Recreation Asset Management Plan 2024

Hamilton

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RECREATION
2024 ASSET MANAGEMENT PLAN

SUMMARY AND QUICK FACTS

SERVICE PROFILE

The City of Hamilton's Recreation Division caters to the diverse needs of the community by offering a wide variety of recreation programs suitable for all ages and abilities. Facilities in their portfolio which support these programs include ice arenas, community halls, indoor and outdoor pools, senior centres, recreation centres, and golf courses.

ASSET SUMMARY

Replacement Value
$1.57B
FAIR CONDITION
Average Age of **39** years or **49%** of the average remaining service life

LEVEL OF SERVICE SUMMARY

- Customers feel Recreation has **GOOD** performance overall in the last 24 months in all service areas.
- Customers feel that Recreation **MEETS NEEDS** overall.
- Customers are **SATISFIED** with their ability to access Recreation sites and services.

ASSET HIGHLIGHTS

ASSETS	QUANTITY	REPLACEMENT COST	AVERAGE CONDITION	STEWARDSHIP MEASURES
Recreation Facilities	113	$1.536B	Fair	Building condition assessments completed every 5 years
Golf Facilities	18	$17M	Poor	

DATA CONFIDENCE

RECREATION
2024 ASSET MANAGEMENT PLAN

DEMAND DRIVERS

Population Growth - Hamilton's population is projected to increase to approximately 636,080 by 2031. This forecasted increase in population will significantly increase the demand for the volume of services provided by Recreation over the next ten years and beyond.

Facility Conditions - A backlog of maintenance work has accumulated on recreation facilities, requiring remediation. These unresolved projects pose a risk to the reputation of the Recreation Division as facilities continue to deteriorate over time, potentially causing a decline in service levels.

RISK

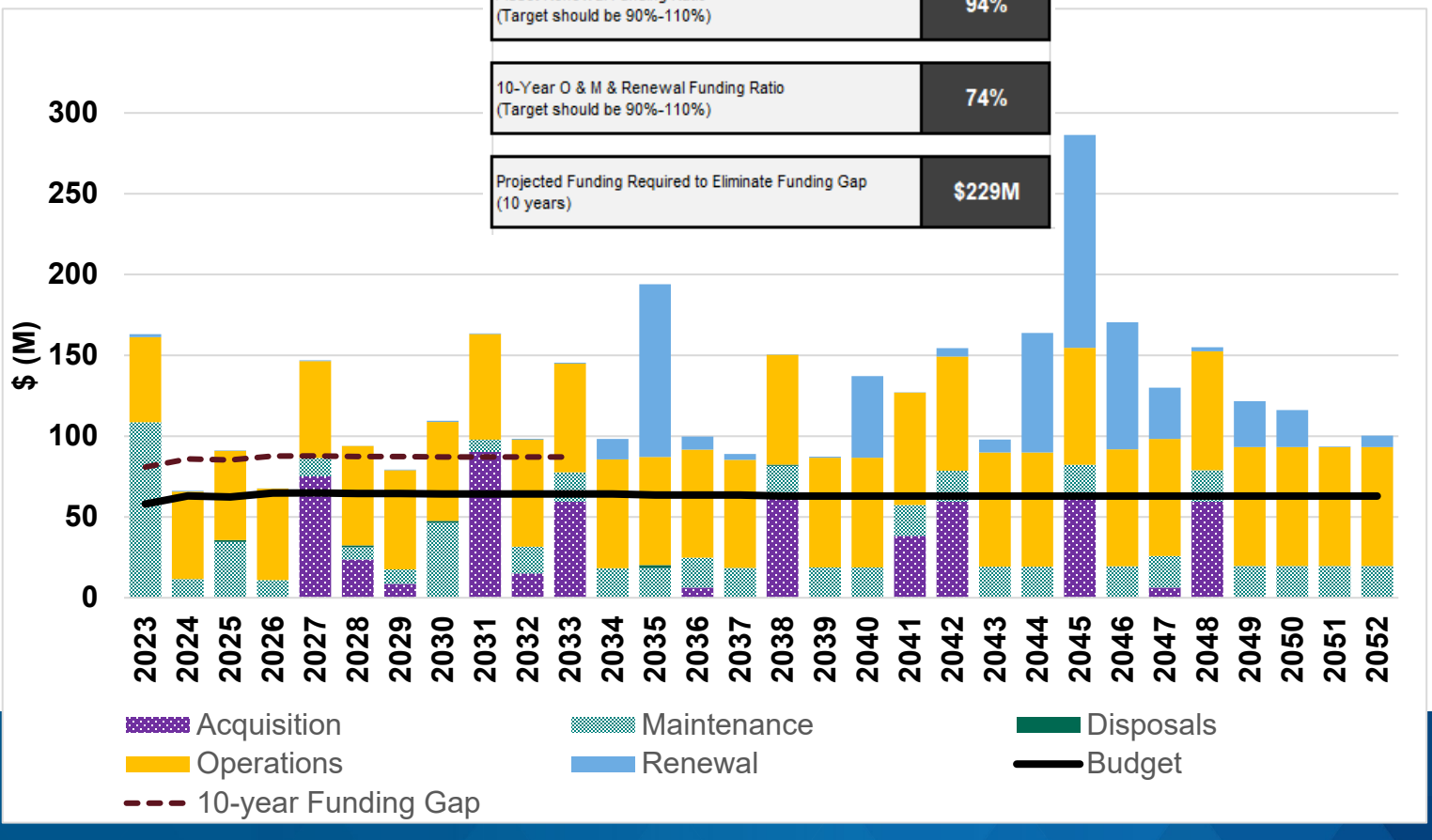
The primary Critical Assets identified by the division are the emergency use recreation centres, refrigeration plant safety devices, and the emergency phone system.

CLIMATE CHANGE MITIGATION

Among strategies being implemented, Recreation is working towards updating showerheads in public showers to low-flow models, implementing heat recovery from drains to reduce natural gas consumption and the electrification of ice resurfacers.

LIFECYCLE SUMMARY

Asset Renewal Funding Ratio (Target should be 90%-110%)	94%
10-Year O & M & Renewal Funding Ratio (Target should be 90%-110%)	74%
Projected Funding Required to Eliminate Funding Gap (10 years)	$229M



RECREATION
2024 ASSET MANAGEMENT PLAN

1. INTRODUCTION

The Recreation Division offers a varied array of activities encompassing sports and arts, catering to individuals of all ages and abilities, fostering engagement among both residents and visitors. These programs and services play a crucial role in enhancing the physical and social well-being of residents, while also contributing to the economic and environmental health of the city. The Purpose of this Asset Management Plan (AM Plan) is to ensure that the Recreation Division has the required assets to deliver the necessary 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, as stated in the Ontario Regulation 588/17[1] and required funding to provide the appropriate levels of service over the 2023-2052 planning period.

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.

[1] (Government of Ontario, 2017)

2. BACKGROUND

The information in this section is intended to provide background on the Recreation services by providing a service profile, outlining legislative requirements, and defining the asset hierarchy used throughout the report. Also under the purview of the Recreation division are two public golf courses, which are included as part of their assets and services provided.

2.1 SERVICE PROFILE

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

- City of Hamilton Recreation Master Plan – July 21st, 2022
- Asset Management Plan Overview Document

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

2.1.1 SERVICE HISTORY

The City of Hamilton has a rich history of providing recreational facilities for public use, overseeing a diverse portfolio of facilities, which caters to the various needs and interests of the community. This includes ice arenas, community halls, indoor and outdoor pools, senior centres, and recreation centres. Moreover, the division manages three 18-hole public golf courses. Among these is the Chedoke Civic Golf Course, which has been a hub for golfing enthusiasts since 1896, featuring two public 18-hole courses: Beddoe and Martin. Additionally, the division operates the King's Forest Golf Course, a 7,150-yard, 18-hole course that opened in the fall of 1973.

2.1.2 SERVICE FUNCTION

Recreation services aim to provide facilities and programming for residents and visitors of Hamilton. Wide-ranging program offerings include swimming, skating, sport, fitness, music and arts. These programs and services are provided through "direct" and "indirect" methods of delivery. Direct services are programs provided by municipal staff through every aspect from development to evaluation and include registered classes such as swimming lessons and day camps; and casual/drop-in opportunities, including open gym and family skating. Indirect provision of services requires staff involvement to ensure sustainability and maintenance of service levels. These services are delivered through collaboration with community groups, affiliated organizations, and service clubs, often by formal agreement, who rent spaces or facilities, manage the associated programs and deliver services at an affordable rate to the community. Examples of indirect services include lawn bowling, bocce, and tennis club

operations as well as adult day programs and EarlyOn Child and Family centres. Arenas, outdoor rinks, community recreation centres, indoor pools, community halls, wading and outdoor pools, senior centres, and golf courses are among the various facilities available. Additionally, this service function offers accessible and inclusive opportunities for residents achieved through the implementation of policies and proactive strategies.

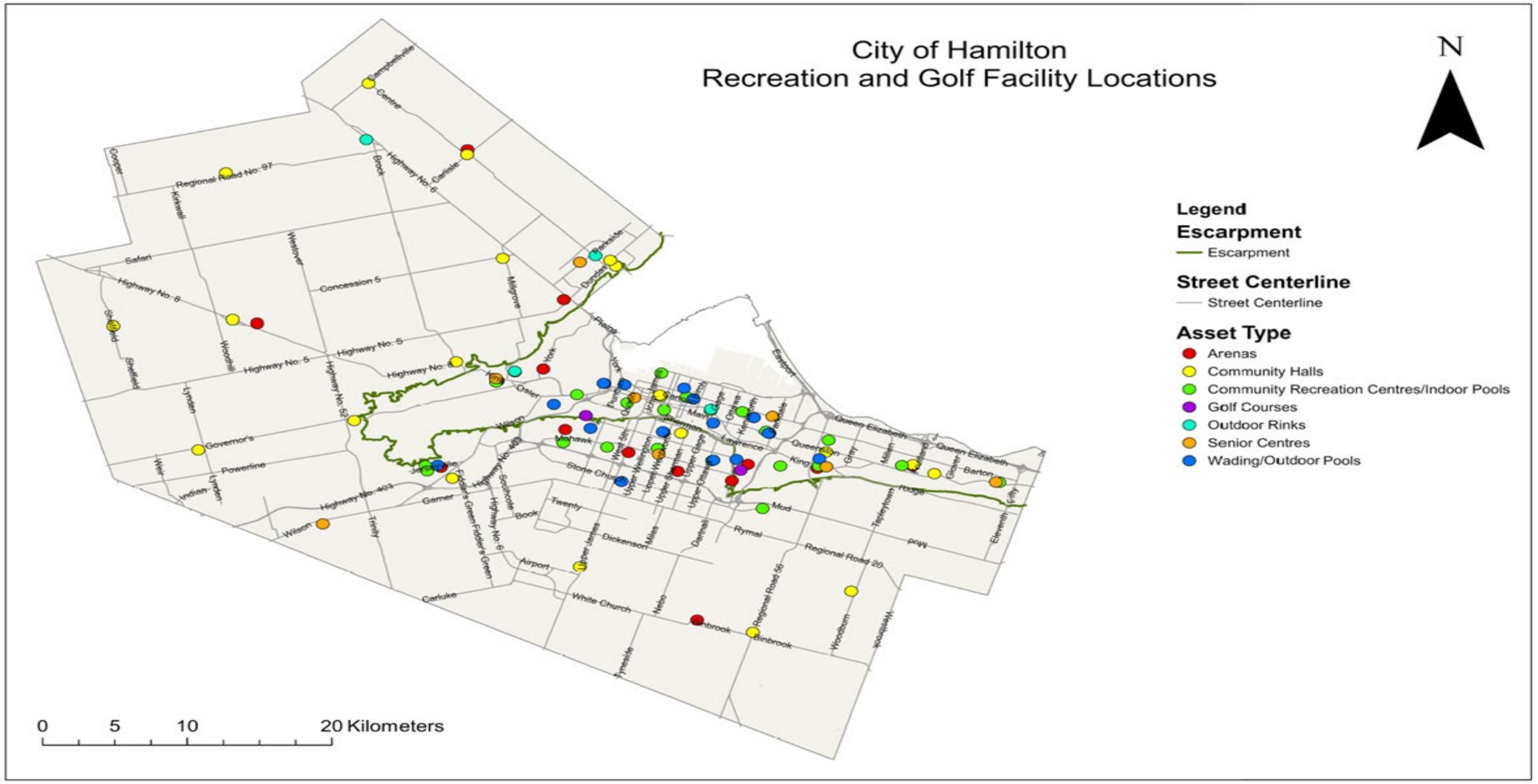
2.1.3 USERS OF THE SERVICE

The City of Hamilton is comprised of a diverse population. Based on the 2021 Census[2] results, Hamilton's population was 584,000 people, with an average age of 41.5 years old, and an average household size of 2.5 people. Users of the services provided by Recreation include both residents and visitors of Hamilton, with program offerings provided for all age groups spanning from infants to older adults. A map of the recreation facilities is included in **Figure 1**. Past recreation planning studies have divided Hamilton into nine sub-areas to allow for more detailed analysis, as shown in **Figure 2.** The ***Recreation Master Plan*** has utilized these nine sub-areas as "Recreation Planning Areas" to determine geographic gaps, growth-related needs (to 2051), and opportunities to improve and optimize existing facilities.

[2] (Census Profile, 2021 Census of Population, 2021)

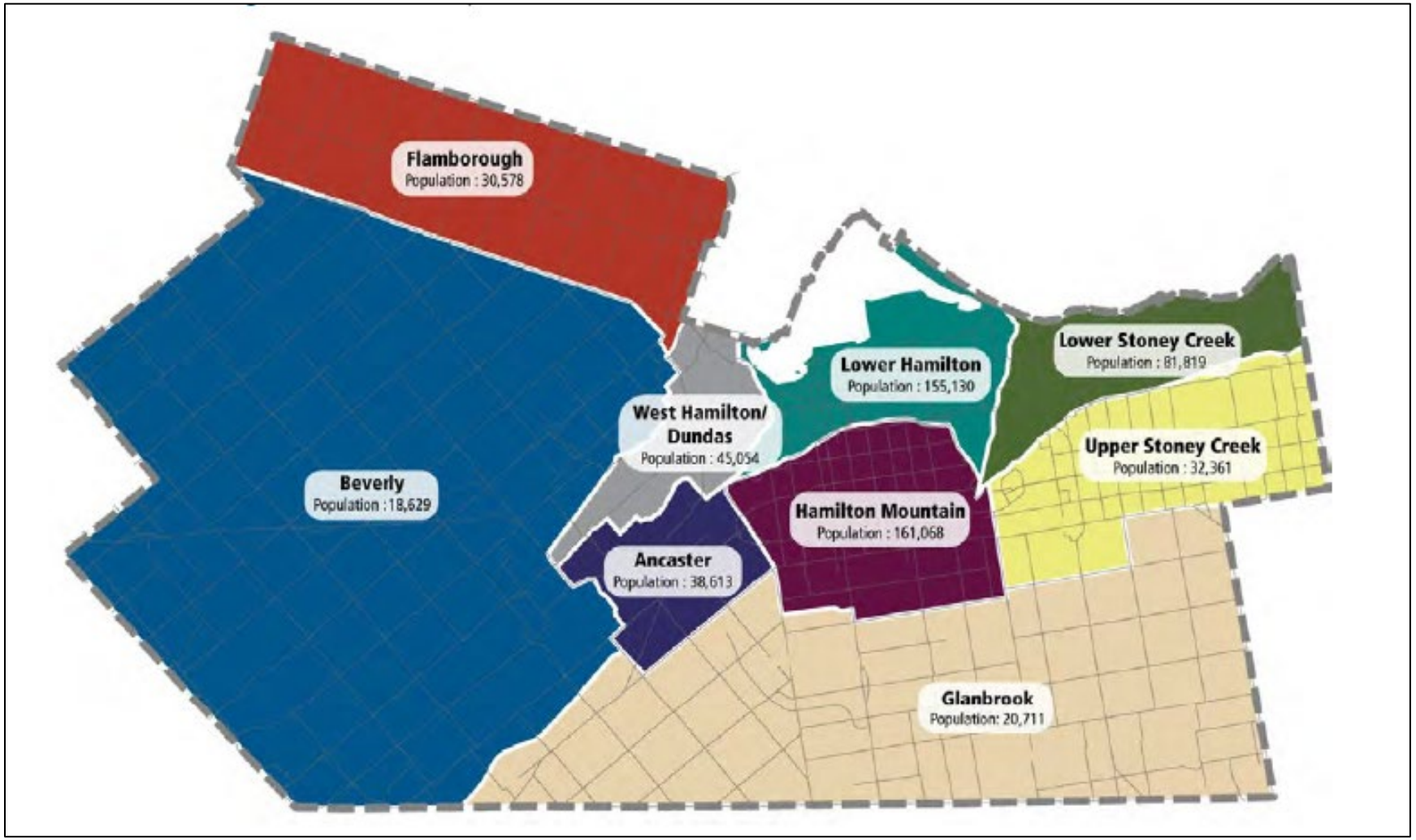
RECREATION
2024 ASSET MANAGEMENT PLAN

Figure 1: Facility Asset Map



RECREATION
2024 ASSET MANAGEMENT PLAN

Figure 2: Recreation Planning Areas and 2021 Population Estimates



2.1.4 UNIQUE SERVICE CHALLENGES

The primary challenge faced by Recreation is insufficient funding to maintain its current stock of physical assets. This challenge is twofold, as the division possesses a large volume of high-cost facility assets, many of which require expensive and complex mechanical equipment to control specific interior environments (e.g., high humidity, large temperature gradients), imposing elevated levels of deterioration on building components and exacerbating operational and maintenance costs. This scenario has led to an increasingly large backlog of non-growth-related projects which require addressing and contribute to a greater number of unforeseen facility shutdowns.

Additionally, with a portfolio of facilities with substantial electrical and mechanical demands, significant financial and technological hurdles are anticipated in addressing the array of climate change targets set for the future. Given the large size and specific nature of the mechanical systems involved, retrofitting these facilities will necessitate a substantial amount of capital funding. Moreover, specific challenges exist regarding the feasibility of the electrical grid's ability to provide the capacity to meet the demand of electrified mechanical systems when updating equipment to reach Net-Zero targets.

Furthermore, it has been expressed that there is a desire for greater accessibility and barrier-free spaces in Recreation’s portfolio of facilities. While the existing stock of buildings is code-compliant, there is an increased desire for modern design standards, such as barrier free accessibility and universal change rooms. Incorporating these updates into existing facilities is a challenge both in terms of design for implementation and the overall capital costs required.

Finally, there exist challenges in the implementation of these projects with respect to project management scheduling. The Recreation division faces the challenge of maintaining continuity of service, coordinating provisional programming, and ensuring equitable geographic access to services throughout these projects while implementing the aforementioned updates to the existing building portfolio.

2.2 LEGISLATIVE REQUIREMENTS

The most significant legislative requirements that impact the delivery of Recreation are outlined in ***Table 1***. These requirements are considered throughout the report, and where relevant, are included in the levels of service measurements.

Table 1: Legislative Requirements

LEGISLATION OR REGULATION	REQUIREMENTS
Technical Standards and Safety Authority	Inspection and operation of ice plants, waterslides, elevators, boilers, and pressure vessels.
Health Protection and Promotion Act, Operation of Public Pool Regulation (O. Reg. 494/17)	Regulations related to the operation of public pools and all buildings, appurtenances and equipment used in the operation of public pools.
Pesticides Act	Grounds keeping requirements as they relate to the maintenance of the golf courses.
Child Care and Early Years Act, 2014 (CCEYA)	Standards for the operation of camp and early childhood programs.
O. Reg. 219/01: Operating Engineers	Outlines the requirements and certifications necessary to operate mechanical equipment included in Mountain Arena.

2.3 ASSET HIERARCHY

In order to deliver their services, Recreation requires assets for their operation. For the purpose of this AM Plan the assets included have been broken down into the following classes respective to each group.

- Facilities: refers to any City-owned facilities necessary to deliver Recreation services.
- Fleet and Maintenance Vehicles/Equipment refers to all vehicles and maintenance equipment used for Recreation services.
- Facility Amenities: refers to indoor facility amenities used for Recreation services.
- Technology: describes the different type of technology required to deliver the service including communications, IT, desktop, and mobile equipment.

The asset class hierarchy outlining assets included in this report is shown below in **Table 2.**

RECREATION
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Table 2 : Recreation Asset Class Hierarchy

AM PLAN	RECREATION			
ASSET CLASS	**FACILITIES**	**FLEET & MAINTENANCE VEHICLES/EQUIP.**	**FACILITY AMENITIES**	**TECHNOLOGY**
	• Arenas • Outdoor (Artificial) Ice • Sport Clubhouses • Community Recreation Centres/Indoor Pools • Outdoor Pools • Wading Pools • Seniors Centres • Community Halls • Golf Clubhouses • Golf Support Buildings • 18 Hole Golf Courses	• Road Vehicles • Ice Resurfacers • Maintenance Vehicles/Equip. • Golf Carts	• Actars • Assistive Devices • Diving Boards • Guard Chair • Pool Vacuums • Powered Change Tables • Slides • Spine Boards • Sport Posts • Tot Docs	• Laptops • Desktops • Mobile Phones

3. SUMMARY OF ASSETS

This section provides a detailed summary and analysis of the existing inventory information as of December 2023 including age profile, condition methodology, condition profile, asset usage, and performance for each of the asset classes.

Table 3 displays the detailed summary of assets for Recreation. The sources for this data are a combination of data included in the City's database information and from the Recreation internal inventories. It is important to note that inventory information does change often, and that this is a snapshot of information available as of December 2023.

The City owns approximately **$1.57B** in **Recreation** assets which are on average in **Fair** condition. Assets are a weighted average of **39** years which is **49%** of the average remaining service life (RSL), with the majority of the weighting derived from the **Facilities** asset class. For most assets, this means that the City should continue completing preventative maintenance activities and any necessary operating activities (e.g., inspection, cleaning) to prevent 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.

The overall replacement value data confidence for the registry is Medium. For facilities, these replacement costs are calculated using an internal tool which encompasses current market rates, building type and size. Equipment and technology asset replacement costs were gathered from the most recent purchase price for similar assets. Transitioning the existing asset inventory data into an Enterprise Asset Management system has been identified as a continuous improvement item in **Section 10.2**.

Please refer to **page 31** of the **AM Plan Overview** for a detailed description of data confidence.

RECREATION
2024 ASSET MANAGEMENT PLAN

Table 3 : Detailed Summary of Assets

FACILITIES				
ASSET CATEGORY	**NUMBER OF ASSETS**	**REPLACEMENT VALUE**	**AVERAGE AGE**	**AVERAGE EQUIVALENT CONDITION**
Arenas	20	$729M	41	3-FAIR
Data Confidence	Very High	Medium	Very High	High
Community Halls	22	$114M	75	2-GOOD
Data Confidence	Very High	Medium	Very High	High
Recreation Centres + Indoor Pools	25	$590M	43	2-GOOD
Data Confidence	Very High	Medium	Very High	High
Outdoor Pools	10	$49M	31	3-FAIR
Data Confidence	Very High	Medium	Very High	High
Seniors Centres	6	$30M	42	4-POOR
Data Confidence	Very High	Medium	Very High	High
Wading Pools	7	$1.5M	26	3-FAIR
Data Confidence	Very High	High	Low	Medium
Outdoor Artificial Ice	4	$4.8M	8	2-GOOD
Data Confidence	Very High	High	Low	Medium
Sport Clubhouses	19	$18M	42	2-GOOD
Data Confidence	Very High	Medium	Very High	High
Golf Clubhouses	2	$10.6M	49	4-POOR
Data Confidence	Very High	Medium	Very High	High
Golf Support Buildings	16	$6.4M	48	4-POOR
Data Confidence	Very High	Medium	Very High	High
18 Hole Golf Courses	3	$6.9M[3]	49	No Data
Data Confidence	Very High	Low	Very High	
SUBTOTAL	**$1.56B**		**45**	**3-FAIR**
DATA CONFIDENCE	Medium		Very High	High

[3] (City of Edmonton, 2021)

RECREATION
2024 ASSET MANAGEMENT PLAN

TECHNOLOGY				
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE	AVERAGE EQUIVALENT CONDITION
Mobile Devices	131	$0.05M	3	4-POOR
Data Confidence	High	Medium	High	Low
Desktops, Laptops, Tablets	265	$0.4M	4	4-POOR
Data Confidence	High	Medium	High	Low
SUBTOTAL	**$0.5M**		**4**	**4-POOR**
DATA CONFIDENCE	Medium		High	Low

FLEET AND MAINTENANCE VEHICLES/EQUIPMENT				
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE	AVERAGE EQUIVALENT CONDITION
Golf Carts	5	$0.05M	5	3-FAIR
Data Confidence	Very High	Medium	Very High	Low
Ice Resurfacers	29	$3.4M	10	4-POOR
Data Confidence	Very High	Medium	Very High	Low
Maintenance Vehicles/Equipment	50	$1.9M	9	4-POOR
Data Confidence	Very High	Medium	Very High	Low
Road Vehicles	11	$0.5M	9	4-POOR
Data Confidence	Very High	Medium	Very High	Low
SUBTOTAL	**$5.6M**		**8**	**4-POOR**
DATA CONFIDENCE	Medium		Very High	Low

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2024 ASSET MANAGEMENT PLAN

FACILITY AMENITIES				
ASSET CATEGORY	**NUMBER OF ASSETS**	**REPLACEMENT VALUE**	**AVERAGE AGE**	**AVERAGE EQUIVALENT CONDITION**
Actars	291	$0.2M	Unknown	3-FAIR
Data Confidence	Very High	Medium	Very Low	Low
Assistive Devices	17	$0.2M	Unknown	1-VERY GOOD
Data Confidence	Very High	Medium	Very Low	Low
Diving Boards	4	$0.2M	Unknown	3-FAIR
Data Confidence	Very High	Medium	Very Low	Medium
Guard Chairs	52	$0.2M	17	2-GOOD
Data Confidence	Very High	Medium	Low	Medium
Pool Vacuums	30	$0.1M	6	2-GOOD
Data Confidence	Very High	Medium	Low	Medium
Powered Change Tables	10	$0.1M	7	2-GOOD
Data Confidence	Very High	Medium	High	Low
Slides	8	$0.2M	10	3-FAIR
Data Confidence	Very High	Very Low	Low	Medium
Spine Boards	41	$0.06	11	2-GOOD
Data Confidence	Very High	High	Very Low	Medium
Sport Posts	61	$0.2M	7	3-FAIR
Data Confidence	Very High	Low	Low	Medium
Tot Docs	28	$0.06M	17	2-GOOD
Data Confidence	Very High	High	Low	Medium
SUBTOTAL	**$1.5M**		**9**	**2-GOOD**
DATA CONFIDENCE	Medium		Low	Medium

TOTAL ASSETS				
ASSET CATEGORY	**NUMBER OF ASSETS**	**REPLACEMENT VALUE**	**AVERAGE AGE (% RSL)**	**AVERAGE EQUIVALENT CONDITION**
TOTAL	**1,168**	**$1.57B**	**39 (46%)**	**3-FAIR**
DATA CONFIDENCE	Medium	Medium	Medium	Medium

3.1 ASSET CONDITION GRADING

Condition refers to the physical state of the Recreation assets and is 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 4** below shows how each rating was converted to a standardized 5-point condition category so that the condition could be reported consistently across the AM Plan. A continuous improvement item identified in **Section 10.2,** is to review existing internal condition assessments and ensure they are revised to report on the same 5-point scale with equivalent descriptions.

Table 4: Equivalent Condition Conversion Table

EQUIVALENT CONDITION GRADING CATEGORY	CONDITION DESCRIPTION	% REMAINING SERVICE LIFE	FACILITIES CONDITION INDEX (FCI)
1 Very Good	The asset is new, recently rehabilitated, or very well maintained. Preventative maintenance required only.	>79.5%	N/A
2 Good	The asset is adequate and has slight defects and shows signs of some deterioration that has no significant impact on asset's usage. Minor/preventative maintenance may be required.	69.5% – 79.4%	< 5%
3 Fair	The asset is sound but has minor defects. Deterioration has some impact on asset's usage. Minor to significant maintenance is required.	39.5% - 69.4%	>= 5% to < 10%
4 Poor	Asset has significant defects and deterioration. Deterioration has an impact on asset's usage. Rehabilitation or major maintenance required in the next year.	19.5% -39.4%	>= 10% to <30%
5 Very Poor	Asset has serious defects and deterioration. Asset is not fit for use. Urgent rehabilitation or closure required.	<19.4%	>= 30%

The following conversion assumptions were made:

- For assets where a condition assessment was not completed, but age information was known (fleet and maintenance vehicles/equipment, technology assets), the condition was based on the % of remaining service life; and
- Facilities Condition Index was based on ranges provided by the consultant who completed the Building Condition Assessment (BCA).

