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LICENSING AND BY-LAW SERVICES

INFORCEM

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SERVICES

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Animal Services, Licensing and Municipal Law Enforcement



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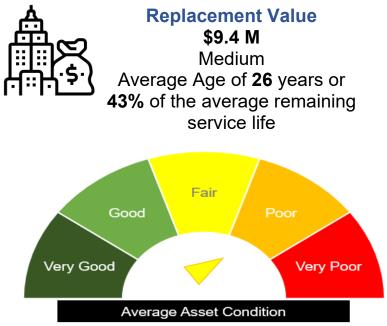
SUMMARY AND QUICK FACTS

SERVICE PROFILE



Licensing and By-law (LBS) division responds to, enforces, and investigates complaints to ensure compliance with by-laws enacted by City Council. The division is responsible for Animal Services, Business Licensing and Municipal Law Enforcement.

ASSET SUMMARY



LEVEL OF SERVICE SUMMARY

- 70 Survey Responses were received. This correlates to a 12% Margin of Error which may cause uncertainty in the final results.
- Survey Respondents felt that the performance of LBS was average in the last 24 months.
- Survey Respondents felt Neutral if LBS responds within a reasonable timeframe.
- Survey Respondents felt Neutral on if LBS services meet their service needs overall.

ASSET HIGHLIGHTS						
ASSETS	QUANTITY	REPLACEMENT COST	AVERAGE CONDITION	STEWARDSHIP MEASURES		
Facilities	2 Owned	\$6.2M	Poor	Work with CFEM to complete BCA's and maintenance backlog		
Fleet	63	\$2.3M	Poor	Twice Annual maintenance checks by Fleet. Replace End of Life Vehicles as soon as practical.		
Equipment	347	\$537K	No Data	Develop Asset Register and Condition Assessment		

DATA CONFIDENCE

ERY HIGH	VERY LOW	

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Population change – Hamilton's Population will continue to grow and LBS will continue to see growth in requests for service relating to Licensing of services, By-law enforcement and greater need for Animal Services.



Financial Change – Deteriorating economic conditions increase requests for LBS services. Residents might have difficulty maintaining properties. Animal Services sees an increase in shelter intakes.



Increase in Scope/New By-laws – Expanding scope of By-laws or new categories of By-laws increases enforcement demands on existing resources.

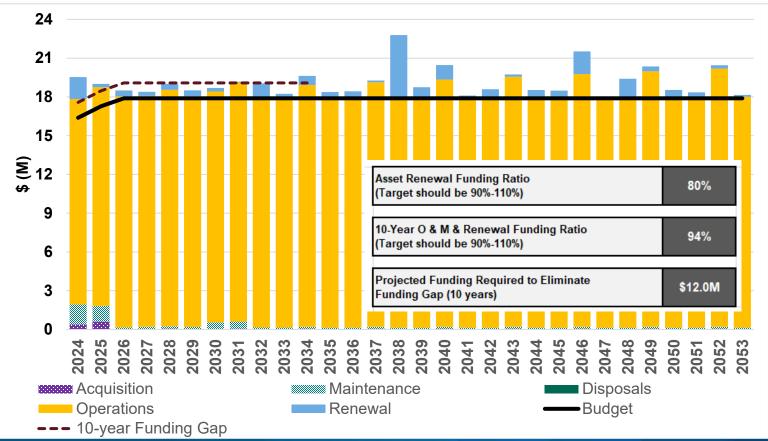


RISK

• Critical Assets are identified as the Animal Services Facility and the vehicles used by By-law and Animal services staff.

CLIMATE CHANGE MITIGATION

- The fleet will transition to electric vehicles as outlined in the Hamilton Community Energy + Emissions Plan.
- LBS will work with CFEM to transition buildings as outlined in the Hamilton Community Energy + Emissions Plan.



LIFECYCLE SUMMARY

Licensing and By-Law Services (Animal Services, Licensing and Municipal Law Enforcement) 2024 Asset Management Plan

1. INTRODUCTION

Licensing and By-law (LBS) division responds to, enforces, and investigates complaints to ensure compliance with by-laws enacted by the City Council. The division is responsible for Animal Services, Business Licensing and Municipal Law Enforcement.

The purpose of this Asset Management Plan (AM Plan) is to ensure that LBS has the required assets to provide these services to the City.

This AM Plan is intended to communicate the requirements for the sustainable delivery of services through the management of assets, compliance with regulatory requirements (i.e. O.Reg 588/17¹) and required funding to provide the appropriate levels of service over the 2024-2053 planning period.

The Licensing and By-law division assets include Facilities, Fleet, Equipment and Technology groupings.

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

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2. BACKGROUND

The information in this section is intended to give a snapshot in time of the current state of LBS service areas by providing background on the service, outlining legislative requirements, defining the asset hierarchy used throughout the report, and providing a detailed summary and analysis of the existing inventory information as age profile, condition methodology, condition profile, and asset usage and performance for each of the asset classes. This section will provide the necessary background for the remainder of the AM Plan.

