

**DETAILED
ASSET
MANAGEMENT
PLAN** | **2024**



Cemeteries



Contents

1.0 ASSET REPORT CARD	1
2.0 INTRODUCTION	
2.1 Background/Purpose of Service	2
2.2 Asset Hierarchy & Registry	8
2.3 Asset Condition	11
2.4 Asset Capacity and Performance	12
3.0 LIFECYCLE MANAGEMENT	
3.1 Acquisition Plan	13
3.2 Operations Plan	16
3.3 Maintenance Plan	17
3.4 Renewal Plan	19
3.5 Summary of future renewal costs	21
3.6 Disposal Plan	22
3.7 Summary of asset forecast costs	23
4.0 LEVELS OF SERVICE	
4.1 Customer research and expectations	25
4.2 Strategic and Corporate goals	26
4.3 Legislative Requirements	27
4.4 Customer Values	27
4.5 Technical Level of Service	28

5.0 FUTURE DEMAND

5.1 Demand Drivers	31
5.2 Purpose Statement	31
5.3 Demand Forecasts	32
5.4 Demand Impact and Demand Management Plan	32
5.5 Climate Change Adaptation	33

6.0 RISK MANAGEMENT PLAN

6.1 Critical Services & Assets	34
6.2 Risk Assessment	35
6.3 Infrastructure Resilience approach	37
6.4 Service & Risk trade off	37

7.0 CLIMATE CHANGE ADAPTATION

8.0 FINANCIAL SUMMARY

8.1 Financial Sustainability and Projections	42
8.2 ARFR (Annual renewal funding ratio)	44
8.3 Funding Constraints (Provincial/OCIF Funding)	45
8.4 Valuation Forecasts	45
8.5 Key Assumptions made in Financial Forecasts	46
8.6 Forecast reliability and Confidence	46

9.0 PLAN IMPROVEMENT AND MONITORING

9.1 Accounting and Financial Data Source	49
9.2 Asset Management Data Sources	49
9.3 Continuous Improvement Plan	49
9.4 Monitoring and Review Procedures	51
9.5 Performance Measures	51

Chatham-Kent Cemeteries Report Card



55

inactive cemetery sites throughout the municipality

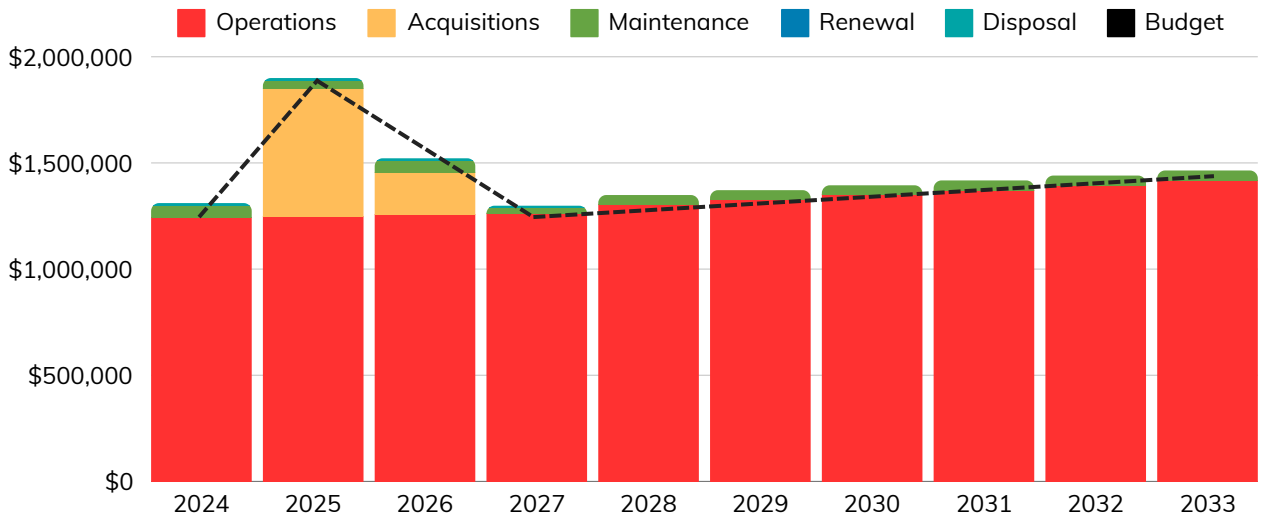
Annual Funding Gap	Asset Renewal Ratio	% of 10-Year Plan Funded
\$0	100%	100%

Asset Summary

Assets	Items	Replacement	Assets	Items	Replacement
	Facilities & Buildings	\$4,280,000		Columbaria	\$380,000
	Roads & Water Infrastructure	\$2,050,000		Equipment	\$30,000
	Gates & Fencing	\$420,000		Statue	\$50,000

\$7.2M Total Replacement Cost

10 Year Life Cycle Forecast



Data Confidence

Low



Medium

High

2.0 INTRODUCTION

2.1 Background / Purpose of Service

The Municipality of Chatham-Kent oversees the operation of six active cemeteries strategically located in Chatham, Blenheim, Wallaceburg, Dresden, Bothwell, and Thamesville. These cemeteries collectively span over 180 acres, complemented by 55 inactive rural sites across the municipality. Maple Leaf Cemetery serves every ward as the longest-serving active site, providing burial services since 1871.

The cemetery infrastructure comprises 12 buildings, including chapels, mausoleums, and workshops, with 10.75 kilometres (km) of paved roads and 1 km gravel roads across the sites. Ten columbarium structures complement the grounds at four cemeteries dotted with mature trees. Three full-time grounds workers address maintenance and burial needs to ensure seamless operations, while three administrative staff handle bookings, payments, customer service, record-keeping, and sales. One supervisor oversees all operations.

Cemetery Operations (hereafter referred to as "cemeteries"), located within the Parks, Recreation, and Cemeteries division, are an integral part of the municipality and conduct over 650 interments annually. Cremation-oriented interments represent 40% of total burials, and full burials represent the remaining 60%. Despite increasing cremation services, the municipality has expanded infrastructure, such as columbaria and in-ground cremation plots, to meet public demand.

Beyond their primary function, cemeteries serve as recreational hubs. Hundreds engage in daily activities like walking, jogging, biking, and dog walking, with annual ceremonies hosted by various organizations. Despite these activities, staffing resources are shared among all locations, leading to deferred maintenance issues and longer response times.

Chatham-Kent's recent population growth, coupled with an aging demographic (over 40% of the population aged 55 or older), places increasing pressure on cemetery services. Despite these challenges, there has yet to be a proportional increase in staffing or resources.

The operational landscape faces challenges due to a lack of computer/network resources, hindering daily data access for cemetery site workers. The nature of just-in-time service delivery exacerbates daily challenges posed by insufficient staff resources. The evolving legislative requirements demand administrative expertise from highly trained staff, reflecting the ongoing commitment to maintaining the sanctity and functionality of Chatham-Kent's cemeteries.

Cemeteries fall under the regulatory purview of the Bereavement Authority of Ontario, operating by the Funeral, Burial, and Cremation Services Act. This legislation mandates the maintenance and upkeep of cemeteries, covering aspects such as grass cutting, tree maintenance, safety, and public access. Additionally, compliance requires meticulous record-keeping, financial reporting, administration of a Care & Maintenance Fund, and the maintenance of a public register.

This is Chatham-Kent's Cemeteries' first Detailed Asset Management Plan (DAMP). Future iterations will see data improvements, and as Asset Management knowledge matures across Chatham Kent, the breadth and scope of the plans will be refined to ensure they capture the full cost to deliver the cemeteries' service. The plan is updated annually to ensure data quality improves to support evidence-based decisions.



Maple Leaf Cemetery, Chatham

This DAMP will have a ten-year planning horizon at a minimum and will connect fully to the Long-Term Financial Plan (LTFP) by 2027. This cemeteries' DAMP will communicate the requirements for the sustainable delivery of services through the management of assets, program delivery, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the entire planning period.

The DAMP is to be read in combination with the other Chatham-Kent documents, which should include the Strategic Asset Management Policy, along with these other key planning documents:

- Council strategic priorities
- 2024 - 2027 Multi-Year Budget
- Short-term and long-term financial plans

Understanding the DAMP within the context of these documents ensures a comprehensive perspective of the cemeteries' management and development for today and into the future.

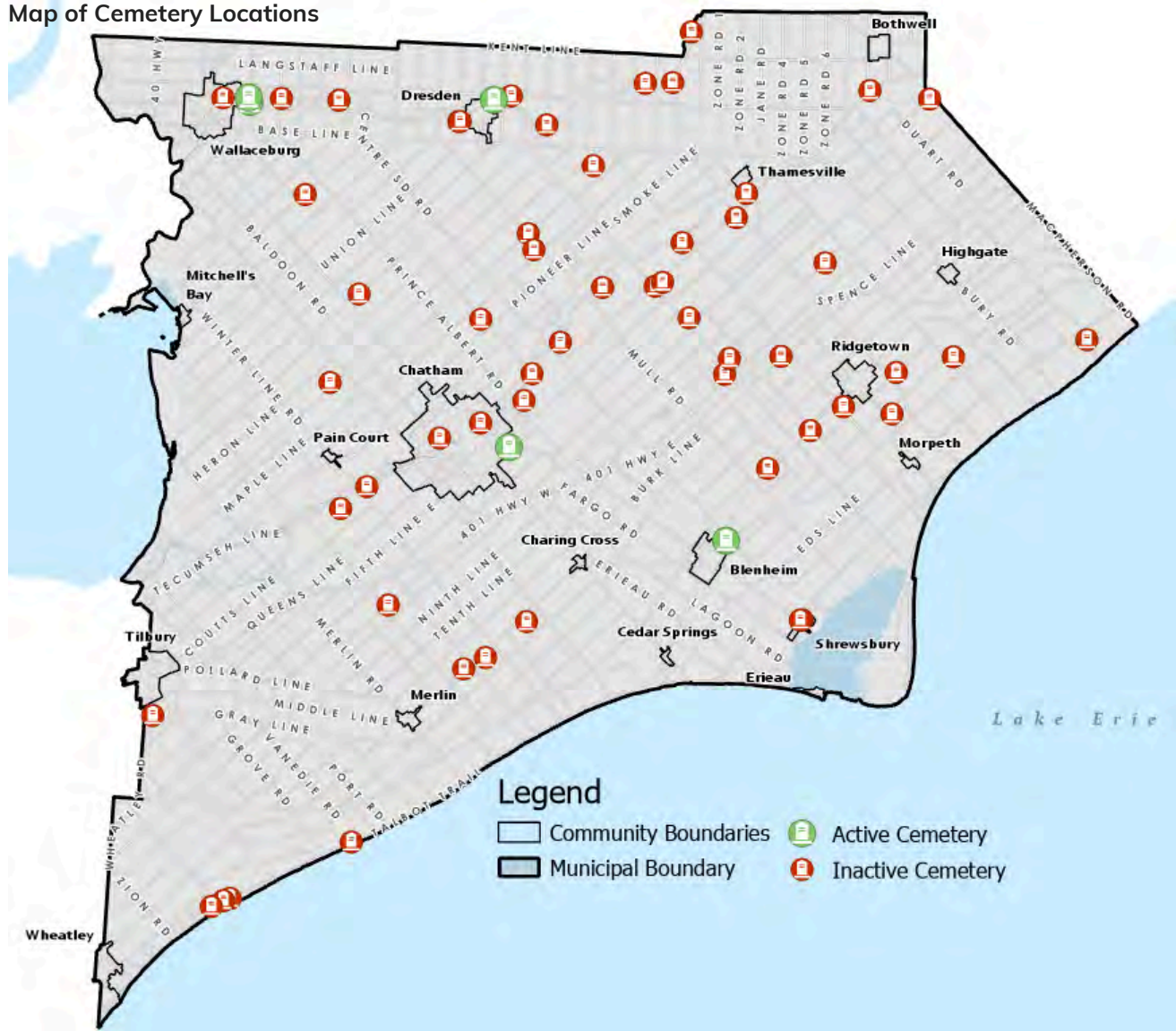
The infrastructure assets covered in this DAMP include chapels, mausoleums, workshops, paved and gravel roads, columbarium structures spread across six active cemeteries in strategic locations throughout Chatham-Kent. Additionally, the plan addresses the maintenance needs of 55 inactive rural sites across the municipality. These assets face challenges such as deferred maintenance issues due to shared staffing resources and longer response times, exacerbated by a lack of computer/network resources hindering daily data access for cemetery site workers.