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 is noted in this section.

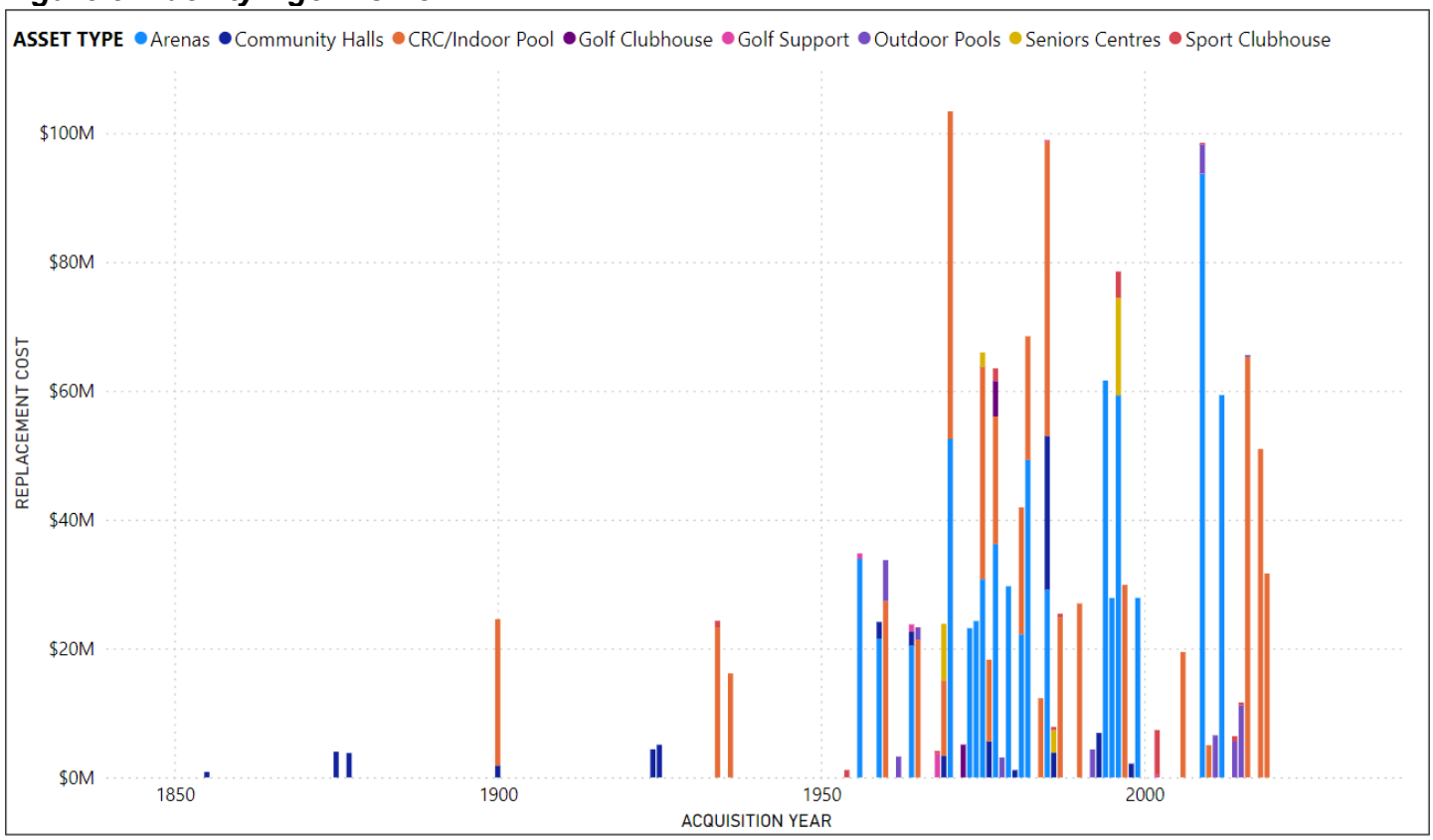
- Finally, there are often insufficient resources to address all known asset deficiencies, and so performance issues may arise which must be noted and prioritized.

3.2.1 FACILITIES PROFILE

3.2.1.1. AGE PROFILE

The age profile of the Recreation Facilities assets is shown in **Figure 3.** For Facilities assets, the data confidence for age is typically high as this data was formally recorded at the time of construction.

Figure 3: Facility Age Profile



Most Recreation facilities have an Estimated Service Life (ESL) of 50-75 years except for heritage facilities which have had their service life increased indefinitely and are generally not considered for replacement. Significant investment was made to build arenas and community recreation centres including indoor pools between the early 1970s and the mid-1980s. Community hall facilities are the oldest asset class, with an average age of over 70 years, with many identified as facilities of heritage interest.

3.2.1.2. CONDITION METHODOLOGY AND PROFILE

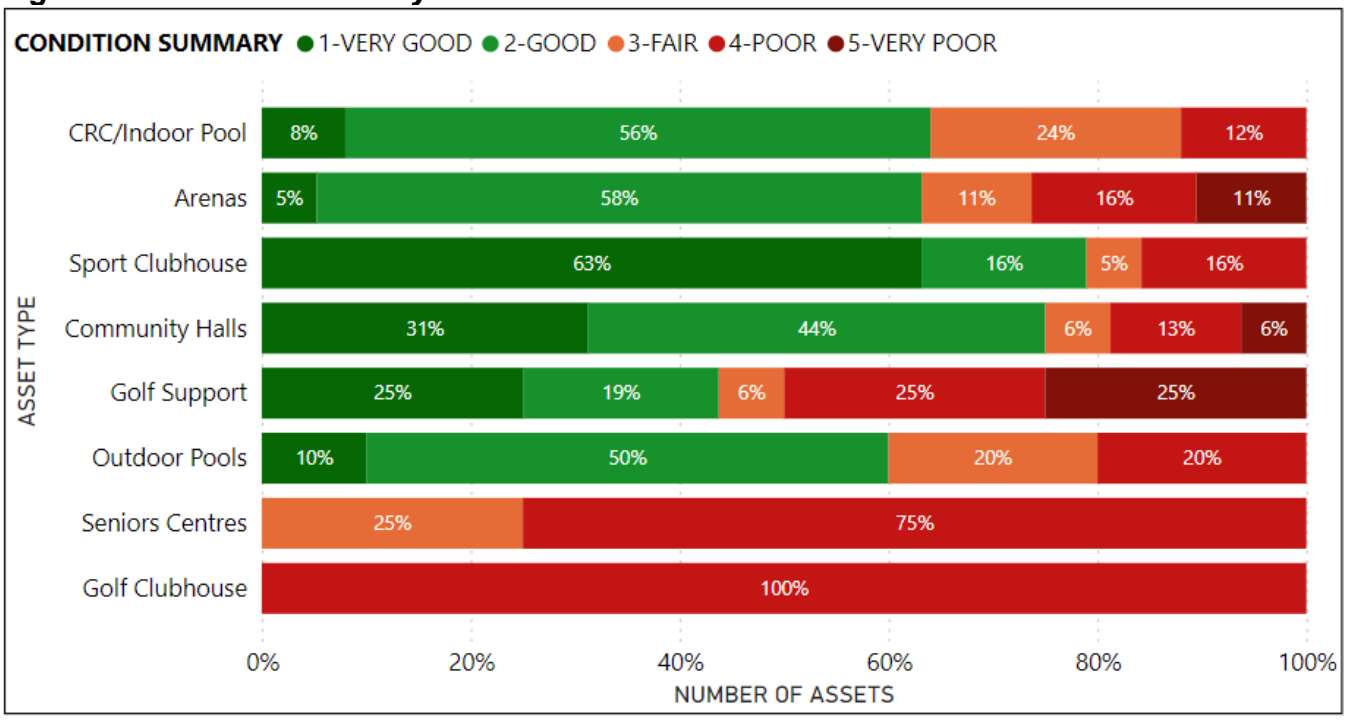
Condition for facilities is determined based on the results of a Building Condition Assessment (BCA). BCAs are typically completed on facilities every five years and output a score called a Facility Condition Index (FCI) which is considered to be a high confidence level source. The FCI is a financial indicator calculated based on a ratio of the cost of work currently required on the facility to the total replacement cost of the facility. The condition conversion from FCI to the standardized 5-point scale used in Asset Management is shown in **Table 5.** The BCA is a visual, surface-level inspection which is typically a high confidence indicator of condition but does not involve detailed analysis such as cutting into walls or removing mechanical panels.

Table 5: Inspection and Condition Information

ASSET	INSPECTION FREQUENCY	LAST INSPECTION	CONDITION SCORE OUTPUT
Facilities	Every Five Years	Varied	Facility Condition Index (0% - 100%)

The condition profiles for the facilities assets are shown below. Based on the results of the BCA reporting data, Recreation facilities have an average FCI of 7.9%, which equates to a “Fair” condition rating. Poorer condition ratings were observed to be concentrated in the Seniors Centre and Golf Clubhouse facilities. Currently, there are not any concrete plans to renew or dispose of these poor-condition assets, which will continue to be a financial burden on annual operations and maintenance spending. More discussion is included on this in **Section 8**.

Figure 4: Recreation Facility Condition Distribution



3.2.1.3. ASSET USAGE AND PERFORMANCE

Due to the large volume of facilities assets, a selection of the most common high-cost deficiencies across the portfolio are summarized in ***Table 6***. Generally, specific building typologies (e.g., ice rinks) tend to share similar high-value capital works projects. These deficiencies are identified using information from the Building Condition Assessment (BCA) reports.

Table 6: Common Deficiencies

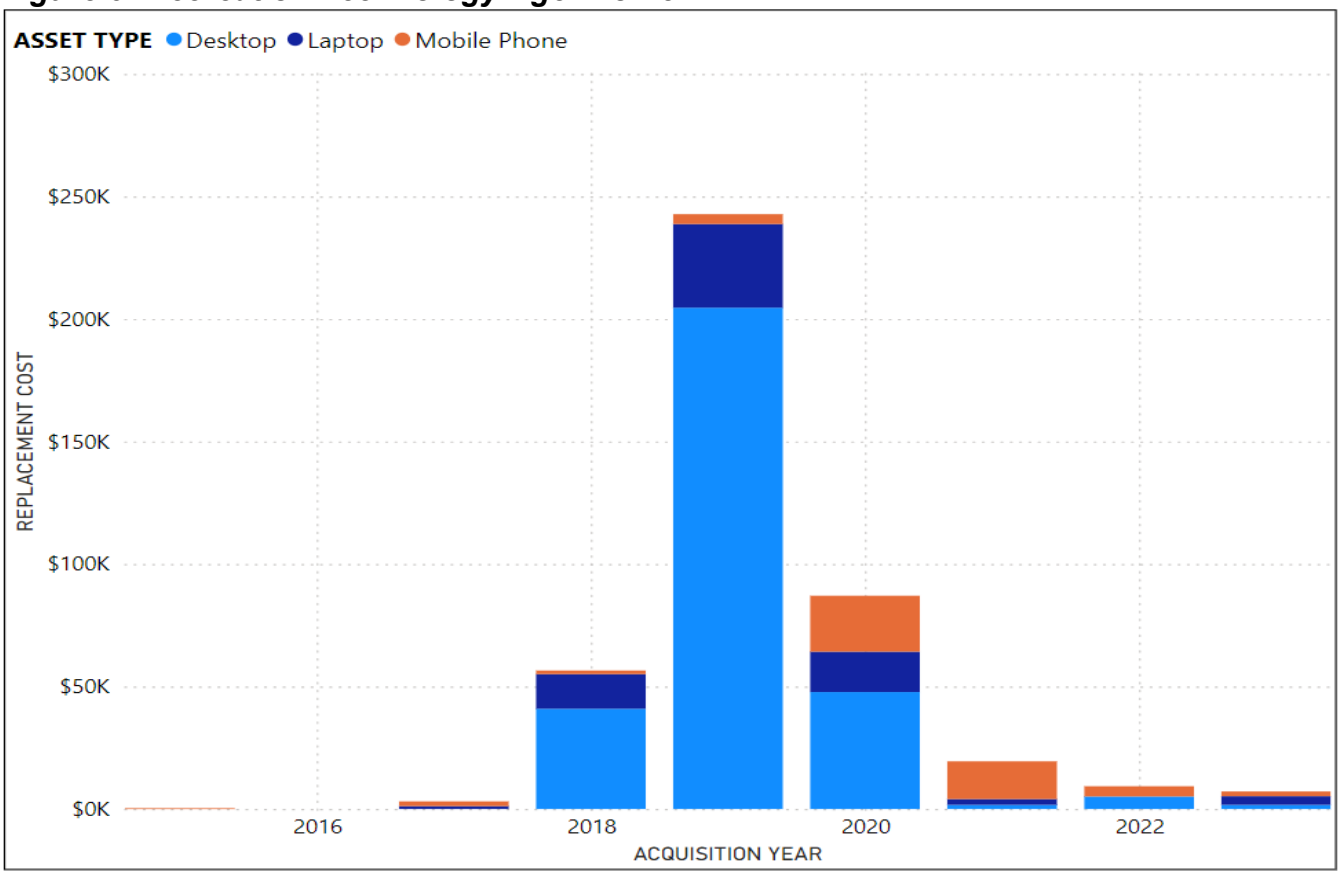
ASSET	LOCATION	COMPONENT	DESCRIPTION OF DEFICIENCY
Facilities	**Arenas**	Ice Rink Cooling and Heating Piping Systems	Replacements are recommended based on estimated system lifespan or reports of dysfunction.
	Arenas and Indoor Pools	Building Envelope	Elevated wear is commonly observed in these high-humidity environments.
	Indoor Pools	Mechanical Pool Equipment	Replacements are recommended based on estimated system lifespan or reports of dysfunction.
	All	Mechanical HVAC Equipment	Replacements are recommended based on estimated system lifespan or reports of dysfunction.
	All	Roof Coverings	Replacements are recommended based on estimated system lifespan or reports of leaking.
	All	Parking Lot Surfaces	Replacements are recommended based on estimated system lifespan or evidence degradation.

3.2.2 TECHNOLOGY PROFILE

3.2.2.1. AGE PROFILE

The age profile of the Technology assets is shown in **Figure 5** below**.** The age of these assets is considered to be high data confidence because they are recorded at the time of purchase and is provided through the City's IT Division. Replacement costs are estimated based on market pricing for the modern equivalent assets. Estimated service lives are five years for laptops and desktop computers, and four years for all other IT equipment. Notably, a bulk purchase of desktop computers was completed in the year 2019 and is nearing the end of their ESLs.

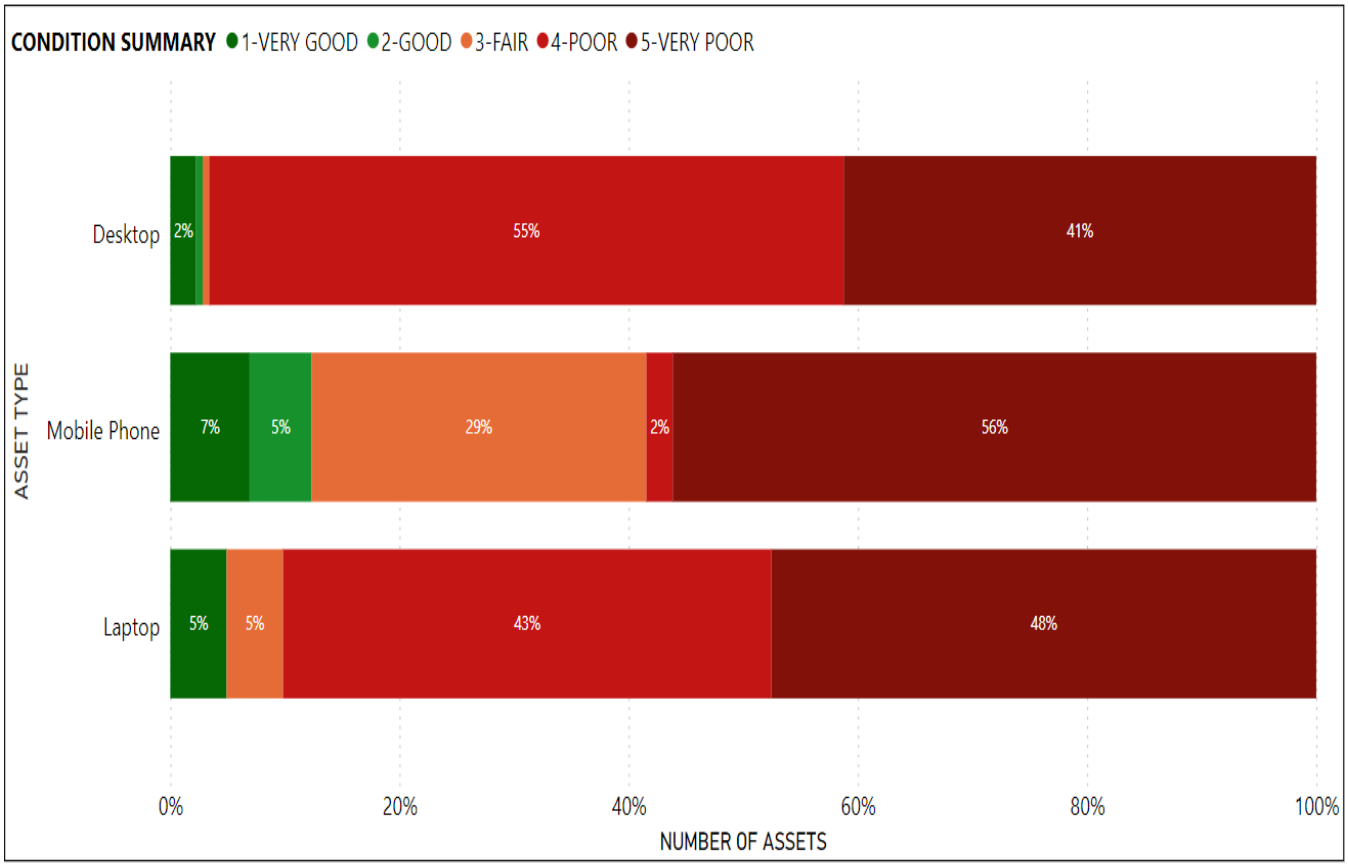
Figure 5: Recreation Technology Age Profile



3.2.2.2. CONDITION METHODOLOGY AND PROFILE

The majority of technology assets do not have a formal inspection program which has been identified as a continuous improvement item in **Section 10.2.** As condition valuations are derived from a remaining service life calculation using the estimated service life, and the majority of the IT assets have been purchased prior to 2021, the predominant condition rating for these assets is Poor – Very Poor, as can be seen in **Figure 6** on the next page.

Figure 6: Recreation Technology Asset Condition Profile



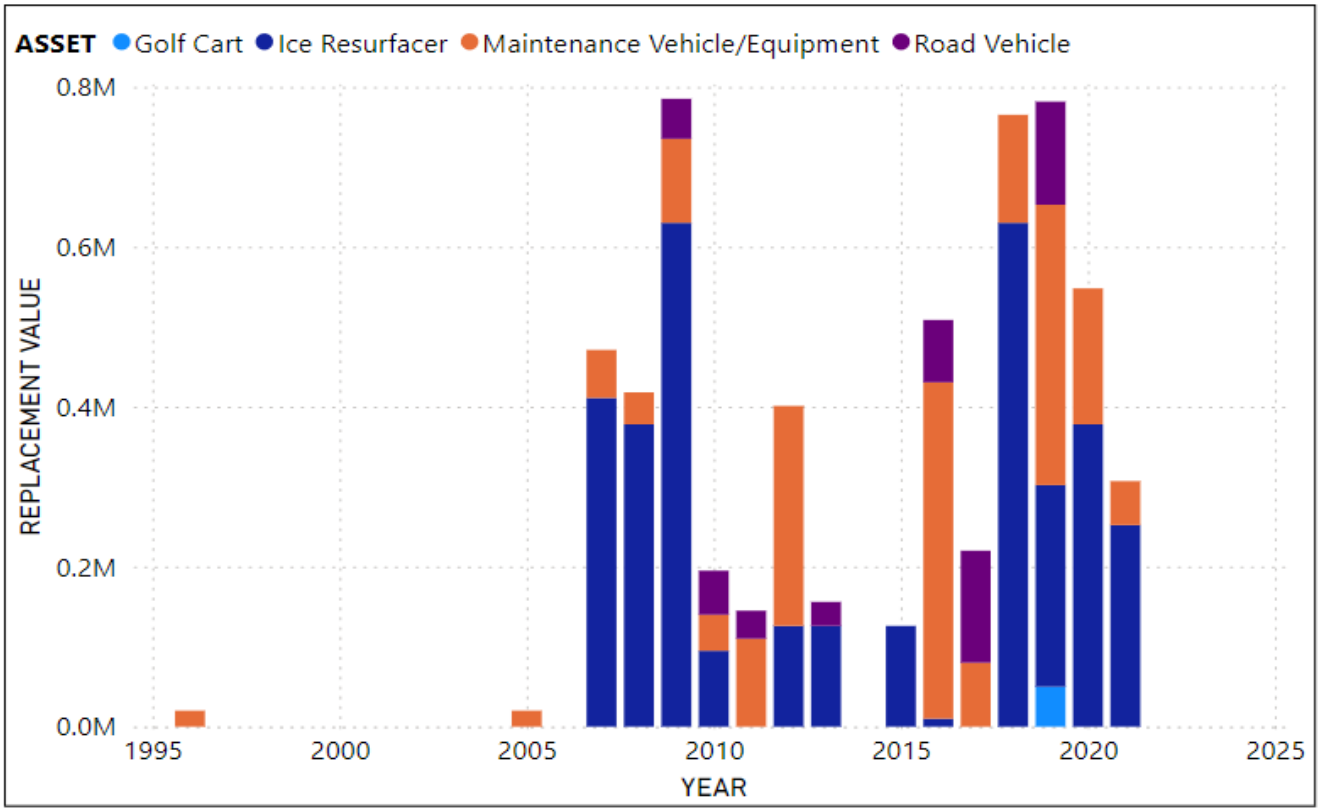
3.2.3 FLEET AND MAINTENANCE VEHICLES/EQUIPMENT PROFILE

3.2.3.1. AGE PROFILE

The age profiles of the fleet and maintenance vehicles/equipment assets are shown in **Figure 7** below. The age of these assets is considered to be high data confidence because they are recorded at the time of purchase.

Most of the vehicles and fleet equipment were acquired from 2005 to 2021. Since the Estimated Service Life (ESL) for vehicles is an average of 10 years, most vehicles purchased before 2014 are beyond their service life and will appear in the Renewal backlog in **Section 8.3**.

Figure 7: Fleet and Maintenance Vehicles/Equipment Age Profile



3.2.3.2. CONDITION METHODOLOGY AND PROFILE

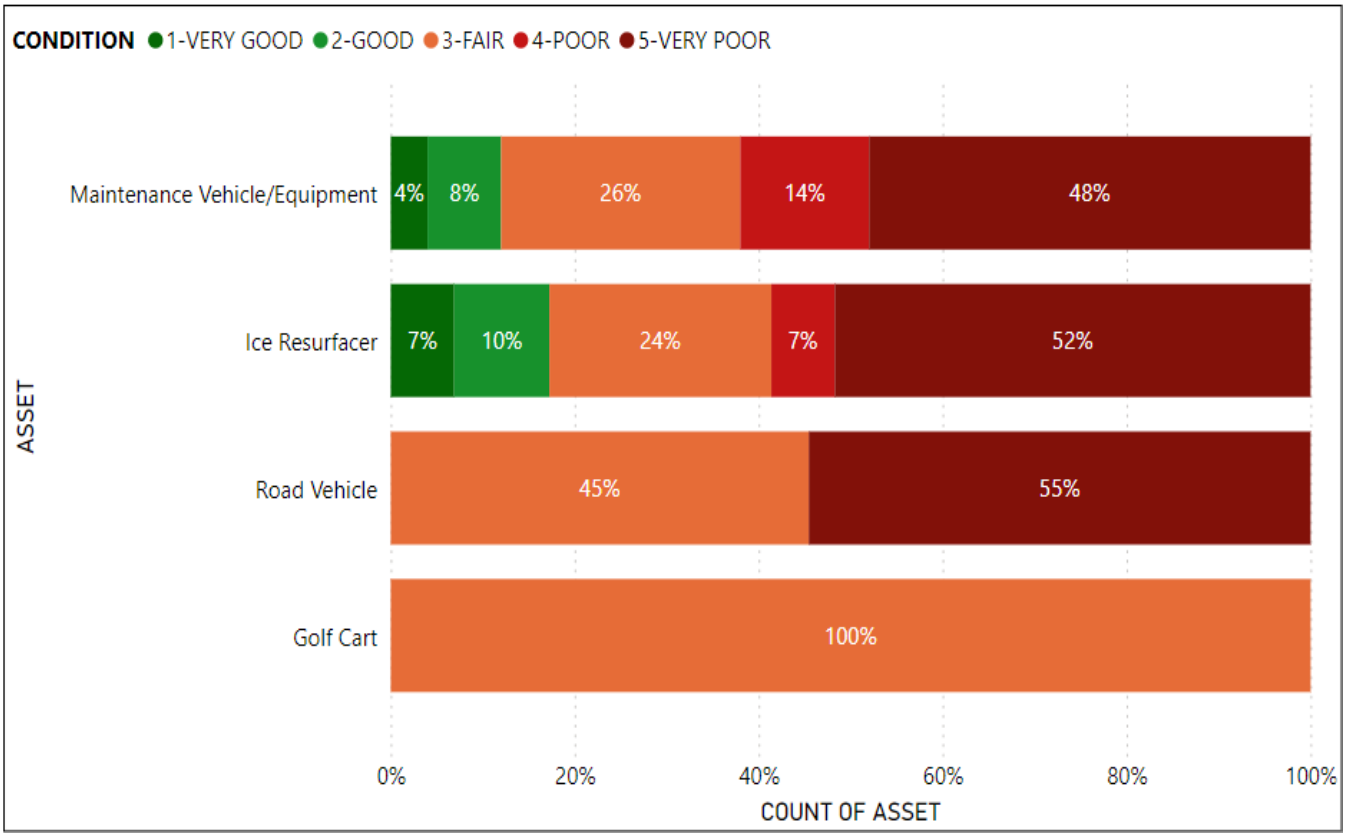
Road vehicles and ice resurfacers are inspected, and maintenance activities are conducted at specific intervals throughout the asset's lifecycle, however, no formal condition rating is assigned to each vehicle. No formal inspection program exists for the specialty equipment assets, as conditions are monitored with use. Equivalent condition ratings are derived from the documented age of the asset in relation to its Estimated Service Life (ESL), providing a remaining service life (RSL) percentage as outlined in **Table 7**. This data source is considered to be low confidence. Developing a more formal condition grading methodology for major equipment and technology has been noted as a continuous improvement item in **Section 10.2.**

Table 7: Inspection and Condition Information

ASSET	INSPECTION TYPE	DESCRIPTION	FREQUENCY	CONDITION SCORE OUTPUT
Vehicles	**Inspection and Servicing**	Various maintenance checks	Scheduled twice per year	N/A

As can be seen in **Figure 8** below, a significant number of Maintenance Vehicles/Equipment are in Poor and Very Poor condition. Additionally, 52% of Ice Resurfacers and 55% of Road Vehicles are in in Very Poor condition. The condition of these assets is based only on age and estimated service life and is consistent with many vehicles being beyond their ESLs.

