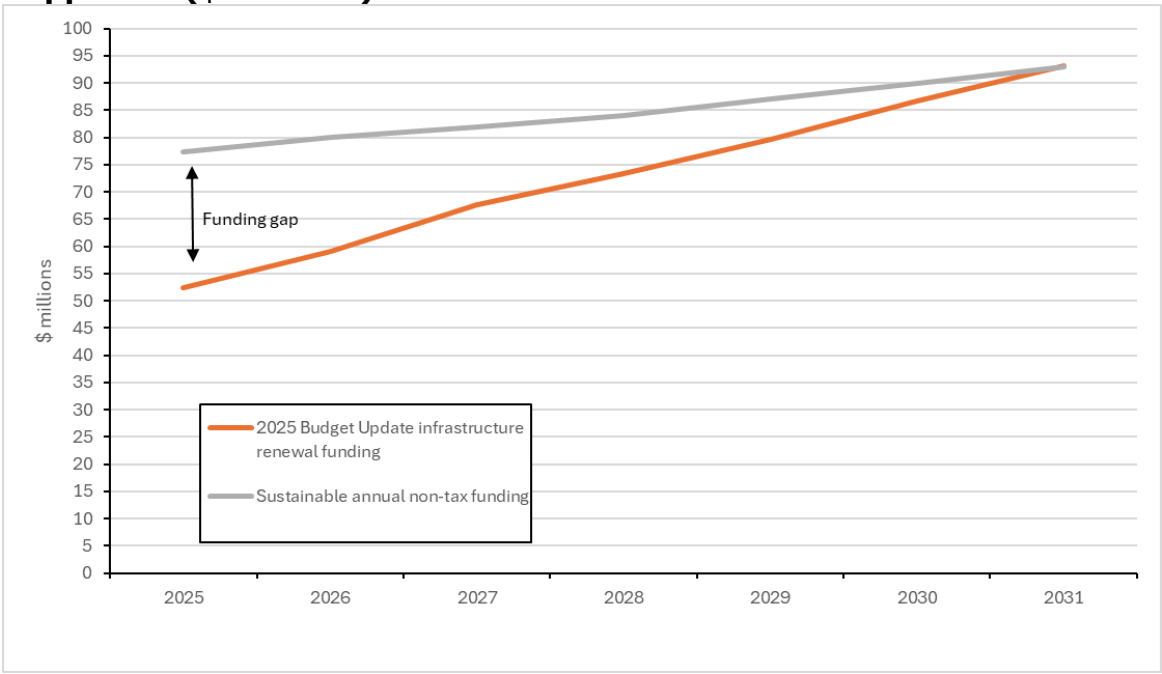


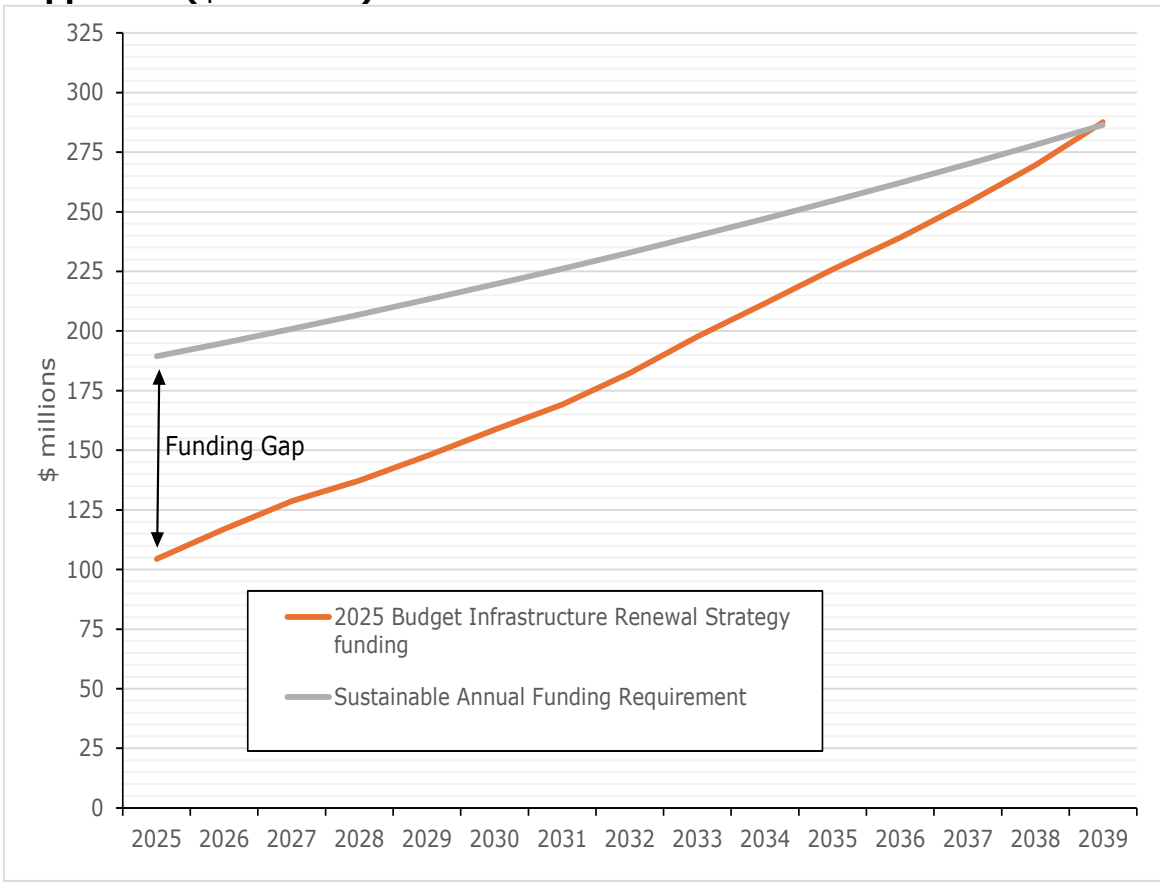
Table 11: Annual Sustainable Funding Gap - Non-tax Services (all values in millions of dollars)

Year	2025	2026	2027	2028	2029	2030	2031
2025 Budget Update IR Tax Funding	$52.44	$59	$67.72	$73.31	$79.67	$86.6	$93.15
Sustainable annual tax funding required	$77	$80	$82	$84	$87	$90	$93

In combination, the results of the analysis are predicting that the sustainability target funding for all city services assets will be reached around 2039. Refer to Figure 15.

In all three scenarios the forecast renewal needs increase year by year but at a slower rate than the forecast funding levels, thus allowing the funding gap to close and sustainability to be reached. These results are based on the current funding strategy in place. Should there be any future reduction in the funding values compared to that strategy the funding gap will take longer to close, and reaching financial sustainability will be delayed, and asset conditions and levels of service will continue to decrease. It is best to avoid this possibility by at least ensuring that the infrastructure renewal needs continue to be funded following the strategy approved in the 2025 budget confirmation.

Figure 15: Annual Sustainable Funding Level Gap – Non-Tax-Supported ($ millions)



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Transportation Services:
Roads, Sidewalks, Bridges and Other Structures

General Info

The City of Guelph manages a transportation asset portfolio consisting of roads, sidewalks, cycling facilities, bridges & culverts and all the ancillary supporting assets like signs, traffic control systems and streetlighting. . The total value of the assets in 2024 was estimated to be $2,148,923,695. The majority of this value is in the roads while the ancillary assets like traffic control systems, etc., and bridges or other major structures make up the balance. The distribution of the value of the portfolio is shown in Figure 16.

All of the transportation portfolio assets are assessed regularly, some daily as part of the City's road patrol program, with many of them requiring assessments to meet Provincial legislated requirements. The replacement value of the assets per condition is represented in Figure 17.

Figure 16: Transportation Assets Portfolio Value

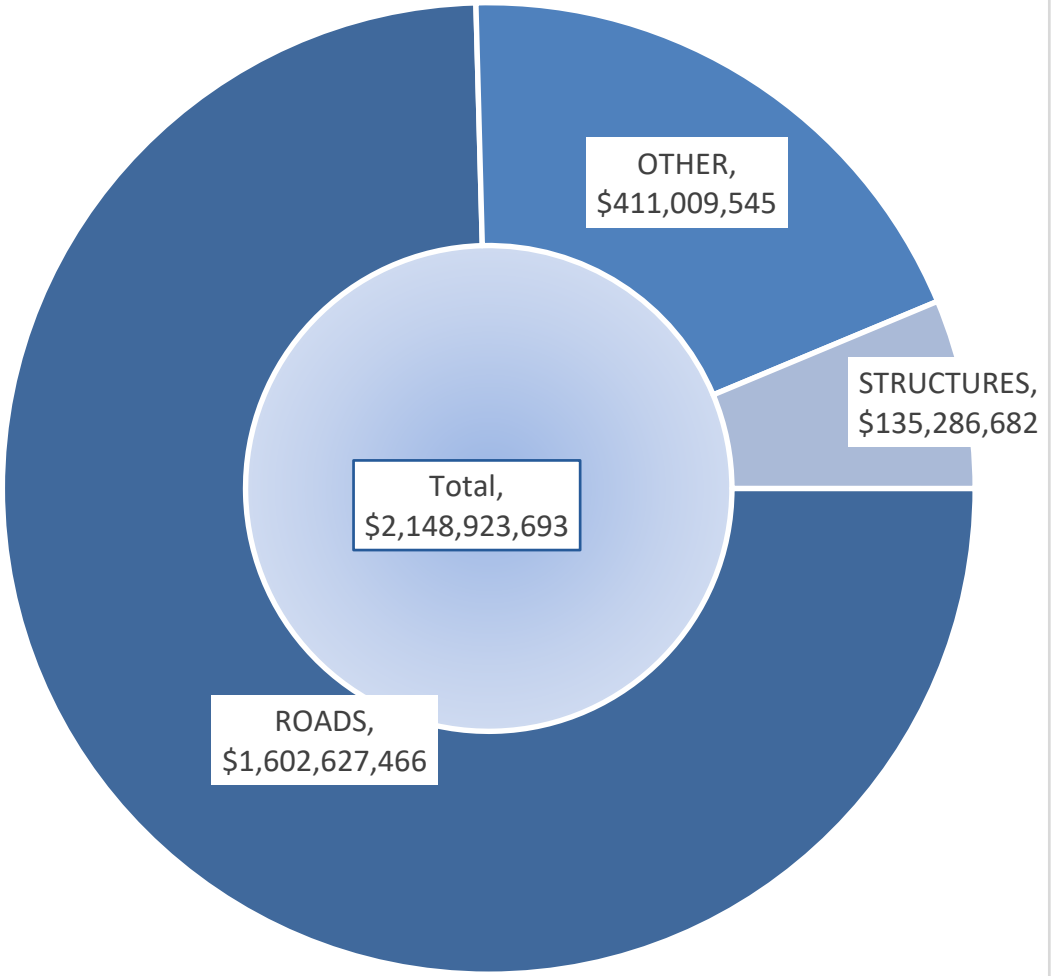
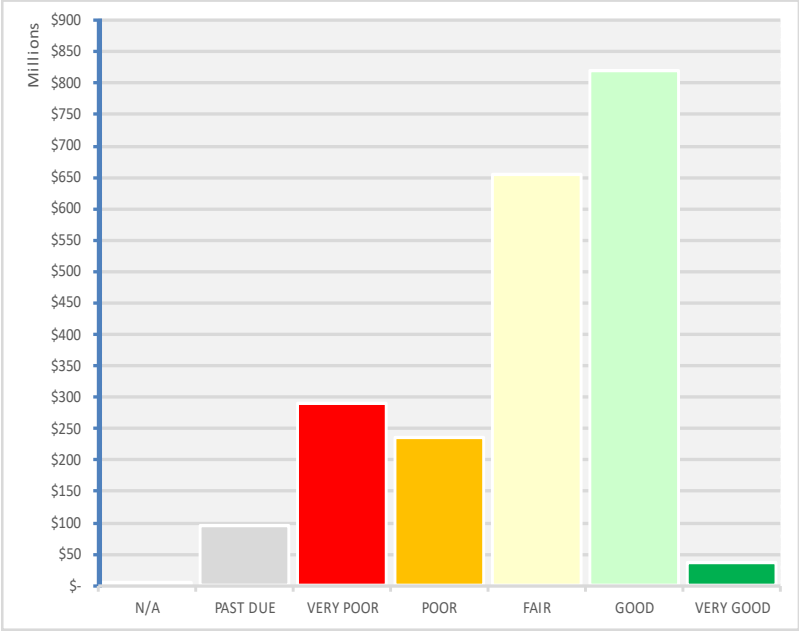


Figure 17: Transportation Services Assets: Value per Condition

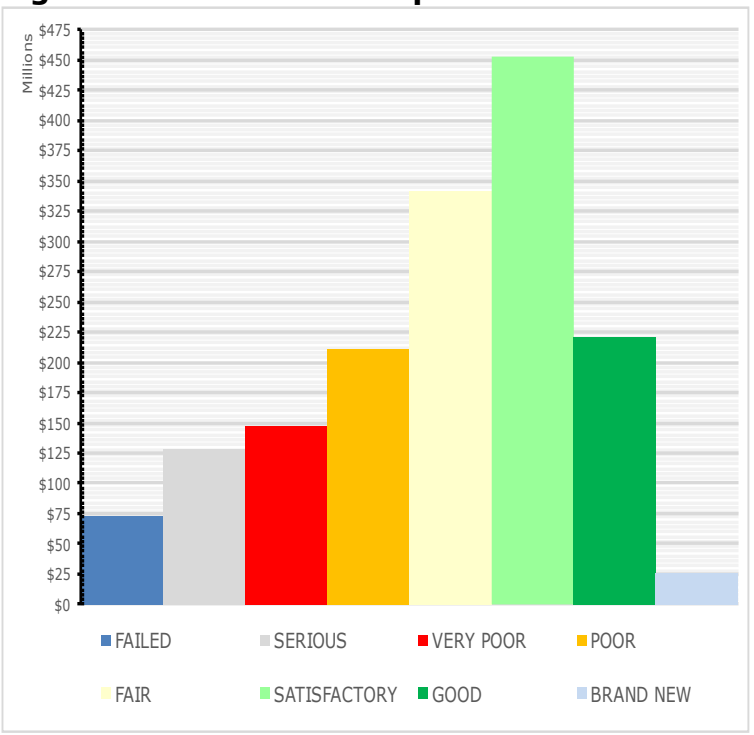


Roads

The City roads comprise the largest set of assets within the transportation portfolio and are also the single largest type of asset in the entire City portfolio. There are approximately 546km of roadways in the City with an estimated replacement value equal to $1.6 billion. Because of the value and importance of the road portfolio the state of the roads is presented separately.

The condition of roadway assets are determined by specialized engineering consultant engaged by the City to complete a survey of all the roads and assign a condition score called a Pavement Condition Index (PCI)[8]. The most recent data available for pavement condition is from 2024. Figure 18 presents the replacement value of the roads assessed according to the rating system used in the pavement condition

Figure 18: Roads –Value per Condition



[8] The PCI score is based on the condition of the top asphalt layers and not the underlying granular base layers of the roadway, although the PCI score can help to indicate if there are issues with the base layers

specified by ASTM D6433-20 Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys [9].

In comparison to the 2019 PCI study the percentage of roads assessed to be in satisfactory condition has increased by 15.5% or $250 million in value. There was also an increase in the value of roads in "very good" condition. Through normal usage many of the roads assessed in "good" condition in 2019 have deteriorated to a lower condition rating but overall the condition of the road portfolio has improved since 2019. Refer to the section "Levels of Service" for more details.

Structures

The City owns 17 vehicle bridges, 20 pedestrian only bridges, 42 large culverts[10] as well as numerous smaller culverts, public stairways, retaining walls and other small structures. Bridges, large culverts and walls are required to be assessed every two (2) years to meet the requirements of the Ontario Ministry of Transportation Structure Inspection Manual (OSIM).

Bridges

The most recent OSIM inspections for which data is available were completed in 2022[11] and indicate that in general most of the City bridges are in fair or better condition, however, there were three recommended for replacement. These needs had already been identified by City staff with capital programs approved to complete the work.

Five other bridges – 2 vehicle and 3 pedestrian - were recommended to undergo major rehabilitation prior to 2028. The OSIM reports did not identify any of the bridges as being at risk of catastrophic failure but did identify several recommended capital upgrades to the structures and various elements of the structures to assure their long-term safety and lifecycles. Capital projects have been developed and approved to address most of these issues. Future capital projects will be developed to address the remainder plus include any new issues that will be identified in future OSIM assessments.

Culverts

In general the City's large culverts are considered to be in fair condition on average.

The 2022 OSIM inspection program identified four (4) large culverts for replacement within the next five (5) year period and another three (3) for replacement within the next ten (10) years. As per the MYCB a capital project has been approved to replace one of these structures. The MYCB also includes a general project for work on various culverts or structures that can be used to address some of the needs identified in

[9] The ASTM standard uses a 7-level scoring hierarchy where Guelph uses a 5-level hierarchy. The ASTM PCI score is converted to an equivalent City of Guelph score for purposes of comparing the roads to other assets but otherwise the ASTM score value is used when discussing roads. See Appendix B: Condition Rating Definitions for more details

[10] A large culvert is defined as those with a span greater than 3m according to Ministry of Transport guidelines.

[11] OSIM inspections were completed in late 2022 and early 2023. An update will be completed in 2025.

the OSIM reports. The needs of other culverts may be addressed during a complete right-of-way reconstruction.

Retaining Walls and Other Structures

The most recent wall assessments for which data is available were completed in 2020[12]. This work identified that most of the 237 walls owned by the City are in good condition but that 18 were identified in poor or worse condition and recommended as needing major rehabilitation or replacement prior to 2029. The total value of these walls needing work was estimated at $2.6 million.

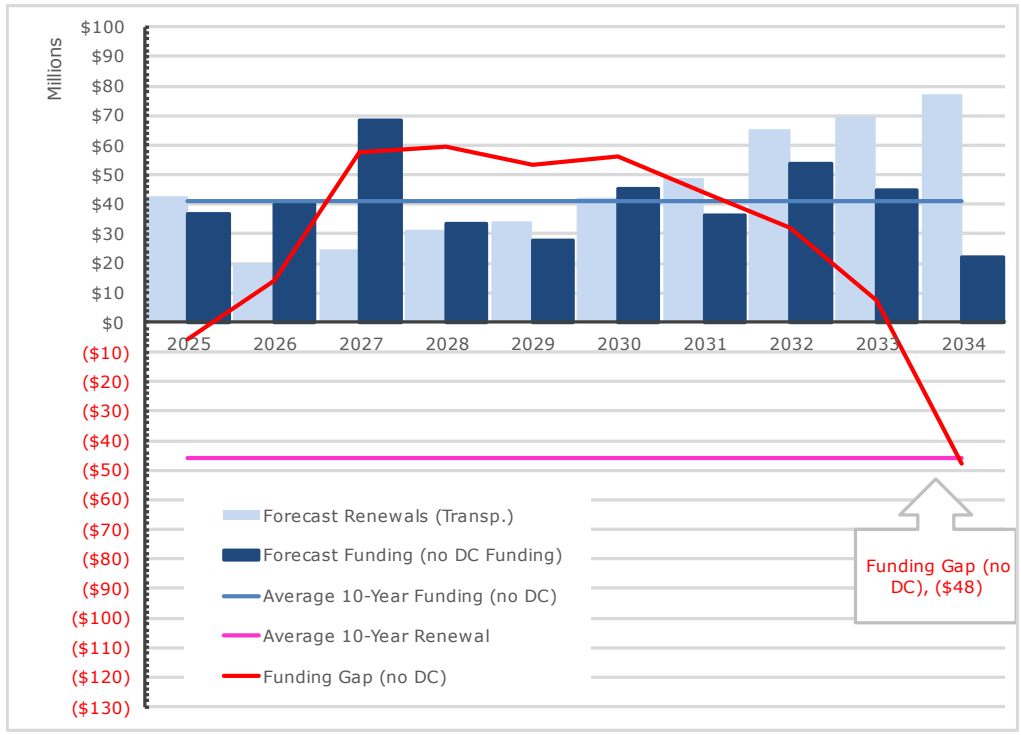
There is an annual program in the MYCB with funding dedicated to repairing the retaining walls with an annual budget or $500k in the MYCB. There are other individual projects that have been approved that address specific walls.

[12] OSIM Wall assessments were completed in 2024 but the data has not yet been received for analysis

Renewal Forecast: Transportation Portfolio

Between 2025 and 2034 the forecast capital renewal needs total $458 million. During that same time period forecast available funding is $409 million resulting in a total funding gap of $48 million. Refer to the funding vs. renewals need forecast presented in Figure 19 and Table 12.

Figure 19: Renewal Needs vs. Funding - Transportation Services



Approximately 52% of the total renewal forecast predicted is related to the roads with the balance for the other asset types in the transportation portfolio. This is a significant percentage of the need and represents the significance of the transportation network to the overall performance of the City.

It is important to note these results are a model using the best available data as of late 2024 / early 2025. As further assessment info becomes available and more detailed needs are identified specific projects can be developed to maximize the benefit to the most assets at one time.

Also important to note is that the forecast available funding does not include any development charge funding (DC). DC funding is intended for assets supporting growth and service enhancements, not simple renewals or replacements of existing assets. However, as described elsewhere in this AMP road reconstruction work often includes reconstruction of water, wastewater and stormwater assets that exist in the same rights-of-way. This combined effort means that some assets are replaced prior to their forecast end of useful life but the capital funds available are maximized. This strategy also includes upsizing or expanding the capacity of the existing assets at the same time as renewal. Many of the road right-of-way reconstruction projects include DC funding as part of

the total project value, but with the information available it is not possible to identify a direct relationship to the assets being replaced with enhanced versions, and so the contribution of DC funds to the total renewals forecast cannot be linked.

The City is implementing strategies to help alleviate the potential negative risks and continued deterioration of the assets that will occur as a result of the funding gap are the development of mid-life rehabilitation work for assets. Examples for the transportation portfolio include increased frequency of pavement maintenance actions like crack sealing, surface treatments or top-layer asphalt replacement only.

Renewal needs for bridges and other structures are funded either by identifying a unique capital project for the structure, or through shared funding in a general program type project that funds needed work on more than a single structure. Between 2025 and 2034 the MYCB includes $63.7 million approved funding for needed work on bridges, culverts, retaining walls or other structures. During this same time period the forecast needs for these same assets are estimated at approximately $17.5 million. The approved funding includes the replacement of structures identified in the OSIM reports and program funding for the work on various assets.

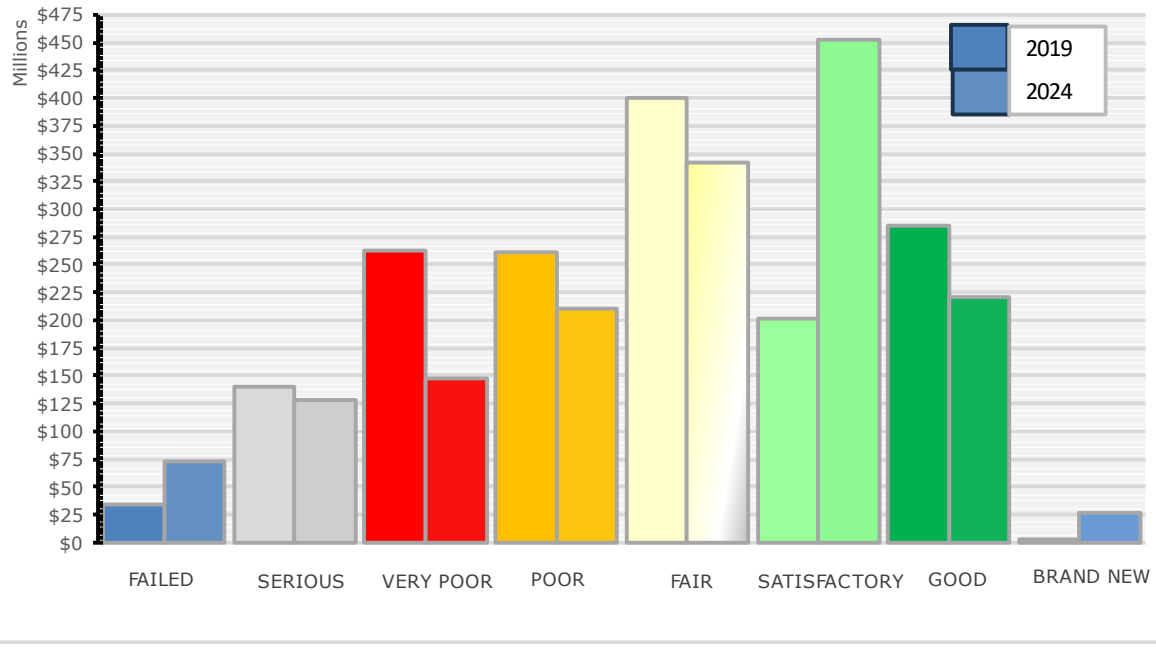
Table 12: Transportation Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	42.88	20.19	24.92	31.21	34.27	42.44	48.98	65.42	69.60	77.47
Forecast Funding	37.01	40.10	68.30	33.50	28.04	45.41	36.53	53.70	44.86	22.14
Funding Gap	-5.88	19.91	43.38	2.29	-6.24	2.98	-12.45	-11.72	-24.74	-55.32

Levels of Service

With recent assessment data available it is possible to compare the state of the roads between 2024 and 2019, thus providing an indication of how the City efforts at maintaining the levels of service are working. The review shows that there is a large increase in the value of the roads considered in satisfactory condition. Most of this gain is a result of renewal work that has been done on roads previously assessed in very poor or poor condition. However, the recent condition assessment work also identified a drop in the value of the roads considered in good condition, and an increase in the value of the roads considered to have failed[13]. Figure 20 presents a chart showing the condition of the roads in 2019 vs 2024.

Figure 20: Road Value per Condition – 2019 vs. 2024



In general, the overall state of the road network has improved, however if the renewal strategy established to accomplish this isn't maintained this trend will not continue. Continued funding and the focus on infrastructure renewal from the previous 5 years will be essential to achieve similar progress.

[13] All condition levels as per the ASTM D6433-20 standard

Future Level of Service Targets

The condition rating of an asset can be broadly used to understand the state an asset is in, the level of service it is performing at and the probability that it will fail. Assets are also given an estimated useful life which establishes when an asset will deteriorate to a poor condition rating. These two statistics, combined with the City's capital budget, can predict the condition of the portfolio into the future. This targets the level of service the assets will perform at in ten years.

Figure 21: Transportation Services 10-Year Portfolio Level of Service Condition

Overall Transportation Services Portfolio Condition as a Level of Service

The overall transportation asset portfolio is expected to age quicker than it can renewed over the next ten years. The percentage of the assets rated as "Very Good" and "Good" will decrease significantly as these assets move to "Fair" and "Poor" condition. Assets rated as "Past Due" are expected to increase 8.2 percentage points representing that planned capital work will not keep pace with needs as shown in Figure 21. All changes to the condition profile are summarized in Figure 21 and Table 13.

Table 13: Transportation Services 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	25.1%	7.6%	-17.5
Good	26.9%	14.9%	-12.1
Fair	18.9%	27.2%	+8.2
Poor	17.8%	19.4%	+1.6
Very Poor	6.9%	18.3%	+11.3
Past Due	3.8%	12.0%	+8.2
N/A	0.5%	0.6%	+0.1

Road Network Condition as a Level of Service

The road network forecast condition follows similar expectations as with the overall transportation portfolio except the rates of change are predicted to be more severe. By 2034, the cumulative percentage of the road network rated as being in "Good" or "Very Good" condition is predicted to be 8.5% which is a decrease of 35.4 percentage points. A similarly large increase in assets rated in "Very Poor" and "Past Due" condition is expected as the City's roads come up for repair. While roads in "Very Poor" and "Past Due" condition are still safe to drive on, the rider experience decreases significantly, and higher levels of regular maintenance (sealing and repairs) are required. All changes to the condition profile are summarized in Figure 22 and Table 14**.**

Figure 22: Roads 10-Year Road Network Level of Service Condition

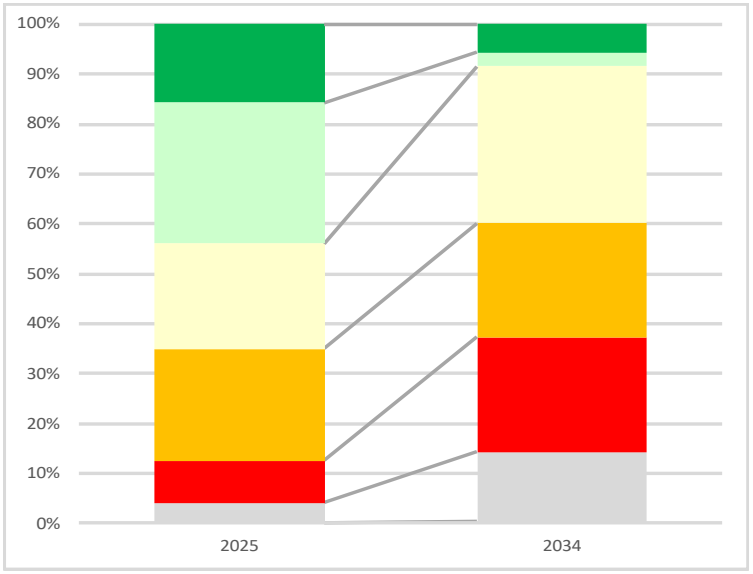


Table 14: Roads 10-Year Level of Service Conditi0n: Roads only

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	15.7%	5.6%	-10.1
Good	28.2%	2.9%	-25.3
Fair	21.3%	31.4%	+10.2
Poor	22.4%	22.9%	+0.5
Very Poor	8.4%	23.0%	+14.5
Past Due	4.0%	14.1%	+10.1
N/A	0.1%	0.2%	+0.1

Transportation Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 15 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

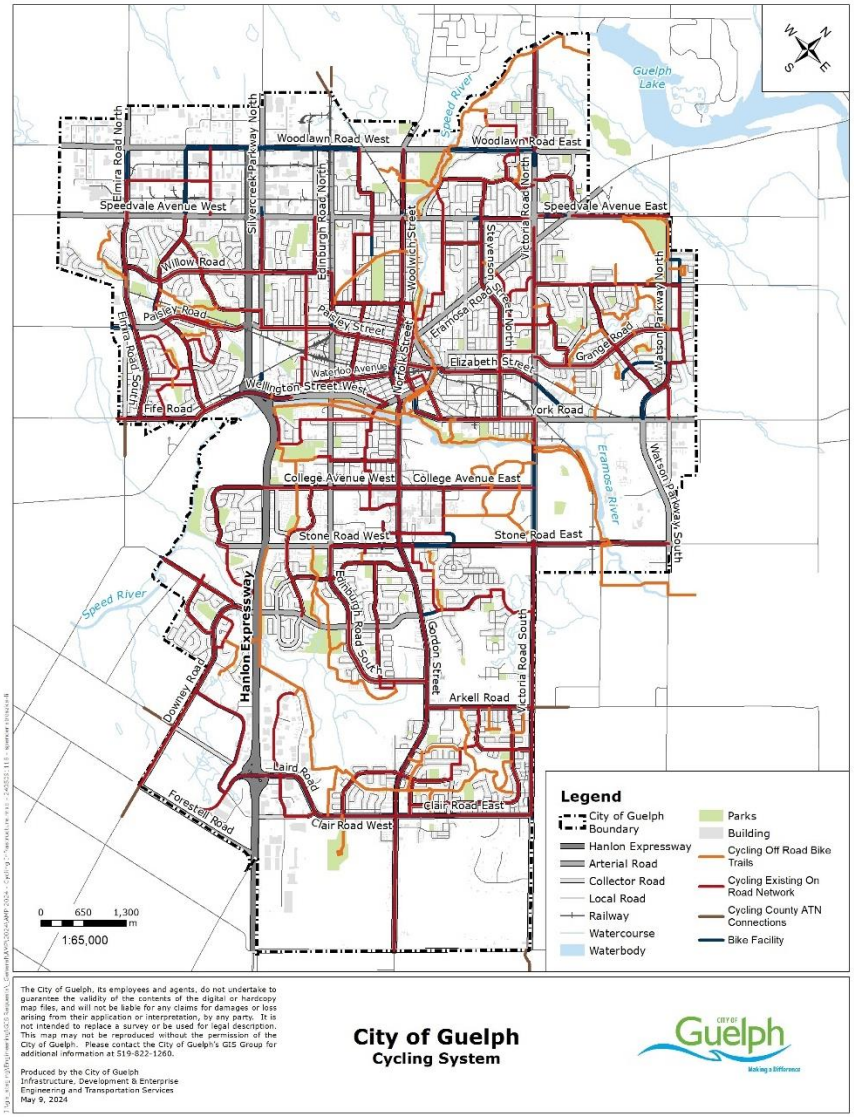
Table 15: Transportation Services Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	Percentage of bridges in the municipality with loading or dimensional restrictions.	Zero (0) – no vehicle bridges are indicated as having loading or dimensional restrictions. One (1) pedestrian bridge – McQuillan's bridge, a former vehicle bridge – was closed to all use in January 2025 due to an engineering report that assessed the structure to be at risk of failure.
		Length of cycling facilities	On-road bike lanes: 59km Off-road bike routes: 52km Signed routes: 30km Multi-use paths: 10km Protected Cycling infrastructure: 4.94km
	Customer	Description of the traffic that is supported by municipal bridges (e.g., heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists).	All of the vehicle bridges are capable of supporting all classes of vehicles. None of the bridges have load limit capacity restrictions.
		1. Description or images of the condition of bridges and how this would affect use of the bridges.	City of Guelph follows the standards and best practices outlined in the Ontario Structure Inspection Manual in order to determine the condition of the bridges and their component parts. Third party consultants who are

Strategic Theme	LOS Type	Performance Measure	Current Performance
			expert in the design and assessment of bridges are engaged to complete these assessments.
		2. Description or images of the condition of culverts and how this would affect use of the culverts.	Culverts larger than 3m diameter (or those considered to present high risks to the City of Guelph are treated as bridges and so the condition assessments follow the standards and best practices outlined in the Ontario Structure Inspection Manual in order to determine the condition of the bridges and their component parts. Third party consultants who are expert in the design and assessment of bridges are engaged to complete these assessments.
		Map of the active transportation network	See Figure 23
		Description, which may include maps, of the road network in the municipality and its level of connectivity.	The City's road network covers approximately 546km and all sections of the City. Major highway connections to Provincial highways include Highway 6 to Highway 401, and Highway 7. Refer to the "Transportation Assets – State of the Assets" section for more details.
		Description or images that illustrate the different levels of road class pavement condition.	The City of Guelph adheres to and follows the standards and best practices described in the Ontario Good Roads Association (OGRA) when defining pavement condition. The definitions provided by OGRA are followed by the third-party consultants engaged by the City to perform the pavement inspections. Ratings provide from those inspections are converted to a five point scoring system that is consistent with the asset management analysis tools used by the CAM team.
City Building	Technical	1. For bridges in the municipality, the	74 (Good)

Strategic Theme	LOS Type	Performance Measure	Current Performance
		average bridge condition index value.	
		2. For structural culverts in the municipality, the average bridge condition index value.	70 (Good)
		1. For paved roads in the municipality, the average pavement condition index value.	ASTM rating: 59/100 (Satisfactory) CoG rating: 3.5 /5 (fair)
		2. For unpaved roads in the municipality, the average surface condition (e.g. excellent, good, fair or poor).	N/A
People & Economy	Technical	Collisions by mode of transportation	Cyclist: 34 Motorcycle: 13 Pedestrian: 20 Vehicle Only: 1204

Figure 23: City of Guelph Active Transportation Network Map (2024 AMP)



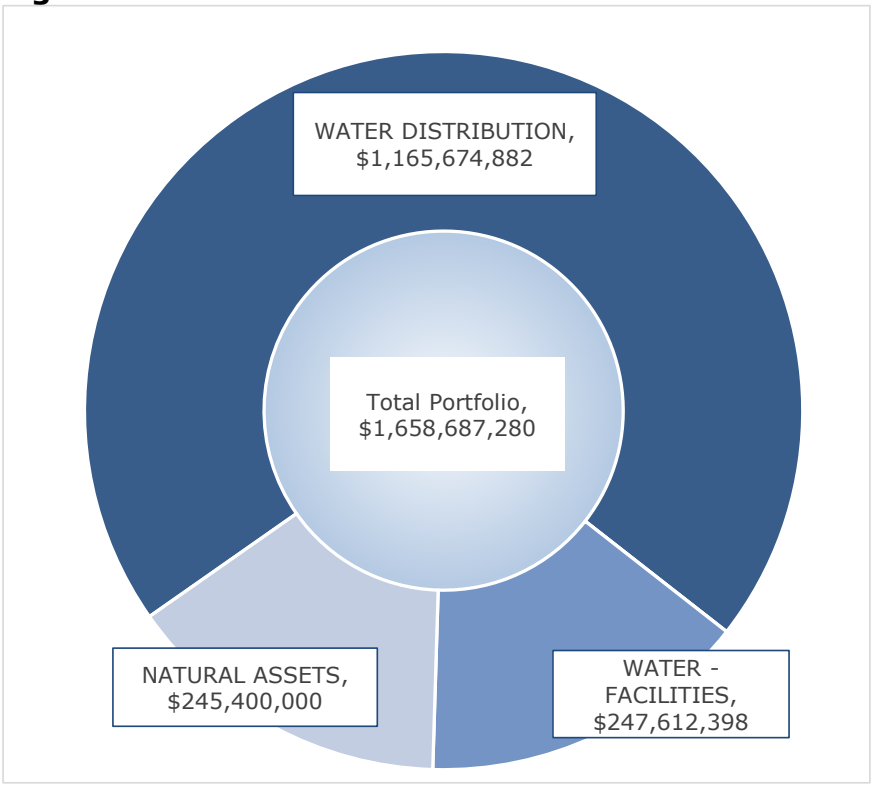
Water Services

General Info

The City's Water Services department manages a portfolio of assets with a value of $1,658,687,280. These consist of natural assets (groundwater aquifer), collection and treatment facilities (pumping wells, treatment plants, booster stations, and the aqueduct), storage (above and below ground reservoirs) and water transmission and distribution assets (pipes and related equipment). The total value of the portfolio and each category is shown in Figure 24.

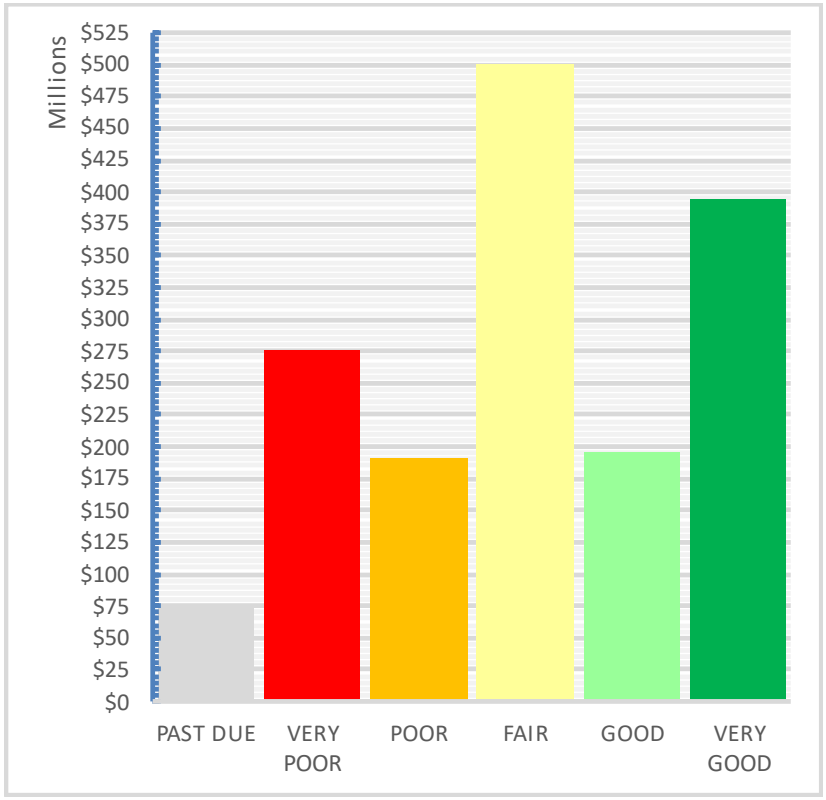
The average condition of the water services assets is considered Fair[14]. Figure 25 presents the value of the water services portfolio assets according to their condition as of July 2024. The proportion of assets in "fair" or better condition can be easily seen in the results. As discussed in the next section, because the water distribution network comprises such a large percentage of the overall portfolio the average condition is heavily weighted by the condition of the network.

Figure 24: Value of the Water Services Portfolio



[14] This rating does not include the underground natural aquifers

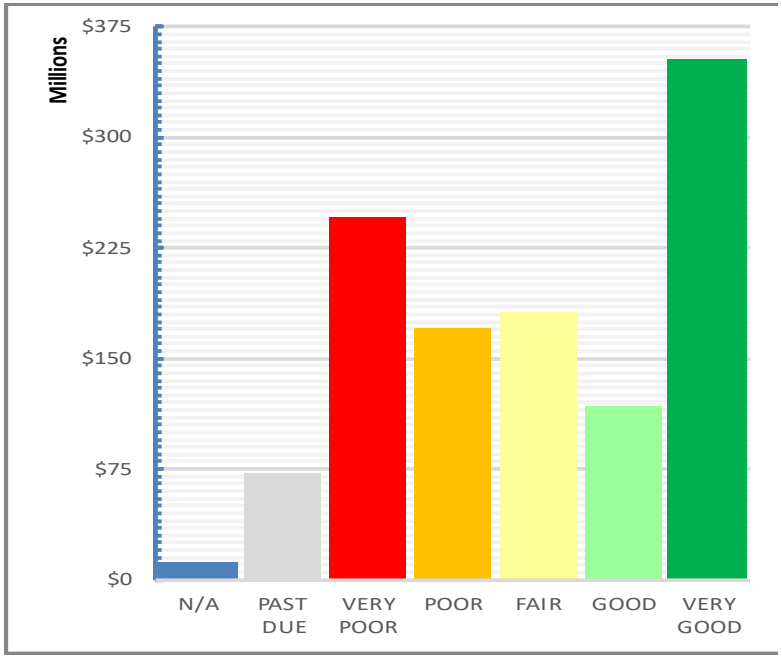
Figure 25: Water Services Asset value per condition



Water Distribution

There are approximately 570km of transmission and distribution pipes that comprise 70% of the total value of the Water Services assets. These range in size from 25mm diameter service pipes that connect the distribution system to residents and businesses, to main lines that are greater than 1m in diameter. The average condition of the distribution system is considered Fair, however, more than 40% of the system is in good or better condition. The value of the assets per condition of the distribution system is presented in Figure 26.

Figure 26: Water Distribution assets value per condition

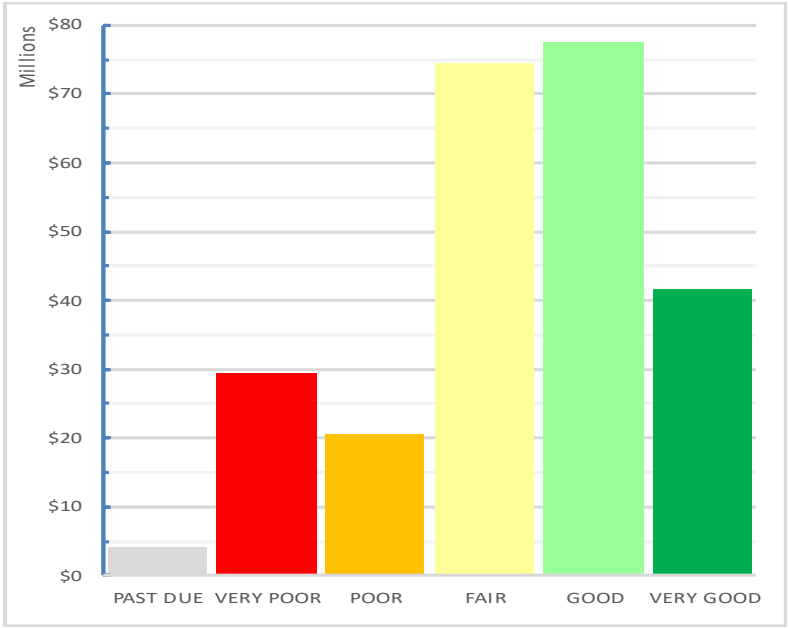


Water Services Facilities

The City's water services facility inventory is comprised of buildings and process equipment at the F.M. Woods Pumping Station, the multiple wells and pump stations throughout the city, three (3) above ground storage towers, two (2) below grade storage reservoirs and four (4) booster stations. These facilities are regularly assessed to ascertain and monitor both their physical condition, and the functional performance of the essential process equipment located within the various buildings.

As of 2024 the average condition of the facility portfolio is considered better than fair with 79% or $195 million evaluated in "fair" or better condition. This is a very good situation for the City to be in as it implies a low-risk of unexpected failures that may impact the network and a good program of regular maintenance and renewal to the facility assets. Figure 27 presents the value of the facility assets per condition rating.

