

PARKS ASSET MANAGEMENT PLAN



ACKNOWLEDGEMENTS

Parks & Property Services

Recreation & Culture

Engineering Services

Public Works Services

Office of D&IS Commission

Planning Services

Data Analytics and GIS

Finance

Procurement Services

Corporate Communications

Corporate Asset Management Office

Asset Management Steering Committee

Students

SLBC Consulting Partners

Infrastructure Solutions Inc

INTRODUCTION

The Town of Newmarket is committed to good governance through fiscal responsibility and financial sustainability in striving to meet the program and service needs of the community and its customers, including residents, local businesses and visitors. The Town of Newmarket will adopt and apply recognized Asset Management (AM) practices to plan, design, construct, acquire, operate, maintain, renew, replace and dispose of the Town's assets in a way that preserves sound stewardship of public resources while balancing levels of service and risk in support of delivering services to its residents and customers.

What Is Asset Management?

Asset Management is an integrated business approach involving planning, finance, engineering, maintenance and operations geared towards effectively managing existing and new infrastructure to maximize benefits, reduce risk and provide safe and reliable levels of service to community users at the best value. This is accomplished in a socially, culturally, environmentally, and economically conscious manner. AM relies on four key organizational components integrating together to achieve the desired service outcomes: well-planned strategies, good physical assets, highly trained professionals with respect to practices and procedures, and integrated business processes. These components, supported by appropriate technologies, provide a robust foundation for efficient service delivery.

Why a Plan?

AM plans are part of Newmarket's long term strategic, planning, and financial management. They also enable and support many Town operational processes. AM Plans guide Newmarket's processes to reflect sound and accountable governance of its municipal infrastructure. The plans provide an understanding of current and future asset needs, condition and costs, service levels, risks and future growth planning and funding. The AM Plans are a living document to be reviewed and updated as the environment changes. This includes considering and incorporating standards, adding new data, updates that demonstrate continuous improvement, changing demographics and trends, provincial policy, and corporate documents and studies. At a minimum, the

plans will be reviewed annually and updated every 5 years as mandated by O.Reg 588/17.

Each plan includes four chapters that build a holistic understanding of the Town’s assets and their future:

- Know Your Assets: Establishes the baseline of what the Town owns, its condition, and replacement cost to inform subsequent analysis, reporting, and decisions.
- Manage Service Delivery: Brings visibility to levels of service, risk, and activities that support services through a framework for managing asset-related services holistically.
- Future Ready: Showcases ongoing and future trends that will impact the Town’s assets and services. This includes growth in the asset base, and the impacts of climate change on assets.
- Financial Strategy: Uses capital financial modeling to show the cost of maintaining assets at their current level of service, the outcomes of current levels of funding, and options for future financial decisions.

Scope & Service Areas

In 2021, the Town produced its asset management plans for core assets: roads, bridges, water, wastewater, stormwater. In 2023, asset management plans were added for two areas: Parks (this document), and Facilities. Asset management plans will be updated and consolidated again in 2025 to produce the Proposed Levels of Service & Financial Strategy required by O.Reg. 588/17.

The scope of this document and the Town’s series of AMPs is summarized in Figure 1.



Figure 1 – Overview of Asset Management Planning Documents

Links to 2021 Core Asset Management Plan

The Parks Asset Management Plan uses Town frameworks for asset management planning and reporting that were first developed in 2021 with core assets. The approach and rationale for all content in the Town's asset management plans is provided in a section called Concepts and Frameworks. The purpose of this information is educational but also to provide structure and consistency to all Town reporting.

Recommendations Made by the 2021 Core Asset Management Plan

The 2021 Core Asset Management Plan provided several recommendations, many of which were specific to the assets considered (roads, water, etc.). There were also several strategic recommendations that were overarching to the Town's corporate asset management practice. These strategic recommendations apply to all assets including those included in this document and are referenced here. Their implementation will be guided by the Asset Management Steering Committee. The recommendations are:

1. Establish data management practices such as data owners, formats, collection and reporting frequencies, and links between data and decision-making.
2. Develop a condition assessment framework that supports condition scales and data collection programs.
3. Develop options for implementing an asset registry tool that can support reporting of the State of the Infrastructure, as well as other functions like Financial Information Return.
4. Develop a governance model for AM at all levels of the organization, and clarify roles and responsibilities across the asset portfolios.
5. Adopt the levels of service measures and create processes to support their data collection, reporting, and use in decision making in preparation for 2025 O.Reg. 588/17 requirements.
6. Develop Levels of Service targets for measures in the asset management plans.
7. Implement corporate risk management practices (ex. Corporate Risk Management Policy & Framework).

8. Build greater connections between the planning and asset management processes.
9. Advance climate change adaption and resilience policies to guide staff and inform on decision making.
10. Develop funding strategies for proposed Levels of Service targets to meet O. Reg 588/17 2025 requirements.
11. Look for continuous improvement opportunities to extend the life of assets and prevent early replacement through condition assessments and rehabilitation technologies.
12. Develop a strategy to increase capital delivery capacity to deliver on AM Plans.
13. Create risk management plans for the upcoming periods where renewal needs will exceed capital reinvestment capacity.
14. Create a reserve management strategy to inform how funds or new revenues are allocated to different reserves with different financial positions and different funding sources.
15. Facilitate the defining and quantifying of human resource requirements for asset lifecycle activities



KNOW YOUR ASSETS

The Town is responsible for \$3 Billion+ of assets. Assets exist to provide services to the community. Their ability to deliver services depends on Town stewardship and informed decision making. As assets age they have to be replaced. Key takeaways in this section will include:

- What do we own?
- What condition is it?
- What would it cost to replace?

Know Your Assets is the first section of the asset management plan, and sets the foundation for analysis by establishing an authoritative view of what assets the Town owns. The characteristics and history of these assets including their age, condition, and replacement cost inform future forecasting, which is an extrapolation of the current state of the infrastructure.

Continually monitoring the state of the infrastructure through Know Your Assets and annual infrastructure report cards allows these outlooks to be refined and updated with improved data and a log of past performance. As more data is gathered and improved, so too does the Town’s understanding of service levels and risks/opportunities.

Know Your Assets answers several questions (Table 1):

Table 1 - Summary of Key Information in the Know Your Assets Chapter

Know Your Assets Information	Impact to Town and Asset Management
What is the Current State of Our Data?	Asset management is a data driven practice. The success of the asset management plans is incumbent upon maintain good data and using it to make decisions.
What Asset Do We Own?	Quantifying and classifying assets in a standard manner allows for planning and analysis.
What Age Are Our Assets?	The history of when assets are constructed tell us what lifecycle stage they are in, how they are performing relative to their age, and when they may need a replacement.
What Would It Cost to Replace?	Up-to-date costing of assets ensures financial forecasting accounts for the full lifecycle cost while accounting for factors like inflation.
What Condition Are They?	Based on age or visual engineering observations, condition indicates the level of service and likelihood of failure for an asset, leading to the urgency or timeline for a potential replacement.
What Are We Spending and Saving?	The Town can influence the State of the Infrastructure by saving funds in reserves for future capital replacements and by spending funds on capital delivery to improve asset conditions. Reporting this alongside asset condition shows how these actions correlate.

DATA GAP ANALYSIS

Asset data is the first part of Know Your Assets and forms the foundation for the State of the Infrastructure. Further information about the approach to Data Gap Analysis can be found in the 2021 Core Asset Management Plan.

Using the requirements of a standard asset registry, the results of the gap analysis of the Parks asset registry are provided. When viewing subsequent sections of the asset management plan that use asset data, consideration should be given to the data gaps described here.

As shown in Figure 2, location, replacement value, and service life data are complete. There is a notable gap in condition data with most assets lacking observed condition data. For these assets, condition will be estimated based on asset age and estimated service life, until at which time condition data can be collected (recommendations provided). Using age is an industry standard practice but provides an opportunity for improvement.

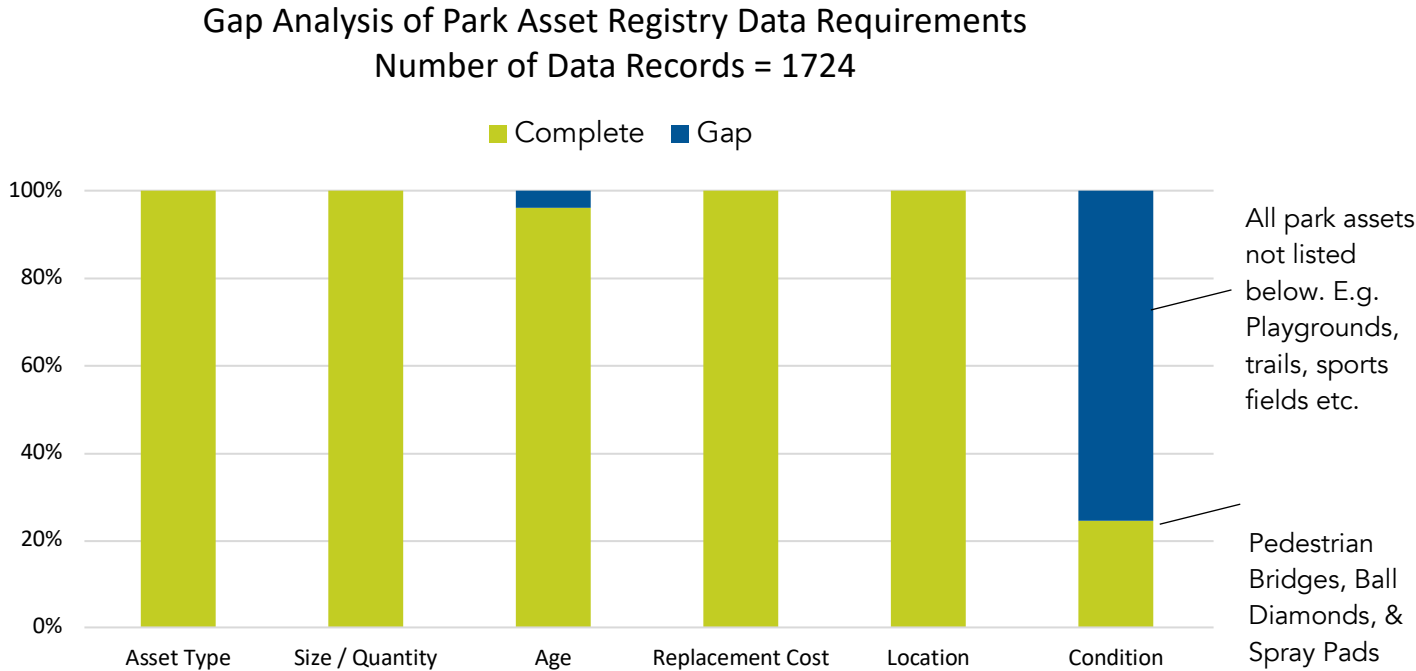


Figure 2 - Gap Analysis of Park Asset Registry Used in the Parks AM Plan

CONTEXT OF THE STATE OF THE INFRASTRUCTURE

The State of the Infrastructure will combine inventory quantities, replacement costs, and condition ratings to provide a detailed breakdown of the Town’s assets.

What Do We Own? The inventory has been organized into a hierarchy to reflect the asset types providing the service, and to support reporting and planning. A high-level illustration of the scope of the Parks asset management plan is shown in Figure 3 below. A detailed illustration of the scope of the Parks asset management plan is shown in Figure 4 on the following page.

- The following Park asset types are excluded from this iteration of the Parks AM Plan due to a lack of inventory data: signs, plaques, flagpoles, information boards, public art, fencing, retaining walls, lighting, servicing, and horticulture.
- The following Park asset types are also excluded as they have been captured in the Facilities AM Plan: outdoor pool, water features, skating rink, maintenance buildings, and washrooms.

This inventory will be used to report on replacement valuations, service delivery, operations and maintenance, growth, capital planning, and financing scenarios.

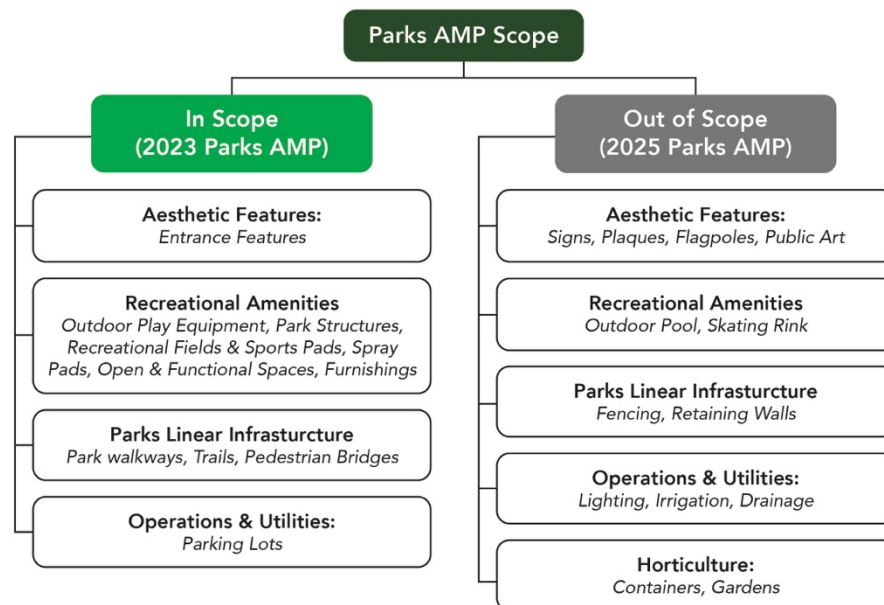
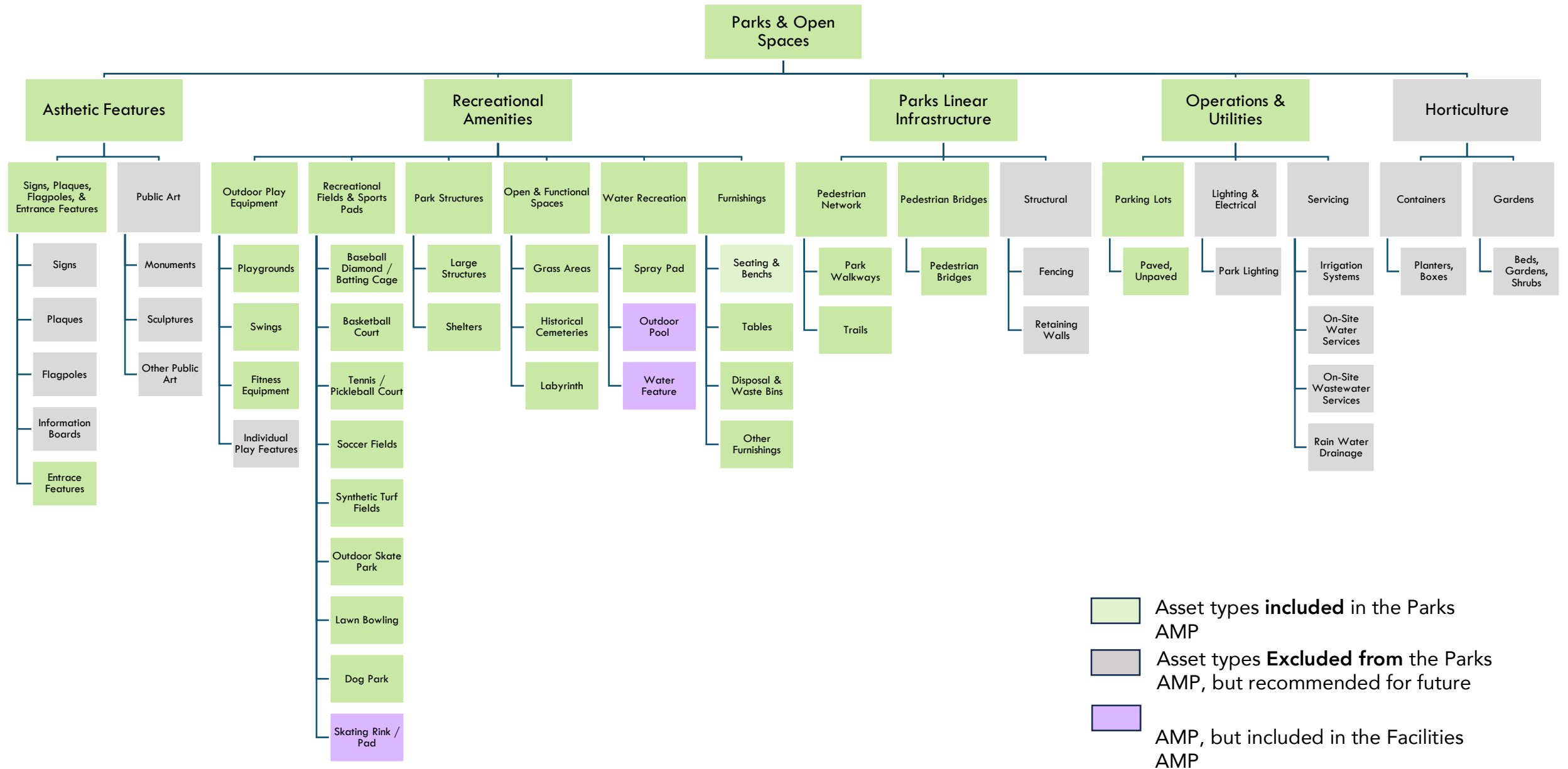


Figure 3 - High-level scope of Parks Asset Management Plan

Figure 4 – Scope of the Parks Asset Management Plan Asset Hierarchy



What Does It Cost? The total replacement cost of Parks assets is ~ \$93.3 million (2022 dollars). This is equivalent to 3% of all Town-owned assets, and 19% of non-core assets subet (parks, facilities etc.) not reported in 2021 as core assets (roads, bridges, water, wastewater, and stormwater). This is summarized in Figure 5.