These assets provide burial and cremation-oriented services, cemetery grounds and facilities maintenance, record-keeping, customer service, sales, and administrative support to ensure the seamless operation of Chatham-Kent's cemeteries.

The infrastructure assets included in this plan have a total replacement value of **\$7,209,000**.

Key stakeholders in preparing and implementing this DAMP are shown in **Table 2.1**.

Map of Cemetery Locations



Legend

- Community Boundaries
- Municipal Boundary
- Active Cemetery
- Inactive Cemetery

Key Definitions

Mausoleum - a building or structure that is the burial chamber for one or more deceased persons.

Columbarium/columbaria - a structure used to store the urns that contain the ashes of a deceased person(s).

Interment - burial of human remains within a grave.

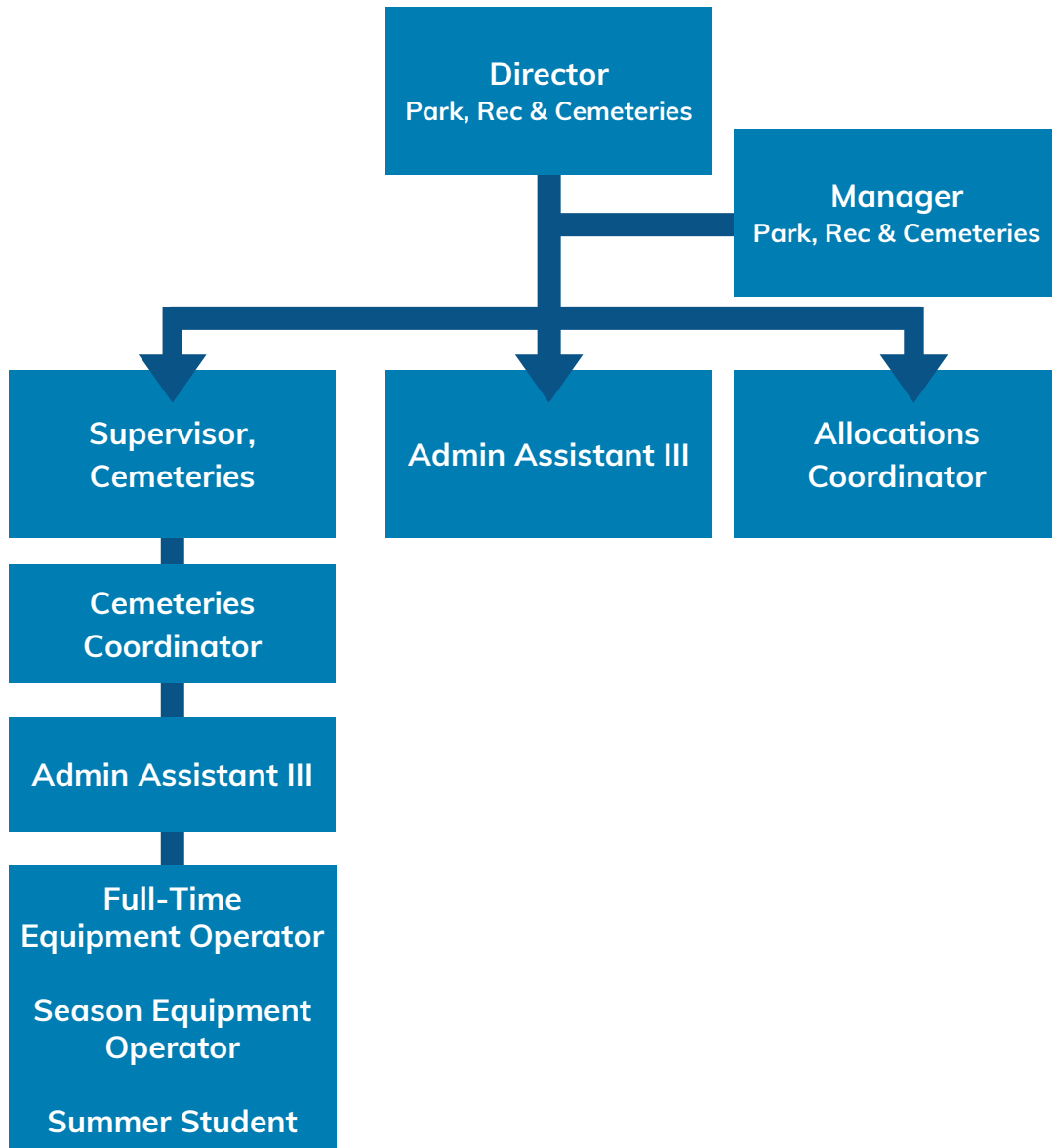
Table 2.1: Key Stakeholders in the DAMP

Key Stakeholder	Role in Asset Management Plan
Chatham-Kent Council	<ul style="list-style-type: none"> • Distribute resources to achieve planning objectives in service provision while effectively mitigating risks. • Back asset management initiatives to enhance understanding and guide decision-making. • Allocate funding to sustain the desired level of service throughout the entire life cycle.
Mayor/CAO	<ul style="list-style-type: none"> • Advocate for and champion the adoption of asset management principles within the organization. • Guarantee the availability of sufficient resources to foster the development of staff knowledge and skills, facilitating the implementation and ongoing enhancement of asset management practices.
General Manager, Infrastructure and Engineering Services	<ul style="list-style-type: none"> • Allocate resources to meet the organization's objectives in providing services while managing risks. • Overall responsibility for Asset Management, provide leadership in influencing decision-making processes related to Asset Management.
Director, Parks, Fleet and Facilities	<ul style="list-style-type: none"> • Delivering nominated renewal, upgrade projects • Reviews, updates, and plan long-term projects.
Supervisor, Cemetery Operations	<ul style="list-style-type: none"> • Manages service and provides expert opinion to inform asset management plan
Asset Management Team	<ul style="list-style-type: none"> • Establish top-level priorities for the development of asset management and increase awareness of this function among staff and external contractors.
Asset Management Team	<ul style="list-style-type: none"> • Provide support for the measures outlined in the Detailed Asset Management Plan aimed at improving asset management and service delivery. • Back the Asset Management-Driven budget and Long-Term Financial Plan with a 10-year horizon.
Community	<ul style="list-style-type: none"> • Engage in facilitated discussions to enable the municipality to comprehend the community's preferred level of service. • Express support for the Detailed Asset Management Plan, even if it involves reducing service levels, aligning with the community's objective of minimizing taxation.



Cemeteries Organizational Chart

The Chatham-Kent Cemeteries organizational structure for service delivery from infrastructure assets is detailed below,



2.2 Asset Hierarchy & Registry

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting, as well as the service level hierarchy used for service planning and delivery.

An asset registry is a single data source that contains an inventory of asset data, including attribute information for each individual asset. This attribute information includes a record for each individual asset, including condition, age, replacement cost, and asset-specific information (e.g., length, diameter, material, etc.).

At this time, the cemetery's asset registry is structured in the form of an asset hierarchy, explained below.

Chatham-Kent is working towards establishing a functional asset hierarchy, which means the hierarchy has been established based on what the asset owner needs or wants the asset or system to do. Generally, assets and systems are organized according to their primary function.

The service hierarchy is shown in **Table 2.2.1**.

Table 2.2.1: Asset Service Hierarchy

Service Hierarchy	Service Level Objectives
Buildings, columbariums	To ensure the delivery of service is possible for our customers
Land availability	To ensure the availability and delivery of services is possible for our customers
Fencing	To ensure the delivery of service is possible for our customers

Asset Registry

The cemeteries assets covered in this plan include all facilities, buildings, roads, columbaria, equipment and tools required for Chatham-Kent to deliver its cemeteries services to the community and its customers. The assets included in this DAMP are shown in **Table 2.2.2**.

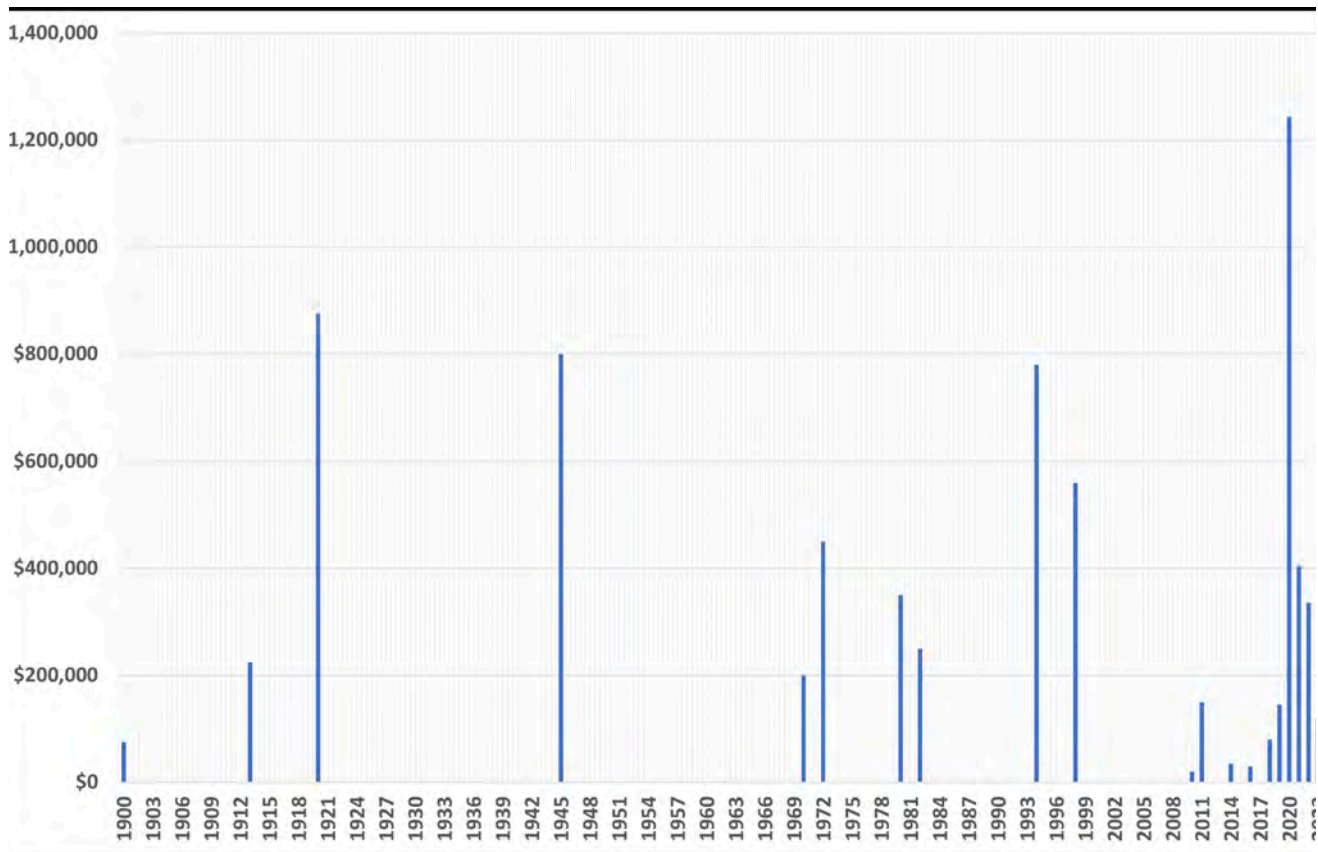
Table 2.2.2: Service Assets

Asset Category	Description	Age or Average Age	Average Condition	Avg Estimate Service life Remaining	Current Replacement Value
Cemetery facilities and buildings	13 various garages, offices, chapels	20	Good	30	\$4,280,000
Roads and water infrastructure	Cemetery roads and water systems	10	Good	10	\$2,049,000
Gates and fencing	Perimeter fencing and entrance gates	30	Good	40	\$420,000
Columbaria	10 columbaria	10	Good	30	\$380,000
Equipment	Blue Giant Lift	5	Fair	5	\$30,000
Statue	DiPrata statue	100	Good	40	\$50,000
				TOTAL	\$7,209,000

All values are shown in 2024 dollar values.