2.1 SERVICE PROFILE

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

• Asset Management Plan Overview Document

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

2.1.1 SERVICE HISTORY

Licensing and By-law (LBS) division at the City of Hamilton is comprised of five sections:

- Licensing;
- Municipal Law Enforcement;
- Animal Services;
- Service Delivery; and,
- Policy & Programs.

The division is responsible for providing services within the full boundary of the City of Hamilton. LBS division operates out of shared spaces at 330 Wentworth Street North and maintains a service counter at City Hall. Animal Services operates out of shared spaces with the Hamilton-Burlington Society for the Prevention of Cruelty to Animals (HBSPCA) located at 247 Dartnall Road and a Public Works yard building on Jones Road which serves as a logistics hub and emergency shelter location as part of the Business Continuity Plan.

Prior to amalgamation Animal Services was contracted to the HBSPCA, City staff in Stoney Creek and additional contractors for Glanbrook and Flamborough. The HBSPCA chose to not renew the contract and the City assumed the responsibilities on January 1, 2003.

Different aspects of Municipal Law Enforcement (MLE) were handled by different teams prior to the amalgamation. The Hamilton Building Department handled MLE's Property Standards, Zoning and Fence By-laws, while an independent contractor enforced the Noise By-law and Growth Management enforced Site Alterations By-law. The portfolio has been growing over the years, with proactive work, Vacant Buildings, Infill and Firearms By-laws coming under MLE after amalgamation.

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Prior to amalgamation, the outlying municipalities had their own licensing sections or contracted with another nearby municipality, such as the former City of Hamilton or the Region of Hamilton/Wentworth to manage these services. Since amalgamation, this service is wholly within the City's jurisdiction to manage and as such, the team has expanded to its current size.

Currently, this very diverse team is comprised of; one director, five managers, eight supervisors, 51 full-time officers, students, administrative staff, animal care attendants, animal intake and care assistant, shelter assistant, veterinarian technicians, cleaners, by-law clerks, licensing administrators quality management coordinator, licensing and by-law administrator (Councillor Complaint Municipal Law Enforcement (CCMLE)), project and policy assistant, program development advisor, program assistants and project manager.

2.1.2 SERVICE FUNCTION

By-laws are local regulatory laws that keep our city safe and moving. The City licenses businesses, and activities, and investigates complaints on private and public property to ensure compliance with by-laws. The City Council establishes by-laws according to the city's needs to regulate, prohibit, or impose requirements. The City of Hamilton by-laws are maintained by the City Clerk's office.

The purpose of the services provided by the Licensing and By-law division is to ensure public safety and consumer protection by establishing compliance with municipal by-laws. LBS division ensures that residents adhere to the City's by-laws related to concerns like public and private property offences, snow removal, noise complaints, yard maintenance, business licensing and supply of vital services amongst many other City by-laws.

The Municipal Law Enforcement (MLE) team is comprised of 25 full-time officers who primarily spend time on the road to ensure all by-law-related concerns are addressed in a timely manner. Full-time officers are assisted year-round by co-op students and additional summer students.

The Service Delivery team is comprised of by-law clerks and a licensing and by-law services administrator (CCMLE). By-law clerks function as the first point of contact over the phone or email for citizens' by-law-related concerns. They are also responsible for inputting and maintaining all the pertinent data into the internal database for dispatching, tracking and data analytics purposes. The licensing and by-law services administrator acts as a liaison between City Councillors and the By-law team to address any by-law-related inquiries.

The Policy and Programs team is comprised of project managers, project and policy assistants and a quality management coordinator. The Policy and Programs team is responsible for providing; legal administrative support to the division, all continuous improvement initiatives, and leading policy-driven work on behalf of the division (i.e., drafting and presenting reports to Council and development, implementation and monitoring of programs).

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The Licensing team is responsible for the compliance and regulation of the Licensing By-law and all 32 Schedules. This includes administration and compliance operations. The team is responsible for a portion of the Sign By-law including ensuring compliance and permit issuance as well as the Lottery Licensing By-law. Licensing Administration is a facilitation process that is responsible for taking in licensing applications. This includes document intake and review and notifying other departments which require inspection of the premises (i.e., Fire Prevention, Public Health, Building and Parking). The administrative team also ensures compliance with lottery licensing mandates as well as liquor licensing comments to the Alcohol and Gaming Commission of Ontario (AGCO) through requested comments from other city services.

The Licensing Compliance team ensures those with a licence are operating within the regulations of the Licensing By-law or other provincial legislation. Additionally, licensing compliance officers will investigate businesses which fall within the provisions of the Licensing By-law that may be operating without a licence and take appropriate steps to gain compliance and establish public safety and consumer protection. The team is also responsible for inspections of taxis, personal transportation providers and food service vehicles. The team conducts property standards inspections at several types of locations (care facilities, restaurants, etc.).

