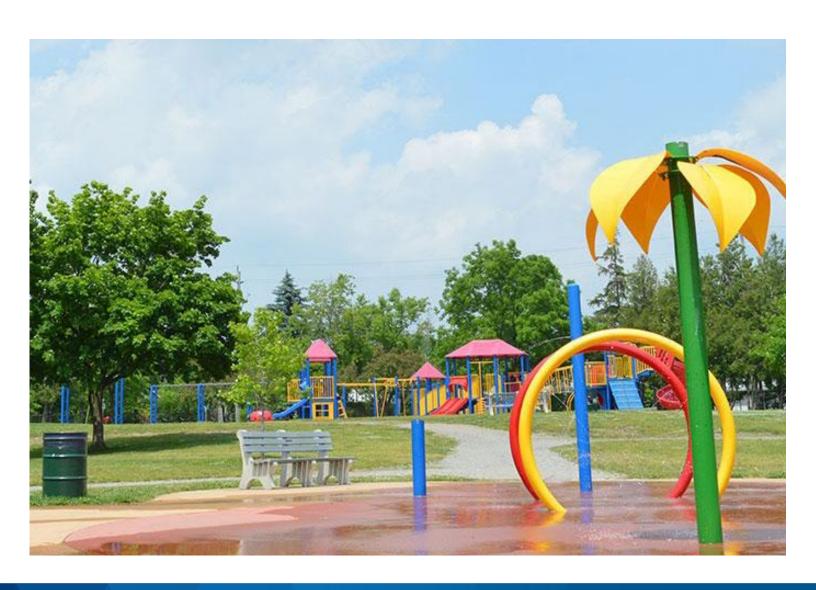
# Hamilton Parks and Recreational Trails 2024 Asset Management Plan





#### **TABLE OF CONTENTS**

<u>SUMMA</u>	SUMMARY AND QUICK FINDINGS		
<u>1. INTF</u>	RODUCTION	8	
2. BAC	KGROUND	9	
2.1	SERVICE PROFILE	9	
2.1.1	SERVICE HISTORY	9	
2.1.2	SERVICE FUNCTION	10	
2.1.3	USERS OF THE SERVICE	12	
2.1.4	UNIQUE SERVICE CHALLENGES	14	
2.2	LEGISLATIVE REQUIREMENTS	15	
2.3	ASSET HIERARCHY	16	
3. SUN	IMARY OF ASSETS	19	
3.1	ASSET CONDITION GRADING	23	
3.2	ASSET CLASS PROFILE ANALYSIS	26	
3.2.1	PARK INFRASTRUCTURE PROFILE	26	
3.2.1.1	AGE PROFILE	26	
3.2.1.2	CONDITION METHODOLOGY & PROFILE	27	
3.2.1.3	ASSET USAGE AND PERFORMANCE	30	
3.2.2	OUTDOOR RECREATION AMENITIES PROFILE	30	
3.2.2.1	AGE PROFILE	31	
3.2.2.2	CONDITION METHODOLOGY & PROFILE	32	
3.2.2.3	ASSET USAGE AND PERFORMANCE	35	
3.2.3	TRAILS & WATERFRONT PROFILE	36	
3.2.3.1	AGE PROFILE	36	
3.2.3.2	CONDITION METHODOLOGY & PROFILE	36	
3.2.3.3	ASSET USAGE AND PERFORMANCE	38	
3.2.4	FACILITIES PROFILE	39	
3.2.4.1	AGE PROFILE	39	
3.2.4.2	CONDITION METHODOLOGY & PROFILE	40	
3.2.4.3	ASSET USAGE AND PERFORMANCE	41	
3.2.5	FLEET & EQUIPMENT PROFILE	42	
3.2.5.1	AGE PROFILE	42	
3.2.5.2	CONDITION METHODOLOGY & PROFILE ASSET USAGE AND PERFORMANCE	43 44	
J.Z.J.J	ASSET USAGE AND FERFURIVANCE	44	

<u>4. MU</u>	JNICIPALLY DEFINED LEVELS OF SERVICE	<u>45</u>
4.1	SURVEY METHODOLOGY	45
4.1	CUSTOMER VALUES	48
4.2	CUSTOMER LEVELS OF SERVICE	50
4.3.1	CUSTOMER INDICES	52
4.3.2	TECHNICAL LEVELS OF SERVICE	55
4.3.3	PROPOSED LEVELS OF SERVICE DISCUSSION	57
<u>5.</u> FU	TURE DEMAND	<u>59</u>
<b>-</b> 4	DEMAND DDIVEDO	50
5.1	DEMAND FORECASTS	59
5.2	DEMAND FORECASTS	59 50
5.3 5.4	DEMAND IMPACT AND DEMAND MANAGEMENT PLAN ASSET PROGRAMS TO MEET DEMAND	59 63
6 RIS	SK MANAGEMENT	64
<u> </u>	SK MANAGEMENT	
6.1	CRITICAL ASSETS	64
6.2	RISK ASSESSMENT	65
6.3	INFRASTRUCTURE RESILIENCE APPROACH	67
6.4	SERVICE AND RISK TRADE-OFFS	67
<u>7. CL</u>	IMATE CHANGE AND MITIGATION	69
7.1	CLIMATE CHANGE MITIGATION	69
7.2	CLIMATE CHANGE ADAPTATION	73
<u>8. LIF</u>	FECYCLE MANAGEMENT PLAN	81
0.4	ACCURATION DI ANI	0.4
8.1	ACQUISITION PLAN	81
8.2	OPERATIONS AND MAINTENANCE PLAN	86
8.3	RENEWAL PLAN	88
8.4	DISPOSAL PLAN	92
8.5	LIFECYCLE COST SUMMARY	94
9. FIN	NANCIAL SUMMARY	96
0.1	SUSTAINADII ITV OE SEDVICE DEI IV/FDV	O.G.
9.1	SUSTAINABILITY OF SERVICE DELIVERY	96
9.2	FORECAST COSTS (OUTLAYS) FOR THE LONG-TERM FINANCIAL PLAN	98
9.3 9.4	FUNDING STRATEGY VALUATION FORECASTS	100 100
IJ. <del>廿</del>	VALUATIONI ONLUAGIO	100

9.5	ASSET VALUATION	100
9.6	KEY ASSUMPTIONS MADE IN FINANCIAL FORECASTS	101
9.7	FORECAST RELIABILITY AND CONFIDENCE	101
<u>10.</u> PL	AN IMPROVEMENT AND MONITORING	104
10.1	STATUS OF ASSET MANAGEMENT PRACTICES	104
10.2	IMPROVEMENT PLAN	104
10.3	MONITORING AND REVIEW PROCEDURES	107
10.4	PERFORMANCE MEASURES	107
<u>11.</u> RE	EFERENCES	104
<u>12. AF</u>	PPENDIX "A" – SURVEY FINDINGS	1104
	TABLES AND FIGURES	
TABLE	1: Park Classification System Summary	11
	2: LEGISLATIVE REQUIREMENTS	
	3: Asset Class Hierarchy	
	4: Detailed Summary of Assets	
TABLE 5	5: EQUIVALENT CONDITION CONVERSION TABLE	24
TABLE 6	6: Inspection and Condition Information	28
TABLE 7	7: Known Service Performance Deficiencies	30
TABLE 8	8: Inspection and Condition Information	33
	9: Known Service Performance Deficiencies	
	10: Inspection and Condition Information	
	11: Known Service Performance Deficiencies	
	12: INSPECTION AND CONDITION INFORMATION	_
	13: KNOWN SERVICE PERFORMANCE DEFICIENCIES	
	14: INSPECTION AND CONDITION INFORMATION	
	15: Known Service Performance Deficiencies	
	16: Data Confidence Levels	
	17: SURVEY RESULTS – CONFIDENCE LEVEL, MARGIN OF ERROR	
	18: Customer Values 19: Customer Levels of Service	
	19: CUSTOMER LEVELS OF SERVICE	
	20: Customer indices21: Technical Levels of Service	
	22: Demand Management Plan	
	23: CRITICAL ASSETS23: CRITICAL ASSETS	
	20. ORTHOAL ASSETS	

Table 25: Service and Risk Tradeoffs	67
Table 26: Climate Change Mitigation Transformation	70
Table 27: Asset Climate Mitigation Projects	
Table 28: Managing the Demand of Climate Change on Assets and Services	75
Table 29: Adapting to Climate Change	77
Table 30: Asset Climate Mitigation Projects	79
Table 31: Useful Lives of Assets	
Table 32: Assets Identified for Disposal	93
Table 33: Forecast Costs for the Long-Term Financial Plan	98
Table 34: Data Confidence Assessment	102
Table 35: Improvement Plan	105
FIGURE 1: MAP OF CITY OF HAMILTON PARKS AND OPEN SP	
FIGURE 2: PARK INFRASTRUCTURE CONDITION DISTRIBUTION	
FIGURE 3: WILD WATERWORKS AND PLAY STRUCTURES AGE PROFILE	
FIGURE 4: OUTDOOR RECREATION AMENITIES CONDITION PROFILE	
FIGURE 5: TRAILS AND WATERFRONT CONDITION DISTRIBUTION	
FIGURE 6: FACILITIES AGE PROFILE	
FIGURE 7: FACILITIES ASSET CONDITION DISTRIBUTION	
FIGURE 8: FLEET & EQUIPMENT AGE PROFILE	
FIGURE 9: FLEET & EQUIPMENT CONDITION DISTRIBUTION	
FIGURE 10: IMPORTANCE VERSUS PERFORMANCE INDEX SCORE	
FIGURE 11: NET PROMOTER SCORE	
FIGURE 12: RATES VERSUS VALUE FOR MONEY INDEX SCORE	
FIGURE 13: ACQUISITION (CONSTRUCTED) SUMMARY	83
FIGURE 14: ACQUISITION SUMMARY	
FIGURE 15: OPERATIONS AND MAINTENANCE SUMMARY	87
FIGURE 16: FORECAST RENEWAL COSTS	91
FIGURE 17: LIFECYCLE SUMMARY	94

#### **SUMMARY AND QUICK FINDINGS**

#### **SERVICE PROFILE**



The purpose of Hamilton Parks is to provide administration, maintenance and management of the parks system including recreational trails within the City of Hamilton. Hamilton Parks delivers sustainable, accessible and inclusive parks services to the residents and visitors of the City emphasizing the importance of parks for health, wellbeing, and quality of life for all Hamilton residents.

#### **ASSET SUMMARY**



### Replacement Value \$643M

**FAIR** CONDITION
Average Age of **28** years
or **45%** of the average
remaining service life



#### LEVEL OF SERVICE SUMMARY

- Customers felt that Hamilton Parks performance was GOOD in providing services in the last 24 months.
- Customers feel that Parks services
   MEETS NEEDS overall.
- Customers are SATISFIED and AGREE to STRONGLY AGREE that Parks services are accessible to the public.

ASSET HIGHLIGHTS							
ASSETS	QUANTITY	REPLACEMENT COST	AVERAGE CONDITION	STEWARDSHIP MEASURES			
Park Infrastructure	6423	\$119M	Fair	Staff Inspections			
Outdoor Recreation Amenities	1031	\$198.1M	Fair	Staff Inspections			
Facilities	290	\$134.7M	Fair	Building Condition Assessments			
Trails & Waterfront	136	\$148M	Fair	Staff and 3 <sup>rd</sup> party inspections			

#### **DATA CONFIDENCE**



VERY HIGH MEDIUM A VERY LOW

#### **DEMAND DRIVERS**



**Population change** – Hamilton's population will continue to grow and Hamilton Parks will continue to see growth in demand for parkland and outdoor recreation opportunities. New developments will increase the number of Parks assets through parkland dedication.



**Customer Expectations** – Customers frequently ask for better than like-for-like replacement of assets or expansion of services. Recently desire has increased for year-round access to parks, trails and amenities.

## **V**

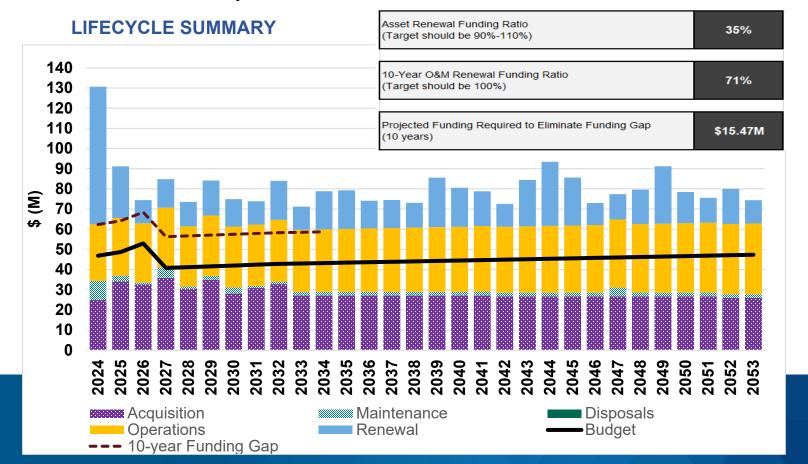
#### RISK

 Critical Assets are identified as escarpment stairs, park bridges, shoreline protection, and premier sports facilities.

#### **CLIMATE CHANGE MITIGATION**



- Targeted reduced mowing and renaturalization projects
- Piloting electric small equipment
- Working with Landscape Architecture Services (LAS) to meet canopy targets in park designs.
- Diverting dog park waste from landfills and recycling into fertilizer and electricity



#### 1. INTRODUCTION

Hamilton Parks provides administration, maintenance and management of the parks system including recreational trails within the City of Hamilton. The purpose of this Asset Management Plan (AM Plan) is to ensure that Parks has the required assets to deliver sustainable, accessible, and inclusive park services to the City.

This AM Plan is intended to communicate the requirements for the sustainable delivery of services through the management of assets, compliance with regulatory requirements (i.e., O. Reg 588/17<sup>1</sup>) and required funding to provide the appropriate levels of service over the 2024-2053 planning period.

The Parks section's assets include facilities for both public use and park maintenance, outdoor recreational amenities, and infrastructure including recreational pathways, lighting, furniture, and utilities. Vehicles, machinery, and equipment are used by Parks Staff to provide maintenance and management of Parks properties. The Parks section is also responsible for the recreational trails<sup>2</sup> system including the Waterfront Trail and associated shoreline assets.

Since Sunday, February 25, 2024, the City of Hamilton experienced a cyber incident that disabled some of the IT systems. As a result, this AM Plan was created based on the data that was accessible at the time of publication.

<sup>&</sup>lt;sup>1</sup> Government of Ontario, 2017

<sup>&</sup>lt;sup>2</sup> Recreational trails referenced in this report are multipurpose trails owned and managed by the City and located outside of the road right-of-way.

#### 2. BACKGROUND

The information in this section is intended to provide background on Parks service areas by providing service profiles, outlining legislative requirements and defining the asset hierarchy used throughout the report. This section will provide the necessary background for the remainder of the AM Plan.

#### 2.1 SERVICE PROFILE

Listed below are related documents reviewed in preparation of the Asset Management Plan:

- Asset Management Plan Overview Document;
- Hamilton Parks Master Plan, 2023<sup>3</sup>;
- City of Hamilton Recreation Master Plan, 2022<sup>4</sup>;
- City of Hamilton Recreational Trails Master Plan, 2016<sup>5</sup>;
- 2024 Development Charges Background Study<sup>6</sup>;
- Master Plan Study Wild Waterworks at Confederation Beach Park, 2020;
- City of Hamilton Escarpment Stairs Assessment, 2021;
- Shoreline Inventory and Assessment of City of Hamilton Owned Assets, 2019; and,
- Sport Lighting Condition Assessment, 2021 & Sport Lighting Condition Assessment Phase 2, 2022.

Additional financial-related documents are identified in **Section 10** Plan Improvement and Monitoring.

#### 2.1.1 SERVICE HISTORY

The City of Hamilton boasts approximately 1151 hectares of municipally-owned parkland at 373 locations and in excess of 1104 hectares of municipally-owned open space property at 125 locations, offering many opportunities for people of all ages to get outdoors and explore nature.

These properties have been acquired over the past two centuries, preserving many historical features and transforming them into the parks we know today. Hamilton's oldest parks include Gore Park, Gage Park, Dundurn Park, Hamilton Amateur Athletics Association (HAAA) Park, Battlefield Park, Confederation Beach Park, Woodlands Park, and Victoria Park.

Hamilton's many recreational trails encourage hikers, cyclists, rollerbladers, and nature lovers to enjoy the natural landscapes of the escarpment and valleys. Some of these trails are built on

<sup>&</sup>lt;sup>3</sup> (City of Hamilton, 2023)

<sup>&</sup>lt;sup>4</sup> (City of Hamilton, 2022)

<sup>&</sup>lt;sup>5</sup> (City of Hamilton, 2016)

<sup>&</sup>lt;sup>6</sup> (Watson & Associates Économists Ltd, 2024)

former rail lines and many trails preserve important transportation routes that have been used since the early days of the city. Bayfront Park, Pier 4 Park, the Hamilton Harbour Waterfront Trail, and Hamilton Beach Recreational Trail offer panoramic views of the Hamilton Harbour and northwest shoreline.

As the city's population grows, additional parks and open spaces are required for future residents to enjoy and for the protection and enhancement of our environment and health. Parks are found across the City, in all wards. Since amalgamation, more parks have been added, both in growth areas and in existing neighbourhoods. Hamilton's increasing number of park assets across a geographically vast municipality is challenging park maintenance budgets/resources to uphold service level standards.

In 2011, the Outdoor Recreation Facilities & Sports Field Provision Plan was published covering a wide range of topics and guiding municipal decision making. This plan was updated and built upon with the <u>Recreation Master Plan</u> completed in 2022, guiding the city's decision-making for the provisioning of outdoor recreation facilities for the next ten years and beyond.

In 2023, the City's first <u>Parks Master Plan</u> was completed. This document provides a framework to assess the current state of supply, and the ability of residents to access parkland and guides decision-making around management decisions and prioritization for acquisition of new parkland. The focus of the Master Plan is on the Neighbourhood Parks class.

#### 2.1.2 SERVICE FUNCTION

The intent of the park system is to emphasize the importance of parks for health, well-being, and quality of life for all Hamilton residents. The Planning Act requires that municipalities provide parkland to residents and sets contribution rates that must be met by developers as the city grows. The City works to ensure that parks, trails, and green spaces are properly designed and well-maintained to meet community needs.

#### Services include:

- Operation and maintenance of parklands, sports fields, recreational trails, playgrounds, and spray pads;
- Program support, development, and coordination;
- Ensuring the health and safety of our residents when accessing parks and parks services; and,
- Reviewing and commenting on parkland development and acquisition, and parkland design and redevelopment.

Hamilton benefits from these services in several ways, including:

 Improving the health of residents, encouraging residents' sense of pride, place and community;

- Providing opportunities for residents and visitors to play, relax and gather;
- Providing opportunities for residents to interface with green and natural environments; and,
- Contributing to a healthy natural environment and mitigating the impacts of climate change through the provision of naturalized areas, green spaces and trees, opportunities for ecological benefits, rainfall infiltration, reduction of the heat island effect, etc.

In order to deliver sustainable, accessible and inclusive park services, Parks require assets. Some ways assets support the delivery of the service include:

- The provision of outdoor recreation opportunities;
- Site works including vehicular access/internal roads, limited stormwater management, pedestrian and sport lighting, and pathways, that allow park properties to function at the desired level of service;
- Equipment and resources to maintain parks, trails, and open spaces at the desired level of service; and
- Administrative equipment to support the delivery of services.

The City manages a variety of types of parkland identified in **Table 1** to meet the needs of residents by providing different facilities and opportunities for recreation. City-wide parks are generally larger park sites with many functions containing major facilities. They vary significantly in size and shape and are often associated with unique cultural or historical features. Community Parks are generally four to seven hectares, located near major streets, and intended to serve large areas of approximately 20,000 residents. They often provide enhanced features including sports fields, spray pads, and washrooms. Neighbourhood Parks provide smaller well-distributed park spaces to provide parks within walking distance of residents' homes. Typically, two hectares in size, these parks provide walking paths, play structures and gathering space. The smallest park class is Parkettes. These parks are typically less than one hectare, offer limited facilities and are often found in older areas where large blocks of land are more challenging to provide.

Table 1: Park Classification System Summary

CLASS	# OF PARKS	TOTAL AREA (HECTARES)	MEDIAN AREA (HECTARES)
City Wide	24	480.5	17.41
Community	72	378.6	3.98
Neighbourhood	172	298.5	1.44
Parkette	109	28.6	0.21

#### 2.1.3 USERS OF THE SERVICE

Residents and visitors of all ages and abilities use Parks and open spaces for active and passive recreation opportunities, scientific, sporting, and cultural events/programming, and protection and enhancement of the natural environment. Some programs that Parks offer to residents and visitors include (but are not limited to):

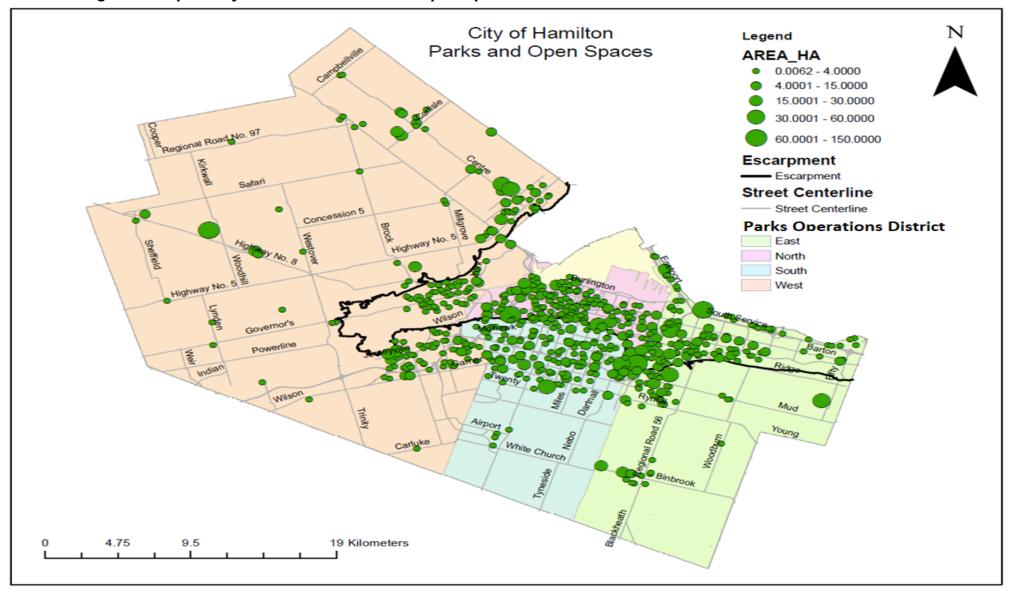
- Bee City Hamilton is the 39th city in Canada to be designated as a bee city. We commit to continuing to create new pollinator habitats, provide education and community outreach opportunities, and look for innovative ways to celebrate pollinators in our city. Visit the webpage here for more information (https://www.hamilton.ca/homeneighbourhood/environmental-stewardship/pollinators);
- Dog park program Hamilton offers residents and visitors two options to exercise their dogs: fenced-in dog parks and free running areas. Visit the webpage here for more information (https://www.hamilton.ca/home-neighbourhood/animals-pets/dogs/dogparks-and-free-running-areas); and,
- Community ice rink program Community ice rinks are built and operated in city parks by community volunteers, subject to location and available resources. Additionally, infrastructure for sports such as football, bocce, cricket, basketball, baseball, soccer, etc., are provided at many Hamilton Park locations. The Recreation section coordinates provisional recreational need requirements, bookings, fee collection and requests associated with sports and user groups while the Parks section manages the built infrastructure and maintenance. More details on the Recreation section can be found in the Recreation & Golf Asset Management Plan.

Based on the 2021<sup>7</sup> (2016) Census results, Hamilton's population is 569,353 (536,917), and the average household size is 2.5 (2.5) people. Parkland and natural open space are increasingly constrained due to population growth and residential intensification. Increasing population density makes park assets even more critical for residents' quality of life as they seek refuge and low/no-cost recreation. Additionally, natural open spaces and parklands are necessary for mitigating the negative impacts of climate change and shifting weather patterns (for example: heat island, stormwater management, etc).

Page 12 of 153

<sup>&</sup>lt;sup>7</sup> (Census Profile, 2021 Census of Population, 2021)

Figure 1: Map of City of Hamilton Parks and Open Spaces



#### 2.1.4 UNIQUE SERVICE CHALLENGES

Parks have several unique service challenges including:

- Growing population/development and frequent acquisition of new parkland and assets through the planning and neighbourhood development process increase the quantity and volume of assets to manage. Growth in assets is not always matched by growth in resources to maintain newly acquired or assumed infrastructure. Provincial changes to Development Charges legislation have resulted in additional funding pressures to parkland development;
- Current planning legislation only allows for parkland dedication allowances that support the development of Neighbourhood parkland. Any Community or City-Wide class parkland needs are required to be purchased through other City funding strategies;
- Increasing population density through residential growth is occurring in areas where
  vacant land is sparse and land acquisition is challenging. Residents living in higherdensity areas have less private outdoor space and rely on municipal parks, trails, and
  open spaces. Parks in these areas experience higher use and faster deterioration of
  assets. Land acquisition is more difficult and costly in already built-up areas and some of
  the land that does become available in these areas requires difficult and costly
  environmental remediation;
- The City of Hamilton is a geographically large municipality and Parks locations and assets
  are distributed throughout the municipality. Travelling between sites can be time
  consuming and requires work yards and equipment to be dispersed at multiple locations.
  If the urban boundary expands and asset distribution becomes continually more
  dispersed, additional work yards, equipment, staff may be needed to meet the current
  level of service.
- Existing assets are aging while existing funding for maintenance and renewal is limited
  and not sufficient to complete all desired planned maintenance activities or replace assets
  at the optimal time. Asset data and records are limited and stored in a variety of formats
  and locations. Assets are diverse and maintenance procedures are not standardized and
  documented for all assets. Some asset categories are particularly unique and present
  unique challenges including the escarpment stairs and Wild Waterworks;
- As some assets including sports fields and diamonds deteriorate to poor condition due to limited maintenance and renewal funding, residents gravitate towards the remaining assets in better condition. This leads to higher-than-ideal utilization in some fields with limited recovery time, causing premature deterioration and increasing maintenance costs.
- User expectations are continually rising with the desire for a large and diverse range of services. There is a desire for higher quantity and quality of assets, more variety of assets, and replacement with better than like-for-like assets. Changing demands and the desire for higher service levels have led to requests for outdoor park use and recreation

opportunities during winter. Expanded projects and increased services often require more significant front-end staffing to deliver projects, and necessitate higher acquisition, maintenance and renewal costs that can be challenging to fund;

The outdoor nature of parks assets and recreational trails as well as their locations within
and close to bodies of water, slopes and other hazard lands make them vulnerable to
many of the impacts of climate change. Staff have already begun to observe climate
change impacting the management of many assets through all stages of the lifecycle.

#### 2.2 LEGISLATIVE REQUIREMENTS

The most significant legislative requirements that impact the delivery of Parks services are outlined in *Table 2*. These requirements are considered throughout the report, and where relevant, are included in the levels of service measurements.

Table 2: Legislative Requirements

LEGISLATION OR REGULATION	REQUIREMENT
The Planning Act	This legislation enables municipalities to require the allocation of public parkland within a development or redevelopment as a condition of development approval. The Planning Act sets the following parkland contributions:  Standard rate: 5% of developable land for residential developments and 2% of developable land for non-residential developments (commercial, retail, institutional or industrial).  Alternative rate: One hectare per 300 proposed residential units for higher-density developments (contingent on an
	approved parks plan identifying the park need).  The Act enables municipalities in the province to enact by-
The Development Charges Act	laws to impose development charges against lands to be developed to pay for growth-related capital costs for municipal services such as roads, water, wastewater, public works, recreation, police and fire protection.
Development Charges By- law	City of Hamilton by-law that details development charges requirements.
Parkland Dedication By-law	This by-law implements cash-in-lieu or land dedication (or conveyance) requirements for parks in land development, redevelopment, or subdivision. It sets dedication rates for different types of development (rural, urban, downtown) and cash-in-lieu unit rates and caps.

LEGISLATION OR REGULATION	REQUIREMENT
Niagara Escarpment Planning and Development Act (NEPDA) and the Niagara Escarpment Plan	This legislation and plan direct how and what development activities can occur within the Niagara Escarpment to maintain a continuous natural landscape. Includes provisions for the Bruce Trail which traverses Hamilton through the escarpment area.
Growth Plan for the Greater Golden Horseshoe	<ul> <li>This plan identifies locations to concentrate growth and development. These locations impact park planning in two ways:</li> <li>Existing parks, in growth areas, may face increased pressure; and,</li> <li>New parks may be required to meet increasing demand.</li> </ul>
Urban and Rural Hamilton Official Plans and Secondary Plans	These plans identify where and how land can be developed or used and guide the built, social, economic, and open space components of Hamilton's urban and rural areas. These plans include policies that guide Hamilton's Park types, standards, access, and dedication.  Secondary plans are a component of the Urban Hamilton Official Plan and provide specific land use designations and policies for neighbourhoods across the City. They determine park locations, sizes, proximity to schools and natural open spaces, as well as other park characteristics.

#### 2.3 ASSET HIERARCHY

In order to deliver services, Parks requires assets. The Parks Service Area has been broken down into five asset classes for the purpose of this AM Plan:

- Park Infrastructure: refers to physical assets located at park locations such as pathways, parking lots, bridges, retaining walls, fencing, furniture, gardens, fountains, and signs. This also includes utilities such as water, wastewater, and stormwater facilities, lighting and electrical systems, and non-sport irrigation;
- Outdoor Recreation Amenities: refers to outdoor sporting facilities such as; diamonds, courts, fields, skate parks, outdoor exercise stations and natural community ice rinks. Also includes supporting components that are part of these assets such as; sport fencing, bleachers, nets, posts, and irrigation. Other outdoor recreational facilities located in parks include play structures, spray pads, dog parks and Wild Waterworks;

- **Facilities:** refers to any City-owned facilities necessary to deliver Parks services as well as public use Park facilities including washrooms, and pavilions;
- Trails and Waterfront: refers to recreational trails as well as the escarpment stairs and viewing platforms. It also includes the Waterfront Trail composed of the Lake Ontario Waterfront Trail and the Hamilton Harbour Waterfront Trail, the waterfront shoreline protection, and other waterfront assets including breakwaters, docks, and boat launches; and,
- Fleet and Equipment: refers to all fleet and equipment that support the delivery of Parks services.