The initial plan attempts to include all assets required to deliver the cemetery service; however, it is acknowledged that as this is the first registry, there likely will be additional assets included over time as the assets are acquired, disposed of, or considered material enough to be included in future iterations of this plan. Various asset parameters such as age, condition, estimated service life and replacement costs will be updated regularly to ensure the data confidence of the plan is sufficient to support evidence-based investment decisions. The age profile of the assets included in this DAMP is shown in **Figure 2.2.3**.

Figure 2.2.3: Assets Age Profile Graph



All figure values are shown in 2024 dollar values.

The asset age profile of Chatham-Kent’s cemeteries reveals a varied landscape with assets spanning multiple decades, reflecting past peaks of investment in cemetery infrastructure. Assets such as chapels, mausoleums, and entry gates exhibit a range of acquisition years, some dating back to the early 1900’s, while others were acquired more recently. This diversity in acquisition years suggests historical periods of significant investment in cemetery development and expansion, likely driven by population growth and evolving community needs. However, the age versus useful lives of assets reveals potential challenges as many assets approach or exceed their expected useful lives.

Assets acquired in the mid-20th century, such as certain mausoleums and chapel structures, have surpassed their anticipated useful lives, indicating the potential for increased renewal needs in the future.

2.3 Asset Condition

The condition of Cemetery assets is monitored only through expert opinion on the subject matter and not through any formalized process.

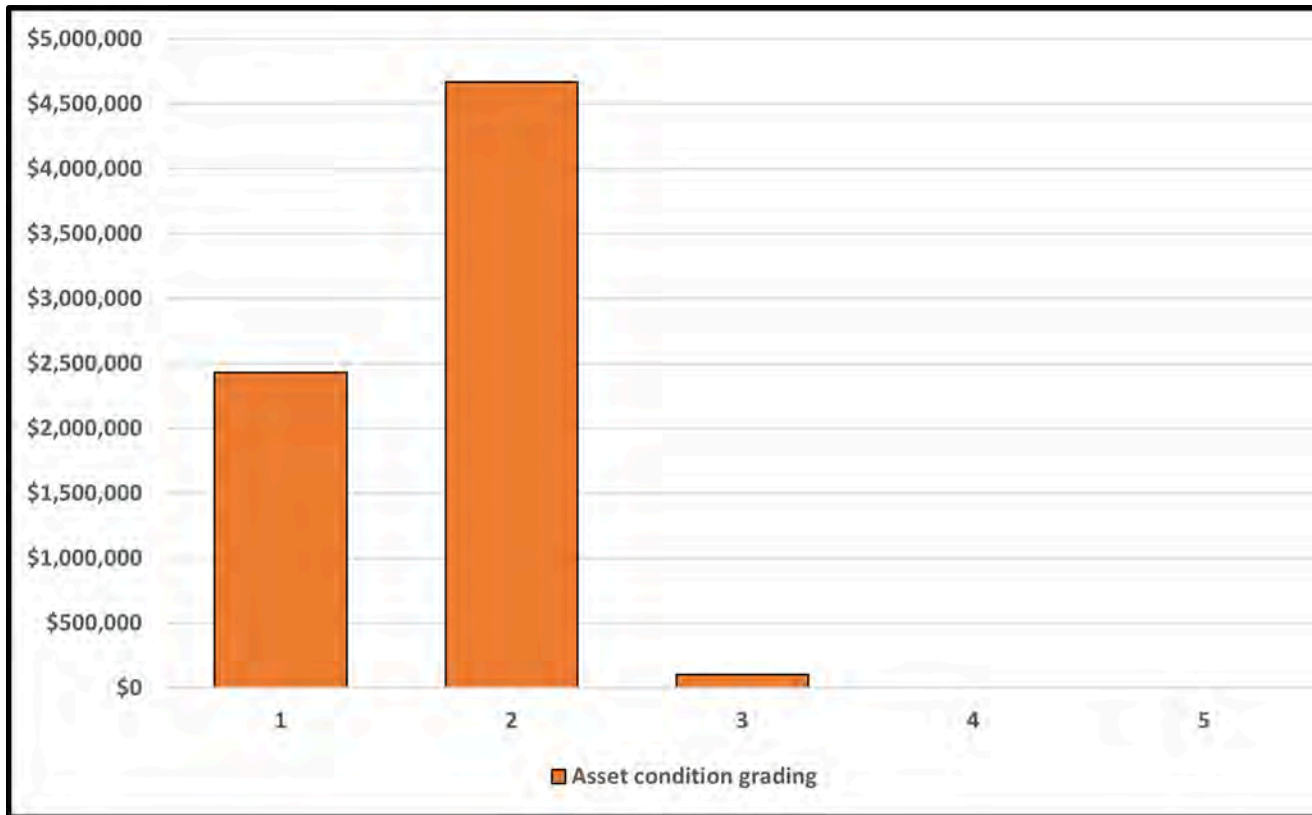
Condition is measured using a **1 – 5** grading system, as detailed in **Table 2.3.1**. A consistent approach must be used in reporting asset performance, enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the DAMP results are translated to a **1 – 5** grading scale for ease of communication.

Table 2.3.1: Condition Grading

Condition Grading	Description of Condition
1	Very Good: free of defects, only planned and/or routine maintenance required
2	Good: minor defects, increasing maintenance required plus planned maintenance
3	Fair: defects requiring regular and/or significant maintenance to reinstate service
4	Poor: significant defects, higher order cost intervention likely
5	Very Poor: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of Cemetery assets is shown in **Figure 2.3.2**.

Figure 2.3.2: Asset Condition Profile



All figure values are shown in 2024-dollar values.

All cemetery assets are currently in Very Good, Good, or Fair condition. Assets in fair condition include the Maple Leaf Cemetery Blue Giant Lift and the West Bothwell Cemetery Stone Entrance Wall/Fencing. Neither of these assets is planned to be renewed within the planning period of this asset management plan. Of the 40 assets listed in the asset registry, 38 are considered to be in Very Good or Good condition – representing 95% of the assets.

2.4 Asset capacity and performance

Assets are generally provided to meet design standards where available. Locations where deficiencies in service performance are known are detailed in **Table 2.4.1**.

Table 2.4.1: Known Service Performance Deficiencies

Location	Service Deficiency
All active cemetery locations	A lack of computer/network resources causes an issue for cemetery staff accessing records, data or information
Cemetery administration	A lack of staff resources poses a daily challenge while legislative requirements are increasingly demanding

The above service deficiencies were identified from cemetery staff.

3.0 LIFECYCLE MANAGEMENT

The lifecycle management plan details how the cemetery service plans to operate the assets at the agreed levels of service through managing its life cycle costs. These costs are categorized by life cycle phases: acquisition, operations, maintenance, renewal, and disposal.

Budget-based approach but will evolve into a full lifecycle approach by 2027 where appropriate.

3.1 Acquisition Plan

The acquisition reflects new assets that did not exist or works that will upgrade or improve an existing asset beyond its capacity. They may result from growth, demand, and social or environmental needs. Assets may also be donated to the Municipality of Chatham-Kent.

3.1.1 Selection criteria

Proposed acquisition of new assets and upgrade of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrades and new works should be reviewed to verify that they are essential to the Municipality of Chatham-Kent’s needs. The proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled for future work programs. The priority ranking criteria are detailed in **Table 3.1.1**.

Table 3.1.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Increased demand, lack of available plots	80%
Safety	10%
Technological needs	10%
Total	100%

The acquisition plan for cemeteries outlines the anticipated costs associated with expanding and enhancing cemetery facilities within the municipality. Significant investments are projected for the forthcoming years, primarily for the Maple Leaf Cemetery expansion project. This project is being undertaken to ensure sufficient space for customer internment.

Forecast acquisition asset costs are summarized in **Figure 3.1.1** and shown relative to the proposed acquisition budget.

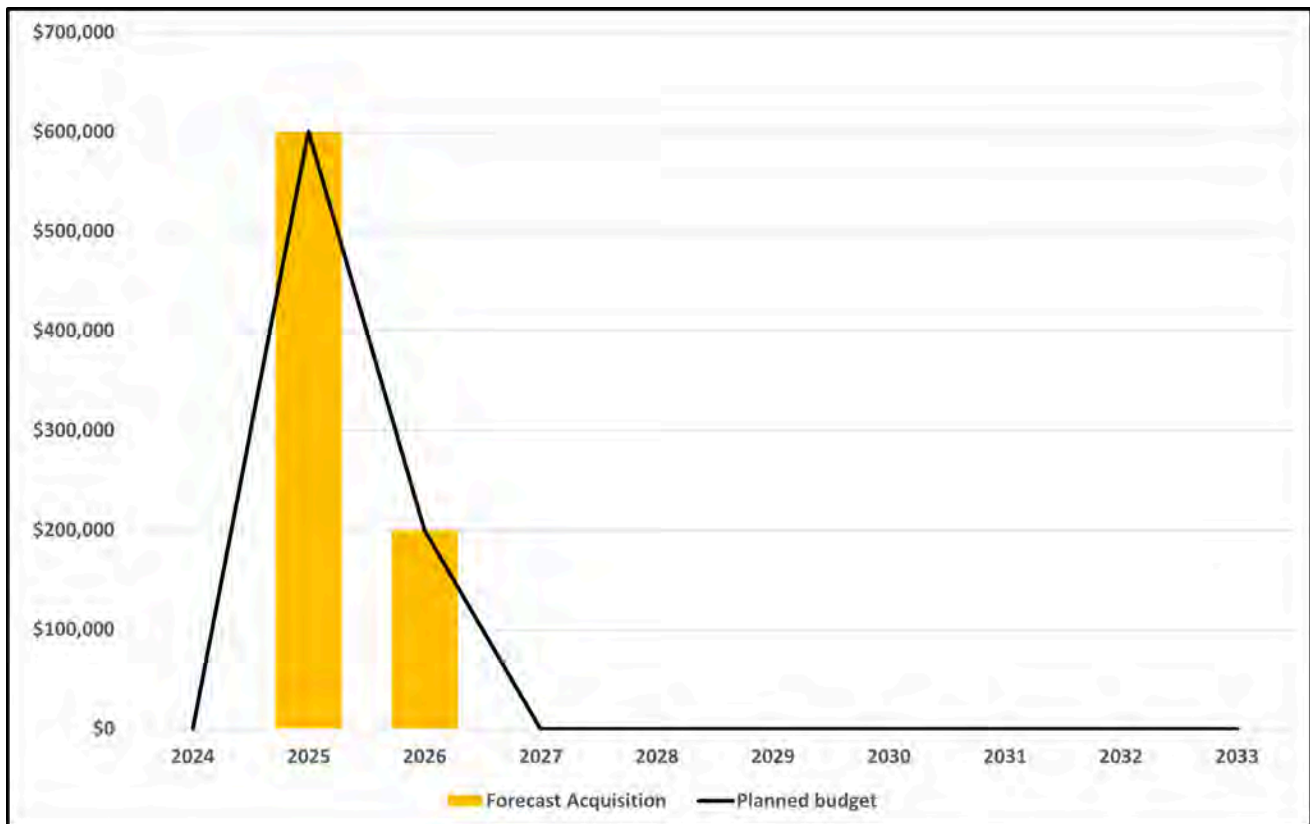
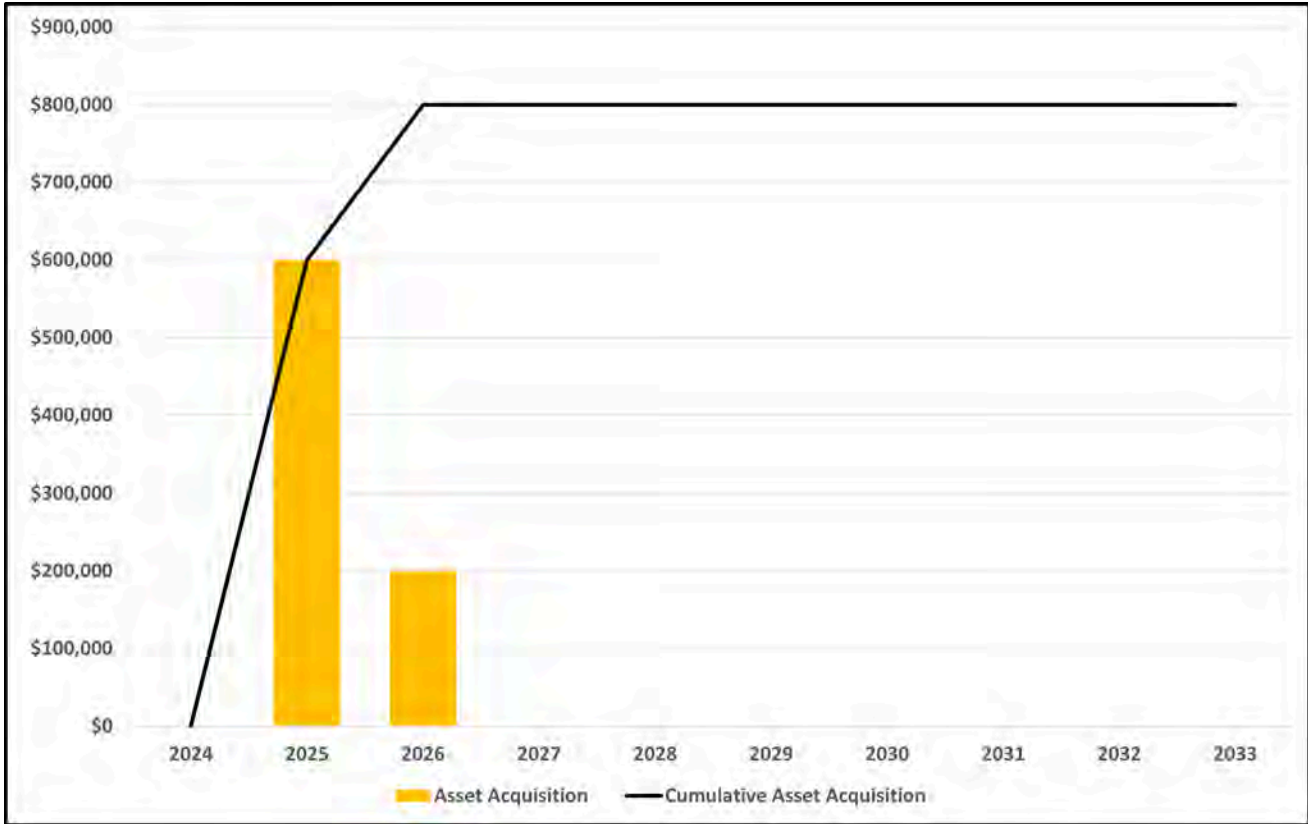