Figure 8: Fleet and Maintenance Vehicles/Equipment Condition Distribution



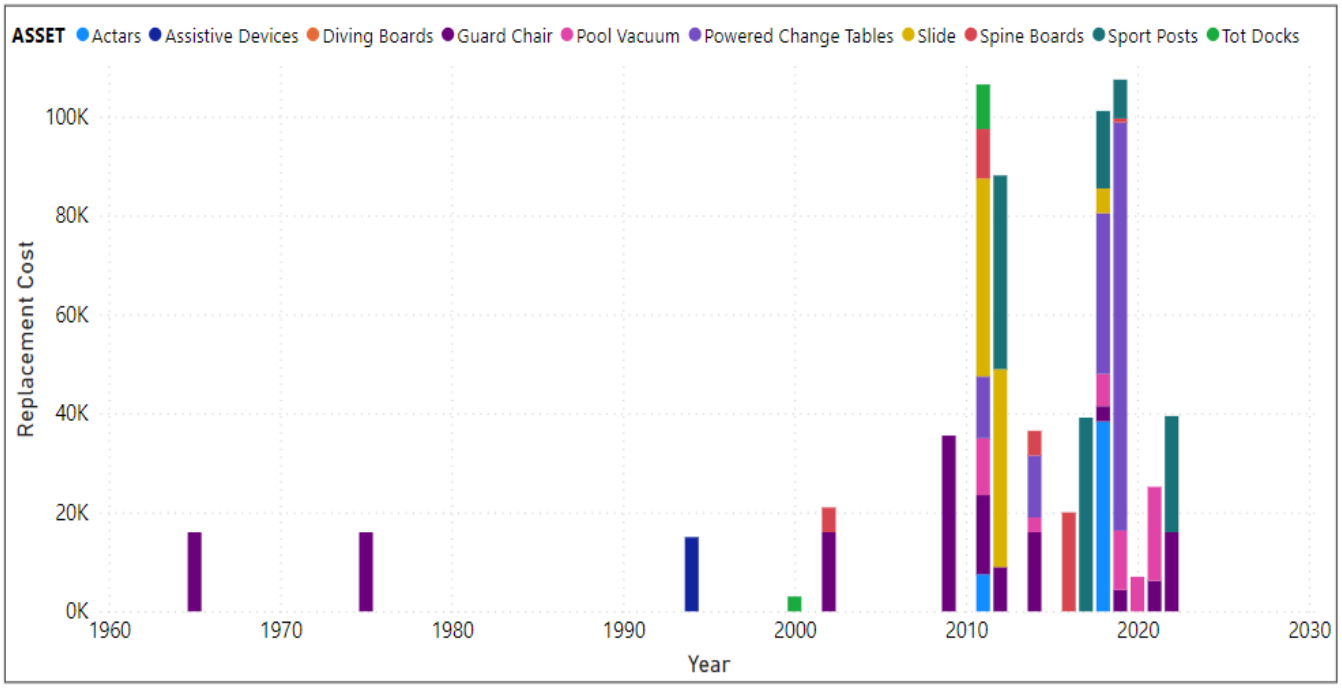
3.2.4 FACILITY AMENITIES

3.2.4.1. AGE PROFILE

The age profiles of the Recreation equipment assets are shown in **Figure 9** below. The age of these assets is considered to be low data confidence as the ages of these assets are not formally tracked and the purchase date is unknown for many assets. A Continuous Improvement item has been added in **Section 10.2** to review the current asset registry and verify assets including their specifications, age and condition, and to track assets in a more formal and documented manner.

The oldest equipment refers to guard chairs that were purchased in the 1960s and 1970s. The overall guard chair's age is considered low data confidence. This equipment has an estimated service life of 25 years however, based on subject matter expert (SME) opinion appears to be in good to fair condition.

Figure 9: Facility Amenities Age Profile

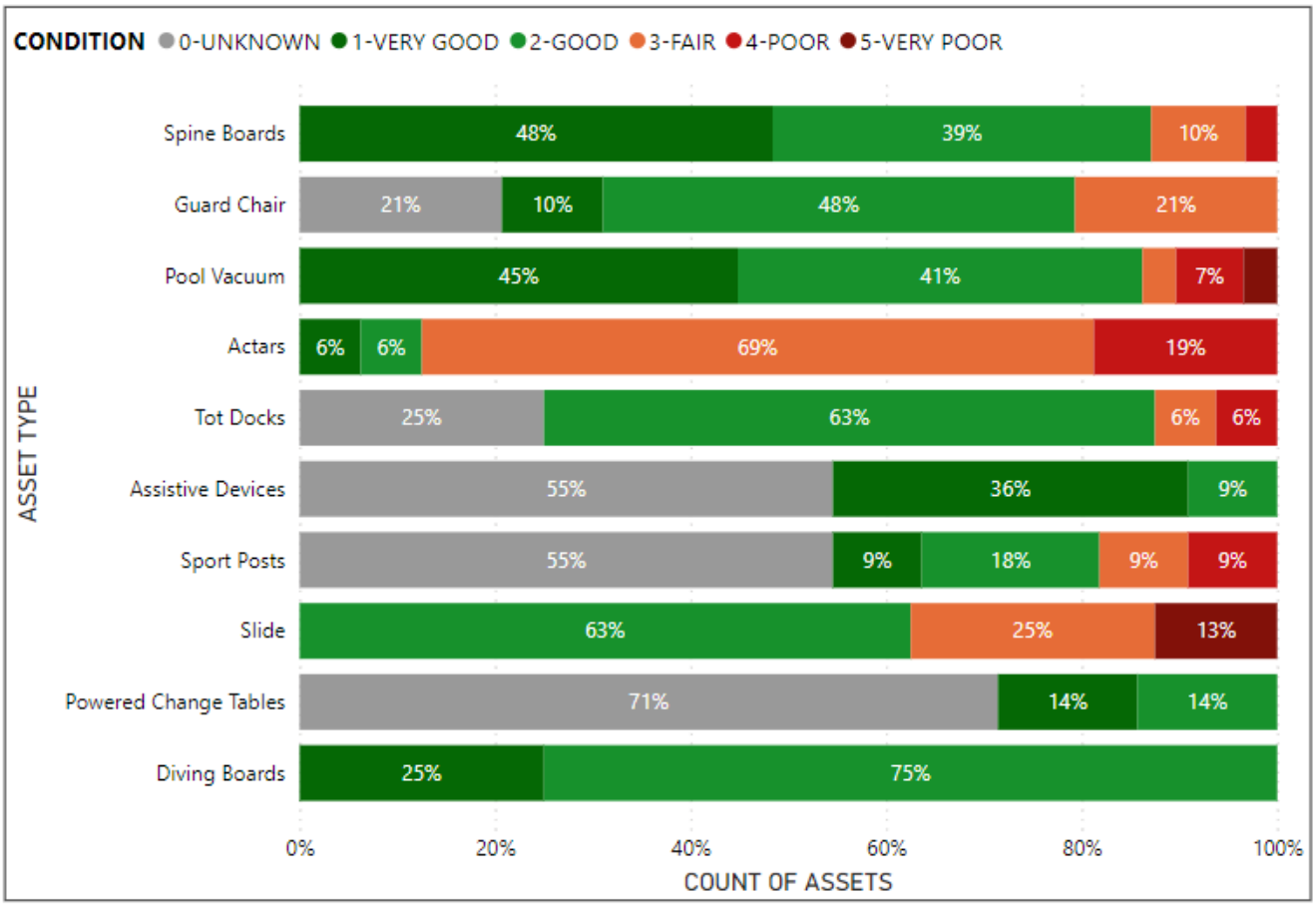


3.2.4.2. CONDITION METHODOLOGY AND PROFILE

Estimated condition ratings were provided by the asset owners for most assets and where the condition was not provided but age was known, the condition score was based on the remaining service life (RSL) percentage.

The condition profile for Recreation Equipment assets is shown below in **Figure 10** and is considered a medium confidence level. Where condition was known or based on the RSL, most assets appear to be in Very Good to Good condition. Exceptions are Actars with most assets in Fair condition and Sport Posts with Fair and Poor condition for about half of the assets. There are a number of equipment assets without data which require review to determine their condition. This has been identified as a continuous improvement item in **Section 10.2**.

Figure 10: Facility Amenities Condition Distribution



3.2.4.3. ASSET USAGE AND PERFORMANCE

The largest performance issues with Recreation Equipment involve assets exceeding their ESL. The known service performance deficiencies in **Table 8** were identified using staff input.

Table 8: Known Service Performance Deficiencies

ASSET	LOCATION	INSTALLED	DESCRIPTION OF DEFICIENCY
Slides	**Huntington Park Recreation Centre**	1993	Slides are currently closed as they are beyond the ESL and require full replacement. Funding is secured for the replacement of these assets and work is ongoing.
	Valley Park Aquatic Centre	1992	

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 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 ***AM Plan Overview***.

4.1 SURVEY METHODOLOGY

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

The survey received submissions from 134 respondents and contained 20 questions related to the Recreation and Golf service delivery. 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 9**.

Table 9: 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

Based on the number of responses, a sample size of 134 correlates to a HIGH confidence level with an 8% margin of error based on an approximate population size of 570,000. This was determined to be an acceptable confidence level to use to develop the customer values and customer performance measures for this AM Plan. It is important to note that respondents were allowed to opt out of questions, so different questions may have different confidence levels depending on the opt-out rate for that question.

Although the sample size correlates to a maximum high confidence level, the data consistency also differed between questions. 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, Recreation and Golf's survey data consistency was typically medium across all questions indicating most respondents are generally in agreeance.

While these surveys were 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 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 occurred in the deployment of Question 3 of the survey. The question asked for the ages of the people who visited Recreation and Golf facilities with the respondent; however, the survey did not allow respondents to select multiple ages. 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.

Despite the limitations of the survey methodology these results can be used to provide some context about the feelings customers have about the services that Recreation and Golf provides. However, decisions should not be made based on this survey alone and further investigation is required prior to proposing new levels of service.

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.

As previously mentioned, the customer values below were determined using the results from the *Let's Connect, Hamilton – City Services and Assets Review: Recreation and Golf,* and are shown in **Table 10** below.

Table 10: Customer Values

CUSTOMER VALUES	CURRENT FEEDBACK	DATA CONSISTENCY	EXPECTED TREND BASED ON PLANNED BUDGET (10-YEAR HORIZON)
Drop-in and registered swimming programs are an important service area	The average respondent rated both drop-in and registered swimming programs as very important.	Medium	Maintain
Drop-in and registered gym and club programs are an important service area	The average respondent rated both drop-in and registered gym and club programs as very important.	Medium	Maintain
Opinions are divided on the importance of golf courses.	The majority (57%) of respondents feel golf courses are very important. However, opinions on golf courses were more split and 26% of respondents feel golf courses are not at all important.	Low	Maintain
Customers prefer to minimize tax rate increases for services	The average survey respondent would prefer to minimize tax rate increases and maintain current Recreation and Golf service levels.	Medium	Maintain
Potential service upgrades to Community Recreation Centres (CRC) and indoor pools are more important than potential upgrades to outdoor pools, arenas, and community halls.	Potential service upgrades to CRCs and Indoor Pools facilities were listed as important. Potential upgrades to outdoor pools, arenas, and community halls were listed as fairly important.	Medium	Maintain

CUSTOMER VALUES	CURRENT FEEDBACK	DATA CONSISTENCY	EXPECTED TREND BASED ON PLANNED BUDGET (10-YEAR HORIZON)
Customers agree that the Recreation and Golf buildings should be accessible by public transport, AODA compliant, clean, comfortable, easy to enter, energy efficient, safe, and inclusive spaces.	The average respondent agreed that buildings should meet these requirements.	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 customers desire. Customer level of service measurements relate to how the customer feels about the City's Recreation and Golf 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 11** 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.

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Table 11: Customer Levels of Service

TYPE OF MEASURE	LEVEL OF SERVICE STATEMENT	SOURCE	PERFORMANCE MEASURE	CURRENT PERFORMANCE	EXPECTED TREND BASED ON PLANNED BUDGET
Quality/ Condition	Ensure that Recreation assets are maintained in good condition	2023 Recreation and Golf Services and Assets Survey Review	Average survey respondent opinion on if Recreation and Golf buildings are clean and in good repair	Neutral	Decline
			Confidence Level	***High***	
			Data Consistency	***Medium***	
	Provide high-quality services and programs to the public.	2023 Recreation and Golf Services and Assets Review Survey	Average survey respondent opinion on how Recreation and Golf programs have performed overall in the last 24 months in all service areas	Average	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	
	Ensure that Recreation and Golf sites and services are accessible to the public.	2023 Recreation and Golf Services and Assets Review Survey	Average survey respondent opinion on if customers were comfortable accessing sites and services.	Comfortable	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	
	Be fiscally responsible when delivering services.	2023 Recreation and Golf Services and Assets Review Survey	Average survey respondent opinion on if Recreation and Golf is providing good value for money for sites and services.	Average	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	
Function	Provide Recreation and Golf services that meet needs	2023 Recreation and Golf Services and Assets Review Survey	Average survey respondent opinion on if Recreation and Golf is meeting service needs overall	Neutral	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	
Capacity	Ensure Recreation and Golf services are accessible to the public when required.	2023 Recreation and Golf City Services and Assets Review Survey	Average survey respondent satisfaction with program hours offered by Recreation and Golf services.	Neutral	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	
		2023 Recreation and Golf City Services and Assets Review Survey	Average survey respondent opinion on if they are satisfied with their ability to access Recreation and Golf sites and services.	Satisfied	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium-Low***	
		2023 Recreation and Golf City Services and Assets Review Survey	Average survey respondent opinion on if Recreation and Golf buildings are accessible per the Accessibility for Ontarians with Disabilities Act (AODA).	Neutral	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	
		2023 Recreation and Golf City Services and Assets Review Survey	Average survey respondent opinion on if Recreation and Golf buildings are accessible by public transportation.	Neutral	Maintain
			Confidence Level	***High***	
			Data Consistency	***Medium***	

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 12**. These indices are explained and analyzed in detail in the sections below. Based on the results of the table, since the net differential indices do not exceed 20 points overall for the Recreation and Golf service, there is generally a match between customer expectations and perceptions. These indices are explained and analyzed in more detail in the sections below with areas to investigate further.

Table 12: Customer Indices

CUSTOMER INDICES	AVERAGE RESULT
Service Importance Versus Performance Net Differential[4]	-9
Net Promoter Score (%)[5]	-6%
Service Rates Versus Value for Money Net Differential[7]	7

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

SERVICE IMPORTANCE VERSUS PERFORMANCE INDICE

The Service Importance versus Performance Indices is 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 is indicative of a mismatch between expectations and service levels, equal to one point on the Likert Scale[6].

Per **Figure 11,** as the net differential indices do not exceed 20 points for the Recreation and Golf service, there is generally a match between customer expectations (performance) and perceptions (importance). This is true for each individual service surveyed as well as the average of these service areas. The net differential for each service area is slightly negative, indicating that the perceived importance of these services slightly exceeds the performance expectations though the difference is small. The lowest scoring service areas were Drop-in Swimming and Drop-In Gym and Club Programs. Respondents identified these areas as important services for the City with performance identified as slightly lower at Average-Good. Although the differential

[4] 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.
[5] 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.
[6] 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).

for these services is less than 20 points, it may be noteworthy for future investigation of service levels and customer expectations for drop-in programs.

Figure 11: Importance versus Performance Index Score

Service Area	Performance Index	Importance Index	Net Differential
Total	**69.65**	**78.38**	**-9**
Drop-in Swimming	71.11	84.89	-14
Registered Swimming Programs	74.47	79.52	-5
Drop-In Gym and Club Programs	66.88	78.18	-11
Registered Gym and Club Programs	71.25	78.13	-7
Golf Courses	66.27	72.88	-7

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 often individuals do not have many alternatives for utilizing different services and 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 choices less than a score of 4 are considered 'Detractors' meaning that they would not recommend the service, while scores of 5 are considered 'Promoters' who would recommend the service, and scores of 4 are considered 'Passive' which means they 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 score is calculated by subtracting (% Promoters) and (% Detractors). The Standard Deviation (σ) is calculated in percent, the same units as the Net Promoter Score.

Based on the results in **Figure 12**, Recreation and Golf has a slightly negative overall Net Promoter Score indicating that on average customers are neutral about recommending Recreation and Golf services to others. The highest-scoring service areas are Drop-In Swimming and Registered Swimming Programs which both received slightly positive net promoter scores, and the lowest-scoring service areas are Registered Gym and Club Programs and Drop-In Gym and Club Programs which received scores close to or exceeding -20 indicating that generally customers do not recommend the service. It should be noted that although these areas received negative net promoter scores, Service Importance versus Performance indices were generally well matched.

Figure 12: Net Promoter Score

Service Area	σ	NPS
All Service Areas	**1.34**	**-6.11**
Drop-in Swimming	1.27	7.04
Registered Swimming Programs	1.23	7.02
Golf Courses	1.45	-10.00
Drop-In Gym and Club Programs	1.31	-18.75
Registered Gym and Club Programs	1.29	-22.22

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 value-for-money ratings by 20 points is 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.

Overall, the net differential indices do not exceed 20 points for the Recreation and Golf service, there is generally a match between customer expectations (value for money) and service levels (tax rates). Per **Figure 13**, survey respondents generally perceived they were getting Average value for money across all services and thought that Recreation and Golf should maintain service levels and minimize rate increases. Therefore, if Recreation and Golf is proposing to change levels of service for these service areas, they would want to ensure they are educating and seeking agreement from the public.

Figure 13: Rates versus Value for Money Index Score

Service Area	Rates (index score)	Value for Money (index score)	Net Differential
Total	**62**	**69**	**-7**
Golf Courses	56	64	-8
Registered Swimming Programs	65	73	-7
Drop-In Gym and Club Programs	62	69	-7
Registered Gym and Club Programs	63	69	-6
Drop-in Swimming	67	73	-5

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 on 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.[7]

Table 13 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.

[7] IPWEA, 2015, IIMM, p 2|28.

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Table 13: Technical Levels of Service

LIFECYCLE ACTIVITY	LEVEL OF SERVICE	ACTIVITY MEASURE	CURRENT ACTUAL PERFORMANCE (2023)	CURRENT TARGET PERFORMANCE (2023)	PROPOSED 10-YEAR PERFORMANCE
Acquisition	Ensure an adequate number of Community Recreation Centres	Ratio of facilities per resident	1 facility per 25,400 residents[8]		1 facility per 27,500 residents[9]
		Budget	$0[10]		$110M
	Ensure an adequate number of indoor pools	Ratio of facilities per resident	1 facility per 25,400 residents[8]		1 facility per 30,000 residents[9]
		Budget	$0[10]		As part of CRC acquisitions budget
	Ensure an adequate number of outdoor pools	Ratio of facilities per resident	1 facility per 9,500 children and youth aged 5-19 years[8]		1 facility per 10,000 children and youth aged 5-19 years[9]
		Budget	$0[10]		$12.6M[11]
	Ensure an adequate number of arenas	Ratio of facilities per resident	1 ice pad per 23,360 residents[8]		1 ice pad per 28,750 residents[9]
		Budget	$0[10]		$59M
Maintenance	Ensure that Recreation and Golf assets are maintained in good condition.	Facility Condition Index	7.6%	<5%	<5%
		Budget	$7.6M	$120M	$256M
Renewal	Ensure that Recreation and Golf assets are maintained in good condition.	% of vehicles and technology assets past their service lives	23%	0%	0%
		Budget	$0.6M	$1.7M	$4.3M

[8] As there were no acquisitions or disposals proposed for 2023, the current actual and current target performance are equivalent.
[9] 2051 target ratio, per Recreation Master Plan recommendations. See the proposed level of service discussion for more information.
[10] As there were no acquisitions or disposals proposed for 2023, current actual and current target performance budgets are set to $0.
[11] Values are provided for outdoor pool acquisitions that are recommended to occur outside the 10-year horizon, in line with reaching 2051 target ratios.

4.3.3 PROPOSED LEVELS OF SERVICE DISCUSSION

Per the Technical Levels of Service **Table 13**, it can be concluded that Recreation and Golf 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. The discussion below is intended to provide context to direct Recreation and Golf to areas for further investigation based on these initial results before proposing any new levels of service. As a continuous improvement item noted in **Section 10.2**, future iterations of this survey seek to confirm these initial results, better define the proposed levels of service, and improve the overall level of engagement.

CONDITION / QUALITY

Based on the results of the survey, customers think that Recreation and Golf have Average to Good Performance overall in the service areas. As shown in **Figure 13** there is generally a match between customer expectations (value for money) and service levels (tax rates). Customers feel they are getting Average value for money across all services and thought that Recreation and Golf should maintain service levels and minimize rate increases. Therefore, if Recreation and Golf is proposing to change levels of service for these service areas, they would want to ensure they are educating and seeking agreement from the public.

Survey respondents said they felt comfortable accessing the Recreation and Golf sites and services; however, customers felt neutral when asked if the facilities were clean and in good repair. Per **Table 13**, the City is not currently meeting the Facility Condition Index technical target overall and this should be investigated further. Additionally, As noted in **Table 11**, with current underfunding to maintenance budgets and a large existing backlog of projects to manage, this level of service is expected to decline over time.

FUNCTION

Per Customer Levels of Service **Table 11** Recreation and Golf is meeting some customer needs in all surveyed service areas. The lowest-scoring service areas were Drop-In Gym and Club Programs and Registered Gym and Club Programs. These areas also had the lowest data consistency indicating that there were more split opinions from respondents. This may be a notable area for future investigation of customer needs.

Per **Section 4.3.1** and **Figure 11**, there is generally a match between customer expectations (performance) and perceptions (importance). Customers identified Drop-in Swimming and Drop-In Gym and Club Programs as important services with slightly lower performance of Average-Good. Although the match was close, an investigation of service levels and customer expectations for drop-in programs may be worthy of further investigation.

CAPACITY

Results from the survey indicated customers were satisfied with their ability to access sites and services. There are multiple technical levels of service measures related to capacity in **Table 13**, all related to the acquisition and driven by the provisioning targets detailed in the Recreation Master Plan. The City is exceeding these targets in 2023. Therefore, with the information available, it appears that there is a match between customer expectations and technical performance in this area.

The average survey respondent indicated that they are neither satisfied nor dissatisfied (neutral) with the program hours offered. The only service area where respondents felt satisfied with program hours was Golf Courses. Survey respondents also felt neutral about whether sites and services were compliant with the Accessibility for Ontarians with Disabilities Act (AODA) and were accessible by public transportation.

While all Recreation and Golf facilities adhere to AODA compliance standards, feedback from the community survey within the Recreation Master Plan highlighted the necessity for safe active transportation pathways to facilities and parks, along with accessible spaces and amenities for individuals with disabilities. This demand for more accessible facilities has been identified by the Recreation asset owners and is discussed further in **Section 5.** Based on this feedback, there is more investigation required to determine the proposed level of service for accessibility within facilities and when navigating transportation to facilities. This has been noted as a continuous improvement item in **Section 10.2**.

Provided by recommendations from the Recreation Master Plan, the proposed capacity adjustment for community recreation centres is to alter their ratio of centres to residents from 1:24,500 at the current, to 1:27,500 by 2051, a target which aims for fewer, but larger facilities. This proposed level of service is driven by trends in facility design that favour larger, multi-functional CRCs. These centers offer improved convenience for users, operational efficiency, integrated service delivery, and cross-programming opportunities for all age groups. This model is noted to be particularly suitable for areas with lower population density, where land is more widely available, though may risk a reduced level of service with regard to accessibility in location.

As pointed out in **Table 13,** the existing budget for both the current actual and target facility ratios are set a $0, as there are no plans in this current year to adjust these ratios. However, Recreation has identified these levels to be achieved over the long-term leading towards the ratios provided for 2051. Budgets included consist of the costs to acquire facilities within the 10-year horizon, contributing to goals for 2051. Summarized by the findings in the Recreation Master Plan, these targeted facility ratios have been derived from third-party consultant research, comparing facility ratios to a number of residents for comparable municipalities in Ontario.

Looking ahead, respondents identified modernization or development of new community recreation centres and indoor pools as important potential service areas but also indicated that they prefer to maintain services and minimize tax rate increases. Measurements related

to proposed facility acquisitions and renewals should be included in future drafts, guided by the implementation strategies currently in development.

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 Recreation division service area, the key drivers are:

- Population Growth
    - Hamilton's population is projected to increase to approximately 636,080 by 2031. This forecasted increase in population will significantly increase the demand for the volume of services provided by Recreation over the next ten years and beyond.
- Reputation – Facility Conditions
    - A backlog of maintenance work has accumulated on Recreation Facilities, requiring remediation. These unresolved projects pose a risk to the reputation of the Recreation Division as facilities continue to deteriorate over time and service levels decline.

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 14.** Growth projections have been shown on Page 45 of the AM Plan Overview document. These additional demands as well as anticipated operations and maintenance costs have not 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 14**. 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 14**. Demands related to climate change adaptation are included in **Table 21** A continuous improvement item identified in **Section 10.2** is to investigate the costs of implementing the demand management plans identified but currently unquantified in this AM Plan. Presently, the only demand management plan cost that is considered in the lifecycle model is population growth, through the integration of facility acquisitions.

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Table 14: Demand Management Plan

DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	DEMAND MANAGEMENT PLAN
Population	560,000	636,080	▪ Increase to number of assets required. ▪ Pressure for access to spaces in growth areas non-serviced. ▪ Limited access to prime-time activities in existing spaces. ▪ Insufficient operating budget and FTEs to run new facilities. ▪ Reduced demand for lower amenity facilities.	▪ Request a budget increase to maintain a level of service. ▪ Recreation Implementation Strategy – to fund the plan and increase demand for Capital funding to build/retrofit facilities. ▪ Revenue opportunities and increases to offset the cost of operation. ▪ Advance and fund feasibility and detail design where applicable to leverage grant opportunities. ▪ Review associated operating costs of new builds to ensure inclusion in capital detail sheets. ▪ Review and decommission under-utilized/not required facilities.
Social/Cultural Shifts	2016 - 25% of residents born outside of Canada[12]	Anticipated to increase	▪ Increased interest in non-traditional recreational opportunities. ▪ Changing sports trends impacting utilization and asset demand.	▪ Complete and implement a Community Sport Plan. ▪ Decommissioning and repurposing of sports fields. ▪ Decommissioning three aging arenas.
Aging Demographic	Median Age 40.8[13]	Residents over the age of 75 expected to increase by 114% by 2046[14]	▪ Favour more passive recreational activities as aging occurs. ▪ Physical limitations to participation. ▪ Changing program needs. ▪ Accessible space considerations. ▪ User fee changes impact ability to access. ▪ Transportation barriers/limitations.	▪ Recreation Fee Assistance Funding Increases. ▪ Affordable Emergency Use Recreation Centres Access to Recreation Policy. ▪ Pricing Policy review and implementation. ▪ Expand Seniors Recreation Centres (ASAC, Sackville). ▪ Enhance seniors programming spaces in existing facilities.
Reputation **Facility Condition**	Avg facility age 39 yrs. Maintenance backlog of $108M identified across portfolio.	Increased backlog under current funding model	▪ Increased facility closures both planned and unplanned for emergency maintenance. ▪ Underutilized spaces due to limited accessibility and amenity features in older facilities. ▪ Increase in maintenance related operating costs. ▪ Increase in FTE to manage maintenance related work. ▪ Reduced program revenue generation due to closures. ▪ Public perception regarding spaces and access when closures occur, and maintenance needs become visible to users.	▪ Investment in renewal strategies for impacted facilities. ▪ Recreation Implementation Strategy - funding the plan. ▪ Increased maintenance budgets for impacted facilities. ▪ Potential FTE impacts to maintain facilities. ▪ Strategic planning to reduce the number and length of closures and maximize budgets.

[12] (City of Hamilton, Recreation Master Plan, 2022)
[13] (City of Hamilton, Recreation Master Plan, 2022)
[14] (City of Hamilton, Recreation Master Plan, 2022)

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DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	DEMAND MANAGEMENT PLAN
Technology **Self Service Online**	Online Program Registration Drop-In viewing	Online Program Registration Drop in Admissions Rentals Membership	▪ Limited self-help leads to pressure on customer service staffing and FTE to process requests. ▪ Loss of revenue potential to online providers with ease of use for self-service. ▪ Public perception not advancing technologically/dated services. ▪ Potential reduction in FTE opportunity to move to technology. ▪ Budget pressure to operate for licensing, support, and implementation.	▪ Advance software upgrade to enhanced platform. ▪ Review and prioritize self-service as a best practice. ▪ Align initiatives with Corporate Digital Strategy.
Increased Accessibility in Facilities	All facilities are code compliant, and not all barrier-free to access programmed spaces	Increased demand for more accessible and barrier-free spaces.	▪ Pressure to adapt current facilities to the level of accessibility needed/requested. ▪ Budget pressure to allocate funding for these projects	▪ Requesting increased maintenance/capital budgets to facilities for these updates.
Community Halls	Underutilized assets	Reduced demand, increased deterioration.	▪ High operation and maintenance costs in relation to utilization. Drain on overall budget use. Indirect model of service delivery, lack of volunteers/third parties to operate.	▪ Divest in facilities when possible. ▪ Develop an adaptation strategy to manage demands in nearby facilities.
Facilities attached to Schools	Underutilized assets	Demand for these assets is decreasing.	▪ Assets are not barrier-free, with poor viewing areas and support spaces. ▪ Limited g gymnasium access. ▪ Pools tied to schools difficult to withdraw from ownership	▪ Review facilities to determine the feasibility of retrofits. If not possible, divest and reinvest elsewhere.

5.4 ASSET PROGRAMS TO MEET DEMAND

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

At this time there are approximately **$99M** in assets acquired over the next 5 years and an anticipated **$567M** over the 30-year planning period. Acquiring new assets will commit Recreation 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 report 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"[15].

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 15.** Failure modes may include physical failure, collapse or essential service interruption.

Table 15: Critical Assets

CRITICAL ASSET	FAILURE MODE	IMPACT
Emergency Use Recreation Centres	Physical Failure/Essential Service Interruption	Lack of shelter in response to emergency situations.
Emergency Phone System	Essential Service Interruption	Aquatic facilities closed. Accessibility assets (elevators) may require closure. Facilities with ULC-certified fire systems may require closure if unable to satisfy the requirements of performing manual fire watch.