Figure 27: Water Facility Assets Value per Condition



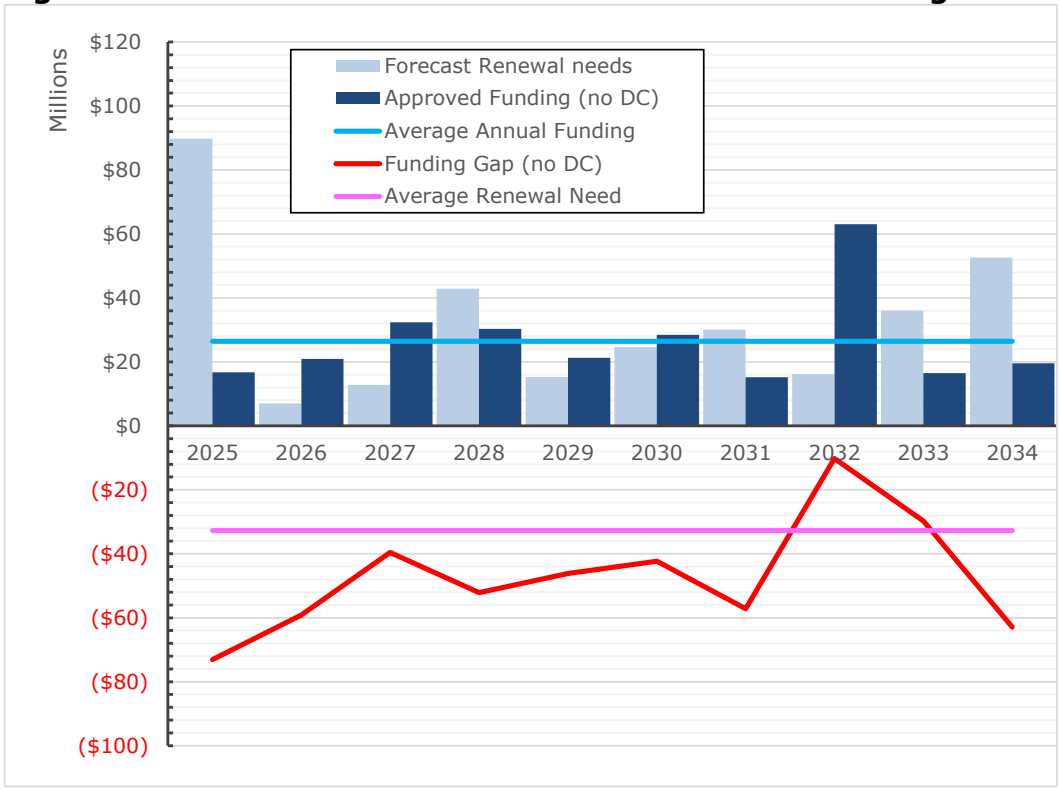
Renewal Forecast: Water Services

The ten-year renewal needs forecast was developed by using the current condition of the portfolio assets to predict a renewal date and then comparing those results to the funding information available in the MYCB.

The current condition of the assets are determined using information provided by City staff including data regarding the age and material of the pipes combined with input from 3rd party consultants with specialized knowledge of water service assets and their lifecycles.

Between 2025 and 2034 the forecast capital renewal needs total approximately $327 million. This includes both linear assets (i.e., water mains and related equipment) as well as the facilities that support the portfolio. Figure 28 presents this analysis in a graphical format.

Figure 28: Water Services Forecast Renewals vs. Funding



The Multi-year Capital Budget that was approved by Council in November 2024 included approximately $265 million in approved funding for water services. This results in a forecast $63 million funding gap for the Water services assets needs.

This analysis does not include any funding from development charges. These are funds that are dedicated to new assets supporting City growth or service enhancement of existing assets (ex.: pipe upsizing to increase distribution capacity).

Water service assets – in particular watermains and the related equipment needed like valves, maintenance chambers, etc. – are often installed under roadways and are renewed as part of larger projects involving the entire road right-of-way. In these instances, the funding for the water assets would be part of a larger whole project budget that might also include sanitary and stormwater pipe renewal along with new roadway and sidewalk surfaces. These projects are seldom a like-for-like replacement, meaning that a right-of-way renewal project will incorporate functional service upgrades or expansion in combination with renewal., and so some of the project funding will be DC revenue. The logistics of capital construction planning also mean that occasionally an asset will be replaced earlier than its predicted end of life date. This occurs when the benefit of a right-of-way reconstruction outweigh the delay to maximize the lifecycle of one asset. The forecast renewal costs in the AMP analysis do not always reflect these service enhancements or logistic requirements.

The renewal forecast also does not include capital projects that will result in entirely new assets being constructed and added to the Water Services portfolio. These new assets (such as new water supply wells, treatment plants, storage reservoirs and pump stations) are being constructed to ensure that as the City grows and expands, the potable water services will be available to all current and future customers at the high-quality standards Guelph is known to deliver.

Table 16: Water Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	89.81	6.99	12.78	42.92	15.30	24.62	30.06	16.11	36.06	52.65
Forecast Funding	16.75	20.89	32.36	30.36	21.29	28.45	15.20	63.03	16.49	19.55
Funding Gap	-73.05	13.90	19.58	-12.56	6.0	3.83	-14.86	46.92	-19.57	-33.10

Levels of Service: Water Services

The condition rating of an asset can be broadly used to understand the status-quo state of an asset, the level of service it is performing at and the probability of failure of that asset. Using a combination of an assets' current condition compared to its expected lifecycle it is possible to model the future condition of each asset by year. Summarizing this info for all the assets in the portfolio and comparing that against predicted funding available in future years a prediction of the overall condition of the portfolio in future years can be completed. This type of analysis has been used to identify the target level of service the assets will perform at in ten years (2034).

Overall Water Asset Portfolio condition as a level of service

The majority of the asset types in the Water Services portfolio, particularly those in the distribution network, are assets with long useful lives. During normal usage, changes in condition are minimal even over a ten-year period.

This is evident in the results presented in the following table and chart. Extrapolating from the condition of the portfolio as determined in 2024 there is expected to be about a 4.6% increase in the number of assets going from a rating of "Fair" to "Poor". There is also a forecast increase of 1.3 percentage points in the number of assets increasing to a "Very Good" condition as a result of the City's infrastructure renewal efforts. The predicted changes to the condition profile and thus the forecast levels of service in 2034 are summarized in Figure 29 and Table 17

Figure 29: Water Services 10-Year Portfolio Level of Service Condition

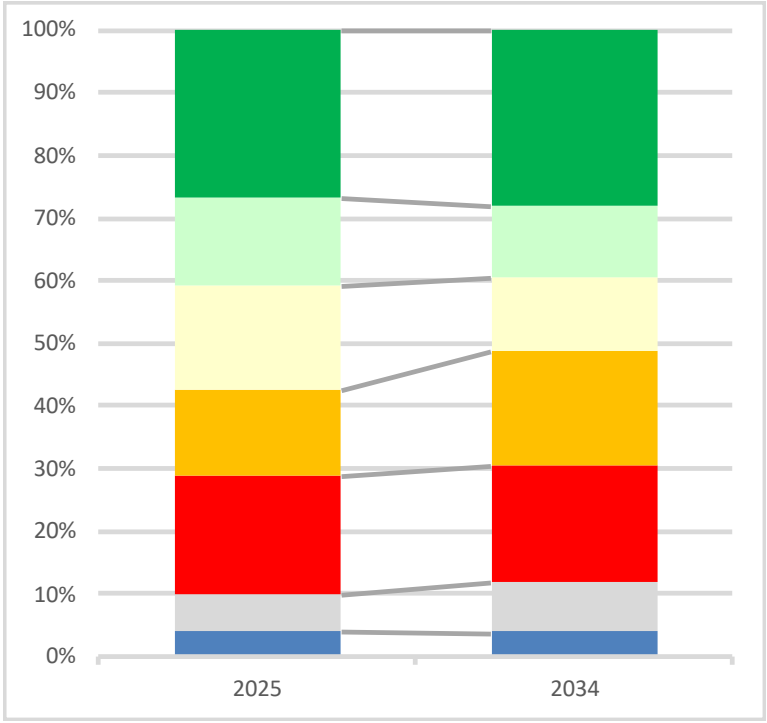


Table 17: Water Services 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	26.7%	28.0%	+1.3
Good	14.1%	11.5%	-2.6
Fair	16.7%	11.7%	-5.0
Poor	13.7%	18.3%	+4.6
Very Poor	19.0%	18.7%	-0.3
Past Due	5.8%	7.8%	+2.0
N/A	4.0%	4.0%	-

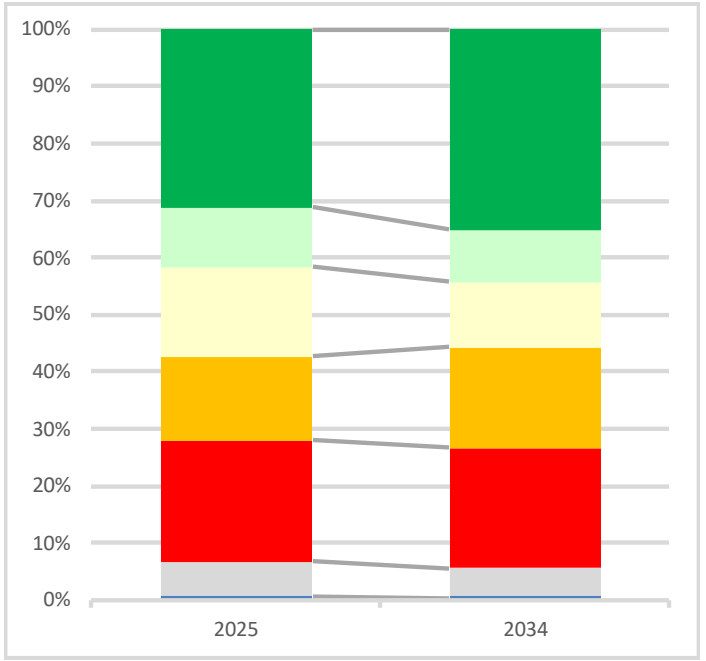
Table 18: Water Distribution 10-Year Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	31.2%	35.1%	+3.9
Good	10.4%	9.2%	-1.3
Fair	15.6%	11.5%	-4.2
Poor	14.8%	17.6%	+2.8
Very Poor	21.1%	21.2%	-
Past Due	6.1%	4.9%	-1.3
N/A	0.7%	0.7%	-

Water Distribution Network: Level of Service

Focusing exclusively on the water distribution assets (i.e. pipe network and related ancillary assets) it is expected there will be a 1.3 percentage point reduction to assets in "Past Due" condition and an increase of 3.9 points in "Very Good" assets. Again, this is a result of the City's focus on infrastructure projects and utilizing renewal and rehabilitation techniques that will maximize the useful life of the assets. All changes to the condition profile are summarized in Table 18 and Figure 30.

Figure 30: Water Distribution 10-Year Level of Service Condition



Water Services Current Levels of Service

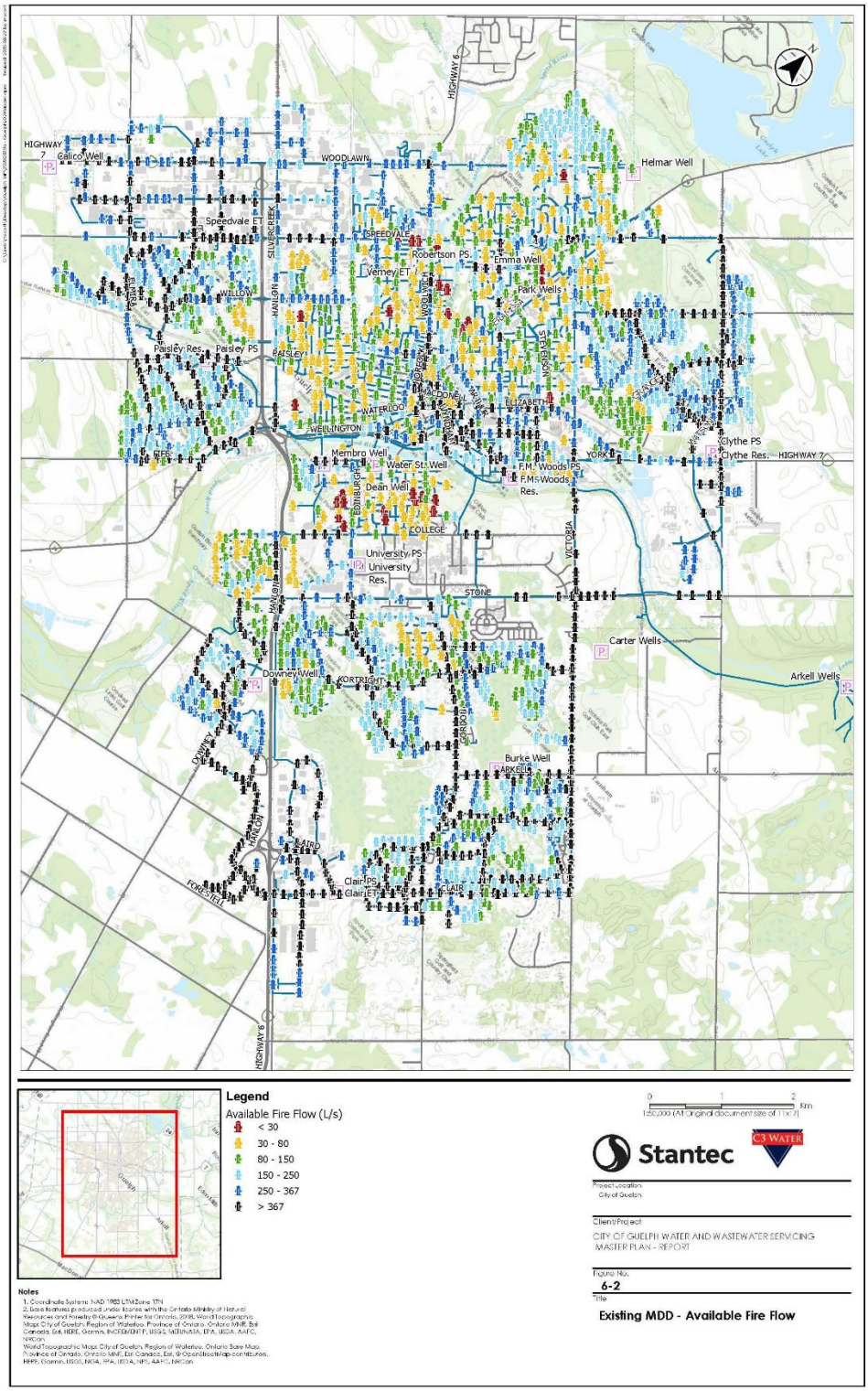
In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 19 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 19: Water Services Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	1. The number of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system. (O.Reg 558/17)	Zero (0)
		2. The number of connection-days per year due to watermain breaks compared to the total number of properties connected to the municipal water system. (O.Reg 558/17)	Zero (0)
	Customer	1. Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system. (O.Reg 558/17)	Water Services is a municipally-owned and operated water utility, established in 1879. The Guelph Drinking Water System (Guelph DWS) consists of water supply and treatment facilities and a water distribution system. The Guelph DWS is a Class II Water Treatment Subsystem and Class IV Water Distribution Subsystem.
		2. Description, which may include maps, of the user	Figure 31

		groups or areas of the municipality that have fire flow. (O.Reg 558/17)	
City Building (O.Reg 558/17)	Technical	1. Percentage of properties connected to the municipal water system. (O.Reg 558/17)	There are approximately 44,000 service connections to the Guelph water system. Several properties have more than one service connection, making the ratio calculation uncertain.
		2. Percentage of properties where fire flow is available. (O.Reg 558/17)	2788/2799 or 99.61%
	Customer	Description of asset replacement/rehabilitation planning and prioritization, defining end of life for assets.	City staff regularly review the state of the water network and make short- and long-term plans for replacement and rehabilitation. Review of the current asset conditions as well as needs assessments and items defined within the Water Services Master Plan are used to help forecast future needs in the water network.
People & Economy	Customer	Description of boil water advisories and service interruptions.	There were no boil water advisories or service interruptions present within the Guelph water network within 2024
Environment	Technical	Water consumption L/cap/day	166 litres/cap/day
	Customer	Description of environmental sustainability initiatives (e.g., GHG emission mitigation, water usage reduction).	The City is committed to saving water and meeting its target of 9,147 cubic metres of water saved in average daily production by 2038. Strategies for reducing water loss include, rebate and incentive programs, public education sessions, water use by-laws, and research initiatives. In 2024 this is being reviewed as part of The Blueprint project.

Figure 31: Existing MDD Available Fire Flow (Water and Wastewater Servicing Master Plan)

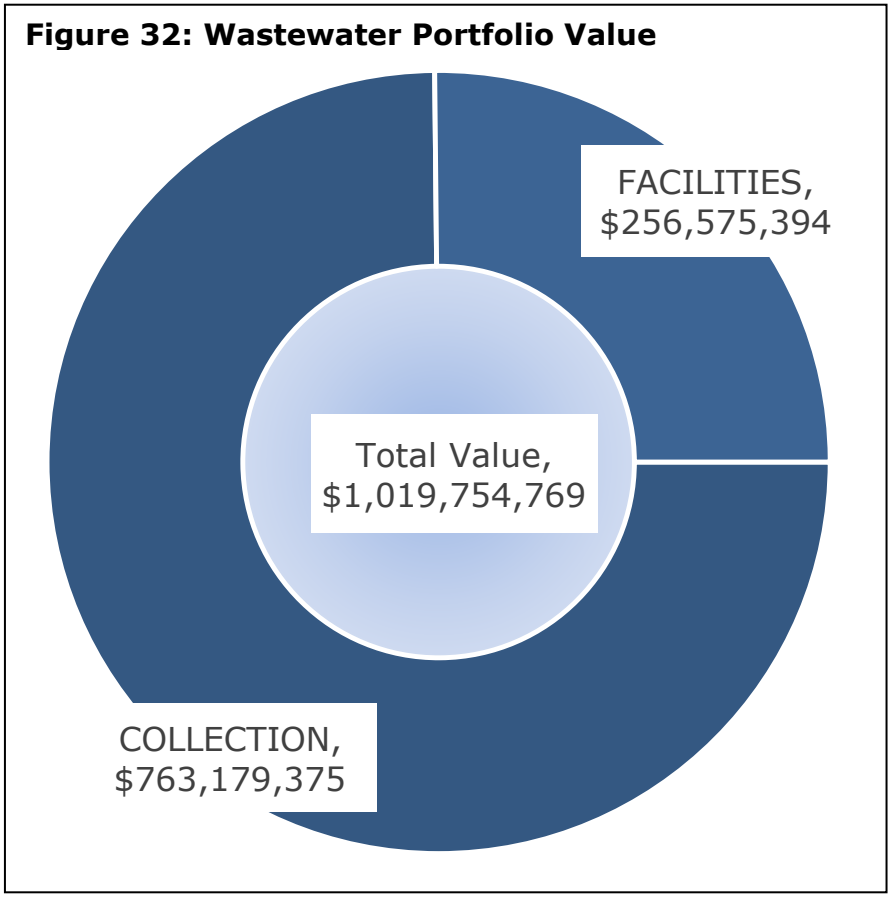


Wastewater Services

General Info

The City of Guelph owns and manages wastewater collection and treatment assets that total approximately $1 billion in value. This includes a major Water Resource Recovery Center, pumping stations and more than 500km of wastewater collection pipes and ancillary equipment. Figure 32 shows the distribution of the wastewater assets between collection and facility assets.

Figure 32: Wastewater Portfolio Value



The average condition of the assets in the portfolio is considered "fair" with a relatively balanced distribution of assets across the condition ranges. Figure 33 presents a summary of the value of the portfolio assets per condition.

Wastewater Collection Network

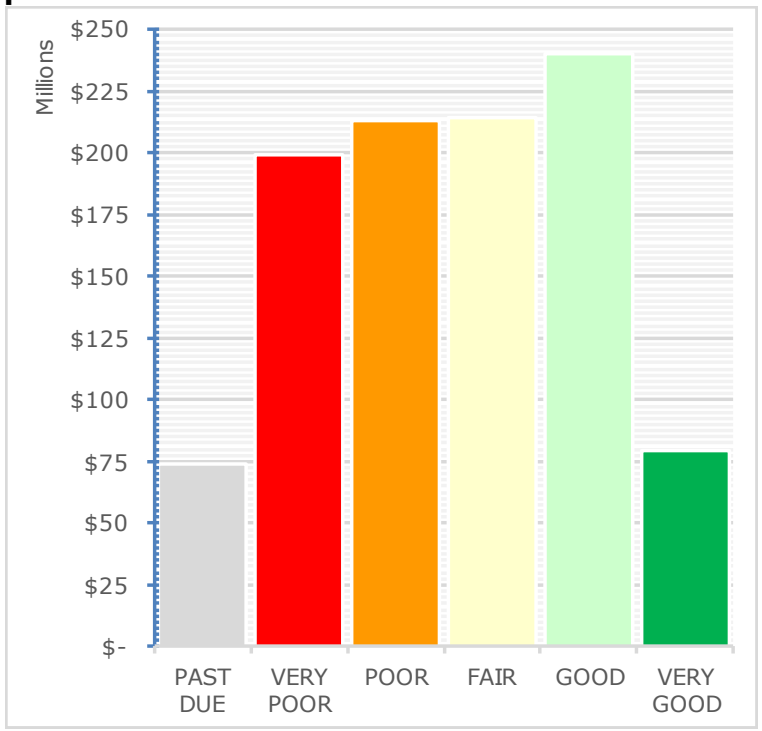
The wastewater collection system comprises about 75% of the total portfolio by value. Overall, the collection network assets are in Fair condition. In normal conditions sanitary waste collection pipes have very long lifecycles and the City manages an active program to monitor the condition of the network and maximize the lifecycle of these assets by completing mid-life renewal type work that further extends the lifecycles. Figure 34 presents the value of the collection network assets per condition rating. Because the collection network comprises the majority of the portfolio, the condition distribution of the collections assets is very similar to the overall summary.

Wastewaster Treatment & Collection Facilities

The wastewater systems include a series of sewage pumping stations throughout the collection pipe network and the Water Resource Recovery Centre (WRRC) where the collected sanitary waste is treated. The total replacement value of these facilities is estimated at approximately $256 million (2024) with the WRRC facility itself valued at about $244 million.

The most recent condition info related to the wastewater systems indicates that a large majority of those assets (53%) are considered in poor condition indicating that they will require attention in a 2–5-year timespan. This need has been noted and will be discussed further in the

Figure 33: Wastewater Portfolio Asset Value per Condition



Renewal Forecast Wastewater Services section of this report. The condition of the wastewater facility assets is presented in Figure 35.

The City's Wastewater management team has been focusing on improving the condition of priority assets at the WRRC and since the publication of the last AMP renewal work has been completed on several large assets including Digesters 3 and 4, the chlorine and ferric unit processes, aeration blower upgrades, major electrical and controls and the drainage and re-surfacing of the WRRC yard area.

Figure 34: Collection Assets: value per condition

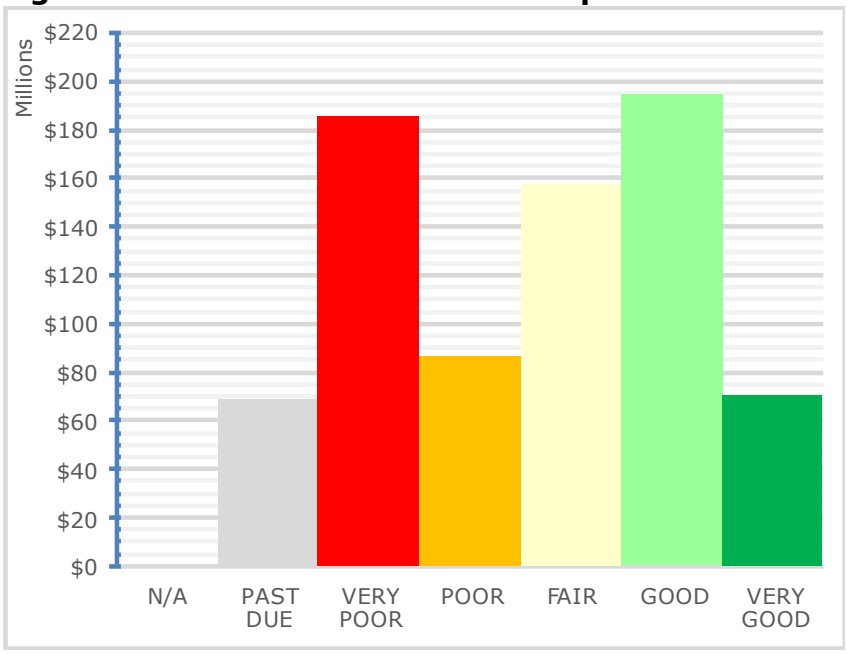
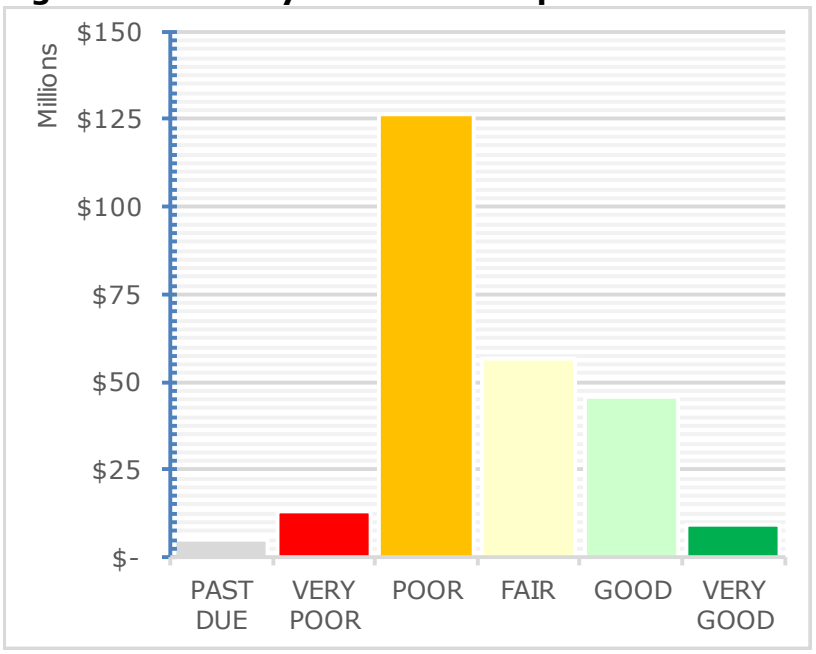


Figure 35: Facility Assets: value per condition



Renewal Forecast Wastewater Services

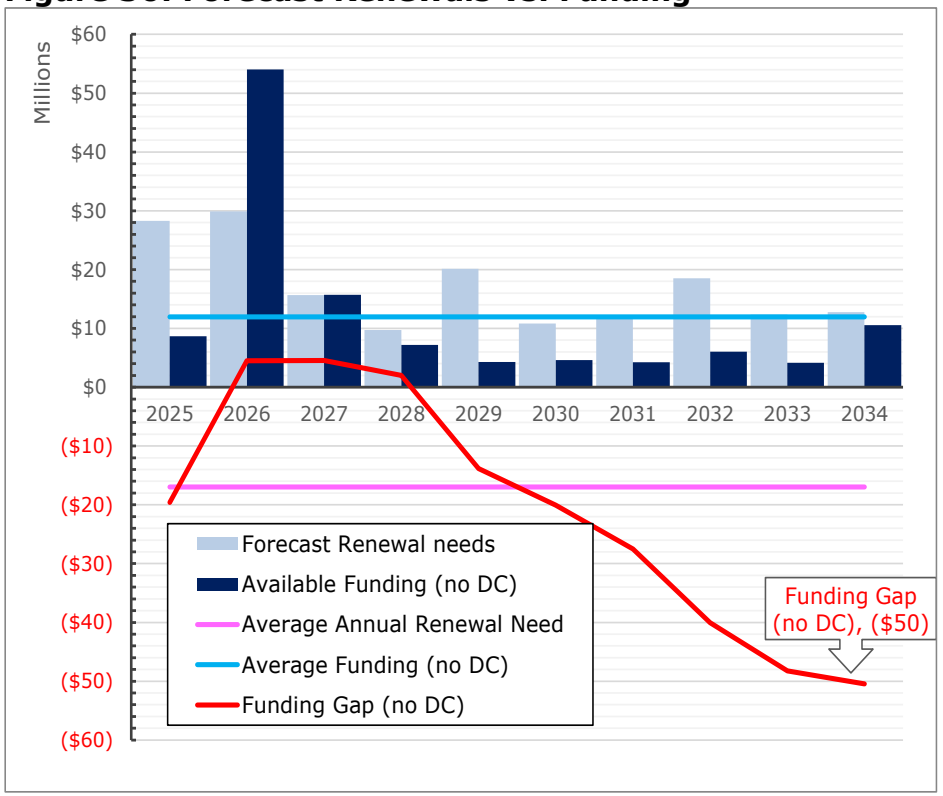
Overall Needs

Between 2025 and 2034 the forecast capital renewal needs are estimated to total $186 million. This represents planned work related to growth or lifecycle replacement and primarily for projects at the WRRC. During that same time period according to the MYCB approved in late 2024 there is forecasted to be $119 million in funding available, resulting in a ten-year funding gap of $50.5 million.

The funding value was determined by reviewing the projects approved in the 2025—2027 MYCB and using the indicated funding source for each project to identify the project as a wastewater project[15]. Because many wastewater renewals are completed as part of a larger road right-of-way renewal or reconstruction the value of the funding from the wastewater reserve fund for those projects was included in this calculation.

Approximately 75% of the identified renewal needs by value are related to the facilities in the portfolio.

Figure 36: Forecast Renewals vs. Funding



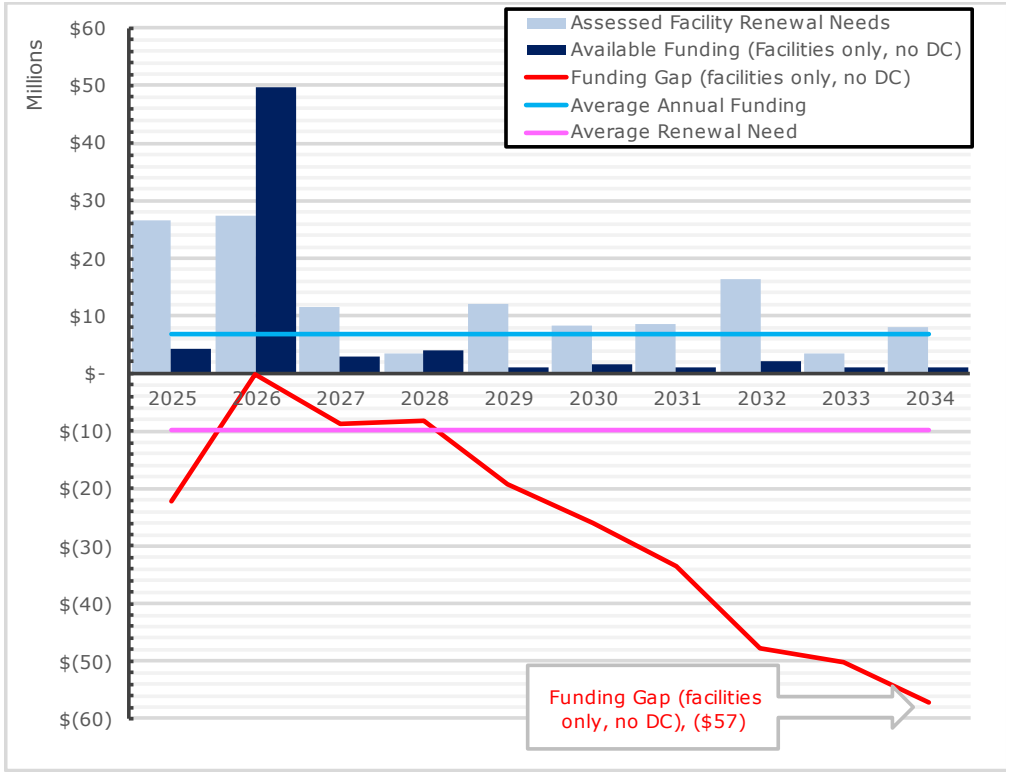
[15]Funding for wastewater services renewals is generated via the usage charges residents and businesses pay.

Renewal Forecast: Facilities

As noted previously approximately 53% of the wastewater system assets have been assessed in poor condition. A further 29% are in fair condition, and 7% in very poor condition or considered past due. This has been recognized by staff and beginning in 2025 there are a series of capital projects that have been approved to address these needs.

In 2025 and 2026 a total of $54 million in renewal work has been approved in the MYCB for the facilities. Renewal forecasts in the same time period equal approximately $46 million. However, from 2027 onwards the annual renewal forecasts exceed the funding and by 2034 a forecast gap of $57 million is predicted. Figure 37 presents a chart identifying the renewals needs vs. funding specific to the wastewater systems. The approved funding in the next two-years will not directly impact all the assets indicated as poor, nor is it entirely focused on identified renewal needs, but it is an example of how the City is prioritizing improvements to its infrastructure services. Upon completion of those projects the value of assets considered "poor" will greatly decrease. A major project has been approved for renewing and improving the City's biosolids treatment facility. Other assets at the WRRC have been recognized as having reached the end of their lifecycles and are planned for decommissioning around 2030: any previously identified renewals for the East & West sand-filters, the rotating biological contactors and the composting facility have been removed from the renewals need forecast.

Figure 37: Renewals vs. Funding - Wastewater Services Facilities



It is important to note these results are a model using the best available data as of late 2024 / early 2025. When the renewal needs are analysed in detail to develop tangible capital projects there will be a chance to distribute the renewal work to be more aligned with the funding patterns. Further condition assessment work on the sanitary linear systems initiated in 2024 and continues through to 2027. This updated data will provide an improved, renewed insight to the future needs of the sanitary linear system. The Wastewater Treatment and Biosolids Management Master Plan completed in 2023 provides the roadmap for major capital works at the WRRC.

Implementing mid-life rehabilitation work on the sanitary linear assets instead of only planning for replacement at the end of their lifecycle extends the asset useful lives, lowering the annual renewal forecast. This practice was introduced to the O&M of the linear system in 2023 and will be further assessed as this practice to ensure reliable sanitary services continues to matures.

The logistics of capital construction and maximizing project funding to provide the greatest benefit to the majority of assets mean that some assets will be replaced earlier than what has been predicted in the forecasting. For example: the poor condition of a road in combination with aging water infrastructure may mean the wastewater infrastructure is replaced in the same project, even if the assets do not meet the normal criteria for replacement at that time. Additionally, the functional performance metrics of an asset may no longer meet needs even if the physical condition of the asset is acceptable and so an asset would be replaced with a larger or better performing version of the same asset as a service enhancement.

Revenue from Development Charges is not included in the available funding because it is intended to be used for assets supporting growth and/or service enhancement type work. Some of the renewal work forecast may be included in those categories, particularly in the road right-of-way projects. However, the renewal forecast only accounts for like for like replacements and does not identify the individual assets that will be included in the service enhancement category.

Inclusion of the DC funding in the analysis would reduce the size of the funding gap, but that gap would remain significant and a challenge that will require effective strategic prioritization of the renewal works to ensure the most at risk assets or those that would have a major consequence of failure to the City as a whole receive proper attention. This is a practice already in place at the City.

The renewal forecast also does not include capital projects that will result in entirely new assets being constructed and added to the Wastewater services portfolio. These new assets in both the collection and facilities categories are being constructed to ensure that as the City grows and expands the potable water services will be available to all current and future customers at the high quality standards Guelph is known to deliver.

Table 20: Wastewater Services All Assets Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	28.3	29.9	15.7	9.7	20.1	10.8	11.7	18.5	12.4	12.8
Forecast Funding	8.7	54.0	15.7	7.2	4.3	4.6	4.2	6.0	4.1	10.6
Funding Gap	-19.6	24.1	0.0	-2.5	-15.8	-6.2	-7.5	-12.5	-8.2	-2.2

Table 21: Wastewater Services Facilities Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	26.5	27.4	11.6	3.5	12.2	8.2	8.6	16.4	3.5	8.0
Forecast Funding	4.2	49.6	2.9	4.0	1.1	1.6	1.1	2.0	1.1	1.1
Funding Gap	-22.3	-0.1	-8.7	-8.2	-19.3	-25.9	-33.4	-47.8	-50.2	-57.1

Levels of Service: Wastewater Services

The current condition rating of an asset can be broadly used to understand the level of service it is performing at and the probability of failure of that asset. When analyzed with the normal estimated useful life of an asset – a variable that is standardized per asset type – the asset's status quo condition can be the baseline point from which to model when an asset will deteriorate to a poor condition rating. By summarizing these two metrics at the whole portfolio level and using the currently approved MYCB project funding and identifying which assets will be renewed as a result of approved capital projects the future condition of the portfolio can be predicted. This analysis has been used to identify the target level of service the assets will perform at in ten years (2034).

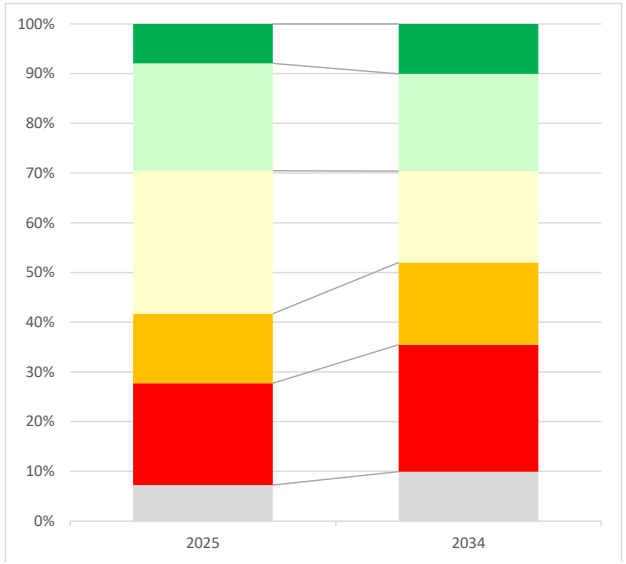
Wastewater Services: Overall Condition as a level of service

Using the combined condition information for the collection network and the WRRC assets the 10-year level of service analysis predicts that there will be an increase in the value of assets in "poor", "very poor" and "past due" conditions as assets age and deteriorate from "good" and "fair" conditions. There is a slight increase in the value of assets in "very good" condition, but this is offset by the increases in the lower condition categories. These results can be seen in Table 22 and Figure 38. These results are based on the information available as of late 2024 / early 2025 and do not consider all the facility upgrades planned at the WRRC. Once complete, those upgrades will improve the forecast 10-year LOS. The results demonstrate the importance of maintaining the current renewal plans and funding strategies that have been followed. Any future decreases in the available funding will result in an increase in the value of assets falling into a condition rating of "poor" or less.

Table 22: Wastewater Services All Assets 10-Year LOS

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	7.9%	10.0%	2.1%
Good	21.6%	19.6%	-2.0%
Fair	28.8%	18.4%	-10.4%
Poor	14.0%	16.5%	2.6%
Very Poor	20.5%	25.6%	5.1%
Past Due	7.3%	9.9%	2.7%
N/A	0.0%	0.0%	0.0%

Figure 38: Wastewater Services All Assets 10-Year Level of Service Condition



Wastewater Collection Network: condition as a level of service

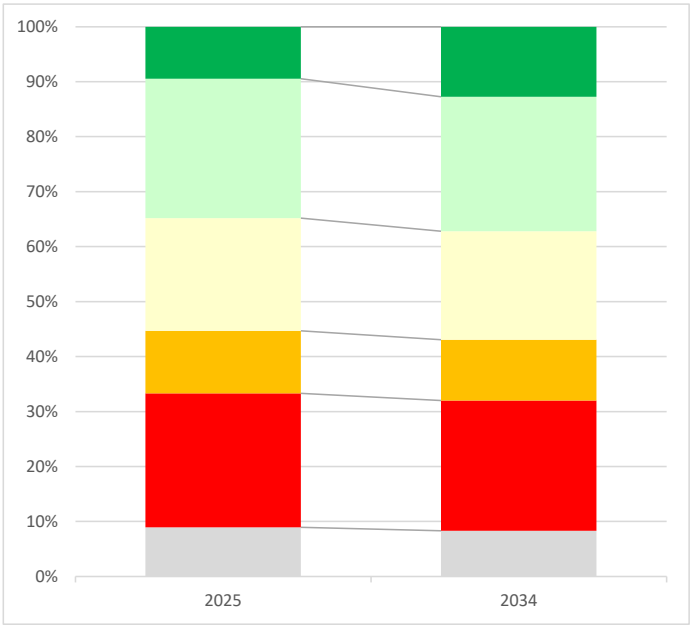
The majority of the asset types in the collection network have long useful lives and during normal service usage deterioration of the assets per year is minimal. Over a 10-year period some change will be seen, but with the portfolio largely comprised of assets with 60+ service lives even the 10-year changes seen will not normally be significant provided that effective and timely renewals are undertaken.

Table 23: 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	9.5%	12.8%	3.3%
Good	25.4%	24.5%	-0.9%
Fair	20.5%	19.8%	-0.8%
Poor	11.4%	11.0%	-0.4%
Very Poor	24.3%	23.7%	-0.6%
Past Due	9.0%	8.3%	-0.6%
N/A	0.0%	0.0%	0.0%

This can be seen in the 10-year LOS analysis that has been completed for the wastewater collection network where there are only very minor changes expected in all the condition ratings. There is a 3.3% increase in assets considered in "very good" condition foreseen, balanced by a slight reduction in all the other rating categories. All changes to the condition profile are summarized in Table 23 and Figure 39. Looking specifically at the sanitary waste collection network assets there is an expected 3.3 point increase in the number of assets in "Very Good" condition. The changes in the remainder of the condition categories are minimal.

Figure 39: Collection Assets 10-Year Level of Service Condition



In summary, the Wastewater services LOS forecast indicates that the existing strategies for maintaining the collection network is good but that more attention WRRC assets receive adequate funding to maintain the LOS they are currently delivering.

Wastewater Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service to represent the assets level of performance. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics. These metrics are a more granular and comprehensive description of asset performance. Table 24 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 24: Wastewater Services Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	2. The number of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system.	• 143 Backups • 35,201 Total Homes • 32,106 Connections • 3,195 "Y" Connections
		3. The number of effluent violations per year due to wastewater discharge compared to the total number of properties connected to the municipal wastewater system.	Zero (0)
	Customer	1. Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes.	The City of Guelph has no combined sewers.
		2. Description of the frequency and volume of overflows in	The City of Guelph has no combined sewers.

Strategic Theme	LOS Type	Performance Measure	Current Performance
		combined sewers in the municipal wastewater system that occur in habitable areas or beaches.	
		3. Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes.	The City of Guelph has no combined sewers.
		4. Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid events described in paragraph 3.	The Sanitary network is buried deeper than the Stormwater and Water networks. The City of Guelph does not use combined sewers. Use of colour coded PVC pipes to avoid cross connections.
		5. Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system.	Water Resource Recovery Centre effluent, which receives advance tertiary treatment with disinfection and de-chlorination and exceeds MECP compliance prior to discharge
City Building	Technical	1. The number of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system.	The City of Guelph has no combined sewers.
		Percentage of properties connected to the municipal wastewater system.	There are approximately 35,201 connections to the Guelph wastewater system. There may be several connections to one property and none to another so determining the percentage of properties connected is unclear.

Strategic Theme	LOS Type	Performance Measure	Current Performance
	Customer	Description of asset replacement/rehabilitation planning and prioritization, defining end of life for assets.	• CCTV and Flushing Program • Rezatec Technology • Lateral Lining Program • State of Good Repair Program • Working with Engineering Department & the Wastewater Collection Team • Asset Management Annual Review • AI Risk Predicting Software
People & Economy	Technical	Wastewater Related Customer Complaints / 1,000 people served	0.00004% (6 complaints) (2023)
	Customer	Description of the strategies used to keep assets and asset services safe and accessible to the public.	Wastewater facilities do not have public access. Facilities include smart-keys, Lock/Key fencing, security systems and SCADA alarming. Maintain a strategy of inspection for a state of good repair.
Environment	Technical	Energy Consumption (kWh)	9,741,676 kWh
		Nat Gas Consumption (m^3)	468,161 m^3
		Water Consumption (m^3)	626 m^3
	Customer	Description of the strategies used to mitigate GHG emissions and reduce water usage	Investigating using treated effluent in place of drinking water for sanitary flushing. Cogeneration facility utilizes captured methane gas to convert to electrical energy. Investigating possible installation of solar panels on the WRRC building roof top sand vehicle charging station(s).