Figure 3.1.1: Acquisition (Constructed) Summary All figure values are shown in 2024-dollar values.

When an Entity commits to new assets, it must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long-term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity. The cumulative value of all acquisition work, including assets that are constructed and contributed, is shown in **Figure 3.1.2**.

Figure 3.1.2: Acquisition Summary



All figure values are shown in 2024-dollar values.

The long-term financial plan will accommodate expenditures on new assets and services in the capital works program, but only to the extent that funding is available.

Land acquisition to expand availability at Maple Leaf Cemetery in Chatham will occur in 2025 and 2026.

3.2 Operations Plan

Operations include regular activities to provide services. Typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

Typical operational activities performed to provide the cemeteries service include:

- grounds maintenance, including mowing lawns, trimming trees and shrubs, removing leaves and debris
- grave preparation and burial services, including excavating and preparing gravesites, overseeing burials
- monument and marker installation and maintenance, including installing headstones and markers, repairing existing monuments
- customer service and administration, including assisting families with plot purchases, guiding them through burial options, maintaining records, and providing information and support
- regulatory compliance with local, provincial, and federal regulations regarding burials

Summary of forecast operations costs

Forecast operations costs are expected to vary depending on the total value of the asset stock. If additional assets are acquired, the future operations costs are forecast to increase. If assets are disposed of, the forecast operation costs are expected to decrease. **Figure 3.2.1** shows the forecast operations costs relative to the proposed operations Planned Budget.

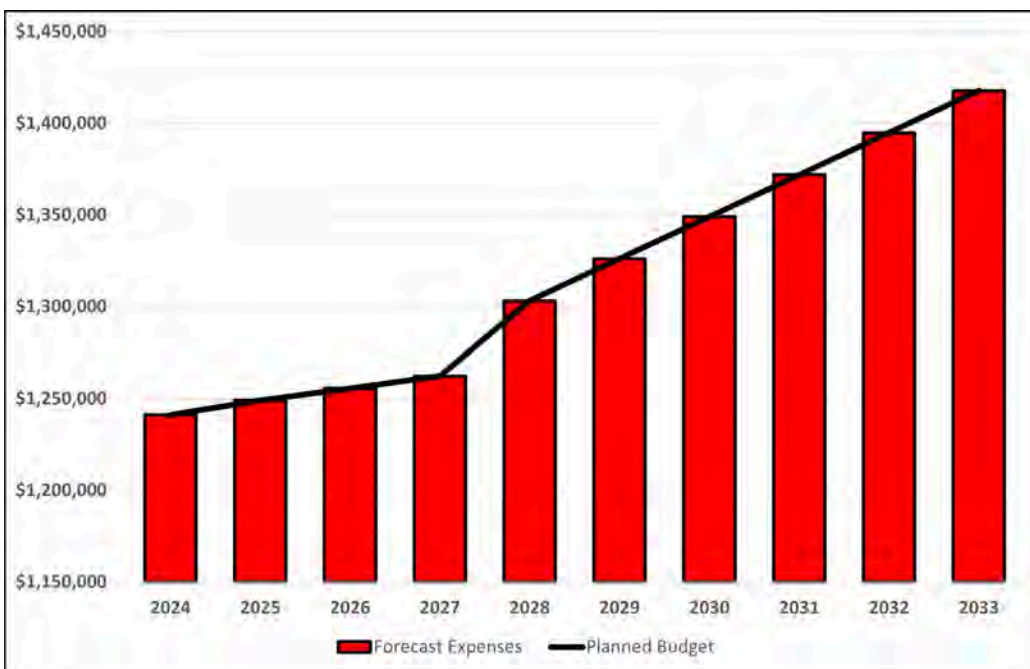


Figure 3.2.1:
Operations Summary

All figure values are shown in 2024-dollar values.



Maple Leaf Cemetery, Chatham

Table 3.2.1: Operations Budget Trends

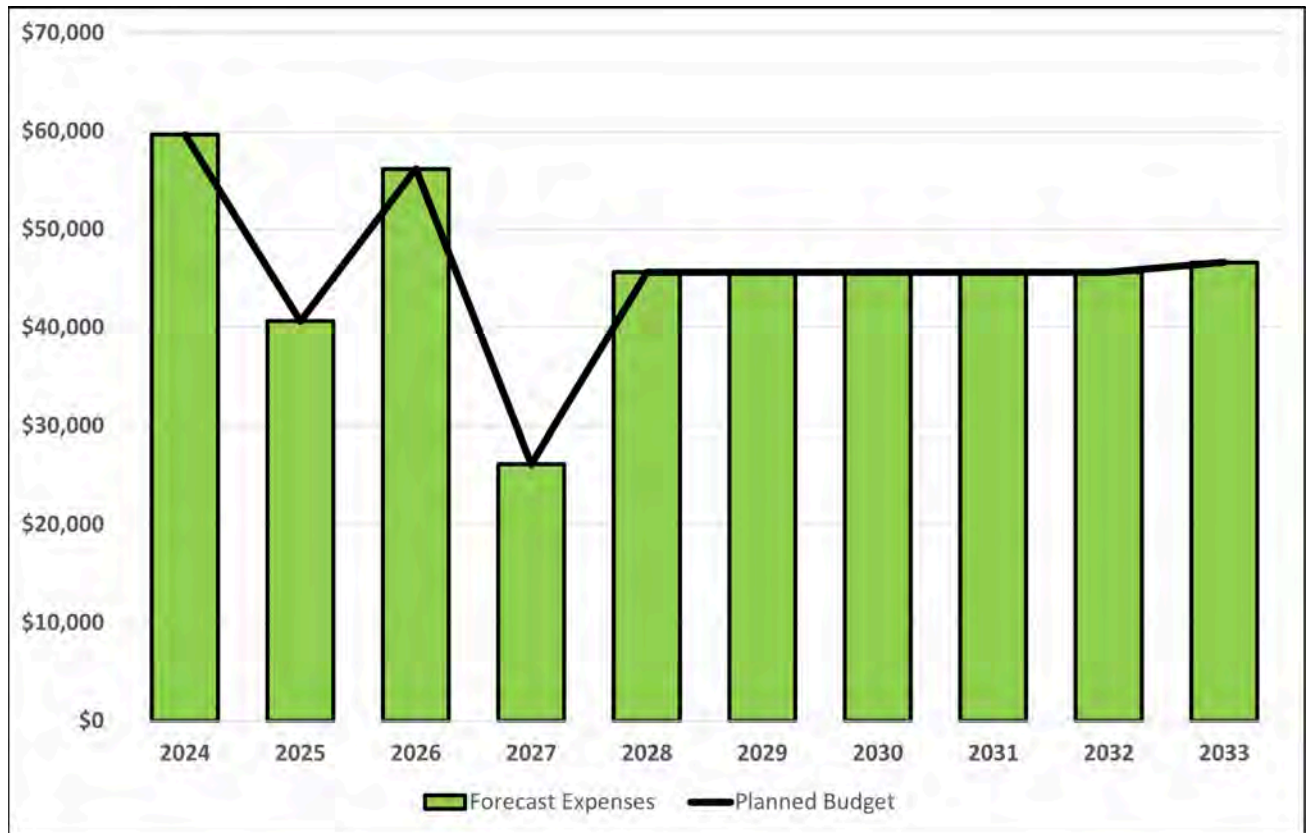
Year	Operations Budget
2024	\$1,241,000
2025	\$1,249,000
2026	\$1,256,000
2027	\$1,262,000

3.3 Maintenance Plan

Summary of forecast maintenance costs

Forecast maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, future maintenance costs are forecast to increase. If assets are disposed of, the forecast maintenance costs will decrease. **Figure 3.3.1** shows the forecast maintenance costs relative to the proposed maintenance Planned Budget.

Figure 3.3.1: Maintenance Summary



All figure values are shown in 2024-dollar values.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating. Typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets is shown in **Table 3.3.1**.

Year	Maintenance Budget \$
2024	\$59,600
2025	\$40,600
2026	\$56,100
2027	\$26,100

Table 3.3.1: Maintenance Budget Trends



Maintenance budget levels are considered adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and highlighted in this DAMP, and service risks are considered in the Infrastructure Risk Management Plan.

Staff assess and prioritize reactive maintenance using experience and judgment.

3.4 Renewal Plan

Renewal is major capital work that does not significantly alter the original service provided by the asset but restores, rehabilitates, replaces, or renews an existing asset to its original service potential. Work beyond restoring an asset to its original service potential is considered to be an acquisition, resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or others).

Table 3.4.1 shows the typical useful lives of assets used to develop projected asset renewal forecasts. The useful lives of assets were last reviewed on **May 1st, 2024**.

Table 3.4.1: Useful Lives of Assets

Asset (Sub) Category	Useful Life
Buildings	50 Years
Mausoleums	50 Years
Columbaria	40 Years
Gates/Fencing	75 Years
Roadways	40 Years

The estimates for renewals in this DAMP were based on the asset register.

3.4.2 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. rebuilding a cemetery chapel) or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g., facility condition).

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Having high use and the subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs and
- Have the potential to reduce life cycle costs by replacing them with a modern equivalent asset that would provide a comparable service.

The ranking criteria used to determine the priority of identified renewal proposals is detailed in **Table 3.4.2**.

Table 3.4.2: Renewal Priority Ranking Criteria

Criteria	Weighting
Condition	80%
Legislative Requirement	10%
Technological Changes	10%
Total	100%

3.5 Summary of future renewal costs

Cemeteries equipment renewal of a total of **\$25,000** is forecasted for 2024 - 2027. **Figure 3.5.1** outlines the renewal summary for cemeteries.