[15] ISO 31000:2009, p 2

CRITICAL ASSET	FAILURE MODE	IMPACT
Refrigeration Plant Safety Devices	Physical Failure/Essential Service Interruption	Ice arena facility closures

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.

Table 16 below outlines the Emergency Use Recreation Centres which are critical assets with strategies in place to respond to various emergency scenarios.

Table 16: Emergency Use Recreation Centres

EMERGENCY USE	DESCRIPTION	LOCATION
Heat and Cold Weather Response Strategies	Operate as a cool place/warm place during extreme hot and cold weather periods in coordination with the City's community alert process during posted customer service hours.	Ancaster Rotary Centre
		Bennetto Recreation Centre
		Bernie Morelli Recreation Centre
		Central Memorial Community Centre
		Dominic Agostino Riverdale Community Centre
		Dundas Lions Memorial Community Centre
		Huntington Park Recreation Centre
		Norman Pinky Lewis Recreation Centre
		Ryerson Recreation Centre
		Sackville Hill Seniors Centre
		Sir Allan MacNab Recreation Centre
		Valley Park Community and Aquatic Centre
		Westmount Recreation Centre
Winter Response Strategy: Warming Location	Operate as a warming location to better address the needs of those experiencing homelessness during the winter months	Norman Pinky Lewis Recreation Centre
		Valley Park Community and Aquatic Centre
		Westmount Recreation Centre

EMERGENCY USE	DESCRIPTION	LOCATION
Emergency Evacuation Centres	An Evacuation Centre is a one-stop service site or facility where, in a disaster or emergency, people evacuate to, and their immediate basic needs are met. These basic needs are considered the Emergency Social Services (ESS) needs and include food, clothing, lodging, registration and inquiry and personal services	Bernie Morelli Recreation Centre
		Valley Park Community and Aquatic Centre
		Westmount Recreation Centre

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 is shown in **Table 17**. It is essential that these critical risks and costs are reported to management. Risk treatment costs will be quantified and included in future iterations of the plan and is identified in **Section 10.2** in the continuous improvement section of the plan.

Table 17: Risks and Treatment Plans

SERVICE OR ASSET AT RISK	WHAT COULD HAPPEN	RISK RATING	RISK TREATMENT PLAN	RESIDUAL RISK	TREATMENT COSTS
Mechanical Systems at Various Recreation Facilities	Unexpected breakdown of mechanical systems (e.g., pool filtration/ventilation, ice rink refrigeration/ HVAC)	High	Continue to perform routine inspections and preventative maintenance programs. Develop renewal plan for replacement of systems at the end of service life.	Medium	Unquantified. Part of a $108M backlog of maintenance works.
Golf Course Pedestrian Bridges	Structural deterioration and failure	High	Investigate requirements for engineered inspections. Investigate in coordination with the Transportation division to include Golf Course bridges in the engineering inspection program with other City bridges.	Medium	TBD (See Section 10.2 Continuous Improvement)

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.

Table 18 outlines what activities Recreation cannot afford to do over the next 10 years with their existing budget and provides the associated service and risk tradeoffs. Due to unknown costs, updates to facilities to reach climate action goals have not been included in the Lifecycle Management Plan in **Section 8** and should be investigated in future AM Plans.

Table 18: Service and Risk Trade-offs

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?)
Manage the facility maintenance backlog	Scheduling/program interruptions. Reduced comfort for customers. Increased numbers of service disruptions.	Increased chances of asset failure and reactive maintenance costs.
Integrate updates into buildings to reach climate action goals	Continued contribution to climate change.	Reputational Risks.
Calibrate supply (disposals) of underutilized facilities (e.g., pools attached to schools and community halls)	Overall service standard reduction due to drained funding.	Increased chances of asset failure and reactive maintenance costs.
Investment in growth-related projects (acquisitions)	Reduced levels of service over time. Potential overuse of existing facilities. Increased numbers of service disruptions.	Increased chances of asset failure and reactive maintenance costs.

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 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 **Section 10.2.**

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 (CEEP includes five (5) 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.

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 19** 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 AMP. This has been identified as a continuous improvement item in **Section 10.2**.

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

Mitigation Demand Analysis

Table 19: Climate Change Mitigation Transformation

CLIMATE CHANGE MITIGATION TRANSFORMATION	MODELLED TARGET	IMPACT TO SERVICE OR ASSET	DEMAND MANAGEMENT PLAN
Transforming Our Buildings	By 2050, all new municipal buildings achieve net zero emissions.	Any new builds must be designed to Net Zero standards which is an increased cost.	Gather estimates to quantify the cost to present to the council
	By 2050, all municipal buildings will be retrofitted to achieve 50% energy efficiency relative to 2016.	Any renewals of HVAC material will be with energy-efficient equipment. Lighting renewals will be to LED lighting.	Use Building Condition Assessments to plan for renewals and budget accordingly. Investigate grants for energy-efficient conversions. Gather Class D estimates and savings for these conversions to present to Council.

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.	Electric Vehicle Chargers will need to be installed where necessary	Prepare for conversion to electric vehicles for light-duty vehicles by investigating grant funding and performing feasibility studies for electrical updates.
Growing Green	Planting 50,000 trees a year through 2020	Trees will be incorporated in new build landscapes, without comprising security.	Analysis of facility risk will be required to ensure the safety of staff and the public.
Revolutionizing Renewables	By 2050, 50% of municipal buildings will add rooftop solar PV, covering 30% of the building's electrical load	Initial upfront capital costs for solar PV are required. Roof or structural upgrades might be required. Facilities may need to be closed for a period to perform the work.	Work with the Corporate Facilities and Energy Management division to incorporate any solar PV into Recreation buildings where applicable. Investigate solar opportunities for new buildings.

It is important to note that there may be difficulties in implementing the mitigation projects noted in **Table 19** above, specific to the Transforming our buildings demand management plans. As new builds and retrofitted buildings will require the installation of electrified HVAC systems in place of gas-burning equivalents, these facilities will impose greater demands on the existing electrical grid. More investigation is needed to determine the feasibility of implementation on a case-by-case basis, with respect to both the capacity of the station that serves the intended building and the existing electrical systems within the building in the case of a retrofit. Where retrofits occur, these projects may require upgrades to the existing electrical systems within the facility to accept incoming power (e.g., main disconnects, transformers, switchgear, etc.) and to support distribution to these HVAC systems.

Local distribution companies (LDC) Alectra and Hydro One tasked with distributing power from transmission lines to facilities within the City of Hamilton, have highlighted that upgrading infrastructure specifically in the downtown core buildings poses a challenge. This arises from the

limited space available for the utility company to install necessary underground wiring, attributed to the area's high density and minimal setbacks.

This should be taken into consideration when determining the implementation strategy of new recreation centres in the core of the City, as these large multi-use facilities will require high peak electrical demands, which will require a request to the LDC for additional capacity. It is suggested to plan service requests several years ahead and consolidate projects within the same area as this approach enables addressing local infrastructure improvements simultaneously[16].

Furthermore, when completing retrofits of HVAC systems responsible for maintaining unique indoor environments (e.g., indoor pools, indoor ice rinks), more careful judgement needs to be taken into equipment selection and design considerations of these projects. Improper implementation and commissioning of these systems has the potential to cause premature deterioration to existing building components and/or lead to unforeseen shutdowns impacting the consistency of service delivery. Moreover, the installation of these more complex systems may require additional training for staff on-site operating the facilities to ensure their efficient functioning.

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 AMP for not completing climate mitigation projects (ICLEI Canada, 2021).

CURRENT MITIGATION PROJECTS

Mitigation projects Recreation is currently pursuing are outlined below in **Table 20**. These projects are not all confirmed or included in the budget and therefore have not been quantified in the lifecycle models. Additionally, the resulting greenhouse gas (GHG) reductions are not yet quantified.

Table 20: Climate Change Mitigation Projects

PROJECT	CLIMATE CHANGE MITIGATION TRANSFORMATION	PROJECT DESCRIPTION	CLIMATE CHANGE IMPACT
Low Flow Showerheads and Drain Heat Recovery	Transforming Our Buildings	Conversion of showerheads to lower flow equivalents and recapture of heat in water drainage piping.	Reduced hot water heating demands. GHG emissions reduction.
Variable Frequency Drive	Transforming Our Buildings	Installation of VFD systems on existing equipment to allow for more efficient operation.	GHG emissions reduction.

[16] (City of Hamilton, Pathway to Net Zero for Corporate Buildings, 2023)

PROJECT	CLIMATE CHANGE MITIGATION TRANSFORMATION	PROJECT DESCRIPTION	CLIMATE CHANGE IMPACT
(VFD) Installations			
Planting Trees (Golf Courses)	Growing Green	Planting of trees to provide shade and increase carbon sequestration.	GHG emissions reductions.
Incorporating NetZero Updates Into Feasibility	Transforming Our Buildings	General investigations into the feasibility and implementation strategy of facilities reaching NetZero status.	GHG emissions reduction.
Transitioning Fleet To Evs	Changing How We Move	Converting Zambonis from propane to electric. Purchase of equivalent electric vehicles in place of those with internal combustion engines.	GHG emissions reduction.

CLIMATE MITIGATION DISCUSSION

At this time, Recreation has already made progress toward some of the modelled target transformations as discussed below.

Transforming our Buildings

Recreation has begun to move toward the Transforming our Buildings targets. Harry Howell Twin Pad arena was accredited as a LEED Silver facility with 40% more energy efficiency than the national energy model for typical arenas. The facility includes geothermal heating/cooling, daylighting and natural ventilation and the utilization of recovered waste heat to warm change rooms, spectator seating and the ice melting pit.

Additionally, a number of the recreation facilities have had comprehensive Energy Audits performed that catalogued the existing energy and water consuming systems, any deficiencies of these systems, recommendations on how to improve the energy and water efficiency of these systems and a path forward to implement the recommended energy and water conservation measures.

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 they 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.[17]

In 2021, the City of Hamilton completed a Vulnerability and Risk Assessment Report 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.

Adaptation Demand Analysis

Climate adaptation demands for Recreation are shown below in **Table 21**.

Table 21: Managing the Demand of Climate Change on Assets and Services

ADAPTATION IMPACT STATEMENT	BASELINE	AVERAGE PROJECTED CHANGE	POTENTIAL IMPACT ON ASSETS AND SERVICES	DEMAND MANAGEMENT PLAN
Rising summer temperatures and extreme heat will increase energy demand for air conditioning.	25.9 ° Celsius average summer seasonal temperature	27 ° Celsius average summer seasonal temperature	Increase demands on HVAC systems and costs. Increased use of recreation facilities as cooling centres. Recreation facilities become overburdened, and programs are interrupted.	Continue healthy preventative maintenance programs to ensure systems are prepared for extra load. Plan for equipment replacements at end of service life to ensure good condition. Conversion of HVAC systems to heat pumps
More frequent and severe weather events will increase impacts on physical infrastructure.	187mm average total winter precipitation	204mm average total winter precipitation	Increased wear on exterior materials and equipment.	Continue healthy preventative maintenance programs to ensure systems remain in adequate condition.

[17] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

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 22.**

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 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. This has been identified as a continuous improvement item in **Section 10.2.**

Table 22: Adapting to Climate Change

ADAPTATION IMPACT STATEMENT	SERVICE OR ASSET AT RISK DUE TO IMPACT	WHAT COULD HAPPEN	RISK RATING	RISK ADAPTATION PLAN
Rising summer temperatures and extreme heat events require that Recreation facilities be utilized as cooling centres	**Service Disruptions**	Recreation facility equipment failure due to becoming overburdened as emergency cooling centres.	Medium	Develop emergency protocols on how to best organize/adapt to these situations.

ADAPTATION IMPACT STATEMENT	SERVICE OR ASSET AT RISK DUE TO IMPACT	WHAT COULD HAPPEN	RISK RATING	RISK ADAPTATION PLAN
Prolonged power outages during winter months due to an increase in ice storms resulting in public safety concerns.	**Facilities**	Prolonged power outages due to an increase in ice storms.	High	Identify backup power requirements and review condition/capacity of existing back-up power solutions and/or install low to no carbon back-up power solutions to meet the needs identified.
Reduced capacity of flood protection measures and water storage caused by an increase in rainfall intensity leading to flooding.	**Facilities**	An increase in rainfall intensity leading to flooding.	High	Facilities requirements for new buildings to include stricter stormwater management.

CURRENT ADAPTATION PROJECTS

The following climate change adaptation projects in progress are included in **Table 23** below.

Table 23: Asset Climate Adaptation Projects

PROJECT	ADAPTATION IMPACT STATEMENT	PROJECT DESCRIPTION
Reinvestment into outdoor pools to provide cooling spaces.	Rising summer temperatures and extreme heat will increase the need for cooling spaces.	Continue to reinvest in outdoor pools and enhance operating hours to provide these locations as cooling spaces.[18]
Conversion of wading pools to splash pads.		Converting wading pools to splash pads can extend operating hours as splash pads can remain operational to the public without staff present.

[18] (City of Hamilton, Recreation Master Plan, 2022)

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CLIMATE ADAPTATION DISCUSSION

As the demand for cooling spaces rises during summer months and extreme temperature events become more frequent, ongoing initiatives aim to optimize the accessibility of recreation facilities. Through reinvestment and conversion of existing spaces, efforts are underway to extend operating hours for public use.

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 budgets. 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 can either be donated through development agreements to 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.

Listed below are the criteria used in determining a priority strategy for the acquisition of new facilities. Development of this implementation strategy is currently underway to provide the next steps and tools to plan for investment/reinvestment strategies with funding considerations.

- Current supplies and levels of provision;
- Facility size, capacity, condition, accessibility, level of amenity, utilization;
- Public and stakeholder input (facility demand, willingness to travel, etc.);
- Geographic distribution;
- Areas and timing of future growth;
- Recreation participation trends;
- Socio-demographic trends and under-served populations;
- Availability of other notable facility and service providers;
- Targets and recommendations from previous facility studies;

- Benchmarking against large urban communities in Ontario;
- Alignment with complementary strategies and initiatives; and,
- Financial viability and partnership potential.

CONSTRUCTED OR PURCHASED ACQUISITIONS

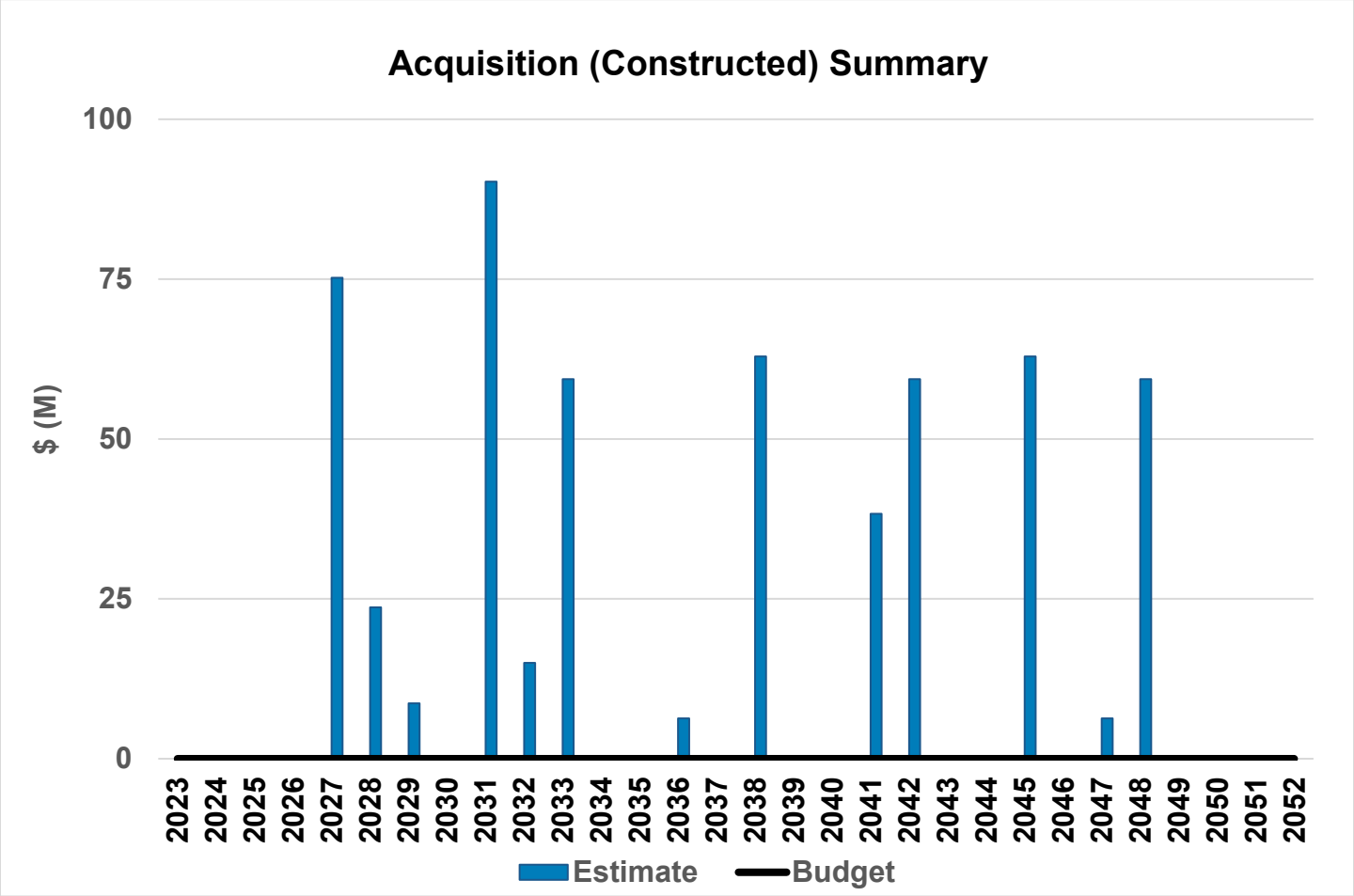
Over the next 10-year planning period the City will acquire approximately $272M of constructed assets which can either be new assets which did not exist before or expansion of assets when they are to be replaced. It is important to note that these facility construction costs are presented in current (2023) dollars and exclude land value expenses. Additionally, these values are based on average replacement costs for facility construction using current construction standards, which may not entirely incorporate the requirements necessary for achieving NetZero status. It is anticipated that there will be increased expenses associated with designing and acquiring higher-efficiency building systems, along with any unquantified cost barriers related to the implementation strategy of the electrical grid.

Informed by recommendations established by the ***Recreation Master Plan,*** major acquisition expenditures over the next ten years include:

- (2) New Outdoor Artificial Ice Facility Spaces;
- (4) Community Recreation Centres Expansions;
- (4) New Community Recreation Centres; and,
- (2) Senior Centre Expansions.

At this time, the City has not currently identified budgets for these acquisitions to ensure service levels are maintained over the long term. 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.

Figure 14: Acquisition (Constructed) Summary



It is important to note that, per standard asset management practice, the values displayed in **Figure 14** are not adjusted for inflation and are presented in 2023 dollar values. Costing and time frames for acquisitions within the next 10 years are derived from the 2024 Development Charges Background Study, while estimates for the years following are approximated using average equivalent replacement costs for equivalent assets with current design standards. In the future, it can be expected that design standards, particularly concerning energy efficiency, will endorse higher benchmarks, incurring additional costs that are not presently quantified.

RECREATION
2024 ASSET MANAGEMENT PLAN

ACQUISITIONS SUMMARY

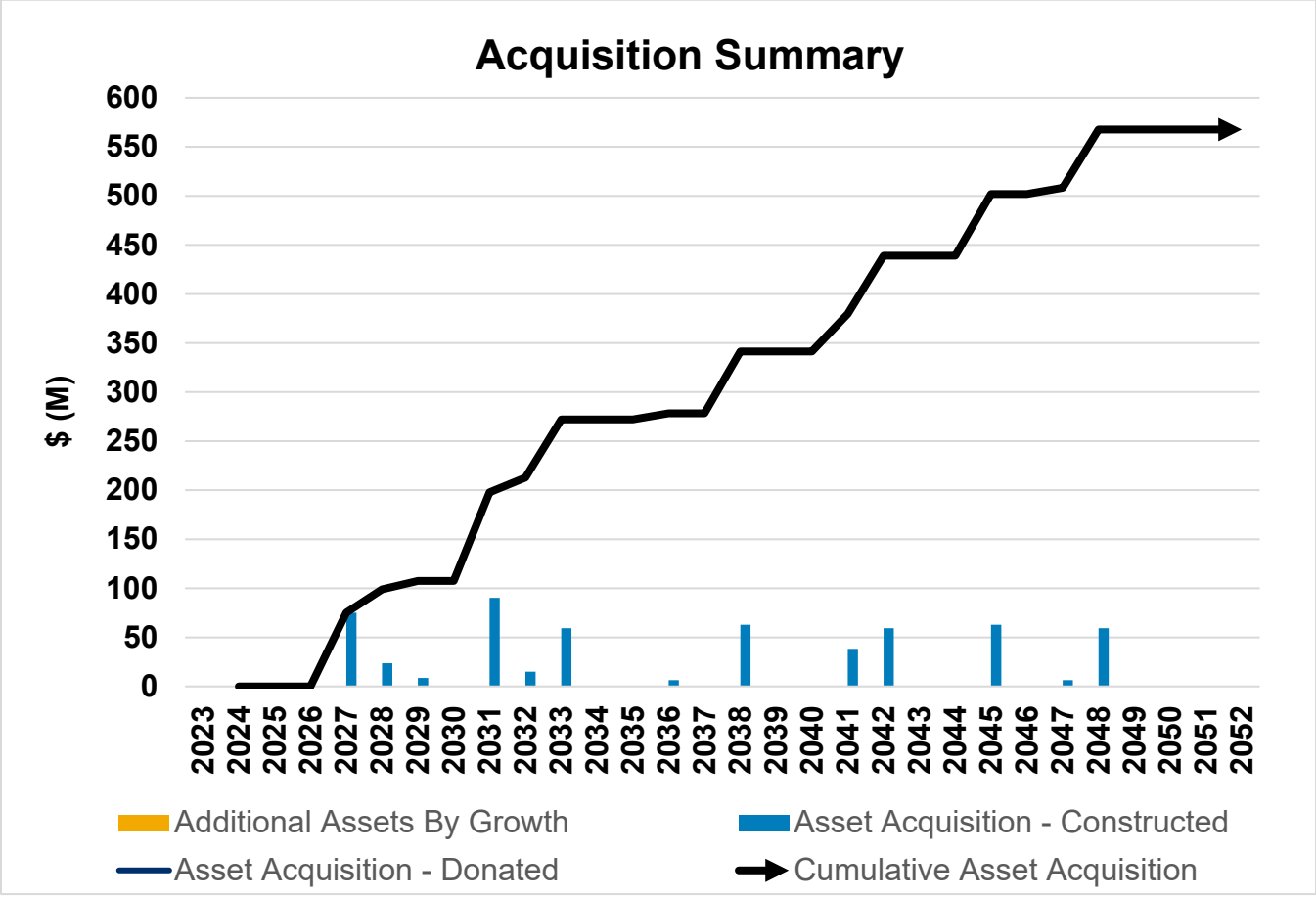
Over the next 10-year planning period Hamilton will acquire approximately $272M of Recreation assets. At present, the facility acquisitions included in **Figure 15** below are not funded, therefore sufficient budget has not been identified for its planned constructed acquisitions at this time. In addition, over the next 30-year planning period the City will acquire approximately $567M of constructed assets which can either be new assets which did not exist before or expansion of assets when they are to be replaced. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in **Figure 15** below.

When Hamilton commits to constructing 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.

It will become critical to understand that through the construction or assumption of new assets, the City will be committing to funding the ongoing operations, maintenance and renewal costs which are very significant. 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. Future AM Plans will focus on improving the understanding of Whole-Life-Costs and funding options, which has been identified as a continuous improvement item in **Section 10.2**.

The estimated annual operation and maintenance costs are incorporated into the lifecycle modelling for newly acquired facilities using averaged values for equivalent assets. At this time the additional costs required to purchase, maintain, and renew equipment assets for these facilities has not been incorporated into the forecasted costs. 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.

Figure 15: Cumulative Asset Acquisition Costs
All Figure Values Are Shown In 2023 Dollars



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.

- **$17.5 Million** in wage costs in 2023;
- **$4.4 Million** in facility hydro costs in 2023; and
- **$0.9 Million** in vehicle expenses.

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 it reaches its 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.

Budgets for specific major maintenance works the City has allocated capital for include:

- **$1.8 Million** allocated in Recreation Centre Retrofits;
- **$400 Thousand** allocated in 2024 for Arena Retrofits; and,
- **$150 Thousand** allocated in 2024 for Community Halls Retrofits.

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 the recreation assets can achieve the desired level of service.

From **2023-2032** the City will need to invest an estimated **$258M** for various projects across the City, as identified by BCA inspections. Examples of high-cost projects include:

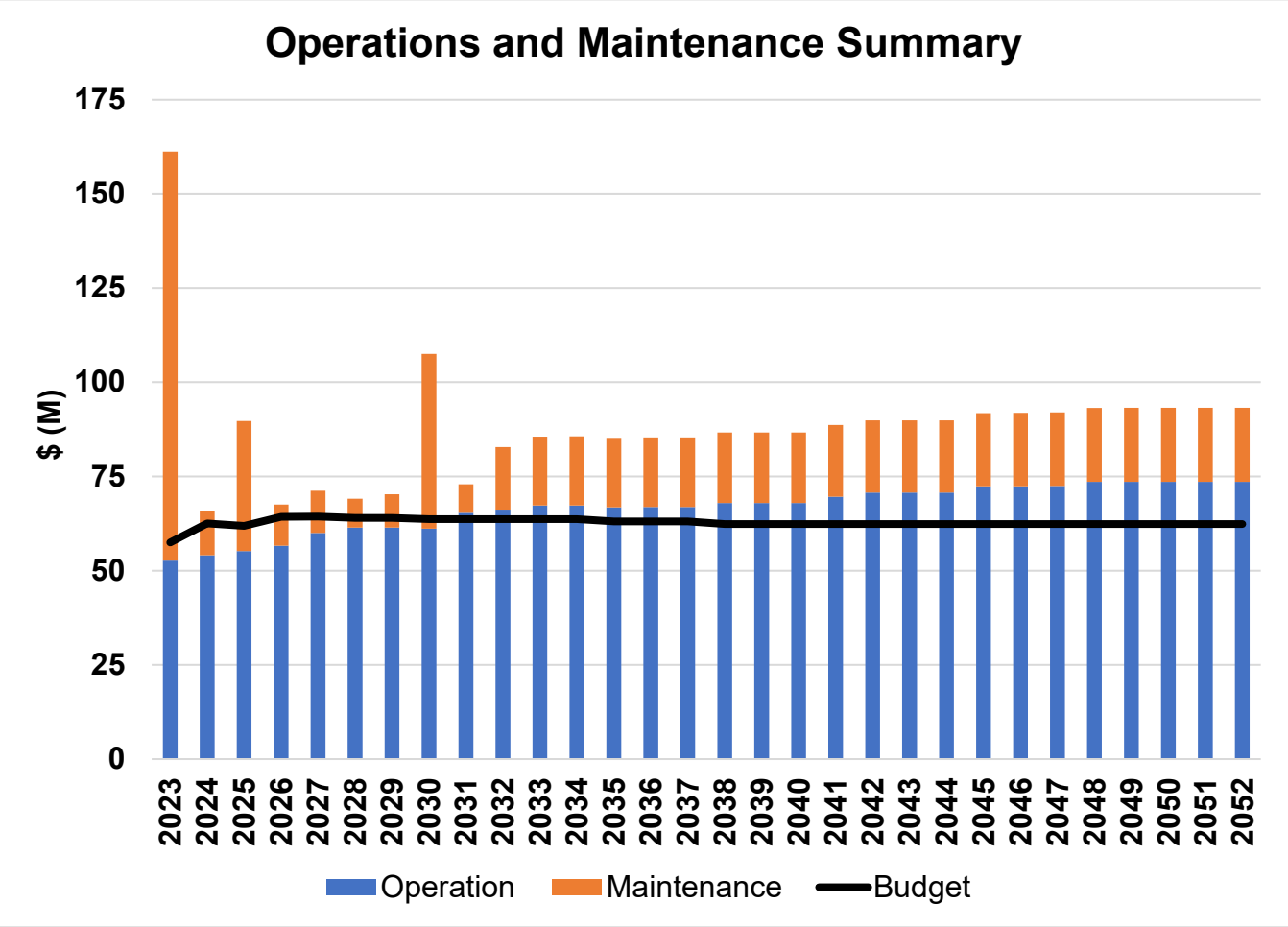
- **$1.5 Million** for a full parking lot replacement;
- **$2.2 Million** for a full parking lot replacement; and,
- **$1.3 Million** for a full flat roof replacement.