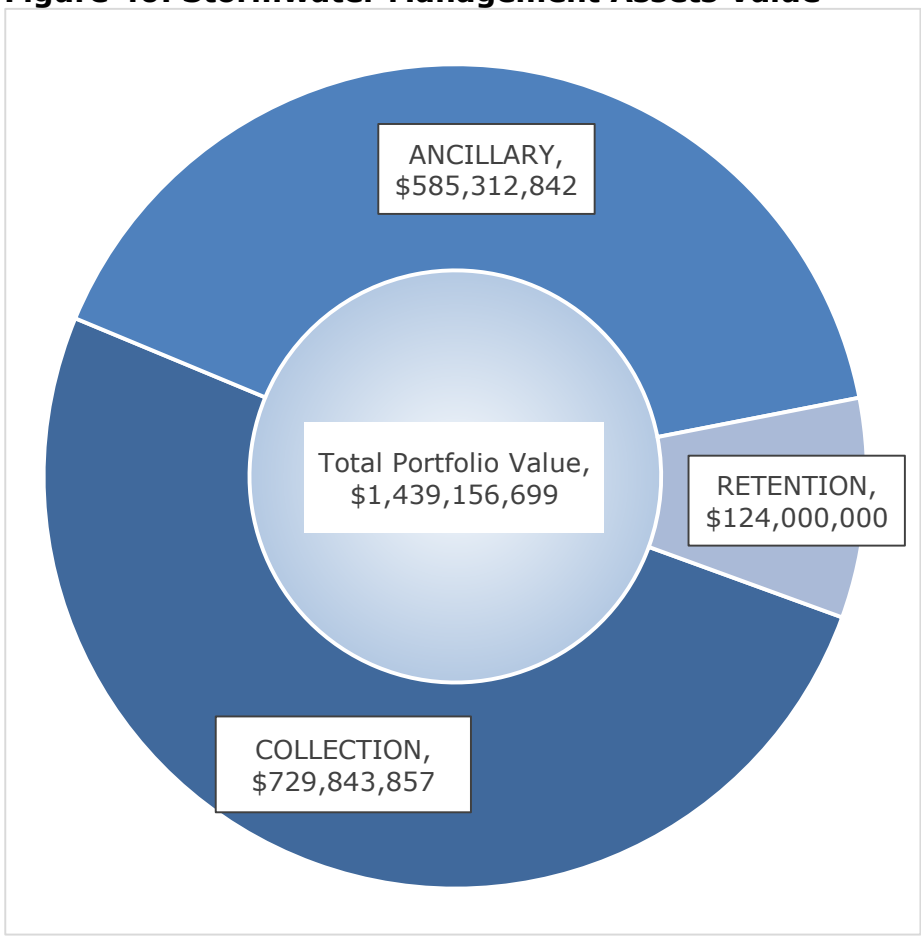
Stormwater Services

General Info

The City of Guelph owns and manages stormwater collection assets that total approximately $1.4 billion in value. The majority of this value is in the underground collection pipes, representing approximately half of the total portfolio value. Related surface level ancillary assets such as catch basins or drains that facilitate the collection process and stormwater management facilities that help retain the water at the surface to reduce the risk of overflowing the pipe network comprise the remainder of the asset types in the portfolio. The value of each category of assets within the portfolio can be seen in Figure 40.

The condition of the assets in the portfolio are relatively evenly distributed across the condition profiles with more than 40% of the assets considered in good or very good condition. Approximately 14.5% or $210 million in asset value are considered in poor or very poor condition. Figure 41 presents a summary of the value of the portfolio assets per condition.

Figure 40: Stormwater Management Assets Value



Collection Network

The stormwater collection network includes approximately 450km of collection pipes with an estimated replacement value of $730 million (2024). The City operates an annual program to monitor and determine the condition of the pipe assets by completing specialized camera scans on the interior of the pipes which are then reviewed by experts to determine the condition and recommend any needed rehabilitation or renewal work.

The most recent information available indicates that overall the network is generally in fair condition, with an even distribution of assets in each of the five condition rating zones when considering the value of

Figure 41: All Stormwater Assets Condition by Value

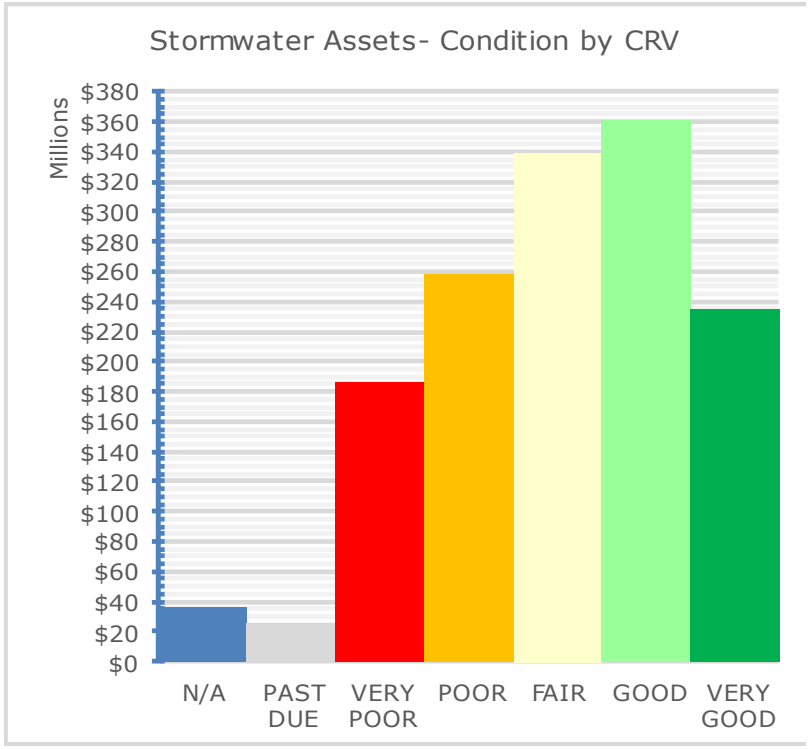
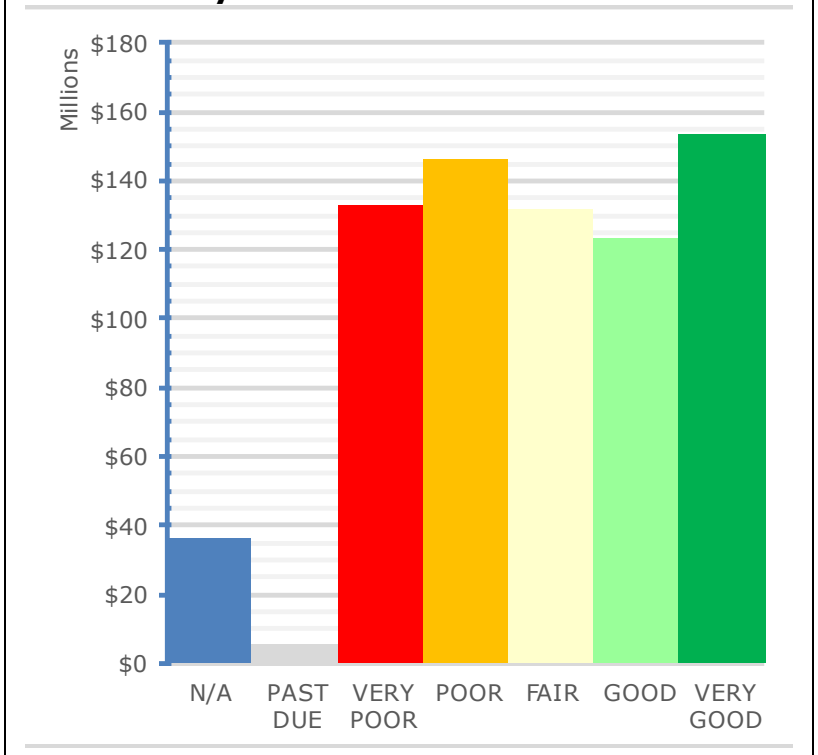
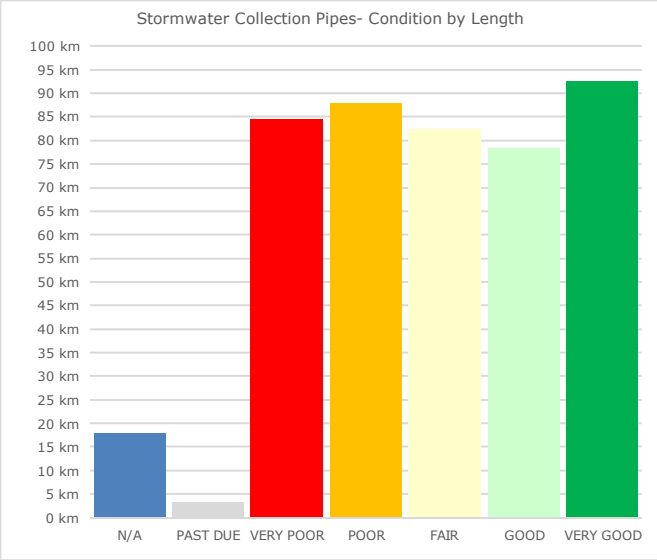


Figure 42: Stormwater Collection Assets Condition by Value



the assets. Figure 42 presents the value of the collection assets per condition while Figure 43 presents the length of pipe assets per condition ranking.

Figure 43: Stormwater Collection Assets Condition by Length (km)



Other Stormwater Assets

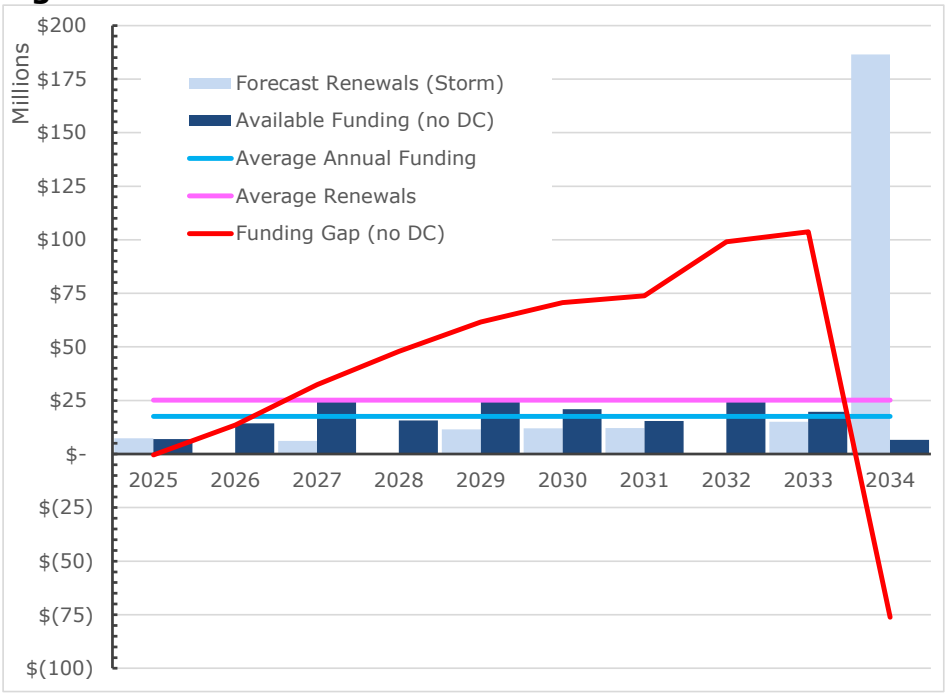
Water enters the stormwater collection pipes via a variety of ways including catch basins and open ditches. Outfall structures are installed at the end points of the pipes where the stormwater discharges to a natural watercourse. Culverts allow the passage of water under a roadway or trail. The condition of these types of assets are generally based on the items age as a ratio of its expected service life. An exception to this is culverts with a span or diameter greater than 3m – these assets are included in the City's bi-annual structural assessment program in compliance with Provincial mandates. These ancillary items are also often replaced as part of larger projects, not as an individual project, however, they do also receive regular maintenance and repairs on an as-needed basis.

There are approximately 124 Stormwater Management Facilities (SWMF - water retention ponds) in the asset portfolio. These facilities allow the retention of stormwater for a temporary time period, slowly releasing the water into the collection network to prevent overloading the pipe network at a single time, and allowing sediment and other stormwater pollutants to settle out of the stormwater prior to discharging into the network. Once constructed, SWMF will rarely be decommissioned or destroyed, however, they do require regular maintenance to remove the build-up of sediment or other debris that collects during normal use. These cycles are measured in years: a good practice is that the design of the SWMF should consider a 25-year lifecycle before major silt clean-out should be required.

Renewal Forecast: Stormwater Services

Between 2025 and 2034 the forecast capital renewal needs total $251 million. This represents predicted work on the collection network (pipes) and all of the related assets that support the collection and treatment of stormwater. During the same time period the forecast available funding is $175 million. The funding value was determined by reviewing the projects approved in the 2025—2027 MYCB and using the indicated funding source for each project to categorize the project as a stormwater project[16]. Because many stormwater renewals are completed as part of a larger road right-of-way renewal or reconstruction the proportion of the funding from the stormwater reserve fund for those projects was included in this calculation. See Figure 44.

Figure 44: Stormwater Services Renewal Needs vs Funding



The results of this review predict a total funding shortfall of $76 million at the end of 2034. It is important to note these results are a model using the best available data as of late 2024 / early 2025 and that when actual renewal needs are reviewed and tangible capital projects developed from those needs there will be a chance to distribute the renewal work to be more aligned with the funding patterns. This would allow the predicted backlog to be minimized, and it may be possible to completely eliminate the backlog.

[16]Funding for stormwater services renewals is generated via the usage charges residents and businesses pay.

The logistics of capital construction and maximizing project funding to provide the greatest benefit to the majority of assets at a single time mean that some stormwater assets will be replaced earlier than what has been predicted in the forecasting. For example: the poor condition of a road in combination with aging water infrastructure may mean the stormwater infrastructure is replaced in the same project, even if the stormwater assets do not meet the normal criteria for replacement at that time. Additionally, the functional performance metrics of an asset may no longer meet needs even if the physical condition of the asset is acceptable and so an asset would be replaced with a larger or better performing version of the same asset as a service enhancement.

A review of the MYCB capital projects that include funding from the stormwater reserve fund shows that nearly all of them are roadway right-of-way projects that will include replacement of assets that have reached the end of their lifecycles with some assets being upgraded during these projects to provide a service enhancement. A small set of the approved projects are indicated as new stormwater management assets (i.e. stormwater management facilities or similar).

As discussed in other sections of this AMP any funding from development charges intended for stormwater assets is not included in the renewals vs. funding analysis. The DC funding is intended to support new assets to accommodate growth or enhanced service delivery not replacement of existing assets. Within the road right-of-way projects there will be work done that include these two categories but at this time it is not possible to identify which existing assets are being upsized.

Many new stormwater assets – such as underground pipes and surface level stormwater management facilities – are constructed in partnership with or solely by developers constructing new residential or commercial properties. The initial capital costs of these new assets are sometimes borne by the developers but the long term operations, maintenance and ultimate replacement of the assets is the City’s responsibility. The renewal forecast does not include any values for these capital projects.

The forecast needs of the stormwater assets are greater than the current known available funding and so a prioritized strategy to identify the assets needing the most attention is used to focus the funding where it is most needed. Because stormwater assets are often part of larger right-of-way work this strategic planning crosses multiple asset classes.

Table 25: Stormwater Services Facilities Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	7.4	0.4	6.1	0.2	11.5	12.0	12.2	0.1	15.1	186.4
Forecast Funding	7.0	14.3	25.0	15.7	25.3	21.0	15.5	25.2	19.7	6.6
Funding Gap	-0.4	14.0	18.8	15.5	13.7	9.0	3.3	25.2	4.7	-179.9

Levels of Service: Stormwater Services

The condition rating of an asset can be broadly used to understand the state an asset is in, the level of service it is performing at and the probability that it will fail. Assets are also given an estimated useful life which establishes when an asset will deteriorate to a poor condition rating. These two statistics, combined with the City's capital budget, can predict the condition of the portfolio into the future. This targets the level of service the assets will perform at in ten years.

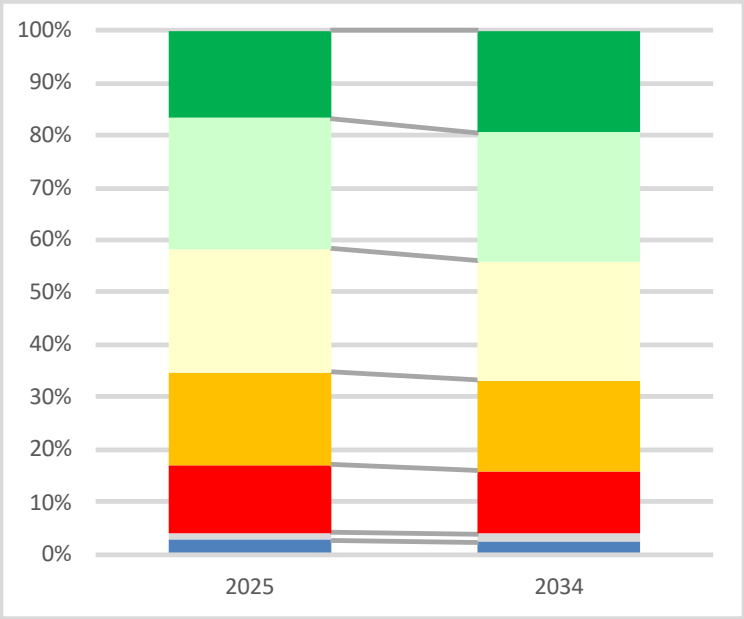
Overall Portfolio Condition as a Level of Service

The lifecycle of stormwater assets can be substantially longer than the 10-year horizon of this analysis and so limited change to the condition would be expected. The results of the LOS review confirm this: the projected condition of the portfolio in 2034 vs. 2025 is almost the same. There is a small (2.8 percentage point) increase projected for assets in "Very Good" condition as a result of planned capital work over the next ten years. Overall, the stormwater asset condition is projected to improve without any increases in the assets rated as "Past Due". All changes to the condition profile are summarized in Table 26 and Figure 45.

Table 26: Stormwater Assets 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	16.7%	19.5%	2.8%
Good	25.0%	24.5%	-0.4%
Fair	23.5%	22.9%	-0.7%
Poor	17.8%	17.3%	-0.5%
Very Poor	12.8%	11.8%	-1.0%
Past Due	1.5%	1.4%	-0.1%
N/A	2.6%	2.6%	-0.1%

Figure 45: Stormwater Assets 10-Year Portfolio Level of Service Condition



Collection Network Condition as a Level of Service

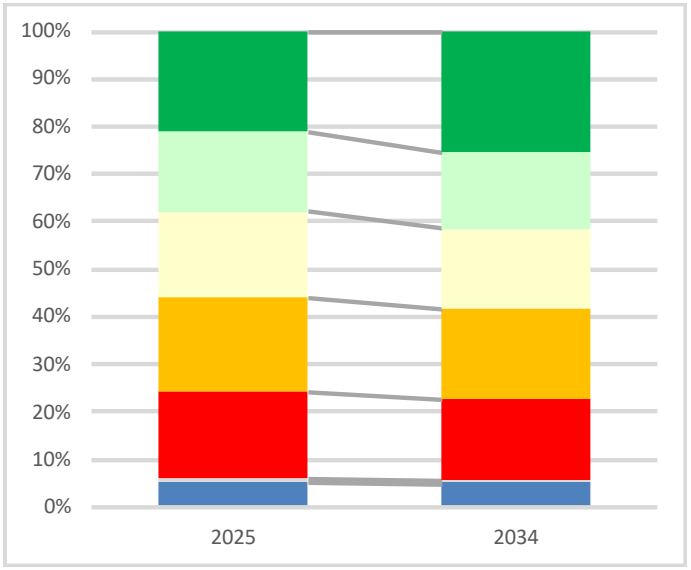
The stormwater collection network has a similar projection as the overall stormwater portfolio. An increase of 4.3 percentage points is expected for assets in "Very Good" condition, while there is a 1 point decrease expected for assets in "Very Poor" condition. All changes to the condition profile are summarized in Figure 46

Table 27 and Table 27.

Table 27: Stormwater Collection 10-Year Collection Network Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	21.1%	25.4%	4.3%
Good	16.9%	16.1%	-0.7%
Fair	18.0%	16.8%	-1.2%
Poor	20.0%	19.1%	-0.9%
Very Poor	18.2%	17.1%	-1.1%
Past Due	0.8%	0.5%	-0.2%
N/A	5.2%	5.1%	-0.1%

Figure 46: Stormwater Collection Network Level of Service Condition



Stormwater Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service their assets are performing at. These metrics are a more granular and comprehensive description of asset performance. Table 28 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 28: Stormwater Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	1. Percentage of properties in municipality resilient to a 100-year storm.	Our 2023 Stormwater Management Master Plan included a quasi-calibrated major/minor system hydrologic and hydraulic model. This model demonstrated that climate change and intensification pose a risk to the level of service provided by the storm system. Low Impact Development strategies were recommended to try and mitigate this risk and build climate change resiliency into the system. It's also recommended we calibrate the existing sewer network model via flow monitoring. The model calibration will permit the City to more accurately evaluate and select the preferred remedial approaches to improve the level of service. It was further recommended that upcoming capital roads projects consider the outputs of the calibrated model when sizing storm sewer upgrades.
		2. Percentage of the municipal stormwater management system resilient to a 5-year storm.	Our 2023 Stormwater Management Master Plan included a quasi-calibrated major/minor system hydrologic and hydraulic model. This model demonstrated that climate change and intensification pose a risk to the level of service provided by the storm system. Low Impact Development strategies were recommended to try and mitigate this risk and build climate change resiliency into the system. It's also recommended we calibrate the existing sewer network model via flow monitoring. The model calibration will permit the City to more accurately evaluate and select the preferred remedial approaches to improve the level of

Strategic Theme	LOS Type	Performance Measure	Current Performance
			service. It was further recommended that upcoming capital roads projects consider the outputs of the calibrated model when sizing storm sewer upgrades.
	Customer	Description, which may include maps, of the user groups or areas of the municipality that are protected from flooding, including the extent of the protection provided by the municipal stormwater management system.	The City storm water network covers approximately 448 km of storm water pipes, 25 storm water channels, 916 storm water culverts, 187 oil and grit separators and 124 storm water management facilities.
City Building	Technical	% of community with stormwater quality control	The 2023 SWM-MP provides a summary of existing conditions based on available information extracted from background reports such as watershed studies and monitoring programs, GIS mapping and City databases. Guelph covers approximately 88 km^2 of land. The City is composed of 23 sub watersheds with approximately 90 km of watercourses, and is characterized by a mixture of land-uses. Stormwater management facilities within the City provide various levels of control to 2,899 ha (46.6 percent) of the City. Of this area, approximately 1,746 ha (28.1 percent) are controlled for water quality, and 2,335 ha (37.6 percent) are controlled for water quantity.

Strategic Theme	LOS Type	Performance Measure	Current Performance
			Accordingly, there are approximately 3,318ha (53.4 percent of urban area) that do not have either water quality or quantity control, with much of this area built before current SWM requirements/ policies.
People & Economy	Technical	Number of service requests	2021: 102 SR, 771.7mm rainfall 2022: 113 SR, 438.5mm rainfall 2023: 96 SR, 813.1mm rainfall 2024: 116 SR, 875.5mm rainfall
	Customer	Description of the strategies used to keep assets and asset services safe and accessible to the public	Storm sewer flushing, catch basin cleaning, sediment removal (OGS and stormwater management facilities), street sweeping, erosion and sediment control, leaf pick-up and removal, cross connection control, public education, business education and awareness, snow plowing and storage
Environment	Customer	Description of environmental sustainability initiatives (e.g., GHG emission mitigation, water usage reduction).	The 2023 SWM-MP included two new policy documents including Stormwater Infiltration Policy Recommendations and Stormwater Design Criteria and Targets. As recommended in the MP, the City updated its Development Engineering Manual in 2023 to account for these new policy documents.

Facilities and Energy Management

General Info

The City of Guelph owns and manages a large portfolio of facilities and buildings that either directly or indirectly deliver services to the community. These include recreation centres, fire stations, office and administration spaces, City vehicle maintenance and repair garages, storage facilities and more. The City's Facility and Energy Management (F&EM) team is responsible for the long-term asset management and the day to day operations and maintenance needs for the majority of these facilities.

In previous asset management plans the facility assets were classed according to the service they provided, which closely match the following departments and asset categories:

- City Administration
- Recreation & Cultural
- Transportation Operations
- Parking
- Provincial Court House
- Guelph Fire Services
- Guelph Transit Services
- Guelph Paramedic Services
- Solid Waste Services
- Parks
- Water Services
- Wastewater Services
- Guelph Library
- Guelph Police Services

To better match capital budget allocations for the Facility and Energy Management team the following services and classes of facilities will be reviewed as a single service delivery area:

- Corporate Plans, Programs and Technology
- Corporate Facilities, Public Works and By-Law
- Emergency Services (fire and paramedic services only)
- Parks and Open Spaces
- Parking and Transit Services
- Solid Waste Services
- Culture and Recreation

Facilities that support water services, wastewater services, Guelph Library and Guelph Police Services are not included in this consolidation effort. In the case of Water and Wastewater services there are some facilities that require direct management by subject matter experts due to the specialized equipment and the work performed in those locations. Guelph Library and Guelph Police services each have a separate Board of Directors that assumes responsibility for determining and managing the budget needs for those services. The current status and renewal needs of the facilities for these four services will be included with

the overall analysis of those services in following chapters.

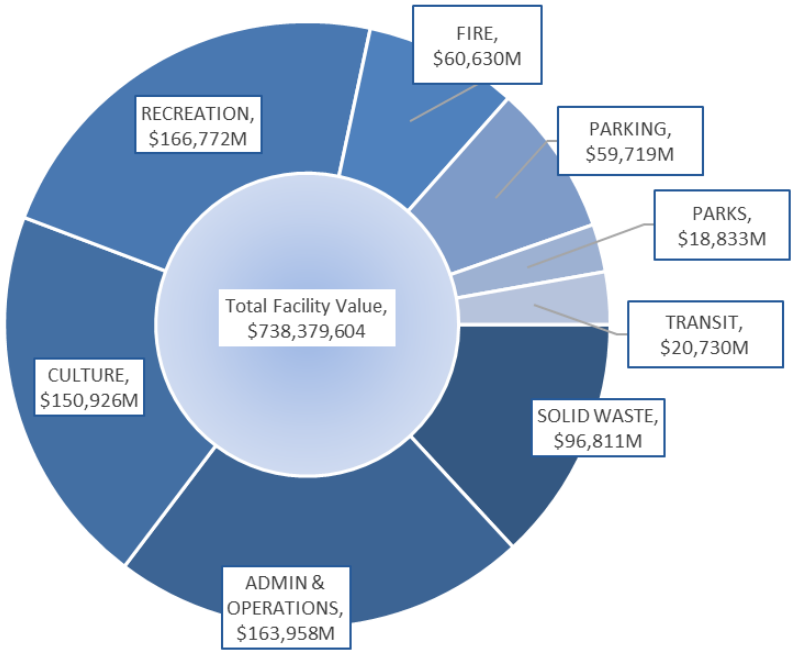
Facility Assets Value

The value of the facilities that are included in the revised category for Facilities and Energy Management is approximately $738 million[17]. The major facilities included in this category include:

- City Hall
- City Operations centres for storage and/or fleet maintenance activities
- Sleeman Centre, Riverrun Centre and other cultural facilities
- All recreation centres
- Waste Resource Innovation Centre
- Guelph Transit service facility
- All Fire Stations and the City's centralized emergency management facility
- All buildings or shelters in City Parks
- City owned parking garages and surface lots

Figure 47 is a chart that demonstrates the value of the facilities in each portfolio. These are replacement values that equate to the estimated cost to build a given facility of equal size and function to current design and construction standards and are based on the best information available in 2024. These are not sales market values, nor insurance replacement values, nor the original construction cost of the facility. City staff monitor the regional facility construction costs on a regular basis, and also make use of information provided by consultants to validate and update these values as needed.

Figure 47: Value of City Facilities by Service



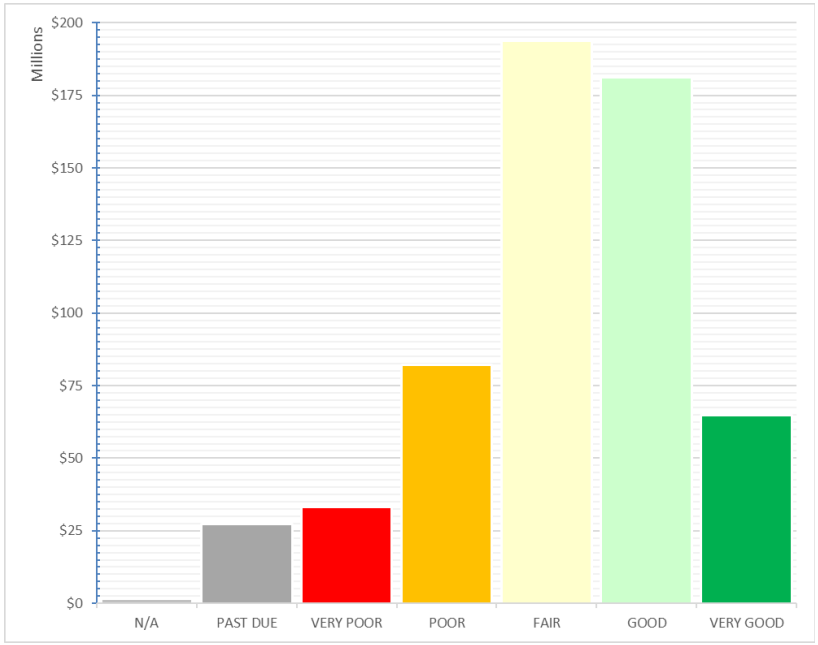
[17] Total of 2024 calculated replacement values. Does not include Guelph-Wellington Paramedic Services stations

Facility Asset Conditions

The determination of the renewal needs for facilities is done through the completion of facility condition reports provided by engineering and/or architectural consultants engaged by the City combined with input from City staff engaged in the day-to-day management of the facilities. Each separate element or equipment unit in a facility is assessed, given a condition rating and any recommendations regarding future actions needed to ensure the element remains functional are developed. The total of all the elements in a single facility are consolidated to determine an overall condition and sum of expected renewal, repair or replacement costs.

The most recent assessments indicate that about 33% of the equipment assets are in good or very good condition. A further 26% are in fair condition. The distribution of the asset values per condition rating are presented in Figure 48.

Figure 48: Distribution of Assets Value per Condition



When reviewed at the whole facility level, the average condition of the facilities is considered fair. While none of the facilities have any single major deficiencies the accumulation of needed renewal work compared to decreasing capital and preventive maintenance budgets in recent years has resulted in some assets remaining in use past what would be considered a normal lifecycle. Examples of this include building roofs or windows not being replaced at their design lifecycle but remaining in use with regular maintenance and as-needed repairs. These types of problems do not greatly affect the performance of the facilities but because of the way deficiency modelling and asset condition ratings are determined they impact the overall reported condition of an asset by lowering the scores.

From a functional perspective several of the older City facilities have been identified as no longer meeting modern needs. Examples include the Operations facility at 45 Municipal Rd. and the main Guelph Transit service facility. These functional challenges have been recognized and major capital programs

such as the construction of a new centralized vehicle maintenance facility have been approved to address the needs, though some of those projects do not yet have a firm timeline for implementation.

Other facility equipment assets will be replaced as part of the City's climate change actions to mitigate the risks associated with climate related impacts or to reduce the effect of the City facilities on the climate. The City's FEM team maintains a strong focus on installing HVAC and other energy using equipment that functions with as minimal an effect on the environment and climate as possible. In general, the City is striving to shift its energy usage to be less dependant on fossil fuels and more reliant on renewable sources. When mechanical and HVAC equipment in a facility require renewal and / or replacement these considerations will be prioritized in the selection of new equipment.

Renewal Forecast: Facilities

Using the known condition of the individual assets at each facility and comparing those results against normal useful lifecycles to predict when a particular asset would require replacement resulted in the development of a 10-year asset renewal needs forecast was developed with the following comments:

- Renewal costs are predicted using the current accepted replacement cost for one asset at a time and include a contingency for project soft costs. Final projects will group the replacement of multiple assets in a single project that normally results in lowering the total value of those project soft costs. The renewal analysis methodology does not allow for this grouping and so the costs presented will not be the same when project work is done.
- Likewise, the predicted renewal costs do not always account for the inclusion of functional upgrades (i.e. upsizing a piece of equipment or replacing an existing type of HVAC unit with a more energy efficient unit). These service enhancement type actions are often implemented when an asset is renewed.
- Any renewal needs for the Drill Hall, Carter House and Forestall House were omitted: these three facilities are not in use and are known to require major renewal work. It is hoped that development plans for these facilities will involve a new occupant to be responsible for some or all needed capital renewals when the facilities do return to use, however, until that occurs these facilities will remain in their status-quo state with work being done as needed to maintain their current state and also to ensure any risk to the public as a result of the condition of the facility is minimal.
- Given the age of some of the building assessment reports it is probable that some of the equipment items identified as being in poor or very-poor condition have already been replaced or that other work was done on a facility that resulted in the replacement of assets. When known this has been

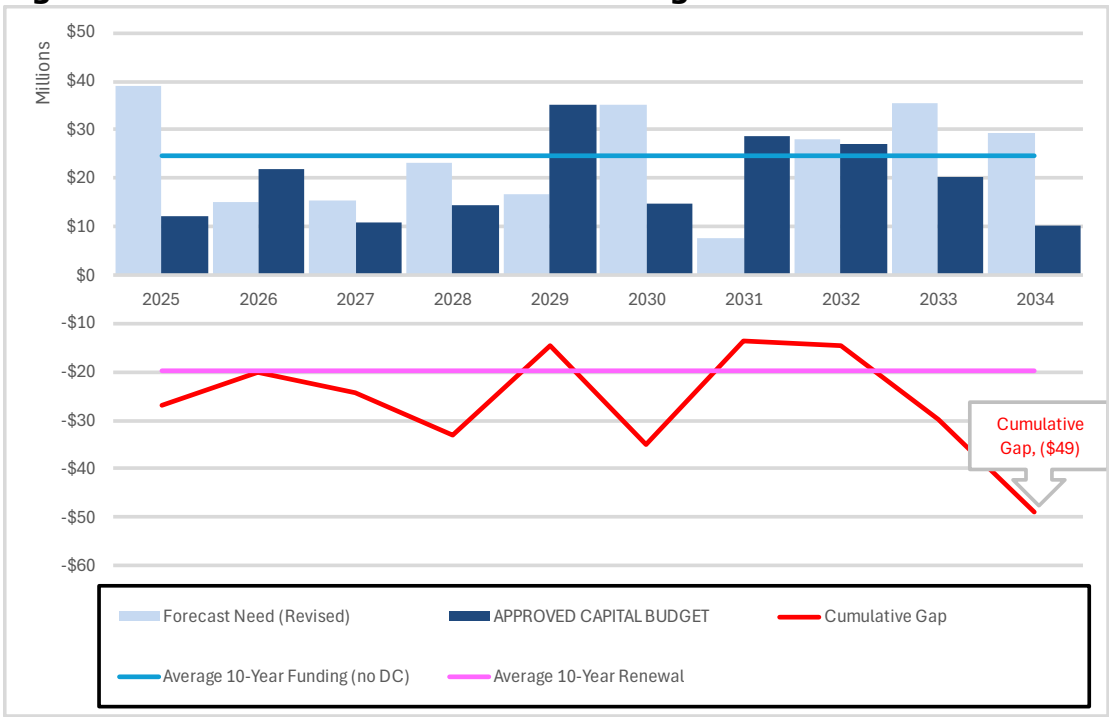
accounted for. Future BCA work planned in 2025/2026 will provide updates to this information.

Despite these points the calculation of future renewal costs is considered an effective tool.

Between 2025 and 2034 (i.e. the next ten years) the forecast capital renewal costs total approximately $245 million[18]. During that same time period the approved and forecast capital budget for facilities totals approximately $196 million – an approximately $49 million shortfall.

One of the main causes of this shortfall is the existing backlog of renewal work that existed prior to 2025 but was not completed. This backlog is estimated at approximately $30 million. Combined with the normal forecast needs in 2025 this results in an estimated $41.6 million of renewal work needed vs. a 2025 budget of $10.7 million. In nearly all following years the forecast budget is less than the forecast renewal needs. Using an assumption that the value of any incomplete work is carried over to the following year, and any surplus funding in a year is also carried over, the current needs vs. funding scenario results in a finding that the backlog will

Figure 49: Forecast Renewals vs. Funding



[18] Forecast renewal costs calculated in 2025 are inflated at a rate of 3% per year in following years and also include a 15% contingency factor

continue to grow ultimately reaching $58 million. These results are presented graphically in Figure 49.

The predicted renewal needs vs. funding analysis does not include any approved budget spending for entirely new facilities. Already approved is capital funding for a new fire training facility (burn tower), the previously mentioned centralized service facility that will include the necessary equipment for re-charging the new Guelph Transit electric buses and provide other services, and a new downtown Guelph Paramedic station.

The approved capital renewal budget also does not always allocate funding to a specific need: many of the funding allocations are in the form of an annual budget for general renewal needs: Court Services, Recreation, Culture and Administration facilities each have such a budget allowing good flexibility to focus renewal needs on the priority assets which do change with time. More details related to these services and their needs vs. funding scenarios will be presented in later chapters.

One of the tools used to help prioritize the scheduling of identified needed renewals is the criticality of a given facility to the service delivery of the City. For example, it is essential that the City has Fire Stations in good functional condition that can accommodate modern fire fighting needs. Some city facilities are designated for other types of emergency service like being able to act as a warming centre during extreme cold periods, or as a cooling centre for extreme hot periods for people who may not have another reliable and safe shelter location. These types of scenarios and community needs are regularly evaluated and help establish a focus to prioritize facility renewals in an environment where insufficient funding to do everything required is the norm.

Besides the previously discussed facilities approved for construction but without a finalized schedule the City has new facility projects already under construction. These include the Baker Street development project which includes a new parking facility as well as a new main library branch, and the South End Community Centre. Once completed and commissioned these new facilities will greatly increase the value of the City’s facility portfolio but will also increase future renewal / maintenance needs. Given the newness of these facilities any expected renewals in the 10-year forecast time period of this plan are minimal. But the operating and preventive maintenance needs of these new and the already existing facilities should be given maximum attention because ensuring the regular maintenance tasks are done will help extend the lifecycle of the facilities, ultimately lowering annual renewal costs.

Table 29: Facilities Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	7.2	39.2	15.0	15.4	23.2	16.7	35.0	7.5	28.0	35.6
Forecast Funding	0.0	12.2	21.9	11.0	14.5	35.3	14.6	28.8	27.1	20.2
Funding Gap	-7.2	-26.9	6.9	-4.4	-8.7	18.6	-20.4	21.3	-0.9	-15.4

Levels of Service: Facilities

The condition rating of an asset can be broadly used to understand the status-quo state of an asset, the level of service it is performing at and the probability of failure of that asset. The normal estimated useful life of an asset – a variable that is standardized per asset type – is used in combination with the asset's status quo condition to model when an asset will deteriorate to a poor condition rating. By summarizing these two metrics at the whole portfolio level and using the predicted funding available in future years from the City's capital budget the future condition of the portfolio can be predicted. This analysis has been used to identify the target level of service the assets will perform at in ten years.

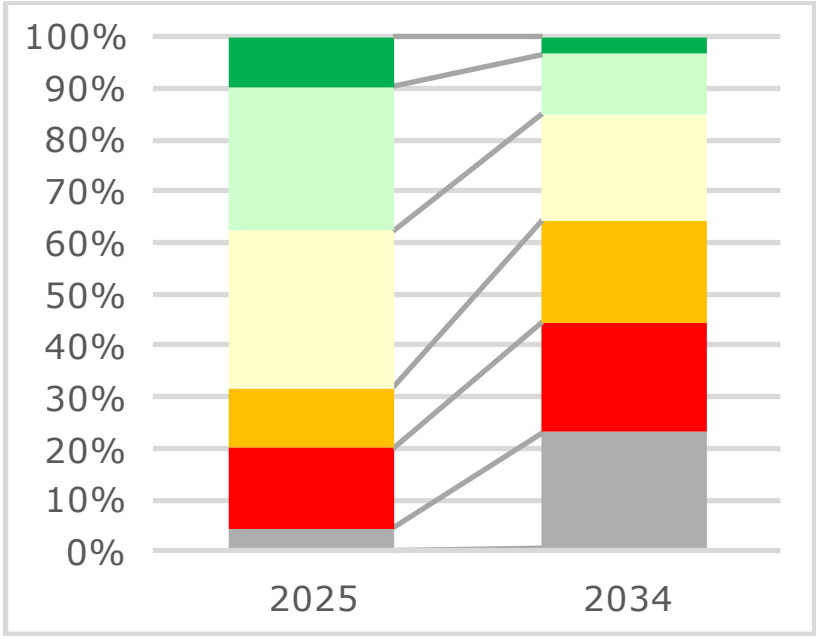
Portfolio condition as a level of service

Across the City, the facilities are aging through normal use and deterioration. By 2034 this is expected to result in an increase of 12.8 percentage points of assets in "Very Poor" condition and 14.4 points in assets which are "Past Due". During the same period the number of assets in very good, good or fair condition states will decrease. Overall, the facility assets are expected to deteriorate faster than they are being repaired, resulting in a growing backlog over the 10-year horizon. All changes to the condition profile are summarized in the following table and chart

Table 30: Comparison of the 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	10.8%	3.2%	-7.2
Good	29.4%	12.3%	-17.1
Fair	34.0%	22.9%	-11.1
Poor	12.4%	20.5%	+8.1
Very Poor	9.6%	22.4%	+12.8
Past Due	3.8%	18.2%	+14.4
N/A	0.0%	0.4%	+0.4

Figure 50: Chart of the 10-Year Portfolio Level of Service Condition



Facilities Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service their assets are performing at. These metrics are a more granular and comprehensive description of asset performance. Using the final approved version of the 2025-2028 Multi-Year Capital Budget and updated condition or other data available since the 2024 AMP was approved the previously reported current levels of service have been updated and are presented in Table 31.

Table 31: Facilities: Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
City Building	Technical	% of facility assets in poor or less condition	27.2%
Environment	Technical	Energy Consumption (kWh)	46,823,212 kWh
	Technical	Natural Gas Consumption (m^3)	2,181,533 m^3
	Technical	Water Consumption (m^3)	265,171 m^3
	Customer	Description of the environmental sustainability initiatives implemented in administration and operations facilities	Design standards for new facilities have been updated to be more energy efficient. As facility elements are identified for renewal, more energy efficient options are chosen.

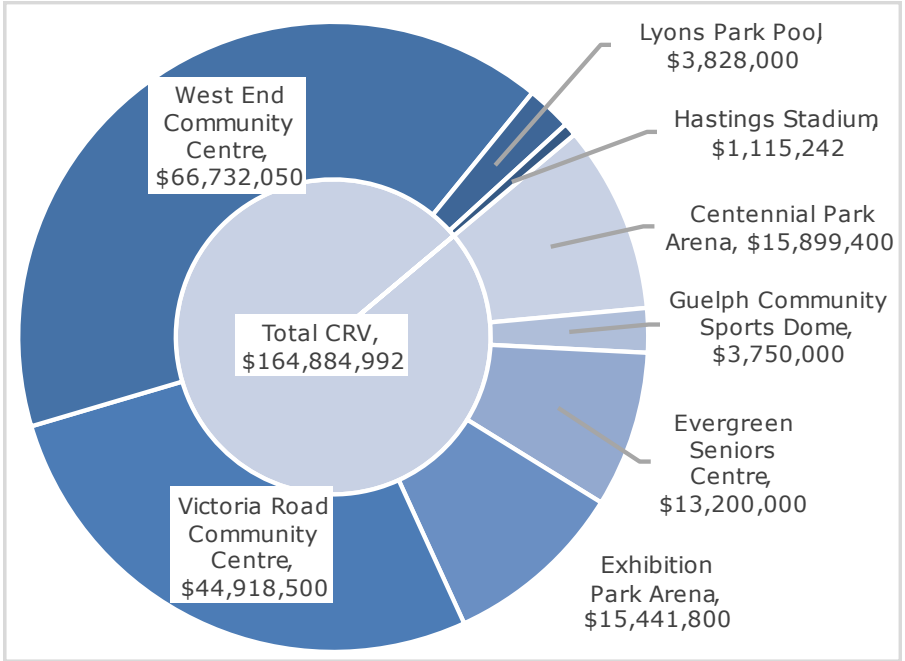
Recreational and Culture Facilities

General Info

The City of Guelph operates a total of seven (7) facilities that are categorized as recreation assets. These represent multi-sport recreation facilities, stand-alone ice surfaces, and a baseball stadium. Another seven (7) facilities are categorized as "Cultural" facilities including the Guelph Civic Museum, Sleeman Centre, Riverrun Centre, John McCrae House and two smaller facilities. Twenty-nine (29) public art installations are also part of the cultural asset portfolio however they do not have an evaluated condition within this plan.

The Culture and Recreation Facilities include some of the most publicly high profile and community used facilities in the City portfolio, providing some unique services. The activity programming at these facilities is managed directly by staff from the Culture and Recreation Department but most of the major facility operations and capital needs are managed by the City's Facility and Energy Management team. Sleeman Centre and Riverrun Centre each have a dedicated Facilities Management team that manages day-to-day operations needs. Like all facilities owned by the City the status-quo physical condition of the facilities is determined by engaging specialized consultants to perform on-site assessments of all elements of a facility. Because the Facilities and Energy Management team is responsible for capital renewals of these facilities the "Facilities" chapter can also be referenced for more information regarding the facility capital renewals for the City.