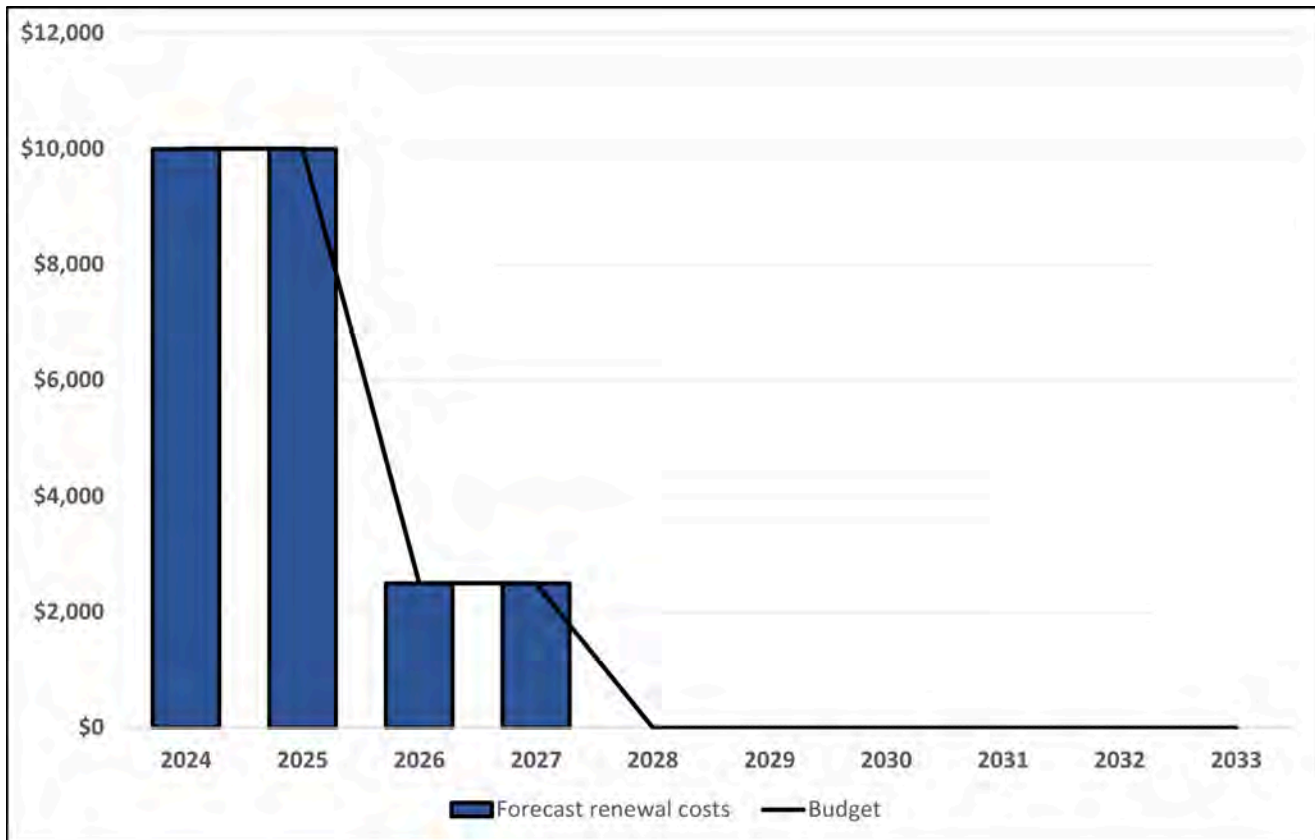


Figure 3.5.1: Renewal Summary



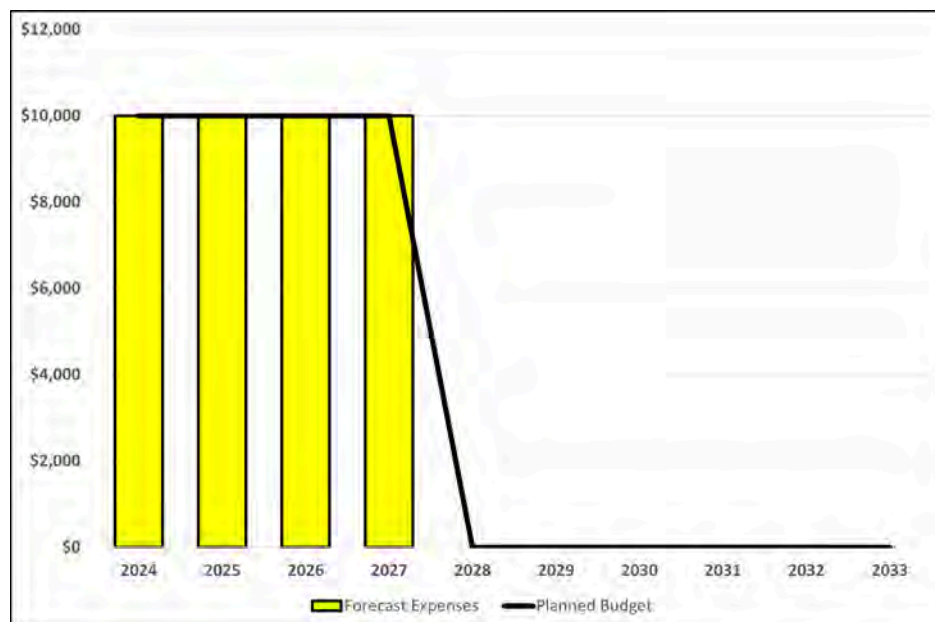
3.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset, including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in **Table 3.6.1**. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposal of the assets are also outlined in **Table 3.6.1**. Any costs or revenue gained from asset disposals are included in the LTFP. **Figure 3.6.1** shows the forecast disposal costs relative to the proposed disposal Planned Budget.

Table 3.6: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Costs	Operation & Maintenance Annual Saving
Trees	Dead or diseased	2024-2027	\$10,000 per year	TBD

Figure 3.6: Disposal Summary

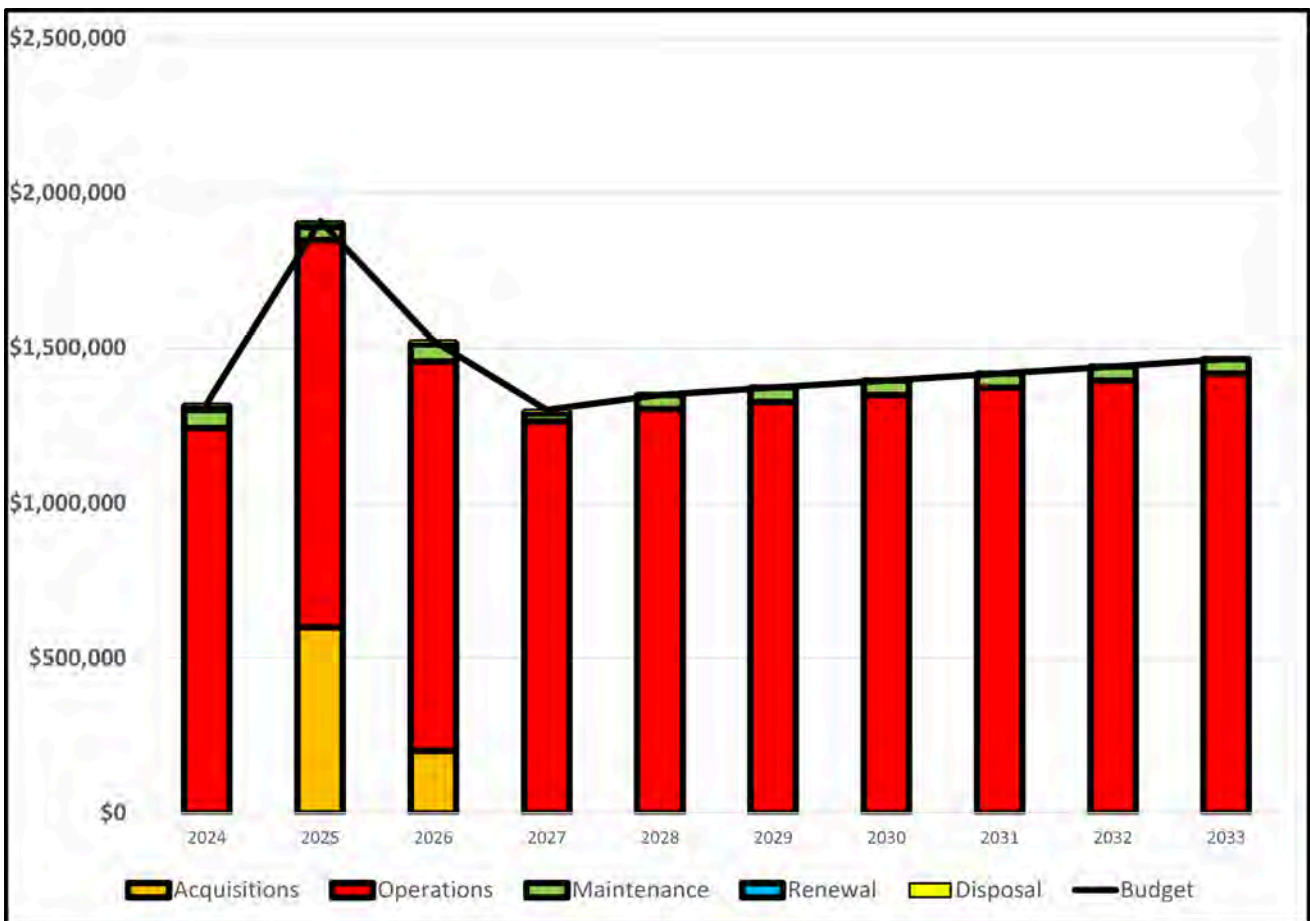


All figure values are shown in 2024-dollar values.

3.7 Summary of asset forecast costs

The financial projections from this asset plan are shown in **Figure 3.7.1**. These projections include forecast acquisition, operation, maintenance, renewal, and disposal costs. These forecast costs are shown relative to the proposed budget. The bars in the graphs represent the forecast costs needed to minimize the life cycle costs associated with the service provision. The proposed budget line indicates the estimated amount of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving the balance between costs, levels of service and risk to achieve the best value outcome.

Figure 3.7.1: Lifecycle Summary



All figure values are shown in 2024 dollars.

Cemetery Operations involve comprehensive management of cemetery facilities, encompassing operations, maintenance, renewal, acquisition, and disposal of assets. The forecasted lifecycle costs necessary to provide these services over ten years amount to **\$14,453,832**, averaging **\$1,445,383** annually. This budget is essential for sustaining the current levels of service, including routine grounds maintenance, grave preparation, monument upkeep, and customer service. Although the proposed funding initially indicated an annual shortfall of **\$79,286**, the existence of a lifecycle reserve ensures that **100%** of the necessary funds are available to cover these costs. This reserve provides the financial security needed to meet all current service demands and maintain the desired service standards without requiring additional financial resources.

The planned budget, bolstered by the lifecycle reserve, closely aligns with the long-term financial strategy and ensures that current service levels can be fully sustained. This includes the continuous maintenance and renewal of existing assets, enabling Chatham-Kent to meet evolving customer expectations and community needs effectively. Projects such as the Maple Leaf Cemetery expansion illustrate the municipality's commitment to strategic financial planning, ensuring that all necessary funds are available to support both ongoing services and future growth. By leveraging the lifecycle reserve, the municipality can confidently maintain its current operations and prepare for future demands with limited financial constraints.



Dresden Cemetery

4.0 LEVELS OF SERVICE

Levels of service describe the value that the cemeteries provide to the community and are typically spoken about in ‘measures’. Utilizing service measures allows decision-makers to understand what the outcome of investments will be, allowing those making choices to clearly understand how a dollar more or less will impact Chatham-Kent’s ability to deliver its services. These measures also allow Chatham-Kent to communicate with the public about the cost of the services they receive today and will be able to afford in the future.

Service levels are defined in four ways: legislative compliance, customer values, customer levels of service and technical levels of service.

4.1 Legislative Requirements

Meeting legislative requirements should be the minimum level of service Chatham Kent provides. These requirements often drive many lifecycle costs and staff tasks to ensure that Chatham-Kent is compliant with all legislation, from Federal to Provincial or even Chatham-Kent’s own bylaws. There are many legislative requirements relating to asset management. Legislative requirements that impact the delivery of the cemeteries’ service are outlined in **Table 4.1.1**.