These investments for maintenance are intended to allow these assts to reach their estimated service life and minimize reactive maintenance costs. As outlined in **Section 5**, an increased demand is anticipated for improved barrier-free accessibility in recreation facilities, which require additional funding to execute. Additionally, provided future energy efficiency goals established for facilities in the Pathway to Net Zero for Corporate Buildings report[19], further costs are anticipated for updates to increase energy efficiency and electrification of building systems.

Deferred maintenance (i.e. works that are identified for maintenance activities but unable to be completed due to available resources) will be included in the infrastructure risk management plan in future iterations once those works have been identified and prioritized.

[19] (City of Hamilton, Pathway to Net Zero for Corporate Buildings, 2023)

Figure 16: Operations and Maintenance Summary
All Figure Values Are Shown In 2023 Dollars



As seen in **Figure 16** above, there is a significant backlog of maintenance work identified in year 2023, totaling approximately $108M dollars. Over the planning term it is evident that both the operations and maintenance costs will increase with the construction of new facilities to meet demand, compounded by the increased costs required to maintain an aging number of facilities in their existing portfolio. This maintenance funding deficit is more closely analyzed in **Section 9.1**. If underfunding of these facilities continues, the Recreation division is at risk of service levels declining over time. This is in part due to the ownership of a number of underutilized facilities which are in disrepair, which have become financial liabilities due to reactive maintenance costs. Continued utilization of funds for these underused facilities imposes strain on the budgets available to the group and is discussed with more detail in **Section 8.4**. Incorporating more of these whole life costs into the lifecycle model has been noted as a continuous improvement item in **Section 10.2**.

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 asset's 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 24** 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 2022 however they will be reviewed annually until their accuracy reflects the City's current practices.

Table 24: Useful Lives of Assets

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)
Facilities	50-75
Heritage Facilities	150
Vehicles	10
IT Hardware	4-5
Equipment	5-30

Regarding facility assets, it's crucial to highlight that ESLs indicate the projected lifespan, signaling when assets should be reassessed for the most cost-effective solution moving forward. A thorough evaluation of each facility's current usage, maintenance backlog, and upcoming capital requirements is essential in determining the financial impact of either renewing a facility completely or extending its lifespan. As ongoing costs in annual operations and maintenance are potentially elevated in facilities beyond their ESL, these sustained costs of ownership may become financially inefficient over time. More financial analysis on determining the cost optimal "break-even" point for these facilities is necessary to establish a fiscally advantageous outcome.

Additionally, it's important to highlight that Recreation's asset portfolio comprises numerous facilities with significant foot traffic and those which include indoor pools and ice rinks with high humidity environments. These characteristics can accelerate wear and tear on building components, potentially shortening the expected lifespan of the facilities.

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).[20]

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

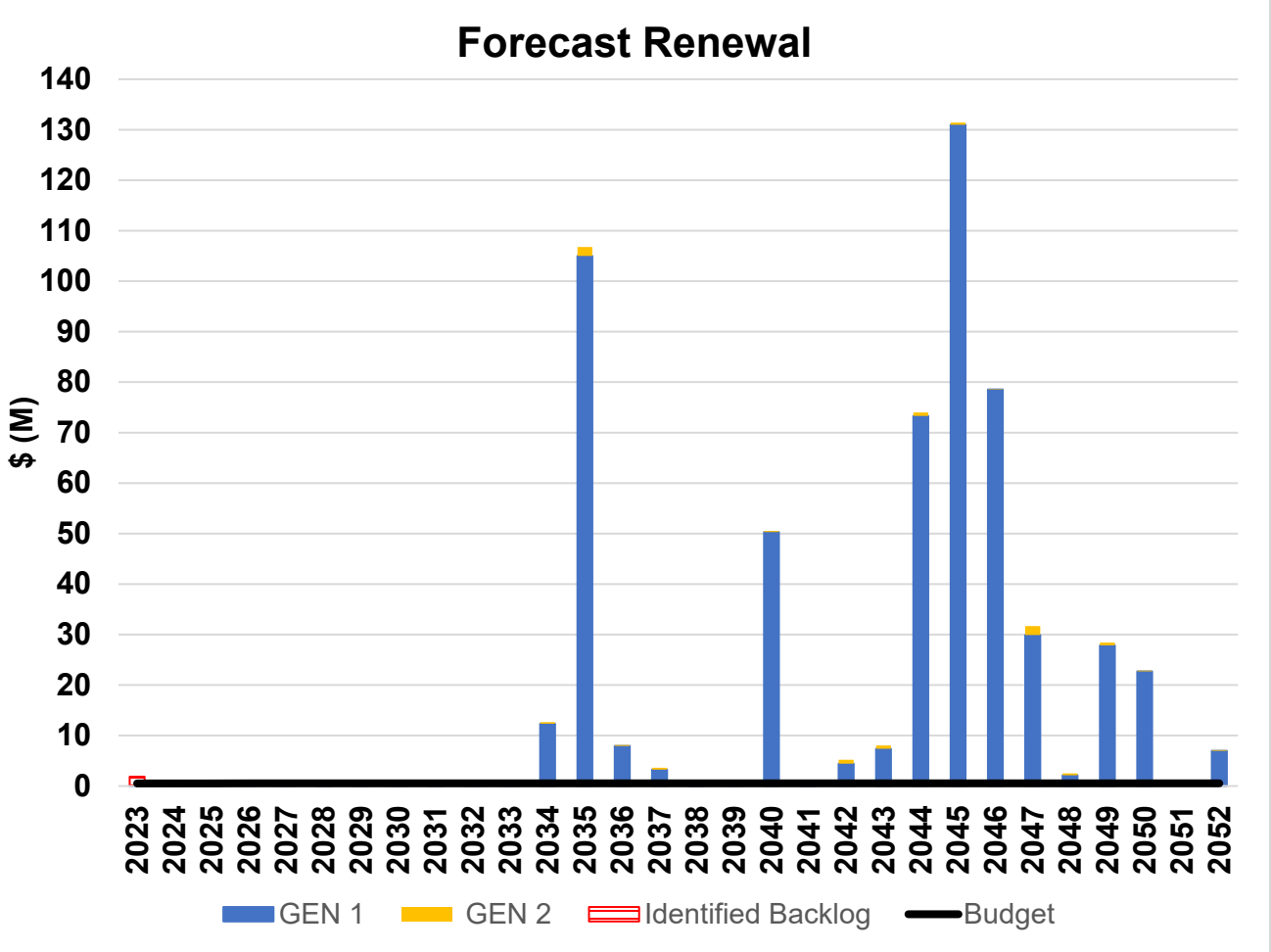
- Have a high consequence of failure;
- Have high use and the subsequent impact on users would be significant;
- Have higher than expected operational or maintenance costs; and,
- Have the potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[21]

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 17**.

[20] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[21] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

Figure 17: Forecast Renewal
All figure values are shown in 2023 dollars.



Currently, there is mostly sufficient funding to accomplish all the renewals that are planned over the next 10 years, which primarily consists of IT hardware, equipment, and vehicles. However, it is important to note that over the next ten years, the Recreation division has not identified any facilities for renewal. Instead, they are proposing to maintain their current building portfolio and manage the backlog of maintenance projects. It is important to note that there are currently many recreational facilities that are approaching or beyond their ESLs which were not included in this forecast. They were not included because Recreation does not plan to renew them due to their current underuse, which would not be financially efficient, but opting to continue to operate these buildings may result in increased reactive maintenance costs as mentioned in **Section 8.2**. Some of these facilities have been identified for disposal, but barriers to their closure persist, as highlighted in **Section 8.4**.

Also included in these assets which have had their renewal year extended beyond their ESL, are a number of golf facilities, which require remediation to continue operating as useful assets. These facilities are currently under review to determine a strategic plan, but at this time have not

been included as either renewals or disposals within the lifecycle models since a concrete plan of action has not yet been established.

Furthermore, it should be noted that the development of a more accurate and site-specific BCA has been identified as a continuous improvement item in **Section 10.2**. This improvement item is pertinent to the decision-making process for these golf course assets as the current BCA data lacks comprehensiveness in quantifying costs associated with significant site-specific systems such as irrigation and site services and therefore these costs were not able to be encompassed in this analysis. Since these in-ground systems are currently approaching the end of their ESL, these systems may require significant investment and will require a more robust assessment following this plan. Ensuring that costs such as these are incorporated into BCA data outputs are crucial to making informed decisions and achieving more financially sound outcomes.

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 25**. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposal of the assets are also outlined in **Table 25**. Costs related to the disposal of these facilities are integrated into the lifecycle models using costs to demolish per square foot of building area for a similar building typology, provided internally by the facilities management division. These costs are considered low-medium data confidence as they do not consider any potential unique site conditions (e.g., environmental remediation). Savings in annual operations and maintenance costs projected for these facilities have been incorporated into the lifecycle models.

Table 25: Assets Identified for Disposal

ASSET	REASON FOR DISPOSAL	TIMING	DISPOSAL COSTS	OPERATIONS and MAINTENANCE ANNUAL SAVINGS (BUDGETED)
Stoney Creek Arena	Align supply with demand and realize cost efficiencies	Short-term and Ongoing	$1,272,510	$348,787
Eastwood Arena	Align supply with demand and realize cost efficiencies	Short-term and Ongoing	$1,184,535	$288,764
Saltfleet Arena	Align supply with demand and realize cost efficiencies	Short-term and Ongoing	$1,124,100	$341,595

ASSET	REASON FOR DISPOSAL	TIMING	DISPOSAL COSTS	OPERATIONS and MAINTENANCE ANNUAL SAVINGS (BUDGETED)
Glanbrook Arena and Auditorium	Site services are at the end of life.	Short-term and Ongoing	$1,852,335	$581,372
Hill Park Recreation Centre	Realize cost efficiencies.	Short-term and Ongoing	$750,825	$697,162

The Stoney Creek Arena, Eastwood Arena, and Saltfleet Arena facilities have all been noted within the ***Recreation Master Plan*** as assets which have the opportunity to be disposed in order to calibrate the supply more closely with demand for the area, in line with the identified acquisitions. Asset owners have noted that the utility services supplying Glanbrook Arena and Auditorium are at the end of their lifespan and require replacement, therefore the building has been identified for consideration to dispose of. Hill Park Recreation Centre is noted to be in poor condition and has been identified as an underutilized facility. If disposed of, it is expected to have minimal service impacts. Being one of several assets connected to school facilities, further review is needed for this, and all joint Hamilton Wentworth District School Board sites included in the recreation portfolio.

Table 26: Heritage Facilities

HERITAGE FACILITY	ORIGINAL YEAR OF CONSTRUCTION
Greensville Community Hall	1875
Woodburn / Centennial Hall	1898
Binbrook Memorial Hall	1920
Waterdown Memorial Hall	1922
Jimmy Thompson Memorial Pool	1930
Dundas Lions Memorial Community Centre	1874
Beverly Township Hall (Rockton Hall)	1854

Facilities recognized with heritage status within the Recreation portfolio are listed in **Table 26** above. Consequently, these facilities, even if they surpass their ESL, are not factored into disposal costs within the lifecycle model. Instead, they will continue to be maintained on an ongoing basis until further notice.

As previously mentioned in **Section 8.2**, a number of facilities beyond their ESL have been identified (See **Table 27** below), which are not currently included as part of the renewal or disposal forecasts. Consequently, their maintenance and operations will continue as usual through the 30-year planning term. Although not quantified at this time, it is expected that the ongoing maintenance and operations for these buildings which are beyond their ESL will result in increased reactive costs that may strain the overall budgets allocated for the recreation facilities portfolio.

Table 27: Facilities Beyond ESL

ASSET TYPE	FACILITY NAME
Recreation Facility	Sealy Park Scout Hall
	Sheffield Community Hall
	Central Memorial Recreation Centre[22]
	Lynden Lions Club
	Carlisle Memorial Hall
	Rosedale Lawn Bowling - Clubhouse
	Mountsberg Hall
	Dundas Driving Park - Lawn Bowling Clubhouse
	Dundas Driving Park - Tennis Clubhouse
	Powell Park Wading Pool
	Ancaster Seniors Achievement Centre[22]
	Optimist Youth Centre
	Valens Community Hall
	Winona Community Centre
	Eastmount Community Centre[22]
	Fruitland Community Centre
	Mount Hope Community Youth Centre
	The Optimist Club of Stoney Creek

[22]While in active use and have seen updates, these facilities still require review for a long-term strategy.

Of these buildings, the most common are noted to be community halls and sports clubhouses, which are generally reported as underutilized facilities. Generally, these assets are in declining repair and will require reinvestment to remain as functional assets for use over the long term. Additionally, while these facilities all remain building code compliant, there are anticipated demands to adapt these buildings to achieve greater barrier-free accessibility. It has been noted as a continuous improvement item in **Section 10.2** to incorporate more robust accessibility criteria into the building condition assessment methodology, to better quantify these costs.

Looking ahead, the possibility of disposing of underutilized halls exists, especially if substantial capital upgrades are needed and their functions can be absorbed by nearby facilities. Challenges do exist regarding their closure, as many of these facilities lack properly documented real estate contracts, complicating their exit strategy. It should be made clear that the facilities listed in **Table 27** above are not necessarily slated for disposal. Instead, they have been flagged here to ensure they receive a more detailed evaluation. Further review into the most cost-effective management of these facilities has been noted by a continuous improvement item in **Section 10.2.**

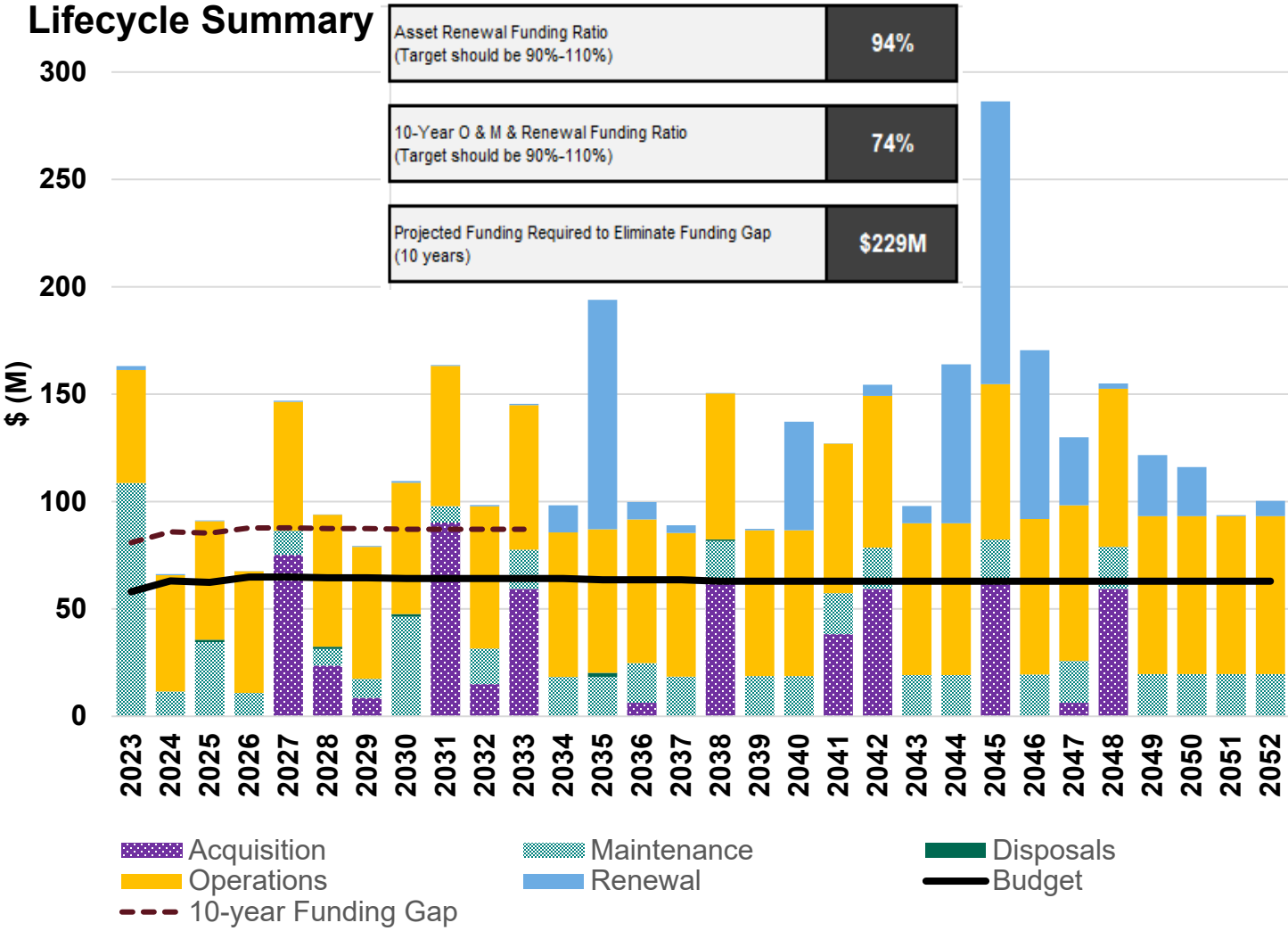
8.5 LIFECYCLE COST SUMMARY

The financial projections from this asset management plan are shown in **Figure 18.** 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 a balance between costs, levels of service and risk to achieve the best value outcome.

RECREATION
2024 ASSET MANAGEMENT PLAN

Figure 18: Recreation Lifecycle Cost Summary



The figure above indicates that there is underfunding over the 10-year planning period to address lifecycle needs. A large gap has been identified in the maintenance backlog, totaling over $108M in needs that require addressing. These include major projects such as roof and parking lot replacements. As previously mentioned, there is also an inventory of facility assets which have had their ESLs extended which are consequently not captured within the renewals costs within this figure, which primarily consist of sport clubhouses, golf, and community hall facilities. More investigation into the outcome of these facilities is required to determine a cost-optimal solution. In general, there appears to be mostly sufficient funding provided for operations, though these needs will increase over time as facilities are acquired.

It is important to note that this forecast does not include additional anticipated lifecycle activities for other demands or risks discussed in **Section 5** and **Section 6** which will be quantified in future AM Plans.

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 its Recreation network provides 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 network 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 for its Recreation network; 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).

An additional financial indicator has been included to highlight funding concerns specific to maintenance requirements over the first 10 years of the planning period:

- 10-Year Maintenance Financial Ratio (proposed maintenance budget for the next 10 years/backlog and forecasted maintenance costs for the next 10 years).

ASSET RENEWAL FUNDING RATIO

Asset Renewal Funding Ratio[23] **94%**

[23] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

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 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.

For the recreation division, the assets captured within this calculation are comprised of IT hardware, vehicles, and equipment. It is important to highlight that there is also an inventory of facility assets which have had their ESLs extended outside of the 10-year planning term, which are consequently not captured within the Asset Renewal Funding Ratio (ARFR). The inclusion of these facilities would significantly impact the ARFR value and therefore require more investigation to determine the best course of action.

If assets are not renewed at 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 O&M and Renewal Ratio 74%

Although this AM Plan includes forecast projections to 30 years, the higher confidence numbers are typically within the first ten years of the lifecycle forecast. The 10-year O&M and Renewal 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' risk and service level commitments.

The forecast operations, maintenance and renewal costs over the 10-year planning period is **$86.4M** 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 **$63.5M** on average per year giving a 10-year funding shortfall of **$22.9M** per year or **$229M** over the 10-year planning period. This funding shortfall is largely driven by

maintenance works required, which is expressed in the 10-Year Maintenance Financial Ratio. This indicates that **74%** of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget, which is outside of the 90-110% range. Therefore, it can be concluded that Recreation is able to fund its assets, albeit at a level below optimal.

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.

10-Year Maintenance Financial Ratio 29%

As the Recreation division is responsible for a large number of facilities with complex building systems that require high annual maintenance costs, an additional financial metric was included to give visibility to the current financial stressors imposed on the group. This 10-year Maintenance Financial Ratio focuses specifically on budgets allocated for facility maintenance projects compared against the existing backlog and future needs identified for Recreation facilities through the BCA inspections completed by third-party consultants.

It was found that the total forecasted maintenance costs over the 10-year planning period is **$258M,** which includes an outstanding backlog of work of approximately **$108M**. The proposed (budget) maintenance funding is currently **$7.6M** on average per year. This comprises both capital "block" funding established, in addition to the cumulative maintenance budgets allocated for each facility within the Recreation portfolio. The averaged maintenance forecast of **$26M** per year gives a 10-year funding shortfall of **$18.4M** per year or **$184M** over the 10-year planning period. It should be noted that this annual funding shortfall is not separate from the shortfall identified in the 10-Year O&M and Renewal Ratio value but instead comprises a large component of it. This indicates that **29%** of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget, which is outside of the 90-110% range. Therefore, it can be concluded that Recreation is unable to fund maintenance work on their assets at an acceptable rate provided the current budget.

In conclusion, while the Asset Renewal Funding Ratio and the 10-year O&M and Renewal Ratio (94% and 74%, respectively) may suggest that the Recreation division is in a financially stable position, it is apparent from the 10-year Maintenance Financial Ratio that there are funding concerns with the potential to affect future service levels. Given the existing backlog of maintenance works that need addressing, coupled with the increasing number of facilities being constructed which will impose additional financial strain, there is a need for further investigation into how best to balance funding for these assets while meeting the needs of the communities they serve.

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

Table 28 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 28: Forecast Costs (Outlays) For the Long-Term Financial Plan

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2023	$-	$52,650,776	$108,603,120	$1,847,120	$-
2024	$-	$54,109,532	$11,581,964	$538,017	$-
2025	$-	$55,185,832	$34,524,324	$292,432	$1,184,535
2026	$-	$56,626,932	$10,921,171	$99,343	$-
2027	$75,205,504	$60,000,772	$11,224,513	$502,329	$-

RECREATION
2024 ASSET MANAGEMENT PLAN

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2028	$23,675,000	$61,418,292	$7,650,709	$156,741	$1,124,100
2029	$8,650,000	$61,418,292	$8,844,395	$420,947	$-
2030	$-	$61,141,812	$46,345,820	$789,502	$1,272,510
2031	$90,256,200	$65,359,116	$7,578,405	$400,773	$-
2032	$15,000,000	$66,202,584	$16,590,348	$596,399	$-
2033	$59,354,108	$67,291,664	$18,266,300	$560,671	$-
2034	$-	$67,291,664	$18,328,112	$12,645,209	$-
2035	$-	$66,812,752	$18,419,270	$106,874,840	$1,852,335
2036	$6,310,851	$66,903,056	$18,439,386	$8,122,295	$-
2037	$-	$66,903,060	$18,442,800	$3,605,454	$-
2038	$62,917,132	$67,934,344	$18,730,680	$189,241	$750,825
2039	$-	$67,934,352	$18,730,680	$659,447	$-
2040	$-	$67,934,352	$18,730,680	$50,535,960	$-
2041	$38,300,000	$69,621,272	$19,018,558	$146,273	$-
2042	$59,354,108	$70,710,360	$19,175,568	$5,193,181	$-
2043	$-	$70,710,360	$19,175,568	$8,043,749	$-
2044	$-	$70,710,360	$19,175,568	$74,003,664	$-
2045	$62,917,132	$72,397,288	$19,372,290	$131,673,232	$-
2046	$-	$72,397,288	$19,463,448	$78,635,432	$-
2047	$6,310,851	$72,487,592	$19,483,564	$31,685,248	$-
2048	$59,354,108	$73,576,672	$19,582,176	$2,498,681	$-
2049	$-	$73,576,672	$19,643,988	$28,413,368	$-
2050	$-	$73,576,672	$19,643,988	$22,880,330	$-
2051	$-	$73,576,672	$19,643,988	$428,773	$-

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2052	$-	$73,576,672	$19,643,988	$7,127,053	$-

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.

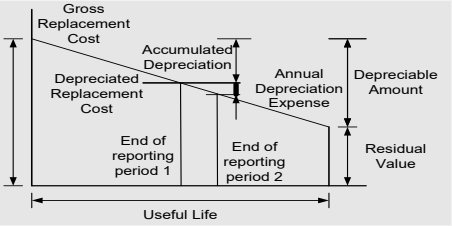
9.4 VALUATION FORECASTS

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

Replacement Cost (Current/Gross)	**$1,524,756,543**
Depreciable Amount	**$1,393,593,048**
Depreciated Replacement Cost[24]	**$800,739,904**
Depreciation	**$22,959,911**



[24] Also reported as Written Down Value, Carrying or Net Book Value.

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-Medium** confidence level.

Table 29: Data Confidence Assessment for Data Used in AM Plan

DATA	CONFIDENCE ASSESSMENT	COMMENT
Demand Drivers	Low	Facility acquisition costs are based on the estimates from the Recreation Master Plan and 2024 Development Charges Background Study. Additional demand costs are not encompassed.
Growth Projections	Medium	Facility acquisition costs are based on estimates from the Recreation Master Plan and 2024 Development Charges Background Study. Additional growth costs are not encompassed.
Acquisition Forecast	Medium	Facility costs and recommendations were based on the estimates from the Recreation Master Plan and 2024 Development Charges Background Study. Additional acquisition costs are not encompassed.

DATA	CONFIDENCE ASSESSMENT	COMMENT
Operation Forecast	Medium	Anticipated operations budgets were provided internally for 2023-2026. Years following are assumed to flatline. Additional operations for constructed facilities were derived from equivalent existing facility operation spendings.
Maintenance Forecast	Low	Maintenance forecasts in this AM Plan are typically based on the results of the Building Condition Assessment which has been updated by the Corporate Facilities and Energy Management division, and are assumed to be a medium confidence. Maintenance needs for constructed facilities were derived from equivalent existing facility maintenance spending.
Renewal Forecast -Asset Value	Low	Renewal market pricing was used which has high confidence, and estimated service lives are typically adhered to for vehicle assets. Many facility renewal costs are currently unconfirmed and unquantified, which has lowered this confidence.
Asset Useful Life	Medium	Estimated service lives are typically adhered to for vehicle, equipment, and technology assets, but facilities ESLs were less confident.
Condition Modelling	Medium	Equipment condition was included based on internal condition scoring, which was incomplete. Technology and fleet assets are based on RSL, which is considered low confidence. Facility condition scores (FCI) are generally considered to be high.
Disposal forecast	Low	Timelines for facility disposal were provided by the Recreation Master Plan, but costs are general square footage estimates provided internally.

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;
- 2023-2026 Multi-Year Operating Forecast;
- 2023 Approved Capital Budget;
- 2024-2032 Multi-Year Capital Forecast;
- 2024 Development Charges Background Study;
- 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 and 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 in **Table 30** 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 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.

Table 30: Improvement Plan

#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
1	Quantify costs of demand management and risk adaptation plans.	CAM	Internal Resources	Ongoing
2	Investigate asset costs for future climate change mitigation and adaptation targets	CAM/CFEM/Recreation	Internal Resources/ Consultants	Ongoing
3	Survey rework/improve the volume of engagement	CAM/Recreation	Internal Resources	Ongoing
4	Incorporate more equipment whole-life costs into the LC Model	CAM/CFEM/Recreation	Internal Resources	Ongoing
5	Formally track age and create condition methodologies for equipment and technology assets using an AM 5-point scale	CAM/Recreation/IT	Internal Resources	Ongoing
6	Creating a systemized evaluation criteria to prioritize for investments on asset updates/renewals/etc.	CAM/CFEM/Recreation	Internal Resources/Consultant	2025
7	Transitioning from Asset Planner/ARCHIBUS into Enterprise Asset Management system	CAM/CFEM	Internal Resources	Ongoing
8	Incorporating more robust accessibility criteria into BCAs.	CAM/CFEM	Internal Resources	Ongoing
9	Develop more accurate and site-specific (e.g., ice arena refrigeration systems, golf course irrigation systems, etc.) BCA studies	CAM/Recreation/CFEM	Internal Resources	Ongoing
10	Improved asset inventory tracking and data reporting.	CAM/CFEM/Recreation	Internal Resources	Ongoing

#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
11	Investigate requirements for engineered inspections and estimating costs for golf course bridges	CFEM/Recreation	Internal Resources/Consultant	2025
12	Investigate proposed levels of service discussed in Section 4.3.3.	Recreation/CAM	Internal Resources	2025
13	Determine a cost-effective strategy for facilities beyond their ESL	Recreation/CFEM/CAM	Internal Resources/Consultant	Ongoing

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%).