Figure 51: Recreation Facilities and their Replacement Values

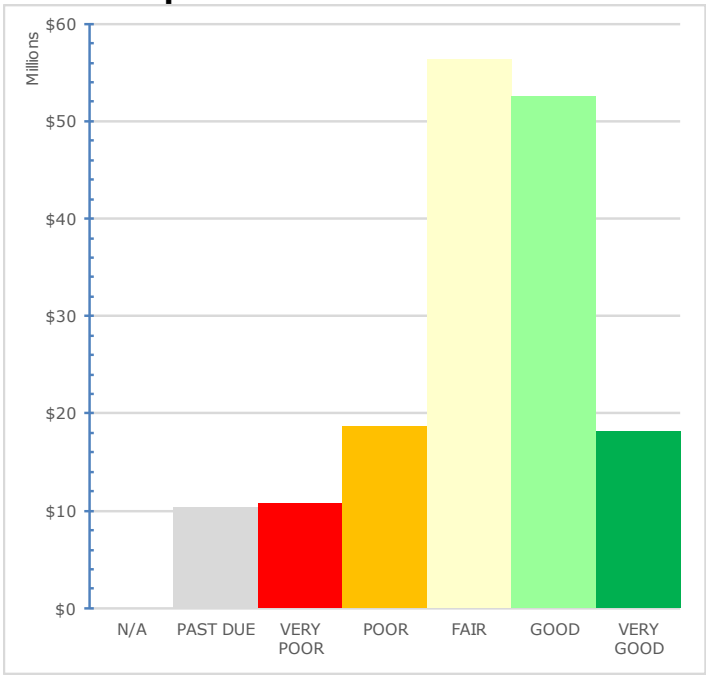


Recreation Facilities: Status Quo Condition

As of 2024 the recreation facilities are estimated to have a replacement value of approximately $165 million and more than 40% of the elements by value are in good or very-good condition, with another 34% in fair condition. In other words, the condition of the portfolio is considered good overall. The chart in Figure 52 presents this information in a graphical manner.

With the exception of Exhibition Arena, recreation facilities were last fully assessed in 2019 although through normal operations City staff maintain an awareness of any problems or needs that arise and take necessary actions in a time appropriate manner. Any condition or cost information collected in 2019 was pro-rated to 2024 values using normal inflationary models. The full list of the Recreation Facilities and their respective replacement values are presented in Figure 54**Error! Reference source not found.** while the condition ratings by value are presented in Figure 53.

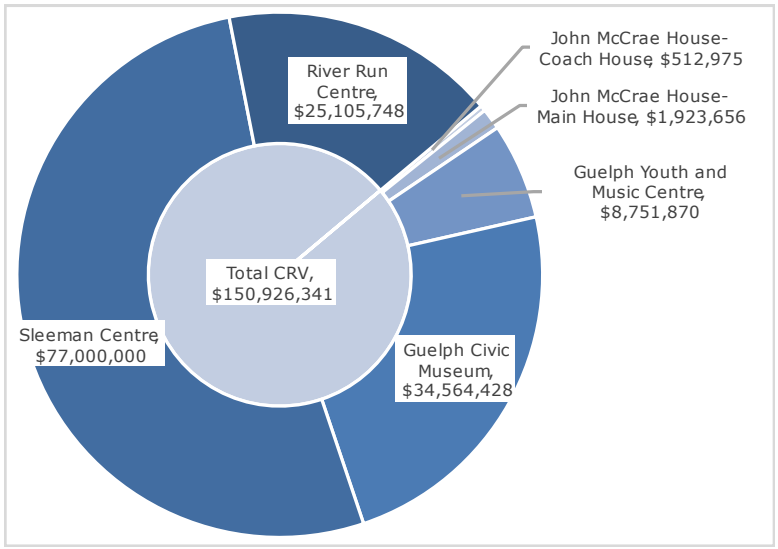
Figure 52: Value of recreation facility elements per condition



Culture Facilities: Status Quo Condition

As of 2024 the culture facilities are estimated to have a replacement value of approximately $151 million

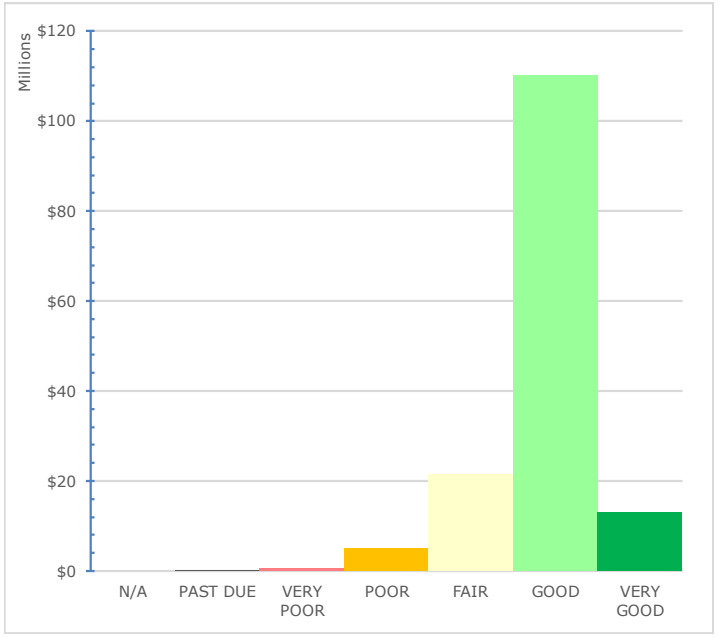
Figure 54: Culture Facilities Replacement Value



with another $1.5 million of equipment or fleet assets that support the service delivery. More than 80% of the elements by value are in good or very-good condition, with another 13% in fair condition: the condition of the portfolio is considered good overall. The chart in **Error! Reference source not found.**Figure 53 presents this information in a graphical manner[19].

Most of the Culture facilities were assessed in 2022. Any condition or cost information collected earlier than 2024 was pro-rated to 2024 values using normal

Figure 53: Culture Facilities Condition by Value



inflationary models. The full list of the Culture Facilities and their replacement values are presented in Figure 54.

Renewal Forecast: Recreation Facilities

Between 2025 and 2034 the forecast capital renewal needs for the Recreation portfolio total approximately $59 million, with a large percentage of that forecast as needed at West End Community Centre (Figure 56). During that same time period forecast available funding is $38 million resulting in a total 10-year funding gap of $21.3 million. Figure 55 displays this graphically.

Note that the condition data the analysis is derived from was compiled in 2019. Through normal facility operations and maintenance many of the needs identified at that time have been addressed. During the same time period other needs would have arisen through normal use and operations of the facilities. The Recreation facilities are scheduled to be reassessed in 2025. This will allow an updated capital needs assessment to be completed. Based on trends in other services it is presumed that the value of the forecast needs will decrease from what is presented here as a result of the strategic prioritized planning that City staff have implemented since the first AMP in 2017.

Figure 55: Renewal Needs vs. Funding: Recreation Portfolio

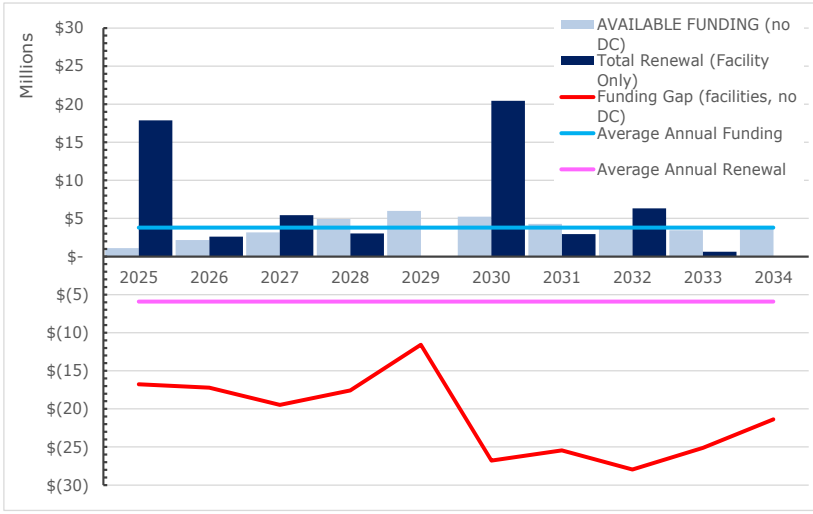
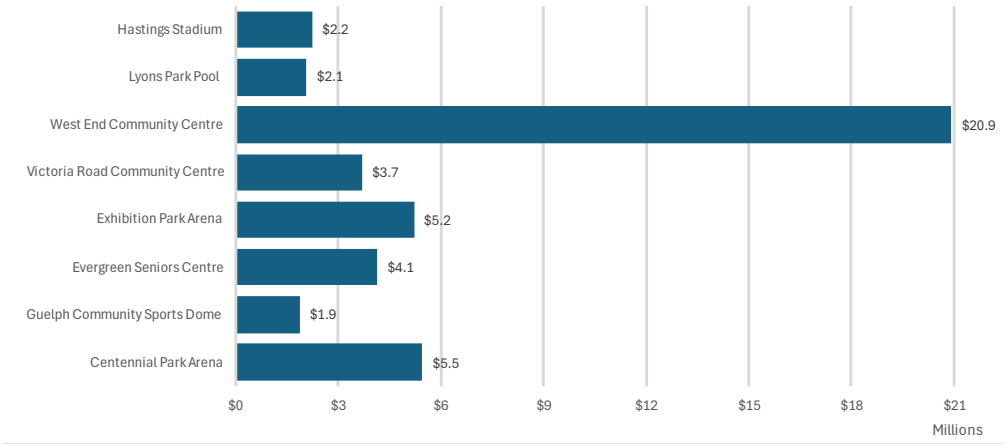


Figure 56: Recreation Facilities 10-Year Forecast Renewal Value



Renewal Forecast: Culture Facilities

Between 2025 and 2034 the forecast capital renewal needs for the Culture portfolio are estimated to total approximately $26.5 million. with only $15.5 million in funding available. This results in a total 10-year funding gap of $11 million. The culture portfolio includes two of the largest facilities in the City inventory: Sleeman Centre and Riverrun Centre. Along with the remaining facilities in the portfolio, the needs of the facilities equal about 95% of the total needs of the portfolio.

The capital renewal needs and project planning for most of the elements in the Culture facilities are managed by the Facilities and Energy Management group and so the funding available for those needs is included in their capital budget. Sleeman Centre and Riverrun Centre each have a dedicated Building Management team that manages the day-to-day operations, maintenance and repair needs at the buildings. Any work related to equipment or building elements not considered part of the base-building elements is managed directly by those teams.

Figure 57: Renewal Needs vs. Funding: Culture Portfolio

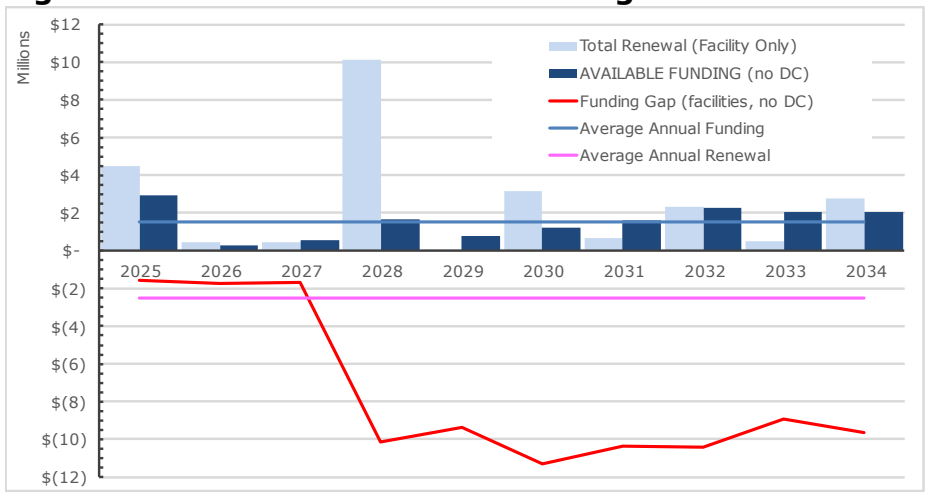
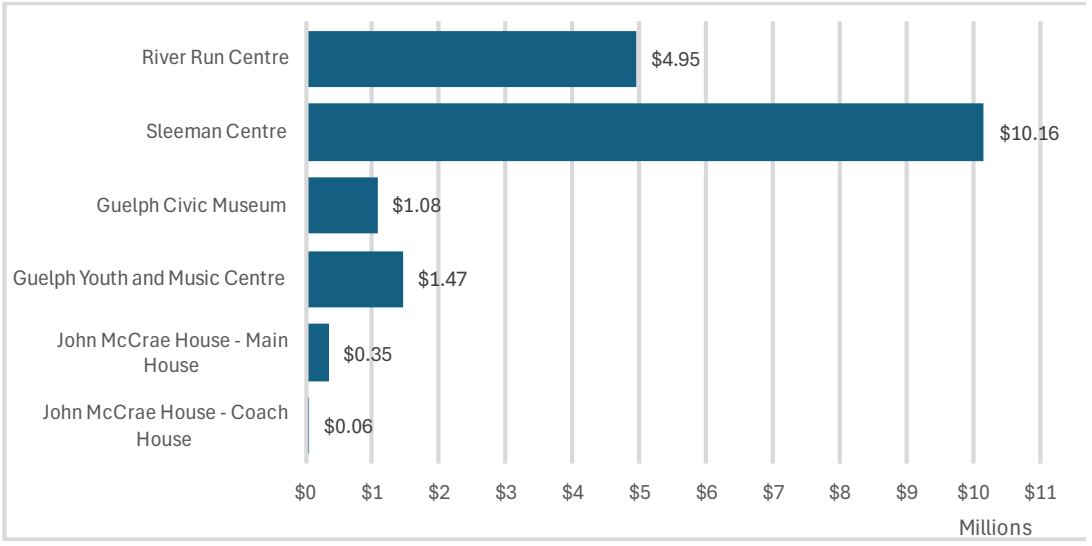


Figure 58: 10-Year Forecast Renewal Value per Facility



The total ten-year renewal forecast for each facility in the portfolio is shown in Figure 58 where the importance of Sleeman and Riverrun Centres compared to the rest of the portfolio is clearly visible.

Table 32: Recreation Facilities Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	17.9	2.6	5.4	3.0	0.0	20.4	2.9	6.3	0.6	0.0
Forecast Funding	1.1	2.2	3.2	4.9	6.0	5.2	4.3	3.8	3.5	3.8
Funding Gap	-16.8	-0.5	-2.3	1.9	6.0	-15.2	1.3	-2.5	2.8	3.8

Table 33: Culture Facilities Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	4.5	0.5	0.4	10.1	0.0	3.1	0.7	2.3	0.5	2.8
Forecast Funding	2.9	0.3	0.5	1.6	0.8	1.2	1.6	2.3	2.0	2.0
Funding Gap	-1.6	-0.2	0.1	-8.5	0.8	-1.9	0.9	-0.1	1.5	-0.7

Not included in the renewal forecast is the new South End Community Centre – a 160,000 sq ft multi-use recreation complex scheduled to open in late 2026. This new facility has an estimated value of $115 million, greatly increasing the size and service delivery options of the Recreation portfolio.

Levels of Service: Culture and Recreation Facilities

The condition rating of an asset can be broadly used to understand the status-quo state of an asset, the level of service it is performing at and the probability of failure of that asset. Using a combination of an assets' current condition compared to its expected lifecycle it is possible to model the future condition of each asset by year. Reviewing the approved projects in the MYCB it is then possible to identify which assets are scheduled to be renewed and thus have an improved condition rating within the ten-year forecast timeline of the AMP. This type of analysis has been used to identify the target level of service the assets will perform at in ten years (2034).

Table 34: Comparison of the 10-Year Recreation Facilities Level of Service Condition

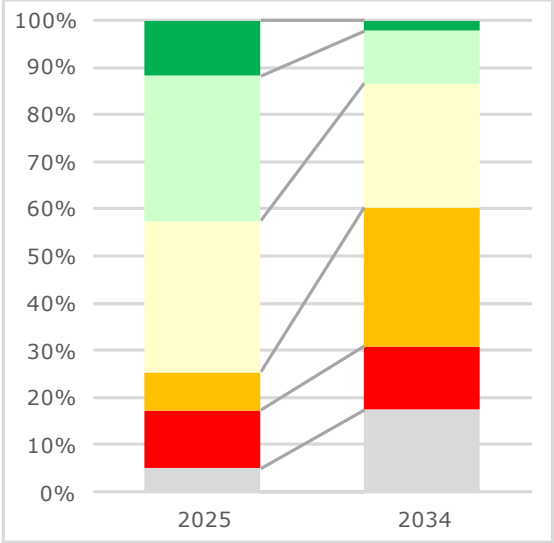
Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	11.8%	2.2%	-9.6%
Good	30.7%	11.1%	-19.6%
Fair	32.1%	26.4%	-5.7%
Poor	8.2%	29.5%	21.3%
Very Poor	12.3%	13.3%	1.0%
Past Due	4.9%	17.4%	12.5%
N/A	0.0%	0.0%	0.0%

Recreation Facilities condition as a level of Service

As the recreation facilities continue to age, assets in "Poor" and "Past Due" condition are expected to increase by 21.3 and 12.5 percentage points respectively. Despite planned capital projects, the portion of assets in "Very Good" and "Good" condition are still expected to decrease. All changes to the condition profile are summarized in and

These results will be adjusted upon completion of the 2025 facility assessments

Figure 59: Chart of the 10-Year Recreation Facilities Level of Service Condition



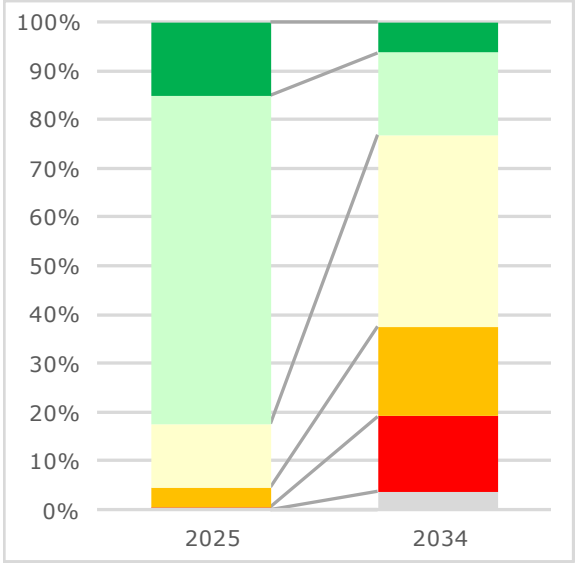
Culture Facilities condition as a level of service

The culture facilities are forecast to see a major decrease of 50.4 percentage points of assets in "Good" condition as a result of aging asset elements. Most of the decrease in "Good" assets is reflected in assets in "Fair" and "Poor" condition. A small increase in "Past Due" assets is predicted despite planned capital projects for the culture facilities. All changes to the condition profile are summarized in and. These results will be adjusted upon completion of the 2025 facility assessments.

Table 35: Comparison of the 10-Year Culture Facilities Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	15.1%	6.2%	-8.9%
Good	67.3%	16.9%	-50.4%
Fair	13.0%	39.4%	26.4%
Poor	4.0%	18.3%	14.2%
Very Poor	0.5%	15.5%	15.0%
Past Due	0.0%	3.7%	3.6%
N/A	0.0%	0.0%	0.0%

Figure 60: Chart of the 10-Year Culture Facilities Level of Service Condition



Culture and Recreation Facilities Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 36 and Table 37

Table 37 contain the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 36: Culture Assets Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
City Building	Technical	# of Arts and Culture Centres per one thousand (1000) residents	0.05 Centres/1000 Residents (8 Centres total)
People & Economy	Customer	Description of the strategies used to keep assets safe and accessible to the public	Ensure that assets follow both AODA and FADM guidelines as well as keeping the facilities organized and accessible.
Environment	Technical	Energy Consumption (kWh)	3,905,406 kWh
	Technical	Water Consumption (m^3)	29,212 m^3
	Technical	Natural Gas Consumption (m^3)	214,701 m^3

Table 37: Recreation Assets Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
City Building	Technical	Total Recreation facility rental hours (not including City programming)	49,867 hours
	Customer	Participation in Recreation drop-in opportunities	106,291 people
	Customer	Participation in registered Recreation programs	17,609 people
Environment	Technical	Energy Consumption (kWh)	5,387,484 kWh
	Technical	Water Consumption (m^3)	81,008 m^3
	Technical	Natural Gas Consumption (m^3)	555,940 m^3

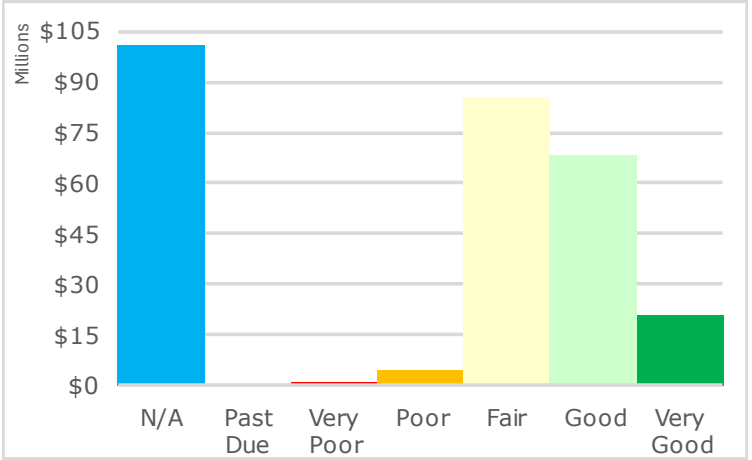
Parks

General Info

Parks are essential to community life in Guelph, encouraging people to connect with each other, be mindful of their health and respect the environment. The City's Parks department operates under Public Services and is responsible for the management and maintenance of many types of assets including buildings, playgrounds, sports fields, trails, trees, gardens and park furniture. This portfolio also includes unique assets like the Riverside Park carousel and ride-along train, a commemorative windmill along the Eramosa River, and memorial plaques located on trees and benches throughout the City. This wide variety of assets highlights the many services provided to City of Guelph residents by dedicated Parks staff. The city's parks are classified first as either Regional, Community, and Neighbourhood Parks as well as urban squares. Assets within the parks are identified into 4 categories:

- **High-Profile Assets:** Park buildings, courts, leash-free facilities, playgrounds & play equipment, splash pads and sports fields.
- **Pedestrian & Vehicular Network:** Impervious surfaces, parking lots, pervious surfaces and trails.
- **Minor Amenities:** Park furniture (i.e. benches, tables, trash receptacles), bicycle racks, gates, grills, lights, plaques, signs and storage containers.
- **Natural Assets:** Community gardens, landscaped beds, wildlife gardens and park/street trees

Figure 61: Asset Value by Condition – whole portfolio

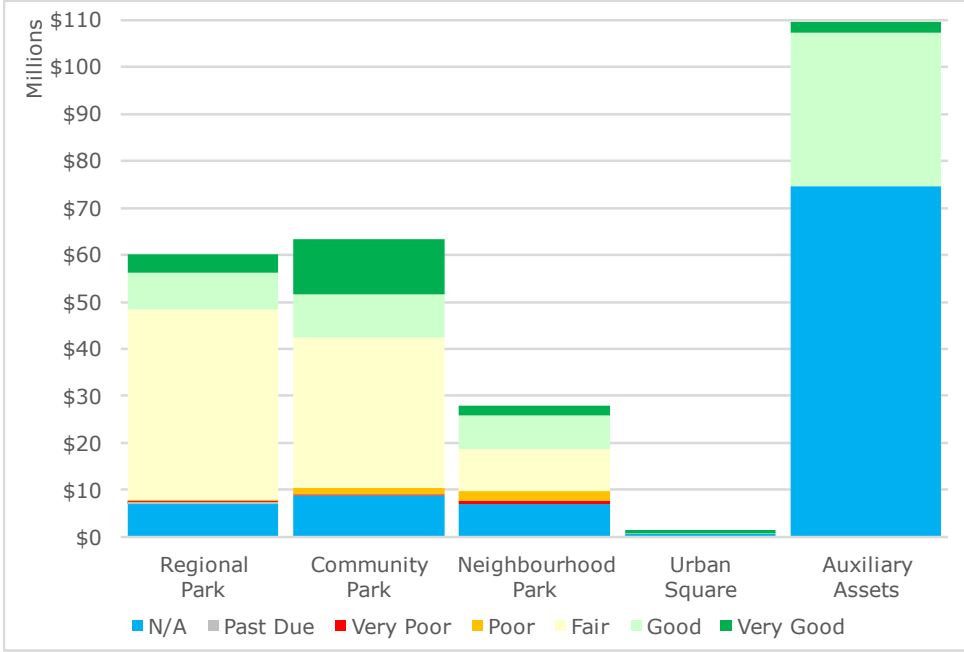


The management of areas of "natural assets" within the City boundary also falls under the responsibility of the Parks department. This includes forest areas, natural meadows and grassy areas, creek watersheds and other greenspaces that provide value to the City in some manner. Trails and Trees outside of the City's parks are classified as Auxiliary Assets.

Assessing the condition of all the various types of assets within the Parks portfolio is challenging mostly due to the nature of natural assets not having finite lifespans. In these cases they are simply identified

rated as "natural assets" or "N/A" on any following condition charts and are not included in the lifecycle forecasts. All other tangible assets in the portfolio have been assessed by staff and assigned a condition rating. In total the Parks asset portfolio is valued at approximately $294 million and is considered to have an average "good" condition as shown in Figure 62. Figure 63 presents the same information but categorized according to the park classification.

Figure 62: Parks Asset Value by Parks Classification and Condition



High Profile Assets

The High-Profile category consists of assets in the parks that are highly visible and popular with the public (i.e. buildings, courts, playgrounds and equipment, splash pads, skateboard facilities and sports fields) as well as supporting assets like field lighting and electrical panels. Overall, the condition of high profile assets has been assessed by Parks staff to be mostly in "fair" condition with very little in "poor" or "very poor" condition (Figure 63).

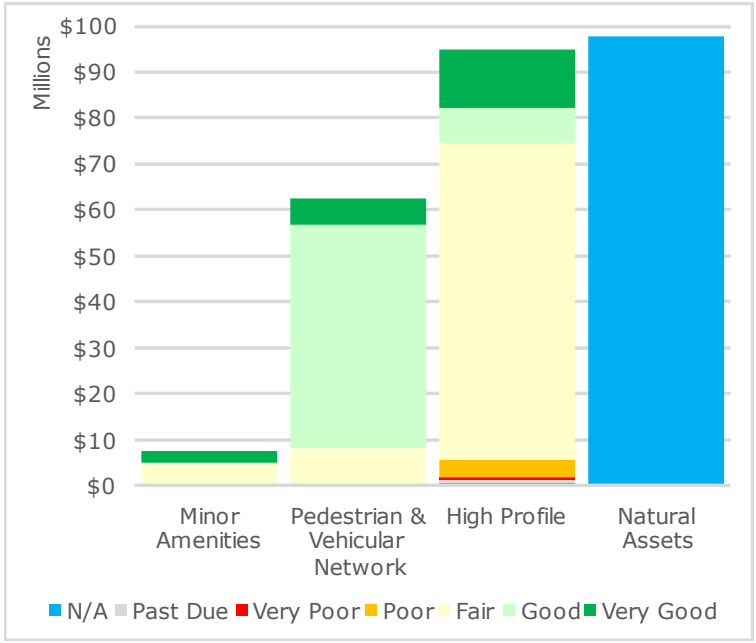
Pedestrian & Vehicular Network Assets

The Pedestrian & Vehicular Network category consists of assets that enable all forms of transportation and accessibility in and around Parks. This includes trails, parking lots and driveways as well as paved or unpaved walkways and gathering areas (known as pervious and impervious surfaces). The condition of these assets was determined via inspections conducted by Parks staff. The total replacement value of the pedestrian & vehicular network assets is $62.4 million.

Minor Amenity Assets

The Minor Amenities category consists of smaller assets like park furniture, grills, lights, signs and storage containers. Each of these types of assets may have a relatively low individual value but when combined, the total value of the assets in this category is valued at $7.5 million (Figure 63).

Figure 63: Parks Asset Value by Category and Condition



Park Buildings

Many of the City parks have one or more buildings within their boundaries. The types of buildings vary from simple picnic shelters, public washrooms, concession stands, amphitheaters or specialty buildings to shelter other assets like the Riverside Park Carousel.

The value and condition of the park buildings is considered part of the High Profile asset category but the information specific to the buildings is presented separately as they have special characteristics and needs compared to other park asset types.

The total value of Park buildings and facilities is estimated at $20.4 million and the majority of the buildings and/or the elements within them are considered in "good" condition. Figure 64 presents a graphical view of the building conditions.

Natural Assets

The Natural Assets category consists of assets that contribute to a greener City of Guelph. This includes various gardens in the parks (community gardens, landscaped beds and wildlife gardens) as well as the managed park and street tree canopy.

In addition to the $97.8 million value (Figure 63) of natural assets shown in this AMP, the City also manages a variety of natural areas such as forests, meadows, marshes, and watercourses. The total area of terrestrial natural features is 2,442 hectares which is primarily composed of meadow, swamp, and upland forest.

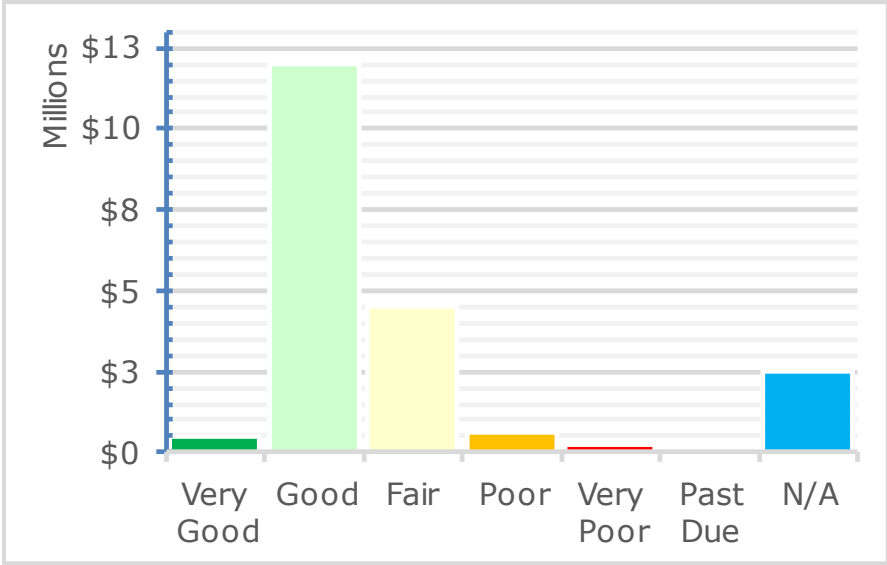
In the next five years the inventory and analysis of natural assets will continue to be updated and refined. The inclusion of naturals assets is a relatively new concept and the tools and techniques to review them in a manner comparable to "grey" or built assets is still evolving. Natural areas do not have a finite lifespan like a built structure or item does and applying a monetary value to a natural asset is difficult.

In 2022, the City began development of an inventory of these natural areas within its boundaries. As part of

this effort, the types of services and benefits of the natural areas provide to the City and the residents were also inventoried. These benefits are not always easily identified or recognized and therefore difficult to assign a value to. Many of these benefits would be considered "qualitative" where the perceived benefit may be different to each individual. But as part of the 2022 Natural Assets asset inventory and categorization work a list of these qualitative type benefits was developed and each natural asset was assigned a score based on their contribution to those benefits.

Another method to evaluate the potential value, benefit and type of service delivered by a natural asset is to consider the potential cost to replace the natural asset with an engineered or purpose built asset that would provide the same benefit. An example of this is a creek watershed area: natural water sources and the areas surrounding those sources contribute to the natural management of stormwater. If the creek and its watershed area did not exist, it might be necessary to construct facilities to manage the stormwater as effectively as the creek can. And so the equivalent cost of that built stormwater management asset can be used to help estimate the value of the natural creek, while the risks of not managing the stormwater at all can help identify the benefit of the creek.

Figure 64: Park Building and Facility Asset Value by Condition



The following list is an example of some of the natural asset types where this type of comparison was done.

- Water supply and filtration
- Outdoor recreation
- Contribution to physical and mental health and wellbeing
- Support local gardens and pollinators
- Stormwater Management: Flood risk management
- Erosion reduction
- Reduced heat stress and sun exposure
- Reduced electricity consumption
- Improved air quality

- Climate change mitigation

Natural assets also provide benefits that help mitigate potential risks associated with climate change. The City has already begun examining this issue and it will be explored further and in more depth in future years.

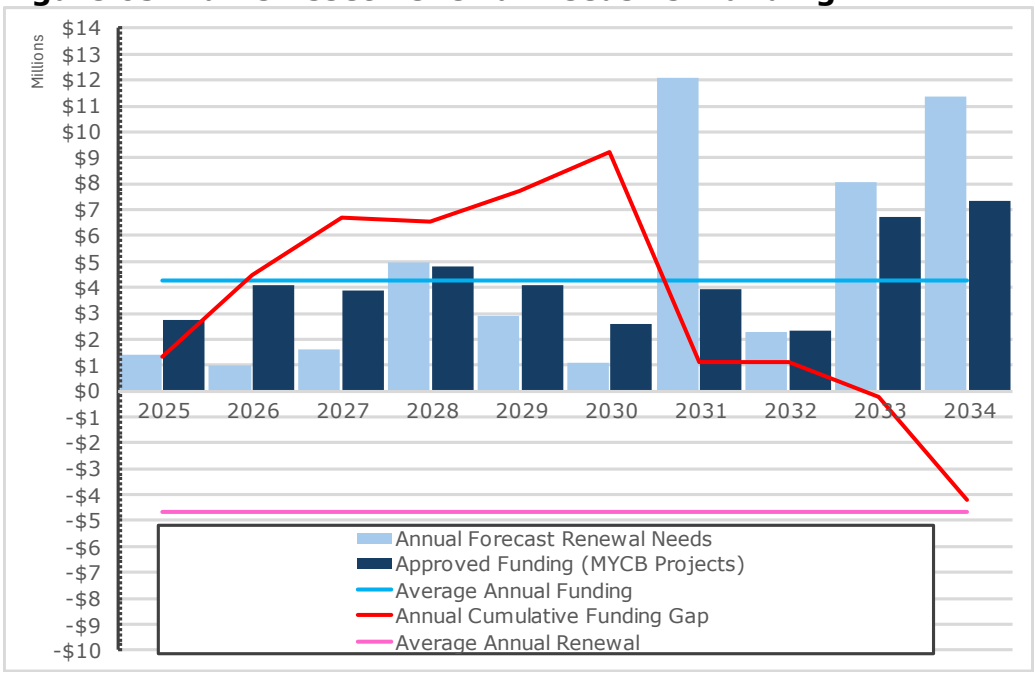
Renewal Forecast: Parks

Between 2025 and 2034 the forecast capital renewal needs total $46.7 million for the Parks asset portfolio. This value includes the needs of the buildings but does not include the Natural Asset since green infrastructure does not follow typical grey infrastructure renewal lifecycles. During the same time period forecast available funding is $46.1 million resulting in a total 10-year funding shortfall of $615 thousand.

This is a good position for the portfolio as it means that the majority of the identified needs for the next ten years can be addressed. Although the forecast shows that there is fluctuation in the annual renewal needs these can be adjusted to better match the funding patterns.

It is important to note these results are a model using the best available data as of late 2024 / early 2025. As future renewal work is undertaken and re-evaluations of the needs of the assets and available funding is completed this renewal vs. funding forecast will be refined.

Figure 65: Parks Asset Renewal Needs vs. Funding



Other considerations for the future will be the construction of new parks and the assets within them as the City grows. Some of the capital funding for these new parks will come from Development Charge revenue but the long-term maintenance, operation and asset renewal needs will require funding from the City's tax base. Between 2025 and 2034 there is a total of $9.18 million approved for new parks or park amenities from the City's Parks and Recreation Development Charge reserve fund. While there is not a 1:1 relation between the capital funding spent and

the value of assets that will require future renewal the addition of the new assets will require an increase in funding to ensure the new assets maintain their service well beyond 2034

Table 38: Parks Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	1.4	1.0	1.6	5.0	2.9	1.1	12.1	2.3	8.1	11.4
Forecast Funding	2.8	4.1	3.9	4.8	4.1	2.6	3.9	2.3	6.7	7.4
Funding Gap	1.3	3.1	2.2	-0.2	1.2	1.5	-8.1	0.0	-1.3	-4.0

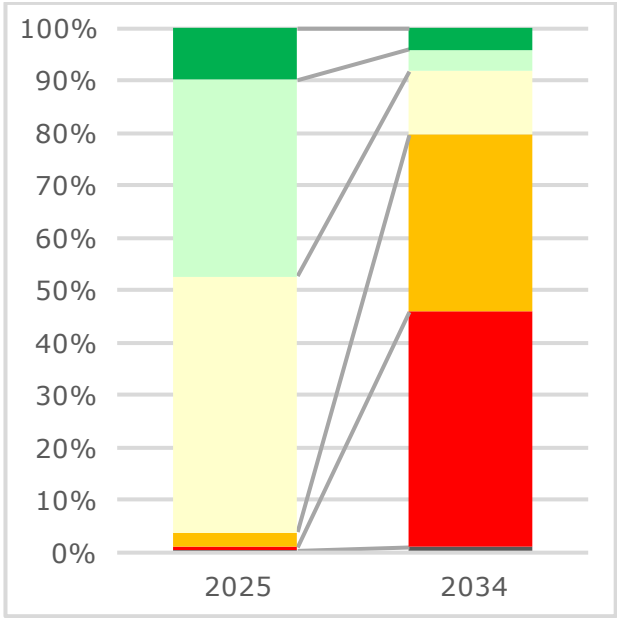
Levels of Service: Parks

The condition rating of an asset can be used to broadly understand the current state of an asset, the level of service it is performing at and the probability that it will fail. The estimated useful service life of an asset is used to calculate a potential date when it may deteriorate to a poor condition rating. Combining these two values for the whole portfolio and then comparing those results against the City's approved capital budget can be used to predict the potential condition of the portfolio into the future. This is used to represent the target level of service the assets will perform at in ten years.

Table 39: Parks 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	5.1%	2.2%	-3.0
Good	19.4%	2.1%	-17.3
Fair	25.4%	6.2%	-19.2
Poor	1.4%	17.6%	+16.1
Very Poor	0.4%	23.4%	+23.0
Past Due	0.1%	0.5%	+0.4
N/A	30.8%	30.8%	-

Figure 66: Parks 10-Year Portfolio Level of Service Condition



Portfolio condition as a level of service

Overall, the Parks portfolio is anticipated to see a major shift to lower condition ratings over the 10-year horizon. This is in part a result of asset lifecycles aligning to extend just beyond ten years. For example, an asset which has a 15-year lifecycle would be rated as "Poor" after ten years. Overall, the Parks portfolio is in safe and working condition even as assets age. All changes to the condition profile are summarized in Table 39 and Figure 66.

Parks Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 40 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 40: Parks Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Customer	Description of the quantity of parkland owned and/or managed by the City	The City of Guelph owns and manages a total of 437.75 hectares of parkland. This consists of 355.15 hectares of parkland that is owned by the City, 47.27 hectares of parkland that is managed by the City but owned by other organizations, and 35.33 hectares of school shared-use facilities.
City Building	Technical	Parkland/1000 People	3.05 hectares/1000 residents
	Customer	Description of asset replacement/rehabilitation planning and prioritization, including community engagement	Asset management tools are in the early stages of utilization to inform budget and resource allocation. This includes capital and operational budget creation, forecasting, and implementation. Community engagement is a component of many Parks capital projects, operational initiatives, and long-term planning.
People & Economy	Customer	Description of the quantity of parkland owned and/or managed by the City	Parks staff abide by applicable standards, legislation, and industry best practices in our capital projects and operations. Asset management tools are beginning to be used in resource allocation towards particular asset life cycle needs.

Strategic Theme	LOS Type	Performance Measure	Current Performance
Environment	Technical	Nat Gas Consumption (m^3)	29,640 m^3
		Energy Consumption (kWh)	458,197 kWh
		Water Consumption (m^3)	64,150 m^3
	Customer	Description of the strategies used to mitigate GHG emissions and reduce water usage	Parks staff collaborate with relevant partner departments who lead these corporate strategies. Departmental specific opportunities (electrification of medium sized tool fleet for instance) are engaged by the Parks team in collaboration with partner departments.

Guelph Public Library

General Info

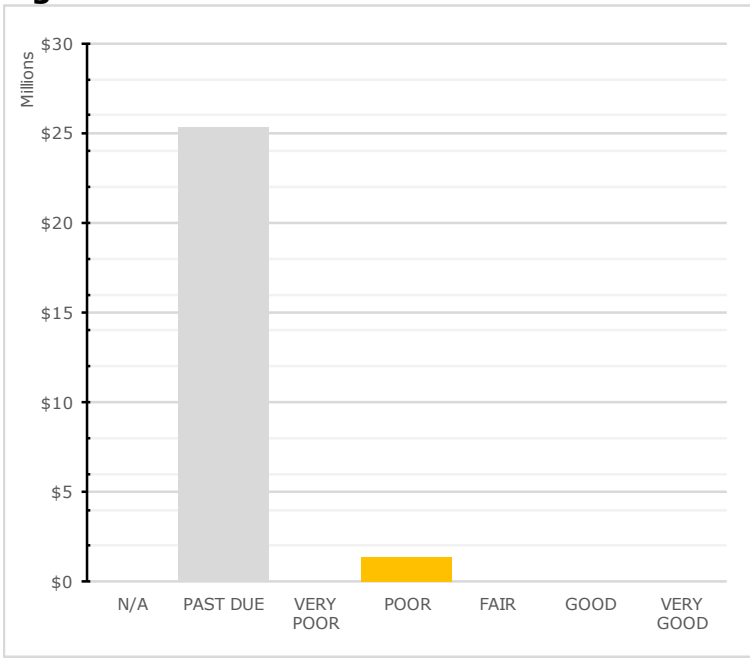
The Guelph Public Library (GPL) assets can be classified into three main categories: GPL's Main Branch building, the collections available for borrowing, and the GPL Bookmobile. The total value of these assets is approximately $47 million with the main branch location valued at about $26.6 million and the Library's Collection valued at about $20.8 million. The Bookmobile vehicle has a modest value of about $140,000.

The GPL also leases four (4) other locations for satellite branches but because they are leased and not owned by the City the status-quo condition, value and future needs of those locations are not included in this plan. A fifth satellite branch is co-located at the West End Community Centre (WECC). Any information related to the physical assets at that location are included with the collective information about the WECC in the Recreation chapter.

The current condition of the Library facility is presented in Figure 67completing specialized camera scans on the interior of the pipes which are then reviewed by experts to determine the condition and recommend any needed rehabilitation or renewal work.

The most recent information available indicates that overall the network is generally in fair condition, with an even distribution of assets in each of the five condition rating zones when considering the value of the assets. Figure 42 presents the value of the collection assets per condition while Figure 43

Figure 67: GPL Facilities Condition



presents the length of pipe assets per condition ranking.

Other Stormwater Assets

Water enters the stormwater collection pipes via a variety of ways including catch basins and open ditches. Outfall structures are installed at the end points of the pipes where the stormwater discharges to a natural watercourse. Culverts allow the passage of water under a roadway or trail. The condition of these types of assets are generally based on the items age as a ratio of its expected service life. An exception

to this is culverts with a span or diameter greater than 3m – these assets are included in the City's bi-annual structural assessment program in compliance with Provincial mandates. These ancillary items are also often replaced as part of larger projects, not as an individual project, however, they do also receive regular maintenance and repairs on an as-needed basis.

There are approximately 124 Stormwater Management Facilities (SWMF - water retention ponds) in the asset portfolio. These facilities allow the retention of stormwater for a temporary time period, slowly releasing the water into the collection network to prevent overloading the pipe network at a single time, and allowing sediment and other stormwater pollutants to settle out of the stormwater prior to discharging into the network. Once constructed, SWMF will rarely be decommissioned or destroyed, however, they do require regular maintenance to remove the build-up of sediment or other debris that collects during normal use. These cycles are measured in years: a good practice is that the design of the SWMF should consider a 25-year lifecycle before major silt clean-out should be required.

which shows nearly all the separate elements comprising the building are in "past-due" condition. This must be taken in context with the understanding that a new library building is being constructed with scheduled opening date in late 2026.

The new main branch is being constructed as part of the City's Baker Street redevelopment project the new building and will have an estimated final replacement value of $76.5 million[20]. As of March 2025, the direction of City Council and the Guelph Public Library Board is that the building will be offered for sale. At that time the building will no longer be part of the City's asset inventory.

Therefore, the indicated current condition of the library facility and any renewal needs forecast for that building are not being analysed in the same manner as the assets for the other portfolios. Where normally the current condition of an asset is used to predict a future renewal date and cost and then compared to available funding, because the new library building is already under construction that step is not necessary.

The City's Facilities and Energy Management team will maintain responsibility for any future maintenance and capital work that will be necessary as the Library building is used. To ensure the continued functionality of the Library services they will also be responsible for any maintenance or unexpected repair needs that may arise between today and the date the new library opens. This is consistent with the facility management practices at most of the other facilities the City owns.

Future operational plans for the Library will include cyclical condition assessment monitoring and evaluation of future renewal needs based on those assessments to ensure that the lifecycle of the new building and the elements within it are maximized, maintaining the new in building in the best condition for the longest time possible. This effort should begin immediately upon the opening of the new building.