Parks trees are included in the Forestry & Horticulture Asset Management Plan. Other Parks Natural Assets will be addressed in a separate Asset Management Plan focused on Natural Assets.

Table 3: Asset Class Hierarchy

SERVICE AREA	PARKS AND TRAILS						
ASSET CLASS	PARK INFRASTRUCTURE	OUTDOOR RECREATION AMENITIES	FACILITIES	TRAILS & WATERFRONT	FLEET & EQUIPMENT		
	<ul> <li>Park Pathways</li> <li>Fencing</li> <li>Bridges and Boardwalks</li> <li>Parkland Stormwater Assets</li> <li>Roads, Parking Lots and Retaining Walls</li> <li>Signs</li> <li>Furniture and Other</li> <li>Lighting and Electrical Infrastructure</li> </ul>	<ul> <li>Ball Diamonds</li> <li>Sports Courts</li> <li>Sports Fields</li> <li>Play Structures</li> <li>Spray Pads</li> <li>Dog Parks</li> <li>Community Ice Rinks</li> <li>Skate Parks</li> <li>Running Tracks and Exercise Stations</li> <li>Wild Waterworks</li> </ul>	<ul> <li>Pavilions and Sun Shelters</li> <li>Washrooms, Concessions, and Clubhouses</li> <li>Maintenance and Storage</li> <li>Ice Huts</li> <li>Shared Work Yards</li> </ul>	<ul> <li>Recreational Trails</li> <li>Escarpment Stairs</li> <li>Viewing Platforms</li> <li>Waterfront Trail</li> <li>Waterfront Shoreline Protection</li> <li>Other Waterfront Assets</li> </ul>	<ul> <li>Trucks and Passenger Vehicles</li> <li>Utility and Turf Maintenance Vehicles</li> <li>Small Equipment</li> <li>IT Equipment</li> </ul>		

### HAMILTON PARKS AND RECREATIONAL TRAILS Page 19 of 153 2024 ASSET MANAGEMENT PLAN

#### 3. SUMMARY OF ASSETS

This section provides a detailed summary and analysis of the existing inventory information as of October 2023 including age profile, condition methodology, condition profile, asset usage, and performance for each of the asset classes. *Table 4* displays the detailed summary of assets for the Parks service area. The sources for this data are a combination of data included in the City's database information. It is important to note that inventory information does change often and that this is a snapshot in time of information.

The City owns approximately **\$643.2 million** in Parks assets. To calculate the average age and condition, a weighted average calculation has been completed based on replacement cost and excludes assets where information is currently unavailable.

Assets are a weighted average of **28 years** in age which is **45%** of the average remaining service life (RSL); however, age data is largely only available for fleet and facilities assets with a few exceptions. Based on the limited age data available the overall data confidence for age and remaining service life is **Low**.

The assets are on average in **Fair** condition however there are a number of categories for many assets in the Park Infrastructure class, where condition data is not available. For many assets condition data is five or more years out of date and based on non-standard procedures. Based on the limitations of the data the overall data confidence for the condition is **Low**. Based on the data available for most assets this means that the City should be completing preventative, preservation and maintenance activities as well as operating activities (e.g., inspection, cleaning) to prevent any premature failures.

The Corporate Asset Management (CAM) Office acknowledges that some works and projects are being completed on an ongoing basis and that some of the noted deficiencies may already be completed at the time of publication. In addition, the assets included below are assets that are assumed and in service at the time of writing.

Data confidence associated with asset information is also presented in **Table 4**. Data confidence descriptions are outlined on *page 31*, in the <u>AM Plan Overview</u>. The replacement costs for many assets below are from the 2024 Development Charges Background Study<sup>8</sup>. For most Facilities assets, these replacement costs are calculated using an internal tool which encompasses current market rates, building type and size. Fleet and Equipment assets replacement costs were gathered from the most recent purchase price for similar assets. Replacement values for other items are generally based on inflated values of original purchase, recent purchase price for similar assets, or replacement cost estimates based on staff expert opinion.

<sup>&</sup>lt;sup>8</sup> For Parks assets there can be significant variability in asset features within the same category that result in highly variable replacement values. Tender prices for similar assets can also change significantly year to year. Based on these limitations the data is considered Medium confidence for this Asset Management Plan.

A continuous improvement item identified in *Table 35* is to implement an asset registry for all Parks assets which includes key database fields and follows the newly developed City Data Standard.

Table 4: Detailed Summary of Assets

PARK INFRASTRUCTURE					
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION	
Park Pathways	195.3 km	\$39.6M	No Dete	3-FAIR	
Data Confidence	High	Medium	No Data	Medium	
Fencing	20.9 km	\$2.1M	No Data	3-FAIR	
Data Confidence	Low	Low	NO Data	Medium	
Bridges and Boardwalks	24 Bridges No Data Boardwalks	\$3.6M	No Data	No Data	
Data Confidence	Medium	Low			
Parkland Stormwater Assets	443	\$5.8M	No Data	3-FAIR	
Data Confidence	Low	Low		Low	
Roads, Parking Lots and Retaining Walls	149 Parking Lots No Data – Roads & Retaining Walls	\$12.8M	No Data	No Data	
Data Confidence	Low	Low			
Signs	254	\$2.7M	No Data	2-GOOD	
Data Confidence	Low	Low	NO Data	Low	
Furniture and Other	1600	\$5.3M	No Data	No Data	
Data Confidence	Low	Low	NO Data	NO Data	
Lighting and Electrical Infrastructure	2350 Pedestrian Lights 820 Sports Lights 557 Pedestals 9.4km Wiring	\$47.1M	No Data	3-FAIR (Sport Lighting Only)	
Data Confidence	Medium	Medium		High (Sport Lighting Only)	
SUBTOTAL	\$119.0	M	N. D. C.	3-FAIR*	
Data Confidence	Mediun	n*	No Data	Low**	

OUTDOOR RECREATION AMENITIES						
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION		
Ball Diamonds	188	\$23.8M	No Data	2-GOOD		
Data Confidence	High	Medium	NO Data	Medium		
Sports Courts	209	\$16.6M	No Data	3-FAIR		
Data Confidence	High	Medium	NO Data	Medium		
Sports Fields	188	\$37.0M	No Data	3-FAIR		
Data Confidence	High	Medium	INO Data	Medium		
Play Structures	267	\$48.3M	13 (72%)	3-FAIR		
Data Confidence	High	Medium	High	Medium		
Spray Pads	71	\$48.2M	No Data	No Data		
Data Confidence	High	Medium	NO Data			
Dog Parks	14	\$1.2M	No Data	No Data		
Data Confidence	High	Medium	NO Data			
Community Ice Rinks	71	\$9.7M	No Data	No Data		
Data Confidence	High	Medium	NO Data	NO Data		
Skate Parks	7	\$8.6M	No Data	No Data		
Data Confidence	High	Medium	NO Data	INO Data		
Running Tracks and Exercise Stations	17	\$1.0M	No Data	No Data		
	High	Medium				
Wild Waterworks	1	\$24.9M	40 (20%)	4-POOR		
Data Confidence	Very High	Medium	Medium	High		
SUBTOTAL		\$219.3M	22* (54%)*	3-FAIR*		
Data Confidence	nce Medium*		Low**	Low**		

FACILITIES FACILITIES							
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION			
Pavilions and Sun Shelters	92	\$16.1M	30 (45%)	3-FAIR			
Data Confidence	Medium	Medium	Medium	Medium			
Washrooms, Concessions and Clubhouses	92	\$56.1M	38 (32%)	3-FAIR			

FACILITIES						
ASSET CATEGORY	NUMBER OF REPLACEMENT VALUE		AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION		
Data Confidence	High	Medium	High	High		
Maintenance and Storage	62	\$37.7M	36 (32%)	3-FAIR		
Data Confidence	Medium	Medium	High	Medium		
Ice Huts	39	\$2.3M	No Data	No Data		
Data Confidence	High	Medium	No Data	NO Data		
Shared Work Yards	5	\$22.5M	53 (30%)	3-FAIR		
Data Confidence	Very High	Medium	High	High		
SUBTOTAL	\$134.7M		39* (33%)*	3-FAIR*		
Data Confidence	Me	edium*	High*	High*		

TRAILS & WATERFRONT						
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION		
Recreational Trails	92 km	\$17.0M	No Data	3-FAIR		
Data Confidence	High	Low	NO Data	Low		
Escarpment Stairs	13	\$32.7M	No Data	3-FAIR		
Data Confidence	Very High	Low	NO Data	High		
Viewing Platforms	N2	\$4.0M	No Data	No Data		
Data Confidence	High	Low	NO Data	No Data		
Waterfront Trail	17.7 km	\$10.6M	No Data	3-FAIR		
Data Confidence	High	Medium	NO Data	Medium		
Waterfront Shoreline Protection	13 km	\$87.8M	No Data	3-FAIR		
Data Confidence	Medium	Low		High		
Other Waterfront Assets	No Doto	N. D. (	No Dete	Na Data		
Data Confidence	No Data	No Data	No Data	No Data		
SUBTOTAL	\$148.0M		No Doto	4-FAIR*		
Data Confidence	Low*		No Data	High*		

FLEET & EQUIPMENT						
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (% RSL)	AVERAGE EQUIVALENT CONDITION		
Trucks and Passenger Vehicles	83	\$5.5M	8 (24%)	4-POOR		
Data Confidence	High	Medium	High	Low		
Utility and Turf Maintenance Vehicles	230	\$11.6M	8 (34%)	4-POOR		
Data Confidence	High	Medium	High	Low		
IT Equipment	62	\$0.1M	3 (27%)	4-POOR		
Data Confidence	High	High	High	Low		
Small Equipment	462	\$1.0M	5 (47%)	3-FAIR		
Data Confidence	Medium	Low	Low	Low		
SUBTOTAL	\$18.2 <b>M</b>		8 (32%)*	4-POOR*		
Data Confidence	M	edium	High*	Low*		

TOTAL	\$643.2M	28* (45%)*	3-FAIR
Data Confidence	Medium*	Low**	Low**

<sup>\*</sup>Weighted average by replacement value

#### 3.1 ASSET CONDITION GRADING

Condition refers to the physical state assets are in, a measure of the physical integrity of these assets or components and is the preferred measurement for planning lifecycle activities to ensure assets reach their expected useful life.

Since condition scores are reported using different scales and ranges depending on the asset, **Table 5** below shows how each rating was converted to a standardized five-point condition category so that the condition could be reported consistently across the AM Plan. A continuous improvement item identified in **Table 35**, is to review existing internal condition assessments and ensure they are revised to report on the same five-point scale with equivalent descriptions.

<sup>\*\*</sup>Overall data confidence for Average Age (%RSL) and Average Equivalent Condition is based on subject matter expert opinion rather than weighted average by replacement value due to the overall lack of data and number of categories with no data available

Table 5: Equivalent Condition Conversion Table

l able 5:	Table 5: Equivalent Condition Conversion Table							
EQUIVALENT CONDITION GRADING CATEGORY	CONDITION DESCRIPTION	% REMAINING SERVICE LIFE	FACILITIES CONDITION INDEX (FCI)	SPORT LIGHTING, SPORTS FIELDS, COURTS AND DIAMONDS, FENCING	PLAY STRUCTURES, PARK SIGNS, PARK PATHWAYS, STORMWATER ASSETS	WILD WATERWORKS	ESCARPMENT STAIRS	SHORELINE PROTECTION
1 Very Good	The asset is new, recently rehabilitated, or very well maintained. Preventative maintenance is required only.	>79.5%	N/A	N/A	EXCELLENT	N/A	N/A	VERY GOOD
2 Good	The asset is adequate and has slight defects and shows signs of some deterioration that has no significant impact on the asset's usage. Minor/preventative maintenance may be required.	69.5% – 79.4%	< 5%	GOOD	GOOD	Minor to moderate maintenance only	GOOD – 10+ remaining service years without intervention	GOOD
3 Fair	The asset is sound but has minor defects. Deterioration has some impact on asset usage. Minor to significant maintenance is required.	39.5% - 69.4%	>= 5% to < 10%	FAIR	FAIR	Significant maintenance in the medium- term	FAIR – 5-10 remaining service years without intervention	FAIR
4 Poor	The asset has significant defects and deterioration. Deterioration has an impact on asset usage. Rehabilitation or major maintenance is required in the next year.	19.5% - 39.4%	>= 10% to <30%	POOR	POOR	Major maintenance in the short-term	POOR – 2-5 remaining service years without intervention	POOR
5 Very Poor	The asset has serious defects and deterioration. The asset is not fit for use. Urgent rehabilitation or closure is required.	<19.4%	>= 30%	N/A	N/A	Replace	CRITICAL – 1-2 remaining service years without intervention	VERY POOR

The following conversion assumptions were made:

- For assets where a condition assessment was not completed, but age information was known, the condition was based on the percent of remaining service life;
- Facilities Condition Index was based on ranges provided by a consultant who has completed Building Condition Assessments (BCA) for the City which corresponds to a four-point scale; therefore, facilities will not be able to attain a score of 1–Very Good;
- Sports Field's condition is primarily based on the condition of the grading. For the small number of fields that have fencing, the condition was based on an average of grading and sport fencing conditions. Both grading and fence conditions were produced by staff visual inspection;
- Ball Diamonds condition was based on an average of the condition of the grading and sport fencing condition however, if grading was in poor condition the overall field condition was rated poor. Both grading and fence condition was produced by staff visual inspection;
- Hard Surface Court condition was based on an average of fencing condition, surface condition, and furnishings (nets, posts, and lines) condition however, if the surface was in poor condition the overall court condition was rated poor. All conditions were produced by staff visual inspection;
- For Play Structures, Park Signs, and Park Pathways conditions were based on overall condition ratings produced by visual inspections by Parks Staff;
- Sport Lighting, Wild Waterworks, Escarpment Stairs, and Shoreline Protection condition ratings were based on engineering consultant reports; and,
- For Fleet and Equipment assets, the condition was based on the percent of remaining service life.

#### 3.2 ASSET CLASS PROFILE ANALYSIS

This section outlines the Age Profile, Condition Methodology, Condition Profile and Performance Issues for each of the asset classes.

- The age of an asset is an important consideration in the asset management process as it can be used for planning purposes as typically assets have an estimated service life (ESL) where they can be planned for replacement. Some lower-cost or lower criticality assets can be planned for renewal based on age as a proxy for condition or until other condition methodologies are established. It should be noted that if an asset's condition is based on age, it is typically considered to be of a low confidence level. Although typically, age is used when projecting replacements beyond the 10-year forecast to predict degradation;'
- Condition refers to the physical state of assets and is a measure of the physical integrity
  of assets or components and is the preferred measurement for planning lifecycle activities
  to ensure assets reach their expected useful life. Assets are inspected/assessed at
  different frequencies and using different methodologies to determine their condition which
  are noted in this section; and,
- Finally, there are often insufficient resources to address all known asset deficiencies, and so performance issues may arise which must be noted and prioritized.

#### 3.2.1 PARK INFRASTRUCTURE PROFILE

The asset profile information for Park Infrastructure asset classes is included in each section below and includes an age profile, the condition methodology used, the condition profile, and asset usage and performance.

This asset class contains physical assets at park locations that facilitate use of the park such as pathways, parking lots, bridges, retaining walls, fencing, furniture, gardens, fountains and signs. This also includes utilities such as water, wastewater, and stormwater facilities, lighting and electrical systems, and non-sport irrigation.

#### 3.2.1.1 AGE PROFILE

At this time age data is not known for Park Infrastructure assets.

#### 3.2.1.2 CONDITION METHODOLOGY & PROFILE

Asphalt Park Pathways, Park Feature Signs and General (non-sport) Fencing were inspected by seasonal staff in 2018 and 2019. This data generally Medium confidence level.

For asphalt Park Pathways, seven types of distress were evaluated on a four-point scale. A standardized pictorial guide was used to improve the consistency of ratings. Based on staff subject matter expert opinion, ratings were adjusted down by one grade to represent deterioration that has occurred since the inspection was completed five years ago.

Sign condition and footing condition were each rated on a four-point scale. An average of the two was used to create an overall condition.

Park general (non-sport) Fencing inspections rated five components of each fence segment on a three-point scale. An overall condition was produced for each segment based on the number and severity of issues reported.

An overall condition for Parkland Stormwater assets of fair was assigned based on staff subject matter expert opinion.

Sports Lighting was inspected by R.V. Anderson Associates Limited in two phases in 2021 and 2022. Lighting at all diamonds, sports fields, and courts has been inspected. There is one remaining phase of inspections yet to be completed on smaller lighting systems including ice rinks and private sports clubs. A four-point condition scale was used. Pedestrian lighting and lighting on recreational trails have not been inspected.

Condition data is not available for many Park Infrastructure assets. A comprehensive asset inspection program for all assets should be developed identifying the frequency of inspections and developing five-point scales for use during inspection so a condition can be determined. Condition assessment frequency should also be determined for asset categories, so condition is being reviewed and updated on a regular basis to better identify asset service lives. This has been added as a Continuous Improvement item in *Table 35*.

Visual safety inspections are performed by park maintenance crews on a regular basis. These inspections generally occur when crews are in the park, once per seven working days in the summer and once monthly during the winter.

Table 6: Inspection and Condition Information

ASSET	INSPECTION FREQUENCY	LAST FORMAL INSPECTION	CONDITION SCORE OUTPUT
Park Pathways	Hoc as funding allows with a 5- year target cycle		4-Point Scale
Fencing	Annual inspections for safety concerns  Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle	ections for safety  lition inspections Ad ing allows with a 5-	
Bridges and Boardwalks	Annual inspections for safety concerns  2012 Formal condition inspections Ad Hoc		Condition Score not reported
Parkland Stormwater Assets	Annual inspections for safety concerns	N/A	N/A
Roads, Parking Lots and Retaining Walls	•		N/A
Park Feature Signs	Annual inspections for safety concerns  Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle	2018/19	4-Point Scale
Furniture and Other	Annual inspections for safety concerns  N/A  Garbage Bins are emptied 2-3x weekly and replaced as necessary		N/A
Annual inspections for safety concerns  Electrical Infrastructure Formal condition inspections Ad Hoc as funding allows		Sport Lighting Inspections completed in 2021 and 2022	3-Point Scale

#### **Condition Profile**

The condition profile of the Park Infrastructure assets is shown in *Figure 2*. As mentioned in *Section 3.1*, the original condition grades were converted to a standardized condition category for report consistency.

Park Feature Signs are generally in good condition and show a fairly even distribution of conditions across all categories, illustrating a potentially healthy asset management approach. Asphalt Park Pathways are generally in fair condition with a significant portion in poor and very poor condition.

More than half of non-sport Fencing is in fair or better condition. The remaining 47 percent of non-sport Fencing is in poor condition.

The condition of Lighting and Electrical assets is generally unknown other than Sport Lighting which is generally in fair condition. There is a small percentage that is in poor condition identified by a consultant. These assets are being regularly monitored and will be evaluated for action if safety concerns are identified.

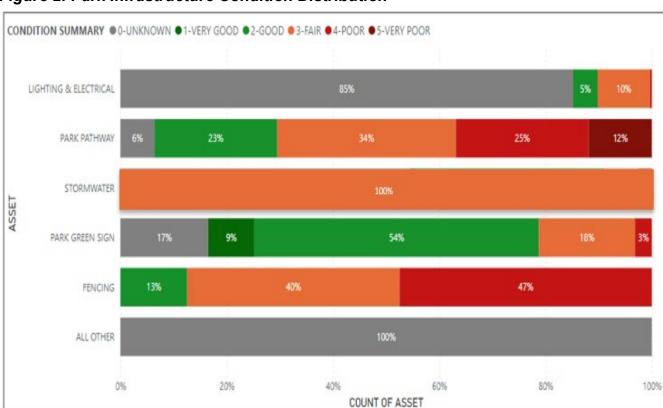


Figure 2: Park Infrastructure Condition Distribution

#### 3.2.1.3 ASSET USAGE AND PERFORMANCE

The largest performance issues with Park Infrastructure involve assets in poor condition due to deterioration and age. The known service performance deficiencies in *Table 7* were identified using staff input, BCA data and consultant report findings for Sport Lighting.

Table 7: Known Service Performance Deficiencies

ASSET	LOCATION	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
Park Feature Signs	Various	Signs are important to wayfinding and emergency services response.	Signs can be missing, in poor condition or duplicate park names in different parts of the City.
Sport Lighting	Various	Many poles and fixtures are at the end of life.	Deficiencies noted requiring short-term action to maintain or address near end-of-life assets. Medium and long-term recommendations made by consultants to maintain assets.
Parking Lots and Roads	Various	Deteriorating asphalt.	Parking Lot and Roadway repairs are identified in the Corporate Facilities and Energy Management (CFEM) 10-year plan.
Stormwater	Various	Insufficient stormwater management and poor drainage.	Many areas with insufficient stormwater management and poor drainage leading to flooding and over-saturation issues. Climate and changing weather patterns will increase the impacts of this deficiency.

#### 3.2.2 OUTDOOR RECREATION AMENITIES PROFILE

The asset profile information for the Outdoor Recreation Amenities asset class is included in each section below and includes an age profile, the condition methodology used, the condition profile, and asset usage and performance.

This asset class contains outdoor sporting facilities such as; diamonds, courts, fields, skate parks, outdoor exercise stations, and natural community ice rinks. Also included are supporting components that are part of these assets such as; sport fencing, bleachers, nets, posts and irrigation. Other outdoor non-sporting recreational facilities located in parks including play structures, spray pads, dog parks and Wild Waterworks.

#### 3.2.2.1 AGE PROFILE

The age profile of the outdoor recreation amenities assets is shown in *Figure 3*. An analysis of the age profile is provided below.

Wild Waterworks was constructed in 1983 and is approaching the end of service life as was identified in the recently completed master plan study. The 2020 study estimates that a like-for-like replacement of the facility would cost \$24.92 million.

Play Structures have an estimated service life of 20 years. Thirty percent of Play Structures installed prior to 2004 are therefore beyond their service life and likely require replacement. It can be seen in *Figure 3* that the age profile of Play Structures is relatively evenly distributed, and it can be expected multiple play structures will require renewal every year.

Age data is not available for any of the other assets in this class and they have been omitted from *Figure 3*.

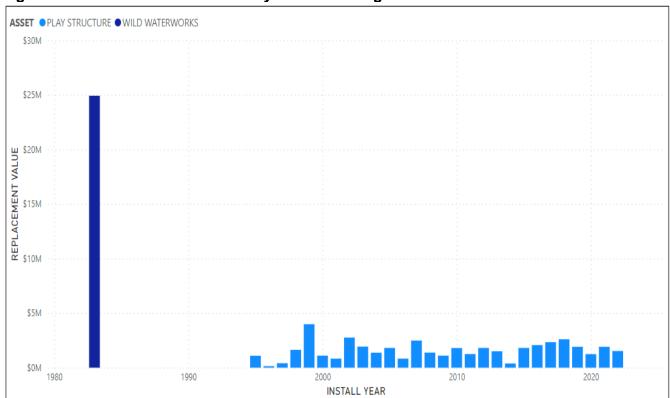


Figure 3: Wild Waterworks and Play Structures Age Profile

#### 3.2.2.2 CONDITION METHODOLOGY & PROFILE

Hard Surface Courts, Sports Fields, and Ball Diamonds including the associated sport fencing were inspected by seasonal staff in 2018 and 2019. This data is generally Medium confidence level.

For Sports fencing, five components of each fence segment were rated on a 3-point scale. This data was incorporated with the other condition data for Hard Surface Courts, Sports Fields, and Ball Diamonds to create overall condition ratings.

An overall condition for Hard Surface Courts has been created by averaging the condition of fencing, surface and finishings however, if the surface was in poor condition the overall condition was rated as poor.

Fields condition is primarily based on grading condition. An overall condition was produced for each segment based on the number and severity of issues reported. For the small number of fields that have fencing, the condition was based on an average of grading and sport fencing conditions.

Ball Diamond condition was based on an average of grading condition and sport fencing condition however if grading was in poor condition the overall field condition was rated poor.

Play Structures are visually inspected on a monthly basis by certified inspectors in accordance with CAN/CSA-Z614-98. Detected deficiencies are to be dealt with prior to the next monthly inspection and any major deficiencies posing safety risk are dealt with immediately.

For Wild Waterworks, an Aquatic Engineering Facility Review was completed by Forrec and ClowardH2O in October 2018 as part of the Wild Waterwork Master Plan Study. Evaluation and recommendations were reported on for five main areas: Wave pool, East Slides, East Kids Pool, West Slides, and West River.

Condition data is either not available or not consistently documented for many Outdoor Recreation Amenities. A comprehensive asset inspection program for all assets should be developed identifying the frequency of inspection and developing five-point scales for use during inspection so a condition can be determined. Condition assessment frequency should also be determined for asset categories, so condition is being reviewed and updated on a regular basis to better identify asset service lives. This has been identified as a Continuous Improvement item in *Table 35*.

Table 8: Inspection and Condition Information

ASSET	INSPECTION FREQUENCY	LAST FORMAL INSPECTION	CONDITION SCORE OUTPUT	
Ball Diamonds	Annual inspections for safety concerns  Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle	2018/19	3-point scale	
Annual inspections for safety concerns  Sports Courts  Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle		2018/19	3-point scale	
Annual inspections for safety concerns  Sports Fields  Formal condition inspections Ad Hoc as funding allows with a 5-yea target cycle		2018/19	3-point scale	
Play Structures	Monthly in accordance with		4-point scale	
Spray Pads	Monthly during operating season May-October	Frequent	No Condition Score is produced	
Dog Parks	Ad Hoc	N/A	N/A	
Community Ice Rinks	Responsibility of local volunteer committees	N/A	N/A	
Skate Parks & Exercise Stations	Weekly	Frequent	No Condition Score is produced	
Wild Waterworks	<ol> <li>Operated by Conservation Authority</li> <li>Annual inspections performed by the Technical Standards and Safety Authority (TSSA) and Hamilton Public Health to ensure safety.</li> <li>Condition Inspection Report</li> </ol>	TSSA and Public Health Inspections Annually  2018 Engineering inspection performed by consultant	TSSA Approval to operate, Pass from Public Health Oiiiii0pl	

#### **Condition Profile**

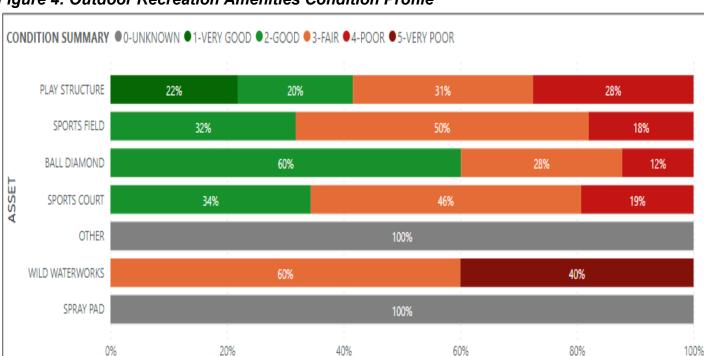
The condition profile of the Parks Outdoor Recreation Amenities assets is shown in *Figure 4*. As mentioned in *Section 3.1*, the original condition grades were converted to a standardized condition category for report consistency.

Based on inspection data, play Structures show nearly 75% in Fair or better condition. Of note is the 28% of Play Structures in Poor condition.

Sports Fields, Ball Diamonds and Sports Courts are generally in Fair or better condition with over 80 percent of all assets in Fair or better condition. These condition profiles show a wide distribution of assets in each category.

As is noted in the Aquatic Engineering Facility Review completed as part of the Wild Water Works Master Plan Study, many structures and components that make up the water park are reaching the end of life. Report HSC20048 Status and Strategy for Wild Waterworks presented on November 5, 2020, and Report PW23067 Wild Waterworks and Confederation Beach Park presented to the Public Works Committee on October 30, 2023, outlined the condition and options for the waterpark.

There is no condition data available for the other assets in the Outdoor Recreation Amenity class.



COUNT OF ASSET

Figure 4: Outdoor Recreation Amenities Condition Profile

#### 3.2.2.3 ASSET USAGE AND PERFORMANCE

The largest performance issues with Outdoor Recreation Amenities involve assets in poor condition due to deterioration and age. The known service performance deficiencies in *Table 9* were identified using staff input.

Table 9: Known Service Performance Deficiencies

ASSET	LOCATION	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
	Wild Waterworks	Reaching end of life.	The facility is reaching the end of its service life. Significant renewal is required as components are not only outdated but also inadequate for the projected number of guests.
	Play Structures	Poor condition structures and structures beyond the end of expected life.	69 of the 267 play structures are in poor condition with installation dates from 1995-2005.
OUTDOOR	Various Assets	Poor drainage is exacerbated by changing climate and increased rainfall.	Assets including sports fields, diamonds, and courts were not designed for the intensity of rainfall experiences leading to drainage issues, deterioration of assets, and interruptions in service.
RECREATION AMENITIES	Bernie Arbour Stadium and Field	Various assets including sport lighting, building, and parking lot	The amenity is aging and experiencing significant deterioration. The building is deficient in multiple code-related areas and non-compliant with AODA
	Various Assets	Various	Changing expectations and legislation leading to needed upgrades (i.e., unpaved parking lots and pathways, accessibility requirements, washrooms, lighting)
	Sports Fields and Ball Diamonds	Higher quality/class Fields & Diamonds	Higher than recommended use of higher quality fields/diamonds in some areas leads to over-use, more compaction, and less recovery time

#### 3.2.3 TRAILS AND WATERFRONT PROFILE

The asset profile information for Trails and Waterfront asset classes is included in each section below and includes an age profile, the condition methodology used, the condition profile, and asset usage and performance.

This asset class includes Recreational Trails as well as other assets often located outside of Parks properties but managed by the Parks section including the Escarpment Stairs and Viewing Platforms. It also includes the Waterfront Trail composed of the Lake Ontario Waterfront Trail and the Hamilton Harbour Waterfront Trail, the waterfront Shoreline Protection, and other waterfront assets including breakwaters, docks and boat launches.

#### 3.2.3.1 AGE PROFILE

At this time age data is not known for any trails and waterfront assets.