The Animal Services team operates out of shared spaces with the HBSPCA located at 247 Dartnall Road, along with a building in the Public Works yard at 345 Jones Road. Animal Services is responsible for ensuring adherence to all Responsible Owner and Animal/Wildlife By-laws. They are responsible for providing shelter to lost and found pets, providing all the associated services to ensure their safety, licensing pets, resourcing rescues, foster homes, and permanent homes via the adoption programs while providing veterinarian services where required. The team at Animal Services ensures that the City of Hamilton is a sustainable community where residents can safely co-exist with wildlife. The Animal Services team has 13 full-time and two part-time officers along with two co-op students for city-wide coverage. Animal Welfare services are provided by the Province's Animal Welfare Services.

2.1.3 USERS OF THE SERVICE

The users of these services are all citizens, visitors and businesses operating within the City of Hamilton. Below are some statistics for the year ending 2022 that illustrate the diverse users of this group's services:

- Officers issued 149 COVID-19 related charges through the Emergency Management and Civil Protection Act (EMCPA), Reopening Ontario Act (ROA) and municipal by-laws;
- In addition to COVID-19, LBS received a total of 43,441 complaints for investigations;
- Councillor inquiries totalled 5,295 for all other municipal by-laws;

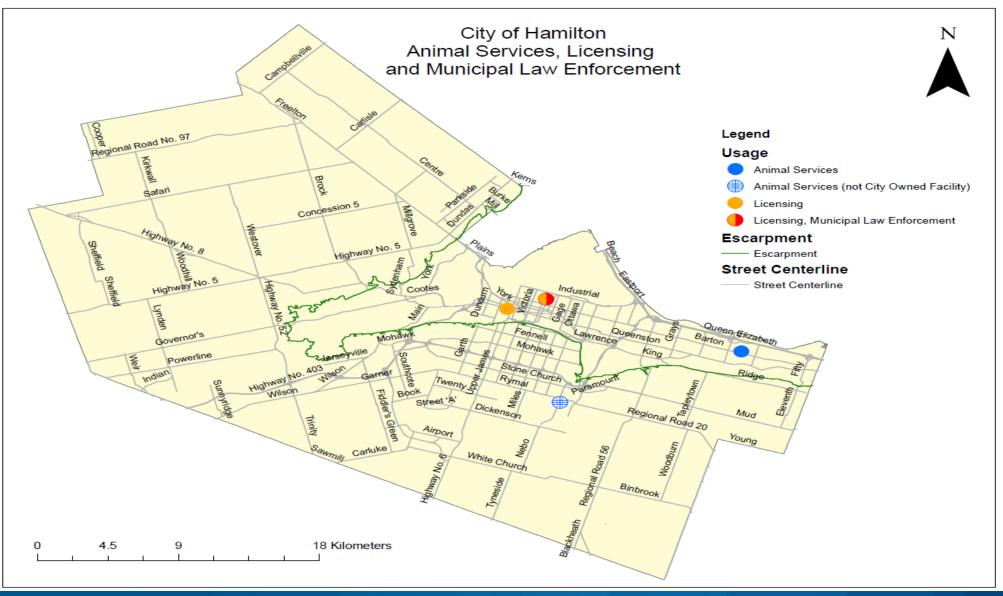
Licensing and By-Law Services Appendix "A" to Report PW23073(b) Page 12 of 105 (Animal Services, Licensing and Municipal Law Enforcement) 2024 Asset Management Plan

- These calls resulted in a total of 3,302 Administrative Penalty Charges resulting in \$452,645 in fines;
- Animal Services clerks fielded 29,084 calls from the public that ranged from service requests for dog licenses/renewals, stray animals, injured and deceased animals (wildlife and pets) special enforcement, adoptions, feces, dog bite investigations and barking dog complaints;
- Licensing issued 661 new business licences. The Licensing Section currently licenses 10,030 businesses over 45 distinct categories in the city; and,
- Licensing provides direct service to business owners requiring a licence, indirect to customers, residents, and visitors to the City of Hamilton that may use a service or licensed business in the city. Licensing responds to complaints related to licensed or nonlicensed locations and trade service providers. Licensing also engages with several other City services such as Fire Prevention, Building, Public Health, Parking, Tourism and the Councillors' offices and Licensing works closely with the Hamilton Police Service, the Alcohol and Gaming Commission of Ontario, and other provincial agencies.

Licensing and By-Law Services

(Animal Services, Licensing and Municipal Law Enforcement) 2024 Asset Management Plan

Figure 1: Map of Facility Locations



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2.1.4 UNIQUE SERVICE CHALLENGES

LBS division faces unique service challenges due to the wide geographical area it serves, the diversity of its population and the uniqueness of each by-law that it enforces and administers. The wide and varied nature of by-laws administered requires expertise and continued upgrades to education, training and technology to keep up with the evolving landscape of municipal by-law enforcement. Some of the legislated items are detailed in *Section 2.2, Table 1.*

The division faces challenges from the high concentration of student population in parts of the city clustered around the college and university. These areas create increases in service requests relating to noise, tenant concerns, property standards and waste removal.

Additionally, a number of the by-laws require around-the-clock coverage. However, this becomes a challenge as Municipal Law Enforcement Officers (MLEO) are not permitted to work beyond 1 a.m. due to concerns relating to officer safety. This stems from a consultant's report to the council in 2008 which stated staff cannot work past 1 a.m. which was the basis of approval for hiring of officers.