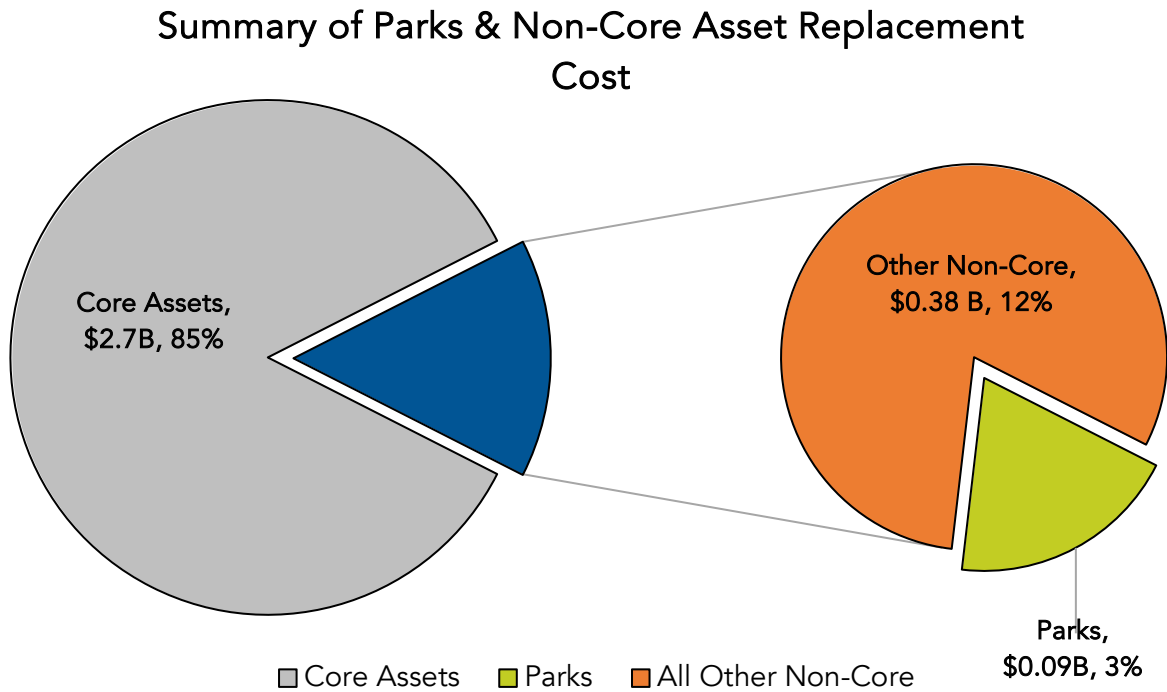


Figure 5 – Summary of Replacement Cost Compared with Total Town Core & Non-Core Assets

What Condition Is It?

Assets are assigned condition ratings on a 5-point scale as shown in Table 2.

Condition ratings for most assets are assigned based on the estimated remaining service life which is a function of the linear relationship between the asset’s age and its estimated service life. However, some assets have been assigned a rating based on in-field condition inspection data undertaken by Town staff (e.g., baseball diamonds, batting cages, spray pads, parking lots), or Bridge Condition Index (BCI) data collected for the pedestrian bridges.

Table 2 – Parks Condition Rating Index

Condition Ratings – Parks Asset Condition Index Percentage of Remaining Useful Life		
Category	Percentage	Description
Very Good	100%-75%	The asset is fit for the future. It is well maintained, in good condition, new or recently rehabilitated.
Good	74%-50%	The asset is adequate. It is acceptable and generally approaching the mid-stage of its expected service life.
Fair	49%-25%	The asset requires attention. The asset shows signs of deterioration, and some elements exhibit deficiencies.
Poor	24%-0%	There is an increasing potential for its condition to affect the service it provides. The asset is approaching the end of its service life, the condition is below the standard and a large portion of the system exhibits significant deterioration.
Very Poor	0%	The asset is unfit for sustained service. It is near or beyond its expected service life and shows widespread signs of advanced deterioration. Some assets may be unusable.



Parks Infrastructure Report Card



INFRASTRUCTURE PURPOSE

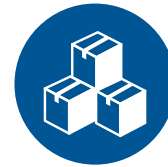
The Town's Parks and Recreation facilities provide accessible and inclusive spaces for people to gather, exercise, and build a sense of community. Parks are maintained to ensure that they remain safe and accessible to everyone in the community.



REPLACEMENT COST:
\$93.3 Million



AVERAGE NETWORK CONDITION
FAIR



INVENTORY
Total Assets: 1,387
Walkways & Trails: 47km

DETAILS:

Life Expectancy: To date our park assets have used, on average, 42% of their expected life span with 58% of their life span remaining.

Average Rating: Fair

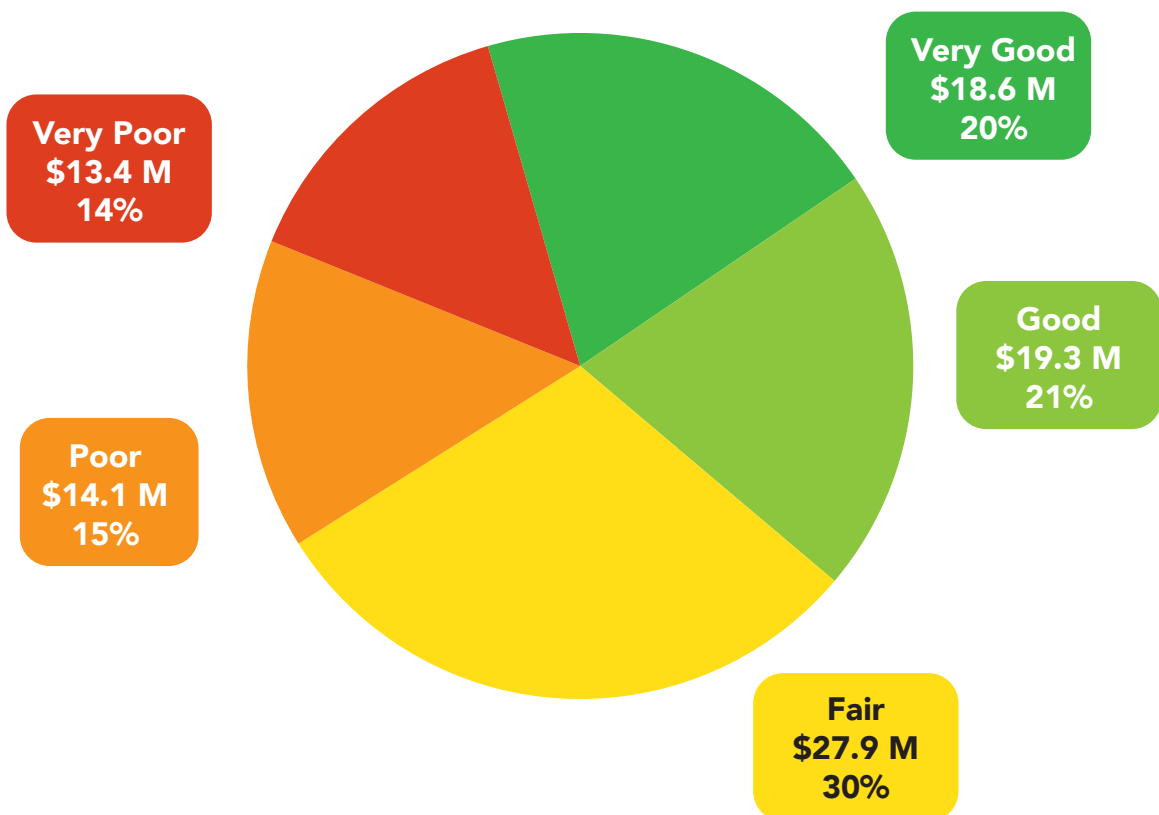
■ Current Average Age ■ Average Remaining Life



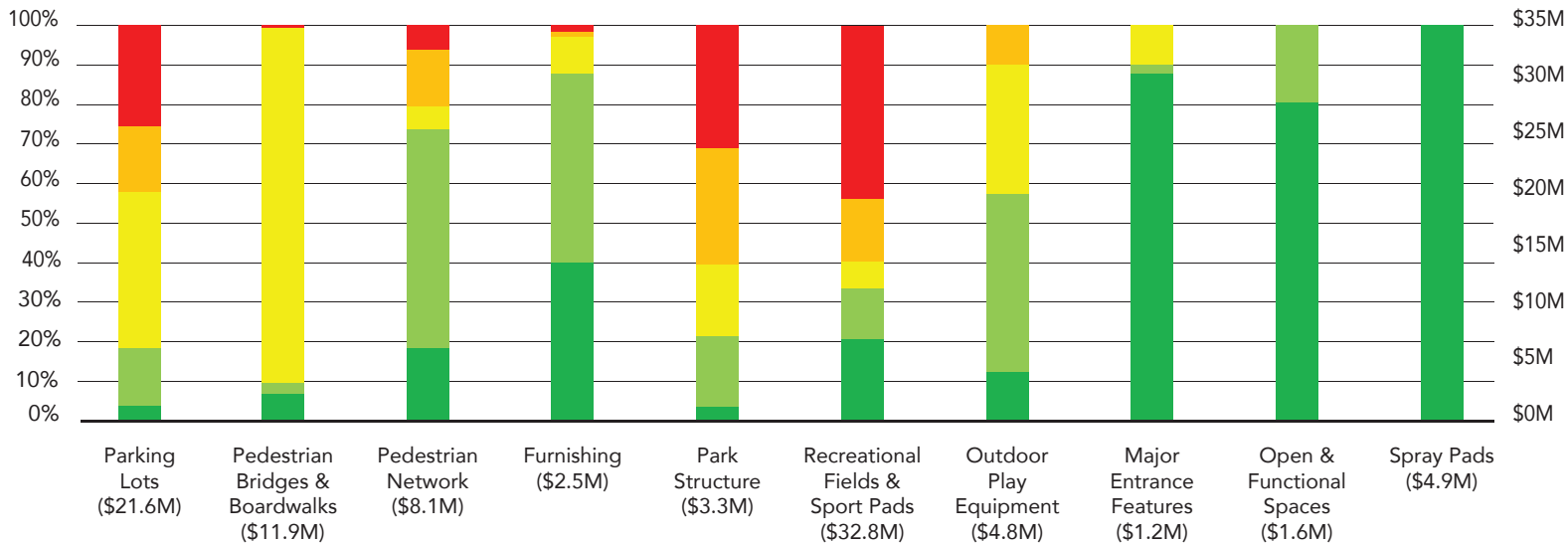
WHAT CONDITION ARE OUR ASSETS IN?

■ Very Good ■ Good ■ Fair ■ Poor ■ Very Poor

Current Condition & Replacement Cost (Millions)



Parks Condition Breakdown by Asset Type

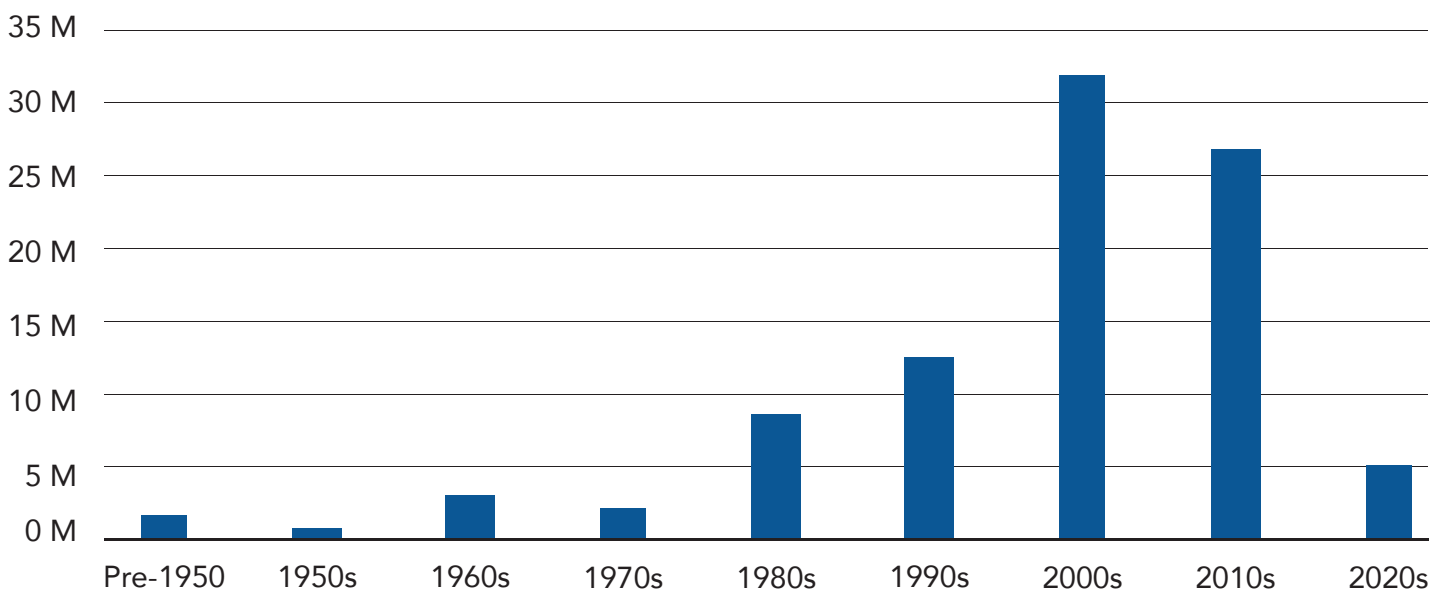


WHAT ASSETS DO WE OWN?