Legislation	Requirement
Funeral, Burial, and Cremation Services Act (2002), s. 5	Ensure grounds/structures are maintained, access provided
Funeral, Burial, and Cremation Services Act (2002), O.Reg 30/11 s. 157	Provide drainage
Funeral, Burial, and Cremation Services Act (2002), O.Reg 30/11 s. 159	Repair/stabilization of monuments

Table 4.1.1: Legislative Requirements

Table 4.1.1: Legislative Requirements

Legislation	Requirement
Funeral, Burial, and Cremation Services Act (2002), O.Reg 30/11 s. 171	Assume responsibility for care/maintenance of abandoned cemeteries
Funeral, Burial, and Cremation Services Act (2002), s. 5	Provide interments for interment rights holders
Funeral, Burial, and Cremation Services Act (2002), s. 5	Ongoing maintenance of trees to ensure public safety
Ministry Of Labour	Monthly building inspections
Accessibility for Ontarians with Disabilities Act (AODA)	Confirm each municipal building meets AODA compliance
BY-LAW NUMBER 178-2019, Section 2.2	Treat any sidewalk abutting his or her buildings or lands on all sides within twenty-four hours following notice being released by the Corporation that there is a substantial probability of ice forming on a sidewalk, and (ii) treat sidewalks that are icy within twenty-four hours of the ice formation.
Ontario Building Code	Building Structural Inspection

4.2 Customer Research and Expectations

This DAMP is prepared to facilitate consultation prior to the adoption of levels of service by the Municipality of Chatham-Kent. Future revisions of the DAMP will incorporate customer consultation on service levels and costs of providing the service. This will assist Chatham-Kent Council and stakeholders in matching the level of service required, service risks and consequences with the customer’s ability and willingness to pay for the service.

Chatham-Kent currently does not conduct research on customer expectations. This will be investigated for the 2025 iteration of the DAMP.

4.3 Customer Value

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service. Customer Values indicate:

- what aspects of the service are important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 4.3.1: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Cemetery grounds are well maintained	TBD 2025	TBD 2025	TBD 2025
Burial plots are available	TBD 2025	TBD 2025	TBD 2025
Complaints are resolved in a reasonable timeframe	TBD 2025	TBD 2025	TBD 2025

4.4 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

- Condition** How good is the service ... what is the condition or quality of the service?
- Function** Is it suitable for its intended purpose Is it the right service?
- Capacity/Use** Is the service over or underused... does Chatham-Kent need more or less of these assets?

In **Table 4.4.1**, under each service measure type (Condition, Function, Capacity/Use), there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g., the number of occasions when service is unavailable or the proportion of replacement value by condition %'s) to provide a balance compared to the customer perception, which may be more subjective.



Riverview Cemetery, Wallaceburg

Table 4.4.1: Customer Level of Service Measure

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Maintenance Standards	Monitor the maintenance standards of cemetery grounds, including grass cutting, landscaping, and cleanliness.	TBD 2025	TBD 2025
Function	Availability of burial plots	Measure the availability of burial plots for both traditional burials and cremation services	TBD 2025	TBD 2025
Capacity	Complaint resolution time	Track the time taken to resolve customer complaints and concerns	TBD 2025	TBD 2025

4.5 Technical Levels of Service

Technical Levels of Service

Technical levels of service describe how a service performs from the provider's point of view. They are quantified using metrics that relate directly to an asset or the service as a whole; however, these metrics are related to items that a customer would likely not be aware of. Technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

Acquisition

The activities to provide a higher level of service (e.g. acquiring land for expansion of existing cemeteries) or a new service that did not exist previously (e.g. a new cemetery.)

Operation

The regular activities to provide services (e.g. Customer interactions, Service programs, opening hours, cleansing, mowing grass, energy, inspections, etc.)

Maintenance

The activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, tombstone and marker maintenance, building and structure repairs)

Renewal

The activities that return an asset's service capability to what it had originally provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement).

Service and asset managers plan, implement, and control technical service levels to influence service outcomes. **Table 4.5.1** shows the activities expected to be provided under the current 10-year Planned Budget allocation and the Forecast activity requirements being recommended in this DAMP.

Table 4.5.1: Technical Levels of Service

Lifecycle Activity	Level of Service Statement	Activity Measure	Current Performance	Recommended Performance
Acquisition	To expand cemetery capacity and accommodate increasing demand for burial services	Number of new burial plots or columbarium niches added annually	TBD 2025	TBD 2025
		Budget	\$80,000	TBD 2025
Operation	To ensure regular grass cutting of cemetery grounds	Grass cutting occurs on a regular basis during the growing season	Grass cutting occurs regularly during the growing season	Grass cutting occurs regularly during the growing season
		Budget	\$123,988	\$136,744
Operation	To ensure regular collection of garbage from cemetery grounds and facilities	Garbage collection occurs on a regular basis year-round	Garbage bins on cemetery grounds are emptied on a regular basis	Garbage bins on cemetery grounds are emptied on a regular basis
		Budget	\$6,534	\$7,345
Maintenance	To preserve cemetery infrastructure and maintain a respectful environment for visitors	Regular building maintenance of cemetery facilities is completed as-needed	Building maintenance is completed as-needed on all cemetery facilities	Building maintenance is completed as-needed on all cemetery facilities
		Budget	\$26,000	\$30,000
Maintenance	To maintain cemetery roads in good condition	Regular road repair as needed	Cemetery roads are repaired/repaved as needed	Cemetery roads are repaired/repaved as needed
		Budget	\$5,000	\$6,500

Notes:

- Current activities related to Planned Budget.
- Expected performance related to forecast lifecycle costs.
- It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

5.0 FUTURE DEMAND

5.1 Demand Drivers

Drivers affecting demand include population change, regulations, demographic changes, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

5.2 Purpose Statement

This DAMP is prepared in accordance with the Municipality of Chatham-Kent's vision, mission, goals, and objectives.

Our vision is:

Rooted in our values, united in our actions and growing to our potential.

Our mission is:

The Corporation of the Municipality of Chatham-Kent is a proud, proactive, progressive team committed to innovation and leadership by providing services that enhance the quality of life in our community.

The Chatham-Kent Council has set strategic goals. **Table 5.2.1** summarizes the relevant goals and objectives and how these are addressed in this DAMP.

Table 5.2.1: Goals and how these are addressed in this Plan

Council Strategic Priorities	Objectives	How Goal and Objective are addressed in the DAMP
Sustainable Growth	Increase the level of maintenance and renewal activities to achieve the industry benchmark renewal ratio	<ul style="list-style-type: none"> • This plan will ensure that the Council is making informed decisions on its investment and achieving value for money from its investment in the long term. • A lifecycle approach to asset management will also help the Council achieve financial sustainability over time.
Grow our community	Ensure an ample supply of available serviced land and strategic investments related to infrastructure maintenance, renewal, and expansion	<ul style="list-style-type: none"> • An assessment of demand drivers was conducted as part of an asset management plan to respond to the growth of our community effectively.
Environmental Sustainability	Acting today for a better tomorrow	<ul style="list-style-type: none"> • Proactive environmental mitigation strategies will be addressed in the Climate Change section

5.3 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

5.4 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in **Table 5.4.1**.

Demand for new services will be managed by managing existing assets, upgrading existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in **Table 5.4.1**. Further opportunities will be developed in future revisions of this DAMP.

Table 5.4.1: Demand Management Plan

Demand Driver	Current Position	Projection	Impact on services	Demand Management Plan
Population Growth	105,110	112,000	Increased need for gravesites, cremation-related options for final disposition, provincial mortality rate in 2023 Est 105,110, and increase to 112,000 in 10 years.	Increases operating and maintenance costs, re-evaluate lifecycle projections, potential land/asset acquisition
Regulatory Changes/Obligations	FBCSA legislation added additional administrative requirements placing increased demand on staffing resources which have not been addressed	Further directives from BAO will require even more staff attention for administration	Inability to meet reasonable timelines with inadequate staffing resources	Consider additional administrative staff to meet current and future legislative demands
Consumer Preferences & Expectations	TBD 2025	TBD 2025	Increased use of sites by seniors/general public for recreational opportunities	Consider capital renovations and additional grounds staffing as part of Master Plan review

5.5 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Acquiring new assets, such as a new mausoleum, would commit the Municipality of Chatham-Kent to ongoing operations, maintenance, and renewal costs for the period for which the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the LTFP in the finance section of the report.

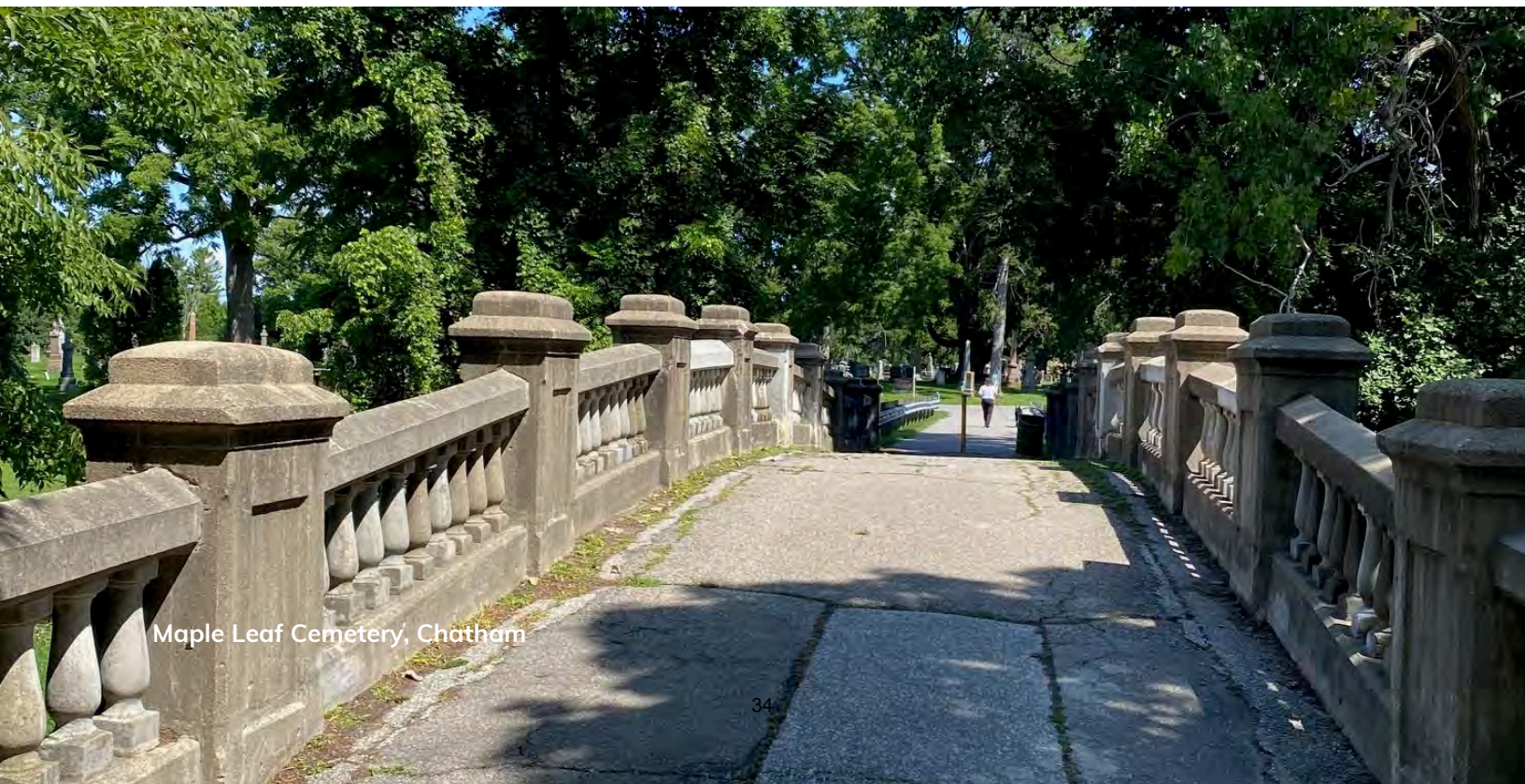
6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines. ISO 31000:2018 defines risk management as ‘coordinated activities to direct and control about risk.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those with a high consequence of failure, causing significant loss or reduction of service. Critical assets have been identified, and their typical failure mode and the impact on service delivery are summarized in **Table 6.1.1**. Failure modes may include physical failure, collapse, or essential service interruption.



Maple Leaf Cemetery, Chatham

Table 6.1.1: Critical Assets

Critical Asset(s)	Failure Mode	Impact
Buildings	Accident/fire/tornado	<ul style="list-style-type: none"> ·Failure to be able to deliver service. ·Higher cost to contract out service temporarily. ·Higher building cost. ·Increased operational cost.
Cemetery grounds	Physical damage	<ul style="list-style-type: none"> ·Failure to be able to deliver service ·Damage to infrastructure
Technical or communication equipment	System or mechanical failure	<ul style="list-style-type: none"> ·Failure to be able to deliver service

By identifying critical assets and failure modes, an organization can ensure that investigative activities, condition inspection programs, maintenance plans, and capital expenditure plans target critical assets.