Animal Services staff work 24 hours per day, seven days per week for animal care and responding to dangerous animals or wildlife and by-law concerns.

The work of LBS is often required to shift due to high-priority files and programs which can be driven by Council priority, seasonality, or changes in socio-economic issues as examples. Staffing resource levels continue to pose challenges to the implementation and operation of such programs and where a shift in priorities is required. Often this results in existing staff being redirected to respond to these elevated needs and priorities which may impact service levels and enforcement of other programs.

2.2 LEGISLATIVE REQUIREMENTS

The most significant legislative requirements that impact the delivery of LBS services 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	REQUIREMENT
Municipal Act, 2001, S.O. 2001, c. 25	Most by-laws are created under the authority of the Municipal Act, 2001, S.O. 2001, c. 25. Required to provide the services within the By-law and regulate council mandates.
Provincial Offences Act, R.S.O. 1990, c. P.33	Authority in which charges can be laid.

Licensing and By-Law Services (Animal Services, Licensing and Municipal Law Enforcement) 2024 Asset Management Plan

LEGISLATION OR REGULATION	REQUIREMENT
Planning Act, R.S.O, c. P.13	Enforcement of property use aspects.
Building Code Act, 1992, S.O. 1992, c. 23	Authority to create and regulate a Property Standards By-law for the minimum maintenance standards of properties.
Dog Owners' Liability Act, RSO 1990, c D.16	Authority in which provincial charges can be laid relating to dog control/pit bull legislation.
Livestock, Poultry and Honey Bee Protection Act, R.S.O. 1990, c. L.24	Municipal responsibilities to respond to wildlife predation calls, review and submit program applications for compensation program.
Protection of Livestock and Poultry from Dogs Act, RSO 1990, c L.24	Municipal responsibilities to respond to dog killing/injuring livestock/poultry, review and submit program applications for compensation program.
Pounds Act, RSO 1990, c P.17	Authority in which provincial charges can be laid for specific livestock at large/impoundment rules.
Animal For Research Act and Regulations	Provincial requirements for municipalities operating a pound for dogs and cats impounded pursuant to a by-law. Enforced by Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).
Provincial Animal Welfare Services Act, 2019, SO 2019, c 13	Adherence to provincial welfare and standards of care for animals is provided. Enforced by the Ministry of the Attorney General.
Fish and Wildlife Conservation Act, 1997, S.O. 1997, c. 41	Provincial requirements for allowances/prohibitions related to Hamilton Animal Services' work with wildlife. Enforced by the Ministry of Natural Resources and Forestry (MNRF).
Species at Risk Act (S.C. 2002, c. 29)	Federal obligations to our work with specific species related to Wildlife Regulations and Compliance. Promotion of Environment and Climate Change Canada.
Migratory Birds Regulations, 2022 (SOR/2022-105)	Federal regulations outlining obligations within work with migratory birds.
Reportable Diseases Regulations (SOR/91-2)	Federal regulations respecting diseases/substances that may affect animals/transmit to persons.
Health Protection and Promotion Act, R.S.O. 1990, C. H.7	Rabies immunization.
Disposal of deadstock Regulation under Food Safety and Quality Act, 2001 O. Reg. 105/09	Obligations for disposal of cadavers. Enforced by Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

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LEGISLATION OR REGULATION	REQUIREMENT
OAVT Act, 1993; Veterinarians Act and Regulations VA Article 19 and Reg. 1093	Mandates regulations for Registered Veterinary Technicians (RVT) designated staff under the Ontario Association of Veterinary Technicians (OAVT) (staff designation).

2.3 ALIGNMENT WITH COUNCIL PRIORITIES

As referenced in the <u>AM Plan Overview</u> in Section 5.4, Strategic Alignment, The City's strategic goals and objectives are shaped by internal drivers such as Council-approved strategies and plans, as well as external forces such as citizen expectations, and legislative and regulatory requirements. The specific legislative and regulatory requirements for service areas are provided in each AM Plan.

City objectives provide asset owners with direction regarding levels of service and asset investment priorities. This AM Plan will demonstrate how the City's objectives for non-core assets can influence levels of service and direct asset expenditures.

2.4 ASSET HIERARCHY

In order to deliver these services, LBS requires assets. The LBS service area has been broken down into four asset classes for the purpose of this AM Plan:

- Facilities: refers to any City-owned facilities necessary to deliver LBS services.
- Fleet: vehicles which are used for LBS service delivery and Powered Equipment.
- **Equipment**: refers to all equipment used for LBS service delivery including Admin Equipment, Animal Care Equipment such as vet tools, and cages, and Enforcement Tools such as noise meters, light meters, and Officer Uniforms.
- **Technology**: describes the different types of technology required to deliver the service including, IT Equipment, Mobile Phones and Mobile Printers.

The communication radio system and body armour used by LBS are owned by the Hamilton Police Service (HPS). Body Armour is loaned to LBS officers from HPS when required as such these assets are not considered as part of this AM Plan. LBS's use of the HPS radio system ensures that communication is facilitated during joint enforcement operations.