#### 3.2.3.2 CONDITION METHODOLOGY AND PROFILE

An Engineering Assessment of the escarpment staircases was completed by R.V. Anderson Associated (RVA) in 2021. Visual inspections of 13 staircases were performed and the condition was rated on a four-point scale. Recommended works with cost estimates and rehabilitation timelines were also recommended for each of the staircases and their related structural and lighting components.

The waterfront trail was inspected with all other asphalt park pathways. The condition is based on an inspection performed by seasonal staff in 2018 and 2019. Seven types of distress were evaluated on a four-point scale. A pictorial guide was used to improve the consistency of ratings. Based on staff subject matter expert opinion, ratings were adjusted down by one grade to represent deterioration that has occurred since the inspection was completed five years ago.

An Engineering Assessment of shoreline protection was completed by SNC Lavalin in 2019. This inspection was generally limited to the above-water portion of assets which were visually inspected at site visits. The inspection was completed in segments or "sites" of the trail that had similar construction. Unmanned Aerial Vehicle (UAV) based aerial photogrammetry was also used to map and survey the sites. Each site was rated on a five-point scale to establish the condition. The report also provided recommendations related to remediation work on a site-by-site basis.

The condition of recreational trails and viewing platforms is not formally recorded at this time.

Table 10: Inspection and Condition Information

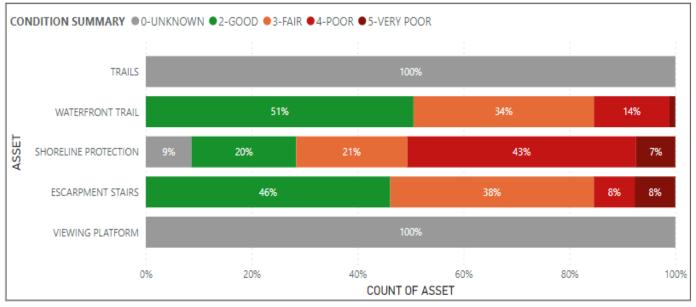
ASSET	INSPECTION FREQUENCY	LAST FORMAL INSPECTION	CONDITION SCORE OUTPUT
Trails	Annual inspections for safety concerns	N/A	Deficiencies are identified and scheduled for repair.
Waterfront Trail	Annual inspections for safety concerns  Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle	2018/19	4-Point Scale
Shoreline Protection	Ad Hoc	2019, SNC Lavalin	5-Point Scale
Escarpment Stairs	Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle	2021, RVA	4-Point Scale
Viewing Platforms	Formal condition inspections Ad Hoc as funding allows with a 5-year target cycle	N/A	Deficiencies are identified and scheduled for repair.

The visual surface asphalt condition of the Waterfront Trail is mainly in Fair or better condition. Lake Ontario has experienced historically high-water levels throughout the past decade and combined with age-related deterioration, severe weather events, and wave action the Waterfront Trail and Shoreline Protection have been damaged and degraded. The City has received significant federal funding through the Disaster Mitigation and Adaptation Fund (DMAF) to undertake repairs and renewal of Shoreline Protection and associated trails along the waterfront (Report FCS 19038<sup>9</sup>).

The Escarpment Stairs are in generally Good to Fair condition. The stairs provide a vital transportation connection between the upper and lower city and are used by many for daily commuting and exercise. The Escarpment Stairs are a unique asset presenting challenges for maintenance as they can be difficult to access with equipment but are an important part of the city's transportation network and should be maintained to provide a safe and accessible route for pedestrians while encouraging active transportation.

<sup>&</sup>lt;sup>9</sup> (City of Hamilton, 2019)

Figure 5: Trails and Waterfront Condition Distribution



### 3.2.3.3 ASSET USAGE AND PERFORMANCE

The largest performance issues with Trails & Waterfront involve assets in poor condition due to deterioration and age. The known service performance deficiencies in *Table 11* were identified using staff input and consultant report recommendations for Escarpment Stairs.

Table 11: Known Service Performance Deficiencies

ASSET	LOCATION	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
TRAILS AND WATERFRONT	Shoreline Protection	A significant number of sites are in poor condition	Significant repairs and replacement are required. Many sites are being deteriorated by wave action and overtopping.
	Escarpment Stairs	Some deficiencies noted that require action to extend service life.	Medium Term recommendations for all staircases.
	Recreational Trails	Deterioration of rail trail from Corktown to Mohawk Sports Park. Radial Trail.	Study underway of rail trail from Corktown to Mohawk Sports Park to identify deficiencies and restoration options.

### 3.2.4 FACILITIES PROFILE

The asset profile information for Facilities asset classes is included in each section below and includes an age profile, the condition methodology used, the condition profile, and asset usage and performance.

This class contains any City-owned facilities necessary to deliver Parks services as well as public use Park facilities including Washrooms and Pavilions.

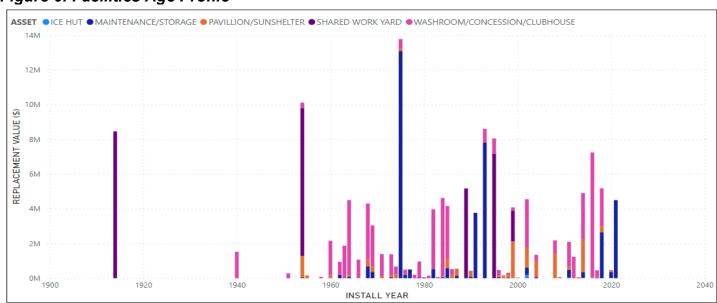
### 3.2.4.1 AGE PROFILE

The age profile of the facility assets is shown in *Figure 6.* An analysis of the age profile is provided below.

For Parks Facility assets, the data confidence for age is typically High because this information was recorded during the construction of the facilities. For Ice Huts, small storage sheds, and sun shelters, age data was not available. Most of the Parks Facilities have an estimated service life of 50 years and therefore most facilities built before 1974 would be beyond estimated service life. If a facility was more than 50 years old but the facility's condition was reported as good based on a Facility Condition Assessment, the estimated service was extended to 75 years.

The two highest-value facilities beyond estimated service life are both shared work yards. For shared work yards, a percentage of the total replacement value has been allocated that matches the percentage of total space occupied by Parks. The City's work yards, including those occupied by Parks, are currently being evaluated as part of an ongoing study by the Corporate Facilities and Energy Management Division (CFEM).





### 3.2.4.2 CONDITION METHODOLOGY AND PROFILE

Condition for Parks Facilities is generally determined based on the results of a Building Condition Assessment (BCA) coordinated by the Corporate Facilities and Energy Management Division (CFEM). The BCA identifies necessary major and minor maintenance activities in a 10-year forecast with projected costs and outputs a detailed report outlining methodology, overall findings, and conditions.

BCAs are completed on park facilities every five years and output a score called a Facility Condition Index (FCI) which is considered to be a high confidence level source for condition. The FCI is a ratio of the total cost for required repairs, renewal, or upgrades to the replacement value of building components. The 10-year forecast from the BCAs was incorporated into the maintenance plan shown in **Section 8.2**.

A summary of the Facilities' condition methodology including conversion from FCI to a standardized five-point scale is provided in **Section 3.1**.

BCAs are generally only completed on enclosed buildings, not on open shade structures, and are not completed on very small structures including ice huts and small storage sheds. Some of these structures have age data stored by CFEM and condition was estimated based on age and an estimated service life of 50 years. These structures typically have relatively low replacement values and risk and would be allowed to degrade until replacement is required. Many ice huts are not included in the data kept by CFEM. No estimated conditions could be produced for these structures.

Table 12: Inspection and Condition Information

ASSET	INSPECTION FREQUENCY	LAST INSPECTION	CONDITION SCORE OUTPUT	
Facilities	5 years	Various	%FCI	
Small Buildings (non- occupied)	Ad Hoc	Ad Hoc	None	

Facilities are generally in Fair condition with the exception of the shared work yards which are in generally Poor condition. As previously mentioned, the City's work yards, including those occupied by Parks, are currently being evaluated as part of an ongoing study by CFEM.

60%

COUNT OF ASSET

80%

100%

# HAMILTON PARKS AND RECREATIONAL TRAILS 2024 ASSET MANAGEMENT PLAN

CONDITION SUMMARY ● 0-UNKNOWN ● 2-GOOD ● 3-FAIR ● 4-POOR ● 5-VERY POOR PAVILLION/SUNSHELTER 37% 22% 10% WASHROOM/CONCESSION/CLUBHOUSE 44% 20% 19% ASSET MAINTENANCE/STORAGE 31% 16% ICE HUT SHARED WORK YARD 80%

Figure 7: Facilities Asset Condition Distribution

### 3.2.4.3 ASSET USAGE AND PERFORMANCE

The largest performance issues with Parks Facilities involve assets in poor condition due to deterioration and age. The known service performance deficiencies in *Table 13* were identified using BCA data.

20%

Table 13: Known Service Performance Deficiencies

0%

ASSET	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
	Roofing Replacements	Roofing replacement at various structures in the backlog.
PARKS FACILITIES	Superstructure Repairs	Superstructure repairs at various structures in the backlog.
	Plumbing Fixture Replacements and Repairs	Plumbing replacement and repairs at various structures in the backlog.
	Electrical Service and Distribution	Electrical refurbishments at various structures are in backlog.
SHARED USE YARDS	Asphalt Replacements and Repairs	Significant needs are at all five shared use yards.

### 3.2.5 FLEET AND EQUIPMENT PROFILE

The asset profile information for Fleet and Equipment asset classes is included in each section below and includes an age profile, the condition methodology used, the condition profile, and asset usage and performance.

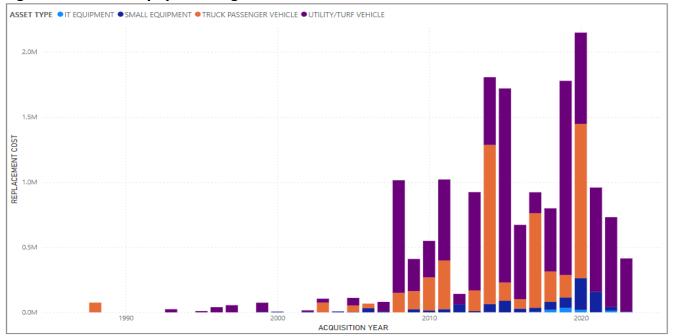
### 3.2.5.1 AGE PROFILE

The age profile of the Fleet and Equipment assets is shown in *Figure 8*. The age of these assets is considered to be high data confidence because they are recorded at the time of purchase. An analysis of the age profile is provided below.

The Estimated Service Life (ESL) for a vehicle is an average of 10 years therefore, any vehicles purchased before 2014 are beyond their service life. Forty-eight out of 83 trucks and passenger vehicles are past the end of service life or at the end of service life in 2024, of which 12 are extended use. Ninety-six of the 230 turf and utility vehicles are past the end of service life or at the end of service life in 2024 of which only three are extended-use vehicles.

Extended-use vehicles are vehicles that have already had replacements put into service, but the area is maintaining the replaced vehicle for a period of time beyond the arrival of the replacement vehicle. The extended-use vehicles have been included in the condition details in *Figure 8* below and contribute to the increased percentage of Very Poor vehicles. Extended-use vehicles are not included in the replacement value calculations as they are still in use but upon disposal are not intended to be replaced. A significant number of vehicles are past the end of service life and not extended use and require replacement in the near term to adequately deliver Parks services. In the Parks service area, the vehicles are generally being used to mitigate pandemic-related purchasing delays as old vehicles are kept while awaiting the acquisition of additional vehicles required due to growth. A continuous improvement item is to review the extended-use vehicles and develop a long-term strategy for the fleet and their usage, see the continuous improvement *Table 35* for more information.

Figure 8: Fleet & Equipment Age Profile



### 3.2.5.2 CONDITION METHODOLOGY AND PROFILE

As shown in *Table 14* below, the condition for Fleet and Equipment assets is based on age as there are no regular condition assessments completed on these assets which reflects a data confidence of low. Vehicles are inspected and maintenance activities are conducted at specific intervals throughout the asset's lifecycle however no formal condition rating is assigned to each vehicle. Parks relies on the Fleet Services section in the Corporate Asset Management (CAM) division to assist with the inspection, maintenance and procurement of vehicles on their behalf. Age has been used to estimate the condition of these assets where age is known which is considered to be low data confidence. This has been identified as a continuous improvement item in *Table 35*.

Table 14: Inspection and Condition Information

ASSET	INSPECTION FREQUENCY	LAST INSPECTION	CONDITION SCORE OUTPUT	
Trucks & Passenger Vehicles	Twice per year	Various	N/A	
Utility & Turf Maintenance Vehicles	Twice per year	Various	N/A	
IT Equipment	None	N/A	N/A	
Small Equipment	Ad Hoc	N/A	N/A	

Since there is no formal condition rating based on inspection, the conditions for assets in this class are based on age and estimated service life. The profile in *Figure 9* includes extended-use vehicles. More than 50% of Utility/Turf Maintenance Vehicles and Truck/Passenger Vehicles are in Poor or Very Poor Condition. Many of these extended-use vehicles are expected to be disposed of when pandemic-related purchasing delays are addressed and will be replaced with new acquisitions.

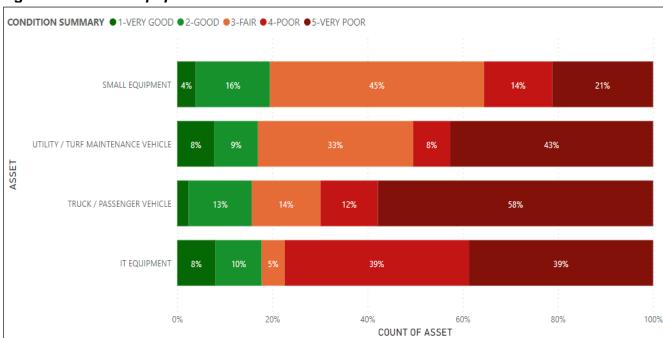


Figure 9: Fleet & Equipment Condition Distribution

### 3.2.5.3 ASSET USAGE AND PERFORMANCE

The largest performance issues with Fleet and Equipment involve assets used beyond their Estimated Service Life. The known service performance deficiencies in *Table 15* were identified using staff input.

Table 15: Known Service Performance Deficiencies

ASSET	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
Trucks, Passenger, Turf and Utility Vehicles	Vehicles continue to be used beyond estimated service life.	Extended-use vehicles in use due to pandemic-related purchasing delays. Results in increases in maintenance costs, potential safety concerns, potentially interrupted service, and more staff downtime

## 4. MUNICIPALLY DEFINED LEVELS OF SERVICE

Levels of service are measures of what the City provides to its customers, residents, and visitors, and are best described as the link between providing the outcomes the community desires, and the way that the City provides those services.

O. Reg 588/17 does not define levels of service for Parks assets and therefore the City has developed municipally defined levels of service. Levels of service are defined in three ways, customer values, customer levels of service and technical levels of service which are outlined in this section. An explanation for how these were developed is provided in Section 7.5 of the <a href="#">AM Plan Overview</a>.

### 4.1 SURVEY METHODOLOGY

To develop customer values and customer levels of service, a Customer Engagement Survey entitled *Let's Connect, Hamilton – City Services & Assets Review: Parks & Cemeteries* was released on November 8, 2023, on the Engage Hamilton platform and closed on December 13, 2023. The survey results can be found in *Appendix "A."* 

The survey received submissions from 70 respondents and contained 15 questions related to *Parks* service delivery. Additional questions in the survey were related to Cemeteries service delivery and were considered in the Cemeteries Asset Management Plan. For the purposes of this report, data has been evaluated from a confidence level perspective (margin of error at 95% confidence in sample size) and a data consistency (standard deviation) perspective per *Table* 16.

The Parks section also conducts a variety of public engagement surveys related to their projects, services, and assets. Recently, the <u>Parks Master Plan</u> completed substantial public engagement between January and September 2022. The Public Engagement Survey received feedback from 4730 participants representing a diverse range of Hamiltonians and focussing on current use of parks, potential park needs and a vision for the future of Parks in Hamilton.

Another wide-reaching Public Engagement Survey was completed in August and September 2021 as part of the recently completed <u>Recreation Master Plan</u>. The survey gathered information on the recreational needs of residents of the city for both indoor and outdoor recreation opportunities, including recreation provided through the many outdoor assets managed by the Parks section. This survey received 2095 unique responses representing a total of 6,000 to 7,000 total residents.

The specific data confidence level and grade for each of these surveys are detailed in **Table 16**. Though the medium confidence level of the City Services and Assets Review: Parks & Cemeteries Survey is significant and leads to uncertainty in the results; this was determined to be an acceptable confidence level to use to develop the customer values and customer performance measures for this AM Plan. The two recent Master Plan surveys received significant response rates correlating to very high confidence levels and were used to validate

and contribute to the customer values and performance measures in this AM Plan. It is important to note that survey respondents were allowed to opt out of questions, and so different questions may have varying confidence levels depending on the opt-out rate for that question.

Table 16: Data Confidence Levels

Grade	Data Consistency (Standard Deviation)	Confidence Level (Margin of Error at 95% Confidence in Sample Size)
Very High	0 to 0.5 – results are tightly grouped with little to no variance in response	0% to 5% - minimal to no error in results, can generally be interpreted as is
High	0.5 to 1.0 – results are tightly grouped but with slightly more variance in response	5% to 10% - error has become noticeable, but results are still trustworthy
Medium	1.0 to 1.5 – results are moderately grouped together, but most respondents are generally in agreement	10% to 20% - error is a significant amount and will cause uncertainty in the final results
Low	1.5 to 2.0 – results show a high variance with a fair amount of disparity in responses	20% to 30% - error has reached a detrimental level and results are difficult to trust
Very Low	2.0+ - results are highly variant with little to no grouping	30%+ - significant error in results, hard to interpret data in a meaningful way

Table 17: Survey Results - Confidence Level, Margin of Error

Survey	Survey Response Rate	Estimated Population	Confidence Level (Margin of Error at 95% Confidence in Sample Size)	Grade
2023 Let's Connect, Hamilton – City Services & Assets Review: Parks & Cemeteries	70	570,000	12%	Medium - error is a significant amount and will cause uncertainty in the final results.
2022 Hamilton Parks Master Plan Public Engagement Survey	4730	570,000	1%	Very High - minimal to no error in results, can generally be interpreted as is.
2021 Hamilton Recreation Master Plan Public Engagement Survey	2095	570,000	2%	Very High - minimal to no error in results, can generally be interpreted as is.

A high data consistency means that respondents came to the same conclusion more often for a question, whereas a low data consistency means that there is a split in respondent's opinions. Therefore, while Corporate Asset Management may be able to improve survey confidence levels over time by increasing the survey sample size, it may not be possible to improve data consistency over time as this depends on the opinions of the respondents and may require additional insight on why respondent's opinions are split. A low consistency of data does not mean the data is wrong, but it does mean that it is difficult to make decisions using that information. Overall, *City Services and Assets Review: Parks & Cemeteries* survey data consistency was typically medium across all questions indicating most respondents are generally in agreeance. Data consistency was not evaluated for either of the Master Plan surveys as the data was not available at this time.

While the City Services and Assets Review: Parks & Cemeteries Survey was used to establish customer values and customer performance measures, it is important to note that there were also limitations to the survey methodology which may further reduce the confidence level in the survey data. The survey was only released using an online platform and did not include telephone surveys and consequently, there is no way to confirm the identity information provided in the survey. In addition, the survey did not control for IP addresses, and therefore it is possible that respondents could complete the survey more than once and skew the survey results.

An error in the deployment of Question 4 of the *City Services and Assets Review: Parks & Cemeteries* Survey, which asked respondents to identify which Parks sites and services they have visited in the last 24 months and identify who they went with resulted in the inability of respondents to select all that apply. Due to the error in this survey question, the results of the question were not considered in the survey analysis. This question had no direct relation to any other questions in the survey that would impact the results of subsequent questions.

Although there are limitations to the survey methodology and the number of responses to the City Services and Assets Review: Parks & Cemeteries Survey was not at a high confidence level for the most recent survey, these results can be used to provide some context about the feelings customers have on the services that the Parks section provides. The additional Master Plan surveys also provide very high confidence level data that can be used to validate findings. However, decisions should not be made based on these surveys alone and further investigation is required prior to proposing new levels of service. These survey results might point to trends or areas to consider further.

### 4.2 CUSTOMER VALUES

Customer values are what the customer can expect from their tax dollar in "customer speak" which outlines what is important to the customer, whether they see value in the service, and the expected trend based on the 10-year budget. These values are used to develop the level of service statements.

#### **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.

The customer values below were determined using the results from the Let's Connect, Hamilton – City Services & Assets Review: Parks & Cemeteries, the Hamilton Parks Master Plan Public Engagement Survey and the Hamilton Recreation Master Plan Public Engagement Survey.

Table 18: Customer Values

CUSTOMER VALUES	CUSTOMER SATISFACTION MEASURE	CURRENT FEEDBACK	DATA CONSISTENCY	EXPECTED TREND BASED ON PLANNED BUDGET (10-YEAR HORIZON)	
Parks spaces, trails and escarpment stairs, and maintenance of parks are very	2023 City Services & Assets Review: Parks & Cemeteries	Based on the average survey response it is very important for Parks to be responsible for providing these services: park spaces, trails and escarpment stairs, and maintenance of parks.	Medium	. Maintain	
important services.	2022 Hamilton Parks Master Plan Public Engagement Survey	Most survey respondents strongly agree that parks are important to their quality of life and are important to support our community at large.	Not Available	Mantani	
Playground Equipment, Sports Fields, Diamonds and Courts, Spray Pads, and	2023 City Services & Assets Review: Parks & Cemeteries	Based on average survey responses it is important for Parks to be responsible for providing the following services: Playground Equipment, Sports Fields, Diamonds and Courts, Spray Pads, and Other Park Amenities (Signage, Lighting, Shade Structures, etc.)	Medium		
Other Park Amenities are important services.	2021 Hamilton Recreation Master Plan Public Engagement Survey	93% of survey respondents agree that recreation and Parks facilities are important to their quality of life.	Not Available	Maintain	
Customers are willing to increase tax rates to improve services related to parkland, recreational trails, escarpment stairs, and Parks maintenance.	2023 City Services & Assets Review: Parks & Cemeteries	The average survey respondent would probably prefer to see tax rates increase to improve services.	Medium-High	Maintain	
Customers prefer to maintain rates and service levels for park facilities including playground equipment, sports fields,	2023 City Services & Assets Review: Parks & Cemeteries	The average survey respondent would prefer to minimize tax rate increase and maintain services.	Medium	- Maintain	
spray pads and other amenities and prefer upgrading existing facilities before building new ones.	2021 Hamilton Recreation Master Plan Public Engagement Survey	85% of survey respondents felt that upgrades to existing facilities should be a priority for City Council while 77% indicated that the development of new facilities should be a priority for City Council.	Not Available	Wantan	
It is very important that Parks spaces and buildings be: clean and in good repair, accessible meeting AODA standards, and inviting, appealing and attractive.	2023 City Services & Assets Review: Parks & Cemeteries	Average survey respondent strongly agrees that Parks outdoor spaces and buildings should be clean and in good repair, accessible meeting Accessibility for Ontarians with Disabilities Act (AODA) standards, and inviting, appealing and attractive.	High	Maintain	
It is important that Parks spaces and buildings be: safe and inclusive, comfortable, easy to locate, accessible by public transit, and energy efficient.	2023 City Services & Assets Review: Parks & Cemeteries	Average survey respondent agrees that Parks outdoor spaces and buildings should be safe and inclusive, comfortable, easy to locate, accessible by public transit, and energy efficient.	Medium-High	Maintain	

### 4.3 CUSTOMER LEVELS OF SERVICE

Ultimately customer performance measures are the measures that the City will use to assess whether it is delivering the level of service the customer desires. Customer level of service measurements relate to how the customer feels about the City's Parks service in terms of their quality, reliability, accessibility, responsiveness, sustainability and, over the course, their cost. The City will continue to measure these customer levels of service to ensure a clear understanding of how the customers feel about the services and the value of their tax dollars.

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? Do we need more or less of these

assets?

In Table 19 under each of the service measure types (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 allocation.

Table 19: Customer Levels of Service

TYPE OF MEASURE	LEVEL OF SERVICE STATEMENT	SOURCE	PERFORMANCE MEASURE	CURRENT PERFORMANCE	EXPECTED TREND BASED ON PLANNED BUDGET
	Provide adequate Parks	2023 Parks & Cemeteries City Service & Assets Review	Average survey respondent opinion on how Parks has performed overall in the last 24 months in all service areas	Good Performance	Maintain
	services.		Confidence Level		Medium
			Data Consistency		Medium
		2021 Hamilton Recreation Master Plan Public Engagement Survey	Average survey respondent opinion on whether recreation and parks facilities are clean and well maintained.	Agree	Maintain
	Ensure Parks assets are		Confidence Level		Very High
	maintained in good		Data Consistency	N	ot Available
Quality/ Condition	condition	2023 Parks & Cemeteries City Service & Assets Review	Average survey respondent opinion on if users felt Parks outdoor spaces and buildings are clean and in good repair.	Agree	Maintain
Quality/ Containion			Confidence Level		Medium
			Data Consistency		Medium
		2023 Parks & Cemeteries City Service & Assets Review	Average survey respondent opinion on whether Parks is providing good value for money when providing infrastructure and services.	Average	Maintain
			Confidence Level		Medium
	Be fiscally responsible		Data Consistency		Medium
	when delivering services	2021 Hamilton Recreation Master Plan Public Engagement Survey	Average survey respondent opinion on whether recreation and parks facilities provide good value for money.	Agree	Maintain
		Confidence Level		Very High	
			Data Consistency	N	ot Available
	Provide appropriate Parks	2023 Parks & Cemeteries City Service & Assets Review	Average survey respondent opinion on whether Parks services meet their service needs overall	Meet Needs	Maintain
			Confidence Level		Medium
Function	services that meet the		Data Consistency		Medium
- unouen	needs	2022 Hamilton Parks Master Plan Public Engagement Survey	Average survey respondent's opinion on whether their local park(s) meet their needs.	Agree	Maintain
			Confidence Level		Very High
			Data Consistency	Not Available	
		2023 Parks & Cemeteries City Service & Assets Review	Average survey respondent's satisfaction with the ability to access Parks sites and services.	Satisfied	Maintain
			Confidence Level		Medium
			Data Consistency		Medium
	Provide services that are	2023 Parks & Cemeteries City Service & Assets Review	Average survey respondent's opinion whether a 500m walking distance to a local park meets needs.	Agree	Maintain
	accessible to the public		Confidence Level		Medium
Capacity/Use			Data Consistency		Medium
oupucky/osc		2022 Hamilton Parks Master Plan Public Engagement Survey	Average respondent opinion on whether they can easily get to a local park(s).	Strongly Agree	Maintain
			Confidence Level		Very High
			Data Consistency	N	ot Available
	Dravida adagusta augsti:	2022 Hamilton Parks Master Plan Public Engagement Survey	Average respondent opinion on whether there are enough local parks and if local parks are not crowded.	Agree	Maintain
	Provide adequate supply of Parks spaces.		Confidence Level		Very High
	on and spaces.		Data Consistency	N	ot Available

### 4.3.1 CUSTOMER INDICES

The three indices calculated to assess how customer expectations for a service are aligning with the perceived performance for a service are listed below in *Table 20*. These indices are explained and analyzed in detail in the sections below.

Table 20: Customer Indices

CUSTOMER INDICES	AVERAGE RESULT
Service Importance Versus Performance Net Differential <sup>10</sup>	-14
Net Promoter Score (%) <sup>11</sup>	-23%
Service Rates Versus Value for Money Net Differential	-2

The information below is intended to provide context around the survey results to assist Parks with areas to further investigate before proposing any new levels of service.

#### SERVICE IMPORTANCE VERSUS PERFORMANCE INDICE

The Service Importance versus Performance indices are used to determine if a service's importance correlates with the perceived performance. Service areas where the average importance rating exceeds the average performance rating by 20 points are indicative of a mismatch between expectations and service levels, equal to one point on the Likert<sup>12</sup> scale.

The average net differential is less than 20 indicating that in general across the service areas explored in the survey, there is a match between customer expectations (performance) and perceptions (importance) of Parks services.

Per *Figure 10*, the net differential exceeds 20 points for the areas of parks maintenance, parklands, and other amenities including shade structures, lighting, and signage. Customers generally consider these services to be Important to Very Important but perceive the performance as Average to Good. This indicates a mismatch between how respondents feel about the importance of the service versus how they perceive the service is performing. Data consistency for the importance of these services was high indicating that respondents generally came to the same conclusion while data consistency for the performance of these services was

<sup>&</sup>lt;sup>10</sup> For these indices, a value close to 0 is considered a match, and a value exceeding 20 points indicates a mismatch between customer expectations, and perception or service levels.

<sup>&</sup>lt;sup>11</sup> A positive net promoter score indicates customers would recommend the service to others, a negative score indicates they would not, and a value close to 0 indicates a neutral feeling about the service.

<sup>&</sup>lt;sup>12</sup> A Likert scale is a rating scale used to measure opinions, attitudes, or behaviours. It consists of a series of five answer statements which are consistently written the same way (e.g., Very Good to Very Poor, Very Satisfied to Very Unsatisfied).

medium indicating that there were more mixed opinions about how Parks is performing in these areas. This indicates that further investigation may be required to fully understand the results.

To reduce the net differential in these service areas, Parks would have to increase their performance to between Good and Very Good, which could be achieved by altering their Technical Levels of Service (**Section 4.3.2**). If Parks were looking for service areas to improve, these would be the key service areas to investigate further. However, despite the perceived performance, whether the customer is willing to pay for this increase in service is determined by the Service Rates Versus Value for Money Net Differential which is explained in detail in the section below.

Performance (index score) Service Area Importance (index score) Net Opt Out % Differential 94 Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms 67 -28 2% City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces 72 -21 1% Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures -21 Recreational Trails and Escarpment Stairs 77 93 -17 4% Playground Equipment -8 20% 79 Sport Fields, Diamonds and Courts 75 -3 25% Spray Pads 24%

Figure 10: Importance versus Performance Index Score

#### **NET PROMOTER SCORE INDICE**

The Net Promoter Score indices outline how likely an individual is to recommend a service to another person and measure customer loyalty. For municipal services, this score is difficult to interpret because oftentimes individuals do not have many alternatives for utilizing different services and also there may be internal biases for certain service areas, however, this score does provide valuable information for if customers would recommend using the service or whether they may seek alternatives or avoid using the service altogether.