As an interim step historical experience with other facilities in the City's portfolio has been used to develop a basic estimate of the 2025-2034 renewal forecast that might be expected. Within a building major assemblies like mechanical and electrical equipment can be expected to normally have at minimum a 25-year planned lifecycle prior to renewal being needed while the major structural and architectural elements are generally planned with 40-80year lifecycle (or more). But there will be smaller elements with shorter forecast useful lives: items like fire detection and alarm systems, security systems, HVAC controls etc. are generally planned with a ten-year lifecycle. And due to the public nature of the building interior elements like any carpeting, furniture, wall finishes or bathroom facilities may also require renewal in the 7-10 year time frame due to high usage as a result of the facility being open to the general public.

[20] Based on the known construction costs

Levels of Service: Guelph Public Library

The condition rating of an asset can be broadly used to understand the status-quo state of an asset, the level of service it is performing at and the probability of failure of that asset. Using a combination of an assets' current condition compared to its expected lifecycle it is possible to model the future condition of each asset by year. Summarizing this info for all the assets in the portfolio and comparing that against predicted funding available in future years a prediction of the overall condition of the portfolio in future years can be completed. Normally this would be how the LOS analysis for the Library would be done. However, with the construction of an entirely new main branch that model does not work.

Portfolio condition as a level of service

The current levels of service are represented by the condition of the main building branch and so the majority of the status quo LOS appear past due.

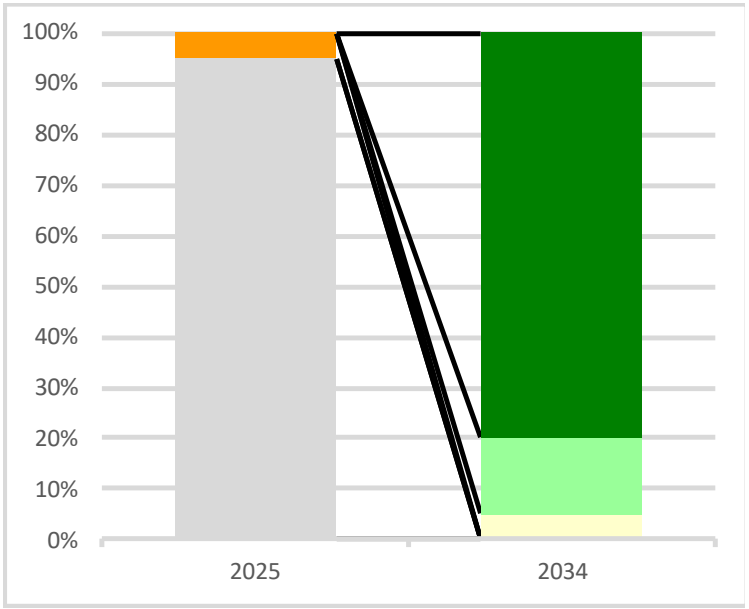
At the time the new library facility opens in 2026 the condition of the facility and all its element parts will be categorized as "very good". By 2034, after 8 years of normal service, some of the smaller components in the library, such as lighting fixtures, would be approaching the mid-point in their useful lives. With this assumption it means that the overall level of service being delivered remains mostly "very good" with some elements slipping below that level.

This is an estimate based on an assumption of the elements within the new facility and in practice the ratios are likely to change once a final inventory of all building elements has been compiled and lifecycle modelling efforts undertaken. However, it is an assumption with a high level of confidence in the outcome. The forecast changes in the condition profile are summarized in Figure 68 and Table 41.

Table 41: GPL - Comparison of the 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	0.0%	80.0%	+80.0
Good	0.0%	15.0%	+15.0
Fair	0.0%	5.0%	+5.0
Poor	5.4%	0.0%	-5.4
Very Poor	0.0%	0.0%	-
Past Due	94.6%	0.0%	-94.6
N/A	0.0%	0.0%	-

Figure 68: 10-Year Portfolio Level of GPL Service Condition



Guelph Public Library Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 42contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 42: Guelph Public Library Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
City Building	Technical	% of facility assets in poor or less condition	100%
Environment	Technical	Energy Consumption (kWh)	831,733 kWh
	Technical	Natural Gas Consumption (m^3)	54,822 m^3
	Technical	Water Consumption (m^3)	6,856 m^3
	Customer	Description of the environmental sustainability initiatives implemented in administration and operations facilities	Design standards for new facilities have been updated to be more energy efficient. As components of facilities come up for renewal, more energy efficient options are chosen.

Corporate Fleet Services

General Info

Note: Because a large portion of the work involved in managing the City's vehicles is performed centrally by the Corporate Fleet Services team all of the fleet information is consolidated in this section of the AMP. This centralized management includes the procurement of new vehicles on behalf of the appropriate service area. However, for the purposes of asset planning, the information about a class of fleet vehicles is also included in the chapter for the appropriate service area. This greatly affects the following services:

- Guelph Fire Services
- Guelph Transit
- Guelph Police Services
- Solid Waste Services
- Guelph-Wellington Paramedics Service

These four services rely heavily on the fleet assets to deliver the required service and in the case of Guelph Fire and Transit the value of the fleet outweighs the value of the other asset classes in the service.

The value of the fleet and equipment assets and the condition reporting of those assets is included in the consolidated information in this chapter. But any future capital renewal needs, and any future capital renewal funding for the four services noted is NOT included in this chapter but are identified only in the appropriate service area chapters. The reason for this is to present the total needs of each service in one location, avoiding possible duplication when the review of the renewal and funding forecast is completed for the City as a whole.

The total value of the fleet portfolio is estimated at $192 million which includes all of the City's transit buses, fire fighting trucks, ambulances, police cars, operational equipment like snowplows and pavers, specialized vehicles to support water and wastewater services activities and general use vehicles for staff to use on their work related travel throughout the City. Examples of some larger, specialized equipment items are ice-resurfacers, grass cutters, sand & salt spreaders, boats or concrete mixers as well as more.

The majority of the vehicles and specialized large equipment items used by the managed by the Corporate Fleet Services team, but some vehicles classes – like fire trucks, ambulances and police cars - have specialized maintenance requirements that are performed either by service area staff directly or are outsourced.

According to the most recently validated information there are:

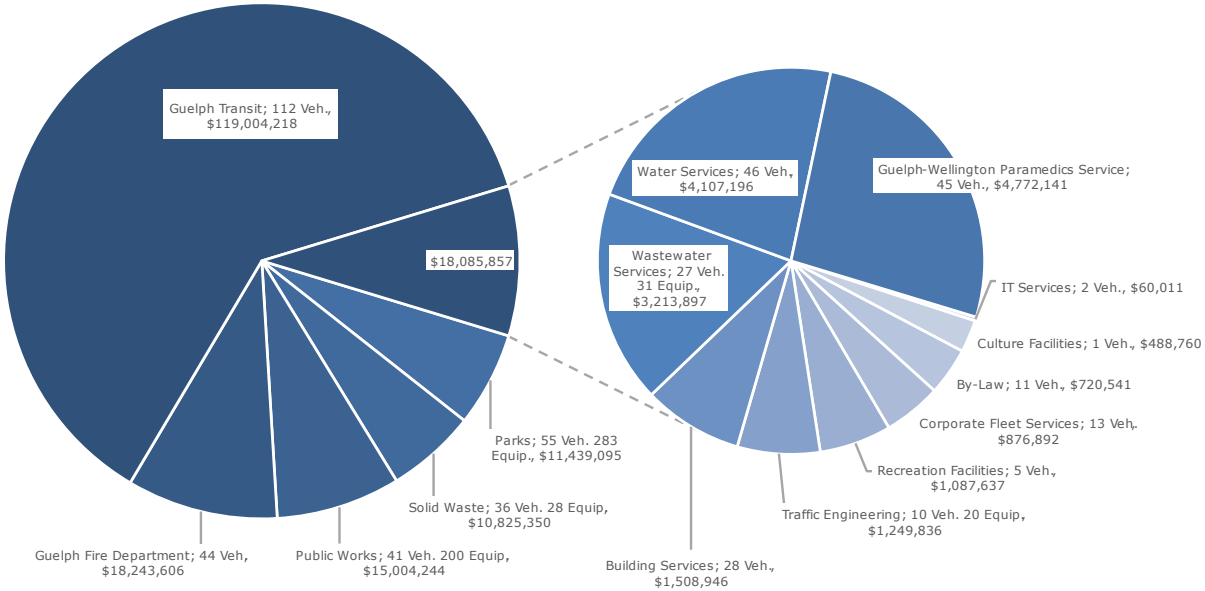
- 476 different vehicles
- 619 equipment items.

Figure 69 presents a chart showing the value of the fleet that each City service owns as well as a count of the number of vehicles. The left half of the chart shows that about 90% of the fleet is included in one of five services: transit, fire, public works (operations), solid waste or Parks. These represent what are generally the largest and most publicly visible vehicles in the City's inventory.

Fleet Condition

Vehicles that are not intended for a single specialized use (like a fire fighting truck) can be assigned to various service areas as and when the need arises. Vehicles are assigned to service areas based on many factors including the function they are to fill and the wear and tear expected in their role. As vehicles age and become less fit to serve in their original role they can be re-assigned from the original service area to a different service area if the vehicle remains safe and suits the function of the new service. This strategy is included in the life-cycle planning for the fleet and allows for better lifecycle management as well as better service delivery to the service areas.

Figure 69: City Vehicle Fleet and Equipment Value
Total Value = $192 million

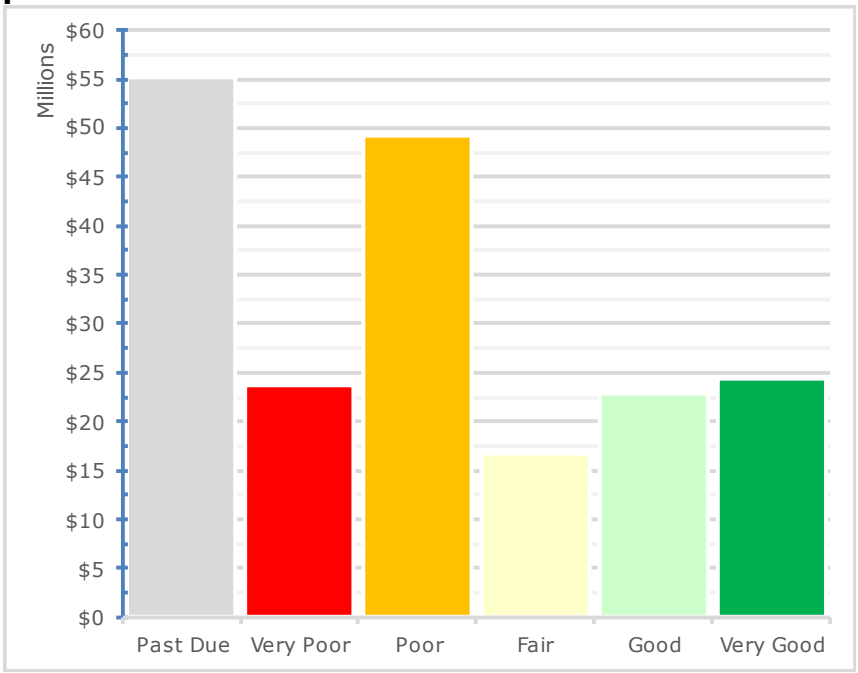


Vehicles and equipment assets do not have formalized condition ratings like other asset categories due to the nature of their use and functions. Established preventative maintenance activities are also capable of extending the service life of vehicles and equipment beyond the expectations. For other vehicle types there are legislated or policy based time limits on how long a vehicle may remain in use in a certain role and the physical or functional condition of the vehicle is a secondary consideration.

However, to be able to compare the condition of the fleet to other assets classes and to help model the future needs of the fleet and the potential renewal costs each vehicle has been assigned a condition using input for the Corporate Fleet services staff combined with available information on the age of each vehicle. The inclusion of time-mandated replacement schedules has been considered in this analysis.

On average the condition of the fleet and equipment assets is "fair". While the chart indicates that a significant portion of the fleet may be in "past due", "very poor" or "poor" condition, as per previous comments, this is not to suggest the City's fleet is non-functional. As discussed earlier the condition rating of a vehicle is determined mostly based on the age of the vehicle as a ratio of what a normal expected service life would be with consideration for those that are part of a service where the service life of a vehicle is dictated by legislation or policy and not common best practices for evaluating a normal service life. The condition rating graph is a representation of where on average the assets are at within those two service life constraints. The City's established fleet maintenance programs provide essential preventive maintenance to the vehicles which ensure that each vehicle is functional and safe for use.

Figure 70: City Vehicle Fleet and Equipment Value per Condition



Renewal Forecast: Corporate Fleet Service

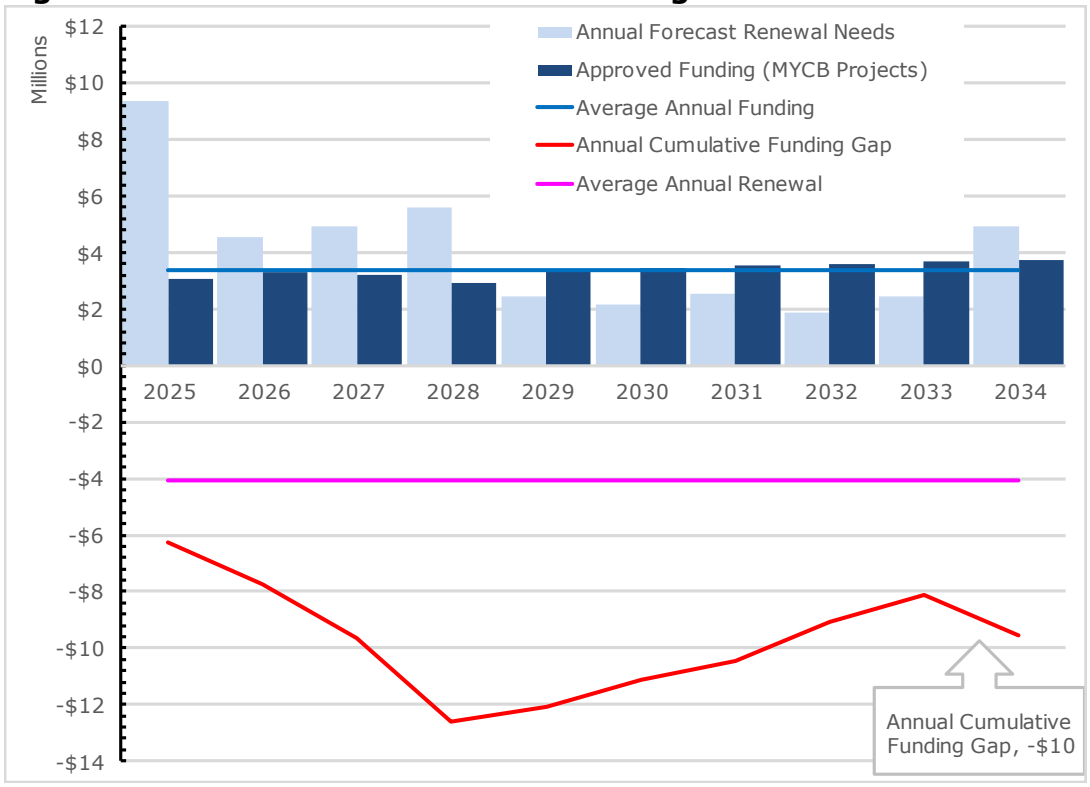
Note: As previously discussed neither the renewal needs nor the funding for the following services are included in the Fleet services renewal vs. funding forecast:

- Guelph Fire Services
- Guelph Transit
- Guelph Police Services
- Solid Waste Services

Refer to the AMP chapters specific to these services to review the impact of the fleet on the forecast.

Between 2025 and 2034 the forecast capital renewal needs total approximately $40.8 million while during that same time period forecast available funding is $33.9 million. With consideration for inflation adding to the value of the annual funding gap the result at the end of 2034 is funding gap of $9.5 million.

Figure 71: Forecast Renewals vs. Funding



Over the 10-year period there is an estimated $700,000 annual funding gap between renewal needs and forecast available funding. The result of this will mean delays on replacing vehicles and increased annual operations, maintenance and repair costs that will result from ensuring an aging fleet continues to function.

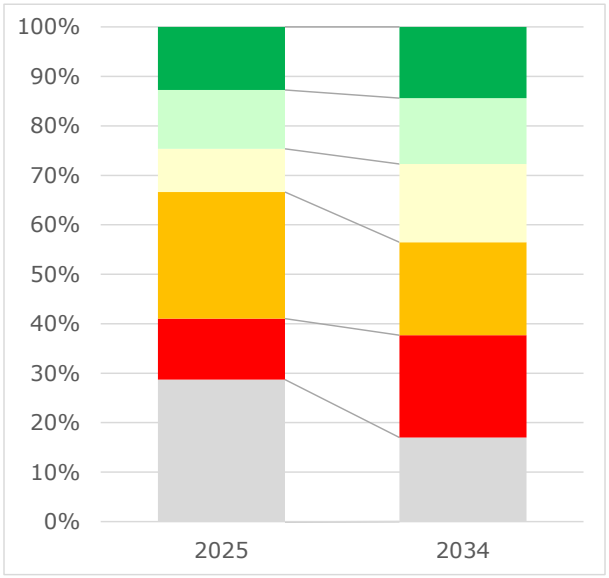
Table 43: Fleet Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Forecast Funding	3.1	3.3	3.2	2.9	3.4	3.5	3.5	3.6	3.7	3.7
Funding Gap	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6	-12.6

Levels of Service: Corporate Fleet Services

The condition rating of an asset can be broadly used to understand the status-quo state of an asset, the level of service it is performing at and the probability of failure of that asset. Using a combination of an assets' current condition compared to its expected lifecycle it is possible to model the future condition of each asset by year. Summarizing this info for all the assets in the

Figure 72: Chart of the 10-Year Portfolio Level of Service Condition



portfolio and comparing that against predicted funding available in future years a prediction of the overall condition of the portfolio in future years can be completed. This type of analysis has been used to identify the target level of service the assets will perform at in ten years (2034).

Overall Portfolio Condition as a Level of Service

As shown in the renewal forecast above, there is an anticipated funding shortfall for the corporate fleet over the next ten years. With regards to the predicted level of service in 2034 a positive aspect of the future LOS is a nearly 12% reduction in the value of assets in "past due" condition but the impact of this will be an increased value of assets in "very poor" and "fair" conditions while the value of assets in "very good" or "good" condition remain relatively stable. The results of the LOS review are presented in Figure 72 and Table 44.

Table 44: Fleet - 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	12.7%	14.4%	1.7%
Good	11.9%	13.3%	1.4%
Fair	8.7%	15.9%	7.1%
Poor	25.6%	18.8%	-6.8%
Very Poor	12.3%	20.7%	8.4%
Past Due	28.7%	17.0%	-11.7%
N/A	4.1%	4.8%	0.6%

Corporate Fleet Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 45 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 45: Corporate Fleet Services Current Levels of Service

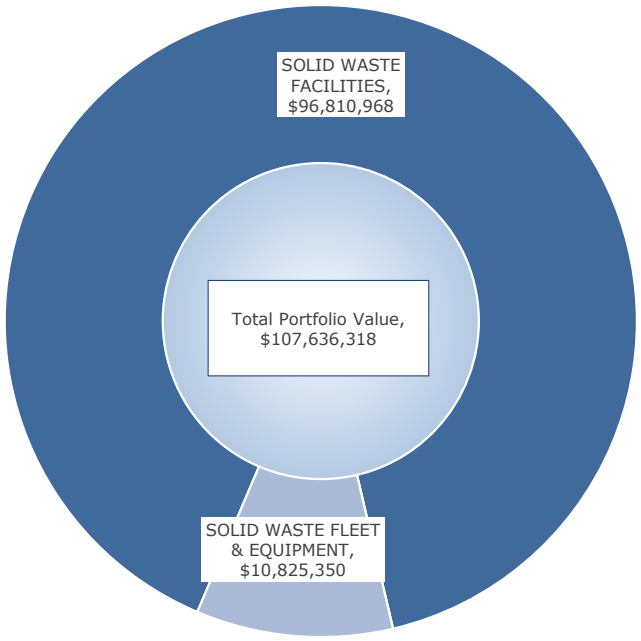
Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Customer	Description, which may include maps and/or images, of assets and/or asset services, including details such as location, size, type, risk, and other searchable attributes.	The Corporate Fleet service oversees and services vehicles and equipment for the entire City. Assets within the Corporate Fleet service area include light vehicles, like pickup trucks, as well heavy-duty vehicles such as dump trucks.
City Building	Technical	% of Assets > Poor Condition Rating	46%
	Customer	Description of asset replacement/rehabilitation planning and prioritization, defining end of life for assets.	Vehicles are regularly inspected by City staff and determined whether repair, rehabilitation, or replacement is needed. Service area needs are also taken into consideration.
Environment	Technical	Fuel Consumption	Gasoline: 391,140 L Diesel: 411,727 L
	Customer	Description of environmental sustainability initiatives (e.g., GHG emission mitigation, water usage reduction).	Greening of the fleet to reduce reliance on non-renewable energy sources. This includes developing the infrastructure to support a green fleet.

Solid Waste Services

General Info

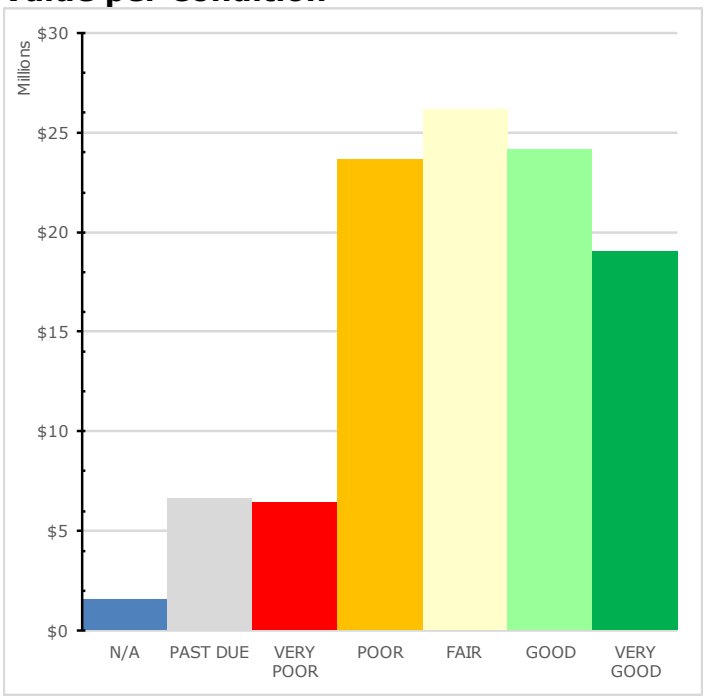
Waste management services for City of Guelph residents are provided by Solid Waste Services. To accomplish this service the City operates the Waste Resource Innovation Centre (WRIC) for sorting and safe disposal of materials, and a fleet of collection trucks.

Figure 74: Solid Waste Services Asset Value



The total value of the Solid Waste Services assets is approximately $107.5 million and as of 2024 the average condition of these assets is considered fair with a relatively equal distribution of asset value per each condition rating ranking. Figure 74 demonstrates the distribution of the portfolio assets by category while Figure 73 shows the distribution of asset value by condition rating for the whole portfolio. Following sections outline the needs of the facilities and fleet separately. This represents how the capital needs of the assets are managed by the City. The needs of the facilities are managed and planned for by the City's

Figure 73: Solid Waste Services Asset Value per Condition



Facility & Energy Management team. Likewise, capital and regular maintenance needs for the City's collection truck fleet is managed by the City's Fleet Services team.

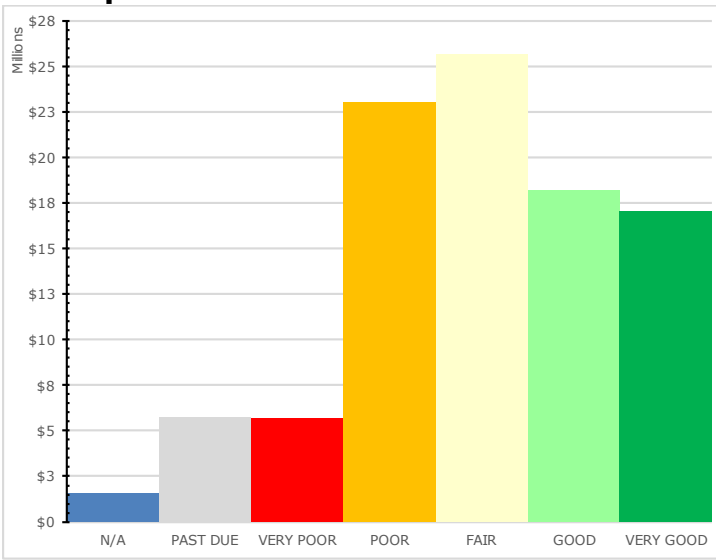
Facilities: Waste Resource Innovation Centre

Located at 110 Dunlop Dr. the City's Waste Resource Innovation Centre (WRIC) facility includes several separate buildings or other large assets required for modern waste management activities. These include the main Administration Building, a Materials Recovery Facility, an Organics Facility and vehicle weigh scales. Some areas of the facility accessible by the general public for direct waste disposal.

A complete assessment of the various assets at the WRIC was last completed in 2021. Based on that work the overall condition of the facility is considered fair. The total value of the facilities is estimated at approximately $97 million, with about 63% of that value being assets considered in fair or better condition. Of the remaining 37% (~$36 million) there was an estimated backlog of approximately $5.75 million representing renewal work that represents assets that have passed their theoretical useful service lifecycle.

As of January 1, 2025 recycling of blue-box materials is no longer the responsibility of the City of Guelph. Circular Materials now operates the recycling collection system across Ontario on behalf of companies that produce recyclable materials in compliance with new Provincial Legislation. General waste material collection remains the City's responsibility. This

Figure 75: Solid Waste Services Facilities Value per Condition



impacts the City's Solid Waste services in two major ways:

- The City no longer requires trucks for recycling collection (but maintains the need for general waste collection)
- The Materials Recovery Facility (MRF) building at the WRIC is no longer required by the City for recycling activities

Current plans indicate the MRF facility will be retained but its use will be converted to act as an operations support facility for the City's vehicle fleet. A budget of

$6.75 million has been allotted for this activity in 2028-2029 and is expected to mitigate any of the renewals identified in that building.

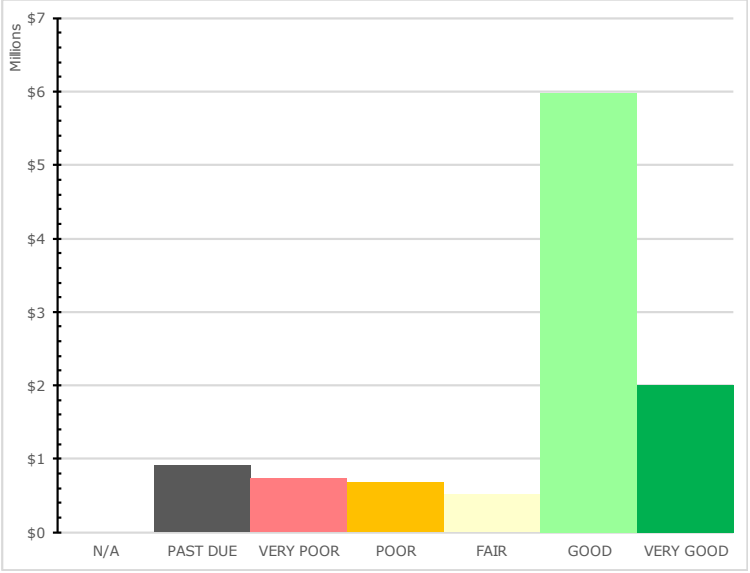
Another major future project is the replacement of assets at the Eastview Landfill. There is an annual funding allotment for managing the assets at that facility, however, in 2033 $11.2 million has been tentatively approved for a major retrofit.

Fleet & Equipment

According to the most current available inventory there are sixty-six (66) assets included in the Solid Waste fleet & equipment inventory. These include twenty-two (22) large “packer” trucks that are highly visible to the public during waste collection activities and smaller trucks or heavy equipment items, many of which work at the WRIC site. Figure 76 presents the condition of the fleet and equipment assets in graphical form where it is evident that the majority of the fleet assets are considered in ”good" condition with a relatively balanced distribution across the other condition categories, indicative of a fleet renewal strategy that works by renewing or replacing some portion of the fleet each year, thus distributing costs more evenly.

The condition of the vehicles and equipment is determined based on the unit’s age. Most vehicles are assigned either a five (5) or ten (10) year expected service life, so if a vehicle entered in service in 2012 (13 years old) it would be considered past-due. This does not indicate that the vehicle is faulty or no longer functions in its intended design role, but the age-based condition review is a modelling tool that helps identify vehicles that are older and will require extra maintenance and repairs and will likely need replacement within the short-term future. Many vehicles are identified as “past due” or “very poor” condition but remain fully useable for many years in that state due to maintenance activities. The City’s fleet management team regularly assesses the condition of the vehicles and the needs of each service. When feasible vehicles can be reassigned to a new service. This is not possible with the waste collection trucks but may occur with the other fleet assets.

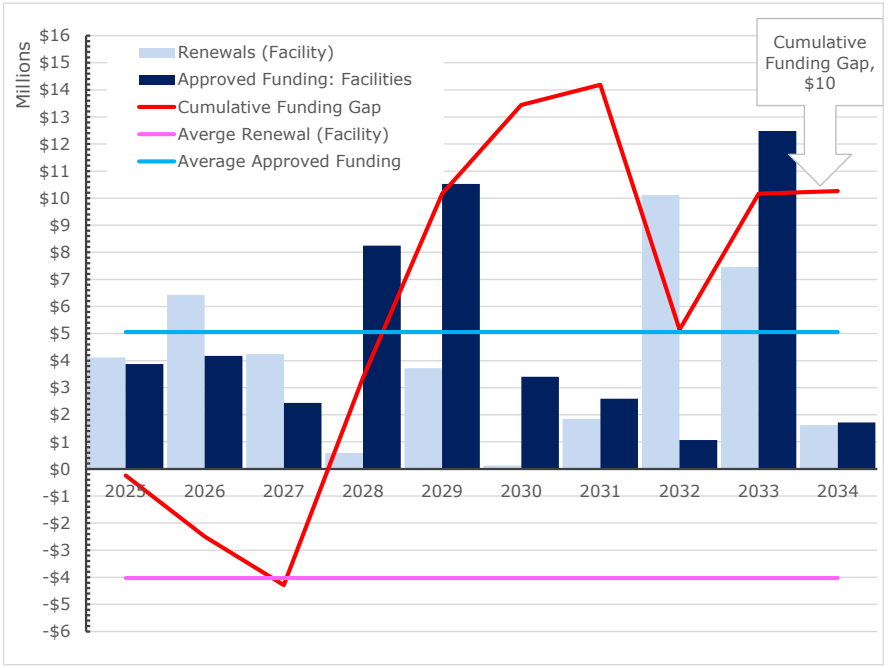
Figure 76: Solid Waste Services Fleet and Equipment Value per Condition



Renewal Forecast: Solid Waste Facilities

As previously discussed, the capital needs for renewals at the solid waste facilities is part of the larger Facilities and Energy Management team's capital budget. Combined with that is funding for projects that improve the process equipment assets at the WRIC. A review of the MYCB identified all the projects and categorized them accordingly. The renewal needs of the assets affected by those categories were then compiled and compared to the available funding.

Figure 77: Solid Waste Facilities Renewal vs. Funding Forecast



Between 2025 and 2034 the forecast capital renewal needs are estimated to equal $50.5 million. During that same time period forecast available funding is estimated at $40.3 million resulting in a total 10-year funding surplus of approximately 10.2 million. Included in the funding is the previously discussed $6.75 million for retrofitting the MRF building. The total estimate of renewals at the MRF exceeded that project budget, but with the conversion of the facility to a new many of those identified renewals will not be required. When the final design for the retrofitted facility is complete a more detailed comparison will be possible.

Many of the approved capital projects can be classified as "growth" or service enhancement type work to address functional needs in response to the City of Guelph's current and future increase in population and geographic size and so don't directly apply to any of the forecast renewals. This includes $11 million for replacement of assets at the Eastview landfill. Comparing the identified renewal needs with the available information on approved funding and considering the funding is for more than just a direct like for like asset renewal program, the ten-year forecast for the solid waste facilities renewal is healthy. The solid waste facilities will be included in a condition assessment program in 2025/26 and the results from that work will provide new and improved

data that can be used to further refine the renewal needs predictions.

Solid Waste Fleet and other Equipment

Between 2025 and 2034 the forecast fleet renewals needs are estimated to total $15 million while the forecast available funding is forecast at $9.8 million. Per year these values equate to $1.5 million annual average need versus a $980,000 annual average funding – or approximately a 35% annual shortfall. At the end of the ten-year period this results in a forecast $5.2 million funding gap.

With vehicle replacements predicted on a regular cycle because of a common and relatively short expected normal service life there will be regular peaks and lows in the predicted renewal needs. This can be seen in the graph in Figure 78.

However, as discussed previously, the normal service life used in the analysis to make the forecast does not represent an absolute and vehicles considered past-due can remain in service provided they receive regular maintenance and repairs. Combined with a relatively constant annual funding value the spikes in the cumulative funding gap that are foreseen can be distributed to create a more even renewal forecast. While simply adjusting the replacement timeframes for some assets will not entirely remove a funding gap, it is possible the size extent of the gap will not be as large as determined when considering this point. A balanced replacement plan for the fleet, particularly the large vehicles, will also help minimize a funding gap in any single year.

Figure 78: Solid Waste Fleet Renewal vs. Funding Forecast

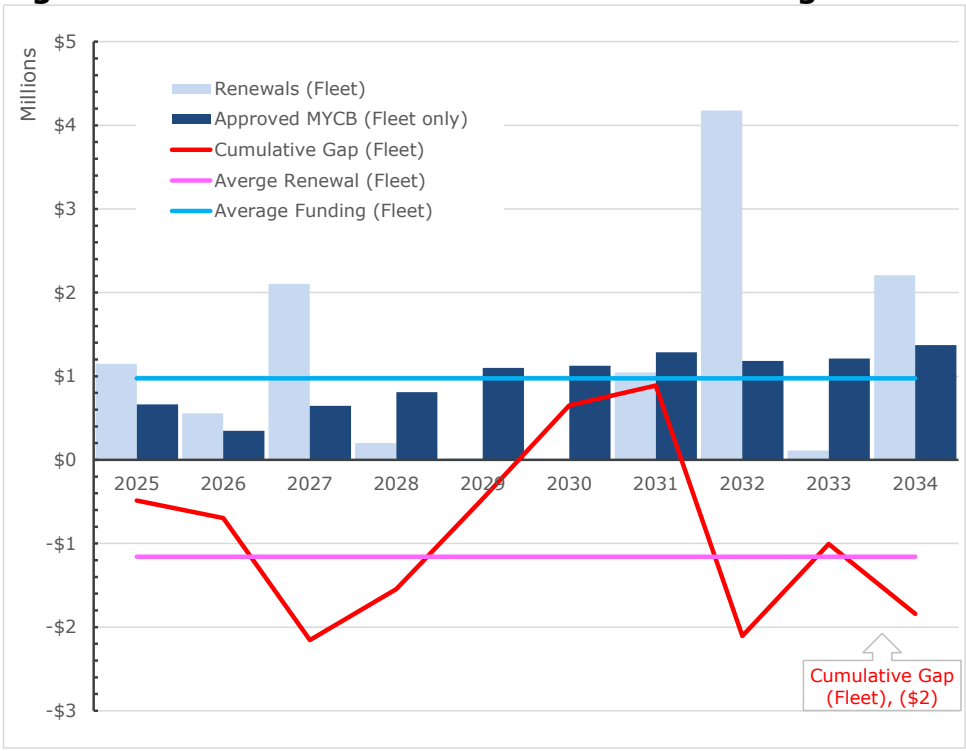


Table 46: Solid Waste Services All Assets Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	5.3	7.0	6.3	0.8	3.7	0.1	2.9	14.3	7.6	3.8
Forecast Funding	4.5	4.5	3.1	9.1	11.6	4.5	3.9	2.3	13.7	3.1
Funding Gap	-0.7	-3.2	-6.4	1.8	9.7	14.1	15.1	3.0	9.2	8.4

Table 47: Solid Waste Fleet Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	0.7	0.3	0.6	0.8	1.1	1.1	1.3	1.2	1.2	1.4
Forecast Funding	1.1	0.6	2.1	0.2	0.0	0.0	1.0	4.2	0.1	2.2
Funding Gap	-0.5	-0.7	-2.2	-1.5	-0.5	0.6	0.9	-2.1	-1.0	-1.8

Levels of Service: Solid Waste Services

The condition rating of an asset can be broadly used to understand the state an asset is in, the level of service it is performing at and the probability that it will fail. Assets are also given an estimated useful life which establishes when an asset will deteriorate to a poor condition rating. These two statistics, combined with the City's capital budget, can predict the condition of the portfolio into the future. This targets the level of service the assets will perform at in ten years.

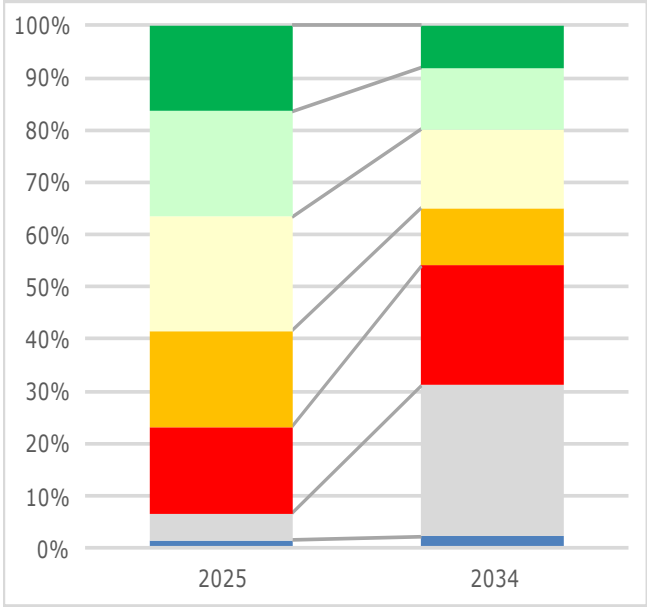
Portfolio Condition as a Level of Service

Overall, the Solid Waste portfolio is expected to see a large shift towards lower condition ratings as the portfolio assets age. and present the results of this analysis.

Table 48: Solid Waste 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	16.3%	8.1%	-8.2%
Good	20.3%	11.8%	-8.5%
Fair	21.9%	15.0%	-6.9%
Poor	18.4%	11.0%	-7.4%
Very Poor	16.6%	22.9%	6.2%
Past Due	5.1%	29.1%	23.9%
N/A	1.4%	2.2%	0.8%

Figure 79: Solid Waste - 10-Year Portfolio Level of Service Condition



As shown in Figure 78**,**Figure 77 in the renewal forecast section, there is funding available to address the facility needs, however, much of that work will not be complete within the ten-year timeframe and so are not reflected in the LOS condition review. With the inclusion of the new assets predicted by the MYCB the results presented will become more positive than what current calculations identify.

The overall portfolio LOS is also affected by the fleet only results. Much of the forecast increasing value of assets in “Very Poor” and “Past Due” condition is

primarily driven by aging fleet assets which can be related to the forecast funding gap. However, as discussed the "past due" condition rating does not define assets that no longer function. Preventive maintenance and repairs are likely to increase, but good maintenance programs combined with vehicle retrofitting can allow vehicles to achieve much longer lifecycles than anticipated. Fleet management staff and Corporate Asset management staff are working to review these metrics and future analysis will include these concepts in the analysis which current tools and available data do not allow.

All vehicles are regularly inspected and are ensured to be in proper working condition before being allowed on the road. All changes to the condition profile specific to the fleet are summarized in Figure 80 and Table 49.

Figure 80: Solid Waste Fleet – 10 Year Level of Service Condition

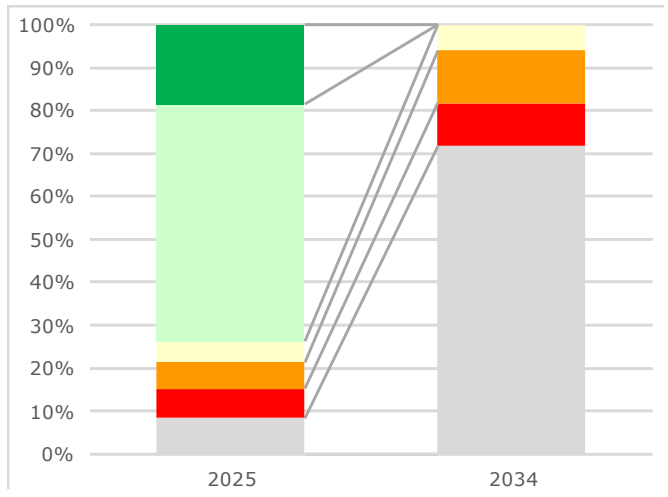


Table 49: Comparison of the 10-Year Solid Waste Fleet Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	18.6%	0.0%	-18.6%
Good	55.3%	0.0%	-55.3%
Fair	4.8%	6.0%	1.2%
Poor	6.2%	12.2%	6.0%
Very Poor	6.8%	10.0%	3.2%
Past Due	8.4%	71.8%	63.4%
N/A	0.0%	0.0%	0.0%

Solid Waste Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 50 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 50: Solid Waste Services Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Customer	Description of the services provided by the asset network	The City of Guelph has a curbside collection program for residential, multi-residential, and downtown customers. All materials collected are delivered to the Waste Resource Innovation Centre (WRIC) where and green cart materials are processed at the Materials Recovery Facility and Organics Facility. The WRIC's transfer station receives all grey cart materials which are then sent to the landfill. The WRIC is also open to Guelph residents for public waste drop-off, including garbage, household hazardous waste, yard waste and recyclables.
City Building	Technical	% of WM asset CRV in Fair or better condition	50%
Environment	Technical	Annual Weight of Grey Cart Waste Collected at the Curb per Household	282.53kg/household (2023)
	Customer	Description of the strategies used to mitigate GHG emissions and reduce water usage	The City hosts a variety of efforts to divert waste to protect the environment including a Goods Exchange Weekend, an Electronics Recycling Program, a Waste Diversion Education Centre, a Paint-Plus Reuse Program, a Bike ReCycle Program and a Circular Economy Framework & Policy.

Strategic Theme	LOS Type	Performance Measure	Current Performance
			Additional strategies to reduce greenhouse gas emissions include a solar canopy at the WRIC, and LED lighting retrofit and exploring electrification of the Solid Waste fleet.

Guelph Transit

General Info

Guelph Transit provides an essential service for residents and visitors alike, moving people around the city in an efficient and environmentally friendly manner. Their vision of creating a competitive, convenient and reliable public transit network is accomplished by providing customers with 26 daily routes as well as late night service and on-demand service on holidays.

The transit services assets have been analysed in three categories: facility, fleet and bus stops. The total asset portfolio value is estimated at approximately $141 million. Figure 82 shows the values of each of these categories as part of the total and it is clear that the fleet represents the largest percentage of the total.

Guelph Transit operates and maintains a fleet of low-floor passenger buses as well as specialized vehicles for low-mobility users. In 2023 Guelph Transit's first electric bus was put into daily service with additional electric units to be deployed over the next four years. At the end of 2024, 19 electric transit vehicles were in service.

Administration and maintenance for the Transit fleet occurs centrally at the Guelph Transit Administration facility on Watson Road South.

There are approximately 652 bus stops across the city with 176 having shelters. The current replacement value and condition of all the assets in the Guelph Transit portfolio is shown in Figure 82.