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Table 2: Asset Class Hierarchy

SERVICE AREA	LBS – LICENSING, BY-LAW, AND ANIMAL SERVICES				
ASSET CLASS	FACILITIES	FLEET	EQUIPMENT	TECHNOLOGY	
	 By-law Facilities (330 Wentworth Street North) * Animal Services Facilities** (Jones Road/Dartnall Road) 	 By-law Fleet Animal Services Fleet Powered Equipment 	 Admin Equipment Officer Uniforms Officer Enforcement Tools Animal Care Equipment 	 IT Equipment Mobile Printers Mobile Phones 	

*Licensing maintains a service counter at City Hall. This is not included in the current iteration of the AM Plan as City Hall is being considered in its entirety in the Corporate Facilities & Energy Management (CFEM) AM Plan.

** The Dartnall Road Animal Services Facility is not owned by the City of Hamilton. The City is a tenant and has shared responsibility for operations and maintenance costs related to the facility in accordance with the terms of the agreement between the City and HBSPCA.

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3. SUMMARY OF ASSETS

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

The City owns approximately **\$9.4M** in LBS assets which are on average in **POOR** condition. Assets are a weighted average of **26 years** of age, which is **43%** of the average remaining service life (RSL). Most of the weighting for these averages comes from the Facilities and Fleet asset classes. For most assets, this means that the City should be completing preventative, preservation and minor maintenance activities per the Building Condition Assessment inspection reports as well as operating activities (e.g., inspection, cleaning) to prevent any premature failures. Data confidence associated with this information is also presented in **Table 3**.

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. It is also important to note that AM Plans only include asset information related to assets that the City owns. Facilities leased from other bodies are incorporated into operational costs but are not incorporated into the total replacement cost for the service. Finally, the assets included below are assets that are assumed and in service at the time of writing.

The replacement costs below are typically a **MEDIUM** data confidence level overall. For Facilities, replacement costs are calculated using an internal Corporate Facilities & Energy Management (CFEM) tool which encompasses current market rates, building type and size and were escalated to include additional soft costs. Equipment and Technology replacement costs were gathered from the most recent purchase price for similar assets and are typically High confidence. Vehicle costs are typically **MEDIUM** confidence due to challenges in maintaining current replacement value costs.

The overall average age data confidence is rated as High as most of the highest replacement value asset classes data is based on fleet and facilities where data confidence is much higher as service dates are generally known for these asset types. The percent remaining service life (%RSL) data is largely estimated based on Subject Matter Expertise (SME) or is unknown.

The overall average condition data confidence is rated as High. The highest value item for this service area is Facilities where the condition is based on Facility Condition Index (%FCI). For the majority of the assets the condition is based on age and not based on actual physical inspection and data condition analysis.

A continuous improvement item identified in *Table 29* is ensuring inventory data is accurate and includes key database fields as well as metadata and follows the newly developed City Data Standard through the creation of an Asset Registry for LBS.

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Please refer to the <u>AM Plan Overview</u> for a detailed description of data confidence.

Table 3: Detailed Summary of Assets for LBS Service Area

FACILITIES						
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (%RSL)	AVERAGE EQUIVALENT CONDITION		
By-law Facilities	1	\$4.5M	35 Years (30%)	4-POOR		
Data Confidence	Very High	Medium	Very High	High		
Animal Services Facilities	1 Owned 1 Leased	\$1.7M*	26 Years (49%)	4-POOR		
Data Confidence	Very High	Medium	Very High	High		
SUBTOTAL	\$6.2M		33 Years (34%)	4-POOR		
DATA CONFIDENCE	Medium		Very High	High		

FLEET					
ASSET CATEGORY	NUMBER OF ASSETS	REPLACEMENT VALUE	AVERAGE AGE (%RSL)	AVERAGE EQUIVALENT CONDITION	
By-law Fleet	51	\$1.8M	8 Years (24%)	4-POOR	
Data Confidence	High	Medium	High	Low	
Animal Fleet	10	\$0.5M	7 Years (34%)	4-POOR	
Data Confidence	High	Medium	High	Low	
Powered Equipment	2	\$5K	No Data	No Data	
Data Confidence	Low Low				
SUBTOTAL	\$2.3M		8 Years (26%)	4-POOR	
DATA CONFIDENCE	Medium		High	Low	

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EQUIPMENT					
ASSET CATEGORY	NUMBER OF REPLACEMENT ASSETS VALUE		AVERAGE AGE (%RSL)	AVERAGE EQUIVALENT CONDITION	
Admin	13	\$46K	No Data	No Data	
Data Confidence	Low	Low	NO Dala		
Animal Care	256	\$295K	No Doto	No Data	
Data Confidence	Low	Low	No Data		
Officer Equipment	27	\$63K	No Doto	No Data	
Data Confidence	Low	Low	No Data		
Officer Uniforms	51	\$133K	No Data	3-FAIR	
Data Confidence	Low	Low Low		Low	
SUBTOTAL	\$537K				
DATA CONFIDENCE	Low		No Data	No Data	