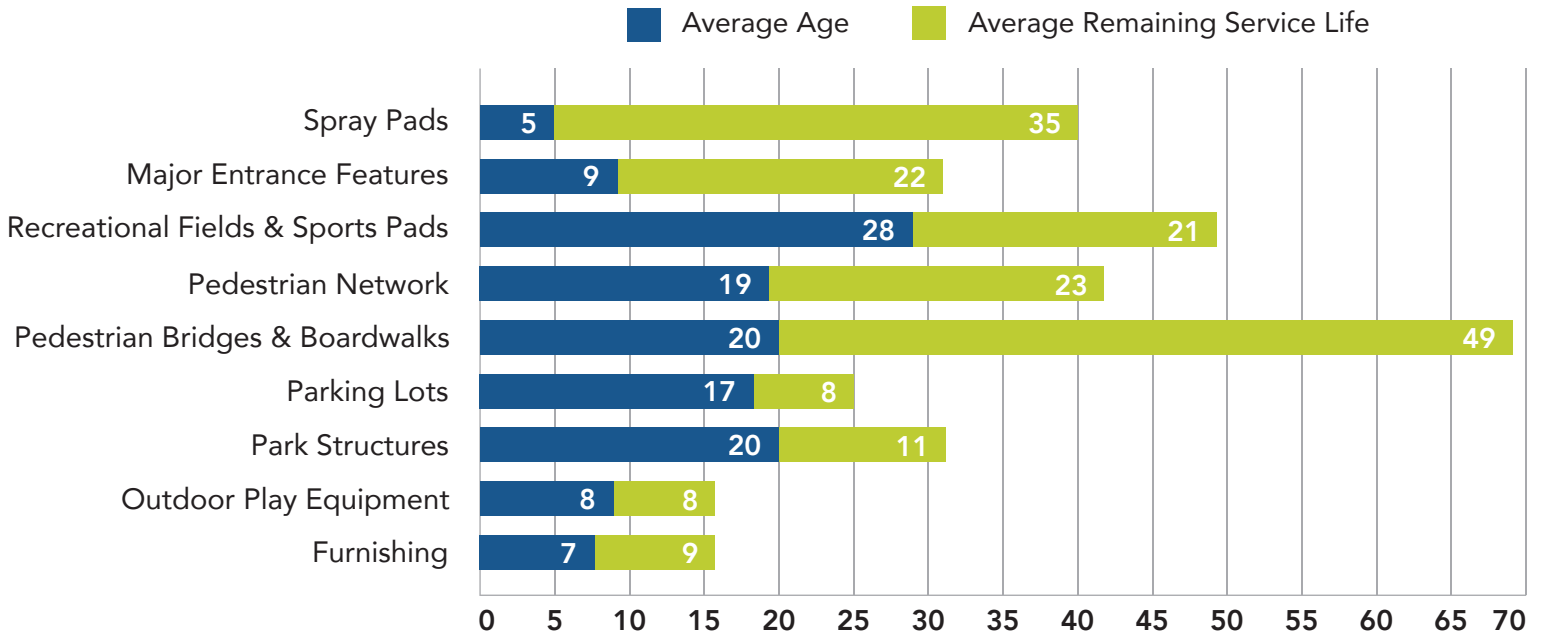
Park Assets	Quantity	Replacement Value (2023 \$)
Service: Administration and Operations		
Major Entrance Features	8 units	\$1,256,504
Recreational Amenities		
Recreational Fields & Sports Pads	83 units	\$32,887,123
Outdoor Play Equipment	119 units	\$4,834,170
Park Structures	18 units	\$3,376,635
Open & Functional Spaces	51 units	\$1,627,818
Spray Pads	3 units	\$4,982,104
Furnishings	985 units	\$2,549,200
Parks Linear Infrastructure		
Pedestrian Network	47 km	\$8,219,444
Pedestrian Bridges	35 units	\$11,895,116
Operations & Utilities		
Town-wide Parking Lots	85 units	\$21,622,214
TOTAL	1,387 units 47 km pedestrian network	\$93,292,029

HOW OLD ARE OUR ASSETS?

Decades of Park Asset Installation

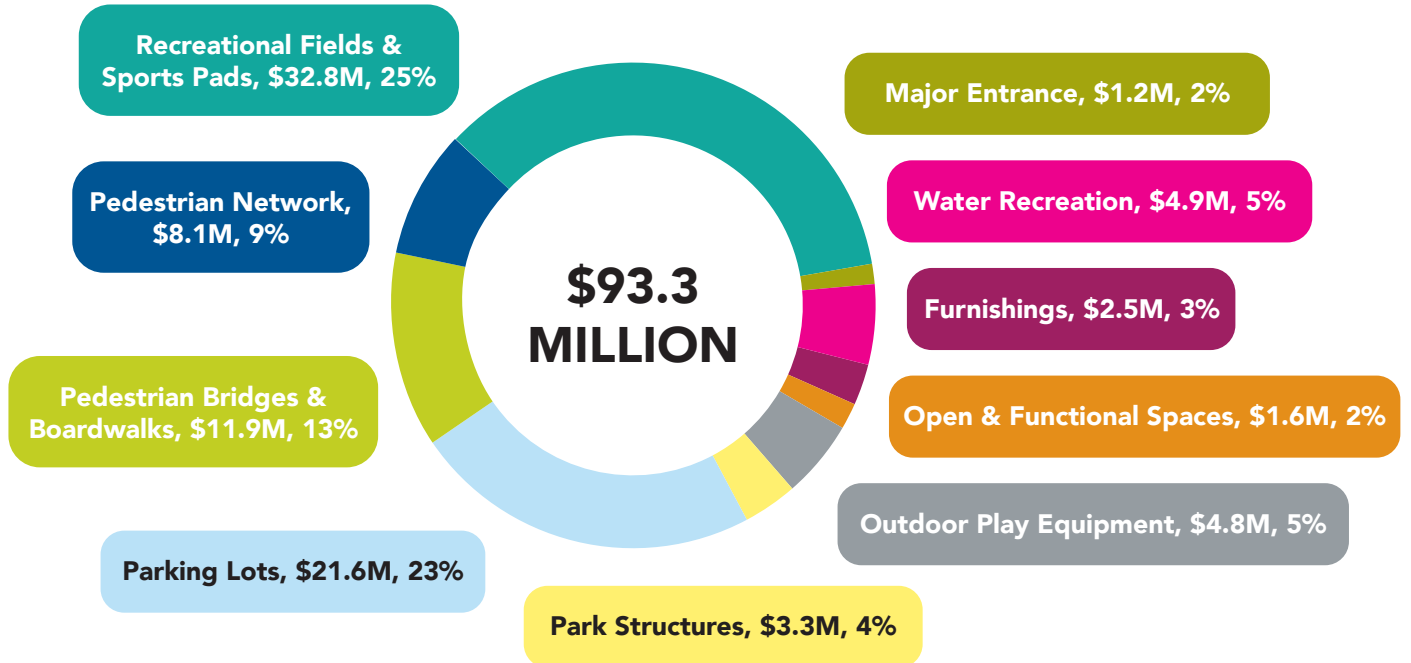


Average Age and Expected Service Life of Park Assets



WHAT WOULD OUR ASSETS COST TO RECONSTRUCT IN 2023?

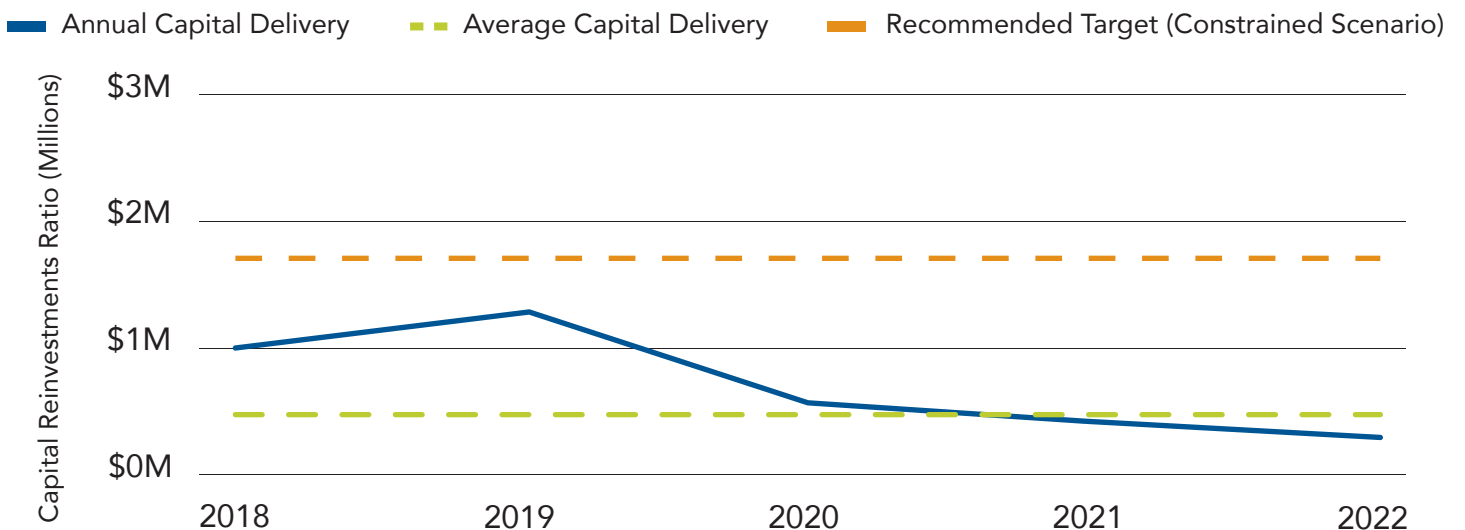
Total Asset Replacement Cost of Park Assets



CURRENT CAPITAL SPENDING

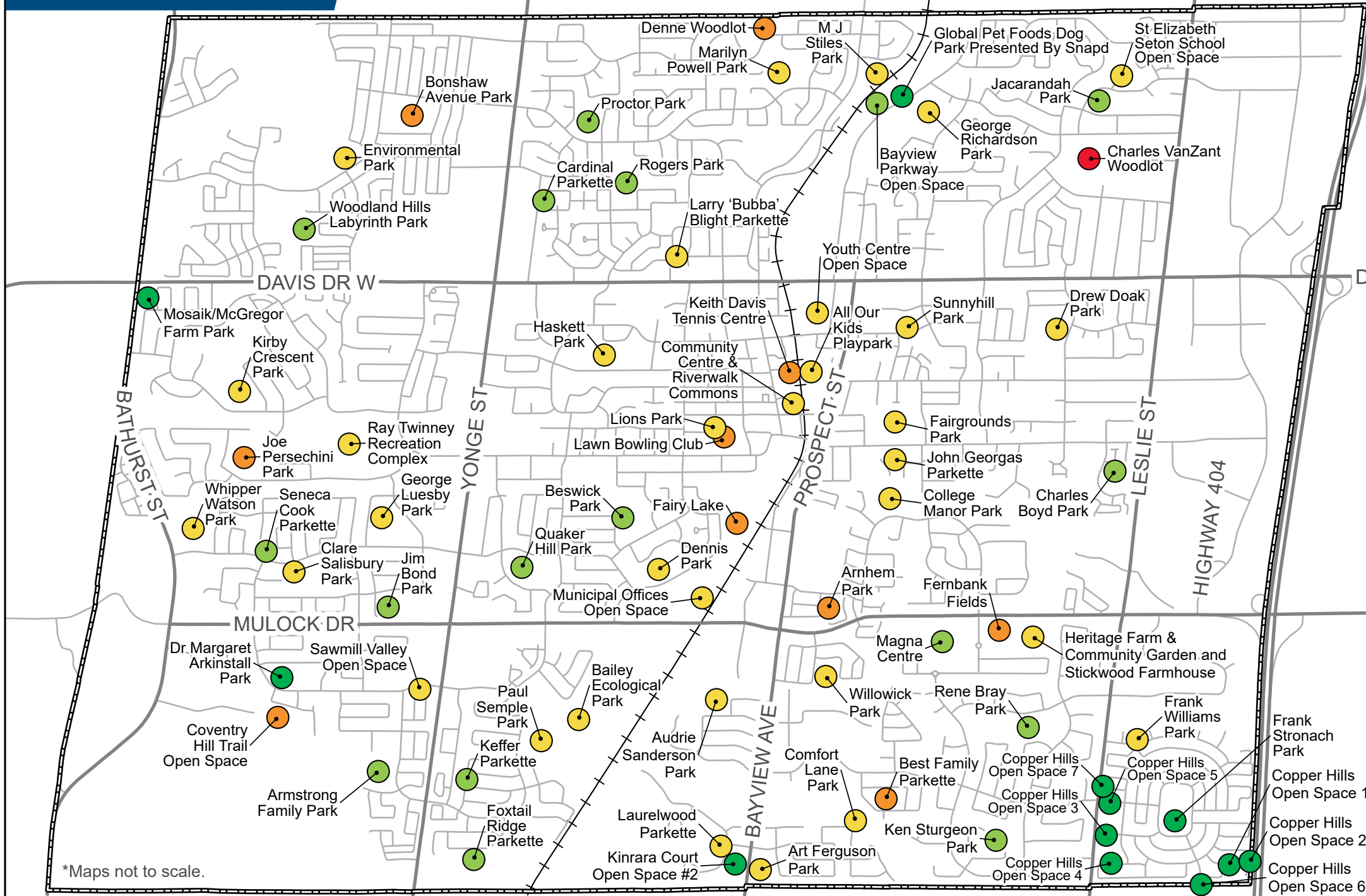


Historical Capital Reinvestment in Park Assets



Note the decrease in 2020-2022 capital delivery is attributed to the COVID-19 pandemic

Town of Newmarket – 2023
Condition of Parks



Legend

Park Function

- Recreation & Community

Asset Condition

- Very Good
- Good
- Fair
- Poor
- Very Poor

— Major Road

— Road

+ Railway

▭ Municipal Boundary

*Maps not to scale.

Sources: Roads, Railway, Municipal Boundary - Data, Analytics and Visualization Services Branch, Corporate Services © The Regional Municipality of York, 2024; All other data - © Town of Newmarket, 2024.
 DISCLAIMER: The information depicted on this map has been compiled from various sources. While every effort has been made to accurately depict the information, data/mapping errors may exist. This map has been produced for illustrative purposes only. It is not a substitute for a legal survey. Printed: April, 2024.
 Document Path: G:\Projects_PRO\CorporateServices\Finance\AssetManagement\Infra_Report_Card\Infra_Report_Card.aprx\Parks_Condition_2023_Report Map 8x14

CONDITION ASSESSMENT PLAN

Condition Assessment Plan for Parks

Concluding “Know Your Assets”, the Town will use condition assessments to increase knowledge of the assets, monitor performance, and refine financial projections. The Town’s approach to condition assessments is described within the Concepts and Frameworks presented in the 2021 Core Asset Management Plan.

Strategy for Parks

The Town has historically maintained park asset conditions operationally through regular inspections and maintenance and is now working towards formalizing current practice with a data-driven approach.

Currently, a combination of approaches are used to assign a condition ratings for park assets (i.e., Very Good, Good, Fair, Poor, Very Poor) based on the condition information available for each asset (i.e., building condition assessments, town-led condition inspections, or age-based assumptions). Where observed condition ratings are not available, condition score is typically assigned based on the estimated remaining service life, which is a function of the linear relationship between the asset’s age and its estimated service life.

There is limited condition inspection data available for the park assets to refine the current age-based estimates. As shown in Figure 6, condition inspection data is currently available for approximately 30% of the current value of the total asset inventory.

Implementation of the proposed Condition Assessment Plan, as described further below, will result in a gradual reduction in this condition data gap, with improved reporting on observed asset condition in future updates of the Parks AM Plan.

Summary Progress Towards Baseline Condition Data

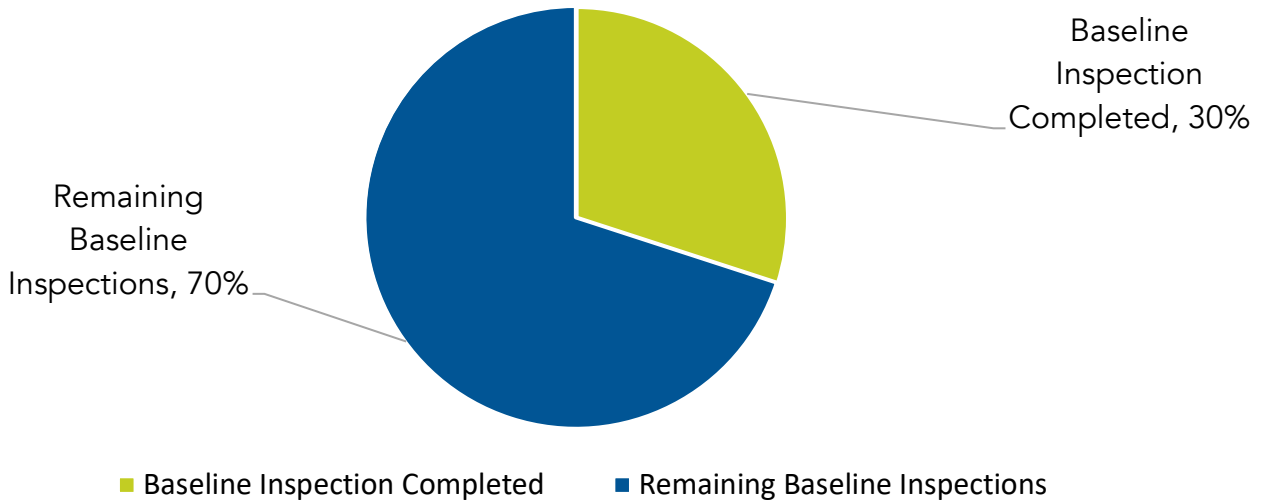


Figure 6 – Progress Towards Baseline Condition Data

Summary of Next Steps and Target for Parks

A summary of current achievements and future targets in the Town’s Condition Assessment Plan is outlined below in Table 3 – Comparison of Current and Desired Condition Assessment Plans. Opportunities to complete the next milestone in the condition assessment plan are captured as recommendations to conclude the “Know your Assets” section.