Figure 81: Guelph Transit Portfolio Asset Value

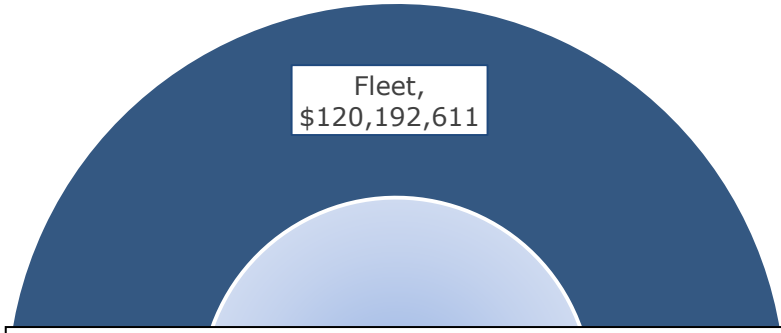
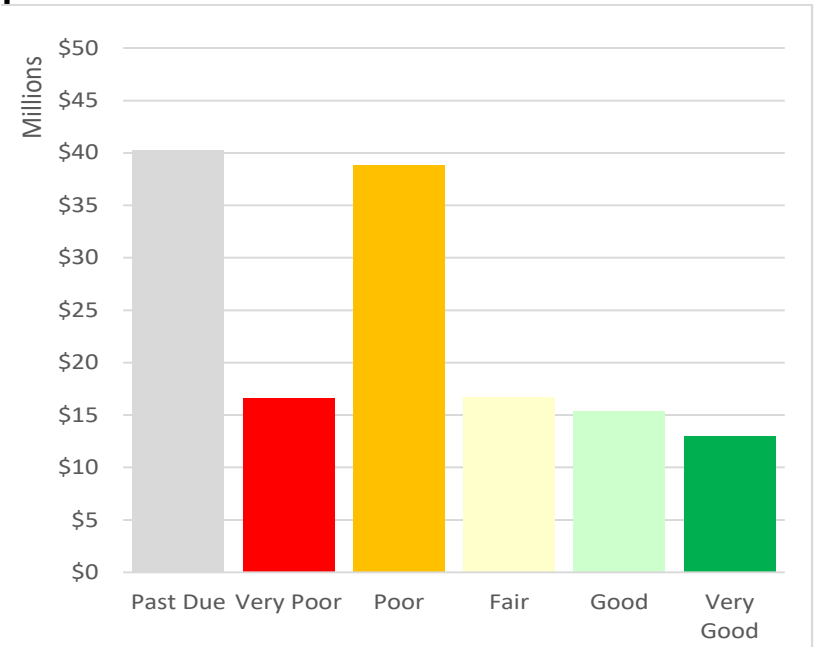


Figure 82: Guelph Transit Portfolio Asset Value per Condition



The average condition of the portfolio is assesse

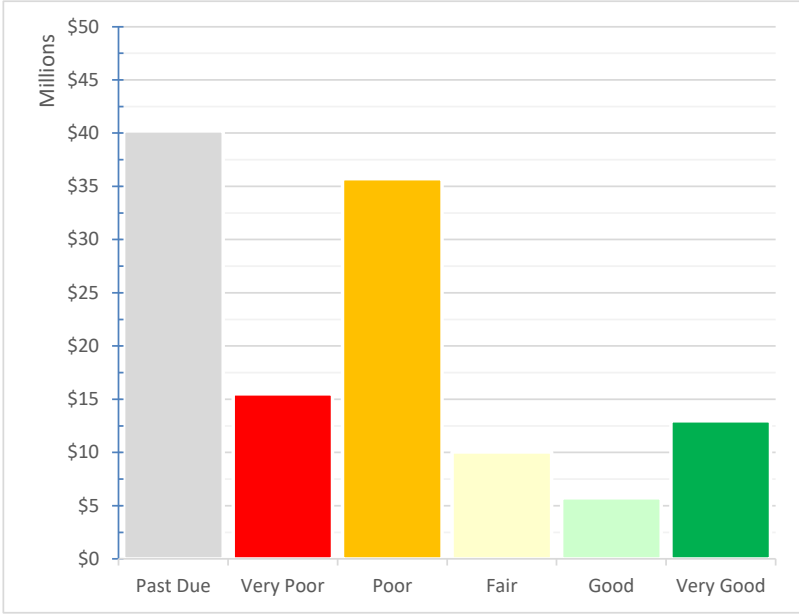
d to be below "fair" condition which is heavily influenced by the fleet and discussed further below. The Transit Operations facility is on average in "fair" condition but it does not have the capacity to provide electric charging to the entire fleet (once completely electrified) and for that reason and other functional issues related to the lifecycle of the facility a new transit operations building has been approved with planning and design work underway and construction expected to begin in 2026.

Guelph Transit Fleet

The Guelph Transit Fleet is comprised of 95 passenger buses, 14 mobility buses, and 12 additional support vehicles and equipment. The corporate fleet service regularly inspects and performs preventative maintenance on the Transit fleet to keep buses operating safely for the entirety of their lifecycle. For the AMP analysis each vehicle in the fleet is given a condition rating based on the age of the vehicles relative to an expected full lifecycle of the vehicle. Therefore, simply due to the age of the vehicles, a large percentage of the fleet is considered "past due" or "poor". A graph presenting the condition of the fleet can be seen in Figure 83. The indicated condition rating does not imply that the fleet as a whole, or a single vehicle is not able to function: all the fleet vehicles that provide public transit services are maintained to high standards and would not be put in service if they were unsafe for use. The condition information does provide insight into the future needs of the fleet, being one of the tools used to help staff determine the vehicle replacement cycle that is required to maintain Guelph Transit's service.

In addition to planned vehicle replacement Guelph Transit has adopted a "rehabilitation" strategy which is considered for buses that are not part of the recognized replacement program to extend their life beyond the typical twelve year estimated useful life. A bus rehabilitation project involves using the frame and exterior shell of an existing bus that has reached its end of service life and installing new mechanical and interior components. The result is a vehicle with an expected service life nearly the same as a new bus. While still a significant investment per bus the cost for a rehabilitation project is much lower than the initial capital cost for an entirely new vehicle, thus reducing the long-term capital replacement needs.

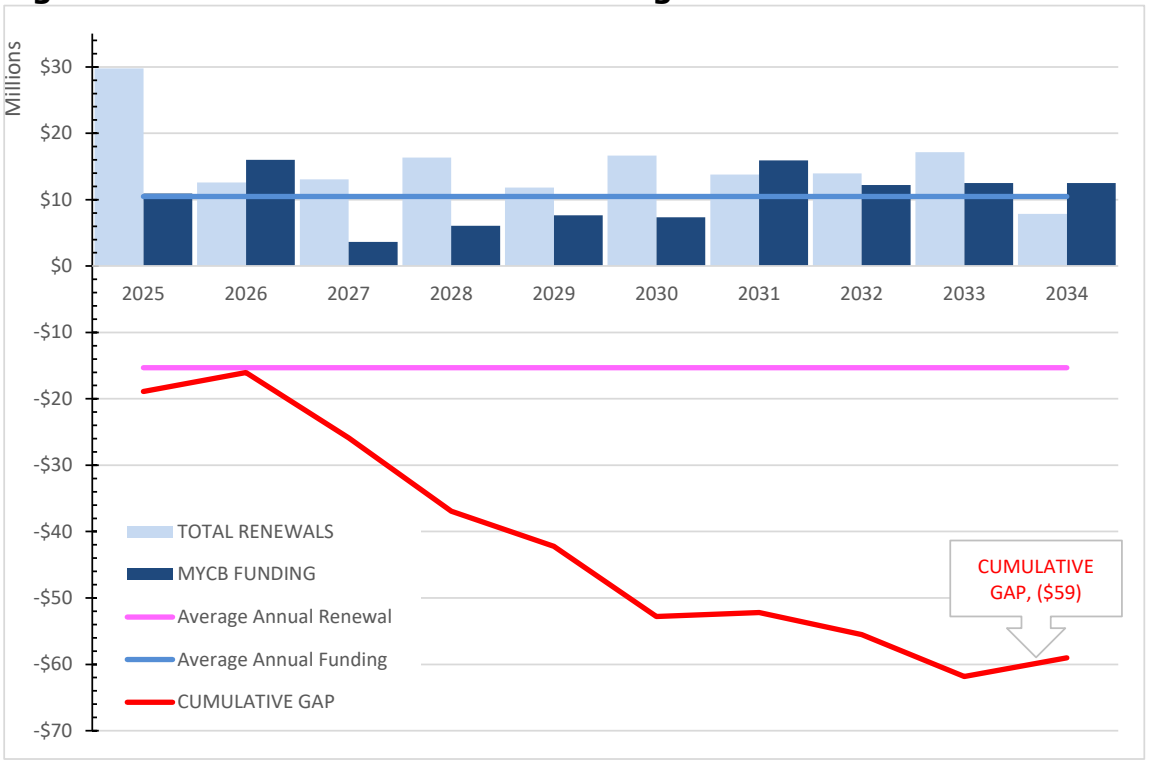
Figure 83: Transit Fleet Value per Condition



Renewal Forecast: Guelph Transit

Between 2025 and 2034 the forecast capital renewal needs total $153 million During that same time period forecast available funding is $105 million. With consideration for annual inflation affecting the cumulative renewal backlog there will be a predicted $59 million funding gap at the end of the 10-year forecast period.

Figure 84: Forecast Renewal vs. Funding



The predicted shortfall is based on the best available information regarding the status quo condition of the assets, their forecast replacement costs, and the available funding from tax revenue. The replacement costs of electric buses can be difficult to state with certainty due to the changing market factors that affect the electric vehicle industry, and so there will likely be an adjustment to the forecast that can be made in future years once more accurate replacement costs are able to be used. At the same time the forecast model does not yet consider the costs or benefits of the vehicle rehabilitation strategy.

However, even with the inclusion of improved information it is unlikely that the forecast will change so that there is no funding gap. The commissioning of the new Transit administration and garage facility will remove many of the currently predicted renewals for the facility needs, but the fleet needs remain the most significant portion of the whole portfolio.

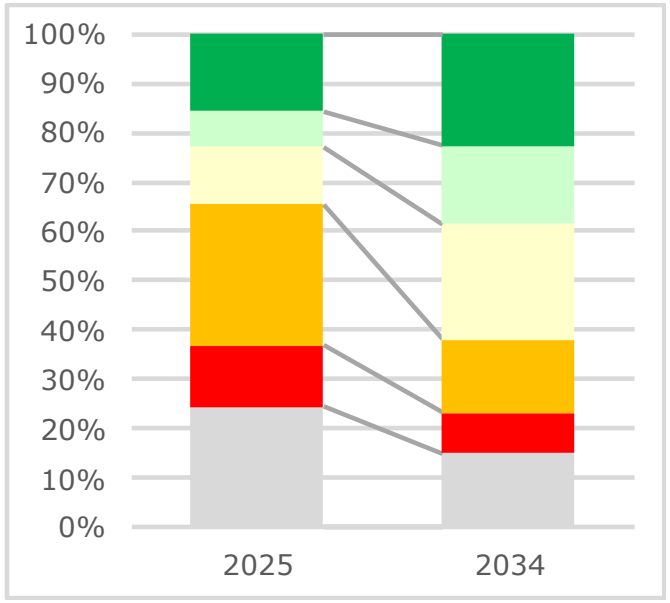
Table 51: Guelph Transit Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	29.8	12.6	13.0	16.3	11.8	16.6	13.8	14.0	17.2	7.8
Forecast Funding	10.9	16.0	3.6	6.1	7.7	7.3	15.9	12.2	12.5	12.5
Funding Gap	-18.9	-16.0	-25.9	-36.9	-42.2	-52.8	-52.2	-55.5	-61.8	-59.0

Levels of Service: Guelph Transit

The condition rating of an asset can be broadly used to understand the state an asset is in, the level of service it is performing at and the probability that it will fail. Assets are also given an estimated useful life which establishes when an asset will deteriorate to a poor condition rating. These two metrics when compared to the City's capital budget can be used to help predict the condition of the portfolio in future years. The condition of the portfolio in 2034 represents the target level of service the assets will perform at in ten years.

Figure 85: Transit Services: 10-Year Level of Service Forecast



Overall Portfolio condition as a level of service

The Guelph Transit portfolio is expected to see a cumulative increase in "Good" and "Very Good" assets with a combined increased of 15.6%. Additionally, it is predicted that there will be decrease in "Past Due", "Very Poor", and "Poor", assets of 27% as a direct result of capital renewal projects over the ten-year period. All changes to the condition profile are summarized in Table 52 and Figure 85.

Table 52: Levels of Service 2025 - 2034

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	15.7%	22.7%	7.0%
Good	7.1%	15.8%	8.6%
Fair	11.6%	23.5%	11.9%
Poor	28.8%	14.7%	-14.1%
Very Poor	12.5%	8.3%	-4.1%
Past Due	24.4%	15.0%	-9.4%
N/A	0.0%	0.0%	0.0%

Fleet condition as a level of Service

Using an expected useful lifecycle of a bus being 12 years, a new bus in 2025 would be rated as "Very Poor" based on its age by 2034 (without considering any mid-life renewals or rehabilitations that might be undertaken in this time period). Using this baseline, the Guelph Transit fleet is predicted to see a reduction of 28.4 percentage points in "Poor", "Very Poor", and "Past Due" assets. As fleet renewal continues, the percentage of assets in "Fair" or better condition is expected to rise by an almost equal 28 percentage points. The distribution of fleet assets across the various condition rating levels is expected to become more evenly distributed compared to the status today. This should result in a fleet that with needs that can be more easily predicted and managed on a regular cycle without sudden or unexpected increases in needs. All changes to the condition profile are summarized in Figure 86 and Table 53.

Figure 86: Guelph Transit Fleet: 10-Year Level of Service Forecast

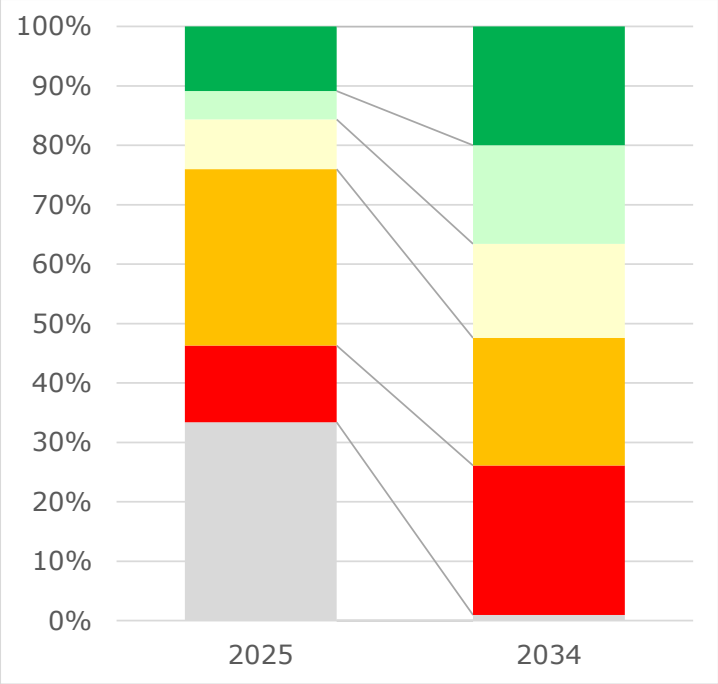


Table 53: Guelph Transit Fleet 10-Year Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	10.9%	20.0%	9.1%
Good	4.8%	16.6%	11.8%
Fair	8.4%	15.8%	7.5%
Poor	29.7%	21.5%	-8.2%
Very Poor	12.9%	25.2%	12.2%
Past Due	33.4%	1.0%	-32.4%
N/A	0.0%	0.0%	0.0%

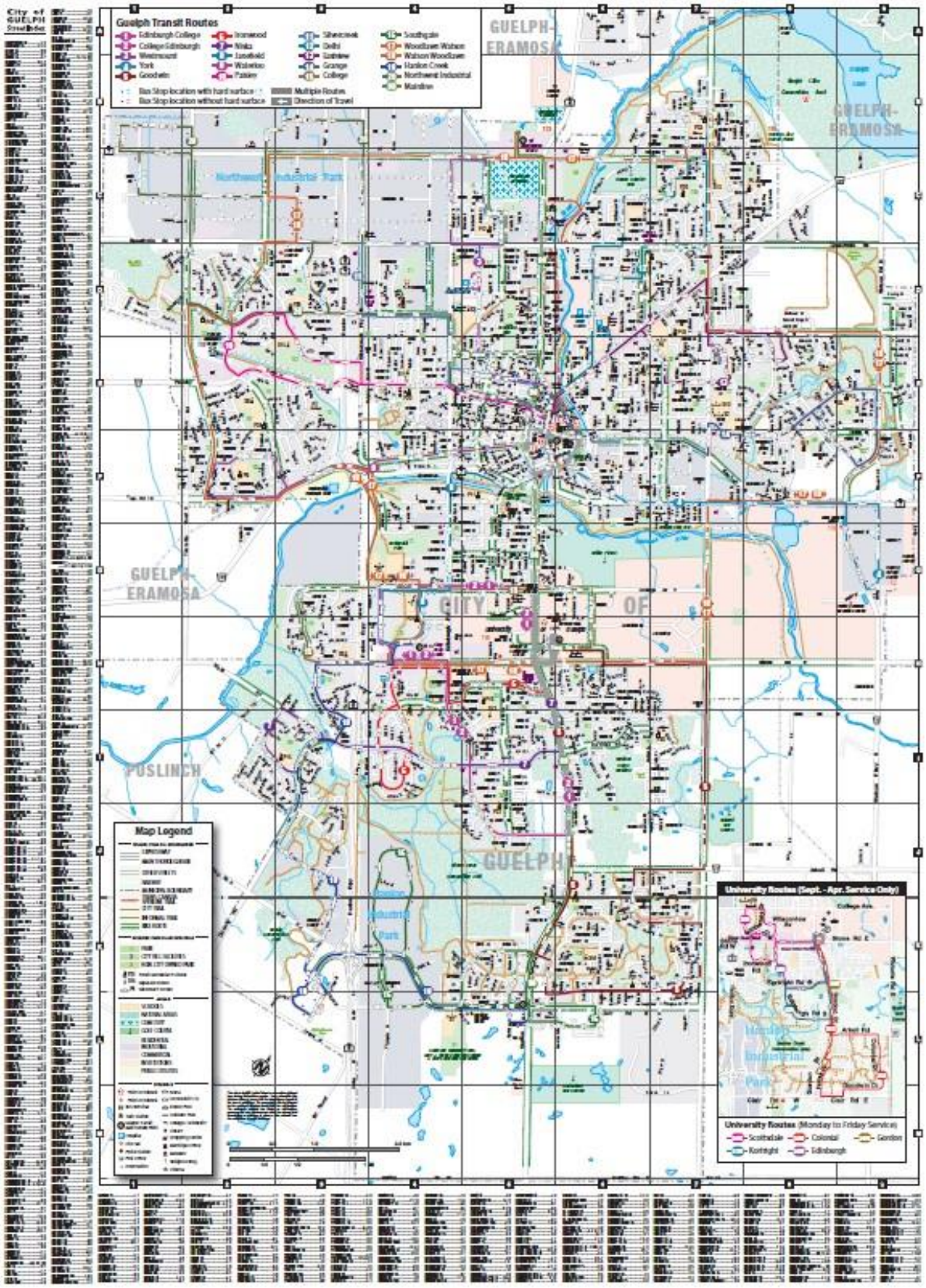
Guelph Transit Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 54 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 54: Guelph Transit Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	Annual ridership volume	6.7 million riders
	Customer	Maps of routes and stops	See Figure 87 (next page).
	Customer	Description of asset replacement/rehabilitation planning and prioritization, defining end of life for assets.	Shelter condition is preliminarily determined by issue reports made by operators, supervisors, shelter cleaners, and the public. Repair/rehab/replacement is determined as according to the shelter type and resource availability. fleet to provided for buses based on replacement policy
People & Economy	Technical	Annual # of complaints due to uncleanliness or appearance of vehicles	1,127 complaints
Environment	Technical	Nat Gas Consumption (m^3)	217,387 m^3
		Water Consumption (m^3)	20,178 m^3
		Fuel Consumption (L)	2,692,189 L
		Energy Consumption (kWh)	1,432,356

Figure 87: Map of Guelph Transit Routes



Guelph Fire Department

General Info

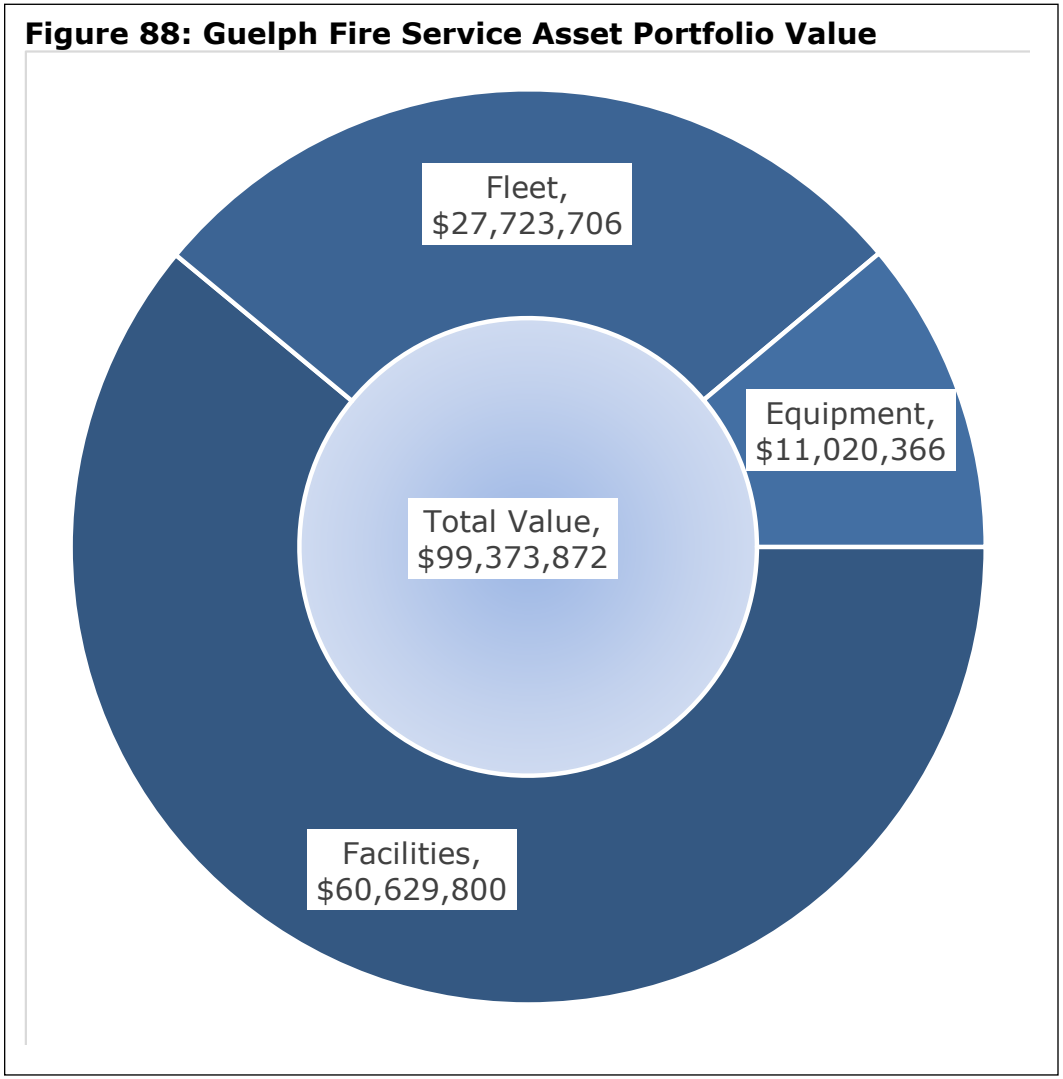
The Guelph Fire Department (GFD) provides fire and emergency response services as well as education, fire safety inspections and code enforcement to the city. The service operates out of 6 fire stations located strategically across the city to provide quick response times to emergencies. The GFD operates a fleet of 51 vehicles and over a thousand pieces of equipment.

The total value of GFD assets is $99 million with $60 million in facilities, a fleet valued at $28 million and $11 million of equipment. The value of assets in the GFD portfolio is presented in Figure 88.

The majority of the GFD assets are in "fair" or better condition. Figure 89 presents the overall condition of the assets.

The general positive condition of the portfolio does not imply that there are no requirements for future capital work. Both the facilities and the fleet / equipment categories of assets require continued attention. These details are highlighted in the following sections.

Figure 88: Guelph Fire Service Asset Portfolio Value



GFD Fleet & Equipment

Fleet and equipment assets are inspected regularly by operating staff who identify needs for repair, rehabilitation, or replacement. Fire equipment lifecycles are defined by OEM recommendations as well as age and staff condition assessments. Maintenance of the fleet is done in partnership with the City's fleet services team with specialized technicians who are certified to maintain the vehicles to National Fire Protection Association (NFPA) standards. The requirement is to replace firefighting vehicles after 20 years, however, the City has a program where pumper trucks are placed into reserves after 12-15 years and aerial trucks are placed into reserves after 15-18 years. This extends the useful life of the fire trucks but does not remove the requirement to replace the vehicles to maintain the levels of service expected.

Equipment items which include firefighter bunker gear, ladders, radios and a wide variety of other items have shorter lifecycles. Due to the nature of their use, the equipment will not be in use if it is considered in poor condition. Determination of the condition, value and renewal needs of the fire department fleet has been done with the assistance of the City's fleet services

Figure 89: GFD All Asset Condition by Value

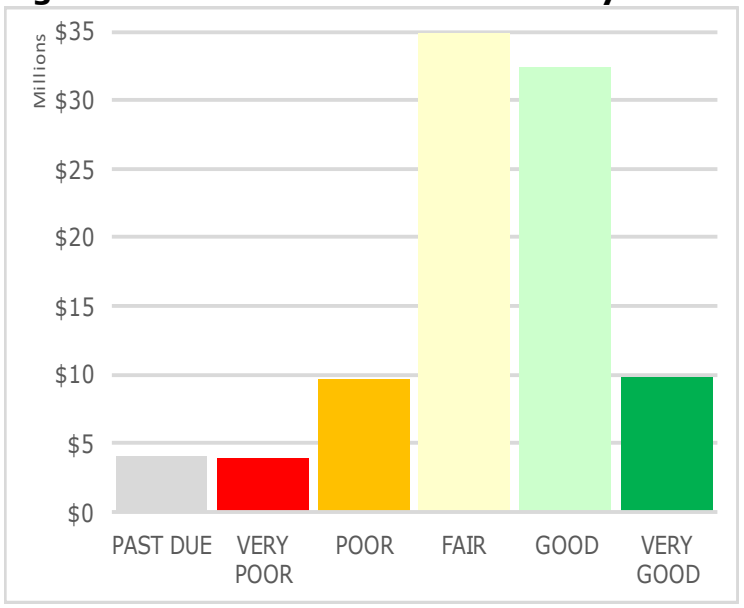
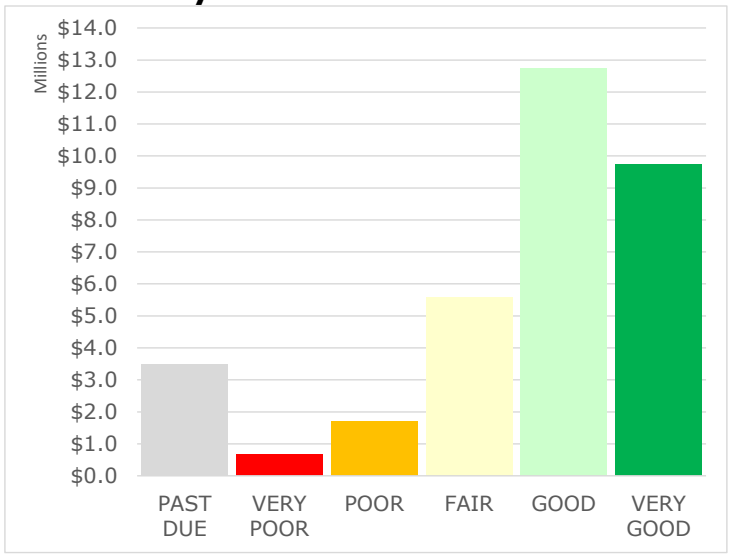


Figure 90: GFD Fleet & Equipment Condition by Value



team. The value per condition of the GFD fleet assets is shown in Figure 90.

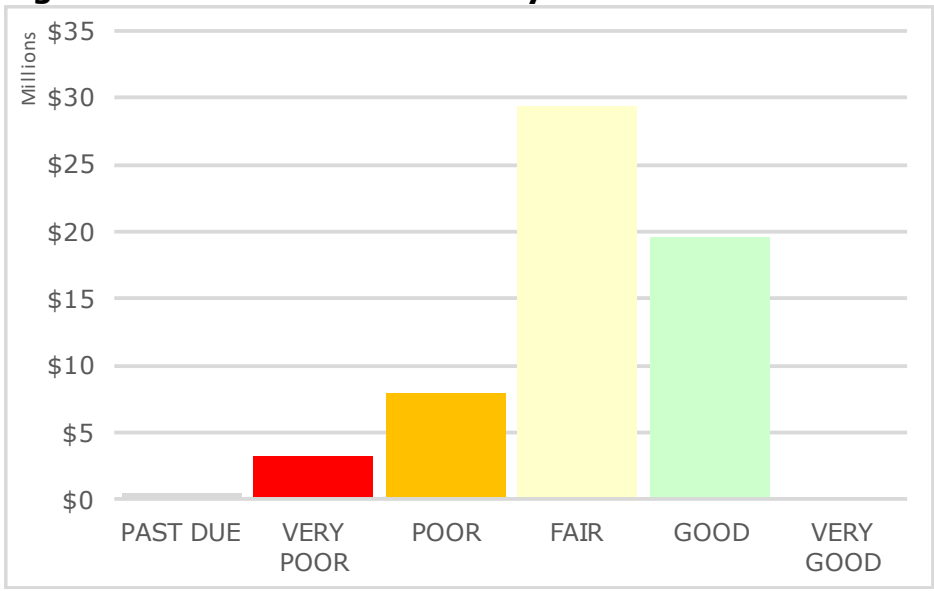
GFD Facilities

As discussed, the GFD operates out of six (6) locations across the City. Fire Station 1 doubles as the department headquarters and is located downtown. Stations 2, 3 and 5 are stand-alone facilities outside of the downtown core. Station 4 is co-located at the West End Community Centre and Station 6 is part of the City's Clair Road Emergency Services building that is operated jointly between the Fire, Police and Paramedic services. For AM purposes Clair Road facility is included with the GFD review.

The day-to-day maintenance and operations needs and the long-term capital needs of the facilities are managed by the City's Facility and Energy Management team. The physical condition of the buildings is determined by the completion of building assessments where consultants engaged by the City provide professional opinions on the condition and future needs of each element within a building. This work shows that the average physical condition of the facilities is considered "fair". The assessments identify a total of approximately $11.7 million of assets that are considered in "poor" or worse condition.

Further to the physical condition, the functional performance of the facilities is a factor in determining future needs. Past functional performance studies have determined that Fire Station #1 (HQ) is nearing the end of its useful lifecycle, while Fire Station #3 requires expansion. Both of these needs have been approved for funding, but beyond the ten-year timeline of this AMP. Varying types and value of renewal work is required at each of the other stations. There is an identified annual fire department facilities project with average annual funding allotment of approximately $260,000 per year. A new firefighter training "burn tower" is planned for construction in 2028/2029.

Figure 91: Facilities Condition by Value

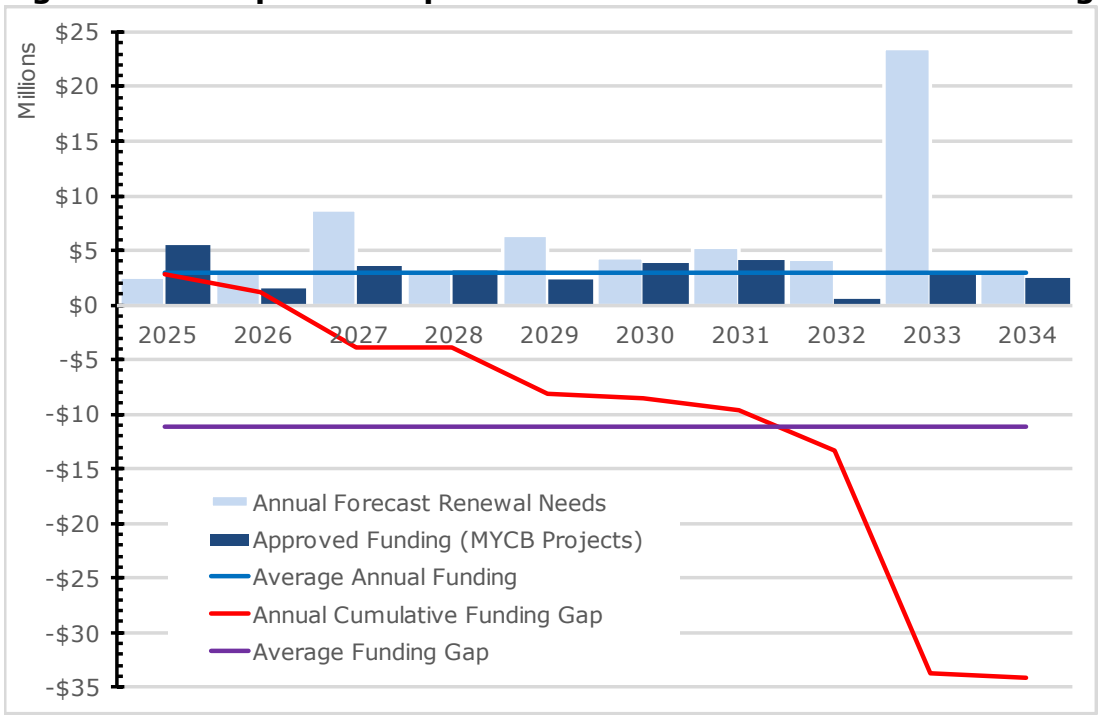


Renewal Forecast: Guelph Fire Department

General

Between 2025 and 2034 the forecast capital renewal needs total approximately $75 million while the forecast funding available during that same time period forecast available funding is $30 million resulting in a total 10-year funding gap of $45 million. Refer to Figure 92 and Table 55.

Figure 92: Guelph Fire Department Forecast Renewals vs. Funding



A significant portion of the renewal needs are identified at Fire Stations #1 and #3. As discussed previously the needs of these two facilities have been identified. Beyond 2034 there is approximately $43.5 million in funding approved to address those needs. However, because these projects remain more than ten years in the future and the funding is still considered "proposed" and not fully confirmed the renewal needs will remain in the analysis.

With regards to the fleet, the replacement of fire fighting vehicles can be planned with a somewhat cyclical pattern due to the previously discussed policy of keeping a fire fighting vehicle in service for only a set number of years. The funding patterns reflect this with an average of $1.5 million per year allotted for replacement with only three years of the next ten not having any fleet funding identified. This is partly due to the procurement needs and processes associated with purchasing large vehicles: the funding is provided earlier than the actual renewal date due to the time required to complete the purchase and for the supplier to manufacture and deliver a fire-fighting vehicle. The renewal needs for the smaller "light" vehicles used by the Fire Services department are addressed with a

separate capital budget account that maintains a relatively equal funding amount year to year.

Many of the renewal needs relate to vehicles that will enter the reserve fleet at an age when according to the analysis models they would become "past-due" – a condition rating that more represents their age and not the functional or performance capability of a vehicle. All City vehicles in use are regularly maintained to be safe and able to provide their intended function despite their age. The volume of "past due" assets is one of the reasons for the high renewal value forecast in 2025.

Table 55: Guelph Fire Department Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	2.6	3.2	8.7	3.1	6.4	4.3	5.2	4.2	23.5	2.9
Forecast Funding	5.4	1.5	3.6	3.1	2.3	3.9	4.1	0.5	3.0	2.5
Funding Gap	2.9	1.1	-3.9	-3.9	-8.1	-8.5	-9.6	-13.3	-33.8	-34.2

Levels of Service: Guelph Fire Department

The condition rating of an asset can be broadly used to understand the state an asset is in, the level of service it is performing at and the probability that it will fail. Assets are also given an estimated useful life which establishes when an asset will deteriorate to a poor condition rating. These two statistics, combined with the City's capital budget, can predict the condition of the portfolio into the future. This targets the level of service the assets will perform at in ten years.

Portfolio condition as a level of service

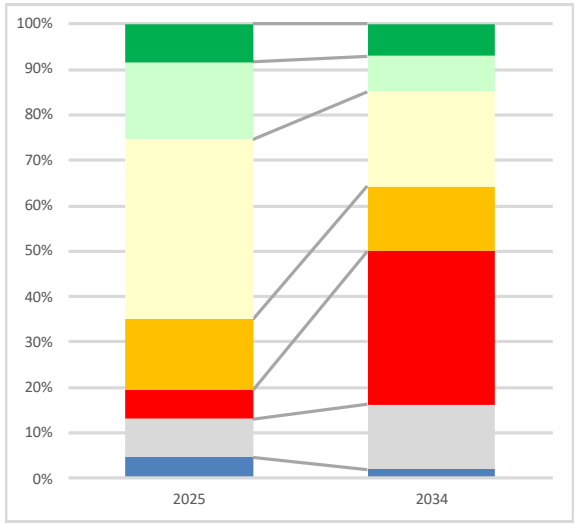
Over the ten-year forecast period from 2025-2034 the GFD portfolio is predicted to have a major increase in assets in "Past Due", "Very Poor" and "Poor" conditions. This relates to the facility renewals noted, particularly Fire Stations #1 and #3, and fleet.

As discussed, the needs of the facilities have been identified and will be addressed but in the time period beyond 2034. Therefore the change in LOS delivery resulting from the planned facility improvements are not reflected here.

Table 56: GFD 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	8.4%	7.0%	-1.4%
Good	16.8%	7.9%	-9.0%
Fair	39.7%	20.8%	-18.8%
Poor	15.7%	14.3%	-1.4%
Very Poor	6.3%	33.8%	27.5%
Past Due	8.3%	14.3%	6.0%
N/A	4.7%	1.9%	-2.8%

Figure 93: GFD 10-Year Portfolio Level of Service Condition



Fleet and Equipment asset condition as a level of service

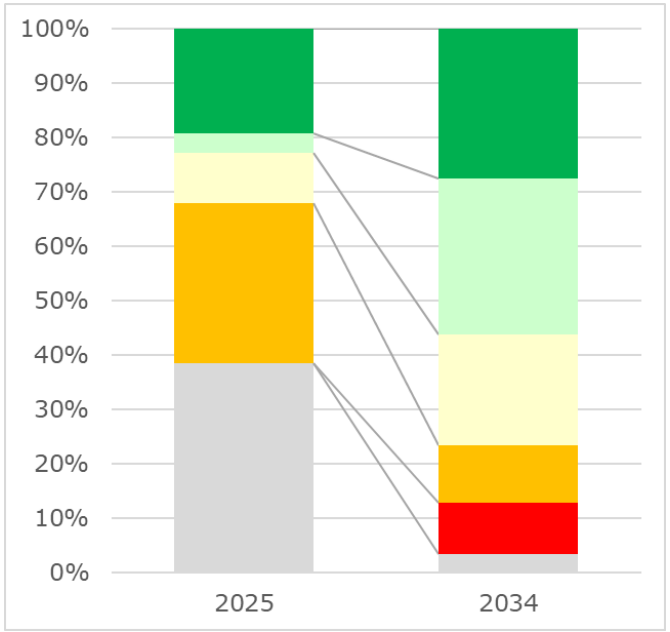
The forecast LOS targets in in 2034 show that there will be a decrease in the number of fleet assets in "past due", "very poor" and "poor" conditions combined with an increase in the assets in "very good', "good" and "fair" conditions.

This represents effective renewal planning for the fleet and should result in a fire department fleet that remains functional well into the future. The LOS trend for the Guelph Fire Department fleet and equipment assets is shown in Figure 94 and Table 57.

Table 57: Comparison of the 10-Year Fleet Assets Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	19.1%	27.6%	8.4%
Good	3.6%	28.7%	25.0%
Fair	9.2%	20.4%	11.1%
Poor	29.5%	10.6%	-18.9%
Very Poor	0.0%	9.4%	9.4%
Past Due	38.5%	3.4%	-35.1%
N/A	0.0%	0.0%	0.0%

Figure 94: GFD 10-Year Fleet Assets Level of Service Condition



Guelph Fire Department Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service to represent the assets level of performance. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics. These metrics are a more granular and comprehensive description of asset performance. Table 58 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 58: Guelph Fire Department Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	% of fire assets that meet or exceed minimum target design requirements	100%
City Building	Technical	% of vehicles and equipment past their optimum service life	0.38%
	Customer	Description of asset replacement/rehabilitation planning and prioritization, defining end of life for assets.	Current asset replacement planning and prioritization utilizes two (2) separate Excel documents: 1) For the fleet replacement program: "Fleet Budget Capital (BA Chart 27 Nov 2023)". This covers fire trucks and light duty vehicles from 2024-2045 and is over and above the corporation's 10-year capital forecast. End of life for fire trucks is 20 years. Replacement pumper trucks are in frontline status for 12-15 years and then placed into reserve status where they are retired from service prior to end of life. Replacement aerial trucks

Strategic Theme	LOS Type	Performance Measure	Current Performance
			are in frontline status for 15-18 years and then placed into reserve status. 2) For the equipment replacement program: "2024-2048 Fire Equipment Asset Life Cycling". This covers general fire equipment, rope rescue equipment, auto extrication equipment, hazmat equipment, and hoses/nozzles. Replacement timing is based on OEM recommendations, age, and condition assessments. Note that equipment cannot be "run to fail".
People & Economy	Technical	% of service calls responded to with 4 minutes	64.3%
	Customer	Description of the strategies used to keep assets and asset services safe and accessible to the public	Under the Highway Traffic Act: - safety standards certificate, annual, and semi-annual inspections are completed by GFD's licensed motor vehicle inspection technicians. - the GFD facility is an authorized inspection station licensed by the Ministry of Transportation - preventative maintenance inspections are part of GFD's maintenance plan and schedule and are done by GFD's qualified

Strategic Theme	LOS Type	Performance Measure	Current Performance
			technicians at prescribed intervals. - daily inspections completed by GFD drivers on behalf of the department. The National Fire Protection Association publishes industry standards which GFD follows: - NFPA 1901, Standard for Automotive Fire Apparatus defines the requirements for new automotive fire apparatus. - NFPA 1911, Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus. Under the Occupational Health and Safety Act: - clause 25(1)(b) for maintaining equipment in good condition. - clause 25(2)(a) for providing information and instruction to workers. - clause 28(1)(c) for reporting equipment defects - O. Reg. 714/94 – Firefighters – Protective Equipment, Section 6

Strategic Theme	LOS Type	Performance Measure	Current Performance
			outlines inspection, testing and service record requirements for chassis mounted aerial devices. The Ontario Fire Service Health and Safety Advisory Committee, formed under section 21 of the Act, published Guidance Notes which includes Section 1: Apparatus and equipment.
Environment	Technical	Fuel Consumption (L)	Gasoline: 74,905 L Diesel: 17,182 L
		Water Consumption (m^3)	7,411 m^3
		Nat Gas Consumption (m^3)	137,972 m^3
		Energy Consumption (kWh)	1,063,916 kWh
	Customer	Description of environmental sustainability initiatives (e.g., GHG emission mitigation, water usage reduction).	GFD balances its capital funding constraints for replacement fire trucks with the City's goal of energy conservation and greenhouse gas (GHG) emissions reductions in its Race to Zero protocol. GFD requires new fire trucks to meet the minimum EPA Emission Standards for Heavy-Duty Highway Engines and Vehicles, however, additional green technology solutions and associated costs are requested of vendors.

Strategic Theme	LOS Type	Performance Measure	Current Performance
			Examples of green technologies included: - Fully electric fire trucks using high-voltage systems. - Hybrid fire trucks using a combination of EV and diesel power. Idle Reduction Technologies (IRTs) which utilize lithium-ion batteries to provide services such as heat, air conditioning, and/or electricity to the vehicle.

Guelph-Wellington Paramedic Service

General Info

The Guelph-Wellington Paramedic Service (GWPS) provides emergency ambulance services to the City of Guelph and the County of Wellington. The service is managed as a department within the City of Guelph with approximately 1/3 of the funding for the service provided by the County of Wellington through a shared service agreement.

Capital and operational needs for the GWPS facilities are managed by the City's Facilities and Energy Management team (FEM). In total the GWPS operates out of nine (9) stations throughout the City of Guelph and the County of Wellington. As of 2024 Many of these stations are leased by the City for GWPS use and not directly owned by the City. The lease agreements include service agreements that identify the roles of the landlords and the City regarding responsibility for managing the lifecycle needs of the various individual elements within the facilities. However, these leased facilities have not been part of the City's facility assessment program and as a result the City lacks asset information on these facilities. For the same reasons the City does not have accurate replacement value information about these facilities.

The Elmira Rd. station – which is owned by the City - has not been included in a recent condition assessment program, and so accurate condition and renewal needs based on the current condition of the station are not available. However, the FEM team has completed functional assessments of the Elmira Rd. station and the results of that study indicated that it had reached the end of its useable service life. A total of $7 million has been approved for the construction of a new station to replace Elmira Rd. station in 2025/26.

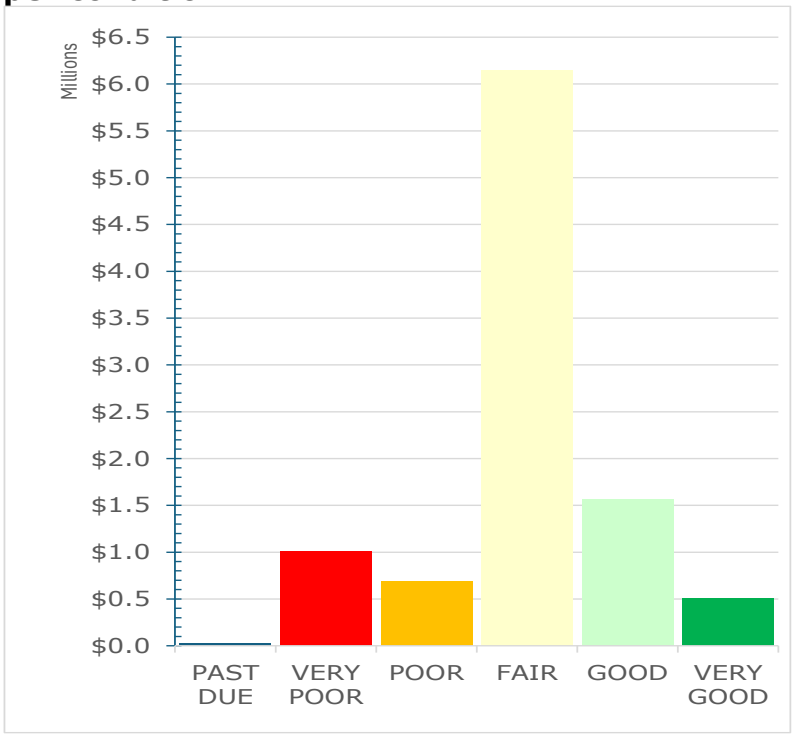
A similar functional study was done at the Gordon St. station, with the same result. A total of approximately $9 million has been approved for construction of a new station to replace Gordon St. station beginning in 2037.