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RECREATION
2024 ASSET MANAGEMENT PLAN

12. APPENDIX "A- SURVEY ANALYSIS

Hamilton
Corporate Asset Management

Recreation & Golf

Survey Period: November 8th 2023 - December 13, 2023

March 2024

Recreation & Golf

Survey Response Demographics

11/08/2023 to 12/13/2023

134	100	6	9068	804
Respondents	Survey Questions	Demographic Questions	Survey Responses	Demographic Responses

Age	% Pop. by Age	% of Respondents	Respondents
18 to 34	22.1%	14.17%	18
35 to 64	41.7%	59.06%	75
65+	19.5%	26.77%	34

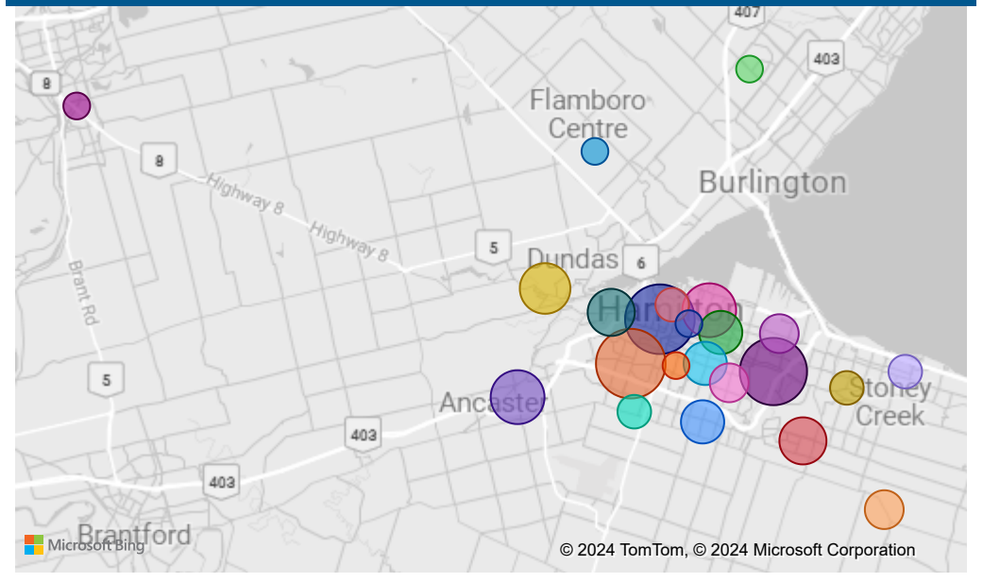
Identity	% of Respondents	Respondents
No	69.40%	93
I would prefer not to answer	13.43%	18
Yes	13.43%	18
Other	3.73%	5

Region	% Pop. by Region	Population	% of Respondents	Respondents
Lower	45.6%	432,375	42.54%	57
Upper	37.3%	353,485	29.10%	39
Rural	17.1%	161,840	2.99%	4

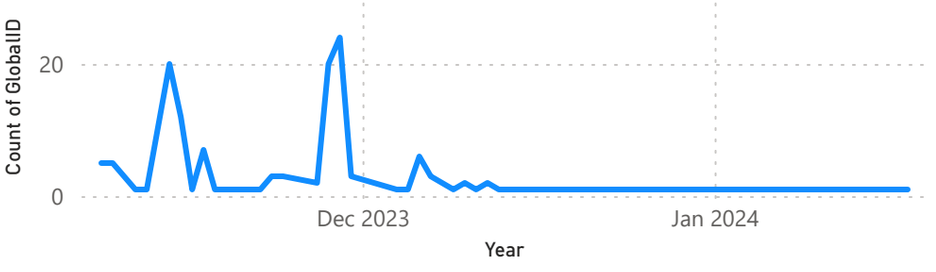
Resident/Working in Hamilton	% of Respondents	Respondents
I live in Hamilton	89.55%	120
I work in Hamilton	50.75%	68
I am retired in Hamilton	25.37%	34
I run a Hamilton-based business	8.21%	11
Other	3.73%	5

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

Respondent Density Map



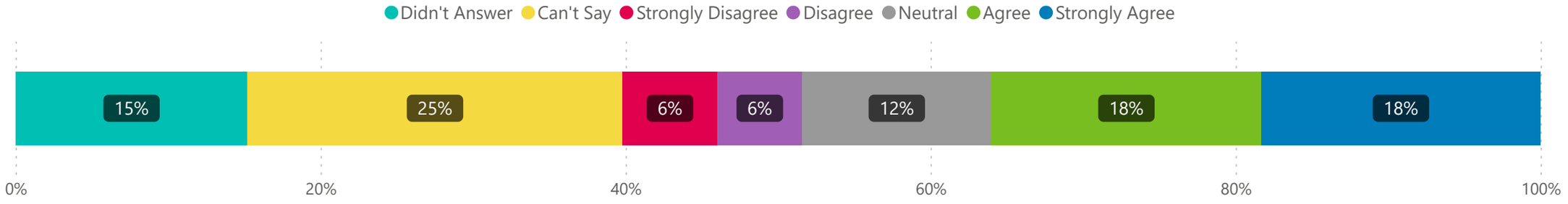
Respondents by Day



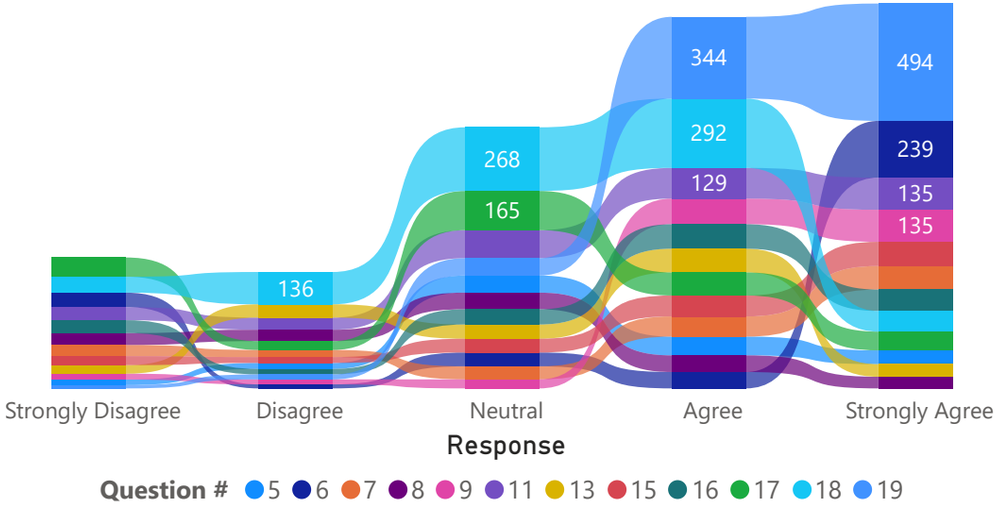
Hamilton

Total Responses	Respondents
7499	134

Summary of Survey Results



Questions	σ	Avg.	Opt Out	Opt Out %
All Questions	**1.29**	**3.60**	**3520**	**39.80%**
Q5 Performance of Services	1.20	3.48	413	61.64%
Q6 Importance of Services	1.43	3.92	226	33.73%
Q7 Satisfaction with Services	1.40	3.50	354	52.84%
Q8 Needs are Being Met	1.34	3.07	383	57.16%
Q9 Comfortability Accessing Services	1.21	3.94	343	51.19%
Q11 Potential Services	1.30	3.49	182	27.16%
Q13 Satisfaction with Program Hours	1.27	3.26	365	54.48%
Q15 Recommendation to Others	1.34	3.61	359	53.58%
Q16 Value for Money	1.38	3.46	336	50.15%
Q17 Tax Rates	1.29	3.12	211	31.49%
Q18 Services Level Rating	1.08	3.23	222	20.71%
Q19 Services Level Expectations	0.83	4.36	126	11.75%



Hamilton

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

Total Responses	Respondents
5324	134

Survey Question Summary

Question #	Survey Question	n (Sample Size)	σ (Consistency)	Margin of Error (Confidence Level ±)
5	How do you feel Recreation & Golf have performed overall in the following services?	51	1.20	14%
6	How important to you are the Recreation and Golf sites and services?	89	1.43	10%
7	How satisfied are you with your ability to access these Recreation and Golf sites and services?	63	1.40	12%
8	Do the following Recreation and Golf sites and services meet your needs?	57	1.34	13%
9	Do you feel comfortable accessing these services provided by Recreation & Golf?	65	1.21	12%
11	Please rate the following potential Recreation and Golf services based on their importance to you:	98	1.30	10%
13	How satisfied are you with the program hours offered for the following services?	61	1.27	13%
15	How likely would you be to recommend the following Recreation and Golf services to others?	62	1.34	12%
16	How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?	67	1.38	12%
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?	92	1.29	10%
18	Do you agree with the following statements? Recreation & Golf buildings are:	170	1.08	8%
19	Do you agree with the following statements? Recreation & Golf buildings should be:	189	0.83	7%

Hamilton

Question
3

Ages of people visting Facilities

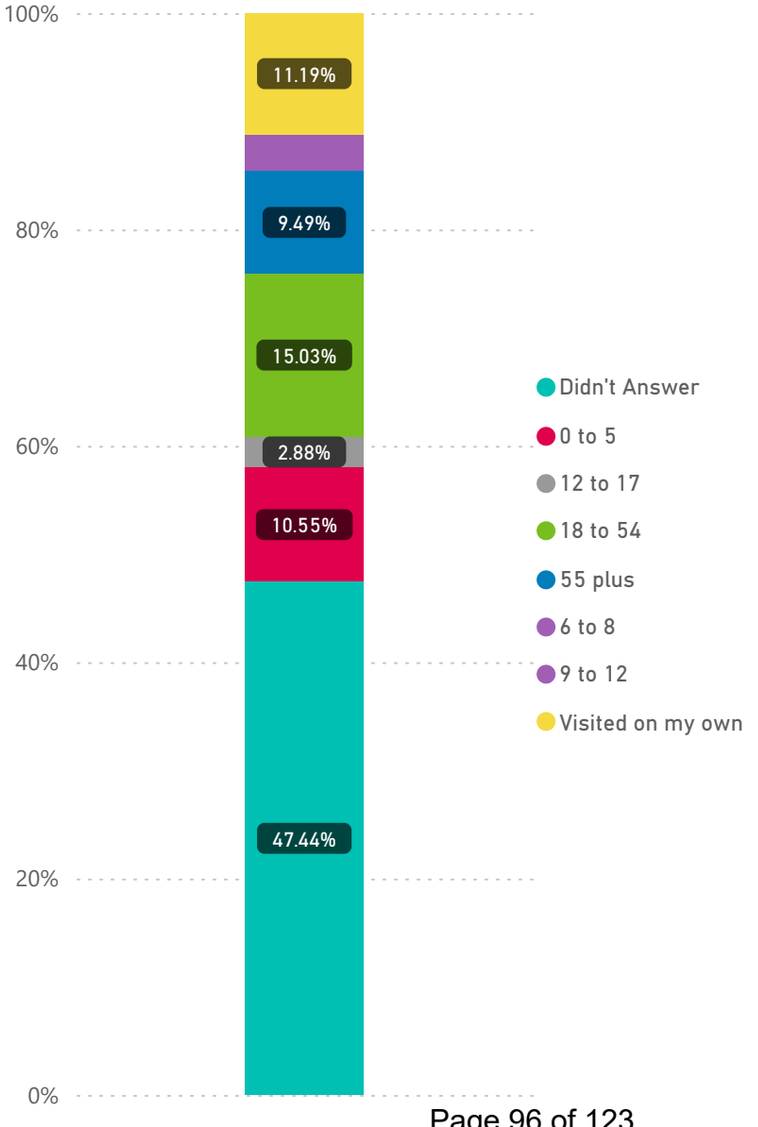
When visiting the following Recreation & Golf facilities, what are the ages of the people who visited with you?

Responses
493

Respondents
128

Service Area	0 to 5	12 to 17	18 to 54	55 plus	6 to 8	9 to 12	Visited on my own
Total	**99**	**27**	**141**	**89**	**26**	**6**	**105**
Arenas	12	8	32	15	3		15
Community Halls	8	1	19	9	2		16
Community Recreation Centres (CRCs)	21	7	20	11	5	1	19
Golf Courses (Chedoke/King's Forest)	4		39	33		1	14
Indoor Pools	20	6	19	5	6	3	22
Outdoor/Wading Pools	25	5	10	3	9	1	7
Senior's Centres	9		2	13	1		12

Service Area	Opt Out	Opt Out %
Total	**938**	**47.4%**
Arenas	134	36.6%
Community Halls	134	59.0%
Community Recreation Centres (CRCs)	134	37.3%
Golf Courses (Chedoke/King's Forest)	134	32.1%
Indoor Pools	134	39.6%
Outdoor/Wading Pools	134	55.2%
Senior's Centres	134	72.4%



Hamilton

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

Question

4

Use of Rec & Golf

In the last 24 months, how many times have you used the following Recreation & Golf services?

Responses

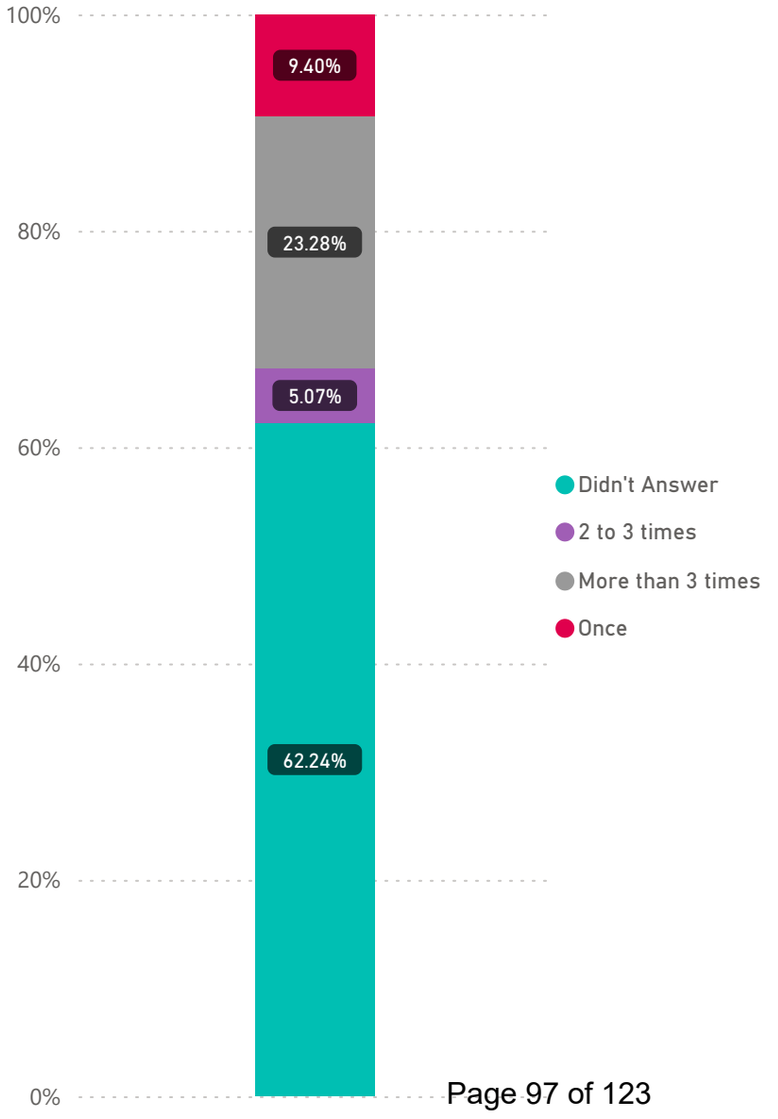
253

Respondents

128

Service Area	2 to 3 times	More than 3 times	Once
Total	**34**	**156**	**63**
Drop-In Gym and Club Programs	5	15	10
Drop-in Swimming	9	41	12
Golf Courses	6	67	16
Registered Gym and Club Programs	5	15	10
Registered Swimming Programs	9	18	15

Service Area	Opt Out	Opt Out %
Total	**670**	**62.2%**
Drop-In Gym and Club Programs	134	77.6%
Drop-in Swimming	134	53.7%
Golf Courses	134	33.6%
Registered Gym and Club Programs	134	77.6%
Registered Swimming Programs	134	68.7%



Hamilton

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

Question

5

Performance of Services

How do you feel Recreation & Golf have performed overall in the following services?

Responses

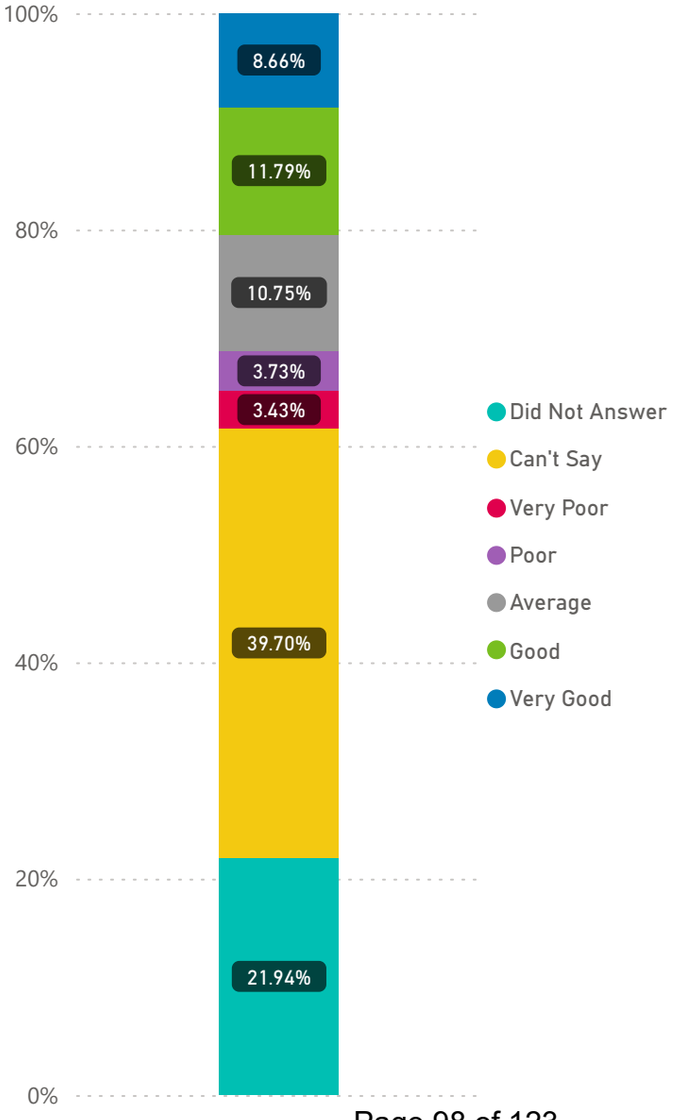
257

Respondents

127

Service Area	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Total	**23**	**25**	**72**	**79**	**58**
Drop-In Gym and Club Programs	2	6	11	5	8
Drop-in Swimming	6	2	21	19	15
Golf Courses	9	12	18	32	12
Registered Gym and Club Programs	3	3	10	5	11
Registered Swimming Programs	3	2	12	18	12

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.20**	**3.48**	**413**	**61.6%**
Drop-In Gym and Club Programs	1.21	3.34	102	76.1%
Drop-in Swimming	1.17	3.56	71	53.0%
Golf Courses	1.20	3.31	51	38.1%
Registered Gym and Club Programs	1.30	3.56	102	76.1%
Registered Swimming Programs	1.09	3.72	87	64.9%



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

Question

6

Importance of Services

How important to you are the Recreation and Golf sites and services?

Responses

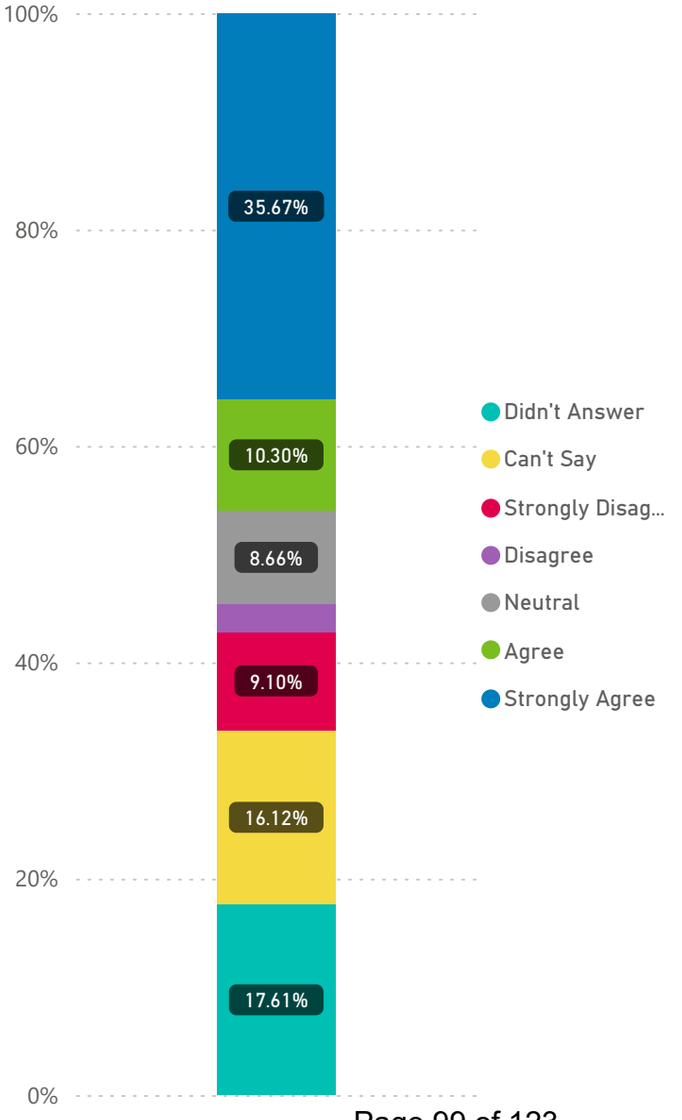
444

Respondents

132

Service Area	Not At All Important	Not That Important	Fairly Important	Important	Very Important
Total	**61**	**17**	**58**	**69**	**239**
Drop-In Gym and Club Programs	6	4	16	16	35
Drop-in Swimming	7	4	6	16	57
Golf Courses	31	4	8	8	67
Registered Gym and Club Programs	5	3	17	19	31
Registered Swimming Programs	12	2	11	10	49

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.43**	**3.92**	**226**	**33.7%**
Drop-in Swimming	1.23	4.24	44	32.8%
Registered Swimming Programs	1.45	3.98	50	37.3%
Drop-In Gym and Club Programs	1.25	3.91	57	42.5%
Registered Gym and Club Programs	1.18	3.91	59	44.0%
Golf Courses	1.73	3.64	16	11.9%



Hamilton

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

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
701

Respondents
134

Service Area	Importance (index score)	Performance (index score)	Net Differential	ValueOptOutAvg
Total	**78**	**70**	**-9**	**48%**
Drop-in Swimming	85	71	-14	43%
Drop-In Gym and Club Programs	78	67	-11	59%
Registered Gym and Club Programs	78	71	-7	60%
Golf Courses	73	66	-7	25%
Registered Swimming Programs	80	74	-5	51%

Performance — *Q5 How do you feel Recreation & Golf have performed overall in the following services?*

Importance — *Q6 How important to you are the Recreation and Golf sites and services?*

Hamilton

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

Question

7

Satisfaction with Services

How satisfied are you with your ability to access these Recreation and Golf sites and services?

Responses

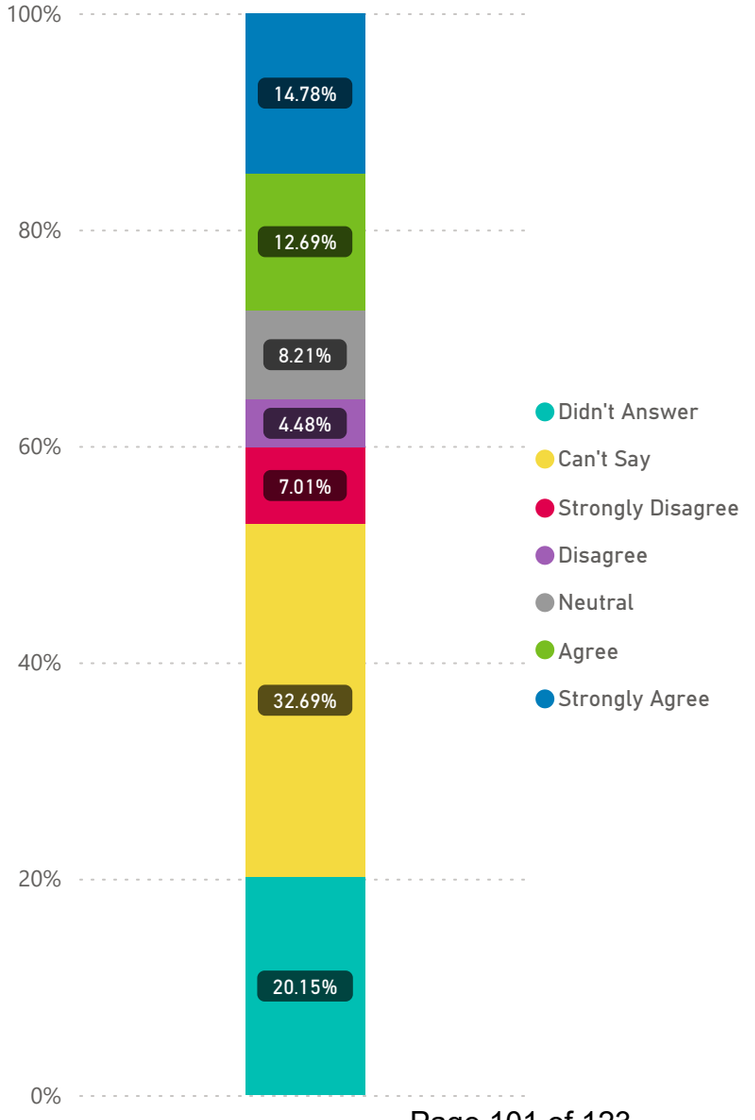
316

Respondents

130

Service Area	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Total	**47**	**30**	**55**	**85**	**99**
Drop-In Gym and Club Programs	9	5	11	6	15
Drop-in Swimming	11	6	19	19	22
Golf Courses	9	10	6	34	33
Registered Gym and Club Programs	8	5	6	11	11
Registered Swimming Programs	10	4	13	15	18

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.40**	**3.50**	**354**	**52.8%**
Drop-In Gym and Club Programs	1.50	3.28	88	65.7%
Drop-in Swimming	1.35	3.45	57	42.5%
Golf Courses	1.30	3.78	42	31.3%
Registered Gym and Club Programs	1.47	3.29	93	69.4%
Registered Swimming Programs	1.41	3.45	74	55.2%



Hamilton

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

Question

8

Needs are Being Met

Do the following Recreation and Golf sites and services meet your needs?