TECHNOLOGY					
ASSET CATEGORY	NUMBER OF REPLACEMENT ASSETS VALUE		AVERAGE AGE (%RSL)	AVERAGE EQUIVALENT CONDITION	
IT Hardware	200	\$270K	4 Years (26%)	4-POOR	
Data Confidence	High	High	High	Low	
Mobile Printers	80	\$72K	No Data	No Data	
Data Confidence	Low	Medium			
Mobile Phones	80	80 \$31K		3-FAIR	
Data Confidence	High	High High		Medium	
SUBTOTAL	\$3	\$374K		4-POOR	
DATA CONFIDENCE	High		High	Low	
TOTAL	\$9.4M		26 Years (43%)	4-POOR	
DATA CONFIDENCE	Medium		High	High	

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* The Animal Services Facility at 247 Dartnall Road is a shared facility with a third party, the Hamilton-Burlington Society for the Prevention of Cruelty to Animals (HBSPCA). The replacement value in **Table 3** does not include the replacement value of this facility as it is not a city-owned asset. It is Asset Management's understanding that 50% of costs relating to facility operations, maintenance and repairs are split with HBSPCA but any replacement facility could potentially require negotiation and discussion of a new agreement.

3.1 ASSET CONDITION GRADING

Condition refers to the physical state of the LBS 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 **Table 29**, is to review and/or develop existing internal condition assessments and ensure they are revised to report on the same 5-point scale with equivalent descriptions.

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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 is 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 the 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	The asset has significant defects and deterioration. Deterioration has an impact on asset's usage. Rehabilitation or major maintenance is required in the next year.	19.5% -39.4%	>= 10% to <30%
5 Very Poor	The asset has serious defects and deterioration. The asset is not fit for use. Urgent rehabilitation or closure is required.	<19.4%	>= 30%

The following conversion assumptions were made:

- For assets where a condition assessment was not completed, but age information was known, the condition was based on the percentage of remaining service life (%RSL).
- Facilities Condition Index conversion was based on ranges provided by a consultant who has previously completed Building Condition Assessments (BCA) for the City.
- Where no condition assessment is available or age is unknown, the condition is based on Subject Matter Expert (SME) opinion or listed as No Data and a condition of 0-UNKNOWN is assigned.

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

Licensing and By-law Services has four main operating locations: 330 Wentworth Street North, City Hall, 247 Dartnall Road and 345 Jones Road. Licensing administrative services are offered to the public at two different counter service locations in the city (City Hall and 330 Wentworth Street North).

Animal Facilities are considered as the shared HBSPCA space at 247 Dartnall Road and the building occupied at 345 Jones Road, which is in a Public Works yard. Although not owned by the city, the location at Dartnall Road is shared use and the City shares in operating and maintenance costs. The condition of the facility will have an impact on the quality of the service offered and has financial impacts on the City. This facility does not appear on the Facilities Age Profile, *Figure 2*, as the graph is done by replacement value which is not currently part of this AM Plan.

By-law Facilities are operated out of shared space at 330 Wentworth Street North. The replacement values for the shared facilities have been allocated based on the portion of the building that By-law is currently occupying. Since this square footage allocation changes regularly, a continuous improvement item identified in *Table 29* is to implement a process to keep up to date on facilities and square footage for LBS.

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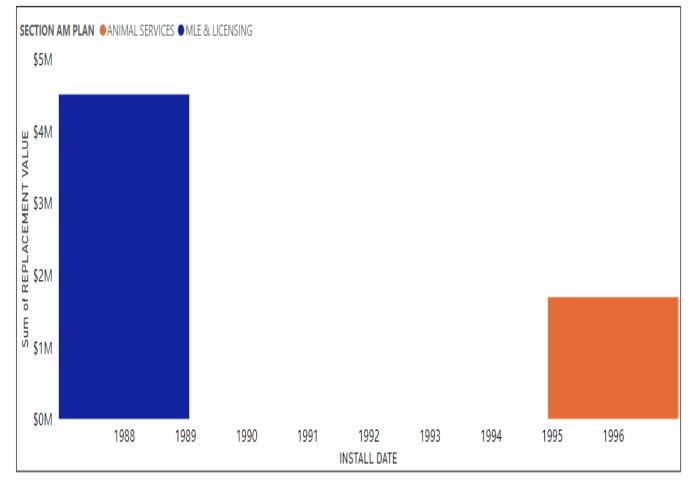
The service counter space at City Hall is not included in this AM Plan as City Hall has many shared user groups. The City Hall shared asset is not being allocated for this iteration of AM Plans and this asset will be addressed in the Corporate Facilities & Energy Management AM Plan.

3.2.1.1 AGE PROFILE

The age profile of the LBS Facilities assets is shown in *Figure 2*. For Facility assets, the data confidence for age is typically Very High because this information was recorded during the construction of the facilities.

At this time no LBS facilities are beyond their estimated service life.