With regards to the portfolio analysis, because of the lack of available information the condition and renewal forecast will include only the GWPS fleet and equipment assets, detailed in following sections.

GWPS Fleet

The GWPS Fleet consists of 40 ambulance vehicles and 20 other types of vehicles in support roles. The day-to-day maintenance needs of the fleet are managed by the City's Fleet department. Capital purchases for new vehicles are managed by the Fleet team, but funding for the vehicles is part of the GWPS budget. The condition analysis for the fleet relies on the age of the assets and their forecasted useful lives to determine condition. In the case of ambulances, the age condition is based on the legislation requirements to replace these vehicles on a five-year cycle, not the working condition of the vehicles. According to the most recently verified information the total current replacement value of the fleet assets is approximately $4.8 million.

Figure 95: GWPS Fleet & Equipment Asset value per condition



The GWPS equipment asset inventory includes numerous different types of assets such as patient stretchers, specialized medical equipment and support tool that allow the GWPS Paramedics to accomplish their jobs. As of 2024 there were 1,227 items in the recorded inventory with an estimated replacement value of $5.17 million.

Similar to vehicles, the condition of the equipment is generally rated based on the age of the item. The average useful expected service life for equipment assets is ten (10) years. In many cases the actual age of the equipment item is not known, and so for analysis purposes all equipment items are considered in "fair" condition. In practice the equipment is well maintained, and no item would be used if it was not in an acceptable functional condition. The value per condition of the fleet and equipment assets is presented in Figure 95.

The results show that the overall condition of the fleet & equipment portfolio is in "fair" condition on average which is a result of the value of the equipment items all being considered "fair".

However, as described, both the equipment and the vehicles receive regular preventive maintenance and would not be used in daily service if there was an identified risk to their functional performance.

Renewal Forecast: Guelph-Wellington Paramedic Service Fleet and Equipment

Between 2025 and 2034 the forecast capital renewal needs for fleet and equipment assets total approximately $9.28 million. During that same time period forecast funding available for renewal activities totals $16.1 million, which includes the County of Wellington funding to the GWPS. This results in a total 10-year funding surplus of $6.8 million, refer to Figure 96.

The reasons for the surplus are unclear based on the status-quo information available regarding the status of the fleet and equipment.

Regarding facilities, the MYCB identified a ten-year total of $8.1 million in funding for various facility renewal work. Most of that is allotted to the new station to be built to replace the existing Elmira Rd. station. The balance should be adequate to manage the needs at the other leased locations.

Figure 96: GWPS Forecast Renewals vs. Funding

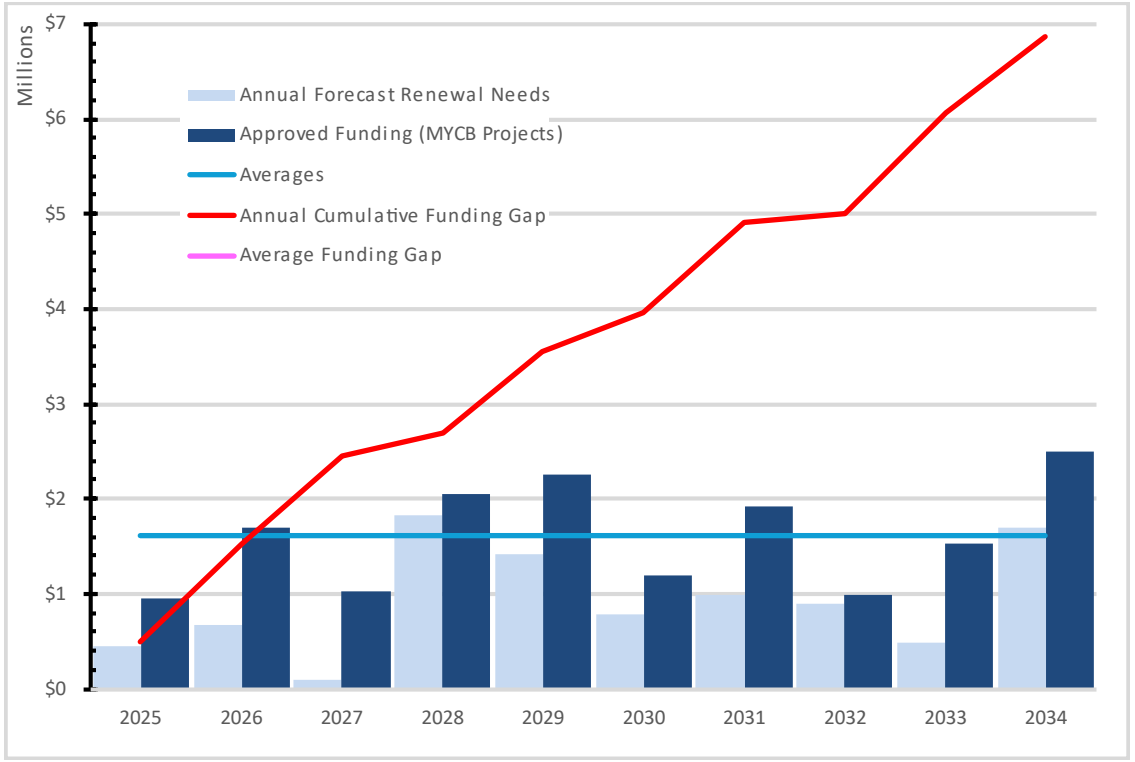


Table 59: Guelph-Wellington Paramedic Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	0.9	1.7	1.0	2.1	2.3	1.2	1.9	1.0	1.5	2.5
Forecast Funding	0.5	0.7	0.1	1.8	1.4	0.8	1.0	0.9	0.5	1.7
Funding Gap	0.5	1.5	2.5	2.7	3.5	4.0	4.9	5.0	6.1	6.9

Levels of Service: Guelph-Wellington Paramedic Service

The condition rating of an asset can be used to broadly understand the current state of an asset, the level of service it is performing at and the probability that it will fail. The estimated useful service life of an asset is used to calculate a potential date when it may deteriorate to a poor condition rating. Combining these two values for the whole portfolio and then comparing those results against the City's approved capital budget can be used to predict the potential condition of the portfolio into the future. This is used to represent the target level of service the assets will perform at in ten years.

Because of the minimal data available for the facilities the LOS review for GWPS will focus on the fleet and equipment assets.

GWPS Fleet condition as a level of Service

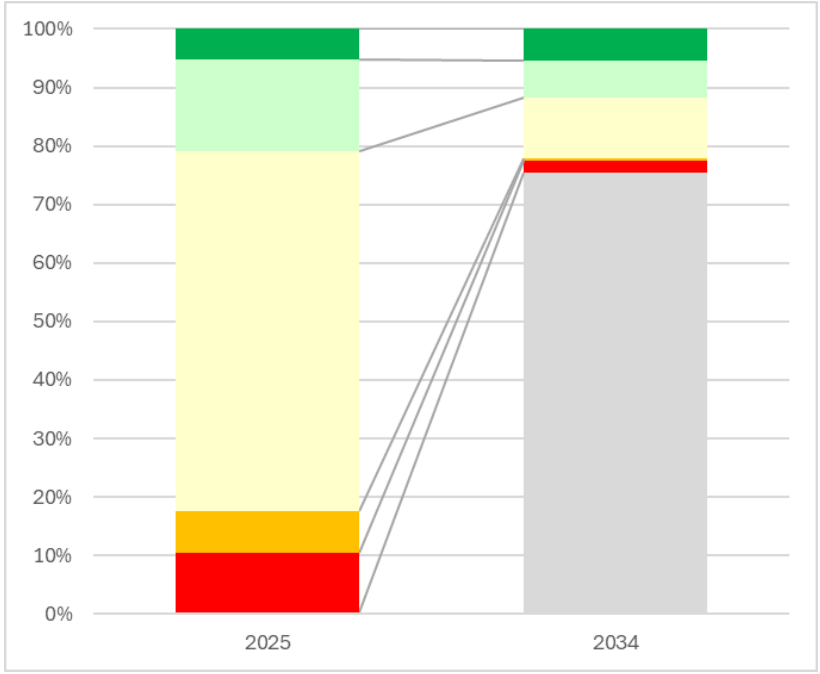
Due to the relatively short vehicle lifecycles and the maximum allowed number of years an ambulance can be used there is a predictable cyclical nature to the fleet LOS. The ambulances in the GWPS fleet can be expected to have 2 lifecycles in the 10-year horizon. With the majority of Ambulances in the fleet being in "Good" condition in 2025, this means there would be planned replacements expected in 2034. From a condition rating perspective these ambulances would be given a "past due" rating with the understanding that in actuality they remain functional but are mandated to be replaced. From an LOS perspective this results in near 99 point increase in fleet assets in "past due" condition in 2034 compared to 2025. With the inclusion of the equipment assets the total increase in the percentage of the assets in "past due" condition in 2034 increase by 75 points compared to 2025. This is an anomaly resulting from the modelling tools used: It is certain that all of those ambulances requiring replacement in 2034 will be replaced, probably in 2035, meaning the LOS forecast would change to being nearly 100% "very good".

The LOS changes as a result of the condition profile are summarized in Table 60 and Figure 97.

Table 60: GWPS - 10-Year Fleet Assets Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	5.1%	5.5%	0.4%
Good	15.7%	6.3%	-9.4%
Fair	61.7%	10.5%	-51.2%
Poor	7.0%	0.3%	-6.7%
Very Poor	10.1%	2.1%	-8.1%
Past Due	0.3%	75.4%	75.1%
N/A	0.0%	0.0%	0.0%

Figure 97: GWPS - 10-Year Fleet Assets Level of Service Condition



Although facilities are unable to be included in the LOS review, what can be confirmed is that the construction of the Elmira Rd. replacement station will greatly increase the LOS delivered by the GWPS.

The City FEM and GWPS teams with the assistance of the AM team will continue to monitor the state and functional need of the GWPS stations to ensure that this important service is not negatively affected as a result of a facility issue.

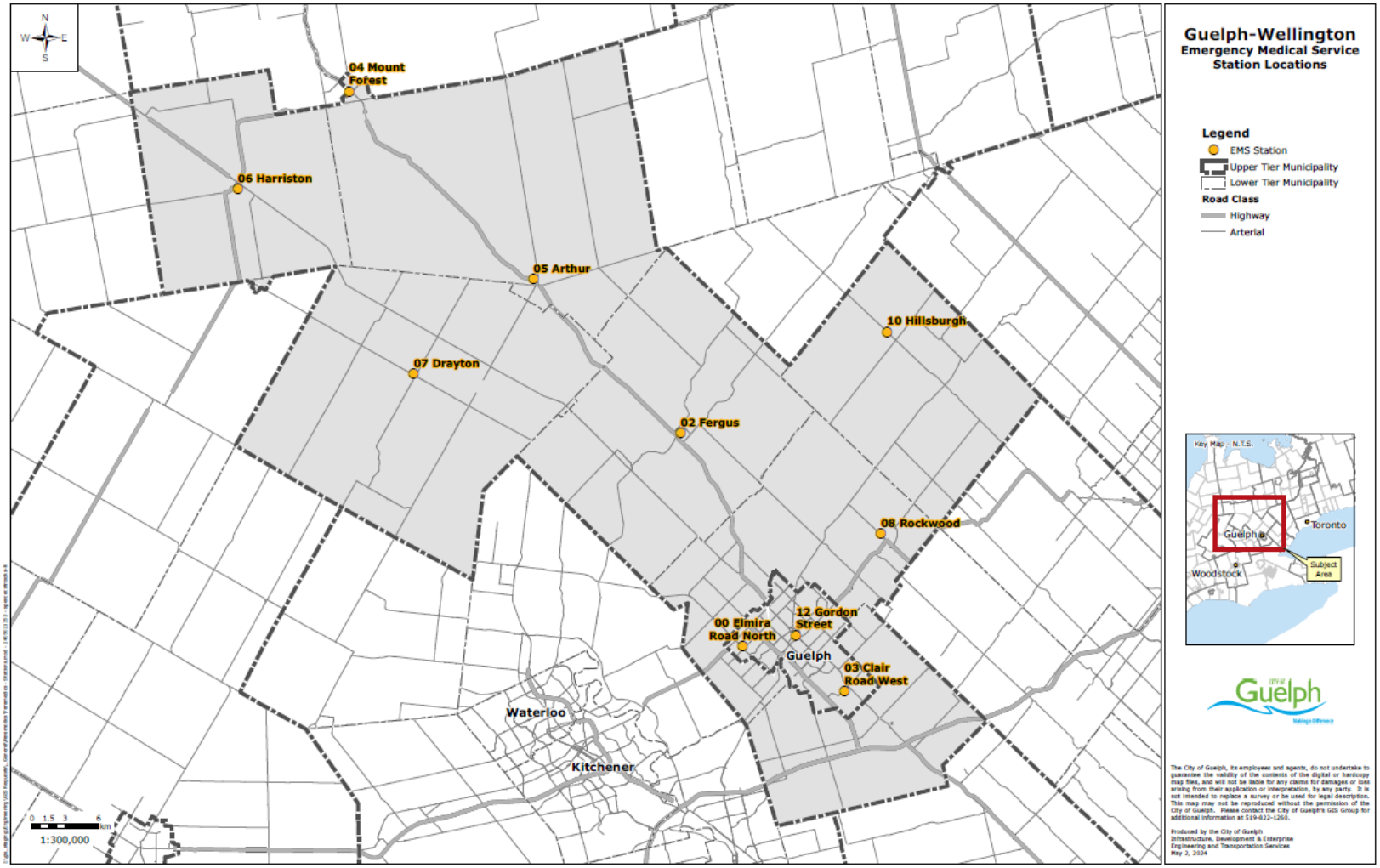
Guelph-Wellington Paramedic Service Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 61 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 61: Guelph-Wellington Paramedic Service Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	# of Ambulances	21
		# of Auxiliary Vehicles	18
	Customer	Emergency Response call volumes	31,239
		Description of the size/quantity of the services provided by the assets/asset network	See Figure 98
City Building	Technical	Vehicles: Condition Ratings of Assets > Poor	10/46 = 21.7%
		Equipment: Condition Ratings of Assets > Poor	11/246 = 4.5%
Environment	Technical	Energy Consumption (kWh)	210,878 kWh
		Natural Gas Consumption (m^3)	34,012 m^3
		Water Consumption (m^3)	1,813 m^3

Figure 98: Locations of GWPS Stations and Areas Service



Guelph Police Service

General Info

The Guelph Police Service (GPS) owns and manages assets with a value of approximately $165.9 million in the portfolio. The GPS Headquarters building is the entirety of the facilities managed while the fleet and equipment comprise the remainder. Figure 99 presents the relative values of each category in the portfolio.

The GPS also occupies a space at the Clair Road Emergency Services Centre (CRESC), however, for the purposes of the AMP the CRESC is included in the analysis for the Guelph Fire Department and not represented in the GPS portfolio. Overall, the condition of the GPS assets is in good condition. The GPS Headquarters building recently underwent a major renovation and upgrade (2022-23). Figure 101 presents the overall value of the assets per condition. The effects of the recent renewal work at the Headquarters building can be seen in the value of assets in "good" and "very good' condition compared to the other rating categories.

Figure 99: Guelph Police Services Asset Portfolio

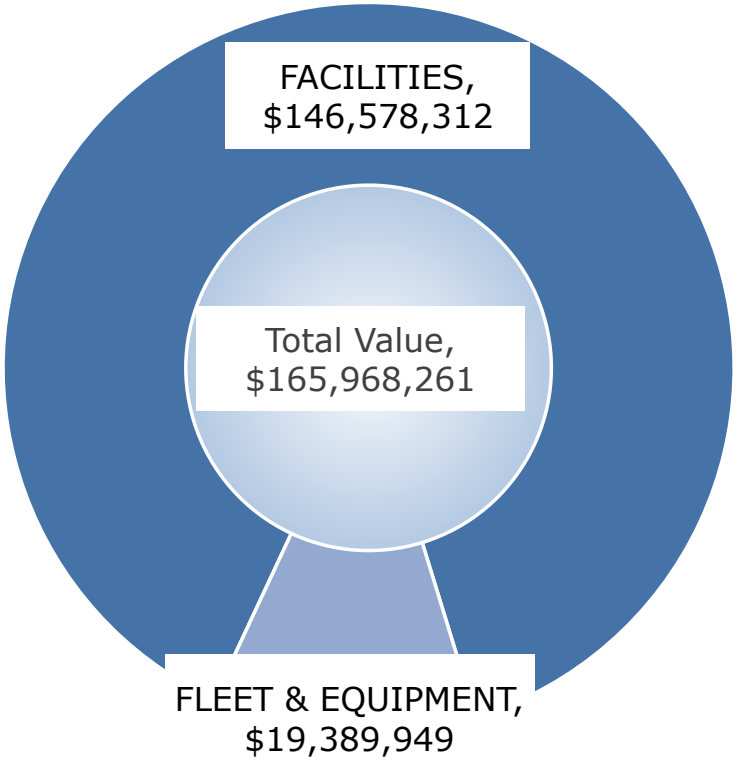


Figure 101: GPS Portfolio Asset Value per Condition

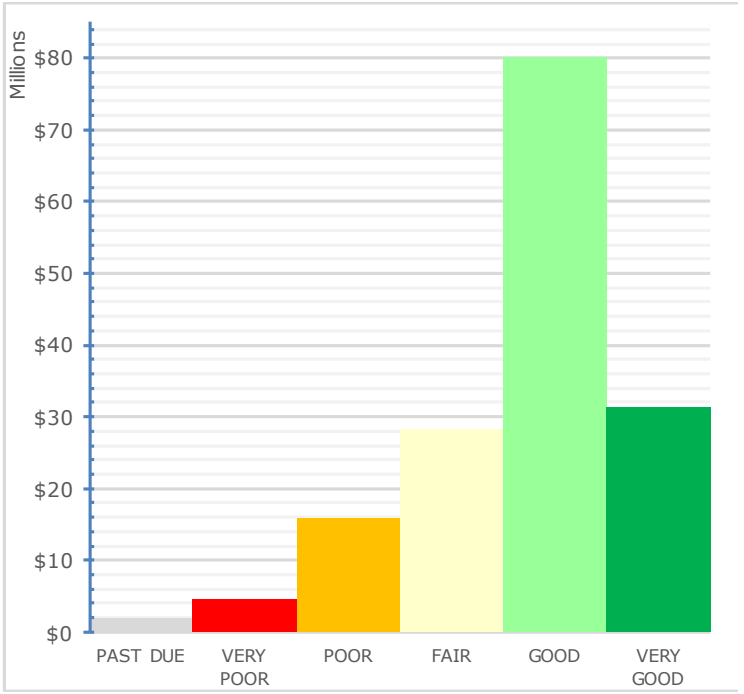
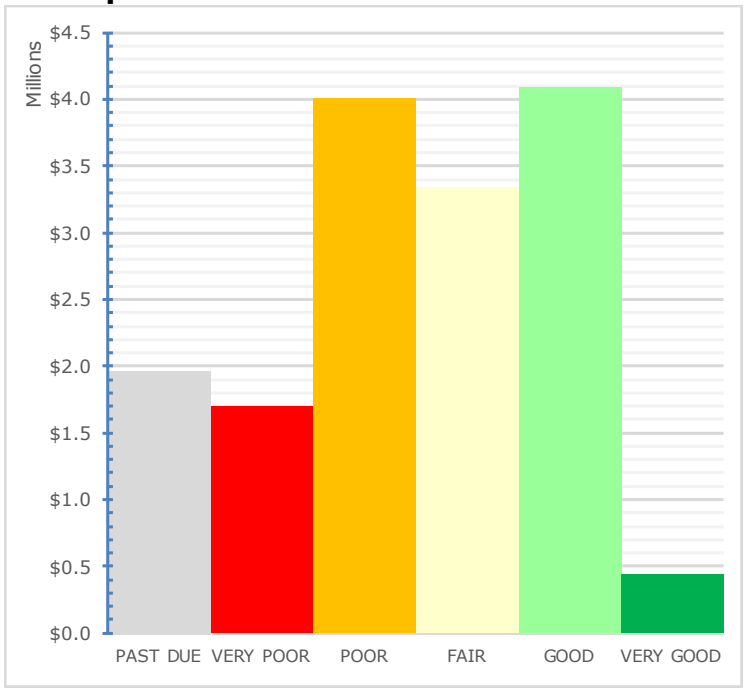


Figure 100: GPS Fleet & Equipment Asset Value per Condition



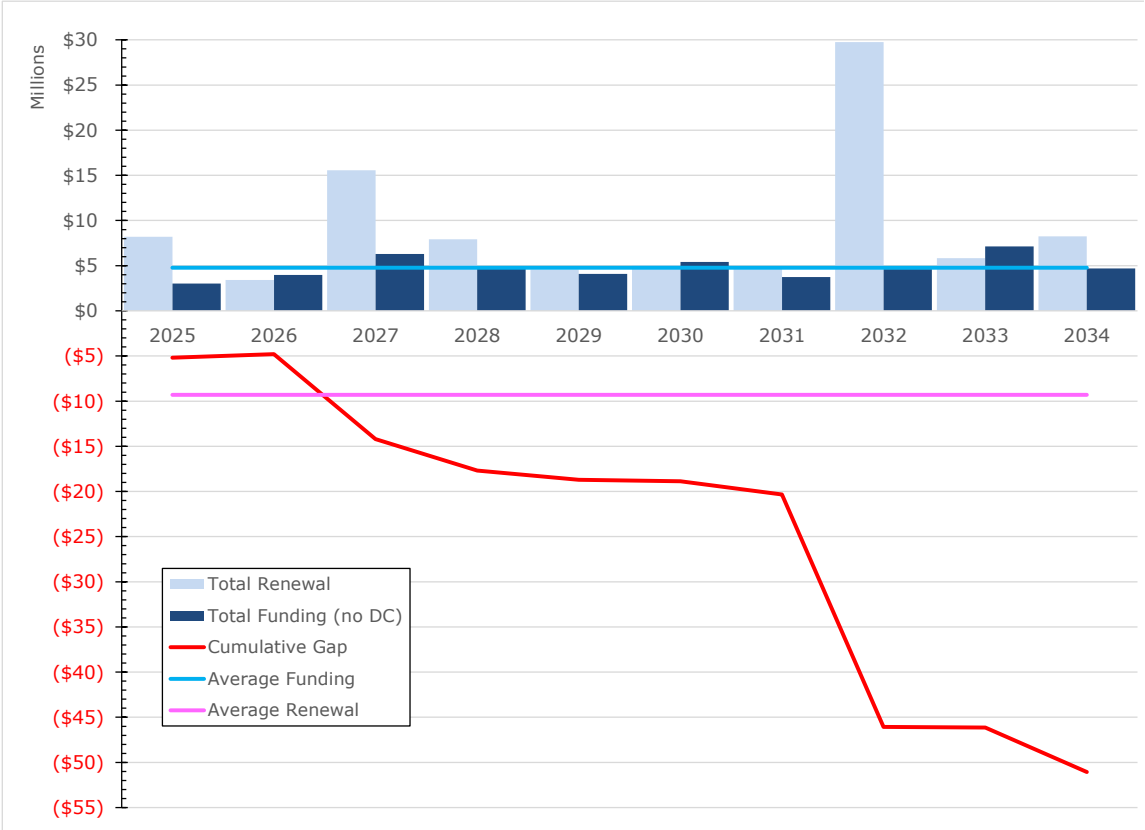
There are 89 vehicles in the GPS fleet, with 33 of those being identified as part of the reserve fleet. Additionally, the GPS has 3,876 pieces of equipment which need to be maintained. Fleet and equipment assets do not have formal condition rating system like that used for facilities but instead these assets are inspected regularly by operating staff who identify needs for repair, rehabilitation, or replacement. When an asset reaches the end of its estimated useful life it is deemed to be in "Past Due" condition. All assets are always assessed for safety and all vehicles are ensured to be road safe before use.

Figure 100 presents the replacement value of the fleet and equipment assessed according to the age-based condition rating system. With the exclusion of the headquarters building a more even distribution of assets across the rating categories is seen. This is normal and reflects the cyclical nature of renewing vehicles and equipment on a planned pattern

Renewal Forecast: Guelph Police Service

Between 2025 and 2034 the forecast capital renewal needs total $93 million. During that same period, forecast available funding is $47.8 million resulting in a total 10-year funding gap of $51 million. The 2025-2033 funding vs. renewals analysis is summarized in Figure 102 and Table 62.

Figure 102: GPS Renewals vs. Funding Forecast



These values are based on current information that is available regarding condition, predicted replacement dates and available funding, and include inflation plus contingency needs. A significant portion of the renewal needs are forecast to occur in 2032 at the GPS Headquarters building. It is possible that due to the newness of many of the elements of that building this would be avoided with attention to maintenance and mid-life renewal of the elements: smaller mid-life renewal projects can extend lifecycles for lower costs than simply planning to replace an asset at its maximum lifecycle. Fleet expenditures will always be required to maintain the high efficiency and effectiveness of the GPS, and these are already planned on a cyclical basis. For both facility and the fleet assets an effective and properly funded preventive maintenance program will benefit the GPS by ensuring that all the assets are functioning

at their optimal service levels. Such a program will contribute to extending lifecycles, thus lowering future renewal needs.

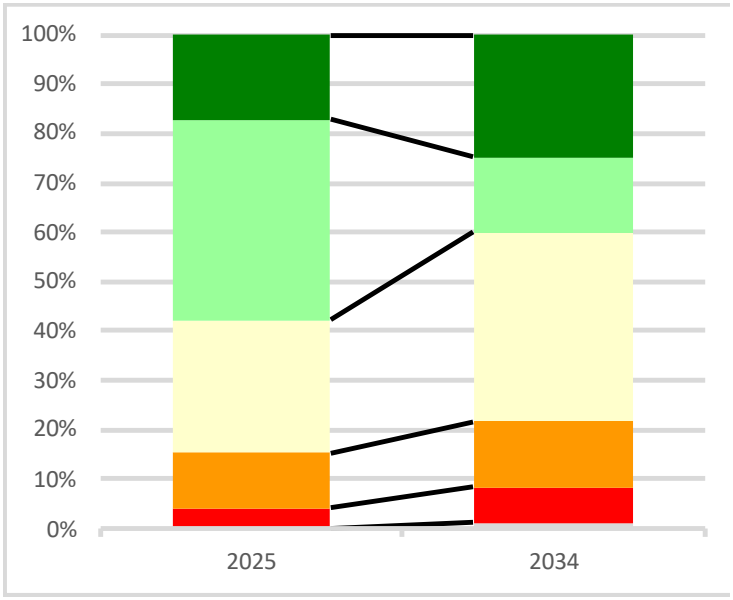
Table 62: Guelph Police Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	3.0	4.0	6.3	4.8	4.1	5.4	3.7	4.6	7.1	4.7
Forecast Funding	8.2	3.4	15.6	7.9	4.6	5.0	4.6	29.7	5.8	8.2
Funding Gap	-5.2	-4.8	-14.2	-17.7	-18.7	-18.9	-20.3	-46.1	-46.1	-51.1

Levels of Service: Guelph Police Service

The condition rating of an asset can be broadly used to understand the state an asset is in, the level of service it is performing at and the probability that it will fail. Assets are also given an estimated useful life which establishes when an asset will deteriorate to a poor condition rating. These two statistics, combined with the City's capital budget, can predict the condition of the portfolio into the future. This targets the level of service the assets will perform at in ten years.

Figure 103: GPS - 10-Year Portfolio Level of Service Condition



Portfolio condition as a level of service

Over the ten-year period, the GPS portfolio is predicted to have a major decrease in the amount of "Good" assets. This is reasonable to expect as the portfolio ages. The majority of the change is seen in the "Fair", "Poor", and "Very Poor" condition rates, however as the assets come due for regular replacement, the assets in "Very Good" condition also increased by 7.6 points. All changes to the condition profile are summarized in Figure 103 and Table 65.

Table 63: GPS - 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	17.1%	24.7%	+7.6
Good	40.4%	15.2%	-25.3
Fair	26.9%	38.2%	+11.3
Poor	11.2%	13.4%	+2.2
Very Poor	3.8%	7.0%	+3.2
Past Due	0.2%	1.2%	+1.0
N/A	0.2%	0.2%	-

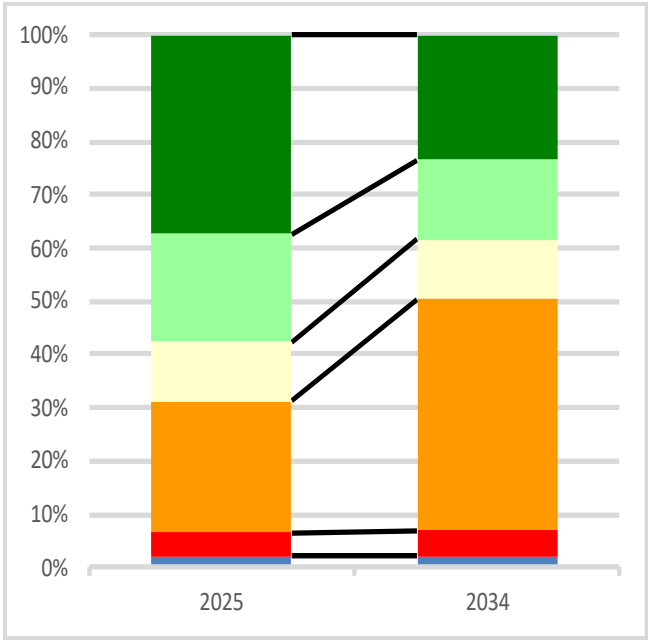
Fleet condition as a level of Service

Over the ten-year period, the GPS portfolio is predicted to have a major decrease in the amount of "Very Good" and "Good" condition assets. This is reasonable to expect as the portfolio ages. The majority of the decrease is mirrored in an increase in "Poor" asset condition rates. All changes to the condition profile are summarized in Figure 104 and Table 64.

Table 64: GPS 10-Year Fleet Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	37.4%	23.5%	-13.9
Good	20.1%	15%	-5.1
Fair	11.3%	11.1%	-0.2
Poor	24.6%	43.5%	+18.9
Very Poor	4.4%	4.8%	+0.4
Past Due	0%	0%	-
N/A	2.2%	2.2%	-

Figure 104: GPS - 10-Year Fleet Level of Service Condition



Guelph Police Service Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service their assets are performing at. These metrics are a more granular and comprehensive description of asset performance. Table 65 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 65: Guelph Police Service Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Customer	Description of the size/quantity of the services provided by the assets/asset network	The Guelph Police Service maintains assets related to the Service's vehicles and associated vehicle based equipment, IT equipment and infrastructure and equipment required for the various units including investigative services, tactical and traffic, body armour and facilities.
City Building	Technical	# of police vehicles	89 vehicles
	Customer	Description of asset maintenance policies and practices	Regular preventative maintenance is performed on all assets as required. When an asset is due for replacement, an evaluation of whether the useful life can be extended, if the asset could be repaired or needs to be replaced is completed. Needs of the service and unit are evaluated when the asset is due for replacement to ensure that the best possible purchase is being made vs. just replacing with the same.
People & Economy	Technical	% of community satisfied with police services (2023)	90% satisfaction with communications personnel 92% satisfaction with Officers involved with calls 86% satisfaction with response times
	Customer	Description of the strategies used to keep assets and asset services safe and accessible to the public	Ensure that assets are in compliance with applicable legislation (e.g. AODA, OBC, Police Services Act, OHSA). Safeguarding of assets through security measures implemented as Police HQ (e.g. security cameras). Maintain inventory of serial numbers where applicable to ensure that assets can be easily identified and ownership identified.

Strategic Theme	LOS Type	Performance Measure	Current Performance
Environment	Technical	Energy Consumption (kWh)	1,791,357 kWh
	Technical	Natural Gas Consumption (m^3)	57,085 m^3
	Technical	Water Consumption (m^3)	7,226 m^3
	Technical	Fuel Consumption (L)	162,953 L
	Customer	Description of the environmental sustainability initiatives implemented in administration and operations facilities	April 2023 Guelph Police Service completed the transition to a full front line hybrid fleet. All front-line vehicles are now fueled by hybrid technology (except covert units). Vehicle service / maintenance reduced by 30% and fuel reduced by 130 000 litres (50%). In 2024 GPS cycled current hybrid vehicles into the Court and PDRU units replacing the remaining gas fueled engine vehicles.

Parking Services

General Info

Public parking facilities in the City of Guelph include three (3) pay-per-use multi-storey parking garages, five (5) pay-per-use surface lots through the downtown area and on-street parking areas that provide free parking for a limited time. In total there are approximately 3,175 parking spaces managed by the City with a total value in 2024 estimated to be approximately $59.7 million. Figure 105 presents a chart that identifies the ratio of the value of the parking garages compared to the remainder of the portfolio.

Capital work for the parking garages is managed by the City's Facilities and Energy Management team while day to day maintenance needs at the surface lots are managed by the City's Public Works Operations team.

Overall, the portfolio assets are considered in fair condition on average with more than 79% of the individual equipment assets being assessed as having a physical condition of fair or better. Refer to Figure 107 for a chart that shows the distribution of the value of all assets in the parking services portfolio and Figure 106 for a focus on the parking garage structures. These results are skewed by the Market Parkade which was opened in 2022 and is still considered in a "nearly new" condition. Without Market Parkade

Figure 105: Parking Services Asset Value

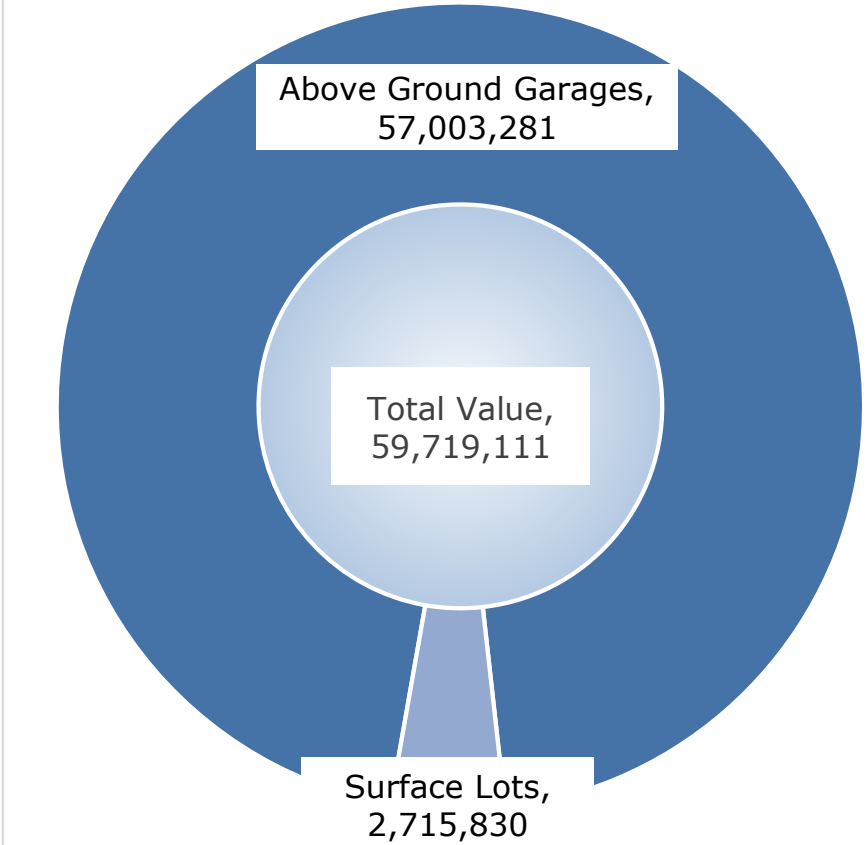
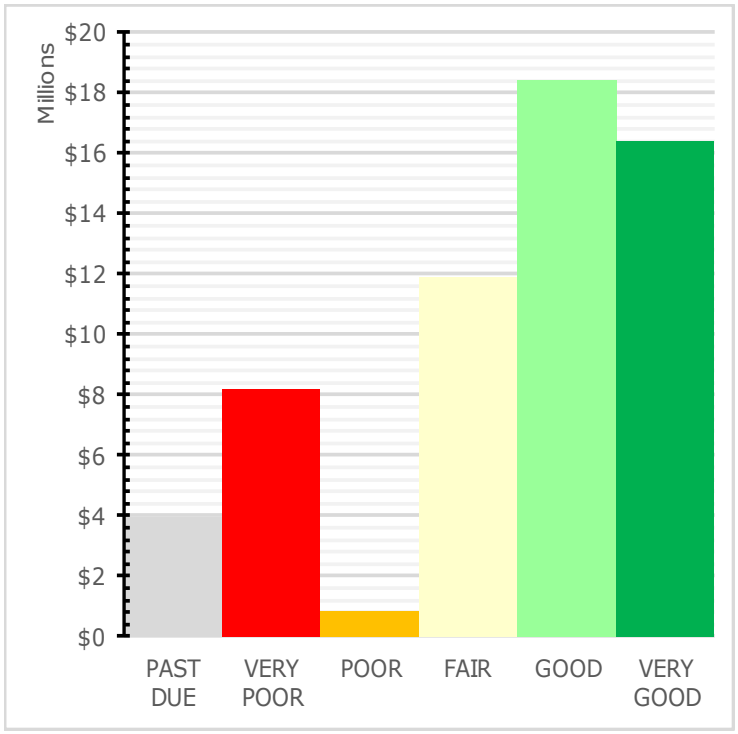


Figure 107: Parking Services Assets: Value per Condition



the condition of the portfolio would be considered only fair.

The parking garages comprise the largest value, and the largest number of individual equipment assets in the portfolio. The three garages have a combined value of $57M, or 95% of the portfolio. These facilities were most recently assessed in 2022 with condition information and recommended actions provided by a consultant engaged by the City. The assessments determined that in general the garages are in a fair to good condition overall but in particular the East and West Garages require rehabilitation work in mid to long term future time period.

Figure 106: Parking Garage Facilities: Asset Value per Condition

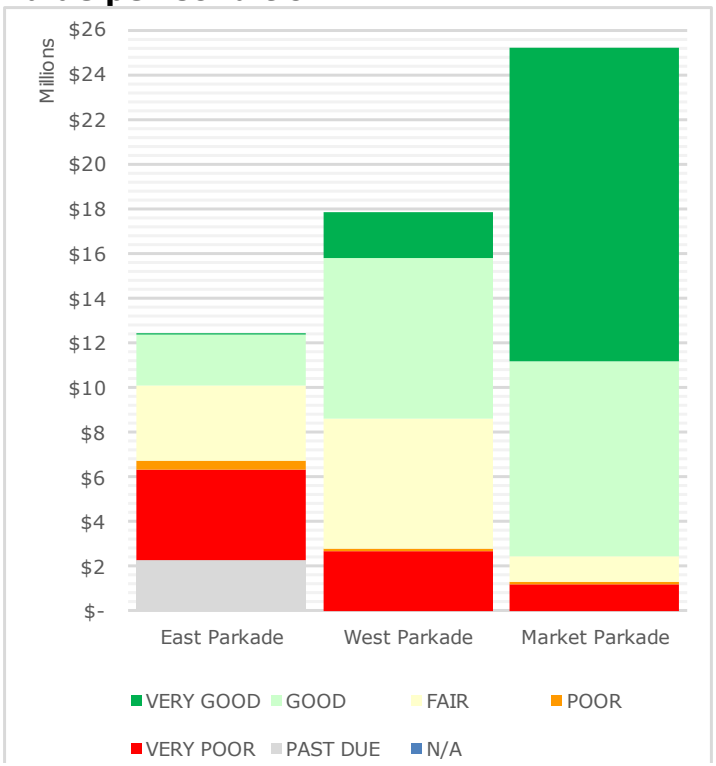


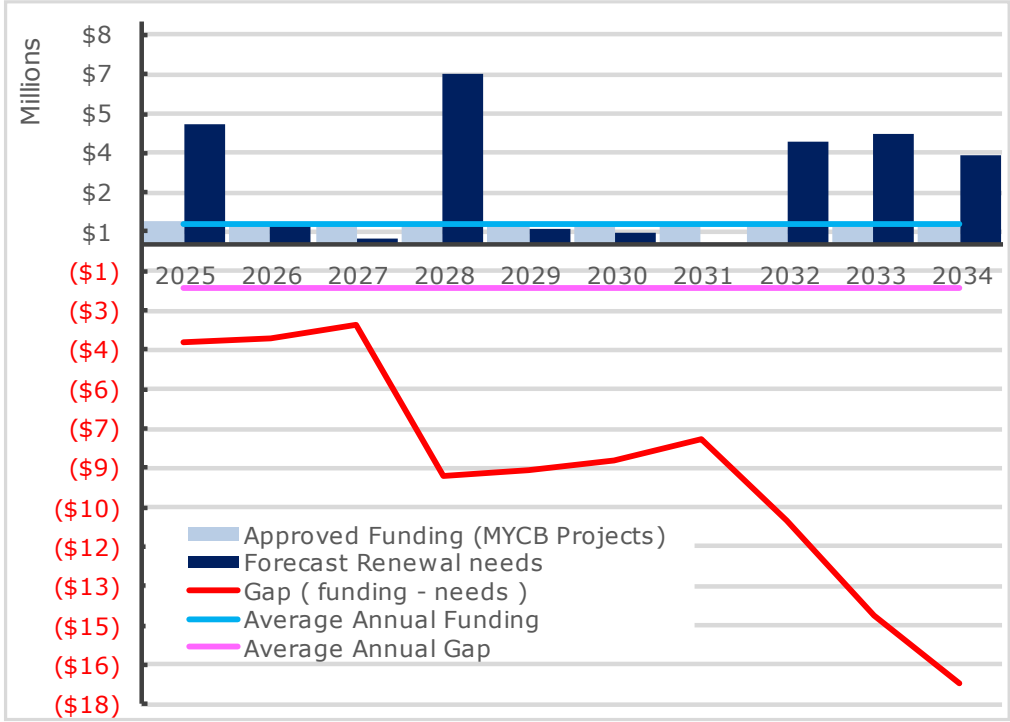
Figure 106 shows the value of assets per condition rating category for each of the three structures. The results for Market Parkade clearly reflect the newness of the facility compared to the East and West Parkades. Despite the overall condition rating of East and West Parkade these facilities are considered aged and nearing the end of their useful lifecycles. Some of the critical elements in the facilities were evaluated to be in "poor" or worse condition and recommendations were provide to mitigate the risks posed by these items within 2-5 years or sooner.

Renewal Forecast: Parking Services

As previously discussed, the capital needs of the parking facilities are managed by the Facilities and Energy Management team and the forecast renewals for parking services are included in the overall analysis for all the City facilities. The analysis presented here focusses on highlighting the needs of the parking facilities but final plans and budget allotment may change as a result of other facility needs that may arise.

Between 2025 and 2034 the forecast capital renewal needs total $24.8 million. During that same time period forecast available funding is $8 million resulting in a total 10-year funding gap of $16.7 million. Refer to Figure 109. This is a result of $4.6 million worth of renewals recommended to be done in 2025 against a 2025 budget funding of $915,000. With average annual funding of slightly more than $800,000 in the approved MYCB this funding gap forecast in 2025 is not expected to be closed.

Figure 108: Parking Services Forecast Renewals vs. Funding



However, the renewal forecast focuses on retaining the existing facilities and renewing the assets in them to ensure their long term lifecycles are reached. Both East and West have been identified as being very near the end of their useful lifecycles with complete replacements planned for the East Parkade around 2040 and the West Parkade around 2046. Because of these long term plans many of the renewals recommended for these two buildings can be cancelled and replaced with less expensive minor capital actions that will ensure the facilities remain safely functional until their planned replacements occur.

There is an annual general needs capital project for "Parking Facilities Renewal" with an allotment of $800,000 per year for the renewal of assets at all the different parking facilities. A review of the forecast needs results in a preliminary judgement that this value, while not wholly sufficient, should be suitable to cover the majority of the needed renewals but there is still a need for extra funding to support the suggested minor capital activities to allow the East and West Parkades to remain functional until their replacements are constructed. A more detailed AMP specific to those two facilities is recommended to identify those needs.

Despite the long-term plans to replace the East and West Parkade facilities with new structures the analysis in the AMP should continue to be used as a guide line in framing future decisions regarding renewal or maintenance priorities until those long-term plans are finalized completely.

In the interim there will be more facility condition assessments performed at the facilities – tentatively scheduled for 2028-29 – and the future needs and priorities can be re-evaluated based on those reports. The daily operations and maintenance work will continue to be performed by the City's operations teams which will allow the City to maintain an up-to-date understanding of the immediate needs of the facilities and to identify any critical issues if they arise.