Responses

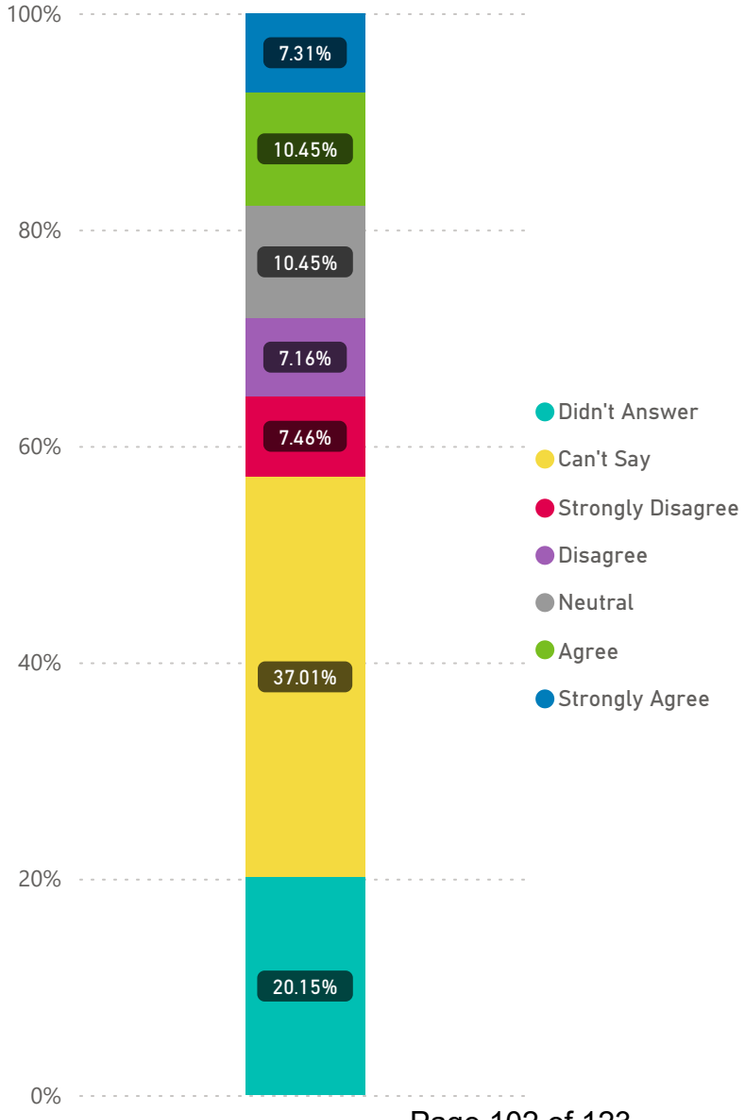
287

Respondents

129

Service Area	Does Not Meet	Meets Some	Meets Some	Exceeds	Far Exceeds
Total	**50**	**48**	**70**	**70**	**49**
Drop-In Gym and Club Programs	10	5	10	8	6
Drop-in Swimming	9	11	18	18	13
Golf Courses	13	18	25	24	14
Registered Gym and Club Programs	10	6	7	8	5
Registered Swimming Programs	8	8	10	12	11

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.34**	**3.07**	**383**	**57.2%**
Drop-In Gym and Club Programs	1.40	2.87	95	70.9%
Drop-in Swimming	1.28	3.22	65	48.5%
Golf Courses	1.26	3.09	40	29.9%
Registered Gym and Club Programs	1.42	2.78	98	73.1%
Registered Swimming Programs	1.38	3.20	85	63.4%



Hamilton

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

Question

9

Responses

327

Respondents

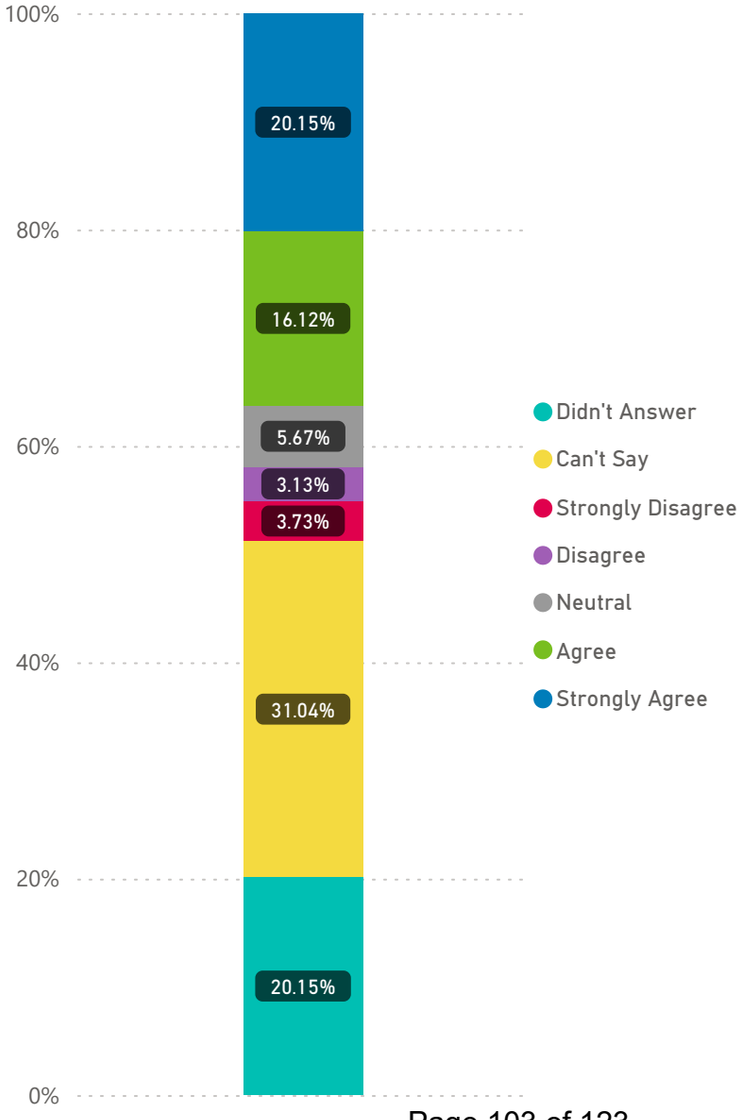
130

Comfortability Accessing Services

Do you feel comfortable accessing these services provided by Recreation & Golf?

Service Area	Very Uncomfortable	Uncomfortable	Neither	Comfortable	Very Comfortable
Total	**25**	**21**	**38**	**108**	**135**
Drop-In Gym and Club Programs	4	5	8	16	17
Drop-in Swimming	3	3	10	27	33
Golf Courses	11	3	6	33	41
Registered Gym and Club Programs	3	3	8	16	18
Registered Swimming Programs	4	7	6	16	26

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.21**	**3.94**	**343**	**51.2%**
Drop-In Gym and Club Programs	1.25	3.74	84	62.7%
Drop-in Swimming	1.03	4.11	58	43.3%
Golf Courses	1.30	3.96	40	29.9%
Registered Gym and Club Programs	1.16	3.90	86	64.2%
Registered Swimming Programs	1.27	3.90	75	56.0%



Hamilton

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

Question
10

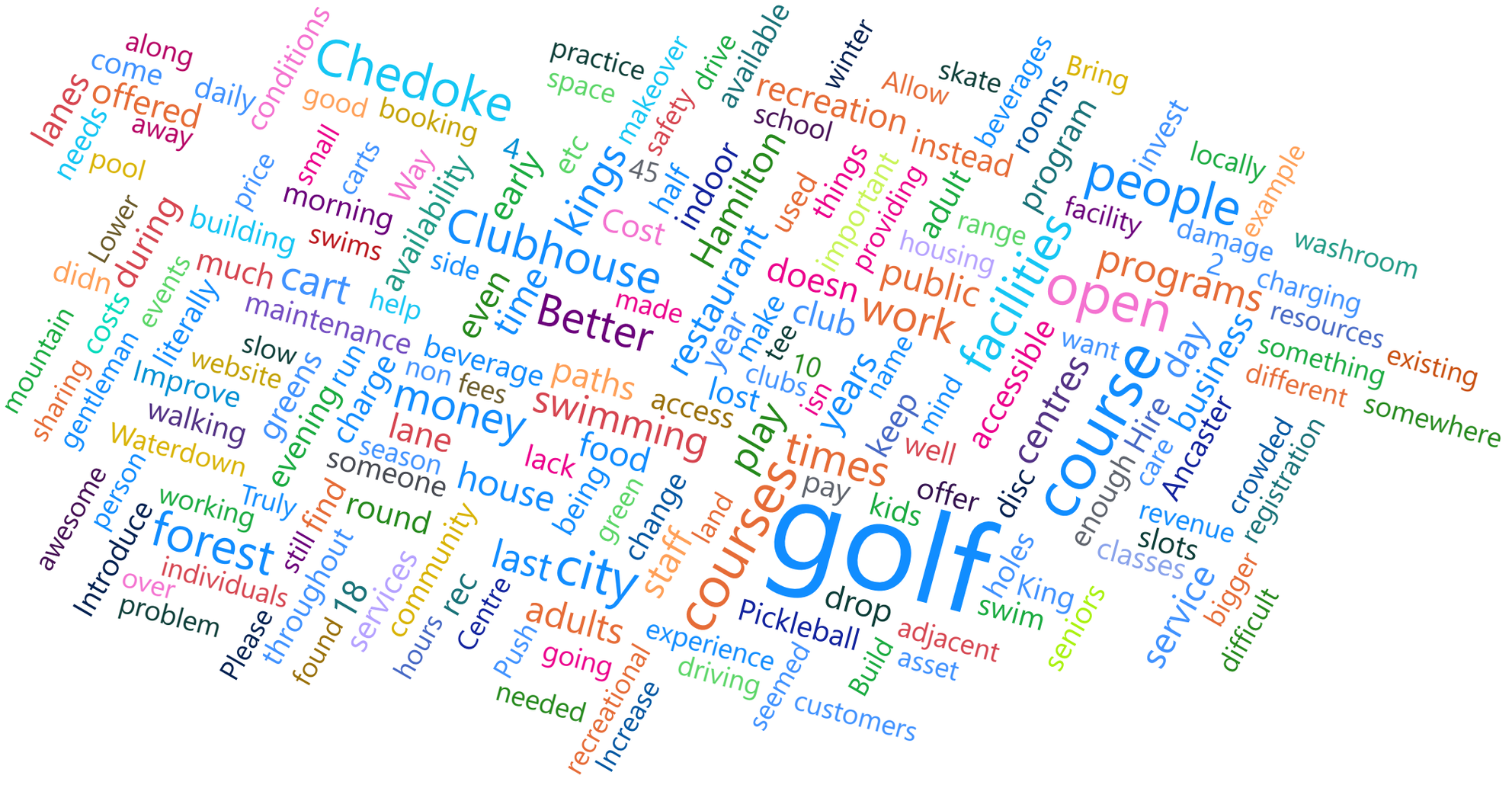
Models of Service Delivery

How can Recreation & Golf change the sites and services to improve how comfortable you feel?

Responses
73

Respondents
73

Open Text Responses



Question
11

Responses
488

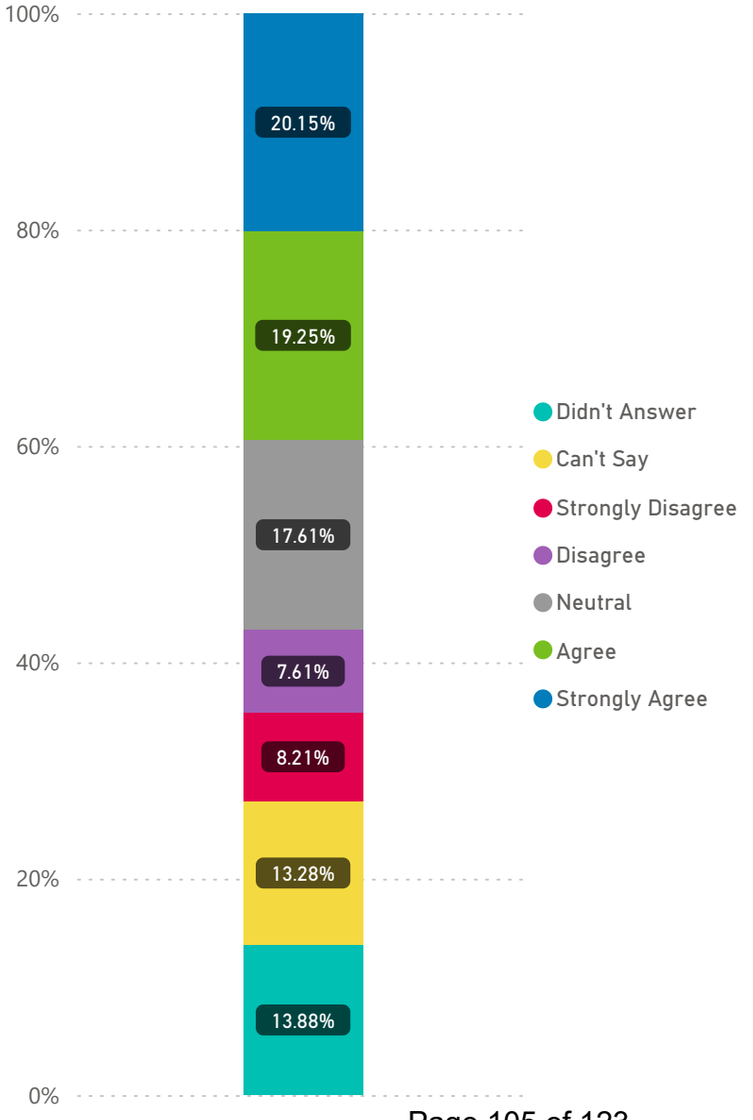
Respondents
109

Potential Services

Please rate the following potential Recreation and Golf services based on their importance to you:

Service Area	Not At All Important	Not That Important	Fairly Important	Important	Very Important
Total	**55**	**51**	**118**	**129**	**135**
Modernize existing / develop new arenas	18	12	22	24	24
Modernize existing / develop new community halls	17	13	25	24	16
Modernize existing / develop new Community Recreation Centres (CRC's)	5	6	24	31	36
Modernize existing / develop new indoor pools	6	6	22	30	33
Modernize existing / develop new outdoor pools	9	14	25	20	26

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.30**	**3.49**	**182**	**27.2%**
Modernize existing / develop new arenas	1.41	3.24	34	25.4%
Modernize existing / develop new community halls	1.33	3.09	39	29.1%
Modernize existing / develop new Community Recreation Centres (CRC's)	1.11	3.85	32	23.9%
Modernize existing / develop new indoor pools	1.15	3.80	37	27.6%
Modernize existing / develop new outdoor pools	1.29	3.43	40	29.9%



Hamilton

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

Question
12

Responses
290

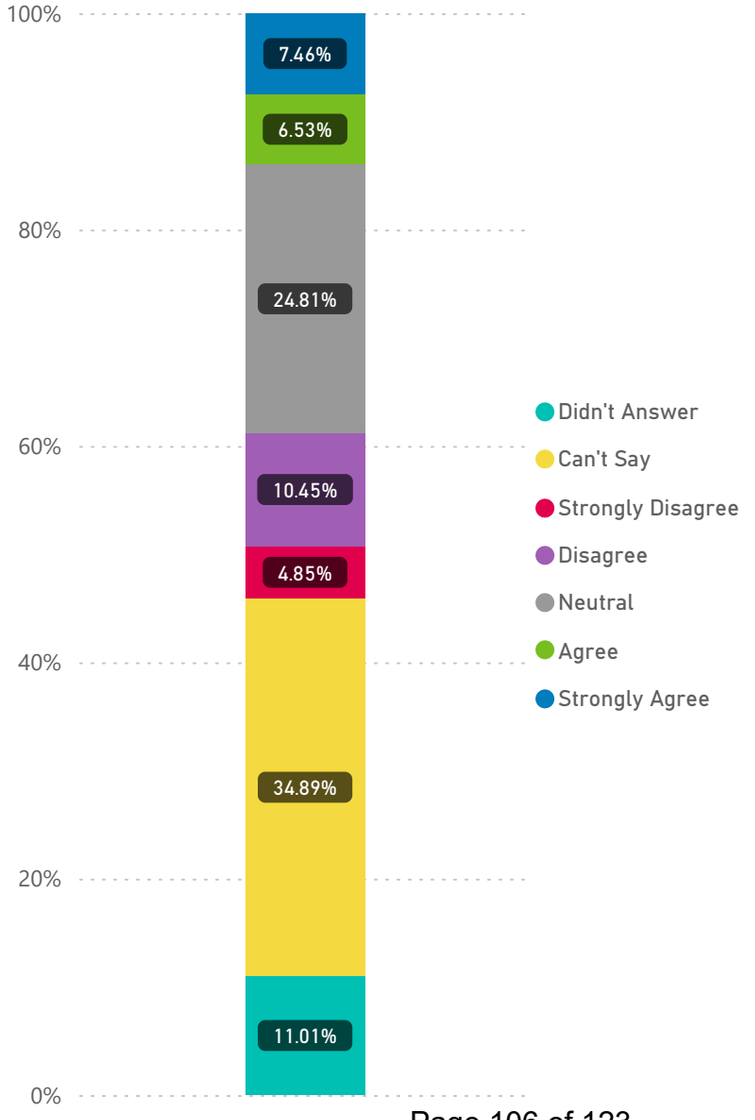
Respondents
85

Recommendation of Services

Do the following service targets established in the Recreation Master Plan meet your needs?

Service Area	Does Not Meet	Meets Some	Meets Some	Exceeds	Far Exceeds
Total	**26**	**56**	**133**	**35**	**40**
Having a Community Recreation Centre (CRC) ratio of 1 facility per 27,500 residents	6	14	35	14	4
Having an arena ratio of 1 facility per 23,360 residents	7	11	33	4	13
Having an indoor pool ratio of 1 facility per 30,000 residents	8	17	35	7	8
Having an outdoor pool ratio of 1 facility per 10,000 residents	5	14	30	10	15

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.11**	**3.02**	**246**	**45.9%**
Having a Community Recreation Centre (CRC) ratio of 1 facility per 27,500 residents	0.96	2.95	61	45.5%
Having an arena ratio of 1 facility per 23,360 residents	1.18	3.07	66	49.3%
Having an indoor pool ratio of 1 facility per 30,000 residents	1.07	2.87	59	44.0%
Having an outdoor pool ratio of 1 facility per 10,000 residents	1.17	3.22	60	44.8%



Hamilton

NOTE: There was an error which duplicated question service areas. Users inputted similar results for the same question as shown above. Respondents who did not answer or selected 'Can't Say' are included in optout.

Question
13

Responses
305

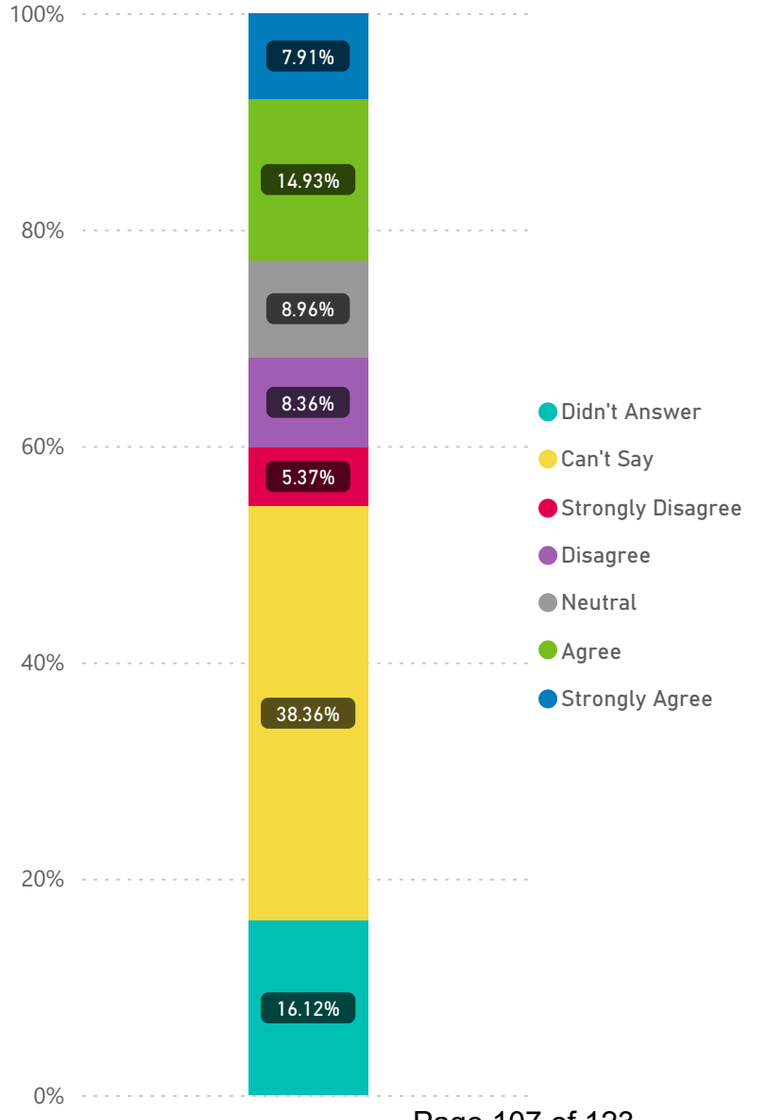
Respondents
127

Satisfaction with Program Hours

How satisfied are you with the program hours offered for the following services?

Service Area	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Total	**36**	**56**	**60**	**100**	**53**
Drop-In Gym and Club Programs	7	10	12	13	7
Drop-in Swimming	11	15	15	22	10
Golf Courses	8	9	12	34	24
Registered Gym and Club Programs	6	11	12	11	5
Registered Swimming Programs	4	11	9	20	7

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.27**	**3.26**	**365**	**54.5%**
Drop-In Gym and Club Programs	1.27	3.06	85	63.4%
Drop-in Swimming	1.29	3.07	61	45.5%
Golf Courses	1.24	3.66	47	35.1%
Registered Gym and Club Programs	1.21	2.96	89	66.4%
Registered Swimming Programs	1.18	3.29	83	61.9%



Hamilton

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

Question
14

Models of Service Delivery

What are the biggest changes that Recreation & Golf could implement to meet your future needs?

Responses
84

Respondents
84

Open Text Responses

Hamilton

Question
15

Responses
311

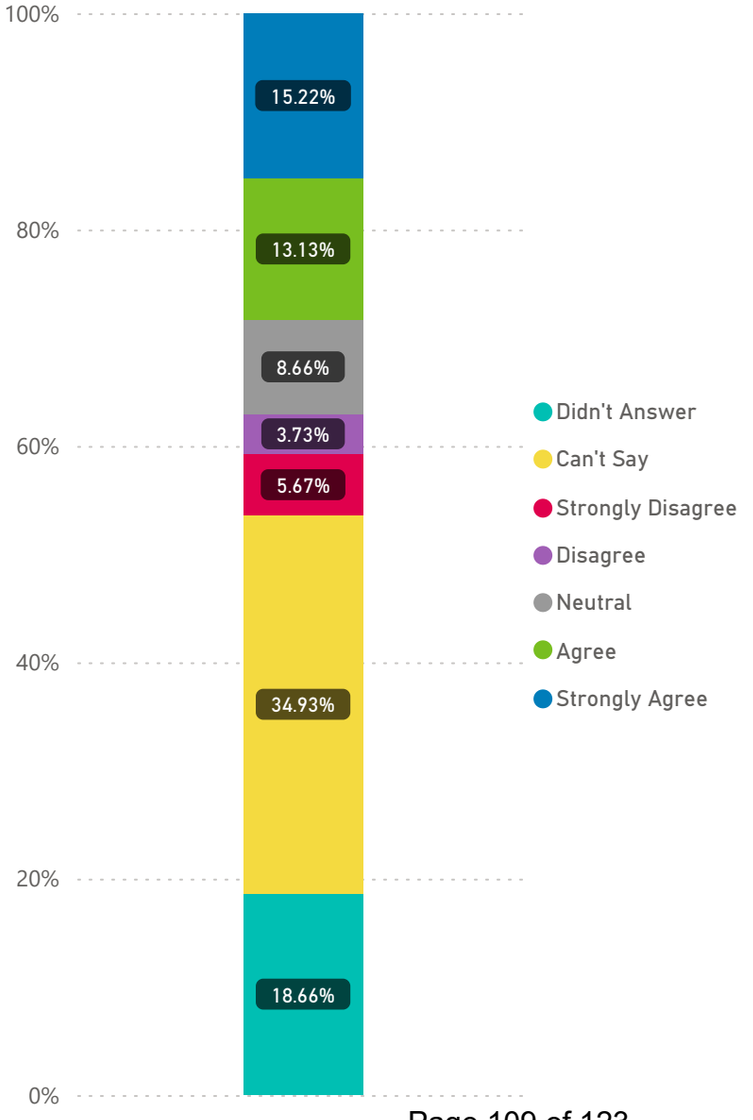
Respondents
123

Recommendation to Others

How likely would you be to recommend the following Recreation and Golf services to others?

Service Area	Definitely Not	Probably Not	Probably	Possibly	Definitely
Total	**38**	**25**	**58**	**88**	**102**
Drop-In Gym and Club Programs	6	3	14	11	14
Drop-in Swimming	7	4	11	22	27
Golf Courses	15	10	12	25	28
Registered Gym and Club Programs	5	5	12	11	12
Registered Swimming Programs	5	3	9	19	21

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.34**	**3.61**	**359**	**53.6%**
Drop-In Gym and Club Programs	1.31	3.50	86	64.2%
Drop-in Swimming	1.27	3.82	63	47.0%
Golf Courses	1.45	3.46	44	32.8%
Registered Gym and Club Programs	1.29	3.44	89	66.4%
Registered Swimming Programs	1.23	3.84	77	57.5%



Hamilton

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

Question
15

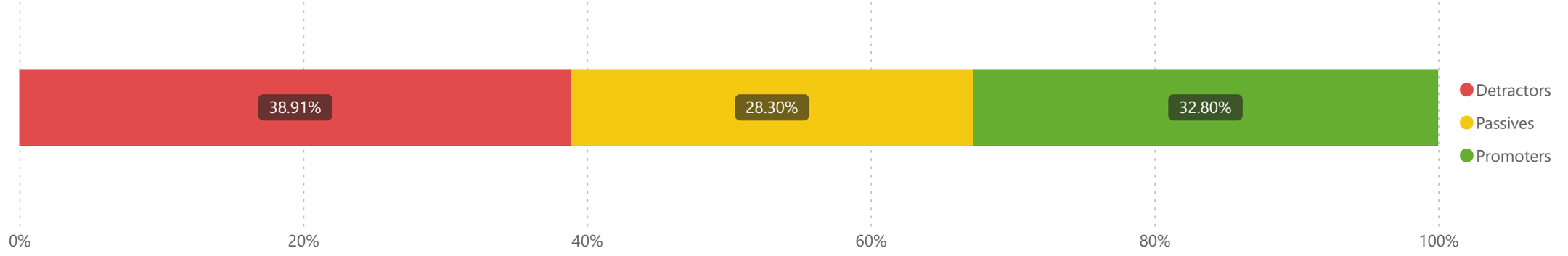
Net Promoter Score

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

How likely would you be to recommend the following Recreation and Golf services to others?

Responses
311

Respondents
123



Service Area	σ	NPS	Detractors	Passives	Promoter
All Service Areas	**1.34**	**-6**	**121**	**88**	**102**
Drop-in Swimming	1.27	7	22	22	27
Registered Swimming Programs	1.23	7	17	19	21
Golf Courses	1.45	-10	37	25	28
Drop-In Gym and Club Programs	1.31	-19	23	11	14
Registered Gym and Club Programs	1.29	-22	22	11	12

Hamilton

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).

Question
16

Value for Money

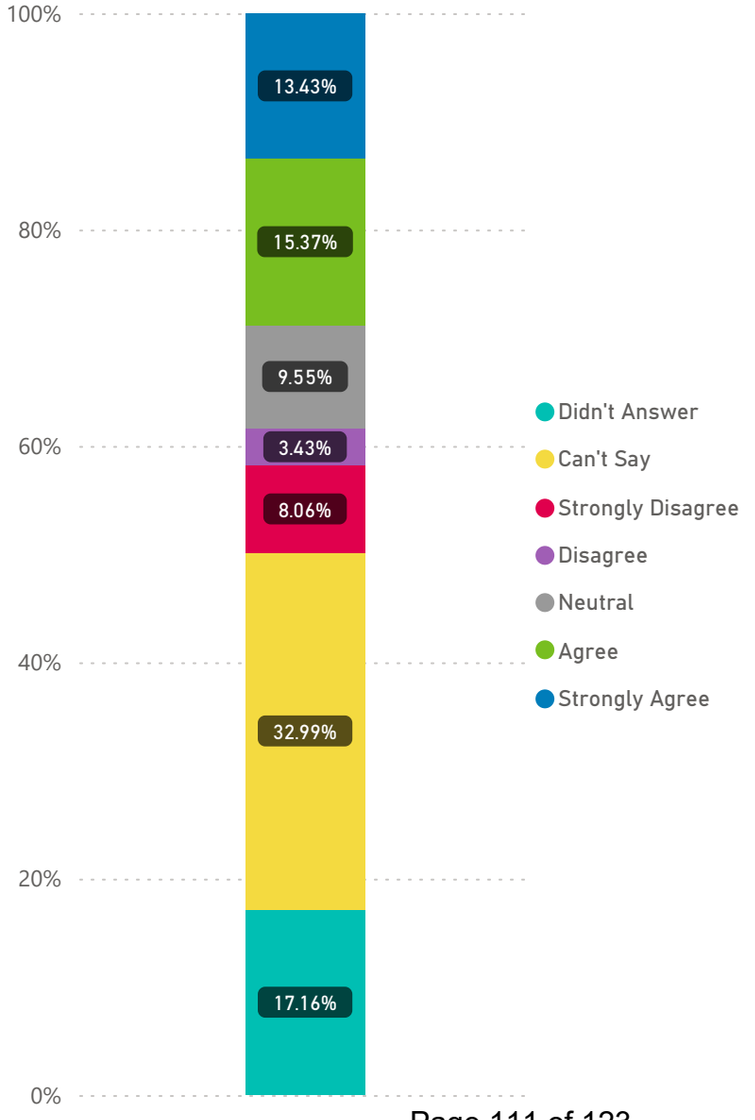
How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?