Likert<sup>13</sup> choices less than a score of four, where respondents answered that they would definitely not, probably not, or possibly recommend the service to others, are considered 'Detractors' meaning that they would generally not recommend the service. Scores of five, where respondents answered that they definitely would recommend the service to others, are considered 'Promoters' who would recommend the service. Scores of four, where respondents answered that they probably would recommend the service to others, are considered 'Passive' which means they generally do not have strong feelings about the service. Respondents who opted out by not answering or selecting 'Can't Say' were removed from the sample. Net Promoter

<sup>&</sup>lt;sup>13</sup> A Likert scale is a rating scale used to measure opinions, attitudes, or behaviors. It consists of a series of five answer statements which are consistently written the same way (e.g. Very Good to Very Poor, Very Satisfied to Very Unsatisfied).

score is calculated by subtracting (percentage of Promoters) and (percentage of Detractors). The Standard Deviation ( $\sigma$ ) is calculated in percent, the same units as the Net Promoter Score.

Based on the results in *Figure 11*, the average customer would not recommend Parks services to others. Recreational trails and escarpment stairs received a slightly positive score while service areas received more negative scores. It is important to note that the lower-scoring service area questions also had lower data consistency ( $\sigma$ ) indicating that opinions were more split as well as an opt-out rate of up to 40% for the lower-scoring service areas resulting in a lower confidence level to the data. Therefore, it is difficult to make any conclusive decisions based on this survey alone.

In both the Parks Master Plan Survey and the City Services & Assets Review Survey, respondents agreed that Parks meet their needs. Respondents also indicated in the City Services & Assets Review Survey that Parks performance is Good overall. To understand why respondents would not recommend the service if the service meets needs and has good perceived performance, changes to future survey question design should be considered to explore whether there are perceived deficiencies in the condition, function, or capacity of each service area that may lead respondents to feel that they would not recommend the service.

Figure 11: Net Promoter Score

Service Area	σ	VI ▼	PS	Detractors	Passives	Promoter
All Service Areas	1.18		-23.45	164	109	81
Recreational Trails and Escarpment Stairs	0.97		6.56	17	23	21
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.18		-15.15	28	20	18
Playground Equipment	1.17		-23.26	19	15	9
Spray Pads	1.09		-25.00	19	12	9
Sport Fields, Diamonds and Courts	1.10		-30.00	20	12	8
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.27		-42.11	33	15	9
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.21		-44.68	28	12	7

#### SERVICE RATES VERSUS VALUE FOR MONEY INDICE

The Service Rates versus Value for Money indices is used to determine if the rate an individual is paying for a service correlates with the perceived value for money. Service areas where rate level ratings exceed the value for money ratings by 20 points are indicative of a mismatch between expectations and service levels, equal to one point on the Likert scale. Positive Net Differential values indicate that 'Value for Money' was greater than willingness for 'Rates'. Low index scores in 'Rates' indicate that respondents are not willing to pay increased rates for the service area. All values were calculated and then rounded to the nearest whole number.

Per *Figure 12* below, survey respondents generally perceived they were getting Average value for money with parklands, recreational trails and escarpment stairs providing Good value for money. Residents also thought that overall, Parks should minimize service cuts and maintain rates across all services as well. In the 2021 Recreation Master Plan survey, which received

significantly more engagement and therefore a higher data confidence rating, respondents agreed that Parks facilities provide good value for money.

For the services of parklands, recreational trails and escarpment stairs, and parks maintenance, respondents indicated that they would probably prefer tax rate increases to improve services. Given that the service areas of parklands and parks maintenance were found to have a mismatch between importance and performance, these may be areas to further investigate to understand performance expectations and associated willingness to pay.

Value for Money (index score) Service Area Rates (index score) **Net Differential** Opt Out % Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms 63 -8 17% City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces 71 76 -5 9% 76 Recreational Trails and Escarpment Stairs 73 -3 13% Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures 65 -2 23% 67 69 -2 Playground Equipment 34% 2 Sport Fields, Diamonds and Courts 65 63 31% 4 Spray Pads 37%

Figure 12: Rates versus Value for Money Index Score

#### 4.3.2 TECHNICAL LEVELS OF SERVICE

Technical levels of service are operational or technical measures of performance, which measure how the City plans to achieve the desired customer outcomes and demonstrate effective performance, compliance and management. The metrics should demonstrate how the City delivers its services in alignment with its customer values; and should be viewed as possible levers to impact and influence the Customer Levels of Service. The City will measure specific lifecycle activities to demonstrate how the City is performing in delivering the desired level of service as well as to influence how customers perceive the services they receive from the assets.

Technical service measures are linked to the activities and annual budgets covering Acquisition, Operation, Maintenance, and Renewal. Asset owners and managers create, implement and control technical service levels to influence the service outcomes.<sup>14</sup>

**Table 21** shows the activities expected to be provided under the current 10-year planned budget allocation and the forecast activity requirements being recommended in this AM Plan.

Page **55** of **153** 

<sup>&</sup>lt;sup>14</sup> IPWEA, 2015, IIMM, p 2|28

Table 21 : Technical Levels of Service

LIFECYCLE ACTIVITY	LEVEL OF SERVICE	ACTIVITY MEASURE	CURRENT ACTUAL PERFORMANCE (2023)	CURRENT TARGET PERFORMANCE (2023)	PROPOSED 10-YEAR PERFORMANCE
	Ensure appropriate capacity to meet	Supply of municipal parkland (ha/resident).	1.98ha / 1000 residents	2.1ha / 1000 residents	2.1ha / 1000 residents
	service needs and meet Official Plan provisioning requirements.	Supply of Neighbourhood Type Parkland.	0.51ha / 1000 residents	0.7ha / 1000 residents	0.7ha / 1000 residents
Acquisition		Budget		\$0	\$8.6M for land acquisition
	Ensure appropriate capacity to meet service needs.	Provision targets for outdoor recreational amenities in parks.	Various	Various, see <u>Recreation Master</u> <u>Plan</u>	Various, see <u>Recreation Master Plan</u>
	Service fieeds.	Budget		\$0	\$1.5M
	Ensure assets are maintained in an acceptable state.	Grass cutting – number of cuts performed at Neighbourhood parks and general grass cutting at Parks sites.	1x per 9 working days	1x per 7 working days	1x per 7 working days
	Ensure assets are maintained in an acceptable state.	% of playground sites inspected monthly.	100%	100%	100%
	Ensure assets are maintained in an acceptable state.	% of spray pads inspected monthly during the operating season.	100%	100%	100%
Onevetien	Compliant with by-law.	Clear snow from maintained pathways within 24 hours.	TBD	100%	100%
Operation	Ensure assets are maintained in an acceptable state.	Garbage can collection – number of collections performed weekly.	3x per week in summer  2x per week in winter	3x per week in summer 2x per week in winter	3x per week in summer  2x per week in winter
		Washroom cleaning -number of cleanings performed daily.	1x daily	1x daily	1x daily
		% of assets inspected and condition recorded annually (excludes Facilities and Fleet)	TBD (CI Item to develop the program)		
		Percentage of Inspections completed for bridges	TBD (CI Item to investigate requirement		ements)
		Budget	\$28M (2023)	Not	yet quantified
Maintenance	Ensure assets are kept in safe and acceptable repair.	% of reported safety concerns addressed within 24 hours.	100%	100%	100%
		% of Fleet vehicles beyond ESL.	35%	TBD CI Item to develop Fleet Strategy	TBD CI Item to develop Fleet Strategy
		Budget		Not yet quantified	
	Ensure assets are kept in safe and	% of play structures beyond ESL.	30%	0%	0%
Renewal	acceptable repair.	Budget	\$0.46M	\$15.6M	\$31.7M
	assoptable repair.	Km of asphalt park pathways with condition rated as fair or above in condition assessments.	57%	TBD	TBD
		Budget		Not yet quantified	

### 4.3.3 PROPOSED LEVELS OF SERVICE DISCUSSION

Per the Technical Levels of Service *Table 21*, it can be concluded that Parks is often meeting technical standards with some exceptions. However, customer preferences and expectations do not always align with internal technical targets. The purpose of this section is to link the customer and technical levels of service to determine areas where different levels of service could be proposed. As previously mentioned, since the 2023 survey results have only a medium level of data confidence, it is difficult to make any conclusive decisions based on this initial survey. The discussion below is intended to provide context to direct Parks to areas for further investigation based on these initial results before proposing any new levels of service. The <u>Parks Master Plan</u> and <u>Recreation Master Plan</u> provide strategic direction as it relates to the provisioning and guidance for decision-making that should be referred to when considering any change in the level of service.

#### **CONDITION / QUALITY**

Based on **Table 19**, survey respondents rated the overall service as good and agreed that facilities and spaces are clean and in good repair. Parks should consider that in general customers are not identifying a need for changes related to the condition or quality of the services provided.

Despite survey respondents identifying that they find facilities and spaces to be clean and in good repair, they found the performance of the park's maintenance service area to be average and identified that they would probably prefer tax rate increases to improve services. Parks is currently meeting their technical levels of service in this area including frequency of mowing, washroom cleaning, and waste pickup. Given that customers also find this to be a high-importance service area, if Parks were to propose a change in service level this should be an area further investigated.

#### **FUNCTION**

Based on *Table 19*, survey respondents felt that Parks services generally meet their needs. Parks should consider that customers are not identifying a need for changes related to the function of their services and any proposed changes would be done at their own discretion in terms of operational needs. At this time, it appears that function should be maintained requiring routine maintenance of assets and renewals in the appropriate timeframes to prevent degradation of assets. Acquisitions should be driven by growth to maintain current levels of service.

### **CAPACITY**

Based on *Table 19*, survey respondents were generally satisfied with their ability to access Parks sites and services. Customers find that Parks locations and proximity to their homes meet their needs such that they can easily get to local parks and do not feel that they are crowded. Parks should consider that customers are satisfied with the capacity of Parks services and should maintain focus on maintaining the level of service and per capita provisioning by increasing services and assets to manage population growth in line with the <u>Parks</u> and <u>Recreation Master</u> Plans.

### 5. FUTURE DEMAND

Demand is defined as the desire customers have for assets or services and that they are willing to pay for. These desires are for either new assets/services or current assets.

The ability for the City to be able to predict future demand for services enables the City to plan ahead and identify the best way of meeting the current demand while being responsive to inevitable changes in demand. Demand will inevitably change over time and will impact the needs and desires of the community in terms of the quantity of services and types of services required.

### 5.1 DEMAND DRIVERS

For the Parks service area, the key drivers are population growth, intensification of development, and consumer preferences.

### 5.2 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 in *Table 22*. Growth projections have been shown on Page 45 of the <u>AM Plan Overview</u> document.

Where costs are known, these additional demands as well as anticipated operations and maintenance costs have been encompassed in the Lifecycle Models in **Section 8**.

### 5.3 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 22.* Demand for new services will be managed through a combination of managing existing assets, upgrading of 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 22*. Climate change adaptation is included in *Table 28*.

Table 22: Demand Management Plan

	Table 22: Demand Management Plan							
DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	DEMAND MANAGEMENT PLAN				
Population Growth and Development	570,000 (2021)	820,000 (2051)	Population growth will increase demand for parkland and outdoor recreation opportunities.  New developments will increase the number of Parks assets through parkland dedication requiring additional funding for the operation, maintenance and renewal of these new assets.	Follow recommendations of the Parks Master Plan for parkland acquisition.  Follow recommendations of the Recreation Master Plan for outdoor recreation facilities in parks.				
Population Demographics - Aging Population	18.3% of population 65 years and older (2021) <sup>15</sup>	20.4% of population 65 years and older (2031) <sup>16</sup>	Increased demand for spaces that support leisure activities for seniors.  Increased demand for washrooms, shade structures, and seating.  Increased demand for accessible and barrier-free amenities.	Follow recommendations of the Recreation Master Plan for provision recommendations for outdoor recreation facilities in parks.  Continue to design new and renewed park facilities to be as accessible and barrier- free as possible.				
Population Demographics - Young Population	Hamilton's population is slightly younger than the provincial average (Hamilton's median age is 40.8 years,	Hamilton will continue to be a desirable home for young families.	Increased demand for play spaces, spray pads, and recreation amenities that appeal to youth.	The Parks Master Plan prioritization of parkland acquisition has included a focus factor for areas with High Child and Youth Populations.				

<sup>&</sup>lt;sup>15</sup> (Census Profile, 2021 Census of Population, 2021)

<sup>16</sup> (Government of Ontario, 2023)

DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	DEMAND MANAGEMENT PLAN
Population Demographics - Young Population	Ontario's median age is 41.6 years <sup>17</sup> )			Follow recommendations of the Recreation Master Plan for provision recommendations for outdoor recreation facilities in parks.
Population Demographics - Increasing Diversity	Hamilton is a desirable destination for new immigrants and diverse residents. As of 2021, 29% of residents were born outside of Canada <sup>16</sup> .	Hamilton to continue to be a destination for new immigrants.	Demand for a diverse variety of sports and leisure activities.	Have recently installed more cricket facilities. Follow recommendations of the Recreation Master Plan for provision recommendations for outdoor recreation facilities in parks.
Council Led Motions	Ad-Hoc	Ad-Hoc	Motions by Council can lead to the acquisition or upgrades of assets and with them increased operations, maintenance, and renewal needs.	Request Operating and Maintenance budget increase for the full lifecycle cost of the asset when council-led motions lead to new acquisitions.
Community and User Groups	Ad-Hoc	Ad-Hoc	Community and user groups sometimes provide funding or partnerships to acquire or upgrade assets. These assets then require ongoing operations, maintenance, cost, and renewal expectations.	Request Operating and Maintenance budget increase for the full lifecycle cost of the asset when community and/or user group partnerships lead to new acquisitions.
Consumer Preferences –	The desire for year-round access to parks and trails began	Expected to continue, climate change and milder	Customer interest in washroom access and cleared walking paths throughout the winter.	The winter washroom pilot completed, and the permanent

<sup>&</sup>lt;sup>17</sup> (Census Profile, 2021 Census of Population, 2021)

DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	DEMAND MANAGEMENT PLAN
Year-Round Access  Consumer Preferences – Year-Round Access	prior to the pandemic but was intensified by pandemic restrictions and has continued.	winters will continue to make outdoor activities more desirable throughout the winter.	Longer seasons have been requested for some outdoor recreation amenities.  Longer outdoor recreation season and fewer winter days with snow on the ground allow residents to use assets for more days per year potentially increasing wear and degradation.	program has been introduced.
Changing Customer Expectations	Customers are frequently asking for better than like-for-like replacement of assets.	Trend expected to continue.	Increased demand for larger and more complex assets. These assets require more initial investment than like-for-like replacement and may have significantly higher lifecycle costs with more extensive operations and maintenance requirements. At times these requests are driven by AODA.	Consider the full lifecycle costs when renewing assets. Consult with customers through the Master Plan process and AM Plan surveys to determine the provisioning and level of service that residents want and are willing to pay for. Ensure that the level of service is equitable across the City when making decisions.
Regulatory and Compliance Changes	Ad-Hoc	Ad-Hoc	City-initiated or external changes to regulatory or compliance requirements with impacts on the budget.	Comply with Regulations to ensure compliance, this may increase lifecycle costs or require new assets to comply.

#### 5.4 ASSET PROGRAMS TO MEET DEMAND

The new assets required to meet demand may be acquired, donated or constructed. For Parks, typically assets are donated, acquired, or constructed.

At this time there are approximately **\$134 million** in required assets acquired over the next 5 years to meet demand, and an anticipated **\$813 million** over the 30-year planning period. These acquisitions include land required to meet the provisioning targets set by the <u>Parks Master Plan</u>, the cost to develop this land into parks, and the cost of building the outdoor recreational amenities recommended to meet the provisioning targets of the <u>Recreation Master Plan</u>. Acquiring new assets will commit Parks to ongoing operations, maintenance and renewal costs for the amount of time that the service is required. These future costs have been estimated at a high level in the Lifecycle Models in **Section 8** but should be quantified further for future iterations of the AM Plan for consideration in developing higher confidence forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan.

### 6. RISK MANAGEMENT

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.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk' 18.

The City is developing and implementing a formalized risk assessment process to identify risks associated with service delivery and to implement proactive strategies to mitigate risk to tolerable levels. The risk assessment process identifies credible risks associated with service delivery and 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 those risks occurring, and the consequences should the event occur. The City utilizes two risk assessment methods to determine risk along with subject matter expert opinion to inform the prioritization. Hamilton is further developing its risk assessment maturity with the inclusion 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 in the next iteration of the plan.

### 6.1 CRITICAL ASSETS

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarized in *Table 23.* Failure modes may include physical failure, collapse or essential service interruption.

Table 23: Critical Assets

CRITICAL ASSET	FAILURE MODE	IMPACT
Escarpment Stairs	Structural deterioration and failure.	Service interruption Severe injury Financial Reputational
Bridges	Structural deterioration and failure.	Service interruption Injury Financial Reputational

<sup>&</sup>lt;sup>18</sup> ISO 31000:2009, p 2

CRITICAL ASSET	FAILURE MODE	IMPACT
Shoreline Protection	Structural deterioration and failure.	Service interruption Injury Financial Reputational
Premier Sports Facilities and Artificial Turf Fields	Deterioration of components.	Service interruption Reputational

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

### 6.2 RISK ASSESSMENT

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, the 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. The residual risk and treatment costs of implementing the selected treatment plan are shown in *Table 24*. It is essential that these critical risks and costs are reported to management. Additional risks will be developed in future iterations of the plan and are identified in *Table 35* in the Continuous Improvement Section of the plan.

Table 24: Risks and Treatment Plans

SERVICE OR ASSET AT RISK	WHAT COULD HAPPEN	RISK RATING	RISK TREATMENT PLAN	RESIDUAL RISK	TREATMENT COSTS
All Assets	Operations and maintenance liability for all assets. Uncoordinated or non-standard protocols and/or uncomprehensive inspection programs.	High	Currently, follow operations and maintenance procedures designed to meet the duty of care.  Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.	Low	Staff time
Sport Lighting	Failure of lighting or of electrical and mechanical components including poles.	High	Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.  Currently completing a phased assessment with a consultant to compile an inventory, visually inspect, standard condition ratings, and recommend maintenance and renewal strategy.	Low	Assessment Phase 3/3 to be completed  Approximately \$6M Capital Investment recommended in 2023-2025, \$15M total, based on the first two phases.  Cost to renew assessment at regular intervals TBD
Pedestrian Lighting	Failure of lighting or of electrical and mechanical components including poles.	High	Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.	Low	Inspection cost TBD (See <i>Table 35</i> Continuous Improvement)  Capital Investment TBD once assessments are completed.
Bridges (Vehicular and Pedestrian)	Structural deterioration and failure.	High	Investigate requirements for engineered inspections.  Investigate coordination with the Transportation division to include Parks bridges in the engineering inspection program with other City bridges.	Medium	TBD (See <i>Table 35</i> Continuous Improvement)
Viewing Platforms	Structural deterioration and failure.	High	Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.  Investigate requirements for engineered inspections.	Medium	TBD (See <i>Table 35</i> Continuous Improvement)
Utilities in Parks and on Trails	Structural deterioration and failure. Unclear delineation of utilities and responsibilities, orphaned assets.	High	Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.  Identify asset owners and demarcation points. Some utilities may need to be separated. i.e., Streetlighting vs. Parks shared power supplies.	Low	TBD (See <i>Table 35</i> Continuous Improvement)
Security, Safety, and Control Measures (signs, gates, bollards, etc.)	Damaged, deteriorated, missing, or outdated control measures. Liability from missing or incorrect signage. Injury due to damaged or missing safety and control devices.	High	A complete audit of parks and trails signs, develop sign inventory and records strategy.  Inventory of safety and control measures and regular inspections.	Medium	TBD (See <i>Table 35</i> Continuous Improvement)
Large Equipment	Higher level of breakdowns due to delayed replacements. Possible injuries to staff. Increased reactive maintenance costs.	High	Replace End of Life vehicles.	Low	\$5.2 million in 2023 for the replacement of 110 fleet vehicles that have exceeded the estimated service life.
Escarpment Stairs	Structural deterioration and failure.	High	Engineering inspection at standardized intervals. Regular inspections completed by staff.  Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.	Medium	5-10 year interval for engineering inspections, cost TBD.  \$2.6M Capital Investment over the next 10 years recommended by the 2021 Condition Assessment Report.

### 6.3 INFRASTRUCTURE RESILIENCE APPROACH

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions the City 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. We do not currently measure our resilience in service delivery and this will be included in the next iteration of the AM Plan.

Resilience covers the capacity of the City to withstand any service disruptions, act appropriately and effectively in a crisis, absorb shocks and disturbances as well as adapting to ever-changing conditions. Resilience is built on aspects such as response and recovery planning, financial capacity, climate change risk, assessment and crisis leadership.

### 6.4 SERVICE AND RISK TRADE-OFFS

The decisions made in AM Plans are based on the objective of achieving the optimum benefits from the available resources.

The following table outlines what activities Parks cannot afford to do over the next 10 years with their existing budget and provides the associated service and risk tradeoffs.

Table 25: Service and Risk Tradeoffs

WHAT WE CAN NOT DO (What can we not afford over the next 10 years?)	SERVICE TRADE-OFF (How will not completing this affect our service?)	RISK TRADE-OFF (What risk consequences are we undertaking?)
Renew Sports Field Lighting	Removal of sports field lighting where safety is at risk and replacement not funded. Reduction in field availability through reduced playing hours. Higher demand for remaining lit fields leading to overuse and deteriorating conditions.	Reputational risk and reduced level of service.
Renew Play Structures and Spray Pads Within Estimated Service Life	Play structures and spray pads remain in service beyond the estimated service life. Increased maintenance costs, longer service interruptions, and lower satisfaction.  Spray pad provisioning per capita is currently higher than	Reputational risk and reduced level of service.

## Appendix "K" to Report PW23073(b) HAMILTON PARKS AND RECREATIONAL TRAILS Page 68 of 153 **2024 ASSET MANAGEMENT PLAN**

WHAT WE CAN NOT DO (What can we not afford over the next 10 years?)	SERVICE TRADE-OFF (How will not completing this affect our service?)	RISK TRADE-OFF (What risk consequences are we undertaking?)
Renew Play Structures and Spray Pads Within Estimated Service Life	all other municipalities in Ontario. There may be an opportunity to better align with customer desires by disposing of older assets and investing in fewer higherquality spray pads.	
Build Out the Recommended Parks and Outdoor Recreational Facilities to Meet the Provision Targets Set by the <u>Parks Master Plan</u> and <u>Recreation Master Plan</u>	The level of service will be reduced as the population increases and Parks assets and services are not increased proportionately.	Reputational risk and reduced level of service. The increased demand on existing facilities will lead to premature deterioration, increased maintenance costs and reduced service lives.

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 69 of 153 2024 ASSET MANAGEMENT PLAN

### 7. CLIMATE CHANGE AND MITIGATION

Cities have a vital role to play in reducing the emission of greenhouse gases (mitigation), as well as preparing assets for the accelerating changes we have already begun to experience (adaptation). At a minimum, the City must consider how to manage our existing assets given the potential climate change impacts for our region.

Changes to Hamilton's climate will impact City assets in the following ways:

- Affect the asset lifecycle;
- Affect the levels of service that can be provided and the cost to maintain;
- Increase or change the demand on some of our systems; and
- Increase or change the risks involved in delivering service.

To quantify the above asset/service impacts due to climate change in the Asset Management Plan, climate change is considered as both a future demand and a risk for both mitigation and adaptation efforts. These demands and risks should be quantified and incorporated into the lifecycle models as well as levels of service targets.

If climate change mitigation/adaptation projects have already been budgeted, these costs have been incorporated into the lifecycle models. However, many asset owners have not yet quantified the effects of the proposed demand management and risk adaptation plans described in this section, and so associated levels of service and costs will be addressed in future revisions of the plan. This has been identified as a Continuous Improvement item in *Table 35.* 

### 7.1 CLIMATE CHANGE MITIGATION

**Climate Mitigation** refers to human intervention to reduce GHG emissions or enhance GHG removals (e.g. building transportation infrastructure that can support cycling and public transit and reduce the need for car travel). The City of Hamilton's Community Energy + Emissions Plan<sup>19</sup> (CEEP) includes five Low-carbon Transformations necessary to achieve the City's target of net-zero GHG emissions by 2050:

- Innovating our industry;
- Transforming our buildings;
- Changing how we move;
- Revolutionizing renewables; and
- Growing Green.

<sup>19</sup> Newbold, Skidmore, Chessman, Imhoff, & McDowell, 2022

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 70 of 153 2024 ASSET MANAGEMENT PLAN

### **Mitigation Demand Analysis**

These transformations were incorporated into the climate mitigation demand analysis for this service area by:

- Identifying the City's modelled targets for the low carbon transformations that applied to the service/asset;
- Discussing the impact the targets would have on the service/asset; and
- Proposing a preliminary demand management plan for how this modelled target will be achieved by 2050 as shown in *Table 26* below.

As previously mentioned, due to the high level of uncertainty with the demand management plans, the cost of the demand impacts below have not been included in the lifecycle models or levels of service at this time. The demand management plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should incorporate GHG emissions reduction methods, and changes which will be incorporated into future iterations of the AM Plan.

Moving forward, the Climate Lens tool discussed in the <u>AM Plan Overview</u> will assess projects based on these targets and will assist with the prioritization of climate mitigation projects.

### **Mitigation Demand Analysis**

Table 26: Climate Change Mitigation Transformation

CLIMATE CHANGE MITIGATION TRANSFORMATION	MODELLED TARGET	IMPACT TO SERVICE OR ASSET	DEMAND MANAGEMENT PLAN
Changing How We Move	100% of new municipal small and light-duty vehicles are electric by 2040. 100% of new municipal heavy-duty vehicles switch to clean hydrogen by 2040.	Electric vehicle (EV) chargers will need to be installed at all Yards. Initial upfront capital costs for electric vehicles. Removal of fuel infrastructure.	Coordination with Fleet division on Green Fleet Strategy. Coordination with the Corporate Facilities and Energy Management (CFEM) division.
Transforming Our Buildings	By 2050, all new municipal buildings achieve net-zero emissions.	Net zero buildings may have higher upfront costs to construct but lower operational expenses.	Coordination with CFEM division to achieve net-zero emission in new buildings.

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 71 of 153 2024 ASSET MANAGEMENT PLAN

CLIMATE CHANGE MITIGATION TRANSFORMATION	MODELLED TARGET	IMPACT TO SERVICE OR ASSET	DEMAND MANAGEMENT PLAN
Transforming Our Buildings	By 2050, all municipal buildings will be retrofitted to achieve 50% energy efficiency relative to 2016.	The initial upfront cost of retrofit potentially lowers operational expenses.	Coordinate with the CFEM division to identify feasibility.
Transforming Our Buildings	Post-retrofits, switch buildings to heat pumps for space and water heating by 2050.	The initial upfront cost of switching potentially lowers operational expenses.	Coordinate with the CFEM division to identify feasibility.
Revolutionizing Renewables	By 2050, 50% of municipal buildings will add rooftop solar PV, covering 30% of the building's electrical load.	Initial upfront cost, potential energy cost savings.	Coordinate with the CFEM division to identify feasibility.
Growing Green	Planting 50,000 trees a year through to 2050	Considerations made in the parks design process.	Continue working with Landscape Architecture Services (LAS) to meet canopy targets in parks designs.

#### **MITIGATION RISK ANALYSIS**

Additionally, since the risk of not completing climate change mitigation projects is that the City continues to contribute to climate change in varying degrees which were modelled in the Climate Science Report for the City of Hamilton completed by ICLEI Canada, a risk analysis has not been completed in this AM Plan for not completing climate mitigation projects (ICLEI Canada, 2021).

#### **CURRENT MITIGATION PROJECTS**

Mitigation projects Parks is currently pursuing are outlined below in *Table 27.* These projects may already be included in the budget and may be quantified in the lifecycle models.

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 72 of 153 2024 ASSET MANAGEMENT PLAN

Table 27: Asset Climate Mitigation Projects

	CHIMATE CHANCE		
PROJECT	CLIMATE CHANGE MITIGATION TRANSFORMATION	PROJECT DESCRIPTION	CLIMATE CHANGE IMPACT
Park Canopy Coverage	Growing Green	New parks and park redevelopments are designed by LAS to meet 40% canopy coverage.	Increased capture of CO <sup>2</sup> .
Electric Equipment Pilot	Revolutionizing Renewables	Currently piloting electric equipment for park maintenance activities.	Reduced emissions associated with maintenance equipment.
Diverting Dog Waste	Revolutionizing Renewables	Diverting dog waste from landfills and converting it to fertilizer and electricity.	Reduced emissions and increased green energy production.
Re-naturalization Projects	Growing Green	Converted an underutilized sports field to a designed wetland.	Increased capture of CO <sup>2</sup> .
Lighting Updates	Revolutionizing Renewables	Updating lighting to energy- efficient LED, incorporating solar in specific areas.	Reduced emissions through reduced electricity requirements.
Mowing Reductions	Growing Green	Reducing mowing in targeted areas to re-naturalize.	Increased capture of CO <sup>2</sup>
Environmental Design for Heat Reduction	Growing Green	Some amenities contribute to heat islands (artificial fields) when designing. Parks is considering ways to reduce the heat island effect by increasing space between amenities to add more tree cover throughout sports fields in particular.	Reduced contributions to temperature.

#### **CLIMATE MITIGATION DISCUSSION**

At this time, the Parks has already made progress toward some of the modelled target transformations in the areas of Revolutionizing Renewables and Growing Green.

## HAMILTON PARKS AND RECREATIONAL TRAILS Page 73 of 153 2024 ASSET MANAGEMENT PLAN

#### **Revolutionizing Renewables**

In 2019 Parks launched a program to divert organic dog waste from the City's dog parks from landfill. Residents are encouraged to deposit dog waste into receptacles with underground storage, installed at various dog park locations. Waste is then removed and trucked to a facility where it is converted to fertilizer and electricity, diverting the waste from landfills while also producing renewable energy.

The Parks Section has also begun piloting small electric equipment (trimmers, chain saws etc.) to investigate the products available and their ability to meet Parks operational needs. While reducing emissions, there may be challenges with meeting operational needs with electric equipment due to the high volume of use per day for this equipment and available batteries. The equipment may require multiple batteries to be changed throughout the day or require a method of recharging (solar and batteries on board vehicles, etc.) and staff downtime to wait for recharging midday.