Table 3- Comparison of Current and Desired Condition Assessment Plans

Asset Group	Current Condition Assessment Plan			Desired Condition Assessment Plan		
	Approach	Freq.	Last Completed	Approach	Frequency	Responsible Party
Entrance Features	Age-based	n/a	2023 AMP	Condition Assessment	5-year interval	Town
Furnishings	Age-based	n/a	2023 AMP	Condition Assessment	5-year interval	Town
Labyrinth	Age-based	n/a	2023 AMP	Condition Assessment	5-year interval	Town
Spray Pads	Condition Inspection	n/a	2023 AMP	Condition Assessment	5-year interval	Town
Outdoor Play Equipment	Age-based	n/a	2023 AMP	Condition Assessment	Annually	Town
Park Structures	Age-based	n/a	2023 AMP	Condition Assessment	5-year interval	Consultant
Sports Fields and Courts	Age-based (1)	n/a	2023 AMP	Condition Assessment	5-year interval	Town
Walkways & Trails	Age-based	n/a	2023 AMP	Condition Assessment	5-year interval	Town
Pedestrian Bridges	OSIM BCI	Bi-Annually	2021 & 2023	OSIM BCI	Bi-Annually	Consultant
Parking Lots	Age-based	n/a	2023 AMP	Condition Assessment	5-year interval	Town

1 Town-led Condition inspections data provided for baseball diamonds and batting cages.

Recommendations

1. Formalize the datasets collected to produce the Parks Asset Management Plan by publishing them in a corporate database to set the foundation for data management, analysis, and applications.
2. Create a data management process for the datasets collected to produce the Parks Asset Management Plan, including review cycles, methods of adding and retiring assets, updating attributes, and appending new condition assessment records.
3. Address existing gaps in the Parks asset inventory & associated data attributes (age, size, surface, material, etc.).
4. Establish tools for staff to access and analyze the datasets collected to produce the Parks Asset Management Plan to enhance current duties.
5. Create a process for managing and updating the parks asset hierarchy.
6. Develop a common system of Parks classification to be used corporately based on design standards, regulatory requirements, and other considerations.
7. Update the Tangible Capital Asset (TCA) process to itemize the assets reported in the Parks Asset Management Plan, track asset acquisitions/disposals, and establish a feedback cycle for asset unit costing.
8. Define the approach to updating unit costs annually and inflating the value of park asset unit costs.
9. Develop tools & processes for future park asset condition assessments including frequency, roles & responsibilities, staff input, role of contractors, and use of risk-based practices.
10. Develop/implement a Condition Assessment plan to guide the Town's AM program in improving the collection, storing, reporting, and analyzing multiple years of asset condition data. Implementation of the condition assessment plan will result in the gradual reduction in this data gap.



MANAGE SERVICE DELIVERY

In This Section: Asset management is not software, or a document. It is a way of doing business every day. Asset management requires processes to balance the services provided, the risks associated, and their cost. To make tradeoffs, visibility is needed into what is being done and why. Key takeaways will include:

- What services do we provide?
- What activities support services, and who does what?
- What are the risks of our services?

The expenses the Town incurs over the lifecycle of the asset are taken with the goal of ensuring residents and business continue to receive exceptional service from the Town. However, providing services like recreation or fire services through assets are not a cost-free or risk-free enterprise. Every day, owning assets presents risks, costs, and opportunities that need to be managed by people and processes that can make decisions. The intent of Manage Service Delivery is showing how asset management balances trade-offs to deliver value.

Manage Service Delivery is the second chapter of the individual asset management plans. This section shows levels of service, lifecycle activities, and risk. The approach to this section is provided in the 2021 Core Asset Management Plan's Concepts & Frameworks.

Measuring Levels of Service

Levels of Service (LoS) are measured by the service outcomes, the performance of assets, and by activities that support the service. The Town is currently measuring three types of levels of service:

- **Customer Levels of Service** – This is the level of service the Town commits to providing the customers. These are often measured by how they are perceived by the customers and will require non-technical measures.
- **Technical Level of Service** – This is the established level of service the asset is expected to provide throughout its lifecycle and is specific and quantifiable for the asset.
- **Regulatory Requirements (O. Reg 588/17)** – The minimum levels of service measurements that the Town is required by the Province to measure and report on. The regulation does not require achieving a level of service, only the public reporting of the measurements.

Over time, the Town can strive to understand what aspects of a service are important to customers and align these with LoS decisions. Further performance measures will also need to be added as the Town develops a balanced LoS scorecard.

Legislative Requirements

Legislative requirements describe the minimum activities or outcomes the Town must deliver through its service delivery as directed by laws, regulations, and directives from regulators like the Province. There are a number of constraints and requirements that steer how the Town delivers services. Compliance with regulations must always be ensured in order to avoid fines, legal action, or loss of funding opportunities. These requirements can be understood as the minimum Level of Service.

Lifecycle Activities at the Town

Each asset management plan contains a breakdown of the lifecycle activities for each asset class in the service area. Lifecycle strategies are the planned actions and intended methods of maintenance management for an asset throughout its life. The purpose of lifecycle strategies is to maintain the asset in an appropriate state that will deliver the required level of service for least overall cost, while keeping risk within agreed boundaries.

Risk

Each asset management plan presents the results of an asset-based risk assessment. The 2021 Core Asset Management Plan provides a roadmap to managing the two other types of risk – service level (operational) and strategic.

LEVEL OF SERVICE ALIGNMENT

The levels of service measures are organized to create alignment between Town strategic objectives, a corporate goal for the service (e.g., park assets), and the subsequent service criteria and technical/customer measures. The benefit of this approach is ensuring the broader goal and outcomes of a service can be monitored and addressed through specific measures and actions. Metrics have been listed and aligned before presenting the results in the following section. The result of this process is shown as follows (Figure 7).

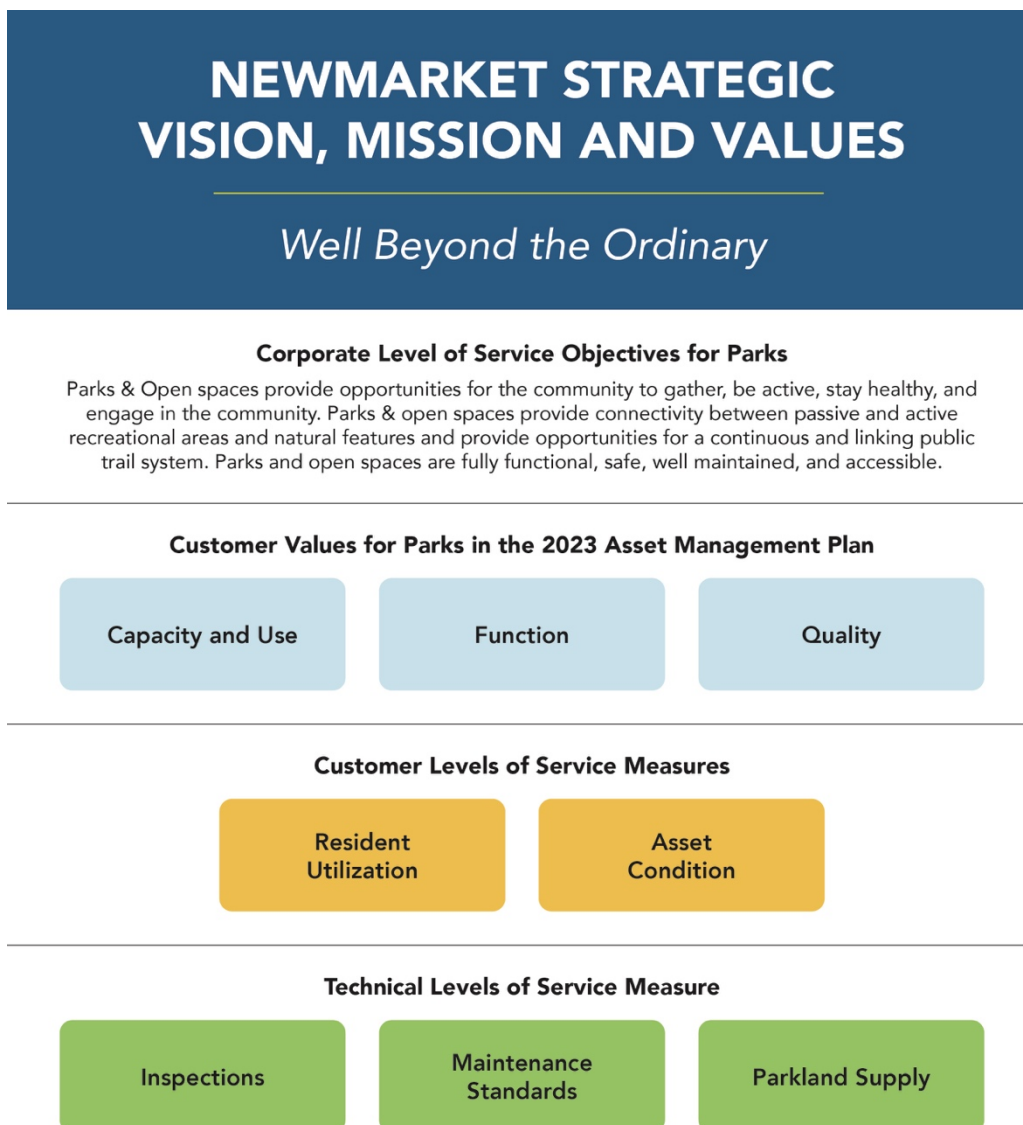






Figure 7- Parks Levels of Service Alignment with Newmarket Strategic Mission & Values

Levels of service results are presented below using the metrics developed for the Parks Asset Management Plan:



Legend			
Symbol	Meaning	Symbol	Meaning
	Trending up in the desired direction.		Trending down in an undesired direction.
	Trending down in the desired direction.		Trending up in an undesired direction.

PERFORMANCE AND RESULTS

Customer Levels of Service

Measure	2023 Performance	2022 Performance	2021 Performance	Trend*
Baseball Diamond Utilization Rate	43%	Historical data not available		Trends to be identified in next reporting year.
Soccer Field Utilization Rate	39%			
Percentage % of assets within service life		86%		
Percentage (%) in Fair or Better Condition		65%		
Percentage (%) of Assets in Very Poor Condition		23%		

Technical Levels of Service

Measure	2022 Performance	2021 Performance	Trend*
Total Hectares of parkland per 1,000 residents	4.6	4.0	
% of CSA mandated playground inspections completed on-time. (CSA Z614:20)	100%	100%	

*Levels of service measures do not have endorsed targets. Trend observations are made on the basis of general recommendations related to the sustainability of assets, services, and finances.

Regulatory Levels of Service







None prescribed by Ontario Regulation 588/17 – Asset Management Planning for Municipal Infrastructure.

ILLUSTRATION OF CURRENT LEVELS OF SERVICE

As shown in Know Your Assets, the Town’s assets exist in a variety of condition states. The focus of the Parks Asset Management Plan’s LoS is the condition of the assets forecasted in the Financial Strategy section. The benefit of this approach is that condition is a good proxy for many service criteria. Financial decisions about what asset conditions will be financed ultimately impacts LoS. To illustrate this impact, a collection of images has been collected depicting the differences in condition and LoS of park assets in Table 4.

Table 4 - Condition and Level of Service with Examples from Different Assets

Condition	Images Illustrating Different Condition Levels of Assessment (not all Town assets)		
Very Good			
Good			
Fair			

Condition	Images Illustrating Different Condition Levels of Assessment (not all Town assets)		
Poor			
Very Poor			

LEGISLATIVE REQUIREMENTS

Legislative requirements were gathered for Parks Asset Management Plans to support future discussions about budget, service delivery, and minimum service level requirements.

New Upcoming Legislative Requirements

At the time of AMP publication there are no upcoming regulatory requirements known for Parks that would impact the Town’s levels of service or budgets.

Current Legislative Requirements

The Town currently operates within several regulatory requirements. As the regulatory environment changes, the minimum Level of Service the Town provides may also change. Current regulatory requirements are as follows (Table 5):

Table 5 - Current Regulatory Requirements

Legislation	Overview	Impact to Asset Management
<p>Playground Equipment and Surfacing Standards CSA Z614:20</p>	<p>CSA Z614:20 sets the standards on how Parks & Property Services staff purchase, install and provide the necessary maintenance/inspections on play equipment such as swings, slides and many various types of play equipment.</p>	<p>Minimum purchasing, installation, and maintenance/inspection standards for playground equipment.</p>
<p>Minimum Maintenance Standards O. Reg. 366/18 (Amending O. Reg 239-02)</p>	<p>Parks & Property Services utilizes section 16.3 under Ontario Regulation 366/18 regarding winter maintenance on sidewalks for minimum maintenance services and level of services. These include plowing, spreading de-icing</p>	<p>Minimum operations and winter maintenance frequencies or standards for park walkways and trails.</p>

Legislation	Overview	Impact to Asset Management
	materials and winter sidewalk patrol.	
<p align="center">AODA (Accessibility for Ontarians with Disabilities Act)</p>	<p>The purpose of the AODA is to develop, implement, and enforce standards for accessibility related to customer service, information and communications, employment, transportation, & design of public spaces. The aim is to make Ontario more accessible and inclusive for people with disabilities.</p>	<p>Compliance during construction, addition or refurbishment of new park assets through renovations through accessibly design features.</p>
<p>Ontario Fire Code O. Reg 213/07</p>	<p>The Ontario Fire Code is a regulation under the Ontario's Fire Protection and Prevention Act. It establishes minimum requirements for fire safety within and around existing facilities, buildings, and outdoor public amusement areas.</p>	<p>Requirements to comply with the Fire Code.</p> <ul style="list-style-type: none"> • Requirements to comply with fire code (e.g. fire hazards, ignition sources, emergency egress, fire safety procedures) • Requirement to develop and implement written fire safety procedures that meet the specified requirements • Administrative and record keeping requirements.
<p>Ontario Electrical Code (OEC)</p>	<p>The Ontario Electrical Code (OEC) is a set of regulations and standards that govern electrical installations in the province of</p>	<ul style="list-style-type: none"> • The code addresses various aspects of electrical installations, including electrical wiring, outlets,

Legislation	Overview	Impact to Asset Management
	<p>Ontario, Canada. It is an essential document that ensures the safe design, installation, and maintenance of electrical systems within buildings and structures.</p>	<p>switches, circuits, grounding, bonding, lighting, panels, distribution systems and the use of electrical devices.</p> <ul style="list-style-type: none"> • Inspections are carried out by the Electrical Safety Authority (ESA) to verify compliance.
<p>Public Health – Splash Pads (Public Pools Regulation) R.R.O. 1990, Reg. 565</p>	<p>Public health inspections are mandated by the Health Protection and Promotion Act and are carried out to ensure compliance with the Ontario Public Pools Regulation (R.R.O. 1990, Reg. 565). Water-related illnesses can be passed through contaminated recreational water and poor safety precautions can cause serious injury.</p>	<p>Operation of Town-owned pools, spray pads/splash pads and related equipment are guided by best practices and public health regulations.</p>
<p>Ontario Regulation 104/97: Standards for Bridges and amendments: O. Reg. 160/02 O. Reg. 278/06 O. Reg. 472/10</p>	<p>O.Reg. 104/97 was created to addressing the growing problem of aging bridges. Large portions of Ontario’s bridges were built in the post-World War 2 boom, before today’s rigorous safety standards – as a result, they are slowly deteriorating. The</p>	<p>Minimum maintenance, inspection, and condition requirements for pedestrian bridges including:</p> <ul style="list-style-type: none"> • Requirements for assessment of bridges every two years for integrity, safety and condition by a professional