Responses
334

Respondents
123

Service Area	Very Poor	Poor	Average	Good	Very Good
Total	**54**	**23**	**64**	**103**	**90**
Drop-In Gym and Club Programs	9	4	7	17	14
Drop-in Swimming	9	5	14	22	24
Golf Courses	21	8	19	27	21
Registered Gym and Club Programs	8	3	9	16	13
Registered Swimming Programs	7	3	15	21	18

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.38**	**3.46**	**336**	**50.1%**
Drop-In Gym and Club Programs	1.42	3.45	83	61.9%
Drop-in Swimming	1.32	3.64	60	44.8%
Golf Courses	1.44	3.20	38	28.4%
Registered Gym and Club Programs	1.37	3.47	85	63.4%
Registered Swimming Programs	1.24	3.63	70	52.2%



Hamilton

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

Service Areas 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
793

Respondents
134

Service Area	Rates (index score)	Value for Money (index score)	Net Differential	Opt Out %
Total	**62**	**69**	**-7**	**41%**
Golf Courses	56	64	-8	22%
Registered Swimming Programs	65	73	-7	43%
Drop-In Gym and Club Programs	62	69	-7	51%
Registered Gym and Club Programs	63	69	-6	51%
Drop-in Swimming	67	73	-5	37%

Value *Q16 How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?*

Tax *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?*

Hamilton

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.

Question
17

Responses
459

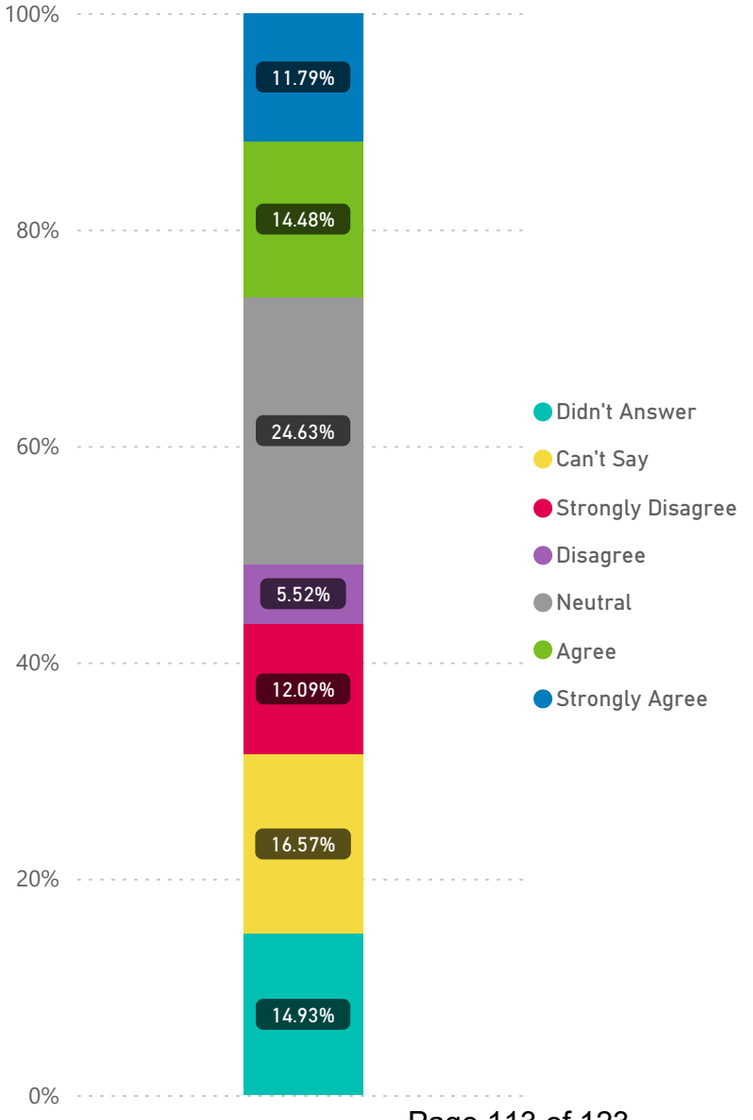
Respondents
125

Tax Rates

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?

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; Improve Services
Total	**81**	**37**	**165**	**97**	**79**
Drop-In Gym and Club Programs	11	9	30	18	11
Drop-in Swimming	9	11	33	20	22
Golf Courses	39	3	34	18	19
Registered Gym and Club Programs	10	9	31	21	11
Registered Swimming Programs	12	5	37	20	16

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.29**	**3.12**	**211**	**31.5%**
Drop-In Gym and Club Programs	1.20	3.11	55	41.0%
Drop-in Swimming	1.22	3.37	39	29.1%
Golf Courses	1.48	2.78	21	15.7%
Registered Gym and Club Programs	1.17	3.17	52	38.8%
Registered Swimming Programs	1.21	3.26	44	32.8%



Hamilton

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

Question
18

Responses
850

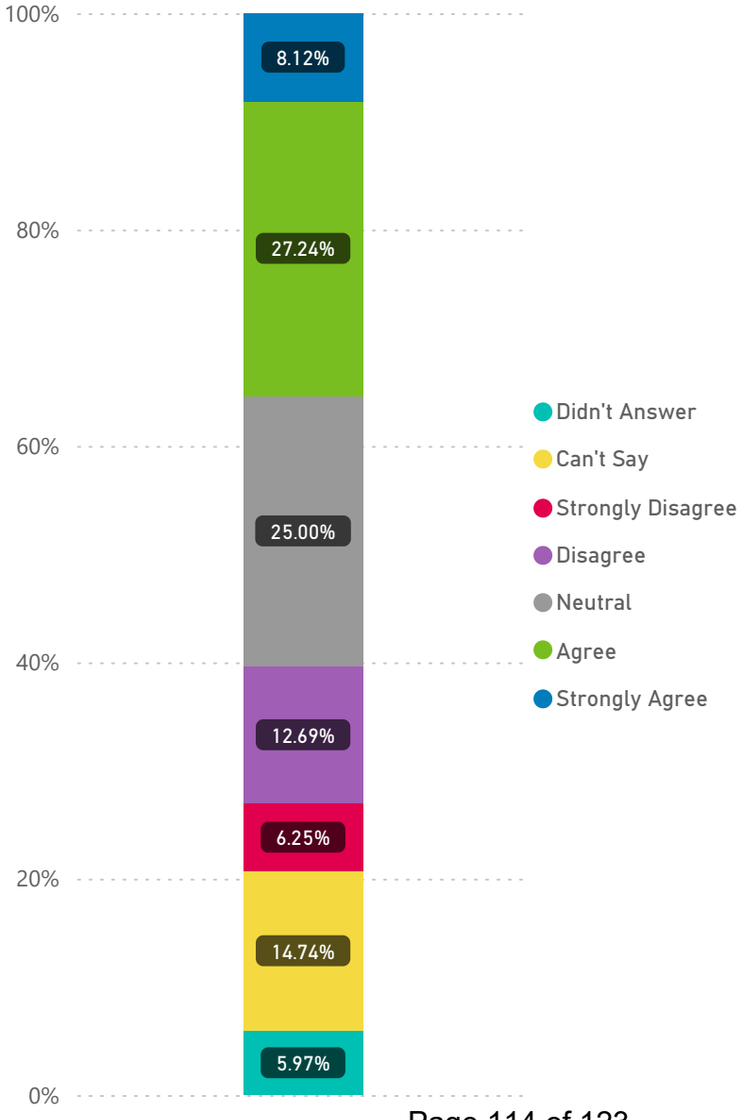
Respondents
126

Services Level Rating

Do you agree with the following statements? Recreation & Golf buildings are:

Service Area	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Total	**67**	**136**	**268**	**292**	**87**
Accessible by public transportation	9	14	23	37	10
Accessible, meeting provincial minimum standards per AODA, 2005	9	10	36	31	11
Clean and in good repair	11	22	48	35	5
Comfortable, with appropriate levels of lighting and noise	7	14	36	48	11
Easy to enter, with clearly marked public entrances	4	15	27	47	23
Energy efficient, helping the city meet energy targets and reduce utility usage	5	14	34	19	4
Inviting, appealing and attractive	14	34	34	31	7
Safe, equitable and inclusive spaces for all	8	13	30	44	16

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**1.08**	**3.23**	**222**	**20.7%**
Accessible by public transportation	1.14	3.27	41	30.6%
Accessible, meeting provincial minimum standards per AODA, 2005	1.09	3.26	37	27.6%
Clean and in good repair	1.00	3.01	13	9.7%
Comfortable, with appropriate levels of lighting and noise	1.01	3.36	18	13.4%
Easy to enter, with clearly marked public entrances	1.05	3.60	18	13.4%
Energy efficient, helping the city meet energy targets and reduce utility usage	0.95	3.04	58	43.3%
Inviting, appealing and attractive	1.11	2.86	14	10.4%
Safe, equitable and inclusive spaces for all	1.10	3.42	23	17.2%



Hamilton

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

Differential of Current and Ideal Conditions

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
1796

Respondents
134

Service Area	Current Condition	Ideal Condition	Net Differential	Opt Out %
Total	**65**	**87**	**-23**	**16%**
Clean and in good repair	60	90	-30	9%
Inviting, appealing and attractive	57	86	-29	9%
Accessible, meeting provincial minimum standards per AODA, 2005	65	89	-24	21%
Energy efficient, helping the city meet energy targets and reduce utility usage	61	85	-24	30%
Accessible by public transportation	65	85	-20	23%
Safe, equitable and inclusive spaces for all	68	88	-20	14%
Comfortable, with appropriate levels of lighting and noise	67	86	-19	12%
Easy to enter, with clearly marked public entrances	72	88	-16	12%

Condition — *Q18 Do you agree with the following statements? Recreation & Golf buildings are:*

Ideal — *Q19 Do you agree with the following statements? Recreation & Golf buildings should be:*

Hamilton

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

Question
19

Responses
946

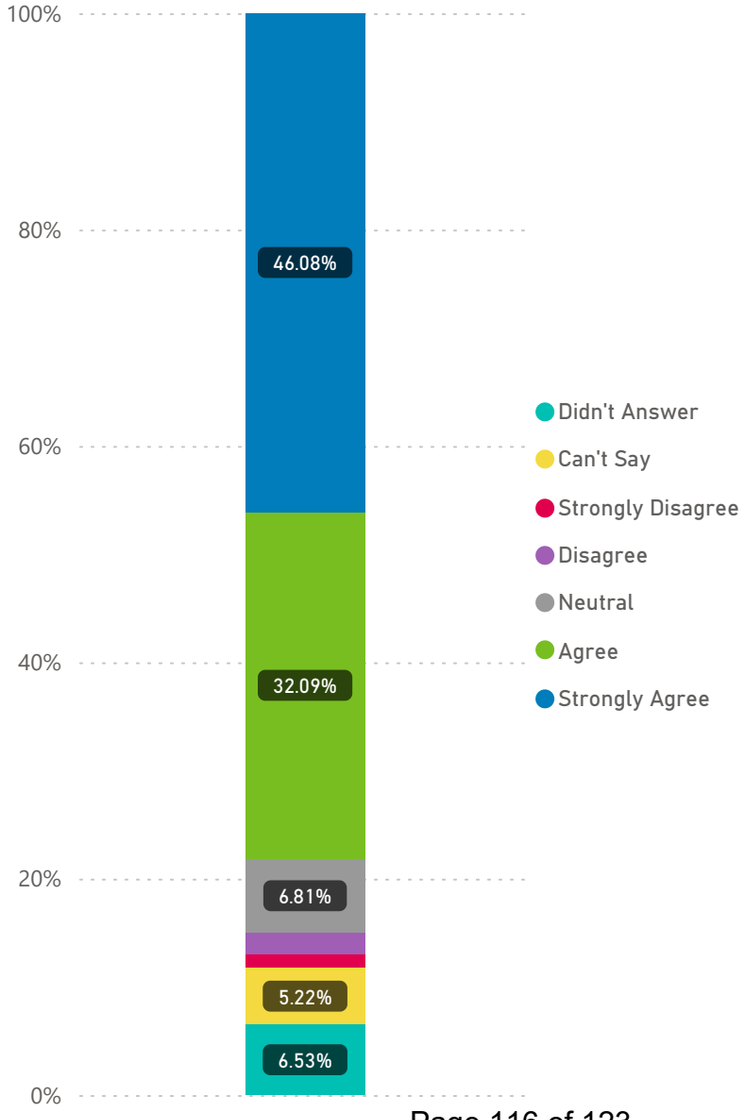
Respondents
127

Services Level Expectations

Do you agree with the following statements? Recreation & Golf buildings should be:

Service Area	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Total	**14**	**21**	**73**	**344**	**494**
Accessible by public transportation	2	3	12	42	54
Accessible, meeting provincial minimum standards per AODA, 2005	1	4	5	35	70
Clean and in good repair	1	2	6	42	73
Comfortable, with appropriate levels of lighting and noise	3	1	11	49	57
Easy to enter, with clearly marked public entrances	1	3	9	41	66
Energy efficient, helping the city meet energy targets and reduce utility usage	3	4	10	42	52
Inviting, appealing and attractive	1	2	11	55	54
Safe, equitable and inclusive spaces for all	2	2	9	38	68

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	**0.83**	**4.36**	**126**	**11.8%**
Accessible by public transportation	0.88	4.27	21	15.7%
Accessible, meeting provincial minimum standards per AODA, 2005	0.81	4.47	19	14.2%
Clean and in good repair	0.73	4.48	10	7.5%
Comfortable, with appropriate levels of lighting and noise	0.86	4.29	13	9.7%
Easy to enter, with clearly marked public entrances	0.80	4.40	14	10.4%
Energy efficient, helping the city meet energy targets and reduce utility usage	0.95	4.23	23	17.2%
Inviting, appealing and attractive	0.76	4.29	11	8.2%
Safe, equitable and inclusive spaces for all	0.83	4.41	15	11.2%



Hamilton

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

Question

20

Models of Service Delivery

Do you have any comments or questions regarding Recreation & Golf Services that you want to share?

Responses

45

Respondents

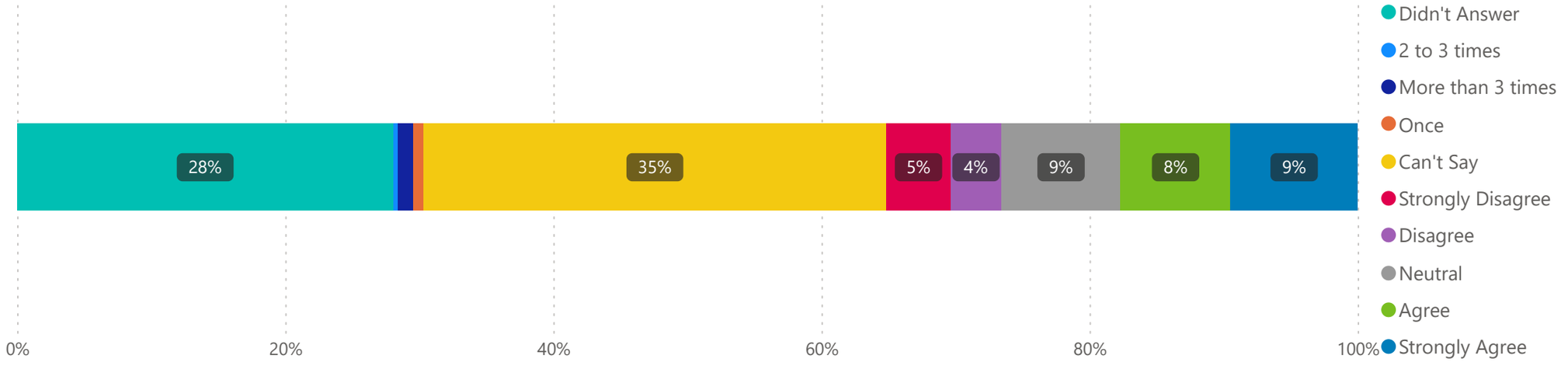
45

Open Text Responses

Summary of Specific Service Areas over Several Questions

Drop-In Gym and Club Programs

Responses
437
Respondents
104



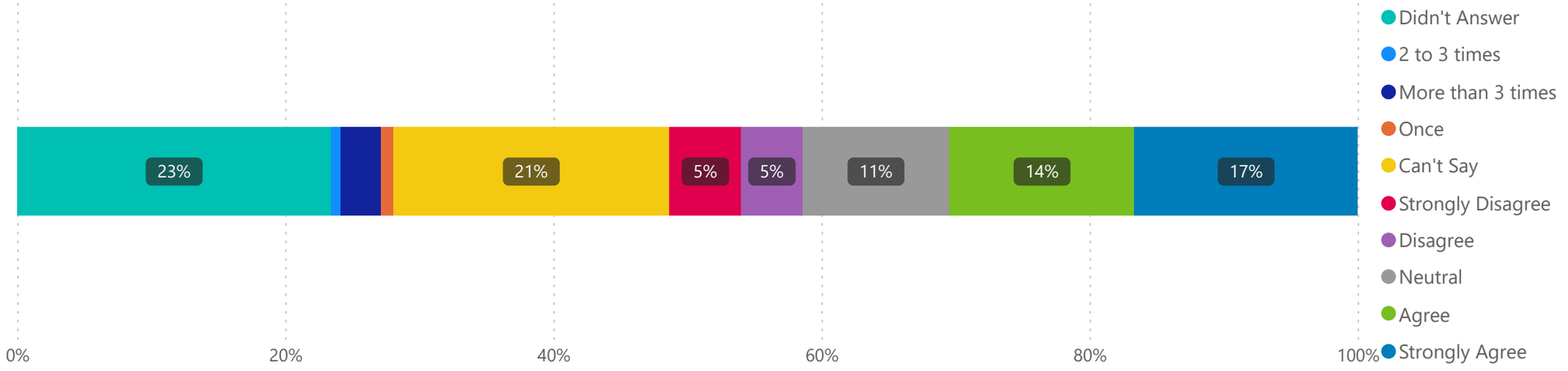
Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	**1.35**	**3.39**	**67.86**	**735**	**60.95%**
Q5 How do you feel Recreation & Golf have performed overall in the following services?	1.21	3.34	66.88	102	76.12%
Q6 How important to you are the Recreation and Golf sites and services?	1.25	3.91	78.18	57	42.54%
Q7 How satisfied are you with your ability to access these Recreation and Golf sites and services?	1.50	3.28	65.65	88	65.67%
Q8 Do the following Recreation and Golf sites and services meet your needs?	1.40	2.87	57.44	95	70.90%
Q9 Do you feel comfortable accessing these services provided by Recreation & Golf?	1.25	3.74	74.80	84	62.69%
Q13 How satisfied are you with the program hours offered for the following services?	1.27	3.06	61.22	85	63.43%
Q15 How likely would you be to recommend the following Recreation and Golf services to others?	1.31	3.50	70.00	86	64.18%
Q16 How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?	1.42	3.45	69.02	83	61.94%
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?	1.20	3.11	62.28	55	41.04%

Hamilton

Summary of Specific Service Areas over Several Questions

Drop-in Swimming

Responses
678
Respondents
109



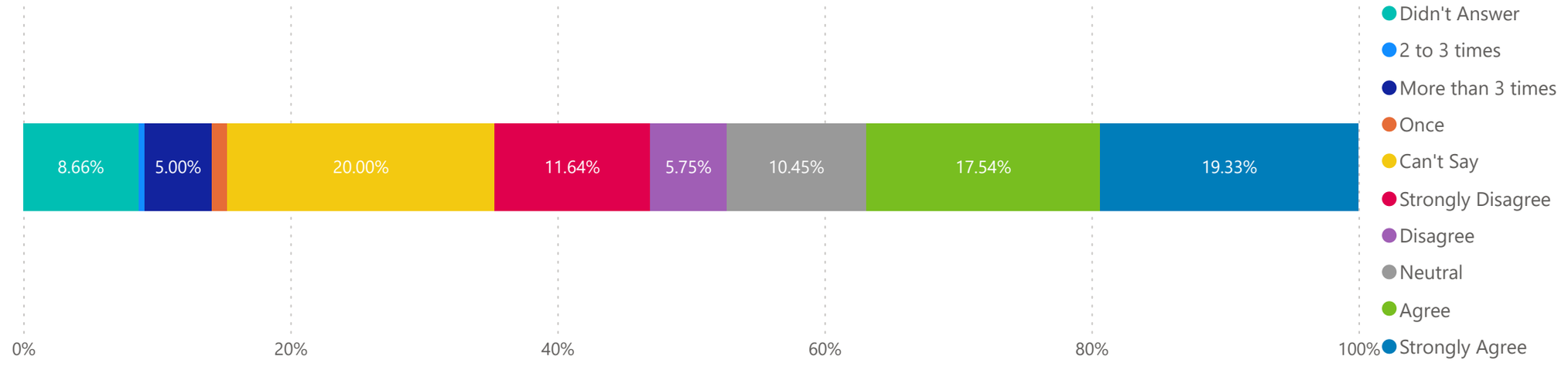
Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	**1.30**	**3.62**	**72.38**	**518**	**42.95%**
Q5 How do you feel Recreation & Golf have performed overall in the following services?	1.17	3.56	71.11	71	52.99%
Q6 How important to you are the Recreation and Golf sites and services?	1.23	4.24	84.89	44	32.84%
Q7 How satisfied are you with your ability to access these Recreation and Golf sites and services?	1.35	3.45	69.09	57	42.54%
Q8 Do the following Recreation and Golf sites and services meet your needs?	1.28	3.22	64.35	65	48.51%
Q9 Do you feel comfortable accessing these services provided by Recreation & Golf?	1.03	4.11	82.11	58	43.28%
Q13 How satisfied are you with the program hours offered for the following services?	1.29	3.07	61.37	61	45.52%
Q15 How likely would you be to recommend the following Recreation and Golf services to others?	1.27	3.82	76.34	63	47.01%
Q16 How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?	1.32	3.64	72.70	60	44.78%
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?	1.22	3.37	67.37	39	29.10%

Hamilton

Summary of Specific Service Areas over Several Questions

Golf Courses

Responses
800
Respondents
127



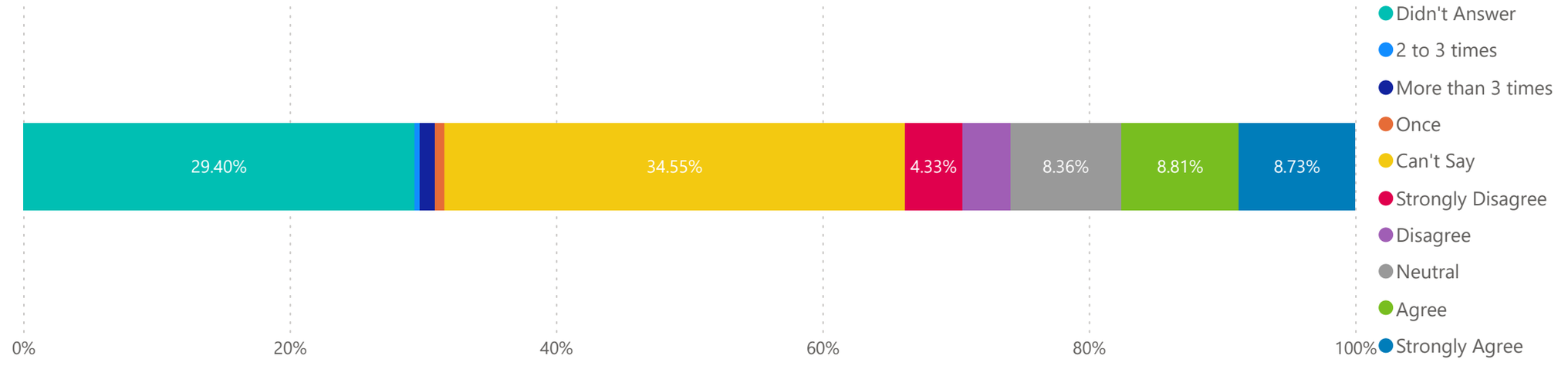
Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	**1.45**	**3.42**	**68.40**	**339**	**28.11%**
Q5 How do you feel Recreation & Golf have performed overall in the following services?	1.20	3.31	66.27	51	38.06%
Q6 How important to you are the Recreation and Golf sites and services?	1.73	3.64	72.88	16	11.94%
Q7 How satisfied are you with your ability to access these Recreation and Golf sites and services?	1.30	3.78	75.65	42	31.34%
Q8 Do the following Recreation and Golf sites and services meet your needs?	1.26	3.09	61.70	40	29.85%
Q9 Do you feel comfortable accessing these services provided by Recreation & Golf?	1.30	3.96	79.15	40	29.85%
Q13 How satisfied are you with the program hours offered for the following services?	1.24	3.66	73.10	47	35.07%
Q15 How likely would you be to recommend the following Recreation and Golf services to others?	1.45	3.46	69.11	44	32.84%
Q16 How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?	1.44	3.20	63.96	38	28.36%
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?	1.48	2.78	55.58	21	15.67%

Hamilton

Summary of Specific Service Areas over Several Questions

Registered Gym and Club Programs

Responses
425
Respondents
104



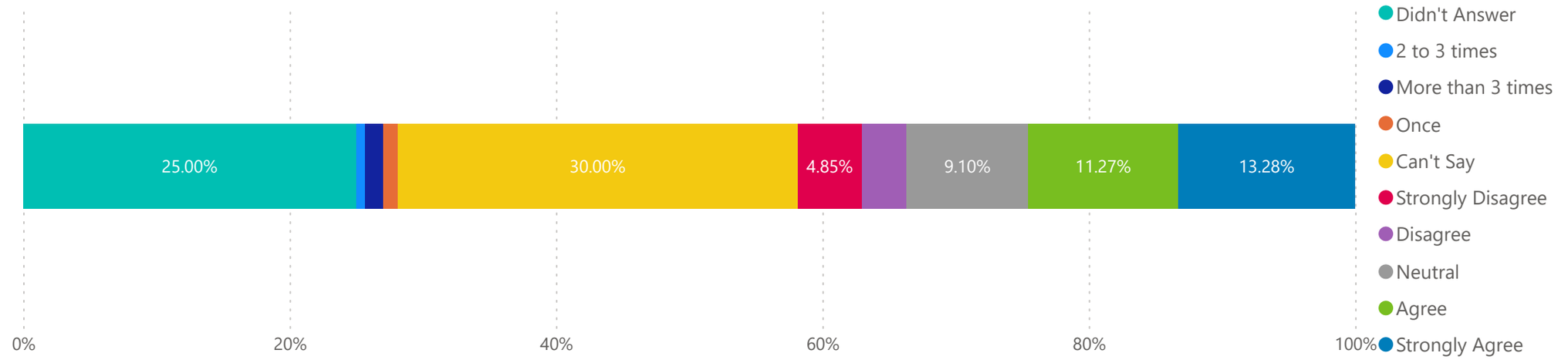
Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	**1.32**	**3.42**	**68.30**	**753**	**62.44%**
Q5 How do you feel Recreation & Golf have performed overall in the following services?	1.30	3.56	71.25	102	76.12%
Q6 How important to you are the Recreation and Golf sites and services?	1.18	3.91	78.13	59	44.03%
Q7 How satisfied are you with your ability to access these Recreation and Golf sites and services?	1.47	3.29	65.85	93	69.40%
Q8 Do the following Recreation and Golf sites and services meet your needs?	1.42	2.78	55.56	98	73.13%
Q9 Do you feel comfortable accessing these services provided by Recreation & Golf?	1.16	3.90	77.92	86	64.18%
Q13 How satisfied are you with the program hours offered for the following services?	1.21	2.96	59.11	89	66.42%
Q15 How likely would you be to recommend the following Recreation and Golf services to others?	1.29	3.44	68.89	89	66.42%
Q16 How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?	1.37	3.47	69.39	85	63.43%
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?	1.17	3.17	63.41	52	38.81%

Hamilton

Summary of Specific Service Areas over Several Questions

Registered Swimming Programs

Responses
538
Respondents
109



Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	**1.32**	**3.59**	**71.84**	**645**	**53.48%**
Q5 How do you feel Recreation & Golf have performed overall in the following services?	1.09	3.72	74.47	87	64.93%
Q6 How important to you are the Recreation and Golf sites and services?	1.45	3.98	79.52	50	37.31%
Q7 How satisfied are you with your ability to access these Recreation and Golf sites and services?	1.41	3.45	69.00	74	55.22%
Q8 Do the following Recreation and Golf sites and services meet your needs?	1.38	3.20	64.08	85	63.43%
Q9 Do you feel comfortable accessing these services provided by Recreation & Golf?	1.27	3.90	77.97	75	55.97%
Q13 How satisfied are you with the program hours offered for the following services?	1.18	3.29	65.88	83	61.94%
Q15 How likely would you be to recommend the following Recreation and Golf services to others?	1.23	3.84	76.84	77	57.46%
Q16 How would you rate Recreation & Golf in providing good value for money in the infrastructure and services provided to your community?	1.24	3.63	72.50	70	52.24%
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?	1.21	3.26	65.11	44	32.84%

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Definition and Ranking of Consistency and Confidence

Data Grading Scales

Grade		Data Consistency Standard Deviation (σ, Consistency of Responses)	Confidence Level Margin of Error (at 95% Confidence in Sample Size)
A	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
B	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
E	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

$$Margin\ of\ Error = \frac{0.98}{\sqrt{n}}$$

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.

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