6.2 Risk Assessment

The risk management process used by Chatham-Kent is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks. The process is based on the fundamentals of International Standard ISO 31000:2018.

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences.

Critical risks are those assessed with ‘Very High’ (requiring immediate corrective action) and ‘High’ (requiring corrective action) risk ratings identified in the infrastructure risk management plan. **Table 6.2.1** shows initial asset registry risk assessment completed for the DAMP. Future iterations of the risk assessment will include residual risk and treatment costs of implementing the selected treatment plan. It is essential that these critical risks and expenses are reported to management and the council.

Table 6.2.1: Risks and Treatment Plans

Asset Providing the Service	What can Happen	Risk Rating	Existing controls	Treatment Cost
Underground Water Lines/Taps	Failure of underground PVC, junctions, taps can cause flooding	High	Regular maintenance	TBD 2025
Fleet - Backhoe/Tractor/Dump Truck	Failure of asset	High	Regular maintenance	TBD 2025
Mausoleum & Chapels plumbing or HVAC	Failure of plumbing, heating or cooling systems can cause mold or property damage	High	Regular maintenance	TBD 2025
Internal Paved Roads	Cracks or pavement failure could impact customer visits to the care and increase complaints	High	Regular maintenance	TBD 2025
Private cemeteries	Municipality would be forced to assume responsibility for private sites that cease operations	High	TBD 2025	TBD 2025

This is not an exhaustive list for all risks associated with Chatham-Kent Cemeteries. As the DAMPs develop over time this area will be expanded and demonstrate how much the existing controls mitigate the risk and at what cost. This will inform future budget and risk management choices.

6.3 Infrastructure Resilience Approach

The resilience of critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions Chatham-Kent needs to understand its capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service. Cemeteries will focus on identifying future resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

Chatham-Kent does not currently measure our resilience in service delivery. This will be included in future iterations of the DAMP.

6.4 Service and Risk Trade-Offs

The decisions made in adopting this DAMP are based on the objective of achieving the optimum benefits from the available resources.

6.4.1 What cannot be done

While Chatham-Kent has established a lifecycle reserve specifically for cemetery services, which will cover the anticipated shortfalls of **\$735,000** over the 10-year plan, the reserve itself is only slightly higher at **\$738,000**. This means that while the current budget, supplemented by the reserve, can sustain the existing levels of service and support limited expansion, there are still constraints to consider. Each year, **\$40,297** is transferred to a columbaria reserve, and **\$155,520** is added to the cemetery lifecycle reserve.

6.4.2 Service trade-off

If the forecast work (operations, maintenance, renewal, acquisition or disposal) cannot be undertaken due to available resources, it will result in service consequences for users. These service consequences include:

- Deferred maintenance, resulting in overgrown grass and vegetation and damaged or deteriorating infrastructure
- Reduced service quality, including longer response times for customer inquiries or requests
- Non-compliance with legislative requirements related to cemetery maintenance and operation

6.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Increased risk of accidents for visitors and staff due to deteriorating pathways, unstable monuments, or fallen branches
- Accelerated degradation of cemetery infrastructure, such as chapels, mausoleums, and entry gates, leading to costly repairs or replacements
- Neglecting stormwater management systems may result in flooding or soil erosion, causing damage to cemetery infrastructure and compromising site aesthetics
- Negative publicity or community backlash may result from perceived neglect of cemetery facilities, impacting public trust and reputation

These actions and expenditures are considered and included in the forecast costs and, where developed, the Risk Management Plan.

7.0 Climate Change Adaptation

The impacts of climate change may significantly impact the assets cemeteries manage and the services they provide. In asset management planning, climate change can be considered a future demand and a risk.

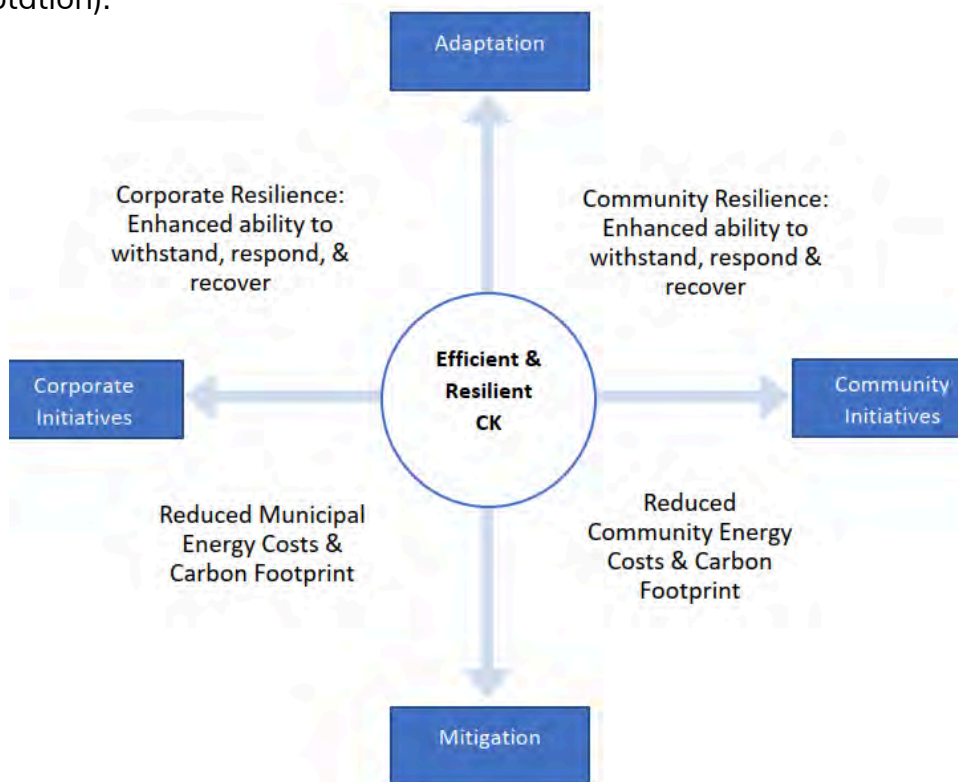
How climate change impacts on assets will vary depending on the location and the type of services provided, as will how cemeteries respond to and manage those impacts. At a minimum, cemeteries should consider how to manage our existing assets, given the potential climate change impacts on our region.

Riverview Cemetery, Wallaceburg



Recognizing these continuing climate change impacts, the Council declared a climate emergency in Chatham-Kent on July 15, 2019, and directed municipal staff to develop a climate change action plan (CCAP) to reduce CK's contribution to climate change (known as climate mitigation) and to enhance the community's resiliency to climate change (known as climate adaptation).

The Municipality of Chatham-Kent is currently in the process of completing its CCAP, which will be presented to the Council and the public by the end of 2024. The CCAP actions that will be presented in the CCAP report document will be used to inform the Climate Section of the DAMPs in 2025. The CCAP actions will also be presented within the departments that will be responsible for their completion.



Based on the Climate Atlas of Canada, historical climate patterns show that CK's climate has become hotter, wetter, and wilder over the last six decades. This trend is expected to continue.

Hotter: Average annual temperatures have risen by 0.5°C and are expected to rise between 3.5°C and 5.8°C by the 2080s.

Wetter: Average annual precipitation has increased by 49.8mm (1.96in) and is expected to increase between 78mm and 127mm (5in) by the 2080s.

Wilder: Rainstorms have increased in frequency and severity, and seasonal precipitation patterns have changed, and this is expected to continue.

"From 1983 to 2008, insurers spent on average \$400 million yearly on catastrophic claims; since 2009, the yearly average has risen to almost \$2 billion. These "once in 100 years" events are happening more frequently and are becoming more severe and more costly."(Statistics Canada, 2024)

Risks and opportunities identified to date are shown in **Table 7.0.1.**

Table 7.0.1: Managing the Impact of Climate Change on Assets and Services

Climate Impact (Assets level or Service level)	Current Position (Today)	Projected Position (in 10 years)	Potential Impact on Assets & Services	Climate Management Plan
More frequent wind storms as well as winter storms when cemetery staffing capacity is lower	TBD 2025	TBD 2025	Inability to respond to cemetery clean-up of branches, interruption to daily funerals, damaged monuments, blocked roads, damaged signs, etc.	Additional FTE, increase seasonal to permanent staff, invest in new equipment (i.e. Arborist tools, tractors, etc.) Increased in budgetary needs to address unforeseen events.
Warmer winters changing demand on cemetery use and damage to grounds	TBD 2025	TBD 2025	Irregular freeze/thaw cycles causing increased damage to grounds during burials in traditional winter months	TBD 2025
Warmer winters changing demand on cemetery use and damage to grounds	TBD 2025	TBD 2025	Increased usage of cemeteries for recreational use in warmer winters	Demand for increased garbage removal, grounds maintenance required, increased staffing support is required during winter
Hotter summers	TBD 2025	TBD 2025	More turf products required to promote grass growth due to loss from heat, lack of rain. Increased demand for water by public on plots for watering needs	FTE increase to accommodate longer seasons, increased budgetary needs to cover additional materials, water hauling equipment etc.

Table 7.0.1: Managing the Impact of Climate Change on Assets and Services

Climate Impact (Assets level or Service level)	Current Position (Today)	Projected Position (in 10 years)	Potential Impact on Assets & Services	Climate Management Plan
Warming climate	TBD 2025	TBD 2025	New or increase in obnoxious weeds or invasive species impacting public areas of cemeteries as well as sensitive ecological areas.	Increased resources to for invasive species management.
Increased rainfall contributing to flooding of assets	TBD 2025	TBD 2025	More flooding putting stress on existing drainage infrastructure to avoid interruption to burials, funerals.	Increased capital needs for additional drainage infrastructure investment.

Additionally, how cemeteries construct new assets should recognize that there is an opportunity to build resilience to climate change impacts. Building resilience can have the following benefits:

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

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

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this DAMP. The financial projections will improve as the discussion on desired service and asset performance matures.

8.1 Financial Sustainability and Projections

This section outlines the financial requirements derived from the data in the preceding sections of this DAMP. The financial forecasts will be refined through ongoing discussions about the desired service levels and as Asset Management expertise within Chatham-Kent matures. It is crucial to align the budgeting process, the LTFP, and the DAMPs to ensure that all Cemetery needs are addressed while the municipality establishes a definitive financial strategy with measurable goals and targets.

Effective asset and financial management will enable the Cemetery department to ensure its services provide the appropriate level of service for the community to achieve its goals and objectives. Reporting to stakeholders on service and financial performance ensures the Municipality is transparently fulfilling its stewardship accountabilities. The LTFP is critical for the Cemetery department to ensure the network lifecycle activities, such as renewals, operations, maintenance, and acquisitions, can happen at the optimal time.

Reporting on service and financial performance to stakeholders guarantees that the Municipality is transparently fulfilling its stewardship responsibilities.

8.1.1 Sustainability of service delivery

Two key indicators of sustainable service delivery are considered in the DAMP for this service area. The two indicators are:

- **Asset Renewal Funding Ratio** (proposed renewal budget for the next 10 years / proposed renewal outlays for the next 10 years shown in the DAMP), and
- **Lifecycle Funding Ratio** (proposed lifecycle budget for the next 10 years / proposed lifecycle outlays for the next 10 years shown in the DAMP).

Asset Renewal Funding Ratio - (ARFR)

Asset Renewal Funding Ratio **100%**

The Asset Renewal Funding Ratio is an important indicator that illustrates that over the next 10 years, cemeteries expect to have 100% of the funds required for optimal asset renewal. The forecast renewal works along with the proposed renewal budget and the cumulative shortfall where one exists.