Legislation	Overview	Impact to Asset Management
	<p>regulation mandates biennial inspections with a detailed protocol (OSIM) to ensure safety risks and maintenance needs are detected and addressed proactively.</p>	<p>engineer using the OSIM protocol.</p> <ul style="list-style-type: none"> • Requirements to maintain every bridge in a “state of good repair” as a minimum level of service. • Requirements to design, evaluate, construct, or rehabilitate bridges in conformance with the Canadian Highway Bridge Design Code (below).
<p>International Commission on Illumination (CIE) - Standards for Lighting</p>	<p>The International Commission on Illumination (CIE) is an organization devoted to international cooperation and exchange of information on all matters relating to science, technology and art in the fields of light and lighting;</p> <p>Standards produced by the CIE are a primary source of internationally accepted and agreed documentation of data defining aspects of light and lighting, which can be taken, essentially unaltered, into universal standard systems.</p>	<p>Standards & recommendations related to:</p> <ul style="list-style-type: none"> • Outdoor lighting requirements and design criteria • Emergency lighting system minimum design requirements (where systems are required) • Methodology for evaluating the energy performance of lighting systems.
<p>Ministry of Environment,</p>	<p>The MOECP in Ontario is responsible for environmental</p>	<p>The guidelines specify acceptable noise levels for</p>

Legislation	Overview	Impact to Asset Management
Conservation and Parks (MOECP)	<p>regulations, including those related to noise pollution.</p> <p>Community noise guidelines are typically designed to manage and control noise levels to protect public health and the well-being of residents.</p>	<p>different land uses, such as residential, commercial, and industrial areas. These limits may vary based on the time of day. The MOECP enforces noise regulations, including monitoring and investigating complaints related to excessive noise.</p>

LIFECYCLE ACTIVITIES

Lifecycle Activities - Results

This section outlines the current business practices employed by the Town to manage assets and services throughout their lifecycle. Lifecycle activities are being developed concurrently with the Asset Management Plan through the 2023/2024 Informed Service Delivery Project – when complete, the project may provide greater detail and insight into the Town’s lifecycle activities. Using the results of Phase 1 for Informed Service Delivery, the Town’s lifecycle activities and improvement opportunities for park assets are summarized in Table 6:

Table 6: Lifecycle Activities and Improvement Opportunities for Facilities

Lifecycle Phase	Lifecycle Activity	Responsible Party	Observations & Recommendations
Acquire and Commission	Site Plan Review (30%, 60%, 90% completion)	Engineering Services & Supporting Departments (Recreation, etc.)	Implement data management processes for inventorying all newly acquired assets with asset attribute information and GIS integration.
	Manage Build/Contractor (bi-weekly site meetings)		
	Final Walk Through (85% completion)		
Operations & Maintenance	Seasonal Opening / Closing: Parks, Playgrounds, Recreational Fields, Trails , Pedestrian Bridges etc.	Parks	Improve data management to track O&M activities (e.g., completion status, tasks completed, date/time, location, staff).
	Grass Cutting & Trimming: Parks , Open/Grass Areas, Recreational Fields, Additional Maintenance Areas (I.e. Boulevards, islands)	Parks	
	Waste Collection	Parks	
	Graffiti Removal	Parks	Implement processes for scheduled (e.g.,
	Celebration Bench Program	Parks	

Lifecycle Phase	Lifecycle Activity	Responsible Party	Observations & Recommendations
	Fall Leaf Maintenance	Parks	annual) analysis of completed O&M activities (e.g., number of tasks completed, hours, staff, materials consumed, etc.).
	De-icing	Parks	
	Playground Maintenance: I.e., greasing,	Parks	
	Park Structure Maintenance: Washrooms, Gazebos, Shade Shelters, Pergolas, bleachers etc.	Parks	
	Skate Park Maintenance:	Parks	
	Sports Field Maintenance (monthly): fertilizing, core aeration, deep tinning, slip seeding, over seeding, top dressing, aeration)	Parks	
	Sports Field Line Painting	Parks	
	Trail & Walkway Maintenance	Parks	
	Boardwalk Maintenance	Parks	
	Pedestrian Bridge Maintenance: Parks (minor), Subcontractors (major)	Parks	
	Parking lot Maintenance	Parks	
	Hard Court Scheduled Maintenance:	Parks	
	Hard Court Line Painting	Parks	
	Dog Park Maintenance	Parks	
	Bench Maintenance	Parks	
	Misc Maintenance: Masonry maintenance, interlock maintenance, Wood Maintenance	Parks	
	Rehabilitation completed as identified. *Typically, no rehabilitation for furnishings (replace only) *No rehabilitation for grass areas (maintenance only)	Parks	
Inspections	AED Inspections (Regulatory)	Parks	

Lifecycle Phase	Lifecycle Activity	Responsible Party	Observations & Recommendations
	Playground Inspections (Regulatory)	Parks	Develop and implement a Condition Assessment plan to guide the Towns AM program in improving the collection, storing, reporting, and analyzing multiple years of asset condition data.
	Park Structure Inspections (Regulatory): Gazebos, Shade Shelters, Pergolas, bleachers etc.	Parks	
	General Park Inspections (Non-Regulator)	Parks	
	Skate Park Inspections (Regulatory)	Parks	
	Recreational Field Inspections (Non-Regulatory)	Parks	
	Trails & Walkway Inspections (Non-Regulatory)	Parks	
	Boardwalk Inspections	Parks	
	Pedestrian Bridge Inspections (Regulatory)	Parks	
	Parking Lot Inspections (Non-Regulatory)	Parks	
	Dog Park Inspections	Parks	
	Flood Watch Inspections (Non-regulatory): Park areas, trails etc.	Parks	
	Conditional Assessments	Parks	
Renewal, Rehabilitation and Replacement	Replace at end of life for most assets. No replacement for grass areas and natural trails	Parks, Engineering, Capital Works Projects Manager (PWS)	Implement processes for record keeping of completed renewals, rehabilitations and replacements, and for scheduling and assigning future planned activities.

RISK

To conclude Manage Service Delivery, the approach and progress in applying risk based practices through asset management are provided. The Town has developed and is implementing a roadmap for risk-based practices. The 3 Steps reflect the types of risks – corporate, service level, and asset level, and follows the international standard for risk management (ISO 31000).

Table 7- 3 Step Development Plan for Risk Management Practices

Recommendation Phase	Improvement Measures
<p>Step 1 – Near Term</p> <p>Goal of this Phase: Ensure existing risk components are consistent and broadly applied.</p>	<p>1.1 Review and update budget decision package form and process with risk and service-based considerations. COMPLETE.</p> <p>1.2 Establish a criticality rating methodology that is applicable across all asset classes and apply it to all core assets. COMPLETE.</p> <p>1.3 Assign roles and responsibilities, including accountability, for risk management in the Town – Establish Council and leadership’s accountability for ensuring risk is considered and incorporated into all levels of decision-making processes within the Town over time.</p>
<p>Step 2 – Mid Term</p> <p>Goal of this Phase: Formalize a Risk Management Framework that is directly integrated within all relevant Town processes. It is important that the framework is</p>	<p>2.1 Development of a risk management policy that is endorsed by Council, and a corresponding strategy for implementing the policy across the Town.</p> <p>2.2 Develop a risk management framework to assess asset criticality, asset risk, service risks, and risks to achieving corporate (strategic) goals.</p> <p>2.3 Establish reporting processes to keep the Town’s management teams and Council aware of critical risks, and their associated mitigation actions.</p>

Recommendation Phase	Improvement Measures
supported by senior leadership to ensure it adds value and effectively impacts decision-making.	2.4 Develop service level risk register for Parks that can support a corporate risk register that may be monitored by senior leadership and used to support the management of service delivery.
<p>Step 3 – Long Term</p> <p>Goal of this Phase: Leverage risk to be a core capability for the Town.</p>	<p>3.1 Establish a regular review process for identified risks as well as the Town’s risk framework.</p> <p>3.2 Employ risk as an optimization objective for funding allocation and other strategic decision-making. Once risk is strongly embedded within the Town’s processes, the Town may wish to employ software and other useful tools to evaluate risk and funding allocations to minimize residual risk accepted by the Town.</p>

Asset Level Risk

As progress towards completing Step 1 of the 3 Step Development Plan for risk management, asset level risk has been assessed for the Town’s Parks using a risk framework. The results of this process are shown as follows (Figure 8).

Risk Inputs	Likelihood of Failure (LoF)	Consequence of Failure (CoF)
Parks Risk Factors Assessed	<ul style="list-style-type: none"> • Age & Expected Service Life • Bridge Condition Inspection (BCI) for Pedestrian Bridges • Observed Condition Inspection (OCI) for Baseball Diamonds/Batting Cages, and Parking Lots • Condition for all other assets estimated based on age and estimated service life 	<ul style="list-style-type: none"> • Health & Safety • Environment Impacts • Operational Impacts • Corporate Image • Third Party Losses/Damages • Financial Impact



Parks Risk Profile (Consequence X Likelihood of Failure)

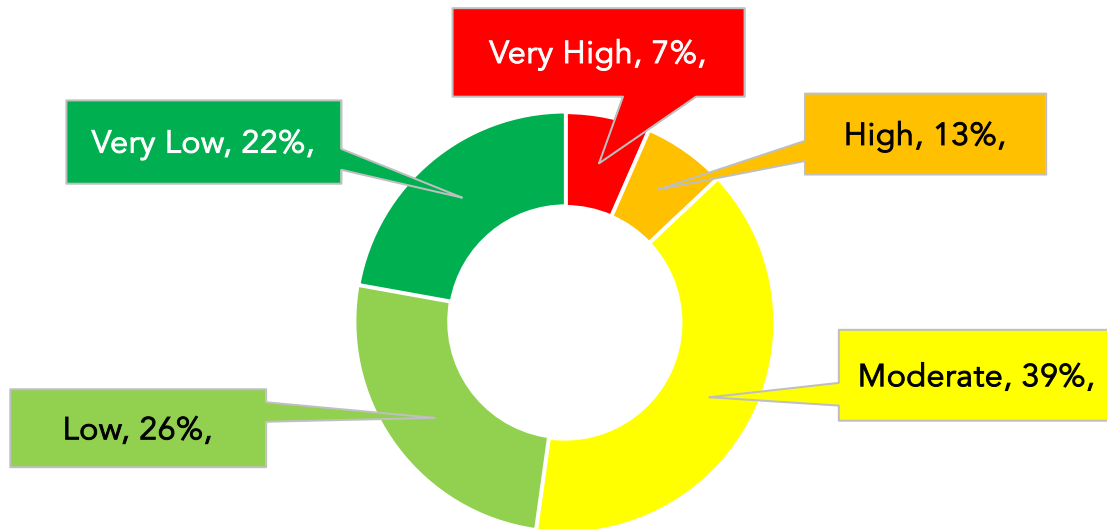


Figure 8 - Parks Asset Risk Profile



FUTURE READY

What was once a small but thriving Town, today Newmarket is a desirable and affordable community. While the future is bright, trends like increasing service expectations, urbanization, and climate change are challenging the status quo. The future will change how the Town manages assets. Key takeaways will include:

- Impacts of growth on assets and budgets.
- Vulnerabilities and adaption and mitigation approaches to climate change.
- Aligning master plans with the management of existing assets.

Ongoing and future trends will impact the way the Town delivers its services and manages its assets. Proactively identify these trends and pressures allows the town to account for risk and take advantage of opportunity. Using planning to maintain a future outlook allows for a balance between maintain present services while managing growth.

Key takeaways from the Future Ready section will include:

1. **Growth** – What increases in asset-related services are expected? To answer this question, an outlook of growth in the asset portfolio is forecasted, along with a calculation of operating impacts provided with background on growth drivers.
2. **Climate Change** – How will climate change impact assets? As described in the 2021 Core Asset Management Plan, the results of a flood risk assessment are provided. Flooding is the first of several types of climate considerations to be applied in the future.
3. **Future Ready Changes** – How will the way we deliver services evolve with changes in society and technology. A preliminary view of potential future trends that are believed to impact service delivery for the assets is provided to facilitate discussion about managing future risks and opportunities.

Trends in technology, society, climate and resources can shorten the life of assets and increase total cost of asset ownership. Considering these trends in the individual asset management plans ensures the Town has adequate budget, human resources and skills, and industry networks to prepare for future changes.

GROWTH FORECAST

Growth Planning in Newmarket & Population

Newmarket is poised for growth. According to provincial and regional plans, the Town of Newmarket is expected to grow from its current population of approximately 89,800 residents to a future population of 118,500 by 2051. At the same time, the employment base is projected to grow from 45,000 to 58,100 jobs. To support this population, more assets and new types of assets may be required to provide asset-related services. The asset management plans reflect planning efforts to coordinate assets and population growth.

The Town of Newmarket Official Plan is the Town's land use planning and policy document that guides the physical development and redevelopment of the Town, having regard for social, economic, and environmental matters. Asset management plans receive information from the Official Plan process along with other planning documents to ensure alignment.

Identified Growth Impacts on Park Assets



1. Park expansion: There are several planned expansions to the Parks asset inventory over the next several years.
 - A key driver of the inventory expansion will be a new park introduced as part of the planned Mulock Master Plan community, which is currently scheduled for opening in 2026.
 - The current Glenway subdivision has an existing park under a maintenance agreement, which will be assumed by the Town in 2024.
 - There is also planned growth for several other subdivision developments, including Glenway West, 600 Stonehaven, Forest Green Homes, and Shining Hills Phase 2 (includes tennis courts), which will have varying degrees of dedicated parklands and supporting park assets and infrastructure.

- The Town is currently investigating opportunities to expand the provision of pickleball courts.
- The Active Transportation Master Plan also identifies expansions to the trail network.



2. Park upgrades: At the time of writing (2023), currently planned asset upgrades are primarily lighting-related including solar lighting projects at several trail connections and playgrounds (e.g., George Luesby Park, Sunnyhill Park, and George Richardson Park). Park upgrades are still being formalized through the 10 Year Recreation Capital Plan, which will include additions like sports pads



3. Changing standards: Changes to the Highway Traffic Act (HTA) have resulted in updated standards for snow removal on sidewalks, which includes sidewalks traversing park lands, and will impact planned maintenance activities for pedestrian paths at parks.

- Furthermore, the Ontario Trails Committee (OTC) have also identified the need for trail signage with enhanced communication of accessibility considerations (e.g., slopes) to trail users, which will impact the trail signage design.
- The Town has adopted a Risk Management approach using an Accessibility for Ontarians with Disabilities Act (AODA) lens, with the Town’s AODA Committee being consulted on new parks, playgrounds installations, and matters concerning trails and furnishings.



4. New Partnerships or Agreements: New funding agreements have been established for the Mulock multi-use path (50% cost-sharing with York Region for design and construction, with the Town responsible for 100% of the O&M and renewal), and the Bathurst/Davis multi-use path (33% cost-sharing with York Region for design and construction, with the Town responsible for 100% of the O&M and replacements). The Town also works with local school boards on improved usage practices to extend service life for soccer fields and turf fields shared with the boards.



- Climate change: York Region overall has already experienced the effects of climate change with higher average temperatures, more numerous days of extreme heat, increased rainfall, higher winds, and more extreme weather events. As a result, Town park assets are experiencing longer outdoor recreation seasons and increased usage of assets. As another example increased demand for water play assets could result in higher costs for electricity, water, and chemicals, and overall accelerated asset deterioration.

Forecasted Growth of Park Assets

The following (Table 8) shows the projected growth in total value of new park assets over the next 10 years, consisting primarily of the projected costs associated with the Mulock Master Plan, but also estimated costs of additional planned pickleball courts, trail expansions and connections, and park assumptions. The values and outlay are guided by the Development Charges Background Study and the Community Benefit Charge Study, but do not include the 10 Year Recreation Capital Plan.