Figure 2: Facilities Age Profile



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3.2.1.2 CONDITION METHODOLOGY & PROFILE

Condition for City of Hamilton facilities is determined based on the results of a Building Condition Assessment (BCA). BCAs are generally 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 calculated based on a ratio of the cost of work 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 this AM Plan is shown in **Table 4**.

ASSET	INSPECTION FREQUENCY	LAST INSPECTION	CONDITION SCORE OUTPUT
330 Wentworth Street North	BCA – Every five years	2019 Mantecon	% FCI
345 Jones Road	BCA – Every five years	2019 Mantecon	% FCI
247 Dartnall Road	BCA - Last overall condition Done in 2006	2006 Norr, 2009 Bldg. Innovation Energy Studies, 2007 Aegis Roofing	% FCI

Table 5: Inspection and Condition Information

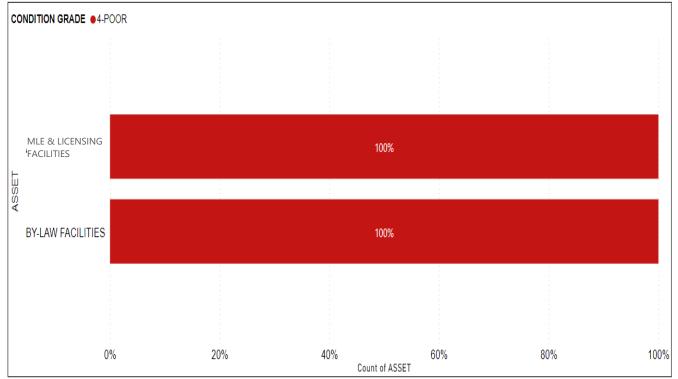
The last available Building Condition Assessment for 247 Dartnall Road, Animal Services Facility was done in 2006. Typically for other City facilities the BCA is done on a five-year basis. This BCA data being used in this report is in excess of 16 years old and items may have deteriorated further or been improved since it was completed so the actual condition based on FCI is low data confidence. A continuous improvement Item in **Table 29** is that a new BCA should be completed for this facility and a new condition be available for the next AM Plan update.

Animal Services works from two facilities at this time. The Jones Road location is part of the ongoing Public Works/CFEM Yards Study and decisions made in the yards study will have an impact on Animal Services work procedures and operations. This may require additional capital funding or changes to future operating and maintenance expenses related to relocation or reconfiguration of facilities to replace this facility in the future if that is the conclusion of the yards study. Once the yard study is completed and Animal Services can develop a strategic facilities plan these lifecycle costs can be incorporated in detail in future AM Plans.

The condition profile for LBS facilities is shown below in *Figure 3*. It is evident that the facilities are in Poor condition based on the results of the available BCAs despite the facilities being within their estimated useful lives. Many of the identified needs are due to building components being at the end of their service life with some of the larger items detailed in *Table 6*, Known Service Performance Deficiencies.

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3.2.1.3 ASSET USAGE AND PERFORMANCE

The largest performance issues with LBS facilities involve components at the end of their service life. The significant service performance deficiencies for Facilities in **Table 6** were identified using information from the BCA considering cost and consequences of failure. At this time, many of these deficiencies have not yet been incorporated into the capital budget and are an outstanding need.

ASSET	LOCATION	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
Facilities	330 Wentworth Street North (Multi-Tenant Facility – By- law)	Built-Up Roof	Built up roof requires replacement.
rachilles		Asphalt Paving	Observed to be in poor condition with visible cracking and areas of ponding.

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ASSET	LOCATION	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
		Footings and Foundations	Visible deterioration on poured concrete walls.
		Electrical Service Equipment	Replacement recommended.
		Asphalt Paving	The parking lot is in poor condition with many areas of cracking, ponding and patchwork.
	345 Jones Road - Animal Services	Roof Mounted Make up Air Units	Gas-fired units near end-of-life expectancy (2018) and should be replaced.
		Yard Review Plan	This facility is part of the Yards Review strategy and changes to the AM Plan analysis may be required once the study is completed.

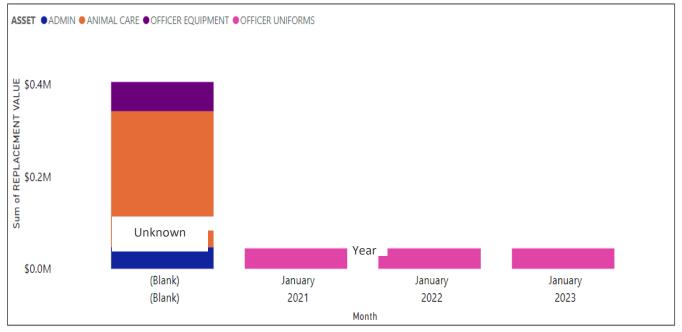
3.2.2 EQUIPMENT PROFILE

3.2.2.1 AGE PROFILE

The age profile of the LBS Equipment assets is shown in *Figure 6*. No age data is available for much of this equipment. A continuous improvement item in *Table 29* is to prepare an Asset Register to begin to track the quantity, age and condition of many of these assets in a more formal, documented manner. The uniform age profile is equally distributed based on the SME's estimated service life.