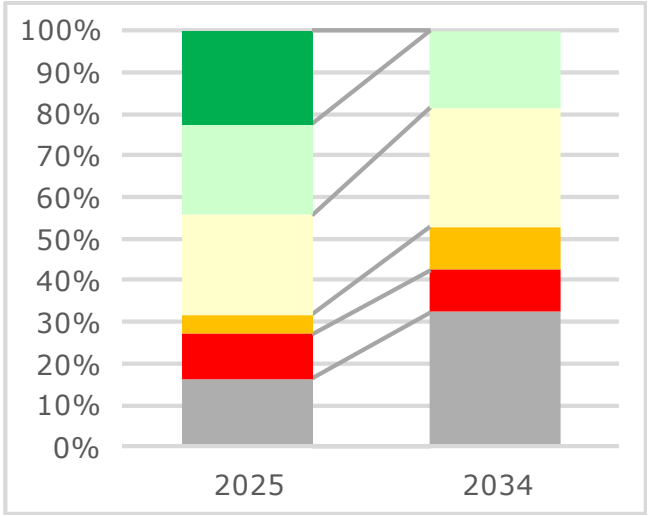
Table 66: Parking Services Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8
Forecast Funding	4.6	0.7	0.3	6.5	0.6	0.5	0.0	3.9	4.2	3.4
Funding Gap	-3.7	-3.6	-3.1	-8.8	-8.6	-8.2	-7.4	-10.5	-14.1	-16.7

Levels of Service: Parking Services

The condition rating of an asset can be broadly used to understand the physical state of an asset, the level of service it is performing at and the probability of it failing. Using a standard estimated useful life based on the asset type it is possible to model when an asset will deteriorate from the status quo condition to a poor condition rating.

Figure 109: Parking Services 10-Year Portfolio Level of Service Condition



When this analysis is completed for all the assets in a portfolio and compared to the City's capital budget it is possible to predict the condition of the portfolio into the future. This targets the level of service the assets will perform at in ten years based on the approved capital budget today. Because this is a ten-year forecast that ends in 2034 the proposed replacements for the East and West Parkade are not included in this forecast. When eventually built they will greatly improve the long term condition and service level delivery of the portfolio.

Table 67: Parking Services 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	22.4%	0.0%	-22.4
Good	22.0%	18.4%	-3.6
Fair	23.9%	28.6%	+4.7
Poor	4.6%	10.5%	+5.9
Very Poor	10.7%	10.0%	-0.8
Past Due	16.3%	32.5%	+16.1
N/A	0.0%	0.0%	-

Parking Services Portfolio Condition as a Level of Service

Over the ten-year period, parking assets are predicted to deteriorate with limited capital renewals planned as discussed above. Assets in "very good" and "good" condition in 2025 are predicted to be in "fair" and "poor" condition by 2034. Additionally, the percentage of assets rated as "Past Due" are expected to increase by 16 percentage points by the end of the ten years. The results of this review for Parking Services are summarized in Figure 109 and Table 67.

Parking Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 68: Parking Services Current Levels of Service contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 68: Parking Services Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Technical	# of Off-Street Parking Spaces within the downtown	1725 Spaces
	Customer	Peak Utilization Maps (Weekday & Saturday)	See Figure 110 and Figure 111 below[21]
Environment	Technical	Energy Consumption (kWh)	413,700 kWh
	Technical	Water Consumption (m^3)	224 m^3

Figure 110 and Figure 111 present a map of the downtown core that includes a review of the peak parking utilization from 2022 (the most recent date for which this info is available).

[21] https://guelph.ca/plans-and-strategies/parking-master-plan/

Figure 110: Weekday Peak Parking Utilization (2022)

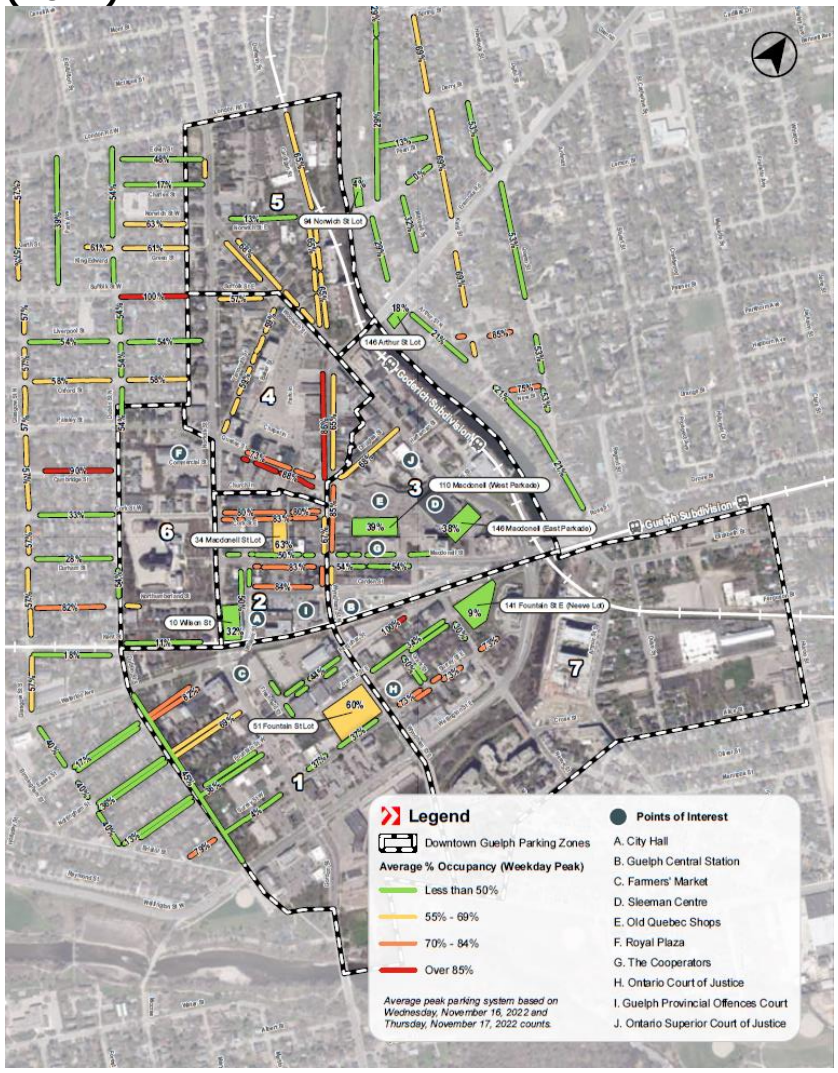
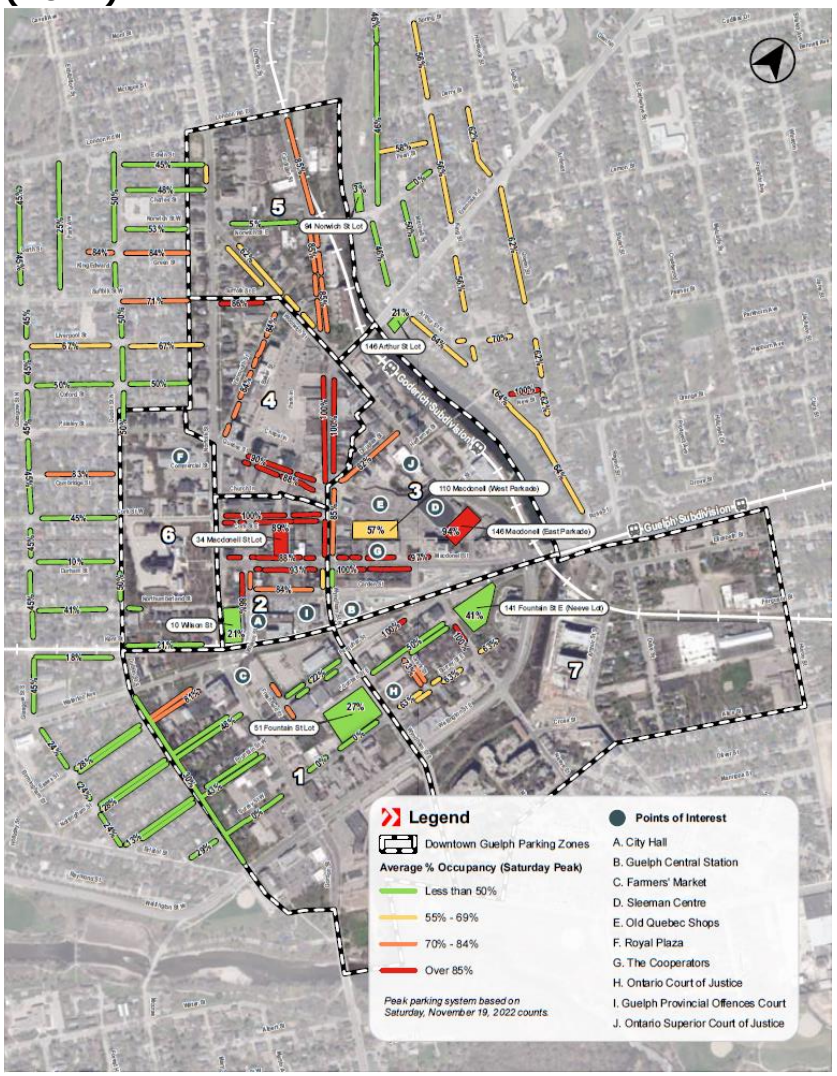


Figure 111: Saturday Peak Parking Utilization (2022)



Information Technology Services

General Info

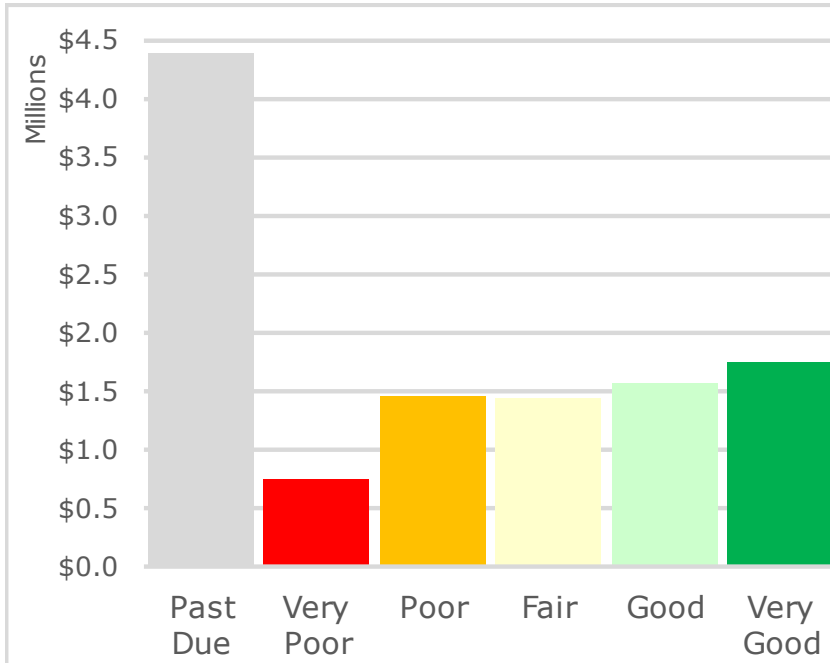
Information Technology (IT) assets play a critical support role for nearly all services provided by the City of Guelph. Assets under the IT portfolio include a wide variety of hardware assets such as personal computers, network devices, telephone equipment, etc. as well as software licenses for the variety of tools that provide the City's ability to operate effectively and securely. According to the available information the value of the IT assets totals approximately $20 million.

IT assets are unique compared to most other asset types managed by the City because the hardware assets typically have relatively short lifecycles while consistent software product releases require constant attention to ensure that the proper versions function on the City's network. Given the pace of change in the information technology industry assets are not replaced with a like-for-like option, but almost always with a product that provides enhanced capabilities.

The various software tools which the City utilizes require annual licence fees for use – a normal trend and practice in the software industry. These annual licences are identified as operational expenses and are not represented in the condition and lifecycle forecasts of this plan.

These facts also make it difficult to assign condition ratings to the IT assets. Normal practice is to use the age of each asset compared to their short expected lifecycles. For similar reasons there is little maintenance work performed on the assets: due to their short lifecycles and the comparatively small cost per asset of IT hardware compared to other asset types it is normally more effective to replace an asset. The total value of the IT asset portfolio is show by condition in Figure 112.

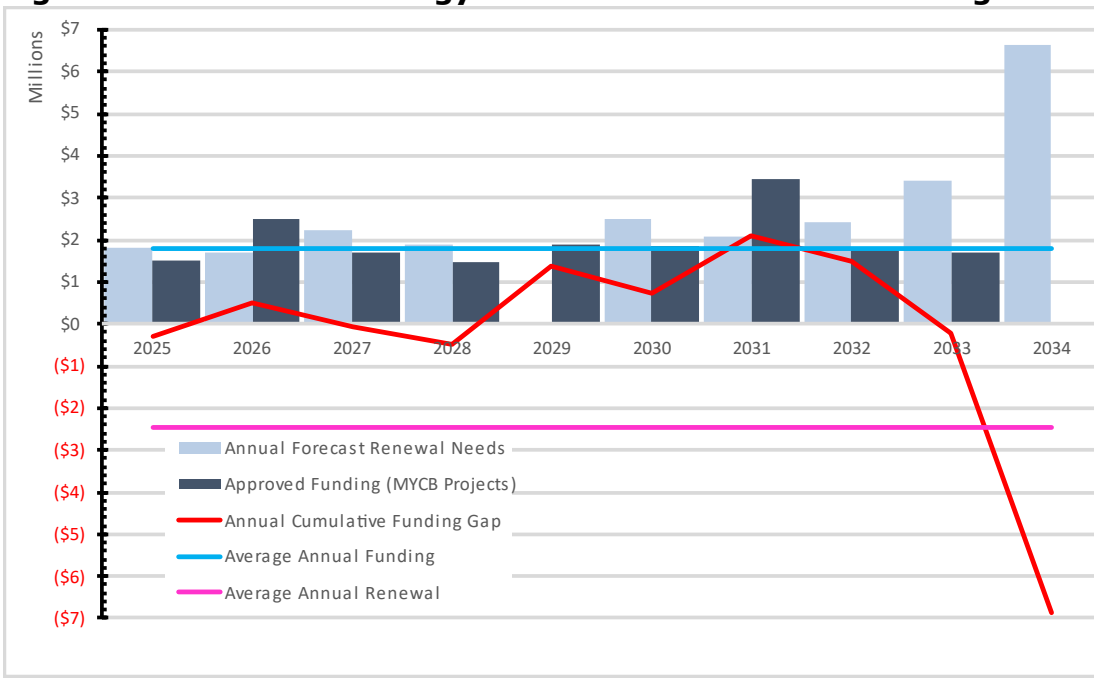
Figure 112: Info-Technology asset value per condition



Renewal Forecast: Information Technology Services

Between 2025 and 2034 the forecast capital renewal needs for the IT portfolio total approximately $24.7 million while during that same time period forecast available funding is $17.9 million resulting in a total 10-year funding gap of $6.8 million. Both the annual renewal forecast and the annual funding forecast show relatively equal values through the 10-year period – a result of the short cyclical nature of the needs of IT assets. Refer to Figure 113.

Figure 113: Info-Technology Forecast Renewals vs. Funding



In most years the funding availability is very close to and even exceeding the renewal forecast. One exception is in 2034 where the renewal needs for that year do not match with funding availability shown in the MYCB. However, looking beyond the 10 years to 2035 the imbalance is corrected.

In summary, although the 10-year forecast shows a negative funding gap, in most years there is close to adequate funding to meet the needs of the IT assets. The calculated negative gap is expected to be resolved if the forecast goes beyond 2035.

Table 69: Information Technology Renewal vs. Funding ($ Millions)

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Forecast Renewal	1.8	1.7	2.2	1.9	0.0	2.5	2.1	2.4	3.4	6.6
Forecast Funding	1.5	2.5	1.7	1.5	1.9	1.9	3.4	1.8	1.7	0.0
Funding Gap	-0.3	0.5	-0.1	-0.5	1.4	0.7	2.1	1.5	-0.2	-6.9

Levels of Service: Information Technology Services

The condition rating of an asset can be used to broadly understand the current state of an asset, the level of service it is performing at and the probability that it will fail. The estimated useful service life of an asset is used to calculate a potential date when it may deteriorate to a poor condition rating. Combining these two values for the whole portfolio and then comparing those results against the City's approved capital budget can be used to predict the potential condition of the portfolio into the future. This is used to represent the target level of service the assets will perform at in ten years.

IT Asset Condition as a Level of Service

Due to the shorter lifecycles of IT assets many of the portfolio assets will go through one or more replacements within the 10-year forecast. These lifecycles do not always overlap and so as the various asset types are replaced the percentage of assets in "Very Good" condition is expected to be 18.9 points lower in ten years in comparison to today. Related to the decrease in assets in "very good" condition there is a predictable increase of assets in "Very Poor" condition. However, the predicted 2035 renewal funding discussed in the Renewals Forecast section that is just outside the 10-year horizon is expected to counter this. Overall, there is no expectation that the IT infrastructure will have a significant quantity of assets in "Past Due" condition and with the IT Asset replacement programs already in place the performance of the IT portfolio will likely remain positive. All changes to the condition profile are summarized in Figure 114 and Table 70

Figure 114: Info-Tech 10-Year Portfolio Level of Service Condition

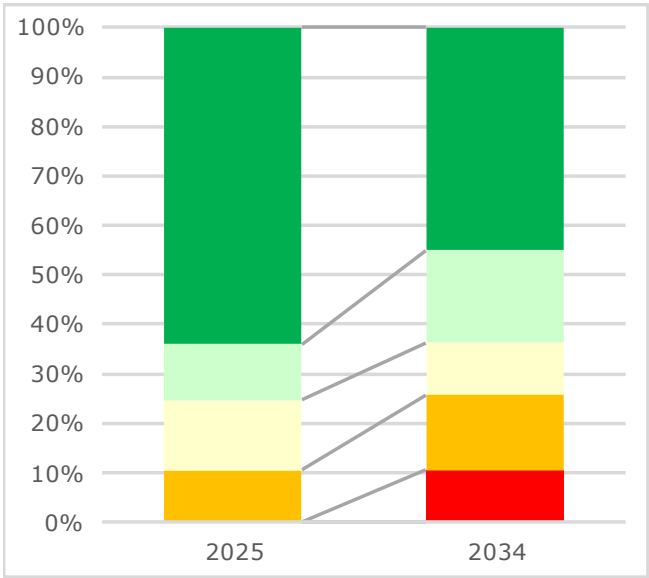


Table 70: Info-Tech 10-Year Portfolio Level of Service Condition

Condition	2025 % of Portfolio	2034 % of Portfolio	Change (%pts)
Very Good	64.0%	45.0%	-18.9%
Good	11.3%	18.7%	7.3%
Fair	14.2%	10.7%	-3.5%
Poor	10.5%	15.2%	4.7%
Very Poor	0.0%	10.5%	10.5%
Past Due	0.0%	0.0%	0.0%
N/A	0.0%	0.0%	0.0%

Information Technology Services Current Levels of Service

In the 2024 AMP, each service area developed a series of metrics to capture the current level of service the assets are performing at. O.Reg 588/17 requires that the current LOS be categorized as "technical' or "community" (i.e. customer) metrics These metrics are a more granular and comprehensive description of asset performance. Table 71 contains the updated service levels where more recent data is available since the writing of the 2024 AMP.

Table 71: Information Technology Services Current Levels of Service

Strategic Theme	LOS Type	Performance Measure	Current Performance
Foundations	Customer	Number of Service Desk Tasks received (2023)	30,951 Tasks
City Building	Technical	% of IT assets past their estimated service life	21.7%
	Customer	Description of asset replacement/rehabilitation planning and prioritization, defining end of life for assets.	IT uses industry best practices, acquired knowledge, and manufacturers supported product terms to set standard lifecycles for IT assets. Each year IT reviews the listing of assets that are scheduled for replacement and evaluates that list against the current budget, workplan and overall operation of the asset. IT strongly prefers to replace assets in their assigned replacement cycles, due to some of the listed circumstances they are sometimes extended.

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APPENDICES

Appendix A: Asset Management Terminology

Table A 1: Asset Management Terminology and Definitions

Term	Definition
Asset	An item, thing or entity that has potential or actual value to an organization.
Asset Management	Coordinated activity of an organization to realize value from assets.
Asset Management Plan	Documented information that specifies the activities, resources, and timescales required for an individual asset, or a grouping of assets, to achieve the organization's asset management objectives.
Asset Management System	The people, processes, tools and other resources involved in the delivery of asset management. Management system for asset management whose function is to establish the asset management policy and asset management objectives. The asset management system is a subset of asset management.
Asset Portfolio	Assets that are within the scope of the asset management system.
Asset System	Set of assets that interact or are interrelated.
Asset Type	Grouping of assets having common characteristics that distinguish those assets as a group or class.
Capability	Measure of capacity and the ability of an entity (system, person or organization) to achieve its objectives. Asset management capabilities include processes, resources, competences and technologies to enable the effective and efficient development and delivery of asset management plans and asset life activities, and their continual improvement.
Competence	Ability to apply knowledge and skills to achieve intended results.

Term	Definition
Condition	A description of the state of an asset with regards to its appearance, quality and/or working performance. Refer to Table A 2 for a description of the condition definitions used within this AMP
Continual Improvement	Recurring activity to enhance performance.
Core Asset	According to O. Reg. 588/17 the infrastructure assets that support the following five service areas are to be considered Core assets for the purpose of asset planning • Roads • Bridges • Water Treatment • Wastewater Treatment • Stormwater Management
Corporate Asset Management	The application of asset management principles at a corporate level to maximize consistency among diverse asset groups. Corporate asset management creates efficiency by harmonizing service levels and business processes wherever possible.
Corrective Action	Action to eliminate the cause of a nonconformity and to prevent recurrence.
Critical Asset	Asset having potential to significantly impact on the achievement of the organization's objectives.
Current Replacement Value (CRV)	The cost to replace the asset with a new version of that asset that provides the same function, meets the same target service levels (or in the case of a building is the same size and function) and is built according to modern standards. Usually expressed in current year dollar value.
Effectiveness	extent to which planned activities are realized and planned results achieved
Expected Useful Lifecycle (EUL)	The length of time in years that an asset is expected to be able to provide effective service or meet expected performance targets

Term	Definition
Intangible Assets	Non-physical assets, such as leases, brands, digital assets, use rights, licenses, intellectual property rights, reputation or agreements.
Level Of Service (LOS)	Parameters, or a combination of parameters, which reflect social, political, environmental and economic outcomes that the organization or asset delivers.
Lifecycle / lifecycle planning	The different stages involved in the management of an asset. These include: • Needs identification • Planning / design • Acquisition / construction • Operating and maintaining while in use • Modification or upgrade (i.e. rehabilitation) • Disposal / demolition The lifecycle stages are normally expressed in the form of a continuous cycle emphasizing the need for sound planning

Term	Definition
Management System	Set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives.
Net Book Value	The original cost of an asset, less any accumulated depreciation, accumulated depletion, or accumulated amortization, and less any accumulated impairment. The value at which a company carries an asset on its balance sheet.
Objective	Result to be achieved. An objective can be strategic, tactical or operational and can relate to different disciplines (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process. In the context of asset management systems, asset management objectives are set by the organization, consistent with the organizational objectives and asset management policy, to achieve specific measurable results.

Term	Definition
Organization	Person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives
Organizational Objective	Overarching objective that sets the context and direction for an organization's activities. Organizational objectives are established through the strategic level planning activities of the organization.
Organizational Plan	Documented information that specifies the programmes to achieve the organizational objectives
Performance	Measurable result. Performance can relate either to quantitative or qualitative findings. Performance can relate to the management of activities, processes, products (including Services), systems or organizations. For the purposes of asset management, performance can relate to assets in their ability to fulfil requirements or objectives.
Policy	Intentions and direction of an organization as formally expressed by its top management
Predictive Action	Action to monitor the condition of an asset and predict the need for preventive action or corrective action
Preventive Action	Action to eliminate the cause of a potential nonconformity or other undesirable potential situation.
Process	Set of interrelated or interacting activities which transform inputs into outputs.
Remaining Service Lifecycle (RSL)	The length of time in years that an asset is expected to be able to continue to meet expected service levels or meet expected performance targets
Requirement	Need or expectation that is stated, generally implied or obligatory.
Risk	Effect of uncertainty on objectives. Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated "likelihood" of occurrence.

Term	Definition
Service Area Master Plan	A planning document specific to one service area or group of assets that highlights the current state of those assets and future capital needs or projects.
Stakeholder	Person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity. A "stakeholder" can also be referred to as an "interested party".
Strategic Asset Management Plan	Documented information that specifies how organizational objectives are to be converted into asset management objectives, the approach for developing asset management plans, and the role of the asset management system in supporting achievement of the asset management objectives.
Top Management	Person or group of people who directs and controls an organization at the highest level
Whole Life Costing	The practice of using forecast costs through all stages of an asset's expected useful lifecycle when completing financial analysis (from planning / design, acquisition/construction, operating & maintenance, mid-life rehabilitation, disposal/demolition. Whole life costing is intended to provide an understanding of all of the costs associated with an asset, before, during and after the active service life of the asset.

Appendix B: Condition Rating Definitions

The following table details the definitions for asset condition ratings used by the City of Guelph.

While some assets are assessed by third party consultants using different criteria all results are converted to a rating from the below table. This enables equal comparison of all assets regardless of type.

Table A 2: City of Guelph Condition Rating Definitions

Rating	Score	Criteria
Very Good	5	The system, component or element is nearly new and fit for future use without any need for immediate attention. Typically, this means the asset has greater than 80% of its expected useful lifecycle (EUL) remaining but it may be older
Good	4	There are no deficiencies with the system, component, or element that require immediate repairs, but the asset has been in use for some period of time and is no longer nearly new. It may require some maintenance or minor repairs in the short-term future. Typically, an asset in GOOD condition has between 60-80% of expected useful lifecycle (EUL) remaining but it may be older or newer
Fair	3	The system, component or element remains in working condition, but may no longer be providing the intended level of service. The condition of the asset may mean increased resources for maintenance are required to ensure the item can continue to remain at the current condition level. Typically, an asset in FAIR condition has between 40-60% of expected useful lifecycle (EUL) remaining but it may be older, or newer.
Poor	2	The system, component, or element is in working condition but requires regular repairs and maintenance to remain in working condition. Most probably it can no longer deliver the intended level of service or functional performance expected. Typically, an asset in POOR condition means the asset has between 20-40% of its expected useful lifecycle (EUL) remaining, but it may be older or newer.

Rating	Score	Criteria
Very Poor	1	The system, component or element remains functional but likely is not providing the levels of service it is designed for, or that are required and therefore major repairs, a thorough rehabilitation or even a complete replacement of the asset should be completed for the asset to be able to continue functioning or to return the asset to its intended level of service delivery. Typically an asset in VERY POOR condition has less than 20% of its expected useful lifecycle (EUL) remaining but it may be older or newer. Additionally: an asset should be identified in VERY POOR condition if there is an identified health and safety risk as a result of the condition of the asset or with the function the asset is supposed to provide. The identified risk is of a magnitude that mitigation measures should be completed immediately or sooner than a six (6) month time period.
Past Due	0	The system, component or element has surpassed its useful lifecycle and is no longer able to provide its intended level of service. Functional performance is greatly reduced. Replacement of the item is required to return the level of service the asset is intended to deliver.
Unknown	99	The system, component or element cannot be accurately assessed. In these situations, the Proponent must clearly indicate why the assessment was not possible and provide recommendations for the system, component or element based on professional judgement. Examples: electrical wiring hidden behind walls; pipes hidden behind walls etc.

Appendix C: Asset Management Maturity Levels

The International Infrastructure Maintenance Manual (IIMM) is considered a baseline document for Asset Management Professionals. One of the key inclusions in the manual is definitions that help organizations define their level of asset management maturity within their organization using an established set of definitions and metrics. Table A-3 lists these definitions.

Guelph has been measuring the city's AM maturity since 2017 with the release of the first Corporate Asset Management Plan. Since then the CAM team has been making continuous efforts to improve. The progress is measured against targets that represent the levels that are considered realistically able to be attained by 2030.

In 2025 the City is considered to have reached a 66% level of maturity, a 7% increase since the previous year. The City results are presented in Table 72 and Figure 115

Table 72: City of Guelph Asset Management Maturity Level

IIMM Section	2030 Target	2024 Level	2025 Level
Asset Management Policy	5	4	4
Levels of Service and Performance Management	5	2.5	3
Demand Forecasting	5	2.5	3
Asset Register Data	5	3	3.5
Asset Condition	5	3	4
Decision Making	5	3	3
Risk Management	5	3	3
Operations and Maintenance Planning	4	2	2
Capital Planning	5	3	4
Financial and Funding Strategies	5	3	3
Asset Management Teams	5	3	3.5
Asset Management Plans	5	3	3.5
Management Systems	3	2	2
Information Systems	5	2	2.5
Service delivery	4	2	2.25
Continuous Improvement	4	3	3
Total	**75**	**44**	**49.25**
Score		**58.67%**	**65.67%**

Figure 115: City of Guelph Asset Management Maturity Progress

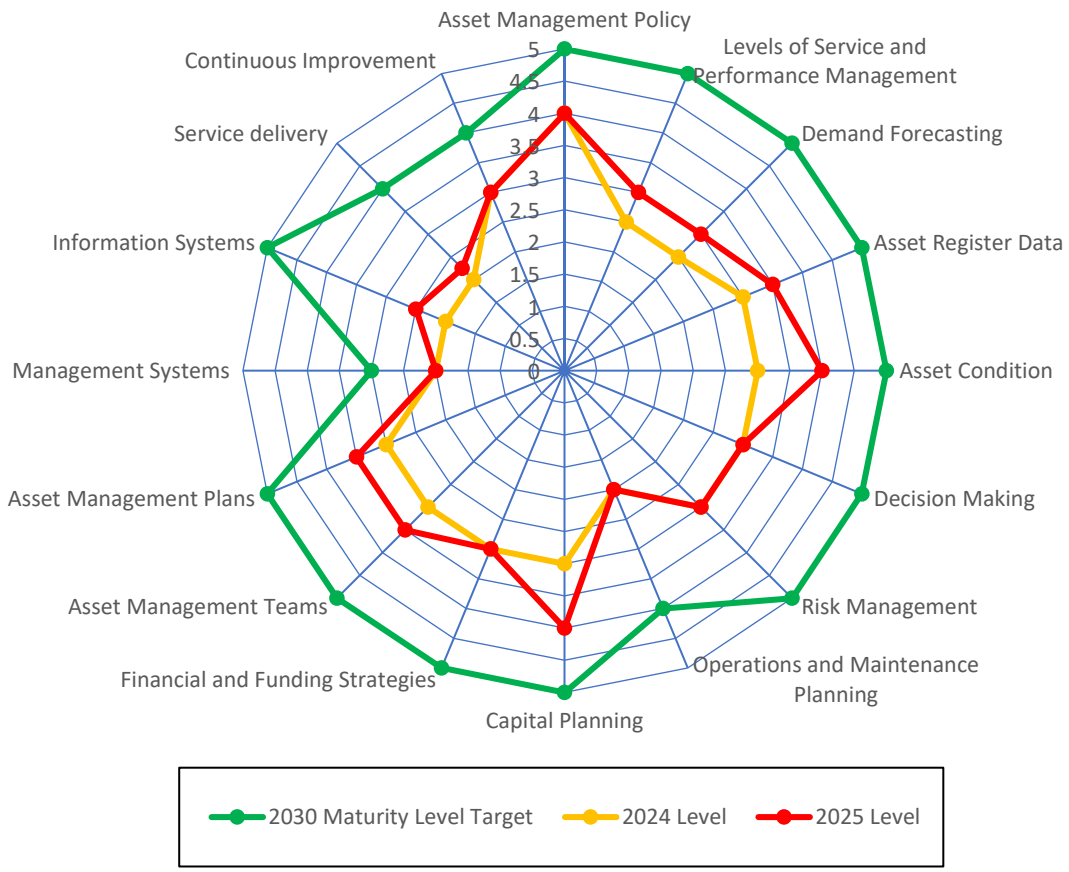

Table A 3: IIMM Asset Management Maturity Levels

Section	Aware	Basic	Core	Intermediate	Advanced
2.1 AM Policy Development	Corporate awareness of the benefits of AM.	Corporate expectation expressed in relation to development of AM Plans and AM objectives.	AM Policy and AM Objectives developed, aligned to corporate goals and strategic context.	AM System scope Is defined and documented. Strategic context (internal, external, customer environment) analysed and implications for the AM System documented in the Strategic AM Plan.	AM Policy and Strategic AM Plan fully integrated into the organisation's business processes and subject to defined audit, review and updating procedures.
2.2 Levels of Service and Performance Management	Level of service requirements generally understood but not documented or quantified.	Asset contribution to organisation's objectives and have been defined. Customer Groups defined and requirements informally understood.	Levels of service and performance measures in place covering a range some basic levels of service of service attributes. Annual reporting against performance targets. Customer Group needs analysed. Level of service and cost relationship understood.	Customers are consulted on significant service levels and options.	Customer communications plan In place. Levels of service are integral to decision making and business planning.

Section	Aware	Basic	Core	Intermediate	Advanced
2.3 Demand Forecasting	Future demand requirements generally understood but not documented or quantified. Demand forecasts based on mathematical analysis of past trends and primary demand factors.	Demand forecasts based on experienced staff predictions, with consideration of known past demand trends and likely future growth patterns	Demand Forecasts based on robust projection of a primary demand factor (e.g.: population growth) and extrapolation of historic trends. Risk associated with demand change broadly understood and documented. Demand management considered as an alternative to major project development	A range of demand scenarios Is developed (e.g.: high/ medium/ low). Demand management Is considered In all strategy and project decisions.	Risk assessment of different demand scenarios with mitigation actions identified
2.4 Asset Register Data	Asset information in combination of sources and formats. Awareness of need for asset register.	Basic physical Information recorded in a spreadsheet or similar (e.g. location, size, replacement cost and asset age/ type), but may be based on broad assumptions or not complete	Sufficient information to complete asset valuation (basic attributes, replacement cost and asset age / life) and support prioritizations of programs (criticality). Asset hierarchy, identification and attribute systems documented. Metadata held as appropriate	A reliable register of physical, financial and risk attributes recorded in an information system with data analysis and reporting functionality. Systematic and documented data collection process in place.	Information ion on work history type and cost, condition, performance, etc. recorded at asset component level. Systematic and fully optimised data collection programme with supporting metadata.

Section	Aware	Basic	Core	Intermediate	Advanced
2. 5 Asset Condition	Condition and performance understood but not quantified or documented.	Adequate data and information to confirm current performance against AM Objectives	Condition and performance information is suitable to be used to plan maintenance and renewals to meet over the short term.	Future condition and performance Information is modelled to assess whether AM objectives can be met in the long term. Contextual information. such as demand, is used to estimate likely performance.	The type, quality and amount of data are optimised to the decisions being made. The underlying data collection programme is adapted to reflect the assets' lifecycle stage.
3.1 Decision Making	AM decisions based largely on staff Judgement.	Corporate priorities incorporated nto decision making.	Formal decision-making techniques (MCA/ BCA) are applied to major projects and programmes where criteria are based on the organisations' AM objectives.	Formal decision making and prioritisation techniques are applied to all operational and capital asset programmes within each main budget category. Critical assumptions and estimates are tested for sensitivity to results.	AM objectives/targets are set based on formal decision-making techniques, supported by the estimated costs and benefits of achieving targets. The framework enables projects and programmes to be optimised across all activity areas. Formal risk-based sensitivity analysis is carried out.

Section	Aware	Basic	Core	Intermediate	Advanced
3.2 Risk Management	Risk management is identified as a future improvement. Risk framework developed d.	Critical services and assets understood and considered by staff involved in maintenance/ renewal decisions.	Critical assets and high risks identified. Documented risk management strategies for critical assets and high risks.	Resilience level assessed and improvements identified. Systematic risk analysis to assist key decision making. Risk register regularly monitored and reported. Risk managed and prioritised across the organization.	Resilience strategy and programme In place including defined levels of service for resilience. Formal risk management policy in place. Risk is quantified and risk mitigate ion options evaluated. Risk is Integrated into all aspects of decision making.
3.3 Operational Planning	Operational processes based on historical practices.	Operating procedures are available for critical operational processes. Operations organisational structure in place and roles assigned	Operating procedures are available for all operational processes. Operational support requirements are in place	Risk and opportunity planning completed. Operational objectives and intervention levels defined and implemented. Alignment with organizational objectives can be demonstrated.	Continual improvement can be demonstrated for all operational processes. Comparison with ISO 55001 requirements complete.

Section	Aware	Basic	Core	Intermediate	Advanced
3.4 Capital Works Planning	Capital investment projects are identified during annual budget process	There Is a schedule of proposed capital projects and associated costs for the next 3-5 years, based on staff judgement of future requirements.	Projects have been collated from a wide range of sources and collated into a project register. Capital projects tor the next three years are fully scoped and estimated. A prioritisation framework in in place to rank the importance of capital projects.	Formal options analysis and business case development has been completed for major projects In the 3-5 year period. Major capital projects for the next 10 - 20 years are conceptually identified and broad cost estimates are available.	Long-term capital investment programmes are developed using advanced decision-making techniques such as predictive renewal modelling.
3.5 Financial and Funding Strategies	Financial planning is largely an annual budget process, but there is intention to develop longer term forecasts.	Assets re-valued in compliance with financial reporting and accounting standards. 10-year financial forecasts are based on extrapolation of past trends and broad assumptions about the future. Expenditure categories compliant with FRS.	Asset revaluations have a 'B' grade data confidence 10-year+ financial forecasts based on current comprehensive AMPs with detailed supporting assumptions/ reliability factors.	Asset revaluations have a "B" grade data confidence 10 year+ financial forecasts based on current comprehensive AMPs with detailed supporting assumptions/ reliability factors.	Asset revaluations have an "A' grade data confidence. 10-year + financial forecasts based on comprehensive, advanced AM plans with detailed underlying assumptions and high confidence in accuracy. Advanced financial modelling provides sensitivity analysis demonstrable whole life costing and cost analysis for level of service options.

Section	Aware	Basic	Core	Intermediate	Advanced
4.1 AM Teams	Leadership is supportive of AM	AM functions are carried out by small groups. Roles reflect AM requirements	Position descriptions incorporate AM roles AM coordination processes established Ownership and support of AM by leadership Awareness of AM across most of the organisation	Organisational structures support AM Roles reflect AM resourcing requirements and reflected in position descriptions for key roles. Consistent approach to AM across the organisation Internal communication plan established.	Roles reflect AM requirements and defined In all relevant position descriptions Formal documented assessment of AM capability and capacity requirements to achieve AM objectives Demonstrable alignment between AM objectives, AM systems and individual responsibilities
4.2 AM Plans	Stated intention to develop AM Plans	AM Plans contain basic information on assets, service levels, planned works and financial forecasts (5-10 years) and future improvements.	AM objectives are defined with consideration of strategic context. Approach to risk and critical assets described, top-down condition and performance assessment, future demand forecasts, description of supporting AM processes, 10-year financial forecasts, 3-year AM improvement plan.	Analysis of asset condition and performance trends (past/future), customer engagement in setting LOS, ODM/ risk techniques applied to major programmes. Strategic context analysed with risks, issues and responses described.	Evidence of programmes driven by comprehensive ODM techniques, risk management programmes and level of service/cost trade-off analysis. Improvement programmes largely complete with focus on ongoing maintenance of current practice.

Section	Aware	Basic	Core	Intermediate	Advanced
4.2 Management Systems	Awareness of need to formalise systems and processes.	Simple process documentation in place for service-critical AM activities.	Basic Quality Management system in place that covers all organisational activities. Critical AM processes are documented, monitored and subject to review. AM System meets the requirements of ISO 55001.	Process documentation implemented in accordance with the AM System to appropriate level of detail. Internal management systems are aligned.	ISO certification to multiple standards for large asset intensive organisations, including ISO 55001. Strong integration of all management systems within the organisation.
4.3 Information Systems	Intention to develop an electronic asset register / AMIS.	Asset register can record core asset attributes - size, material, etc. Asset information reports can be manually generated for AM Plan input.	Asset register enables hierarchical reporting (at component to facility level). Customer request tracking and planned maintenance functionality enabled. System enables manual reports to be generated for valuation and renewal forecasting.	Spatial relationship capability. More automated analysis reporting on a wider range of information.	Financial, asset and customer service systems are integrated and all advanced AM functions are enabled. Asset optimization analysis can be completed

Section	Aware	Basic	Core	Intermediate	Advanced
4.4 Service Delivery Mechanisms	AM roles generally understood.	Service delivery roles clearly allocated (internal and external) generally following historic approaches.	Core functions defined Procurement strategy / policy in place. Internal service level agreements in place with the primary internal service providers and contract for the primary external service providers.	Risks, benefits, and costs of various outsourcing options considered and determined. Competitive tendering practices applied with integrity and accountability.	All potential service delivery mechanisms reviewed, and formal analysis carried out to identify best delivery mechanism.
4.6 Improvement Planning	Recognition of AM improvements	Improvement actions identified and allocated to appropriate staff.	Current and future AM performance assessed, and gaps used to drive the improvement actions. Improvement plans identify objectives, timeframes, deliverables, resource requirements and responsibilities	Formal monitoring and reporting on the improvement programme to Executive Team. Project briefs developed for all key Improvement actions.	Improvement plans specify key performance indicators (KPis) for monitoring AM improvement, and these are routinely reported.

Appendix D: Reference Documents

1. City of Guelph "Future Guelph Strategic Plan 2024-2027"
   https://guelph.ca/wp-content/uploads/2018-Strategic-Asset-Management-Policy.pdf
2. City of Guelph Strategic Asset Management Policy
   https://guelph.ca/wp-content/uploads/2018-Strategic-Asset-Management-Policy.pdf
3. City of Guelph 2021 Core Assets Management Plan
   https://guelph.ca/wp-content/uploads/Core-Assets-AMP-2021.pdf
4. City of Guelph 2020 Corporate Asset Management Plan
   https://guelph.ca/wp-content/uploads/2020-corporate-asset-management-plan.pdf
5. City of Guelph Natural Assets, Inventory, Condition, Risk and Service Attribution
   https://guelph.ca/wp-content/uploads/Guelph-Natural-Asset-Inventory-Consolidated-Report-Final.pdf
6. Guelph's Growth Management Strategy
   https://guelph.ca/plans-and-strategies/guelphs-growth-management-strategy/
7. City of Guelph Official Plan
   https://guelph.ca/plans-and-strategies/official-plan/
8. Cultural Plan 2030
   https://guelph.ca/plans-and-strategies/culture-plan/
9. Downtown Parking Master Plan
   https://guelph.ca/plans-and-strategies/parking-master-plan/
10. Municipal Finance Officers' Association of Ontario Asset Management Framework
    https://mfoa-amp.ca/AMF/AMF_04.html
11. Analysis of Bill 109 (More Homes for Everyone Act, 2022) and Bill 23 (More Homes Built Faster, 2022) - 2022-349
    https://pub-guelph.escribemeetings.com/filestream.ashx?DocumentId=32465
12. Water & Wastewater Servicing Master Plan
    https://guelph.ca/plans-and-strategies/water-and-wastewater-servicing-master-plan/
13. Water Supply Plan
    https://guelph.ca/plans-and-strategies/water-supply-master-plan/

14. Guelph Transit Future Ready Action Plan
    https://guelph.ca/living/getting-around/bus/guelph-transit-future-ready-action-plan/
15. Climate Adaptation Plan
    https://guelph.ca/plans-and-strategies/climate-adaptation-plan/
16. Guelph-Wellington Paramedic Service Master Plan (2018-2022)
    https://guelph.ca/plans-and-strategies/paramedic-service-master-plan-2018-2022/
17. Guelph Parks and Recreation Master Plan
    https://guelph.ca/plans-and-strategies/parks-and-recreation-master-plan/
18. Moving Guelph Forward – Transportation Master Plan
    https://guelph.ca/plans-and-strategies/transportation-master-plan/
19. Guelph Solid Waste Management Master Plan: Give Waste a New Life
    https://guelph.ca/plans-and-strategies/solid-waste-management-master-plan/
20. Guelph Stormwater Management Master Plan
    https://guelph.ca/plans-and-strategies/stormwater-management/
21. ISO 55000:2014 – Asset Management – Overview, principles and terminology
22. International Infrastructure Management Manual (IIMM)

[i] Mayoral Direction 2024 B-2

[ii] https://guelph.ca/city-hall/budget-and-finance/city-budget/2025-budget/2025-budget-update-capital-budget/.

[iii] https://pub-guelph.escribemeetings.com/filestream.ashx?DocumentId=46366

[iv] Ellen McArthur Foundation. (2024). *What is a circular economy?* https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

[v] The Institute of Asset Management. (2024). *The Circular Economy.* https://theiam.org/knowledge/the-circular-economy/

[vi] The Institute of Asset Management. (2022). How Asset Management Can Enable the Circular Economy. https://theiam.org/media/4103/iam-how-asset-management-can-enable-the-circular-economy.pdf

[vii] Acerbi, F., Polenghi, A., Roda, I., Macchi, M., & Taisch, M. (2020). Exploring synergies between circular economy and asset management. In: Lalic, B., Majstorovic, V., Marjanovic, U., von Cieminski, G., Romero, D. (eds) Advances in Production Management Systems. Towards Smart and Digital Manufacturing. APMS 2020. IFIP Advances in Information and Communication Technology, vol 592. Springer, Cham. https://doi.org/10.1007/978-3-030-57997-5_80

[viii] The Institute of Asset Management. (2022). How Asset Management Can Enable the Circular Economy. https://theiam.org/media/4103/iam-how-asset-management-can-enable-the-circular-economy.pdf

[ix] Environment, A. C. O. L. F. I. T. B. (2023). *Our Shared Understanding: a circular economy in the built environment*. Apollo - University of Cambridge Repository. https://doi.org/10.17863/CAM.96973

[x] As defined by O. Reg. 588/17