As pedestrian lighting is renewed Parks is updating lighting to energy efficient LED, reducing electricity requirements. In some more remote areas, solar lighting has been installed.

#### **Growing Green**

Parks has made progress on multiple initiatives aimed at renaturalization and increasing vegetation. New park and park redevelopments are designed by LAS to meet a 40% canopy coverage target. These trees are then managed by Forestry. Opportunities to renaturalize areas are regularly considered. Mowed areas have been reviewed and targeted areas were identified to either reduce or eliminate mowing to allow more vegetation growth and CO<sup>2</sup> capture as well as reduce emissions from mowing equipment. Alternative uses of park areas are considered which has resulted in the conversion of an underutilized sports field to a designed wetland, increasing CO2 capture while providing many other ecological services. It is recognized that some Parks amenities contribute to heat island effects (artificial fields, sports courts, etc.) when designing amenities these effects are considered and efforts are made to reduce them by increasing space between amenities and adding more tree cover throughout sports fields in particular.

#### 7.2 CLIMATE CHANGE ADAPTATION

**Climate Adaptation** refers to the process of adjusting to actual or expected climate and its effects (e.g. building facilities that can handle new climate loads).

The impacts of climate change may have a significant impact on the assets we manage and the services we provide. Climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which those impacts are responded to and managed.<sup>20</sup>

<sup>&</sup>lt;sup>20</sup> IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

Appendix "K" to Report PW23073(b)

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 74 of 153 2024 ASSET MANAGEMENT PLAN

In 2021, the City of Hamilton completed a Vulnerability and Risk Assessment Report<sup>21</sup> guided by ICLEI's Building Adaptive and Resilient Communities (BARC) Framework as part of the Climate Change Impact Adaptation Plan (CCIAP) (ICLEI, 2021). The BARC Framework identified thirteen high-impact areas.

<sup>&</sup>lt;sup>21</sup> City of Hamilton & Local Governments for Sustainability Canada, 2021

#### **Adaptation Demand Analysis**

Table 28: Managing the Demand of Climate Change on Assets and Services

ADAPTATION IMPACT STATEMENT	BASELINE (1976-2005) <sup>22</sup>	AVERAGE PROJECTED CHANGE IN 2021-2050 <sup>12</sup> (ASSUMING RCP4.5* SCENARIO) <sup>23</sup>	POTENTIAL IMPACT ON ASSETS AND SERVICES	DEMAND MANAGEMENT PLAN
Changes in the frequency of extreme rainfall events will result in increased instances of flooding on private and public properties.  Reduced capacity of flood protection measures and water storage caused by an increase in rainfall intensity leading to flooding.  Increased intensity of rainfall leading to increasing runoff into rivers and lakes, and washing of sediment, nutrients, pollutants, and other materials.  Changes in precipitation resulting in resulting in erosion of natural systems (i.e., water banks, escarpment erosion) leading to washouts of bridges and roadways.	6.7 heavy precipitation days (20 mm)  25.8 heavy precipitation days (10 mm)  844 mm average annual total precipitation	7.7 heavy precipitation days (20 mm)  27.6 heavy precipitation days (10 mm)  886 mm average annual total precipitation	<ul> <li>Flooding in parks impacting assets and facilities, washouts of trails and bridges.</li> <li>High lake levels result in shoreline flooding and damage.</li> <li>Following events, debris cleanup requirements, drainage issues, and high soil saturation impacting the usability of parkland features.</li> <li>Erosion and destabilization of slopes, exacerbated by increased invasive species destroying understory vegetation.</li> <li>Following flood events, shorter periods of acceptable weather for remediation projects, including difficulty scheduling, and waiting longer to repair for ground conditions to dry.</li> <li>Outbreaks of dangerous green-blue algae impacting recreational use of beaches.</li> </ul>	<ul> <li>Identify flood-prone areas, and locations of drainage /stormwater issues and follow city stormwater design standards.</li> <li>Increased low-impact development feature incorporation for the management of stormwater.</li> <li>Investigate the potential for elevated pathways/boardwalks in problematic areas.</li> <li>Improvements to slope stabilization including invasive management and planting of native stabilizing species.</li> <li>Continue with planned improvements to shoreline protection.</li> <li>Education of council and the public about practices and impacts on assets.</li> <li>Continue to follow guidance for beach closures based on monitoring through Public Health.</li> </ul>
Increased instances of heat-related issues due to extreme heat.	16.1 average days where the temperature is 30 degrees Celsius or more	34.4 average days where the temperature is 30 degrees Celsius or more	<ul> <li>Extreme heat leading to increased demand for splashpads, shade structures, water fountains, etc.</li> <li>Requests for misting and cooling</li> </ul>	<ul> <li>Increase tree cover in parks and continue working with LAS on new designs to meet canopy targets.</li> <li>Follow Parks design standards including shade structures. Implementation of the Recreation Master</li> </ul>
Dryer, hotter and longer summers may affect the health and safety of local vulnerable populations.	71.6 days average length of the hot season	102 days average length of the hot season	stations.  Staff will require longer cooling breaks on hot days potentially delaying	<ul> <li>Plan future splash pad needs.</li> <li>Make consideration in Parks design process for types of vegetation resistant to drought.</li> </ul>
More frequent and intense heatwaves will increase instances of heat-related health and safety issues, particularly for households without	2.1 Average Annual Heat Waves	4.7 average annual heat waves	schedules.  Negative impacts to vegetation.	<ul> <li>Consider possible changes to mowing cycles.</li> <li>Continue to reduce phosphorus fertilizer use by following the current educated application system,</li> </ul>

<sup>&</sup>lt;sup>22</sup> ICLEI Canada, 2022

<sup>&</sup>lt;sup>23</sup> RCP4.5 Scenario: Moderate projected Green House Gas concentrations, resulting from substantial climate change mitigation measures. It represents an increase of 4.5 W/m2 in radiative forcing to the climate system. RCP 4.5 is associated with 580-720ppm of CO2 and would more than likely lead to 3°C of warming by the end of the 21st century.

ADAPTATION IMPACT STATEMENT	BASELINE (1976-2005) <sup>22</sup>	AVERAGE PROJECTED CHANGE IN 2021-2050 <sup>12</sup> (ASSUMING RCP4.5* SCENARIO) <sup>23</sup>	POTENTIAL IMPACT ON ASSETS AND SERVICES	DEMAND MANAGEMENT PLAN
access to reliable air-conditioning and the homeless			<ul> <li>Impacts on mowing cycles due to cycles of drought and high rainfall.</li> <li>Increased encampments, populations vulnerable to heat, drinking water and cooling needs.</li> <li>Faster growing vegetation requiring more maintenance at trails, parks, etc.</li> </ul>	only applying when nutrient deficiency is shown through soil testing, rather than scheduled applications.  Continue to make irrigation schedule decisions based on conditions rather than a set schedule including education of staff.
Increased temperatures and changes in precipitation increase incidences of infectious diseases and vector-borne diseases as a result of longer transmission periods or changes in the geographic distribution of disease vectors.	52.2 number of ice days (temperature below 0 degrees Celsius)	35.7 number of ice days (temperature below 0 degrees Celsius) extending the breeding season of mosquitos/ticks.	<ul> <li>Increased risk of staff exposure to vector-borne diseases.</li> <li>Increased requirements for invasive species management.</li> </ul>	<ul> <li>Continue with invasive management programs (poison ivy, phragmites) and education programs.</li> <li>Continue tick and mosquito education protocols for staff.</li> <li>Consider controls on the movement of species, boot cleaners, etc.</li> </ul>
Increased intensity and frequency of ice storms lead to increased hazardous roads, pathways and sidewalk conditions.	187 mm average total winter precipitation	204 mm average total winter precipitation	<ul> <li>Increased winter maintenance for pathways, parking lots and access roads.</li> <li>Accelerated deterioration of infrastructure including freeze-thaw impacts on asphalt for paths and courts.</li> </ul>	<ul> <li>Stay up to date on the best materials for freeze-thaw resistance and best maintenance practices.</li> <li>Maintain accurate signage to identify pathways that are maintained in winter and pathways that may be hazardous.</li> <li>Continue to meet winter path maintenance standards and evaluate standards at regular intervals.</li> </ul>

#### **ADAPTATION RISK ANALYSIS**

Additionally, the City should consider the risks for the asset or service as a result of climate change and consider ways to adapt to reduce the risk. Adaptation 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.

Similarly, to the exercise above and using the risk process in **Section 6**, asset owners:

- Reviewed the likelihood scores in the Vulnerability and Risk Assessment Report for the adaptation impact occurring;
- Identified the consequence to the asset/service if the event did happen to develop a risk rating; and,
- If the risk was identified as high, the asset owner produced a preliminary risk adaptation plan shown below in *Table 29*.

It is important to note that due to the high level of uncertainty with the climate change risk adaptation plans, the cost of mitigating the risks below has not been included in the lifecycle and financial models at this time. The adaptation plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should consider these risks during the planning and design processes. Future changes which will be incorporated into future iterations of the AM Plan. Moving forward, the Climate Lens tool will assess projects based on these targets and will assist with the prioritization of climate adaptation projects.

Table 29: Adapting to Climate Change

ruisie zer ruuger	ing to online one	, .		
ADAPTATION IMPACT STATEMENT	SERVICE OR ASSET AT RISK DUE TO IMPACT	WHAT COULD HAPPEN	RISK RATING	RISK ADAPTATION PLAN
Reduced capacity of flood protection measures and water storage caused by an increase in rainfall intensity leading to flooding.	Shoreline Protection	Failure, risk to property and life protected by assets	High	Engineering inspection of assets was completed. Continue with recommended repairs and replacements partially funded through the Federal Disaster Mitigation and Adaptation Fund Project.  Develop and implement staff training to inspect shoreline structures and natural areas for damage.

ADAPTATION IMPACT STATEMENT	SERVICE OR ASSET AT RISK DUE TO IMPACT	WHAT COULD HAPPEN	RISK RATING	RISK ADAPTATION PLAN
Changes in the frequency of extreme rainfall events will result in increased instances of flooding on private and public properties.  Increased intensity and frequency of ice storms leading to increased hazardous roads, pathways and sidewalk conditions.	All Assets	Deterioration of assets due to an increase in extreme weather events and changing climate including freeze-thaw cycles, extreme heat, and flooding.  Increased inspection and maintenance requirements and reduced service lives accelerating program needs.	High	Develop Overall Asset Management Strategy (Asset inventory, standardized inspection criteria, standardized condition rating and prioritization) Maintenance Strategy.  Monitor changes to maintenance and renewal needs.  Investigate resilient materials in renewal designs.
Changes in the frequency of extreme rainfall events will result in increased instances of flooding on private and public properties.	Outdoor Sports Amenities	Flooding and oversaturation of sports fields leading to service disruptions, and reduced play opportunities.	High	Identify fields with poor drainage and evaluate the feasibility of mitigation and remediation opportunities.

#### **CURRENT ADAPTATION PROJECTS**

Adaptation projects Parks is currently pursuing are outlined below in *Table 30*. These projects may already be included in the budget and may be quantified in the lifecycle models.

Table 30: Asset Climate Adaptation Projects

PROJECT	PROJECT DESCRIPTION
Shoreline Protection Measures Project	Implement protection measures to increase City-wide shoreline resiliency across 33 locations with construction to occur from 2020 to 2027.
Changes to fertilizer and irrigation practices	Changed from the scheduled application of fertilizer and use of irrigation systems to informed decision-making. Irrigation is based on the real moisture conditions of fields and diamonds. Fertilizer is only used when needed based on soil testing.
Low Impact Development (LID) Features	New Park designs are incorporating LID features for the management of stormwater where feasible.
Sport Court Design Changes	Changes to sports court design to increase the resilience to wind impacts due to higher intensity storms.

#### **CLIMATE ADAPTATION DISCUSSION**

The outdoor nature of Parks assets as well as their locations within and close to bodies of water, slopes and other hazard lands will make them vulnerable to many of the impacts of climate change. A robust asset management strategy including a thorough asset inventory, standardized inspection and condition ratings, and standardized maintenance procedures will be instrumental in monitoring impacts on assets and subsequently planning for and prioritizing maintenance and renewal needs. Climate change will impact Parks assets as well as operations as staff manage operations through storms, increased rainfall, increased summer heat and drought.

The overall increased stormwater management needs of the City may impact the Parks service area in areas of the city with limited available land and shared use of parkland for stormwater facilities may need to be considered, potentially reducing parkland in some areas.

Parks is making progress toward mitigating the impacts of climate change on their assets in various ways. Following high water levels and storms that resulted in damage to shoreline protection assets, an engineering assessment was performed, and restoration resiliency and measures were recommended. Projects have begun to implement the measures at 33 shoreline locations. Design changes have been implemented in Parks projects where climate change impacts have been noted including the addition of LID features to manage stormwater and changes to sports court design to increase resiliency to wind impacts from storms.

Parks has implemented changes to fertilizer and irrigation practices to change from scheduled application of fertilizer and use of irrigation systems to informed decision-making. The real moisture condition of fields and diamonds is considered when timing the use of irrigation systems. Soil testing is completed to determine fertilizer needs to reduce unnecessary fertilizer application.

#### 8. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City plans to manage these assets at the agreed levels of service and at the accepted lifecycle costs while excluding inflationary values. The costs included in the lifecycle management plan include costs from both the Capital and Operating budget. Asset management focuses on how taxpayer or ratepayer dollars are invested by lifecycle activities and not by budget allocation. Since both budgets contain various lifecycle activities, they have been consolidated together and separated by lifecycle activity in this section.

As a result of this new process, there may be some areas where the budget was not able to be broken down perfectly by lifecycle activity. Future AM Plans will focus on improving the understanding of Whole Life Costs and funding options. However, at this time the plan is limited to those aspects. Expenditure on new assets and services will be accommodated in the long-term financial plan but only to the extent that there is available funding.

#### 8.1 ACQUISITION PLAN

Acquisition reflects new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its current capacity. They may result from growth, demand, legal obligations or social or environmental needs. Assets are often donated through development agreements with the City or through the construction of new assets which are mostly related to population growth.

#### **CURRENT PROJECT DRIVERS – 10 YEAR PLANNING HORIZON**

The City prioritizes capital projects based on various drivers to help determine ranking for project priorities and investment decisions. As part of future AM Plans, the City will continue to develop its understanding of how projects are prioritized and ensure that multiple factors are being considered to drive investment decisions in the next iteration of the AM Plan. These drivers will include legal compliance, risk mitigation, O&M impacts, growth impacts, health and safety, reputation, and others. These drivers should be reviewed during each iteration of the AM Plan to ensure they are appropriate and effective in informing decision-making.

The <u>Parks Master Plan</u> and <u>Recreation Master Plan</u> are detailed strategic documents designed to guide decision-making related to many of the assets covered in this AM Plan. These documents have been used to inform this iteration of the plan and as the plans consider a 30-year planning horizon, should continue to be reviewed including any updates and revisions with each iteration of the AM Plan.

#### **DONATED (DEDICATED) ACQUISITIONS**

During the development process, the Planning Act requires developers to dedicate (donate) a prescribed amount of land within the development area for public parkland use. The developer has the option to complete the first stage of development only, meeting minimum requirements and leaving the City to finish the space with all necessary amenities and recreational features. Alternatively, the developer can build a finished park, meeting prescribed standards, and the City repays the developer with the development-related charges collected by the City for park development.

For the purpose of the lifecycle model in this iteration of the AM Plan, it has been assumed that all developers will choose the first option, dedicating land that requires further park development by the City. Based on the analysis completed in the <u>Parks Master Plan</u><sup>24</sup> it is anticipated that by 2051, 205 hectares of Neighbourhood parkland (approximately 7.3 hectares per year) will be acquired through the parkland dedication process. Land value has not been included in this iteration of the AM Plan but may be considered in future iterations.

The City is reviewing its donated asset assumption process to ensure that it proactively understands what assets are being donated annually and they are appropriately planned for. This will allow multiple departments across the City to plan for the assets properly such as:

- AM to forecast the long-term needs and obligations of the assets;
- Operations and maintenance can include the assets in their planned activities (inspections, legislative compliance activities); and,
- Finance can ensure that assets are properly captured and recognized appropriately (Audited Financial Statements, TCA process, Provincial reporting such as the FIR).

The City will need to ensure the required data is updated frequently and to a single source to ensure that all departments have access to the data they require in a timely manner.

Once the assets are assumed, Parks then becomes the steward of these assets and is responsible for all ongoing costs for the asset's operation, continued maintenance, inevitable disposal and their likely renewal.

The City has internal design standards, inspection practices as well as assessments which are intended to ensure the assets that are being donated to the City are in excellent condition before assumption. The City should continue to review its assumption process to ensure that the City is receiving high-quality and appropriately sized donated assets to defer lifecycle activities as much as possible.

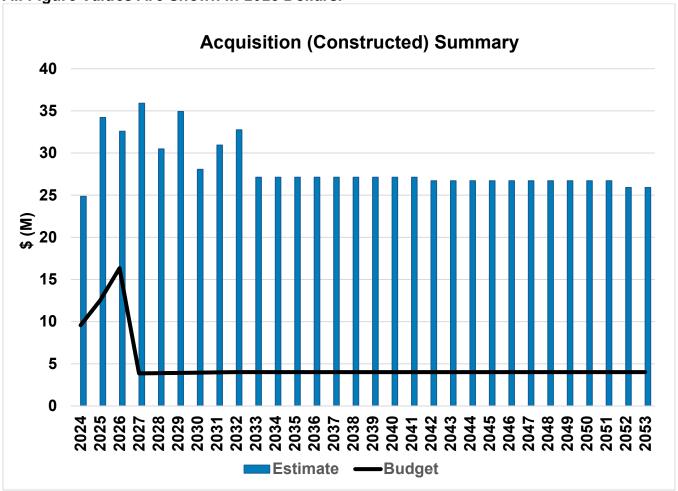
Page 82 of 153

<sup>&</sup>lt;sup>24</sup> Many assumptions were made in the analysis completed in the Parks Master Plan. Refer to the Parks Master Plan document for further details on assumptions and limitations.

#### **CONSTRUCTED OR PURCHASED ACQUISITIONS**

Over the next **10**-year planning period from **2024 to 2033**, the City forecasts the need to acquire approximately **\$311.9M** of new Parks assets as shown in *Figure 13* below. Included in this forecast are planned Parks development projects identified until 2032, additional Neighbourhood Park needs identified by the <u>Parks Master Plan</u>, and additional Outdoor Recreational Amenities identified by the <u>Recreation Master Plan</u>.

Figure 13: Acquisition (Constructed) Summary All Figure Values Are Shown In 2023 Dollars.



This forecast includes the following assumptions related to acquisitions to meet the deficiencies in Neighbourhood Parkland noted in the <u>Parks Master Plan</u>:

 In addition to the land acquired through dedication described above, in order to meet needs, the City will need to acquire an additional 3.5 hectares of land per year at an estimated cost of approximately \$8.6M per year to meet Neighbourhood Parkland deficiencies in target areas based on the analysis of the <u>Parks Master Plan</u>. Many of these

target areas are in older areas of the city including Lower Hamilton presenting unique challenges in acquiring and developing appropriate land.

• The cost to develop both the dedicated and acquired land described above into Neighbourhood Parks with typical features has been estimated at \$1.6M per hectare. This is the cost to develop typical features to minimum standards<sup>25</sup>.

The forecast also includes acquisitions required to meet the provisioning requirements for Outdoor Recreational Amenities as projected in the <u>Recreation Master Plan</u>. These needs will require the City to acquire an estimated \$9.5M of new assets over the 10-year Horizon and \$27.2M of new assets by 2051. This is only the cost to build the individual assets identified in the Master Plan based on the replacement values from the Development Charges Study. It is likely an underestimate as the projects may also require land acquisition, site remediation, site works, and additional Parks infrastructure assets to support them.

In addition to the above anticipated acquisitions related to Master Plans, over the next 10-year planning period the City forecasts approximately \$72M of constructed assets for new and ongoing Parks projects.

Major forecast acquisition expenditures over the next ten years include:

- \$21.2 million for Brightside Park (Stadium Precinct Park) including Facilities.
- \$8.2 million for William Connell Park Phase 3 including Facilities.
- \$3.9 million for Beasley Park Phase 3.
- \$3.6 million for Mountain Brow Path.
- \$3.3 million for Gage Park Redevelopment.
- \$2.3 million for Hamilton Amateur Athletic Association Park Redevelopment.
- \$2.2 million for Growth Related Equipment Acquisitions.

The City has **insufficient** budget for its planned constructed acquisitions at this time. Over the 10-year planning period, to meet the provisioning outlined in the <u>Parks</u> and <u>Recreation Master Plans</u> as well as complete other planned Parks projects, Parks will need to acquire approximately **\$311.9M** of assets with a planned budget for acquisitions of **\$66.1M**.

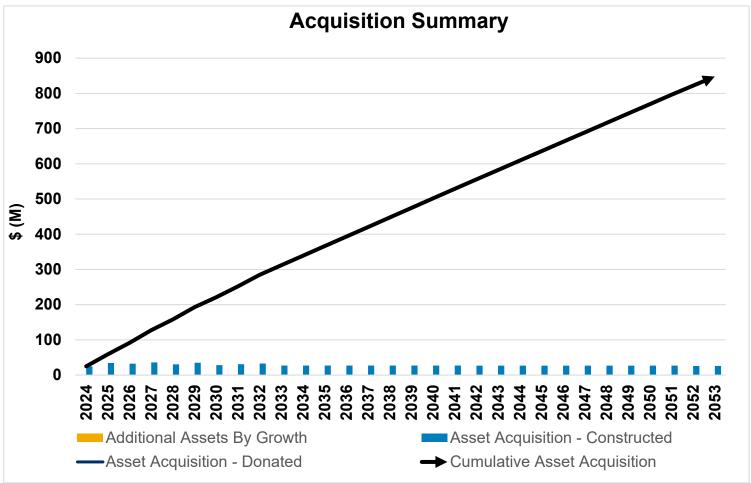
There will likely also be other asset acquisitions within the 30-year horizon for additional amenities, additional parks beyond the Neighbourhood Parks class, additional trails and more. With competing needs for resources across the entire city, there will be a need to investigate trade-offs and design options to further optimize asset decisions and ensure intergenerational equity can be achieved. Hamilton will continue to monitor its constructed assets annually and update the AM Plan when new information becomes available.

<sup>&</sup>lt;sup>25</sup> Many of the parks built on acquired land will need to be developed in older areas on parcels of various sizes and on sites requiring alterations or remediation. Assigning a per hectare value for development is challenging and this estimate is considered low confidence.

#### **ACQUISITIONS SUMMARY**

Forecast acquisition asset costs are summarized in *Figure 14* and show the cumulative effect of asset assumptions over the next 10-year planning period.

Figure 14: Acquisition Summary All Figure Values Are Shown In 2023 Dollars.



When Hamilton commits to constructing or purchasing new assets, the municipality must be prepared to fund future operations, maintenance, and renewal costs. Hamilton 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 Hamilton. The cumulative value of all acquisition work, including assets that are constructed and contributed are shown in *Figure 14* above. Hamilton will need to address how to best fund these ongoing costs as well as the costs to construct the assets while seeking the highest level of service possible.

#### 8.2 OPERATIONS AND MAINTENANCE PLAN

Operations include all regular activities to provide services. Daily, weekly, seasonal, and annual activities are undertaken by staff to ensure the assets perform within acceptable parameters and to monitor the condition of the assets for safety and regulatory reasons. Examples of typical operational activities include operating assets, utility costs, inspections, and the necessary staffing resources to perform these activities.

Some of the major operational investments over the next 10 years include:

- **\$15 million** allocated for employee-related costs in 2024 (i.e., salaries, wages, benefits, etc.);
- \$2.8 million in contractual services in 2024;
- \$2.2 million in building and ground costs in 2024 (i.e., water, sewer, hydro, etc.); and
- \$1.3 million in material and supplies in 2024.

Maintenance should be viewed as the ongoing management of deterioration. The purpose of planned maintenance is to ensure that the correct interventions are applied to assets in a proactive manner and to ensure they reach their intended useful life. Maintenance does not significantly extend the useful life of the asset but allows assets to reach their intended useful life by returning the assets to a desired condition. Examples of typical maintenance activities include equipment repairs and component replacements along with appropriate staffing and material resources required to perform these activities.

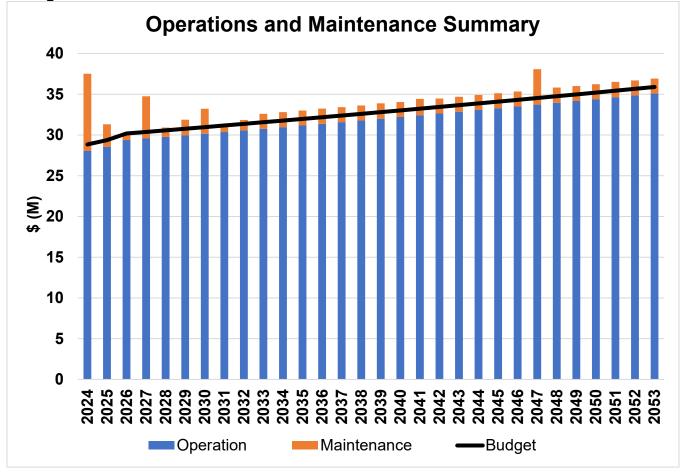
Proactively planning maintenance significantly reduces the occurrence of reactive maintenance which is always linked to a higher risk to human safety and higher financial costs. The City needs to plan and properly fund its maintenance to ensure Parks assets are reliable and can achieve the desired level of service.

Major maintenance projects the City plans to complete over the next 10 years include:

- \$600 thousand annually for facilities maintenance
- \$175 thousand annually for Confederation Beach Park Capital Maintenance Program
- \$130 thousand annually for CSA-approved playground material replacements

Forecast operations and maintenance costs vary in relation to the total value of the asset registry. When additional assets are acquired, future operations and maintenance costs are forecast to increase. When assets are disposed of the forecast operation and maintenance costs are reduced.

Figure 15: Operations and Maintenance Summary All Figure Values Are Shown In 2023 Dollars.



Per *Figure 15* above, it is evident that operations needs are expected to grow for the Parks section over the next 30 years due to the increased number of parks and assets. O&M costs to support the funded acquisitions were based on an estimated 5% of the Capital Cost of the new assets. If currently unfunded acquisitions become funded and acquired, the operations and maintenance needs will grow further. It is important to note that this forecast does not include additional anticipated O&M requirements for other demands, risks, climate change demands/risks, or proposed levels of services identified in *Sections 4 through 7* which will be quantified in future AM Plans.

The funding for operations is currently generally sufficient and some maintenance needs are being met. Maintenance needs for many assets in this plan are not well quantified. Continuous Improvement items have been added to *Table 35* to develop standardized condition assessments as well as to finish documenting operations and maintenance standards for all Parks assets. As the required activities and needs become better quantified it is anticipated that the funding gap for maintenance will increase.

The maintenance forecast included for facilities assets is based on the 10-year facility's needs. If a facility is due for renewal or expected to require renewal in the next 5 years based on ESL, the maintenance forecast has not been included. An average of the 10-year needs, excluding backlog, has been used to estimate facilities maintenance needs beyond the 10-year horizon. Facilities maintenance amounts beyond the existing budget are assumed to be unfunded. The maintenance spike in 2024 is considered a maintenance backlog because it includes deferred maintenance due to budget constraints over time. This backlog should be investigated following the completion of this Asset Management Plan to ensure critical components have been prioritized in the Corporate Facilities and Energy Management and the Parks budget forecasts.

Maintenance needs identified by the consultant assessment of the escarpment stairs have been included in the maintenance forecast. These needs are generally unfunded at this time. These needs have primarily been modelled in 2027 and 2047 based on the time horizons recommended in the assessment report.

At this time the asset inventory is incomplete and optimal maintenance activities for many assets are not well defined for all assets. Future iterations of this plan will provide a more thorough analysis of operations and maintenance costs including types of expenditures for training, mandatory certifications, insurance, staffing costs and requirements, equipment, and maintenance activities.

#### 8.3 RENEWAL PLAN

Renewal is major works which does not increase the asset's design capacity but restores, rehabilitates, replaces, or renews an existing asset to its original service potential. Works over and above restoring an asset to its original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs

Asset renewals are typically undertaken to either ensure the assets' reliability or quality will meet the service requirements set out by the City. Renewal projects are often triggered by service quality failure and can often be prioritized by those that have the highest consequence of failure, have high usage, have high operational and maintenance costs and other deciding factors.

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in *Table 31* and are based on the estimated design life for this iteration. Future iterations of the plan will focus on the Lifecycle approach to ESL which can vary greatly from design life. Asset useful lives were last reviewed in 2024 however they will be reviewed annually until their accuracy reflects the City's current practices.

Table 31: Useful Lives of Assets

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)
Asphalt Pathways	25
Fencing	25

### Appendix "K" to Report PW23073(b) HAMILTON PARKS AND RECREATIONAL TRAILS Page 89 of 153 **2024 ASSET MANAGEMENT PLAN**

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)
Vehicular Bridges	50
Pedestrian Bridges	35
Catch basins	100
Parking Lots	40
Signs	25
Decorative Fountains	Historical, Irreplaceable
Drinking Fountains	25
Irrigation Systems	25
Furniture	25
Garbage Cans	3
Sport Lighting	30
Pedestrian Lighting	50
Electrical Infrastructure	50
Ball Diamonds	25
Hard Surface Courts	25
Soft Surface Courts	25
Sports Fields	25
Play Structures	20
Spray Pads	25
Dog Parks	25
Community Ice Rinks	25
Skate Parks	25
Exercise Stations	25
Wild Waterworks	50
Escarpment Stairs	50
Viewing Platforms	20

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)
Waterfront Shoreline Protection	50
Trucks & Passenger Vehicles	8-10
Utility & Turf Maintenance Vehicles	8-15
Small Equipment	10
IT Equipment	4-5
Facilities	50-75*

<sup>\*</sup> Facilities were assumed to have an ESL of 50 years; however, if a facility is approaching or exceeding 50 years of age and was evaluated as good condition based on BCA data, the ESL was extended to 75 years.