Table 8- Parks Portfolio Increase to 2032

Growth Category	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Growth Expansion & Intensification	\$19M	\$19M	\$19M	\$1.6M	\$1.6M	\$1.6M	\$1.6M	\$1.6M	\$1.6M	\$1.6M
				Remainder of development charges funding envelope or other growth drivers to be developed through 10-Year Recreation Capital Plan in 2024						

*Note: Based on availability of Development Charge (DC) funding

FINANCIAL IMPACTS OF GROWTH

When new assets are commissioned, a lifecycle of service delivery and cost is started. From the time an asset enters service, it will provide value but also incur costs. Assets must be operated, maintained, and eventually replaced. Therefore, the acquisition of a new asset also means the anticipation of future costs. Anticipating these costs from the outset allows for timely financial planning and a recognition of the total cost of ownership. To reflect this, the Financial Impact of Growth depicts two types of cost:

1. Annual Operating Impact

The annual operating impact of maintaining assets at an equivalent to the current level of service provided. Operations and maintenance (O&M) include activities like inspections, cleaning, or energy and fuel consumption. This is approximated by extrapolating current service levels proportionally to the amount of growth. It is expressed in operating dollars per year. This information should guide the budgeting of service delivery for new assets. It does not address programming.

Operating impacts of growth are depicted in Figure 9. By 2026, operations and maintenance costs are expected to rise by ~\$2.7M/ year if equivalent service levels to present were applied to new growth assets.

Impact of Park Asset Growth on Replacement and Additional O&M Cost

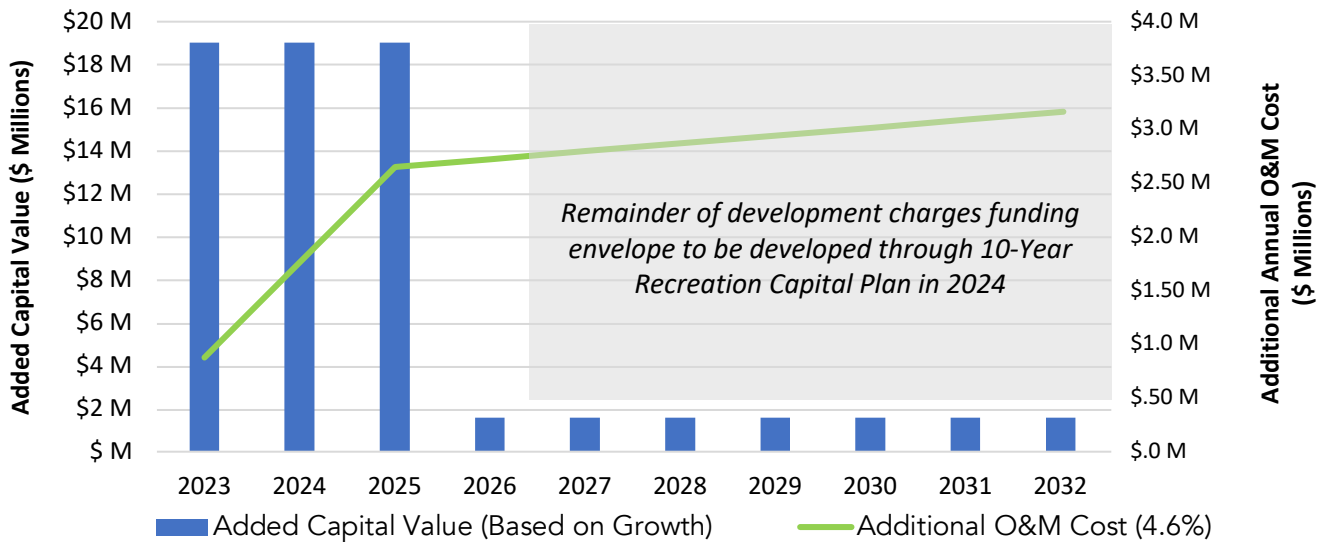


Figure 9 – Impact of Parks Growth on Replacement Cost and Additional Annual O&M Cost

2. Reserve Fund Contribution for Sustainable Replacements

The annual contribution to a reserve that would be required to fund an asset replacement at the end of life, if cost were spread evenly over the useful life of the asset. Beginning these contributions now ensures assets are sustainable and a backlog of future replacements does not accumulate. This is the objective of the Asset Replacement Fund, described further in Financial Strategy. This is calculated using the average expected useful life of the assets, divided by their total replacement cost. It does not address other capital costs like upgrades.

Reserve contribution levels for sustainable growth are depicted in Figure 10. To maintain the amount of growth with future capital replacements, an annual asset replacement fund contribution of ~ \$2.56M would be needed.

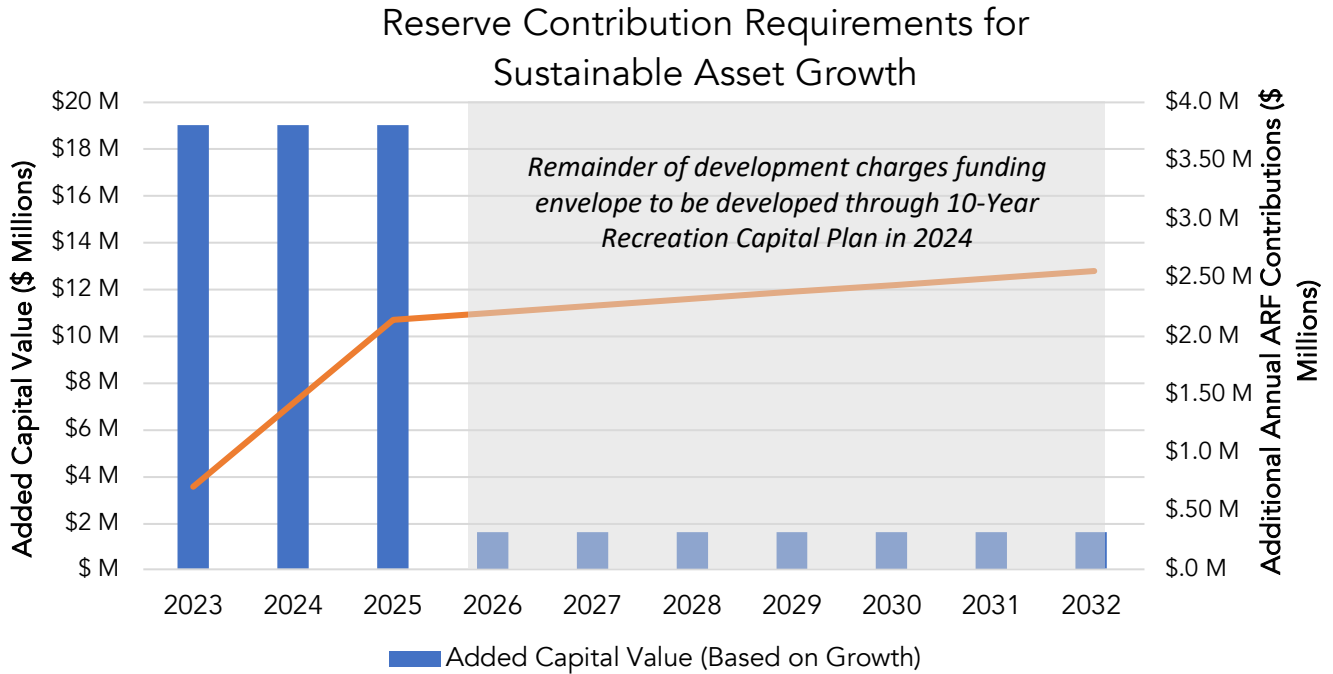


Figure 10 – Reserve Contribution Requirements for Sustainable Asset Growth

Accounting for both operational and maintenance costs and reserve contribution requirements, the total annual cost of growth is summarized in Table 9. By 2026, the expected annual cost for the asset lifecycle is ~\$4.9M.

Table 9 - Summary of Annual Operating Cost and Reserve Contributions for Parks Growth

Financial Impact by Year	Growth in Assets (Replacement Value)	New Annual Operations and Maintenance Costs	New Reserve Contribution Target	Total Annual Financial Impact of Growth
2023	\$19,032,031	\$883,145	\$713,701	\$1,596,847
2024	\$19,032,031	\$883,145	\$713,701	\$3,193,693
2025	\$19,032,031	\$883,145	\$713,701	\$4,790,540
2026	\$1,578,571	\$73,251	\$59,196	\$4,922,987
2027	\$1,578,571	\$73,251	\$59,196	\$5,055,434
2028	\$1,578,571	\$73,251	\$59,196	\$5,187,881
2029	\$1,578,571	\$73,251	\$59,196	\$5,320,328
2030	\$1,578,571	\$73,251	\$59,196	\$5,452,775
2031	\$1,578,571	\$73,251	\$59,196	\$5,585,222
2032	\$1,578,571	\$73,251	\$59,196	\$5,717,669

Historical Context of Growth

To provide context to the future growth forecast, asset management plans also provide a review of historical growth to provide a relative baseline. Starting during the 2021 Core Asset Management Plan, growth was quantified by asset back to 2016. This practice was repeated for Parks.

Figure 11 shows that the asset base is expected to continue growing relative to historical trends through projects like the Mulock Estate, which means the Town will need to continue to increase investments in O&M costs and reserve contributions.

Parks Historical Assumed Assets (2016 - 2022) and Projected Growth (2023 - 2032)

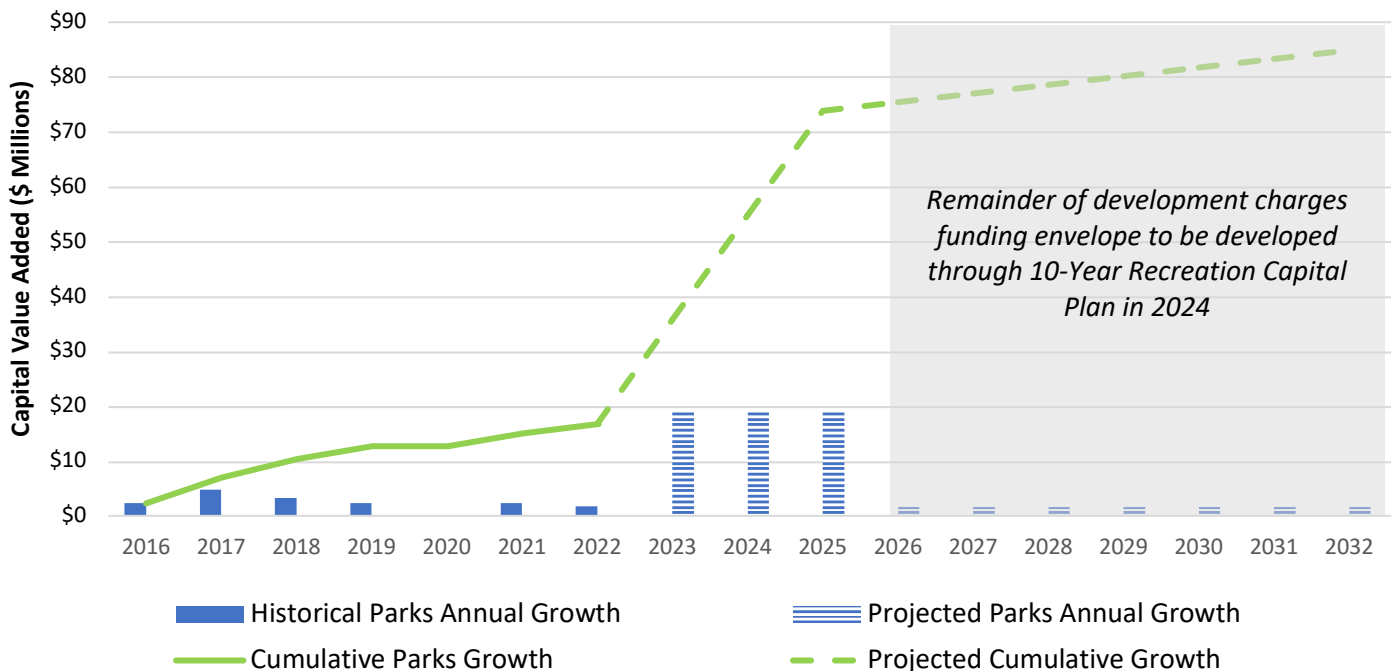


Figure 11 - Parks Historical Assumed Assets and Projected Growth to 2032

CLIMATE CHANGE ASSESSMENT

As part of the Town’s efforts to prepare for the impacts of climate change, the Town engaged the Ontario Climate Consortium (OCC) to conduct a corporate-wide resilience assessment of Town-owned infrastructure in 2019. Flood risk has been selected as the focus of this assessment to leverage existing flooding-related data and develop a prototype of an approach that can be replicated in the future for other climate-related risks.

The Newmarket Climate Change Resilience Assessment assessed parks and open spaces for flood risk resiliency based on the following assessment indicators:

1. Hazard was assessed based on analysis of geospatial factors contributing to the potential occurrence of riverine flooding, overland flooding, and groundwater flooding.
2. Vulnerability considered the current operational, social, economic, and environmental characteristics of each asset that can directly or indirectly increase the asset’s propensity of being adversely affected by flooding.

Results of the Flood Risk Assessment for Parks and Open Spaces

The overall flood risk ratings for all parks and open spaces combined are shown in Figure 12.

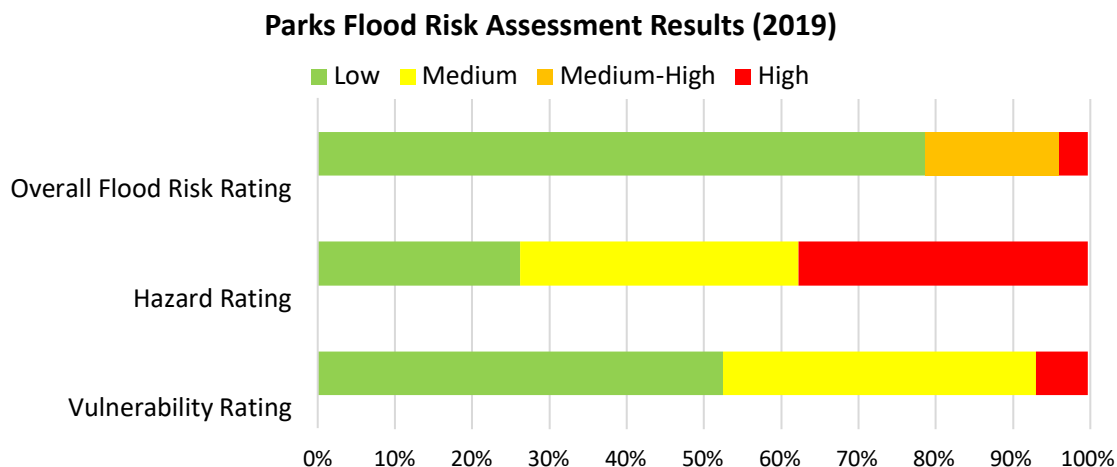




Figure 12 - Parks & Open Spaces Overall Flood Risk Rating (2019)


FUTURE TRENDS AND ASSET IMPACTS


The Town’s asset management policy recognizes that our environment, society, resources, and technology are changing – managing service delivery is not just an exercise in maintaining the status quo, but responding and adapting to these changes. These changes can create pressures to expand or evolve services through growth. Trends are continually monitored by the Town, but not all trends have been formalized yet in the adoption of existing plans (prior to forthcoming 10 Year Recreational Capital Plan). The results of trend forecasting and the assessment of future impacts is provided in Table 10.