Lifecycle Funding Ratio – 10-year financial planning period

Lifecycle Funding Ratio **100%**

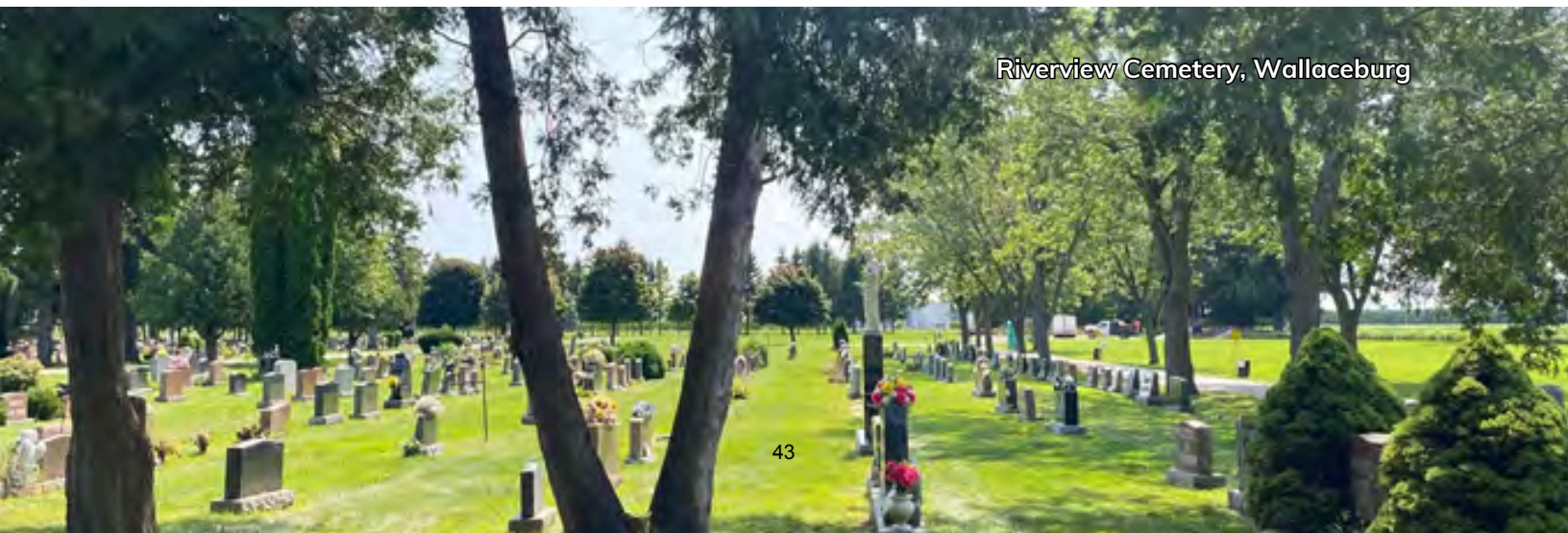
This DAMP identifies the forecast operations, maintenance and renewal costs required to provide an agreed, and affordable level of service to the community over a 10-year period. This provides input into 10-year financial and funding plans aimed at sustainably providing the required services.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance, and renewal costs over the 10-year planning period are, on average, **\$1,445,383** per year.

The proposed (budget) operations, maintenance and renewal funding is **\$1,445,383** on average per year giving a 10-year funding shortfall of **\$0** per year. This indicates that **100%** of the forecast costs needed to provide the services documented in this DAMP are accommodated in the proposed budget. Note that these calculations exclude acquired assets.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the DAMP and ideally over the 10-year life of the Long-Term Financial Plan.



8.2 Forecast Costs (outlays) for the long-term financial plan

Table 8.2.2 shows the forecast costs (outlays) required for consideration in the 10-year long-term financial plan. Providing services in a financially sustainable manner requires balancing the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates that further work is required to review service levels in the DAMP and/or financial projections in the LTFP.

Cemeteries will manage any ‘gap’ by developing this DAMP to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Table 8.2.2: Forecast Costs (outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2024	-	\$1,241,000	\$59,600	\$10,000	\$10,000
2025	\$600,000	\$1,249,000	\$40,600	\$10,000	\$10,000
2026	\$200,000	\$1,256,000	\$56,100	\$2,500	\$10,000
2027	-	\$1,262,000	\$26,100	\$2,500	\$10,000
2028	-	\$1,303,000	\$45,600	-	-
2029	-	\$1,326,000	\$45,600	-	-
2030	-	\$1,349,000	\$45,600	-	-
2031	-	\$1,372,000	\$45,600	-	-
2032	-	\$1,395,000	\$45,600	-	-
2033	-	\$1,418,000	\$46,600	-	-
Total	\$800,000	\$13,171,000	\$457,400	\$25,000	\$40,000

Forecast costs are shown in 2024 dollar values.

8.3 Funding Strategy

The cemeteries' budget and Long-Term financial plan outline the proposed asset funding.

The financial strategy of Chatham-Kent will determine how funding will be provided. In contrast, the DAMP communicates how and when this will be spent and the service and risk consequences of various service alternatives.

8.4 Valuation Forecasts

Asset values are forecast to increase as additional assets are added into service. As projections improve and can be validated with market pricing the net valuations will increase significantly. Additional assets will add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs for future renewals.

Any additional assets will also add to future depreciation forecasts. Any disposals of assets would decrease the operations and maintenance needs in the longer term and would remove the high costs renewal obligations. At this time, it is not possible to separate the disposal costs from the renewal or maintenance costs however this will be improved for the next iteration of the plan.

8.4.1 Asset valuations

The best available estimate of the value of assets included in this DAMP are shown below.

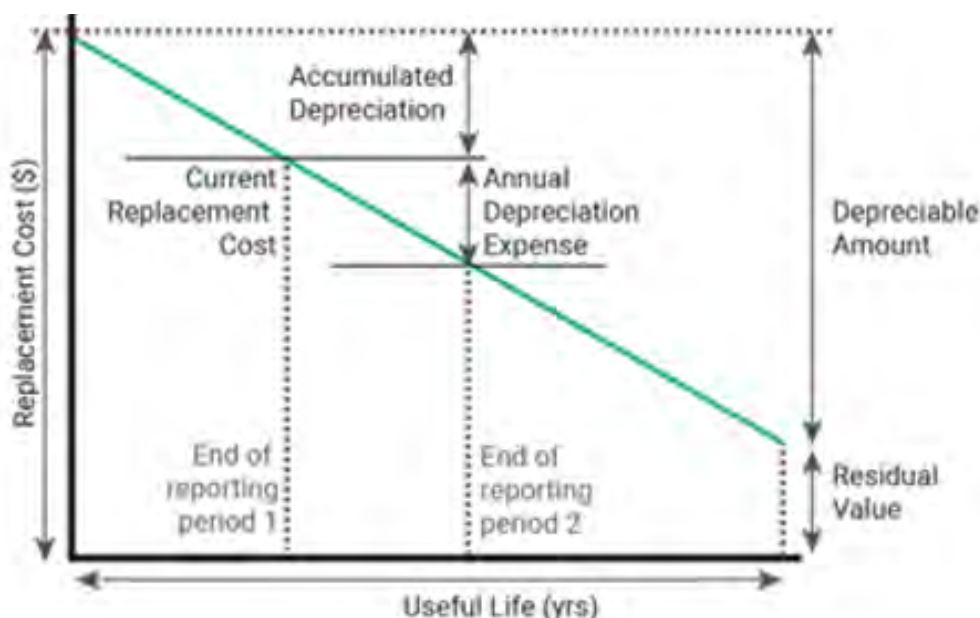


Table 8.4.2 Asset valuation table

Assets Valuation	Financial Value
Replacement Cost (Gross)	\$ 7,209,000
Depreciable Amount	\$ 7,209,000
Current Replacement Cost	\$ 4,061,000
Annual Depreciation Expense	\$ 133,370

Asset values are forecast to increase as additional assets are added to the service. Additional assets will generally increase operations and maintenance needs in the longer term, require additional costs due to future renewals, and contribute to future depreciation forecasts.

8.5 Key Assumptions Made in Financial Forecasts

Some assumptions were necessary to compile this DAMP. This section details the key assumptions made in its development and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts. Key assumptions made in this DAMP are:

- Assumptions were made regarding the existing and planned budget for operations and maintenance, using professional judgment
- Budgets have been allocated based on the best available data on assets

8.6 Forecast Reliability and Confidence

This DAMP's forecast costs, proposed budgets, and valuation projections are based on the best available data. The information must be current and accurate for effective asset and financial management. Data confidence is classified on an A - E level scale in **Table 8.6.1**.

Table 8.6.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this DAMP is shown in **Table 8.6.2**.

Table 8.2.2: Data Confidence Assessment for Data used in DAMP

Data	Confidence Assessment	Comment
Demand drivers	Medium	Demand drivers were derived from subject matter experts and will be reviewed for 2025
Growth projections	Medium	Growth projections were derived from subject matter experts and will be reviewed for 2025
Acquisition forecast	Medium	The acquisition forecast was prepared by subject matter experts and will be reviewed for 2025
Operation forecast	Low	The operation forecast was prepared by subject matter experts and will be reviewed for 2025
Maintenance forecast	Low	The maintenance forecast was prepared by subject matter experts and will be reviewed for 2025
Renewal forecast - Asset value	Low	Asset values were prepared by subject matter experts and will be reviewed for 2025
-Asset useful lives	Low	Asset useful lives were prepared by subject matter experts and will be reviewed for 2025
Condition modeling	Low	Condition modelling was prepared by subject matter experts and will be reviewed for 2025
Disposal forecast	Medium	The disposal forecast was prepared by subject matter experts and will be reviewed for 2025

The estimated confidence level and reliability of data used in this DAMP are considered **low-medium**.

9.0 PLAN IMPROVEMENT AND MONITORING

Status of Asset Management Practices

ISO 55000 Refers to this as the Asset Management System

9.1 Accounting and financial data source

This DAMP utilizes accounting and financial data. The sources of data are;

- Chatham-Kent 2024 - 2027 Multi-Year Budget (Capital & Operating)
- Internal Market Price Valuations
- AM Software Multi-Year Forecasting Models
- Council Reports Financial Exports from various systems
- Fleet procurement documents

9.2 Asset management data sources

This DAMP also utilizes asset management data. The sources of the data are;

- Asset Registers Insurance Data
- Tangible Capital Asset Data
- Building Condition Assessment Data
- Fleet Vehicle Data Inspection Logs
- Subject Matter Expert Knowledge
- Anecdotal Information

9.3 Continuous Improvement Plan

Chatham-Kent must recognize areas within the DAMP and within its planning processes that require future improvements to ensure effective asset management and informed decision-making. The tasks listed below are essential to improving the Asset Management Plan and the Municipality's ability to make evidence-based and informed decisions. These improvements span from improved lifecycle activities, financial planning, and plans to improve the assets physically.

The Improvement Plan, **Table 9.3.1**, highlights proposed improvement items requiring further discussion and analysis to determine feasibility, resource requirements, and alignment with current work plans. Future iterations of this DAMP will provide updates on these improvement plans.

The costs and resources to complete these tasks have yet to be included in the lifecycle models to data, and resource requirements would need to be reviewed for internal resource-driven projects.

The improvement plan generated from this DAMP is shown in **Table 9.3.1**.

Table 9.3.1: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Annually update replacement costs for DAMP	AQM, Cemetery Staff	10 Hours FTE	Ongoing
2	Determine Customer Level of Service measures for maintenance standards, availability of burial plots, and complaint resolution time	AQM, Cemetery Staff	20 Hours FTE	2025
3	Identify risks and impacts to service related to climate change	AQM, Cemetery Staff	30 Hours FTE	2025
4	Review Staffing capacity to ensure sufficient resources are available to meet the planned level of service	Cemetery Staff, AQM	15 Hours FTE	2025
5	Create a lifecycle model for each active cemetery	AQM, Cemetery staff	96 Hours FTE	2025-27
6	Review asset registry to improve Provincial Asset Retirement Obligation reporting	Finance, Cemetery Staff, AQM	20 Hours FTE	2025-27
7	Determine risk costs and complete workplan to manage risks	Cemetery Staff, AQM, Public Works	30 Hours FTE	2025-27

9.4 Monitoring and Review Procedures

This DAMP will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets resulting from budget decisions.

The DAMP will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

The DAMP has a maximum life of 1 year and will be updated annually. This plan will receive a complete revision and update in 2027 to enable the Chatham Kent cemeteries to be prepared for the 2028 4-year budget process.

9.5 Performance Measures

The effectiveness of this DAMP can be measured in the following ways:

- The degree to which the required forecast costs identified in this DAMP are incorporated into the long-term financial plan
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' work program trends provided by the DAMP
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans
- The Asset Renewal Funding Ratio achieves the Organizational target (this target is often 90 – 100%)

Document Control

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	August 2024	1st Detailed Asset Management Plan	Mike Smith	Director, Parks, Fleet & Facilities	Chatham-Kent Council

For more information, email
To view all the asset management plans, visit
www.chatham-kent.ca/assetplans