#### 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., Facilities can process required volumes); or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g., Vehicles are reliable)..<sup>26</sup>

Future methodologies may be developed to optimize and prioritize renewals by identifying assets or asset groups that:

- · Have a high consequence of failure;
- Have 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 replacement with a modern equivalent asset that would provide the equivalent service. 27

#### SUMMARY OF FUTURE RENEWAL COST

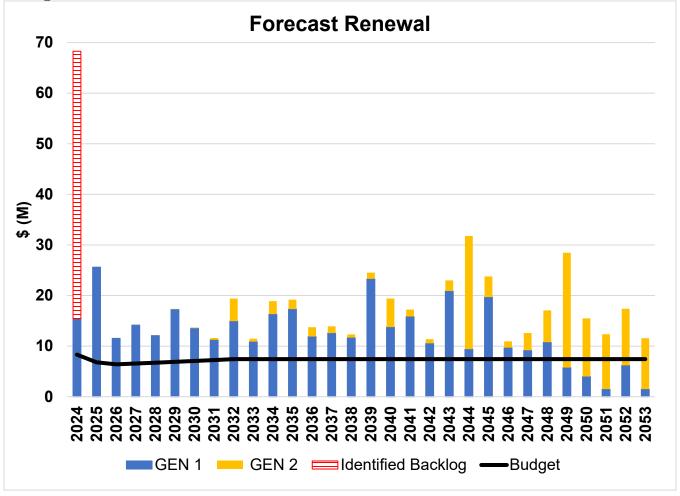
Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in *Figure 16*.

<sup>&</sup>lt;sup>26</sup> IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

<sup>&</sup>lt;sup>27</sup> Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

In **Figure 16** below, Generation 1 (Gen 1) costs refer to renewals that occur for the first time in the model based on the estimated service life and Generation 2+ (Gen 2+) costs refer to renewals that have occurred twice or more based on the estimated service life.

Figure 16: Forecast Renewal Costs
All Figure Values Are Shown In 2023 Dollars.



The significant amount highlighted as unfunded in 2024 represents the cumulative backlog of deferred work needed to be completed that has been either identified through its current condition or age. Currently, there is insufficient funding to accomplish all the renewals that are planned over the next ten years. Based on the number of funded replacements each year described above, this percentage is expected to continue to grow as assets deteriorate faster than they can be renewed and exceed their estimated service life.

Major backlog items include:

- \$15.7 million for Play Structures;
- \$11.8 million for Facilities;
- \$5.3 million for Sport Lighting;
- \$5.2 million for Fleet;

- \$3.3 million for Asphalt Pathways;
- \$3.1 million for Sports Fields;
- \$2.9 million for Ball Diamonds; and,
- \$3.0 million for Sports Courts.

The model assumes that assets in the backlog are renewed in 2024 and predicts their second generation of renewal needs based on ESL. This drives second-generation renewal spikes in 2044 and 2049. Other significant spikes in renewal are generally driven by high-value facility renewals. There is no age or condition data for a number of assets. These assets have generally not been included in the backlog and an even distribution of renewals has been assumed across the asset's ESL.

Wild Waterworks has not been included in the renewal model. A review of the facility is currently being untaken within the Confederation Beach Park Master Plan. Given that the facility is nearing end of service life and significant investment is required for renewal, a fulsome review of the area is being undertaken to evaluate all options that would meet the highest and best use of the land in alignment with current council priorities. Renewal with a similar facility has been estimated to cost \$24.9 million and an expanded facility would cost \$40.1 million. If an alternative option is pursued there will be a disposal cost of approximately \$5 million plus additional cost to develop and construct new assets.

Shoreline protection has not been included in the renewal model. Assets identified as requiring renewal are being renewed under a program jointly funded by the Federal Government (Disaster Mitigation and Adaptation Fund) and running until 2027. It was assumed that this would extend the life of the assets beyond the model period.

Properly funded and timely renewals ensure the assets perform as expected. Deferring renewals create risks of higher financial costs, decreased availability, and decreased satisfaction with asset performance. It is recommended to continue to analyze asset renewals based on criticality and availability of funds in future AM Plans.

#### 8.4 DISPOSAL PLAN

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, possible closure of service, decommissioning, disposal of asset materials, or relocation. Disposals will occur when an asset reaches the end of its useful life. The end of its useful life can be determined by factors such as excessive operation and maintenance costs, regulatory changes, obsolescence, or demand for the asset has fallen.

Assets identified for possible decommissioning and disposal are shown in *Table 32*. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in *Table 32*. Any costs or revenue gained from asset disposals is included in future iterations of the plan and the long-term financial plan.

### HAMILTON PARKS AND RECREATIONAL TRAILS Page 93 of 153 2024 ASSET MANAGEMENT PLAN

Table 32: Assets Identified for Disposal

ASSET	REASON FOR DISPOSAL	TIMING	DISPOSAL COSTS	OPERATIONS & MAINTENANCE ANNUAL SAVINGS
Sport Lighting	Poor condition	2024	\$90k	Not quantified

Sport lighting at Freelton Community Park, Victoria Park tennis courts and Glanbrook Sports Park was identified as poor condition by the consultant assessment performed in 2021. Due to budget constraints this lighting will be removed at a cost of approximately \$90k without plans for replacement, reducing the level of service at these sports facilities as lighting allows 1.5 times more playing hours at each facility.

As discussed above, the future state of the Wild Waterworks property is currently being studied. One possible outcome may be disposal of the facility and development of the property for an alternative Parks purpose.

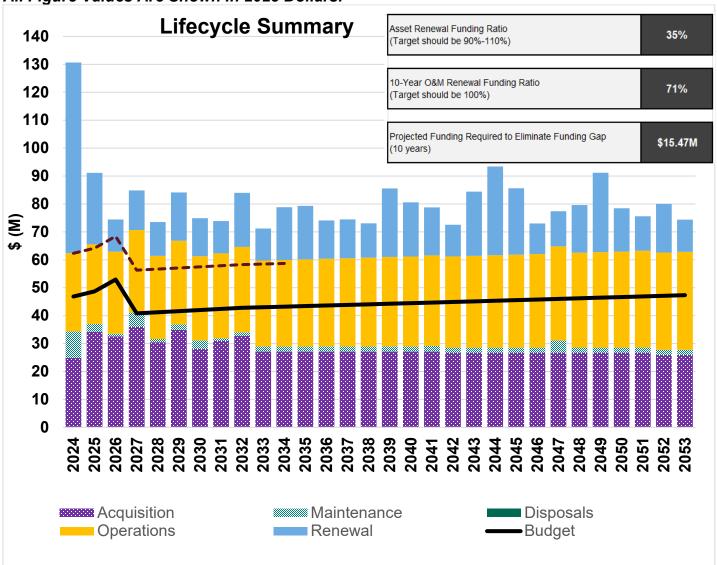
The <u>Recreation Master Plan</u> provides strategic direction on provisioning and decision making for many outdoor recreational amenities. No amenities have been identified for disposal based on the Master Plan at this time. The plan recommends that Bocce Courts and Lawn bowling Greens continue to be monitored for participation rates. Should participation decline and clubs fold, options to assume operational management, repurpose or remove would be considered on a site-specific basis. Provisioning for playgrounds and spray pads is provided on the basis of geographic distribution and decisions should continue to be made on the basis of achieving equitable distribution.

#### 8.5 LIFECYCLE COST SUMMARY

The financial projections from this asset plan are shown in *Figure 17*. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. 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 estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.





## HAMILTON PARKS AND RECREATIONAL TRAILS Page 95 of 153 2024 ASSET MANAGEMENT PLAN

There is currently insufficient funding over the 10-year period to address lifecycle needs which will result in an eventual reduction in level of service if not addressed. The underfunded activities include acquisitions, operations and maintenance, and renewals.

The annual acquisition of new parks assets will commit the City to additional operations and maintenance costs throughout the lifecycle of the assets. The City will need to continue increasing operating and maintenance budgets annually to support these assets.

As the City continues to develop condition profiles, identify necessary works, and implement an idealized maintenance strategy, identified maintenance needs may increase and if unfunded may impact the delivery of service. Unfunded maintenance needs for facilities and escarpment stairs contribute to the funding gap with the most significant contributor being deferred facilities maintenance.

The largest contributor to the funding gap is unfunded renewals and the renewal backlog. In particular. The backlog is expected to continue to grow as assets deteriorate faster than they can be renewed and exceed their estimated service life. As additional assets are acquired, future renewal needs will continue to increase. Deferring renewals (assets identified for renewal and not funded) creates risks of higher financial costs, decreased availability, and decreased satisfaction with asset performance potentially leading to increased usage and decreased service life of newer assets.

Due to the lack of data confidence in the current levels of service information, Parks will need to collect more data before proposing any new levels of service. It has been assumed in the interim that the current levels of service will be the proposed levels of service continuing forward past 2025 in accordance with O. Reg 588/17.

The City will continue to improve its lifecycle data, and this will allow for informed choices as to how best to mitigate impacts and how to address the funding gap itself. This gap in funding future plans will be refined to improve the confidence and accuracy of the forecasts as future versions of Asset Management Plans are updated.

## HAMILTON PARKS AND RECREATIONAL TRAILS Page 96 of 153 2024 ASSET MANAGEMENT PLAN

#### 9. FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. Effective asset and financial management will enable the City to ensure Parks provide the appropriate level of service for the City to achieve its goals and objectives. Reporting to stakeholders on service and financial performance ensures the City is transparently fulfilling its stewardship accountabilities.

Long-Term financial planning (LTFP) is critical for the City to ensure the networks lifecycle activities such as renewals, operations, maintenance, and acquisitions can happen at the optimal time. The City is under increasing pressure to meet the wants and needs of its customers while keeping costs at an affordable level and maintaining its financial sustainability.

Without funding asset activities properly, the City will have difficult choices to make in the future which will include options such as higher costs, reactive maintenance and operational costs, reduction of service and potential reputational damage.

Aligning the LTFP with the AM Plan is critical to ensure all of the network's needs will be met while the City is finalizing a clear financial strategy with measurable financial targets. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

#### 9.1 SUSTAINABILITY OF SERVICE DELIVERY

There are two key indicators of sustainable service delivery that are considered within the AM Plan for this service area. The two indicators are the:

- Asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years); and,
- Medium term forecast costs/proposed budget (over 10 years of the planning period).

#### **ASSET RENEWAL FUNDING RATIO**

Asset Renewal Funding Ratio.<sup>28</sup> **35%** 

The Asset Renewal Funding Ratio (ARFR) is used to determine if the City is accommodating asset renewals in an **optimal** and **cost effective** manner from a timing perspective and relative to financial constraints, the risk the City is prepared to accept and targeted service levels it wishes to maintain. The target renewal funding ratio should be ideally between **90% - 110%** over the entire planning period. A low indicator result generally indicates that service levels are achievable, however the expenditures are below this level in some service areas predominantly

<sup>&</sup>lt;sup>28</sup> AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

due to underinvestment, including a lack of permanent infrastructure funding from senior levels of government, as well as large spikes of growth throughout the years.

If assets are not renewed in the appropriate timing, it will inevitably require difficult trade-off choices that could include:

- A reduction of the level of service and availability of assets;
- Increased complaints and reduced customer satisfaction;
- Increased reactive maintenance and renewal costs; and,
- Damage to the City's reputation and risk of fines or legal costs.

The lack of renewal resources will be addressed in future AM Plans while aligning the plan to the LTFP. This will allow staff to develop options and long-term strategies to address the renewal rate. The City will review its renewal allocations once the entire inventory has been confirmed and amalgamated.

#### **MEDIUM-TERM – 10 YEAR FINANCIAL PLANNING PERIOD**

#### 10-Year Operations, Maintenance & Renewal Financial Ratio 71%

Although this AM Plan includes forecast projections to 30-years, the higher confidence numbers are typically within the first 10 years of the lifecycle forecast. The 10-year Operations, Maintenance & Renewal Financial Ratio compares the Planned Budget with the Lifecycle Forecast for the optimal operation, maintenance, and renewal of assets to provide an agreed level of service over the next 10-year period. Similarly, to the ARFR, the optimal ratio is also between **90-110**%. A low ratio would indicate that assets are not being funded at the rate that would meet the organization's risk and service level commitments.

The forecast operations, maintenance and renewal costs over the 10-year planning period is \$53.1M on average per year. Over time as improved information becomes available, it is anticipated to see this number change. The proposed (budget) operations, maintenance and renewal funding is \$37.6M on average per year giving a 10-year funding shortfall of \$15.5M per year or \$155M over the 10-year planning period. This indicates that 71% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget, which is not within the 90-110% range. Therefore, it can be concluded that Parks is not funding their assets at an acceptable rate. Note, these calculations exclude acquired assets.

Funding an annual funding shortfall or funding 'gap' should not be addressed immediately. The overall gap in funding city-wide will require vetting, planning and resources to begin to incorporate gap management into the future budgets for all City services. This gap will need to be managed over time to reduce it in a sustainable manner and limit financial shock to customers. Options for managing the gap include:

• Financing strategies – increased funding, block funding for specific lifecycle activities, long term debt utilization;

#### 

- Adjustments to lifecycle activities increase/decrease maintenance or operations, increase/decrease frequency of renewals, limit acquisitions or dispose of underutilized assets; and,
- Influence level of service expectations or demand drivers.

These options and others will allow Hamilton to ensure the gap is managed appropriately and ensure the level of service outcomes the customers desire.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to eventually achieve a financial indicator of **90-110%** for the first years of the AM Plan and ideally over the 10-year life of the Long-Term Financial Plan.

### 9.2 FORECAST COSTS (OUTLAYS) FOR THE LONG-TERM FINANCIAL PLAN

**Table 33** shows the forecast costs (outlays) required for consideration in the 30 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the operational and capital budget. The City will begin developing its long-term financial plan (LTFP) to incorporate both the operational and capital budget information and help align the LTFP to the AM Plan which is critical for effective asset management planning.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

The City will manage the 'gap' by continuing to develop this AM Plan to provide guidance on future service levels and resources required to provide these services in consultation with the community. Options to manage the gap include reduction and closure of low use assets, increased funding allocations, reduce the expected level of service, utilize debt-based funding over the long term, adjustments to lifecycle activities, improved renewals and multiple other options or combinations of options.

Table 33: Forecast Costs for the Long-Term Financial Plan \*Forecast Costs are shown in 2023 Dollar values.

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2024	\$19,064,934	\$28,038,050	\$9,487,956	\$68,289,472	\$90,000
2025	\$22,661,804	\$28,563,736	\$2,757,074	\$25,605,548	\$-
2026	\$21,026,776	\$29,381,034	\$939,805	\$11,530,656	\$-

### Appendix "K" to Report PW23073(b) HAMILTON PARKS AND RECREATIONAL TRAILS Page 99 of 153 **2024 ASSET MANAGEMENT PLAN**

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2027	\$21,473,600	\$29,574,314	\$5,181,308	\$14,164,991	\$-
2028	\$13,173,600	\$29,769,024	\$1,140,773	\$12,109,542	\$-
2029	\$17,617,600	\$29,965,204	\$1,911,327	\$17,313,718	\$-
2030	\$10,753,600	\$30,162,884	\$3,056,878	\$13,606,732	\$-
2031	\$16,506,100	\$30,362,114	\$970,245	\$11,602,027	\$-
2032	\$15,439,080	\$30,562,924	\$1,284,551	\$19,389,892	\$-
2033	\$9,814,080	\$30,764,638	\$1,834,208	\$11,459,215	\$-
2034	\$9,814,080	\$30,967,686	\$1,840,708	\$18,889,932	\$-
2035	\$9,814,080	\$31,172,072	\$1,834,208	\$19,179,832	\$-
2036	\$9,814,080	\$31,377,808	\$1,864,808	\$13,735,288	\$-
2037	\$9,814,080	\$31,584,902	\$1,834,208	\$13,914,007	\$-
2038	\$9,814,080	\$31,793,362	\$1,834,208	\$12,311,905	\$-
2039	\$9,814,080	\$32,003,198	\$1,883,608	\$24,532,748	\$-
2040	\$9,814,080	\$32,214,418	\$1,834,208	\$19,394,068	\$-
2041	\$9,814,080	\$32,427,034	\$2,007,508	\$17,211,756	\$-
2042	\$9,399,670	\$32,641,052	\$1,834,208	\$11,364,579	\$-
2043	\$9,399,670	\$32,856,484	\$1,834,208	\$22,998,484	\$-
2044	\$9,399,670	\$33,073,336	\$1,844,009	\$31,775,878	\$-
2045	\$9,399,670	\$33,291,620	\$1,834,208	\$23,770,148	\$-
2046	\$9,399,670	\$33,511,344	\$1,834,208	\$10,942,809	\$-
2047	\$9,399,670	\$33,732,520	\$4,349,808	\$12,579,092	\$-
2048	\$9,399,670	\$33,955,156	\$1,864,808	\$17,066,856	\$-
2049	\$9,399,670	\$34,179,260	\$1,834,208	\$28,455,348	\$-
2050	\$9,399,670	\$34,404,840	\$1,834,208	\$15,482,276	\$-

### HAMILTON PARKS AND RECREATIONAL TRAILS Page 100 of 153 2024 ASSET MANAGEMENT PLAN

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2051	\$9,399,670	\$34,631,912	\$1,886,408	\$12,342,837	\$-
2052	\$8,600,000	\$34,860,484	\$1,834,208	\$17,382,972	\$-
2053	\$8,600,000	\$35,090,564	\$1,834,208	\$11,550,691	\$-

#### 9.3 FUNDING STRATEGY

The proposed funding for assets is outlined in the City's operational budget and 10-year capital budget.

These operational and capital budgets determine how funding will be provided, whereas the AM Plan typically communicates how and when this will be spent, along with the service and risk consequences. Future iterations of the AM plan will provide service delivery options and alternatives to optimize limited financial resources.

#### 9.4 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 likely increase significantly despite some assets being programmed for disposal that will be removed from the register over the 30-year planning horizon.

Additional assets will add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to 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 removes 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.

#### 9.5 ASSET VALUATION

Gross Replacement Cost (Current/Gross) \$643,213,986 Cost Depreciation Annual Depreciable Depreciated **Depreciable Amount** \$508,580,936 Depreciatio Depreciated Replacement Cost 29 \$287,520,800 period 2 Useful Life \$ 19,166,724 Depreciation

<sup>&</sup>lt;sup>29</sup> Also reported as Written Down Value, Carrying or Net Book Value.

## HAMILTON PARKS AND RECREATIONAL TRAILS Page 101 of 153 2024 ASSET MANAGEMENT PLAN

The current replacement cost is the most common valuation approach for specialized infrastructure assets. The methodology includes establishing a comprehensive asset registry, assessing replacement costs (based on market pricing for the modern equivalent assets) and useful lives, determining the appropriate depreciation method, testing for impairments, and determining remaining useful life. As previously mentioned, Public Trees were not included in the depreciation as enhanced natural assets do not depreciate.

As the City matures its asset data, it is highly likely that these valuations will fluctuate significantly over the next three years, and they should increase over time based on improved market equivalent costs as well as anticipated cost changes due to climate change mitigation and adaptation strategies.

#### 9.6 KEY ASSUMPTIONS MADE IN FINANCIAL FORECASTS

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

- Operational forecasts are based on current budget allocations and are the basis for the projections for the 30-year horizon and do not address other operational needs not yet identified;
- Maintenance forecasts are based on current budget allocations and do not identify asset needs at this time. It is solely based on planned activities; and,
- Replacement costs were based on historical costing. They were also made without determining what the asset would be replaced with in the future.

#### 9.7 FORECAST RELIABILITY AND CONFIDENCE

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is defined in the AM Plan Overview.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be a **Low** confidence level using the information in *Table 34*.

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 102 of 153 2024 ASSET MANAGEMENT PLAN

Table 34: Data Confidence Assessment

DATA	CONFIDENCE ASSESSMENT	COMMENT		
Demand Drivers	Medium	Demand drivers were determined using recently completed <u>Parks Master Plan</u> , <u>Recreation Master Plan</u> and subject matter expert opinion.		
Growth Projections	Medium	Based on Greater Golden Horseshoe Growth Forecasts as outlined in the <u>Asset Management Overview Plan</u> .		
Acquisition Forecast	Low	Anticipated acquisitions required to support service were included from the Capital Budget. Additional acquisitions were included from the Parks Master Plan and Recreation Master Plan with estimated costs.  Acquisition budgets beyond 2024 were estimated based on anticipated block and development charges funding.		
Operation Forecast	Low	Currently budget based and requires future improvement to ensure allocation is accurate and all operational need accounted for. Operations costs for master plan related new park and outdoor recreational amenities were estimated as described using subject matter expert opinion.		
Maintenance Forecast	Low	Currently budget based and requires future improvement to ensure allocation is accurate and all maintenance needs accounted for. Maintenance needs for facilities are from BCA. Maintenance costs for new park and outdoor recreational amenities were estimated as described using subject matter expert opinion.		
Renewal Forecast  – Asset Value  Low		Market pricing was used for renewal replacement costs for facilities, vehicles, small equipment and IT equipment which have generally medium confidence.  Previous purchase costs and subject matter opinion including 2024 Development Charges Study was used for renewal replacement costs of most other assets with generally medium confidence.  No data is available for a number of assets in the Parks Infrastructure category reducing the overall confidence.		

### Appendix "K" to Report PW23073(b) HAMILTON PARKS AND RECREATIONAL TRAILS Page 103 of 153 2024 ASSET MANAGEMENT PLAN

DATA	CONFIDENCE ASSESSMENT	COMMENT		
Renewal Forecast - Asset Useful Life	Low	There is a high confidence in age data for facilities, fleet and IT assets.  Age data was not available for most other assets. Useful lives were based on subject matter expert opinion.		
Renewal Forecast - Condition Modelling	Low	Condition data was known for facilities, shorelin protection, sport lighting, Wild Waterworks, an escarpment stairs based on inspections performed be external consultants with a generally high confidence level.		
		The condition of vehicles, small equipment, and IT assets was based on age and estimated service life with generally low confidence level.		
		Condition of most other Parks Infrastructure and Outdoor Recreational amenities with known condition were determined based on staff visual inspections. Some of these inspections are multiple years out of date and not all assets in these categories have known condition data. The confidence level is generally medium.		
		There are some assets with no condition data available, reducing overall confidence.		
Disposal forecast	Low	Current disposal information is rolled into renewal. Continuous improvements are required to ensure accurate data is available.		

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 104 of 153 2024 ASSET MANAGEMENT PLAN

#### 10. PLAN IMPROVEMENT AND MONITORING

#### 10.1 STATUS OF ASSET MANAGEMENT PRACTICES

#### ACCOUNTING AND FINANCIAL DATA SOURCES

This AM Plan utilizes accounting and financial data. The sources of the data are:

- 2023 Approved Operating Budget;
- 2024-2025 Multi-Year Operating Forecast;
- 2023 Approved Capital Budget;
- 2023-2032 Multi-Year Capital Forecast;
- Building Condition Assessment Reports;
- Asset Management Data Collection Templates;
- Audited Financial Statements and Government Reporting (FIR, TCA etc.);
- Financial Exports from internal financial systems; and,
- Historical cost and estimates of budget allocation based on SME experience.

#### **ASSET MANAGEMENT DATA SOURCES**

This AM Plan also utilizes asset management data. The sources of the data are:

- Data extracts from various city applications and management software;
- Asset Management Data Collection Templates;
- Tender documents, subdivision agreements and projected growth forecasts as well as internal reports;
- · Condition assessments;
- Subject matter Expert Opinion and Anecdotal Information; and,
- Reports from the mandatory inspections, operational & maintenance activities internal reports.

#### 10.2 IMPROVEMENT PLAN

It is important that the City recognize areas of the AM Plan and planning processes that require future improvements to ensure both effective asset management and informed decision making. The tasks listed below are essential to improving the AM Plan and the City's ability to make evidence based and informed decisions. These improvements span from improved lifecycle activities, improved financial planning and to plans to physically improve the assets.

The Improvement plan **Table 35** below highlights proposed improvement items that will require further discussion and analysis to determine feasibility, resource requirements and alignment to current workplans. Future iterations of this AM Plan will provide updates on these improvement plans.

<sup>&</sup>lt;sup>30</sup> ISO 55000 Refers to this as the Asset Management System

### Appendix "K" to Report PW23073(b) HAMILTON PARKS AND RECREATIONAL TRAILS Page 105 of 153 **2024 ASSET MANAGEMENT PLAN**

Table 35: Improvement Plan

#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
1	Develop a complete asset registry for all parks assets including inventory and condition assessment program.  Inventory all assets in GIS, include key database fields and follow the newly developed City Data Standard. Develop condition inspection protocol based on a five-point scale, create inspection templates, and implement a routine inspection program. Develop associated SOPs. Investigate digital solutions including integration with EAM to streamline the program and analyse data collected.	Parks with CAM assistance for framework and methodology	Possible PM/Coordinator	Investigate needs: Q4- 2024 Implementation: pending EAM
2	Complete V1 of Parks operations and maintenance standards document for Parks assets. Align with corporate and departmental SOPs, develop additional SOPs where necessary.	Parks  CAM assists with a framework	PM/Coordinator	Q4 - 2024
3	Work with other City departments to identify asset owners and demarcation points. Some utilities may need to be separated. Ensure all assets have clear ownership and responsibility for maintenance, inspection, and repair. Develop a protocol to address assets when identified.	Parks  CAM to assist with the coordination.	Internal Resources for identification and discussions  Potential funds required to separate utilities	Q2-2025 Identify known assets impacted

### Appendix "K" to Report PW23073(b) HAMILTON PARKS AND RECREATIONAL TRAILS Page 106 of 153 **2024 ASSET MANAGEMENT PLAN**

#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
4	Investigate requirements and frequencies for engineered inspections and estimate costs. Include assets identified in risk treatment plans (Lighting, bridges, lookout platforms, escarpment stairs)  Investigate cross-departmental contracts for maintenance and construction.	Parks to execute with the support of others	Internal Resources to investigate needs. Budget TBD	Investigate by Q2-2025  Request budget in 2025 (2026 budget)  Execute in 2026
5	Update and document agreements (school boards, Bruce trail, etc.) identify associated risks, design standards etc.	Parks	Internal Resources	Ongoing, expected completion beyond 2026
6	Develop a fleet strategy – identify the purpose of extended-use vehicles, replacement needs, and additional fleet needs to fill gaps or meet future demand	Parks	Internal Resources	Q2 - 2025
7	Conduct an annual review of unit costs for assets.	Parks coordinate with LAS through Development Charges updates	Internal Resources	Ongoing
8	Develop asset renewal priority ranking criteria. Identify longterm strategy and funding plan for each asset category.	Parks	Internal Resources	Following the implementation of Improvement Task #1
9	Review facilities data including building condition assessments and 10-yr needs. Review estimated service lives and renewal needs.	Parks with Facilities input	Staff time	Q2-2025

## HAMILTON PARKS AND RECREATIONAL TRAILS Page 107 of 153 2024 ASSET MANAGEMENT PLAN

#### 10.3 MONITORING AND REVIEW PROCEDURES

This AM Plan 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 as a result of budget decisions.

The AM Plan will be reviewed and updated on a regular basis 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 will be incorporated into the Long-Term Financial Plan once completed.

#### 10.4 PERFORMANCE MEASURES

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

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan;
- The degree to which the one-to-ten-year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan;
- 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; and,
- The Asset Renewal Funding Ratio achieving the Organizational target (this target is often 90 – 110%).