Table 10 - Implications of Future Trends on Park Assets

Trend Category	Trend	Implications for the management of our assets (to maintain service levels)	In Existing Plans
Society 	Urban intensification & Expansion (Population Growth & Demand)	Increased demand for park assets and recreations services, drawing on capacity for sports field bookings.	X
		Potential demand for different types of assets and/or recreational activities.	Y
		Potential need for increased capacity and different types of assets to accommodate more users in existing parks.	X
		Potential for increased vandalism of park assets.	X
		New parks in new development areas resulting in additional resources required to operate and maintain.	Y
	Increasing environmental concern	Opportunity for new policies and standards	X
		Environmental sustainability lens design of park assets (e.g. playgrounds, trails, sport fields & pads etc.) and service delivery methods.	X
	Increased health, safety	Potential need for improved trail system connectivity and accessibility.	Y

Trend Category	Trend	Implications for the management of our assets (to maintain service levels)	In Existing Plans
	& sustainability focus	Potential need for improved trail lighting (e.g. additional trail lighting, upgrades to existing trail lighting).	X
		Potential need for additional outdoor fitness equipment, sports fields, play structures, storyboards (interactive displays), etc.	X
	Aging population	Increased need for parks, trails, and recreation assets to accommodate requirements of seniors (e.g. seating, lighting, railings, accessibility etc.)	X
	Equitable & Inclusive services	Lens of inclusivity influences design of park assets (e.g. playgrounds, trails, sport fields & pads etc.) and service delivery methods.	Y
	AODA Compliance	Modifications and future upgrades to park assets, either proactively or as repairs become due (e.g. playgrounds, trails, walkways, parking, benches etc.)	Y
	Potential for public-private asset & amenity sharing (e.g. Sports fields and/or complexes)	Potential opportunity to share operation, maintenance, and replacement costs of park assets providing recreation opportunities to residences.	Y
		New delivery models may result in opportunity and/or need for the Town to provide a more diverse mix of park assets & recreation opportunities for residents.	X
Technology 	Increasing use of electric vehicles	Opportunity to install EV charging stations at parking lots.	X
	Use of technology to support park	Opportunity for efficiency gains & improvement to O&M practices through implementation of technology and data analytics.	X

Trend Category	Trend	Implications for the management of our assets (to maintain service levels)	In Existing Plans
	operations (e.g. Increased user data and analytics)		
	Less municipal power consumption	Opportunity to install solar panels or efficiency retrofits to reduce power consumption and operating costs.	X
	Cyber security	Potential increased exposure of digital systems to potential attacks, and ensuing measures needed to remain secure.	Y
Climate Change Mitigation & Adaption 	Hotter weather	Potential increased need for additional shade assets, improved irrigation, additional water-play assets, and use of more heat-resistant materials.	X
		Potential need for different maintenance regime and new skills to maintain assets.	X
	Higher rainfall intensity	Increased need for flood mitigation plans	X
		Parks assets may potentially need to withstand and drain more water to prevent flooding (e.g. upgrades assets for greater protection.)	X
		Assets may require different maintenance regime and new skills.	X
	Higher winds	Potential need for structural improvements to park assets	X
	Extreme weather response	Potential increased need to response to extreme weather events (e.g. flooding, high winds, extreme heat etc.) to manage impact to park assets & residents.	X
	Clean energy	Increased demand and opportunity for use of carbon free energy sources (e.g. solar). Parks may need to comply with future net zero targets.	X

Trend Category	Trend	Implications for the management of our assets (to maintain service levels)	In Existing Plans
	Sustainability	Future park assets may need to be designed and built with more sustainable features that promote measures like energy efficiency.	X
		Opportunity to use materials with lower whole-of-life embedded carbon. Material cost and durability will be affected.	X
	Zero carbon legislation / standards / policies	Parks may need to comply with climate change related legislation or standards in the future (e.g. net zero targets).	X
Resources 	Reduced waste production	Opportunity to use lower-waste materials. These may require different maintenance regime and new skills.	X
	New materials	New materials may become available that change the asset lifecycle and how it is managed.	X
	Financial constraints	Greater focus on identifying and implementing efficiencies in capital and O&M budgets.	Y
		Implications for procurement process for materials and contractors.	X

RECOMMENDATIONS

1. Develop a Parks Master Plan that reflects future growth requirements and establish service level guidelines and design principles that can inform coordinated planning of park renewals and modernizations.
2. Expanding on the growth assessment completed in the AMP, assessing other historical and operational growth patterns that have impacted park resource levels like the growing programming of existing park assets.
3. Integrate 10-year plans for recreation & culture with the parks asset management plan so programming and expansion can be aligned with service level reporting and financial analysis.
4. Assess the impacts of climate change adaption and mitigation to park assets to plan for measures that develop resilience & emergency preparedness and lower the Town's carbon emissions.
5. Develop service delivery plans for future park assets to refine operating cost estimates and to support change management.



FINANCIAL STRATEGY

The Financial Strategy section takes all the data and analysis gathered in previous sections of the AMP to help paint the picture of Newmarket's financial outlook for its assets with scenarios that can support financial decision making.

The Town has made an important investment in infrastructure, and attention must now be paid to securing this investment. The sustainability of Town infrastructure depends on effective management and ensuring the optimal use of limited funds. The Town of Newmarket has developed a Financial Strategy to evaluate the relationship between current investment levels, service outcomes and risk of service failures. The financing strategy strengthens the budget process by reinforcing a long-term perspective of service levels. When developing the financial forecast, the Town was looking to answer three key questions:

1. What would it cost to maintain assets at the current level of service experienced today?
2. What level of service is achievable within the Town’s current funding?
3. How will spending requirements change over time, and what do these trends mean for the Town’s finances?

In order to answer these questions, the Town prepared an analysis of three scenarios using its corporate capital planning software. Three scenarios were modelled over a 50-year time horizon. To assist management with planning in the near term, the asset management plans then focus on a 10-year horizon.

Historical Baseline

Before presenting investment scenarios, it is important to understand the history of the Town’s financial contributions as well as to establish the current funding and practices that were used to inform the financial analysis performed as part of this plan. See Table 11-12.

Table 11 – Historical Baseline of Reserve Contributions (2018-2022)

Year	Parks Reserve Contribution	Reserve Contribution as a Percentage of 2022 Replacement Value
2018	\$2,004,012	2.15%
2019	\$1,317,512	1.41%
2020	\$1,317,512	1.41%
2021	\$1,287,512	1.38%
2022	\$1,409,677	1.51%

Table 12 – Historical Baseline of Capital Delivery Spending (2018-2022)

Year	Parks Capital Spending on Existing Assets	Capital Spending as a Percentage of 2022 Replacement Value
2018	\$1,026,986	1.10%
2019	\$1,263,030	1.35%
2020	\$432,058	0.46%
2021	\$388,704	0.42%
2022	\$244,116	0.26%

ESTIMATED FUTURE BUDGET

Estimated Future Reserve Contributions Based on Current Position and Plans

Using the financial background and current financial position, the Town’s current reserve contributions were forecasted to support long term financial planning. These values were used for an assessment of the balance between budget and future renewal costs and will be subject to internal processes and the annual budget process each year as approved by Council. See Table 13.

Future reserve contributions are estimated to reflect current Town practice. Since the years following the creation of the Asset Replacement Fund, there has been an accepted practice of using a 1% increase in tax bills to ensure that Newmarket can afford to replacement future capital assets. It was assumed this practice would continue for a 10-year period for all tax-supported assets, of which park assets are a portion. Increasing in funding for parks reflects a proportional subset of any raise among the tax-supported assets.

Table 13 - Estimated Future Reserve Contributions based on Current Position and Plans

Year	Estimated Future Reserve Contributions Based on Current Practice*
2023	\$1,249,790
2024	\$1,373,112
2025	\$1,496,435
2026	\$1,619,757
2027	\$1,743,079
2028	\$1,866,401
2029	\$1,989,724
2030	\$2,113,046
2031	\$2,236,368
2032	\$2,359,691

*Current Budget assumes: 10 Years (2023-2032) of 1% ARF Levy, shared among asset types (parks, facilities, roads, etc.)

Estimated Future Budgets Based on Current Position and Plans

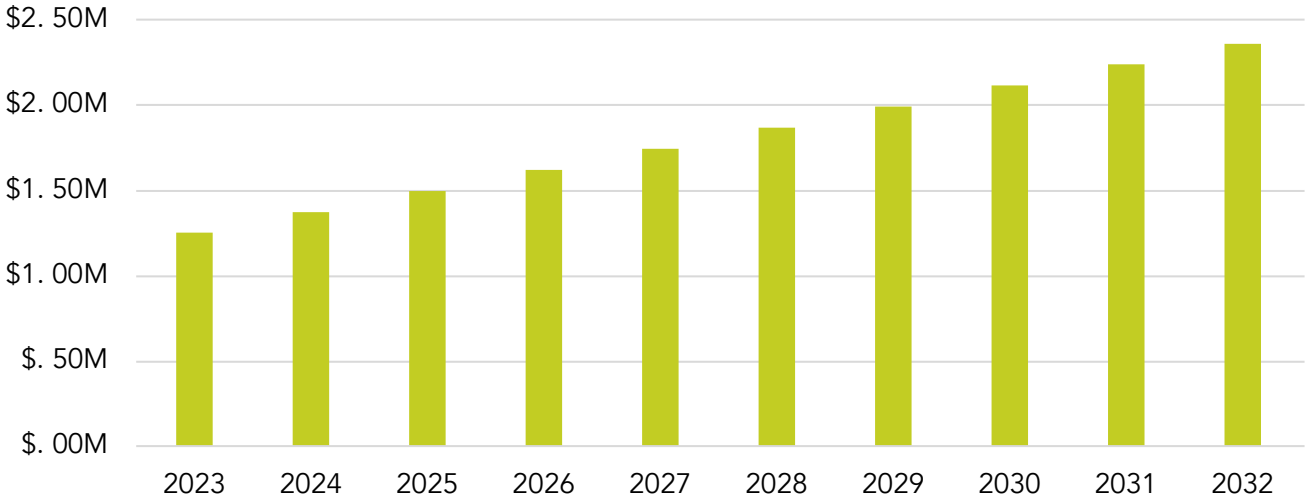


Figure 13 - Estimated Future Budgets Based on Current Position and Plans

* Current Budget assumes: 10 Years (2023-2032) of 1% ARF Levy, shared among asset types (parks, facilities, roads, etc.)

SCENARIO FORECAST

Parks Scenario Analysis Methodology

To model the investment need, consolidation of inventory, replacement cost, condition, levels of service, risk, and lifecycle activities as shown throughout the AMP was completed.

Three scenarios were created to answer the key questions identified in the Financial Strategy introduction about future requirements, sustainability, and comparisons with current practice. The scenarios also reflect corporate practice set for asset management planning started during the 2021 Core Asset Management Plan to support comparisons and consistency.

Table 14 - Parks Financial Strategy Scenarios

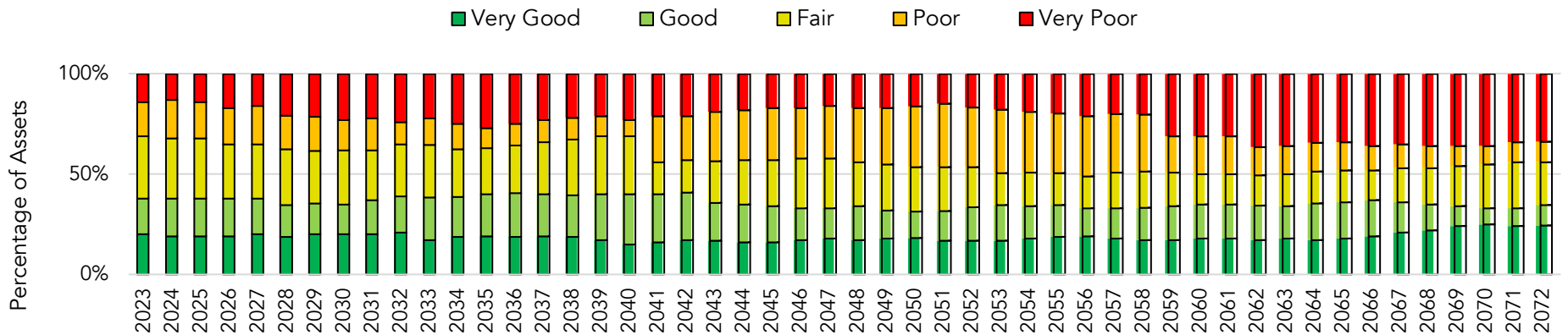
Scenario	Description of scenario constraints and objectives
#1 – Current Budget	<p>The purpose of the current budget scenario is to calculate the level of service achievable with current funding. Scenario parameters are:</p> <ul style="list-style-type: none"> • Maximize network performance for limited funds. • Increase current funding by current practice for a period of 10 years. Hold year 10 funding levels for remainder of scenario (years 11-50). • 50 years of analysis.
#2 – Renewal Needs	<p>The purpose of the renewal needs scenario is to calculate the true cost of maintaining the full asset inventory at current service levels, so this full cost maybe compared with current practice. Scenario parameters are:</p> <ul style="list-style-type: none"> • Limit the number of very poor assets to 5% • Minimize the cost of maintaining asset portfolio, but no budget constraint • Maintain current levels of services. • 50 years of analysis
#3 - Constrained	<p>The purpose of the constrained scenario is provided an example investment alternative, serving as an approximate midpoint between current practice and cost of renewal need. Scenario parameters are:</p> <ul style="list-style-type: none"> • Limit the number of very poor assets to 15% • Minimize the cost of maintaining asset portfolio, but no budget constraint. • 50 years of analysis

Parks Scenario Results

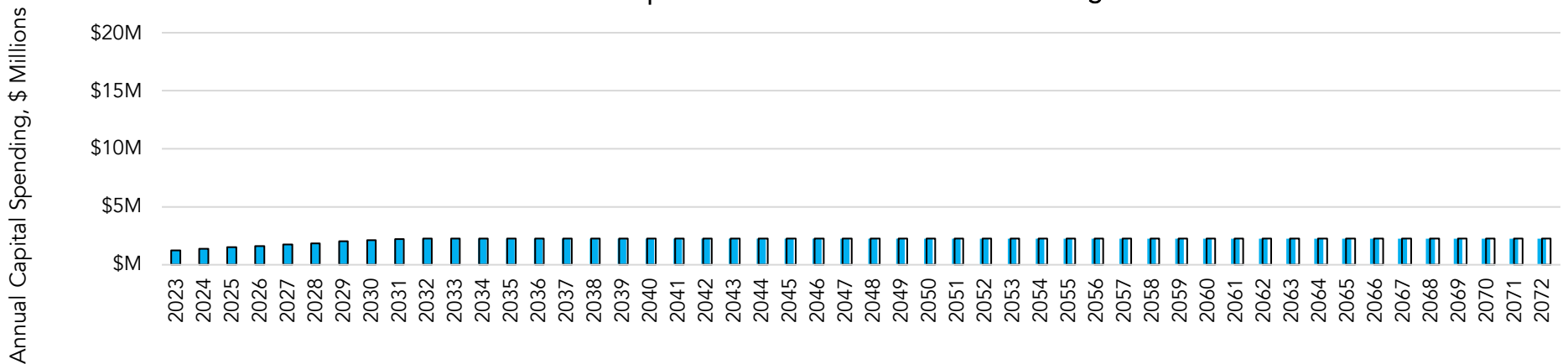
The following figures illustrate how the cost of renewals for different service targets and the condition of facilities are forecasted to change over time under all three investment scenarios.