# HAMILTON PARKS AND RECREATIONAL TRAILS Page 108 of 153 2024 ASSET MANAGEMENT PLAN

#### 11. REFERENCES

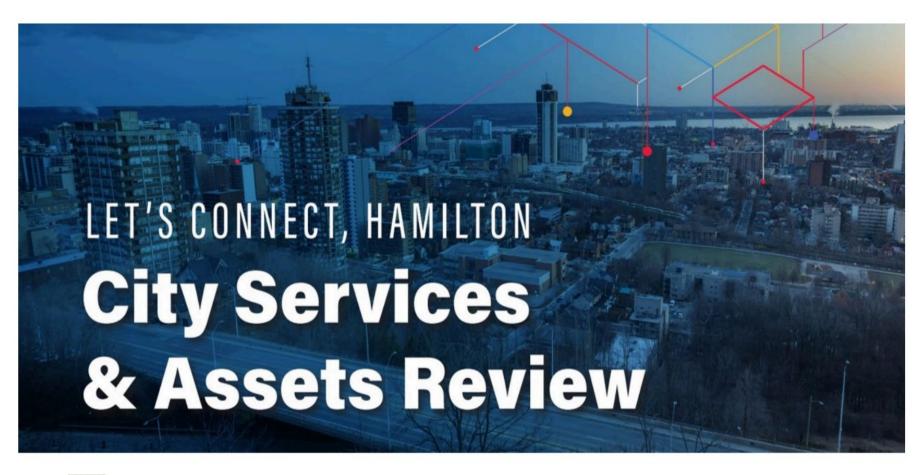
- (2021). Census Profile, 2021 Census of Population. Statistics Canada. Retrieved 2023, from https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&GENDERlist=1&STATISTIClist=1&HEADERlist=0&DGUIDlist=2021A00033525&SearchText=Hamilton
- City of Hamilton. (2016, May). Recreational Trails Master Plan. Retrieved from Hamilton.ca: https://www.hamilton.ca/city-council/plans-strategies/master-plans-studies/recreational-trails-master-plan
- City of Hamilton. (2019). FCS19038 Disaster Mitigation and Adaptation Fund Financing Strategy. Hamilton Ontario, Canada: City of Hamilton.
- City of Hamilton. (2022, July 21). Recreation Master Plan. Retrieved from Hamilton.ca: https://www.hamilton.ca/city-council/plans-strategies/master-plans-studies/recreation-master-plan
- City of Hamilton. (2023, August). Hamilton Parks Master Plan. Retrieved from Hamilton.ca: https://www.hamilton.ca/city-council/plans-strategies/master-plans-studies/hamilton-parks-master-plan
- City of Hamilton, & Local Governments for Sustainability Canada. (2021). Vulnerability and Risk Assessment Report. City of Hamilton, Hamilton, Ontario. Retrieved 2023, from https://pub-hamilton.escribemeetings.com/filestream.ashx?DocumentId=325830
- Government of Ontario. (2017). Ontario Regulation 588/17: Asset Management Planning for Municipal Infrastructure. Ontario, Canada: e-Laws. Retrieved 2024, from Ontario.ca: https://www.ontario.ca/laws/regulation/r17588
- ICLEI Canada. (2022). Climate Science Report for the City of Hamilton. City of Hamilton, Hamilton, Ontario. Retrieved 2023, from https://www.hamilton.ca/sites/default/files/2022-10/climate-change-impact-adapatation-plan-science-report.pdf
- Institute of Public Works Engineering Australasia. (2006). International Infrastructure Management Manual. Retrieved 2024, from Institute of Public Works Engineering Australasia: www.ipwea.org/IIMM
- Institute of Public Works Engineering Australasia. (2008). NAMS.PLUS Asset Management. Retrieved 2024, from Institute of Public Works Engineering Australasia: www.ipwea.org/namsplus

### HAMILTON PARKS AND RECREATIONAL TRAILS Page 109 of 153 2024 ASSET MANAGEMENT PLAN

- Institute of Public Works Engineering Australasia. (2012). Long-Term Financial Planning. Sydney, Australia. Retrieved 2024, from https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6
- Institute of Public Works Engineering Australasia. (2014). Levels of Service & Community Engagement. Sydney, Australia. Retrieved 2024, from https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8
- Institute of Public Works Engineering Australasia. (2015). Australian Infrastructure Financial Management Manual. Retrieved 2024, from www.ipwea.org/AIFMM
- Institute of Public Works Engineering Australasia. (2015). International Infrastructure Management Manual (3rd ed.). Sydney, Australia. Retrieved 2024, from www.ipwea.org/IIMM
- Institute of Public Works Engineering Australasia. (2018). Climate Change Impacts on the Useful Life of Assets. Sydney. Retrieved 2024
- Institute of Public Works Engineering Australasia. (2020). International Infrastructure Financial Management Manual. Sydney, Australia. Retrieved 2024
- International Organization for Standardization. (2014). ISO 55000: 2014 Overview, Principles and Terminology. ISO. Retrieved 2024
- International Organization for Standardization. (2018). ISO 31000: 2018, Risk Management Guidelines. ISO. Retrieved 2024
- Newbold, C., Skidmore, S., Chessman, T., Imhoff, T., & McDowell, A. (2022). ReCharge Hamilton. Energy and Emissions Plan, City of Hamilton, Hamilton, Ontario. Retrieved 2023, from https://pub-hamilton.escribemeetings.com/filestream.ashx?DocumentId=335400

### HAMILTON PARKS AND RECREATIONAL TRAILS 2024 ASSET MANAGEMENT PLAN

#### 12. APPENDIX "A" – SURVEY FINDINGS





Parks and Cemeteries

Survey Period: November 8th - December 13, 2023

May 2024

11/27/2023 to 01/02/2024

Appendix "K" to Report PW23073(b)
Page 111 of 153

70

Respondents

115

**Survey Questions** 

10

**Demographic Questions** 

**7376**Survey Responses

658

Demographic Responses

Respondents % Pop. by Age % of Respondents Age 65+ 19.5% 20.0% 14 35 to 64 41.7% 52.9% 37 22.1% 22.9% 18 to 34 16

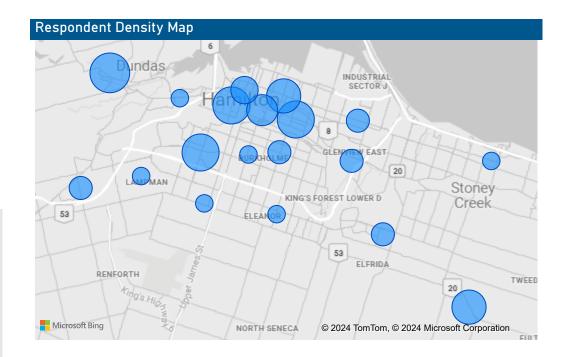
Region	% Pop. by Region	Population	% of Respondents	Respondents
Lower	45.6%	432,375	52.9%	37
Upper	37.3%	353,485	22.9%	16
Rural	17.1%	161,840	7.1%	5

Outdoor Space	% of Respondents	Responses
Private Yard/Greenspace	75.7%	53
Private Balcony/Deck	21.4%	15
Shared Yard/Greenspace	14.3%	10
Other	5.7%	4

Living Situation	% of Respondents	Responses
Live in Hamilton	94.3%	66
Work in Hamilton	57.1%	40
Retired in Hamilton	15.7%	11
Other	10.0%	9

ldentity	% of Respondents	_ Responses ▼
Do not identify with any of the groups	55.7%	39
Marginalized	22.9%	23
Prefer not to answer	20.0%	14

These tables may not sum to 100% because the survey allowed respondents to choose multiple options or opt out of the question





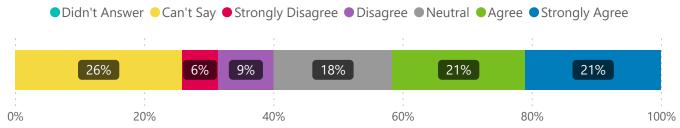


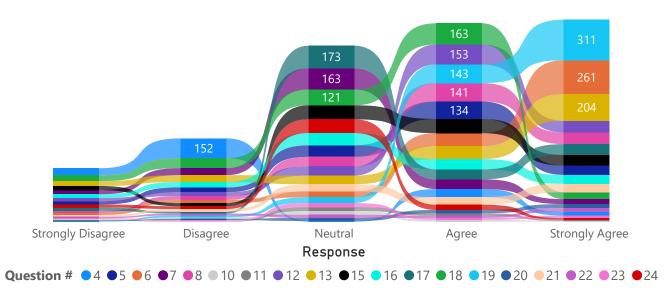
Avg.

Opt Out Opt Out %

Total
Responses Respondents
5471 70

#### Summary of Survey Results





		▼			
All Questions	1.22		3.58	1908	25.9%
Q19 Hamilton Parks ideal condition	0.82		4.44	12	2.3%
Q6 Importance of Parks services	1.08		4.26	26	5.5%
Q13 Importance of potential Parks services	1.32		3.83	12	2.5%
Q20 Performance of Cemetery services	1.15		3.73	225	70.5%
Q8 Comfort accessing Parks sites and services	1.08		3.73	113	24.5%
Q12 Ability to access services	1.13		3.69	101	21.6%
Q21 Importance of Cemetery services	1.19		3.66	114	35.1%
Q5 Overall performance of Parks services	1.13		3.54	105	22.7%
Q15 Recommend Parks services	1.18		3.52	119	25.2%
Q17 Tax rate increases	1.08		3.48	75	16.8%
Q22 Recommend Cemetery services	1.34		3.44	225	70.5%
Q23 Cemeteries value for money	1.21		3.39	237	74.3%
Q16 Hamilton Parks value for money	1.22		3.39	133	30.0%
Q11 500-metre proximity	1.02		3.36	3	4.3%
Q18 Hamilton parks current condition	1.15		3.22	78	14.6%
Q7 Parks sites and services meeting needs	1.06		3.09	101	21.8%
Q10 800-metre proximity	1.07		3.00	1	1.4%
Q24 Service level cuts	1.01		2.98	123	37.8%
Q4 Sites and services in the last 24 months	1.26		2.52	105	25.9%

Questions



Total Responses Respondents

5471 70

### **Survey Question Summary**

Question #	Survey Question	n (Sample Size)	σ (Consistency)	Margin of Error (Confidence Level ±)
4	In the last 24 months, which of these sites or services have you visited, and who did you go with?	43	1.26	15%
5	How do you feel Hamilton Parks have performed overall with the following services?	51	1.13	14%
6	How important to you are the Hamilton Parks sites and services listed below?	64	1.08	12%
7	Do the following Hamilton Park sites and services meet your needs?	52	1.06	14%
8	Do you feel comfortable accessing these Hamilton Parks sites and services?	50	1.08	14%
10	Does the target of having a park within 800-metre walking distance meet your needs?	68	1.07	12%
11	Would the target of having a park within a 500-metre walking distance meet your needs?	66	1.02	12%
12	How satisfied were you with your ability to access these Hamilton Parks sites and services?	52	1.13	14%
13	Please rate the following potential Hamilton Parks Services, based on their importance to you.	66	1.32	12%
15	How likely would you be to recommend the following Hamilton Parks services to others?	51	1.18	14%
16	How would you rate Hamilton Parks for providing good value for money for the following sites and services?	44	1.22	18%
17	If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	53	1.08	16%
18	Do you agree with the following statements? Hamilton Parks' outdoor spaces and buildings are	65	1.15	12%
19	Do you agree with the following statements? Hamilton Parks' outdoor spaces and buildings should be	65	0.82	11%
20	How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?	12	1.15	10%
21	How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?	42	1.19	18%
22	How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?	19	1.34	10%
23	How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?	16	1.21	11%
24	Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?	40	1.01	18%



4

#### Sites and services in the last 24 months

In the last 24 months, which of these sites or services have you visited, and who did you go with?

Responses

300

Respondents



Service Area	Friends	Family	Co-Workers	Visited On My Own	Others
Total	54	152	5	61	28
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	13	35	2	14	4
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	6	16	2	8	4
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	7	16	1	13	8
Playground Equipment	2	24		4	3
Recreational Trails and Escarpment Stairs	13	29		11	4
Sport Fields, Diamonds and Courts	10	16		5	3
Spray Pads	3	16		6	2

Service Area	Opt Out	Opt Out %
Total	105	25.9%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1	1.4%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	20	35.7%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	14	23.7%
Playground Equipment	22	40.0%
Recreational Trails and Escarpment Stairs	4	6.6%
Sport Fields, Diamonds and Courts	18	34.6%
Spray Pads	26	49.1%



### Overall performance of Parks services

Appendix "K" to Report PW23073(b) Page 115 of 153

5

How do you feel Hamilton Parks have performed overall with the following services?

Responses

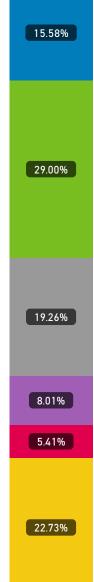
357

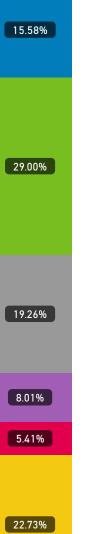
Respondents

70

▼ Service Area	Very poor	Poor	Average	Good	Very good
Total	25	37	89	134	72
Spray Pads	2	3	11	12	9
Sport Fields, Diamonds and Courts	1	6	7	17	7
Recreational Trails and Escarpment Stairs	3	6	5	34	15
Playground Equipment	3	3	14	13	10
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	9	6	15	28	9
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	4	7	16	6	7
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	3	6	21	24	15

Service Area	σ	Avg. ▼	Opt Out	Opt Out %
Total	1.13	3.	54 105	22.7%
Recreational Trails and Escarpment Stairs	1.05	3	83 5	7.4%
Spray Pads	1.10	3	62 26	41.3%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.05	3.	61 1	1.4%
Sport Fields, Diamonds and Courts	1.04	3	61 27	41.5%
Playground Equipment	1.13	3.	56 20	31.7%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.21	3	33 2	2.9%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.19	3	13 24	37.5%







Can't Say Very poor

Poor

Good

Average

Very good

Importance of Parks services

Appendix "K" to Report PW23073(b)
Page 116 of 153

6

How important to you are the Hamilton Parks sites and services listed below?

Responses

449

Respondents

69

Service Area  ▼	Not at all important	Not that important	Fairly important	Important	Very important
Total	16	26	46	100	261
Spray Pads	6	9	8	13	24
Sport Fields, Diamonds and Courts	3	6	16	15	21
Recreational Trails and Escarpment Stairs		1	3	14	51
Playground Equipment	4	8	4	15	29
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms			2	15	52
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	2	2	10	16	31
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1		3	12	53

Service Area	σ	Avg. ▼	Opt Out	Opt Out %
Total	1.08	4.26	26	5.5%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	0.51	4.72	1	1.4%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	0.69	4.68	1	1.4%
Recreational Trails and Escarpment Stairs	0.63	4.67	1	1.4%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.03	4.18	6	9.0%
Playground Equipment	1.30	3.95	6	9.1%
Sport Fields, Diamonds and Courts	1.17	3.74	6	9.0%
Spray Pads	1.39	3.67	5	7.7%





Can't Say

Not at all importantNot that importantFairly importantImportantVery important

#### Differential of Importance and Performance

Service areas where importance exceeds performance by 20 points is indicative of a mismatch between expectations and service levels, equal to one point on the Likert scale used.

Responses

806

Respondents

57

Service Area	Performance (index score)	Importance (index score)	Net Differential	Opt Out %
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	67	94	-28	2%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	72	94	-21	1%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	63	84	-21	23%
Recreational Trails and Escarpment Stairs	77	93	-17	4%
Playground Equipment	71	79	-8	20%
Sport Fields, Diamonds and Courts	72	75	-3	25%
Spray Pads	72	73	-1	24%

Performance

Q5 How do you feel Hamilton Parks have performed overall with the following services?

Importance

Q6 How important to you are the Hamilton Parks sites and services listed below?



The Net Differential is calculated here by taking the average Likert score for each service area and multiplied by 20, the difference between performance and importance is then calculated as our final product. Negative differential indicates a higher perceived level of importance vs performance and positive is the opposite.

Parks sites and services meeting needs

Appendix "K" to Report PW23073(b) Page 118 of 153

Do the following Hamilton Park sites and services meet your needs?

Responses

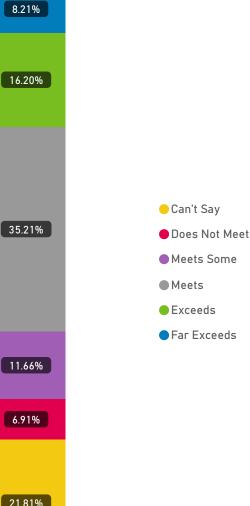
362

Respondents

▼ Service Area	Does Not Meet	Meets Some	Meets	Exceeds	Far Exceeds
Total	32	54	163	75	38
Spray Pads	3	3	18	8	4
Sport Fields, Diamonds and Courts	3	4	20	9	4
Recreational Trails and Escarpment Stairs	3	7	29	17	7
Playground Equipment	4	5	13	11	5
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	9	15	27	9	7
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	3	9	25	8	5
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	7	11	31	13	6

Service Area	σ	Avg. ▼		Opt Out	Opt Out %
Total	1.06		3.09	101	21.8%
Recreational Trails and Escarpment Stairs	0.97		3.29	5	7.4%
Playground Equipment	1.15		3.21	26	40.6%
Spray Pads	1.02		3.19	28	43.8%
Sport Fields, Diamonds and Courts	1.00		3.18	24	37.5%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	0.99		3.06	15	23.1%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.06		3.00	1	1.4%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.14		2.85	2	2.9%







Comfort accessing Parks sites and services

Appendix "K" to Report PW23073(b)
Page 119 of 153

8

Do you feel comfortable accessing these Hamilton Parks sites and services?

Responses

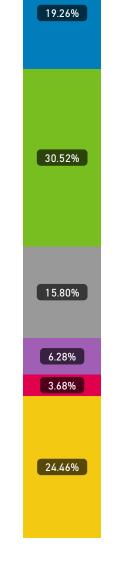
349

Respondents

68

Service Area	Does Not Meet	Very Uncomfortable	Uncomfortable	Neither	Comfortable	Very Comfortable
Total	113	17	29	73	141	89
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	2	6	4	12	24	20
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	18	2	6	9	18	12
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	7	4	10	16	20	12
Playground Equipment	25		2	6	19	11
Recreational Trails and Escarpment Stairs	5	5	5	14	26	13
Sport Fields, Diamonds and Courts	25		1	9	19	11
Spray Pads	31		1	7	15	10

Service Area	σ	Avg.		Opt Out	Opt Out %
Total	1.08		3.73	113	24.5%
Spray Pads	0.80		4.03	31	48.4%
Playground Equipment	0.81		4.03	25	39.7%
Sport Fields, Diamonds and Courts	0.77		4.00	25	38.5%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.21		3.73	2	2.9%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.11		3.68	18	27.7%
Recreational Trails and Escarpment Stairs	1.14		3.59	5	7.4%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.16		3.42	7	10.1%





Does Not MeetVery UncomfortableUncomfortable

Very Comfortable

NeitherComfortable

#### Models of Service Delivery

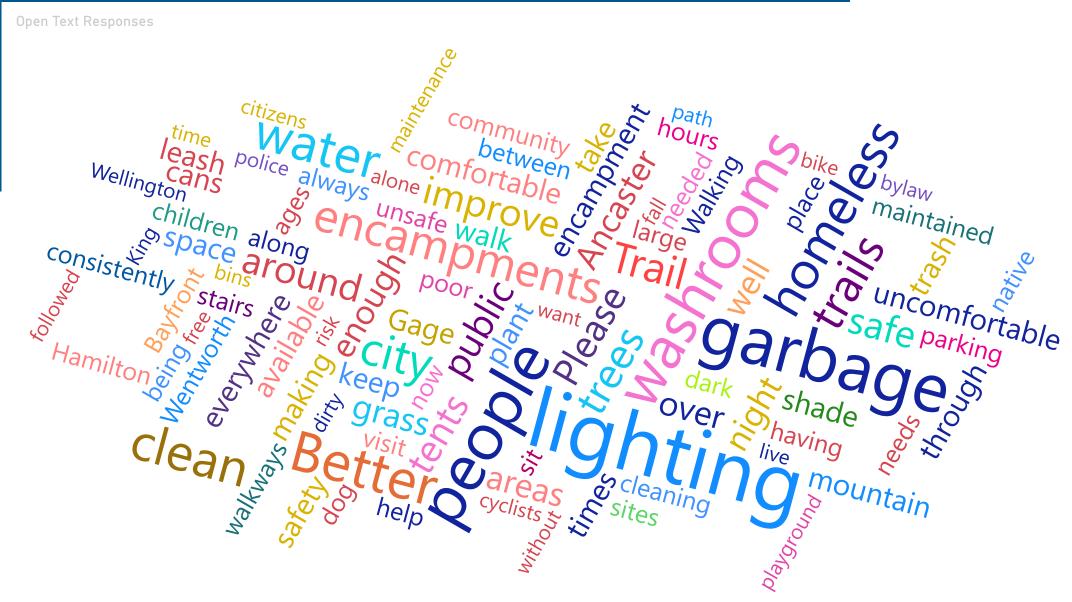
9

How can Hamilton Parks change the sites and services to improve how comfortable you feel?

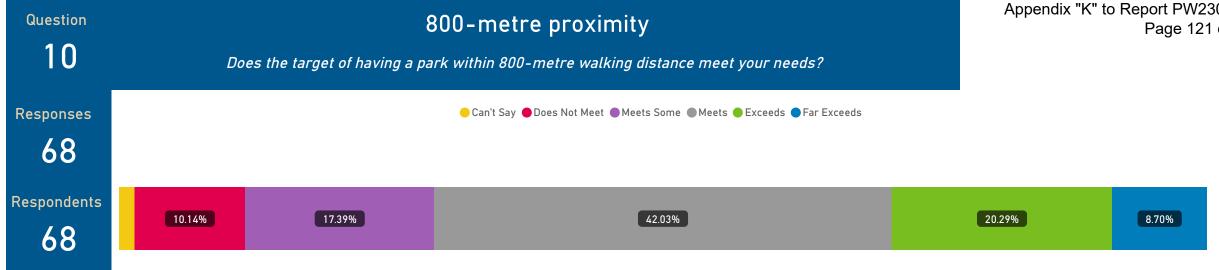
Responses

50

Respondents







ServiceArea ServiceArea	Does Not Meet	Meets Some	Meets	Exceeds	Far Exceeds	
Currently, the City of Hamilton commits to providing a park within an 800-metre walking distance to all residents. 800-metres	7	12	29	14	6	
is roughly a 5 to 10-minute walk, 2-minute cycle or 1-minute drive. Does the target of having a park within 800-metre wal						

ServiceArea	σ	Avg.		Opt Out	Opt Out % ▼
Currently, the City of Hamilton commits to providing a park within an 800-metre walking distance to all residents. 800-metres is roughly a 5 to 10-minute walk, 2-minute cycle or 1-minute drive. Does the target of having a park within 800-metre wal	1.07		3.00	1	1.4%



ServiceArea ServiceArea	Does Not Meet	Meets Some	Meets	Exceeds	Far Exceeds
Some municipalities are shifting to a smaller radius for park provision. Would the target of having a park within a 500-metre walking distance meet your needs? 500-metres is roughly a 6-minute walk, 1-minute cycle or 1-minute drive.	5	3	30	19	9

ServiceArea	σ	Avg. ▼		Avg. ▼		Opt Out	Opt Out %
Some municipalities are shifting to a smaller radius for park provision. Would the target of having a park within a 500-metre walking distance meet your needs? 500-metres is roughly a 6-minute walk, 1-minute cycle or 1-minute	1.02		3.36	3	4.3%		
drive.							



12

#### Ability to access services

How satisfied were you with your ability to access these Hamilton Parks sites and services?

Responses

367

Respondents

68

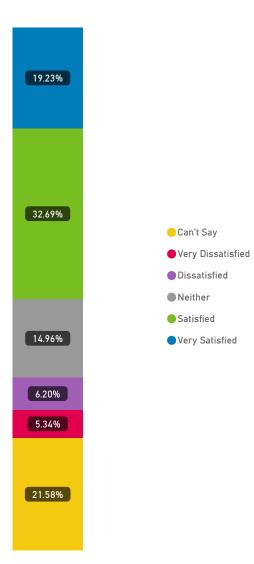
▼ Service Area	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Total	25	29	70	153	90
Spray Pads	2	2	10	13	11
Sport Fields, Diamonds and Courts	2	6	9	18	10
Recreational Trails and Escarpment Stairs	3	6	11	29	15
Playground Equipment	3	1	9	16	11
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	6	6	16	24	11
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	4	7	9	21	9
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	5	1	6	32	23

Service Area	σ	Avg. ▼	Opt Out	Opt Out %
Total	1.13	3.69	101	21.6%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.08	4.00	1	1.5%
Playground Equipment	1.11	3.78	26	39.4%
Spray Pads	1.09	3.76	28	42.4%
Recreational Trails and Escarpment Stairs	1.06	3.73	4	5.9%
Sport Fields, Diamonds and Courts	1.10	3.62	21	31.8%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.17	3.48	16	24.2%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.17	3.44	5	7.4%



Respondents who did not answer or selected 'Can't Say' are included in opt out.

#### Appendix "K" to Report PW23073(b) Page 123 of 153



### Importance of potential Parks services

Appendix "K" to Report PW23073(b)
Page 124 of 153

13

Please rate the following potential Hamilton Parks Services, based on their importance to you.

Responses

460

Respondents

68

Service Area	Not at all important	Not that important	Fairly important	Important	Very important
Total	37	53	67	99	204
Additional Parking	15	18	13	11	7
Additional Sport Lighting and Extended Playing Hours.1	5	14	14	10	17
All-Season Use: Winter Maintenance, Washrooms Open During the Winter	3	6	7	14	37
Barrier-Free Amenities: Ramps, Accessible Trails and Beach Routes	6	5	14	20	21
Improved Park Connectivity: Extended Pathways and Cycling Networks	4	4	2	14	43
Increased Pathway Lighting for Better Visibility at Night	2	2	11	14	39
Reducing Impact on Climate Change: Planting Native Plant Species or Pollinator Gardens, Solar-Powered Lighting, Water-Smart Facilities	2	4	6	16	40

Service Area	σ	Avç	J.	Opt Out	Opt Out %
Total	1.32		3.83	12	2.5%
Improved Park Connectivity: Extended Pathways and Cycling Networks	1.16		4.31		
Reducing Impact on Climate Change: Planting Native Plant Species or Pollinator Gardens, Solar-Powered Lighting, Water-Smart Facilities	1.04		4.29		
Increased Pathway Lighting for Better Visibility at Night	1.02		4.26		
All-Season Use: Winter Maintenance, Washrooms Open During the Winter	1.18		4.13		
Barrier-Free Amenities: Ramps, Accessible Trails and Beach Routes	1.25		3.68	1	1.5%
Additional Sport Lighting and Extended Playing Hours.1	1.32		3.33	7	10.4%
Additional Parking	1.30		2.64	4	5.9%





Can't Say

ImportantVery important

Not at all importantNot that importantFairly important

#### Models of Service Delivery

14

What are the biggest changes that Hamilton Parks could implement to meet your future needs?

Responses

50

Respondents





#### Recommend Parks services

Appendix "K" to Report PW23073(b) Page 126 of 153

15

How likely would you be to recommend the following Hamilton Parks services to others?

Responses

354

Respondents

Service Area	Definitely not	Probably not	Possibly	Probably	Definitely
Total	32	24	108	109	81
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	6	2	20	20	18
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	6	6	16	12	7
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	10	3	20	15	9
Playground Equipment	3	6	10	15	9
Recreational Trails and Escarpment Stairs	2	1	14	23	21
Sport Fields, Diamonds and Courts	3	2	15	12	8
Spray Pads	2	4	13	12	9

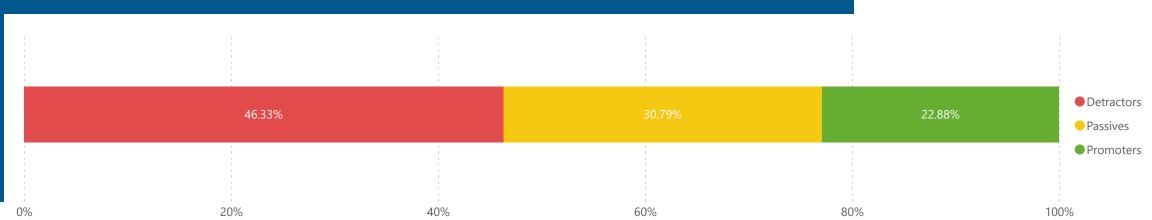












How likely would you be to recommend the following Hamilton Parks services to others?

Service Area	σ	NPS		Detractors	Passives	Promoter
All Service Areas	1.18		-23.45	164	109	81
Recreational Trails and Escarpment Stairs	0.97		6.56	17	23	21
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.18		-15.15	28	20	18
Playground Equipment	1.17		-23.26	19	15	9
Spray Pads	1.09		-25.00	19	12	9
Sport Fields, Diamonds and Courts	1.10		-30.00	20	12	8
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.27		-42.11	33	15	9
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.21		-44.68	28	12	7



Typically the Net Promoter Score is used to measure customer loyalty.

#### Hamilton Parks value for money

Appendix "K" to Report PW23073(b)
Page 128 of 153

16

How would you rate Hamilton Parks for providing good value for money for the following sites and services?

Responses

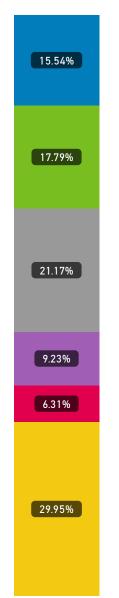
311

Respondents

57

Service Area	Very poor	Poor	Average	Good	Very good
Total	28	41	94	79	69
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	4	6	16	17	14
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	5	4	16	12	6
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	6	8	16	10	9
Playground Equipment	5	5	9	9	10
Recreational Trails and Escarpment Stairs	3	6	12	16	15
Sport Fields, Diamonds and Courts	3	6	13	8	7
Spray Pads	2	6	12	7	8

Service Area	σ	Avg. ▼		Opt Out	Opt Out %
Total	1.22		3.39	133	30.0%
Recreational Trails and Escarpment Stairs	1.17		3.65	12	18.8%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.17		3.54	7	10.9%
Spray Pads	1.17		3.37	28	44.4%
Playground Equipment	1.35		3.37	25	39.7%
Sport Fields, Diamonds and Courts	1.18		3.27	26	41.3%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.16		3.23	20	31.7%
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	1.25		3.16	15	23.4%





Can't Say

Very poorPoorAverageGood

Very good

17

If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?

Responses

371

Respondents

					Can't Say
					<ul> <li>Definitely Prefer Cuts to Service</li> </ul>
			Probably Prefer Cuts to Service		
16.82%	5.38%	38.79%	17.04%	18.61%	Minimize Rate Increase; Maintain Service
					Probably Prefer Rate Increase; Improve Services
					<ul> <li>Definitely Prefer Rate Increase; Increase Services</li> </ul>

Service Area	Definitely Prefer Cuts to Service	Probably Prefer Cuts to Service	Minimize Rate Increase; Maintain Service	Probably Prefer Rate Increase; Improve Services	Definitely Prefer Rate Increase; Increase Services
Total	24	15	173	76	83
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	2	2	22	14	20
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	4	2	33	5	11
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	2	1	28	15	11
Playground Equipment	4	2	19	10	10
Recreational Trails and Escarpment Stairs	2		24	17	17
Sport Fields, Diamonds and Courts	4	4	28	6	7
Spray Pads	6	4	19	9	7

Service Area	σ	Avg. ▼	Opt Out	Opt Out %	
Total	1.08	3.48	75	16.8%	
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	1.05	3.80	5	7.7%	
Recreational Trails and Escarpment Stairs	0.97	3.78	5	7.7%	
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	0.94	3.56	7	10.9%	
Playground Equipment	1.15	3.44	18	28.6%	
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	1.06	3.31	9	14.1%	
Sport Fields, Diamonds and Courts	1.04	3.16	13	21.0%	
Spray Pads	1.19	3.16	18	28.6%	



#### Parks Differential of Rates vs. Value for Money

Service areas where importance exceeds performance by 20 points is indicative of a mismatch between expectations and service levels, equal to one point on the Likert scale used.

Responses

682

Respondents

55

Service Area	Value for Money (index score)	Rates (index score)	Net Differential	Opt Out %
Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms	63	71	-8	17%
City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces	71	76	-5	9%
Recreational Trails and Escarpment Stairs	73	76	-3	13%
Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures	65	66	-2	23%
Playground Equipment	67	69	-2	34%
Sport Fields, Diamonds and Courts	65	63	2	31%
Spray Pads	67	63	4	37%

Value for Money

Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?

Rates

Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?



The Net Differential is calculated by getting the average score for Rates and Value for Money. Then, the average score for Rates and Value for Money is multiplied by 20. Finally, the Rates score is subtracted from the Value for Money score. A negative differential indicates higher perceived Rates than Value for Money. A positive differential indicates a higher perceived Value for Money than Rates.