Scenario #1 – Current Budget

Condition of Park Assets with Scenario #1 - Current Budget



Annual Capital Cost of Scenario #1 - Current Budget

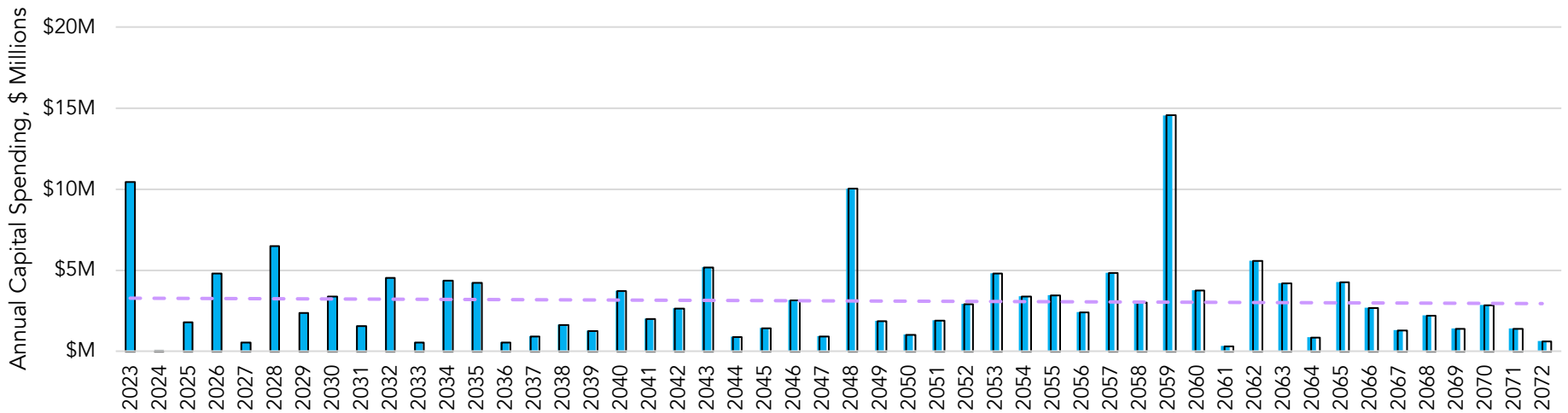


Scenario #2 – Renewal Needs

Condition of Park Assets with Scenario #2 - Renewal Needs

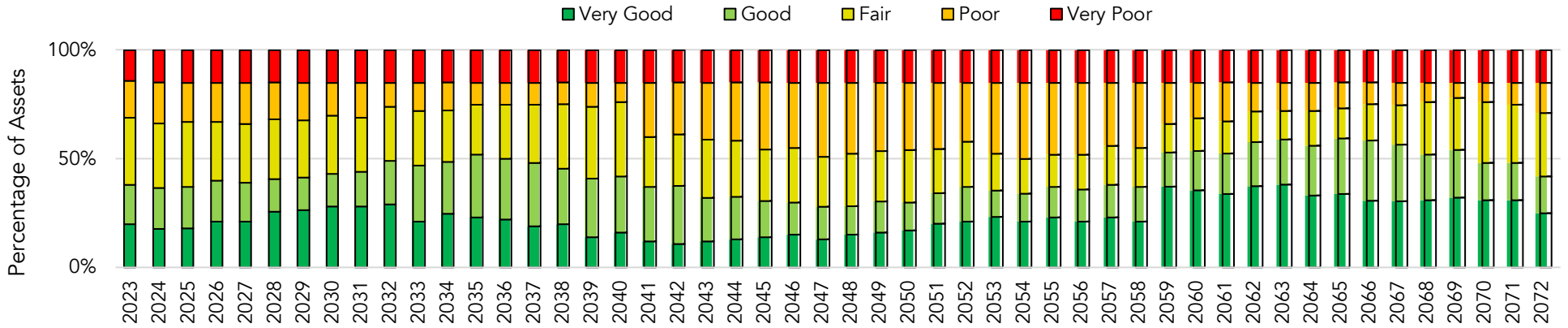


Annual Capital Cost of Scenario #2 - Renewal Needs

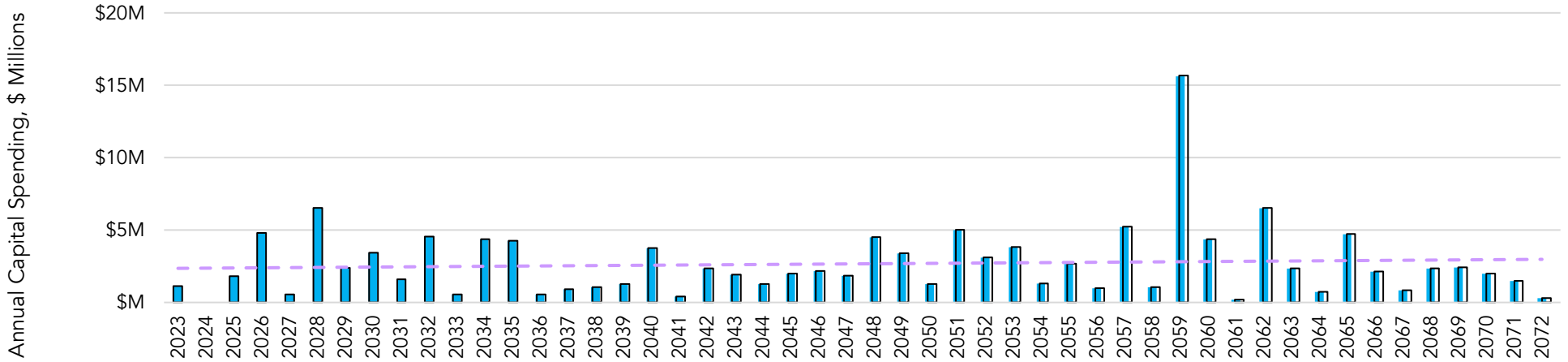


Scenario 3 – Constrained

Condition of Park Assets with Scenario #3: Constrained



Annual Capital Cost of Scenario #3 - Constrained



Scenario Forecast Observations

Table 15 outlines key observations associated with the scenario forecast results including average condition of assets and average funding requirements over the 50-year forecast period. Several observations are important to note about the forecast:

- If investment continues at current levels, service levels will not be achieved, and the parks portfolio will be in much poorer condition than it is currently.
- Under the constrained scenario, current service level targets are not achieved but remain stable at condition states lower than what is currently experienced.
- There is an upcoming “wave” of renewals for park assets between now and ~2037 that will show increased annual capital requirements beyond what has been experienced until now.
- Within each scenario including those with service-level reductions, the use of a risk-based optimization software ensure relative risk is minimized and investments are distributed to all priority park assets. This does not mean any scenario is risk-free (recommendations to implement risk-based practices have been provided).

It is for these reasons that the constrained investment scenario was selected for future planning for park assets. The significance of the constrained investment scenario for the Town is explained in the 2021 Core Asset Management Plan.

Table 15 - Parks Scenario Forecast Results

Forecast Scenario	Observations
Scenario 1 – Current Funding	<ul style="list-style-type: none"> • If investment continues at current levels including projected increases, service levels will not be achieved, and the parks portfolio will be in poorer condition than it is currently. • ~24% of Park asset value will be in “Very Poor” condition (exceeding its intended service life) each year on average over the 50-year forecast. • \$2.2M average annual funding for renewals
Scenario 2 – Renewal Needs	<ul style="list-style-type: none"> • The proportion of asset value in “Very Poor” condition was limited to 5% annually.

Forecast Scenario	Observations
	<ul style="list-style-type: none"> • The average annual funding needed to reduce the backlog of assets in “Very Poor” condition to this level is approximately \$3.1M. • \$3.1M average annual funding for renewals.
Scenario 3 - Constrained	<ul style="list-style-type: none"> • Under the constrained scenario, current service level targets are not achieved but remain stable at condition states lower than what is currently experienced. • Under a constrained “balanced” scenario in which the proportion of assets in “Very Poor” condition is limited to 15% • \$2.7M average annual funding required for renewals

RECOMMENDED INVESTMENT STRATEGY

Long Term Trend

Figure 14 summarizes the investment forecast for park assets under all three scenarios.

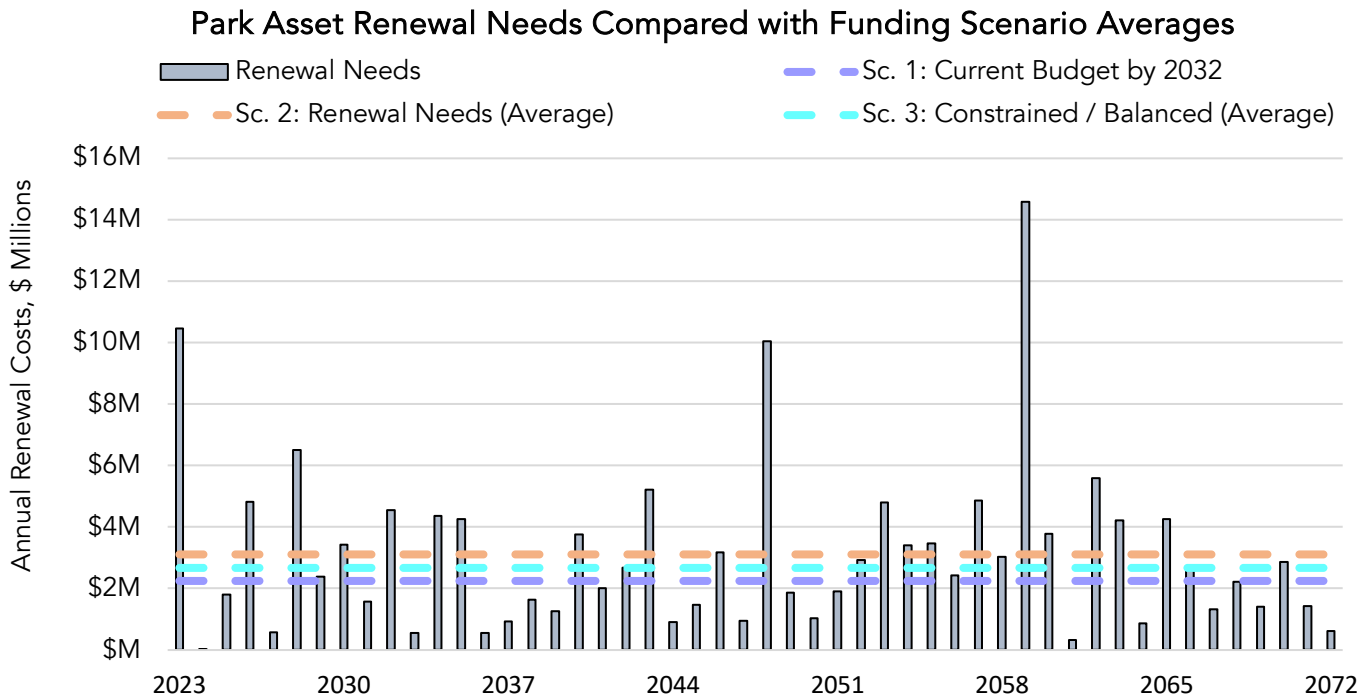


Figure 14 – Summary of Long Term Trends for all three 50 Year Scenarios

The annual average investment requirements over the next 50 years is \$3.1M/year for park assets (in 2023 dollars). This is higher than current levels of investment, which are at \$1.2M in 2023 and expected to rise to \$2.3M by 2032 under current practice. The balanced scenario provides a potential funding alternative that would reduce long-term service levels but mark a higher incremental approach to increased funding of \$2.7M per year. These scenarios will continue to be monitored and reported over the long-term. To assist decision-makers weighing immediate risks, the long-term financial scenarios have been brought into the context of the next 10 years where immediate capital decisions take place. See below.

10 Year Budget

A 10-year focus shows the immediate decisions related to current asset needs and backlog, upcoming replacements, and aligns with the timelines provided by Ontario Regulation 588/17. Previously, figures were shown to compare the long-term financial envelopes and service outcomes of each scenario. With a 10-year focus, Figure 15 provides a year-by-year comparison of funding requirements.

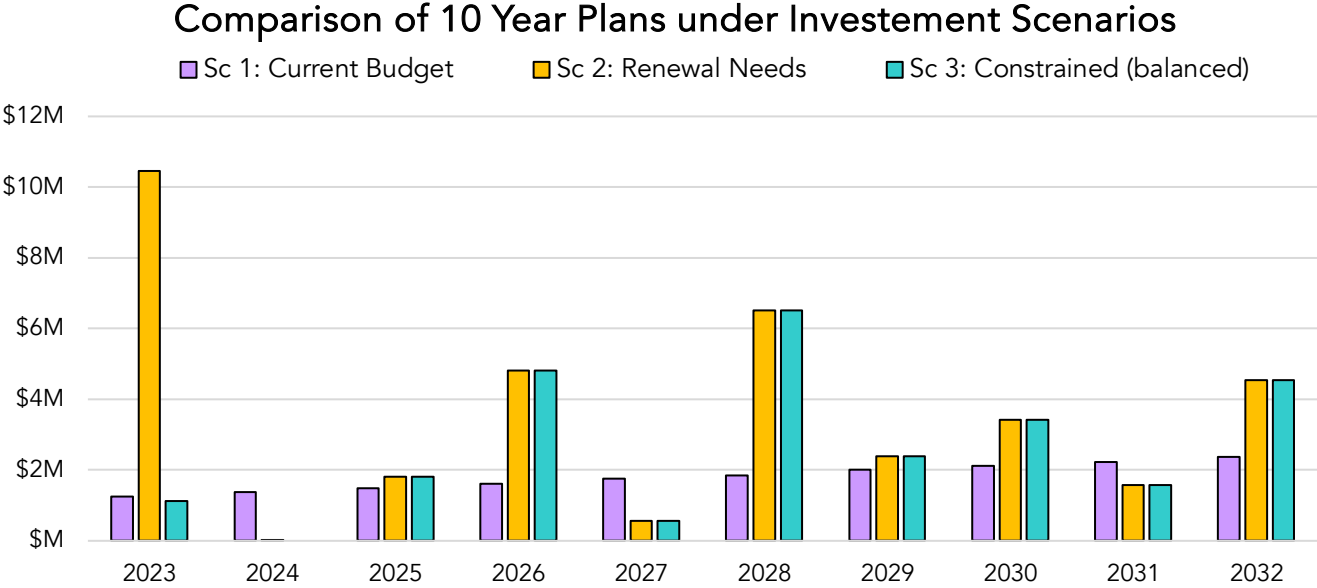


Figure 15 – Comparison of 10 Year Plans Under Investment Scenarios

Following the practice set by core assets in 2021, it is recommended that the constrained budget be used as a baseline for financial planning until targets are set in accordance with Ontario Regulation 588/17 in 2025. In the interim, specific allocations will remain subject to budget & capital planning processes considering factors like organizational capital delivery capacity. Table 16 summarizes the cost and balance of each scenario.

Table 16 - Proposed investment and a comparison to the Town's existing budget for park assets.

Year	*Constrained Scenario Proposed Investment	Town's Current Reserve Contribution	Difference
2023	\$1,128,387	\$1,248,542	\$120,155
2024	\$0	\$1,373,893	\$1,373,893
2025	\$1,801,742	\$1,487,720	-\$314,022
2026	\$4,807,589	\$1,612,474	-\$3,195,115
2027	\$564,777	\$1,745,502	\$1,180,725
2028	\$6,512,613	\$1,845,004	-\$4,667,609
2029	\$2,381,161	\$2,009,044	-\$372,117
2030	\$3,414,837	\$2,114,593	-\$1,300,244
2031	\$1,574,900	\$2,220,605	\$645,705
2032	\$4,539,594	\$2,376,261	-\$2,163,333
Total	\$26,725,600	\$18,033,638	-\$8,691,962

*Because the constrained scenario targets service levels below what is currently experienced, the model does not allocate funding until targets are achieved. This deferral leads to a delayed wave of replacements. In practice, the constrained scenario funding could be spread over the 10 years and marks an incremental increase above current practice.

CONCLUSIONS

Newmarket's asset management planning process advances the Town's objectives for financial sustainability and demonstrates a commitment to Town values of being Well Beyond the Ordinary. Asset management is a continuous improvement process. Through iterations of development and implementation, new asset management capabilities can develop, and others can improve. The development of a Parks Asset Management Plans is a significant milestone, and part of a broader implementation of asset management capabilities by the Corporate Asset Management Office (CAMO) and Town business units. Through the Parks Asset Management Plan, it has been demonstrated that there are both challenges and opportunities. Current challenges include:

- Deteriorating assets providing service levels that could be unsustainable without additional funding.
- Newly acquired assets that will soon add operating costs.
- The impacts of climate change.
- An immediate 10-year infrastructure gap ranging from \$0.85 to \$4.9 Million for park assets, depending on the selected condition target.
- Decisions about how to adjust risk tolerance.

With these challenges come opportunity:

1. Asset management is providing visibility to risks and improvement opportunities, allowing the Town to take the proactive measures needed to manage these issues.
2. Asset management will provide alignment across the organization about a common set of business objectives, paving the way for continuous improvement opportunities.
3. New capabilities will be adopted, efficiencies will be developed, and new technologies or processes will be deployed.
4. Condition assessment and maintenance practices are proving to stretch the life of assets beyond their expected service life when the right strategies are used.

The Parks Asset Management Plan is a significant milestone but only one aspect of a broad spectrum of asset management practices. Asset management is not a document or a software. It is a way of doing business every day, and a lifelong journey to improve the Town. Through this journey, the Town can truly become Well Beyond the Ordinary.