### Hamilton parks current condition

Appendix "K" to Report PW23073(b)
Page 131 of 153

18

Do you agree with the following statements? Hamilton Parks' outdoor spaces and buildings are

Responses

458

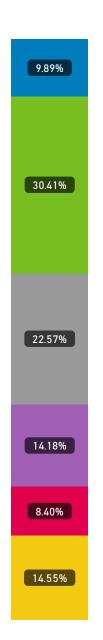
Respondents

67

Service Area	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Total	45	76	121	163	53
Accessible by public transportation	7	13	9	22	5
Accessible, meeting provincial minimum standards per AODA, 2005	5	8	10	11	5
Clean and in good repair	8	12	16	26	4
Comfortable with appropriate levels of lighting and noise	7	13	16	22	7
Easy to locate, with clearly marked public entrances	3	5	15	31	12
Energy efficient, helping the city meet energy targets and reduce utility usage	4	5	16	10	3
Inviting, appealing and attractive	4	7	23	22	10
Safe, equitable and inclusive spaces for all	7	13	16	19	7

Service Area	σ	Avg. ▼		Opt Out	Opt Out %
Total	1.15		3.22	78	14.6%
Easy to locate, with clearly marked public entrances	1.01		3.67	1	1.5%
Inviting, appealing and attractive	1.06		3.41	1	1.5%
Comfortable with appropriate levels of lighting and noise	1.18		3.14	2	3.0%
Safe, equitable and inclusive spaces for all	1.19		3.10	5	7.5%
Clean and in good repair	1.14		3.09	1	1.5%
Accessible by public transportation	1.21		3.09	11	16.4%
Energy efficient, helping the city meet energy targets and reduce utility usage	1.06		3.08	29	43.3%
Accessible, meeting provincial minimum standards per AODA, 2005	1.23		3.08	28	41.8%





Can't Say

Disagree

NeutralAgree

Strongly Disagree

Strongly Agree

#### Hamilton Parks ideal condition

Appendix "K" to Report PW23073(b)
Page 132 of 153

19

Do you agree with the following statements? Hamilton Parks' outdoor spaces and buildings should be

Responses

516

Respondents

66

Service Area	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Total	4	14	44	143	311
Accessible by public transportation	2	2	7	17	37
Accessible, meeting provincial minimum standards per AODA, 2005			7	14	38
Clean and in good repair		1	2	13	50
Comfortable with appropriate levels of lighting and noise		3	4	22	37
Easy to locate, with clearly marked public entrances		2	9	20	35
Energy efficient, helping the city meet energy targets and reduce utility usage	1	4	8	16	35
Inviting, appealing and attractive			2	27	36
Safe, equitable and inclusive spaces for all	1	2	5	14	43

Service Area	σ	Avg.		Opt Out	Opt Out %
Total	0.82		4.44	12	2.3%
Clean and in good repair	0.60		4.70		
Accessible, meeting provincial minimum standards per AODA, 2005	0.70		4.53	7	10.6%
Inviting, appealing and attractive	0.56		4.52	1	1.5%
Safe, equitable and inclusive spaces for all	0.88		4.48	1	1.5%
Comfortable with appropriate levels of lighting and noise	0.80		4.41		
Easy to locate, with clearly marked public entrances	0.82		4.33		
Accessible by public transportation	0.99		4.31	1	1.5%
Energy efficient, helping the city meet energy targets and reduce utility usage	1.00		4.25	2	3.0%





Can't Say

DisagreeNeutralAgree

Strongly Disagree

Strongly Agree

#### Performance of Cemetery services

Appendix "K" to Report PW23073(b)
Page 133 of 153

20

How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?

Responses

94

Respondents

35

Service Area	Very poor	Poor	Average	Good	Very good
Total	4	10	24	25	31
End of life planning services	1	2	5	2	4
Graveside services, burials and interment		1	5	3	5
Historical family searches and walking tours	1	2	3	4	10
Maintenance and management of active and inactive cemeteries	1	2	8	13	9
Sales of interment rights, cemetery services and supporting products	1	3	3	3	3

Service Area	σ	Avg. ■		Opt Out	Opt Out %
Total	1.15	·	3.73	225	70.5%
Historical family searches and walking tours	1.22		4.00	43	68.3%
Graveside services, burials and interment	0.99		3.86	50	78.1%
Maintenance and management of active and inactive cemeteries	1.00		3.82	31	48.4%
End of life planning services	1.24		3.43	50	78.1%
Sales of interment rights, cemetery services and supporting products	1.26		3.31	51	79.7%



Can't Say

Very poor

Poor

Average

Good

Very good

### Importance of Cemetery services

Appendix "K" to Report PW23073(b) Page 134 of 153

How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?

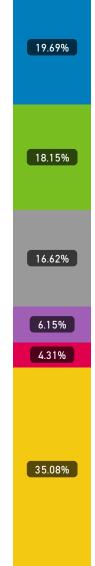
Responses

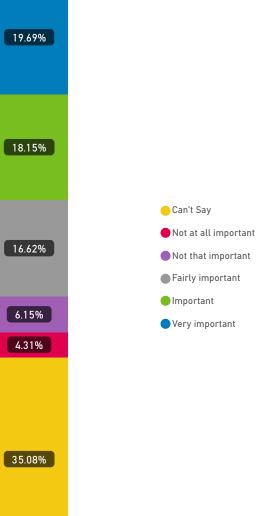
211

Respondents

Service Area	Not at all important	Not that important	Fairly important	Important	Very important
Total	14	20	54	59	64
End of life planning services	3	4	11	12	10
Graveside services, burials and interment	2	4	7	14	13
Historical family searches and walking tours	3	8	13	10	10
Maintenance and management of active and inactive cemeteries	2		10	15	20
Sales of interment rights, cemetery services and supporting products	4	4	13	8	11

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	1.19	3.66	114	35.1%
Maintenance and management of active and inactive cemeteries	1.01	4.09	18	27.7%
Graveside services, burials and interment	1.14	3.80	25	38.5%
End of life planning services	1.18	3.55	25	38.5%
Sales of interment rights, cemetery services and supporting products	1.26	3.45	25	38.5%
Historical family searches and walking tours	1.21	3.36	21	32.3%







#### Differential of Importance and Performance

Service areas where importance exceeds performance by 20 points is indicative of a mismatch between expectations and service levels, equal to one point on the Likert scale used.

Responses

305

Respondents

52

Service Area	Performance (index score)	Importance (index score)	Net Differential	Opt Out %
Maintenance and management of active and inactive cemeteries	76	82	- 5	38%
Sales of interment rights, cemetery services and supporting products	66	69	-3	59%
End of life planning services	69	71	-2	58%
Graveside services, burials and interment	77	76	1	58%
Historical family searches and walking tours	80	67	13	50%

Performance Importance

Q20 How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?

Q21 How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?



The Net Differential is calculated by getting the average score for Performance and Importance. Then, the average score for Performance and Importance is multiplied by 20. Finally, the Importance score is subtracted from the Performance score. A negative differential indicates a higher perceived importance than performance. A positive differential indicates a higher perceived performance than importance.

#### **Recommend Cemetery services**

Appendix "K" to Report PW23073(b)
Page 136 of 153

22

How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?

Responses

94

Respondents

Service Area ▼	Definitely not	Probably not	Possibly	Probably	Definitely
Total	10	14	24	17	29
Sales of interment rights, cemetery services and supporting products	2	3	7	2	4
Maintenance and management of active and inactive cemeteries	3	4	3	4	10
Historical family searches and walking tours	2	3	4	5	7
Graveside services, burials and interment	1	2	4	4	4
End of life planning services	2	2	6	2	4

Service Area	σ	Avg. ▼		Avg. Opt Out	
Total	1.34		3.44	225	70.5%
Maintenance and management of active and inactive cemeteries	1.47		3.58	40	62.5%
Historical family searches and walking tours	1.33		3.57	43	67.2%
Graveside services, burials and interment	1.20		3.53	48	76.2%
End of life planning services	1.30		3.25	48	75.0%
Sales of interment rights, cemetery services and supporting products	1 26		3 17	46	71 9%





40%

Service Area	σ	NPS	Detractors	Passives	Promoter
All Service Areas	1.34	-20.2	1 48	17	29
Sales of interment rights, cemetery services and supporting products	1.26	-44.4	4 12	2	4
End of life planning services	1.30	-37.5	0 10	2	4
Graveside services, burials and interment	1.20	-20.0	0 7	4	4
Historical family searches and walking tours	1.33	-9.5	2 9	5	7
Maintenance and management of active and inactive cemeteries	1.47	0.0	0 10	4	10

60%

80%



0%

Typically the Net Promoter Score is used to measure customer loyalty.

20%

Likert choices less than or equal to 3 are considered 'Detractors', 4s are 'Passive' and 5s are considered 'Promoters'. Respondents who opted out by not answering or selecting 'Can't Say' were removed from the sample. Net Promoter score is calculated by subtracting (% Detractors) from (% Promoters).

100%

#### Cemeteries value for money

Appendix "K" to Report PW23073(b)
Page 138 of 153

23

How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?

Responses

82

Respondents

▼ Service Area	Very poor	Poor	Average	Good	Very good
Total	7	9	31	15	20
Sales of interment rights, cemetery services and supporting products	1	2	5	3	2
Maintenance and management of active and inactive cemeteries	3	2	8	5	6
Historical family searches and walking tours	1	1	6	4	4
Graveside services, burials and interment	1	2	8	1	4
End of life planning services	1	2	4	2	4

Service Area	σ	Avg. ▼	Opt Out	Opt Out %
Total	1.21	3.39	237	74.3%
Historical family searches and walking tours	1.12	3.56	48	75.0%
End of life planning services	1.28	3.46	50	79.4%
Maintenance and management of active and inactive cemeteries	1.28	3.38	40	62.5%
Graveside services, burials and interment	1.16	3.31	48	75.0%
Sales of interment rights, cemetery services and supporting products	1 1 2	3 23	51	79 7%





#### Service level cuts

Appendix "K" to Report PW23073(b)
Page 139 of 153

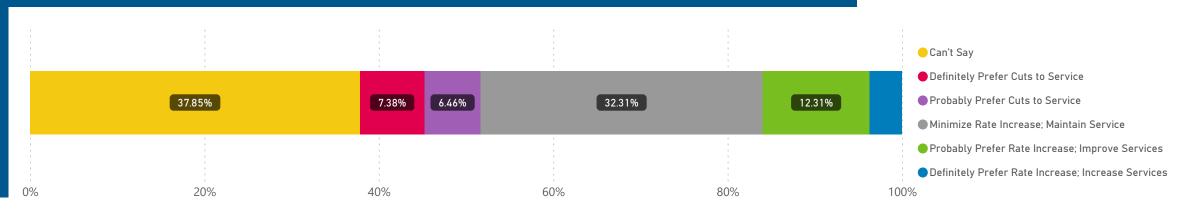
24

Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?

Responses

202

Respondents



Service Area ▼	Definitely Prefer Cuts to Service	Probably Prefer Cuts to Service	Minimize Rate Increase; Maintain Service	Probably Prefer Rate Increase; Improve Services	Definitely Prefer Rate Increase; Increase Services
Total	24	21	105	40	12
Sales of interment rights, cemetery services and supporting products	4	5	21	8	
Maintenance and management of active and inactive cemeteries	5	2	23	11	3
Historical family searches and walking tours	5	6	21	6	4
Graveside services, burials and interment	4	4	22	6	3
End of life planning services	6	4	18	9	2

Service Area	σ	Avg. ▼	Opt Out	Opt Out %
Total	1.01	2.98	123	37.8%
Maintenance and management of active and inactive cemeteries	1.00	3.11	21	32.3%
Graveside services, burials and interment	0.99	3.00	26	40.0%
Historical family searches and walking tours	1.07	2.95	23	35.4%
End of life planning services	1.07	2.92	26	40.0%
Sales of interment rights, cemetery services and supporting products	0.86	2.87	27	41.5%



#### Cemeteries Differential of Rates vs. Value for Money

Service areas where importance exceeds performance by 20 points is indicative of a mismatch between expectations and service levels, equal to one point on the Likert scale used.

Responses

284

Respondents

52

Service Area	Value for Money (index score)	Rates (index score)	Net Differential	Opt Out %
Maintenance and management of active and inactive cemeteries	68	62	5	47%
Graveside services, burials and interment	66	60	6	57%
Sales of interment rights, cemetery services and supporting products	65	57	7	60%
End of life planning services	69	58	11	59%
Historical family searches and walking tours	71	59	12	55%

Value for Money

Q23 How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?

Rates

Q24 Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?



The Net Differential is calculated by getting the average score for Rates and Value for Money. Then, the average score for Rates and Value for Money is multiplied by 20. Finally, the Rates score is subtracted from the Value for Money score. A negative differential indicates higher perceived Rates than Value for Money. A positive differential indicates a higher perceived Value for Money than Rates.

## Summary of Specific Service Areas over Several Questions Spray Pads

Responses
325
Respondents
64

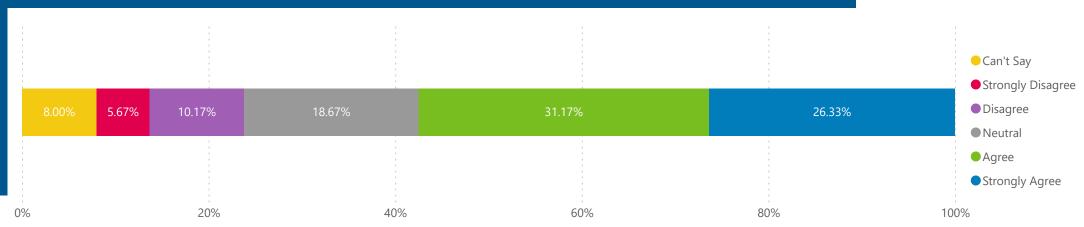


Question	σ	Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.20		3.46	69.29	217	38.2%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	0.80		4.03	80.61	31	48.4%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.09		3.76	75.26	28	42.4%
Q6 How important to you are the Hamilton Parks sites and services listed below?	1.39		3.67	73.33	5	7.7%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.10		3.62	72.43	26	41.3%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	1.09		3.55	71.00	27	40.3%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.17		3.37	67.43	28	44.4%
Q7 Do the following Hamilton Park sites and services meet your needs?	1.02		3.19	63.89	28	43.8%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	1.19		3.16	63.11	18	28.6%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.17		2.56	51.11	26	49.1%



## Summary of Specific Service Areas over Several Questions Recreational Trails and Escarpment Stairs

Responses
518
Respondents
70



Question	σ	Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.18		3.68	73.55	48	8.0%
Q6 How important to you are the Hamilton Parks sites and services listed below?	0.63		4.67	93.33	1	1.4%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	0.97		3.98	79.67	7	10.3%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.05		3.83	76.51	5	7.4%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	0.97		3.78	75.67	5	7.7%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.06		3.73	74.69	4	5.9%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.17		3.65	73.08	12	18.8%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	1.14		3.59	71.75	5	7.4%
Q7 Do the following Hamilton Park sites and services meet your needs?	0.97		3.29	65.71	5	7.4%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.22		2.37	47.37	4	6.6%

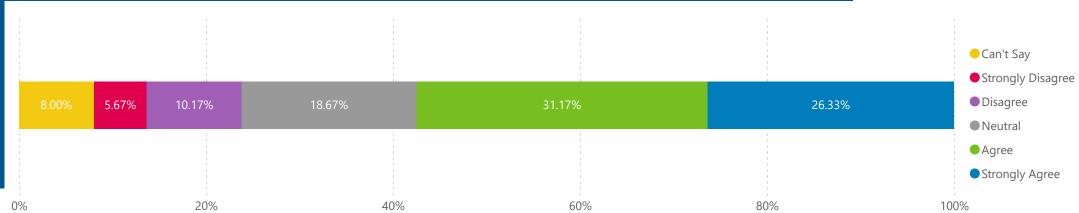


#### Summary of Specific Service Areas over Several Questions

#### Recreational Trails and Escarpment Stairs

Responses 518

Respondents

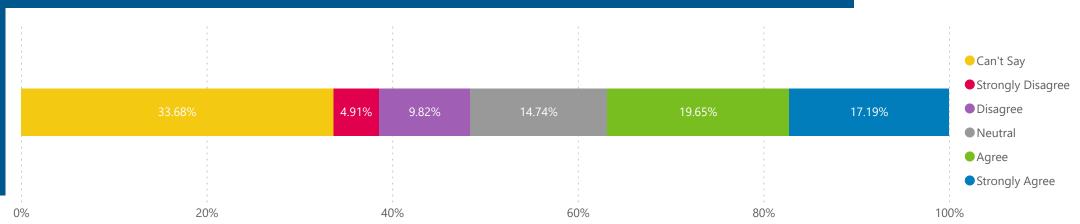


Question	σ	▼ Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.18		3.68	73.55	48	8.0%
Q6 How important to you are the Hamilton Parks sites and services listed below?	0.63		4.67	93.33	1	1.4%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	0.97		3.98	79.67	7	10.3%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.05		3.83	76.51	5	7.4%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	0.97		3.78	75.67	5	7.7%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.06		3.73	74.69	4	5.9%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.17		3.65	73.08	12	18.8%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	1.14		3.59	71.75	5	7.4%
Q7 Do the following Hamilton Park sites and services meet your needs?	0.97		3.29	65.71	5	7.4%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.22		2.37	47.37	4	6.6%



## Summary of Specific Service Areas over Several Questions Playground Equipment

Responses
350
Respondents

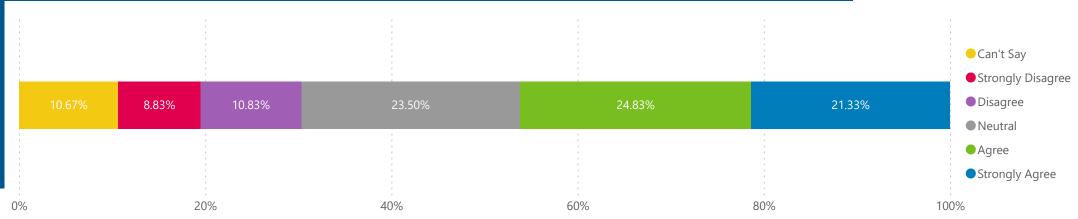


Question	σ	▼ Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.23		3.52	70.37	192	33.7%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	0.81		4.03	80.53	25	39.7%
Q6 How important to you are the Hamilton Parks sites and services listed below?	1.30		3.95	79.00	6	9.1%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.11		3.78	75.50	26	39.4%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.13		3.56	71.16	20	31.7%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	1.17		3.49	69.77	24	35.8%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	1.15		3.44	68.89	18	28.6%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.35		3.37	67.37	25	39.7%
Q7 Do the following Hamilton Park sites and services meet your needs?	1.15		3.21	64.21	26	40.6%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.08		2.45	49.09	22	40.0%



## Summary of Specific Service Areas over Several Questions Park Maintenance: Grass-Cutting, Snow Clearing, Park Lighting, Washrooms

Responses
483
Respondents
70



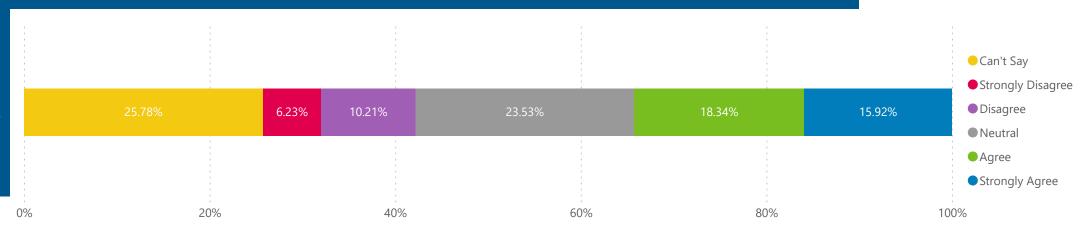
Question	σ	Avg. ▼		Avg. %	Opt Out	Opt Out %
All Questions	1.25		3.44	68.73	64	10.7%
Q6 How important to you are the Hamilton Parks sites and services listed below?	0.51		4.72	94.49	1	1.4%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	0.94		3.56	71.23	7	10.9%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.17		3.44	68.89	5	7.4%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	1.16		3.42	68.39	7	10.1%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.21		3.33	66.57	2	2.9%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	1.27		3.18	63.51	11	16.2%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.25		3.16	63.27	15	23.4%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.41		2.98	59.56	14	23.7%
Q7 Do the following Hamilton Park sites and services meet your needs?	1.14		2.85	57.01	2	2.9%



#### Summary of Specific Service Areas over Several Questions

#### Other Park Amenities: Signage, Sport Lighting, Bleachers, Shade Structures

Responses
393
Respondents



Question	σ	▼ Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.20		3.37	67.41	149	25.8%
Q6 How important to you are the Hamilton Parks sites and services listed below?	1.03		4.18	83.61	6	9.0%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	1.11		3.68	73.62	18	27.7%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.17		3.48	69.60	16	24.2%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	1.06		3.31	66.18	9	14.1%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.16		3.23	64.65	20	31.7%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	1.21		3.17	63.40	21	30.9%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.19		3.13	62.50	24	37.5%
Q7 Do the following Hamilton Park sites and services meet your needs?	0.99		3.06	61.20	15	23.1%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.29		2.67	53.33	20	35.7%



# Summary of Specific Service Areas over Several Questions City, Community, and Neighbourhood Parks and Parkettes, Natural Open Spaces

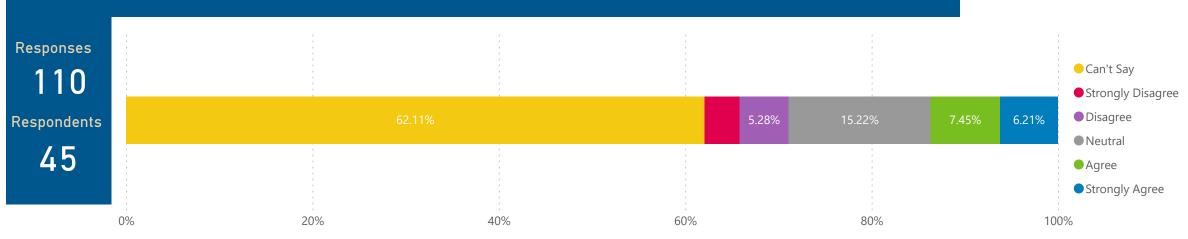




Question	σ	Avg. ▼		Avg. %	Opt Out	Opt Out %
All Questions	1.24	3	.60	72.03	21	3.4%
Q6 How important to you are the Hamilton Parks sites and services listed below?	0.69	4	.68	93.62	1	1.4%
Q12 How satisfied were you with your ability to access these Hamilton Parks sites and services?	1.08	4	.00	80.00	1	1.5%
Q17 If you had to choose, would you prefer to see tax rates increase to improve local services? Or would you prefer to see service-level cuts to minimize tax rate increases?	1.05	3	.80	76.00	5	7.7%
Q8 Do you feel comfortable accessing these Hamilton Parks sites and services?	1.21	3	.73	74.55	2	2.9%
Q15 How likely would you be to recommend the following Hamilton Parks services to others?	1.18	3	.64	72.73	2	2.9%
Q5 How do you feel Hamilton Parks have performed overall with the following services?	1.05	3	.61	72.17	1	1.4%
Q16 How would you rate Hamilton Parks for providing good value for money for the following sites and services?	1.17	3	.54	70.88	7	10.9%
Q7 Do the following Hamilton Park sites and services meet your needs?	1.06	3	.00	60.00	1	1.4%
Q4 In the last 24 months, which of these sites or services have you visited, and who did you go with?	1.18	2	.43	48.53	1	1.4%



## Summary of Specific Service Areas over Several Questions Sales of interment rights, cemetery services and supporting products



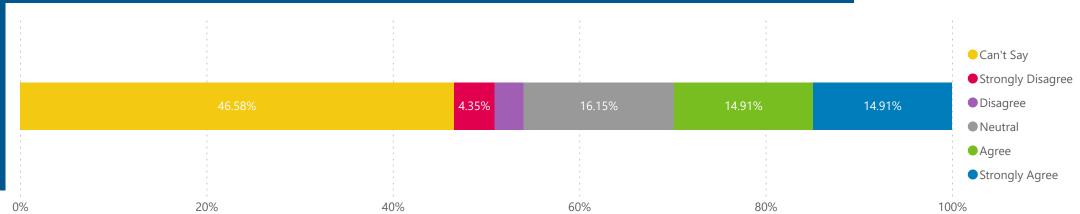
Question	σ	Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.16		3.19	63.77	200	62.1%
Q21 How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?	1.26		3.45	69.00	25	38.5%
Q20 How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?	1.26		3.31	66.15	51	79.7%
Q23 How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?	1.12		3.23	64.62	51	79.7%
Q22 How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?	1.26		3.17	63.33	46	71.9%
Q24 Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?	0.86		2.87	57.37	27	41.5%



### Summary of Specific Service Areas over Several Questions

#### Maintenance and management of active and inactive cemeteries

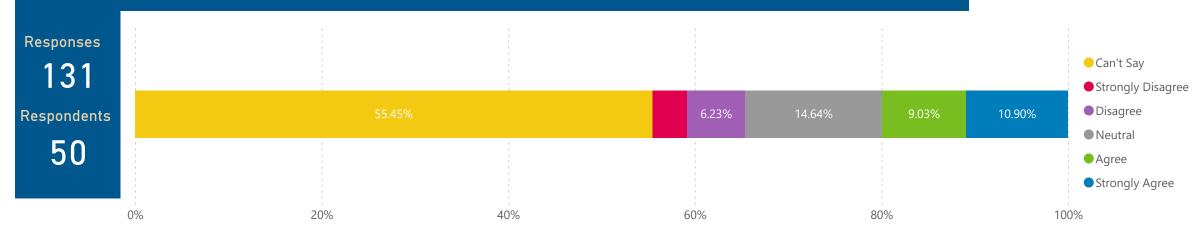




Question	σ	Avg. ▼		Avg. %	Opt Out	Opt Out %
All Questions	1.18	3.	62	72.33	150	46.6%
Q21 How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?	1.01	4.	09	81.70	18	27.7%
Q20 How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?	1.00	3.	82	76.36	31	48.4%
Q22 How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?	1.47	3.	58	71.67	40	62.5%
Q23 How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?	1.28	3.	38	67.50	40	62.5%
Q24 Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?	1.00	3.	11	62.27	21	32.3%



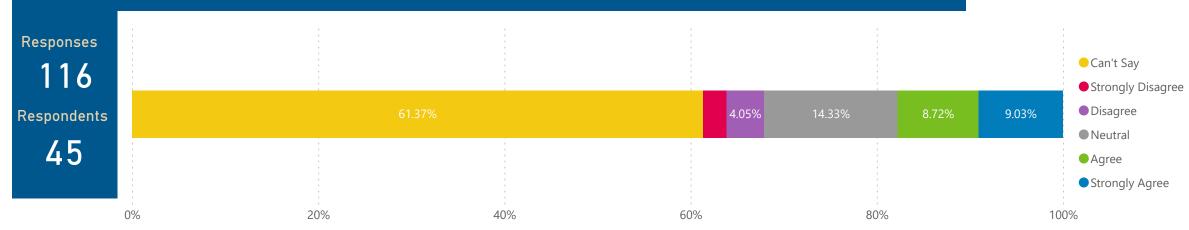
# Summary of Specific Service Areas over Several Questions Historical family searches and walking tours



Question	σ	Avg. ▼		Avg. %	Opt Out	Opt Out %
All Questions	1.23	3.	38	67.69	178	55.5%
Q20 How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?	1.22	4.	00	80.00	43	68.3%
Q22 How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?	1.33	3.	57	71.43	43	67.2%
Q23 How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?	1.12	3.	56	71.25	48	75.0%
Q21 How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?	1.21	3.	36	67.27	21	32.3%
Q24 Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?	1.07	2.	95	59.05	23	35.4%



# Summary of Specific Service Areas over Several Questions Graveside services, burials and interment



Question	σ	Avg. ▼		Avg. %	Opt Out	Opt Out %
All Questions	1.15		3.46	69.19	197	61.4%
Q20 How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?	0.99		3.86	77.14	50	78.1%
Q21 How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?	1.14		3.80	76.00	25	38.5%
Q22 How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?	1.20		3.53	70.67	48	76.2%
Q23 How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?	1.16		3.31	66.25	48	75.0%
Q24 Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?	0.99		3.00	60.00	26	40.0%



## Summary of Specific Service Areas over Several Questions End of life planning services





Question	σ	Avg. ▼		Avg. %	Opt Out	Opt Out %
All Questions	1.21	3	.29	65.74	199	62.0%
Q21 How important should the following services be as a responsibility for Hamilton Municipal Cemeteries?	1.18	3	.55	71.00	25	38.5%
Q23 How would you rate Hamilton Municipal Cemeteries for providing good value for money in the infrastructure and services provided to your community?	1.28	3	.46	69.23	50	79.4%
Q20 How do you feel Hamilton Municipal Cemeteries has performed overall in the following services?	1.24	3	.43	68.57	50	78.1%
Q22 How likely would you be to recommend these Hamilton Municipal Cemeteries services to others?	1.30	3	.25	65.00	48	75.0%
Q24 Would you prefer to see funding rates increase to improve local services OR would you prefer to see service level cuts to minimize rate increases?	1.07	2	.92	58.46	26	40.0%



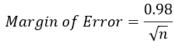
### Data Grading Scales

Definition and Ranking of Consistency and Confidence

Grade		Grade	Data Consistency Standard Deviation (σ, Consistency of Responses)	Confidence Level Margin of Error (at 95% Confidence in Sample Size)				
	Α	Very High	0 to 0.5 - results are tightly grouped with little to no variance in response	0% to 5% - Minimal to no error in results, can generally be interpreted as is				
	В	High	0.5 to 1.0 - results are fairly tightly grouped but with slightly more variance in response	5% to 10% - Error has become noticeable, but results are still trustworthy				
	C	Medium	1.0 to 1.5 - results are moderately grouped together, but most respondents are generally in agreeance	10% to 20% - Error is a significant amount and will cause uncertainty in final results				
	D	Low	1.5 to 2.0 - results show a high variance with a fair amount of disparity in responses	20% to 30% - Error has reached a detrimental level and results are difficult to trust				
	Е	Very Low	2.0+ - results are highly variant with little to no grouping	30%+ - Significant error in results, hard to interpret data in much of a meaningful way				
				0.00				



Assigning a lower consistency value (Standard Deviation) to a higher grade doesn't imply that the data is "better" or "worse". Instead, it helps in understanding how divided or similar people are in their responses. When high consistency is observed, it indicates that most respondents agree on a question. But when the consistency is low, opinions are split, with some rating higher and others lower. The key is to understand why the split occurs which provides valuable insights into the data.



The margin of error is calculated using a standard factor of 0.98 and the sample size (n). The margin of error helps assess if the sample size of the survey is suitable. The margin of error, expressed as a percentage, indicates the range around the calculated sample average where the true population average is likely to be. A smaller margin of error suggests a more accurate estimate, while a larger one implies less precision.