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Figure 4: Equipment Age Profile



3.2.2.2 CONDITION METHODOLOGY & PROFILE

The majority of equipment does not have a formal condition process. Officer enforcement tools typically require inspection, certification, and calibration such that the measurements can be submitted as evidence for enforcement purposes.

ASSET	INSPECTION FREQUENCY	LAST INSPECTION	CONDITION SCORE OUTPUT	
Officer Equipment – temperature probes, noise meters, not guns	Annual Calibration	2023	Certificate of Calibration	
Officer Uniforms	As Needed	Ad Hoc	Uniforms replaced as per Collective Agreement – assumed to be in fair condition overall	

Table 6: Inspection and Condition Information

The condition profile for LBS Equipment assets is shown below in *Figure 7.* The condition of such equipment is unknown, age is also unknown so the condition cannot be determined from %RSL. A continuous improvement item in *Table 29* is to prepare an Asset Register to begin to track inspections and conditions for many of these assets in a more formal, documented manner.

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The Officer Uniform condition is based on subject matter expertise. The Collective Agreement requires the replacement of uniform items based on specific criteria which ensures that uniforms overall could always be considered to be at a minimum, in fair condition.

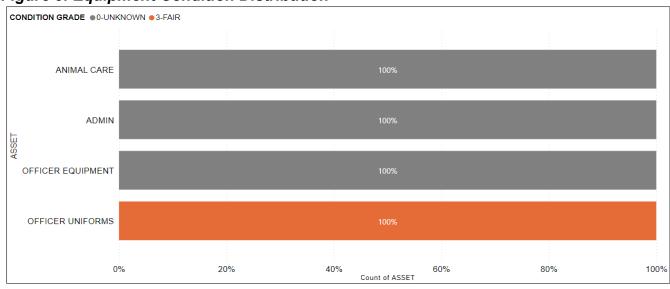


Figure 5: Equipment Condition Distribution

3.2.2.3 ASSET USAGE AND PERFORMANCE

The largest known service performance deficiencies are with equipment nearing or exceeding the estimated service life.

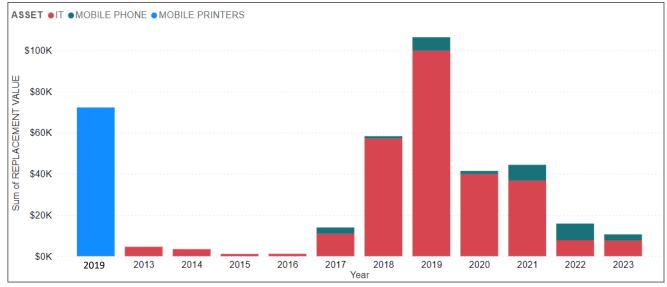
ASSET	LOCATION	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
ANIMAL CARE	Animal Care and Enforcement Equipment	Animal Care Equipment – cages rusting, Kuranda beds nearing the end of life, catch pole nets nearing the end of life	The equipment is nearing the end of its life and needs replacement. Rusting cages are difficult to clean.
OFFICER TOOLS	Thermometers	Repeated failures in calibration	Not enough enforcement tools or tools not working when needed. This creates delays and challenges in enforcement.

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3.2.2.4 AGE PROFILE

The age profile of the LBS Technology assets is shown in *Figure 8.* An analysis of the age profile is provided below. Much of the Information Technology (IT) equipment has an estimated service life of four to five years. Any equipment older than 2019 should be reviewed and where necessary renewal should be considered. Mobile printers were purchased in 2019 as part of a transition to a mobile officer program and are shown on the graph below to the left of the remaining assets.

Figure 6: Technology Age Profile



3.2.2.5 CONDITION METHODOLOGY & PROFILE

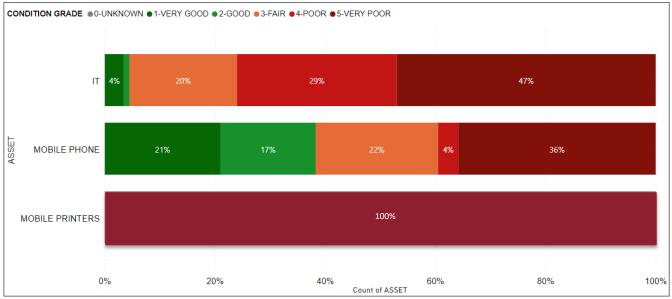
The majority of Technology assets do not have a formal inspection program and are inspected ad hoc.

Table 8: Inspection and Condition Information

ASSET	INSPECTION FREQUENCY	LAST INSPECTION	CONDITION SCORE OUTPUT
All Technology Assets	Ad Hoc	Ad Hoc	N/A

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Figure 7: Technology Condition Distribution



There is no formal asset inspection or physical inspection that leads to a condition rating for Technology assets. The condition of Technology assets is based only on age and estimated service life. The condition scores were developed from the %RSL as detailed in *Table 4*. The Mobile Printers refer to the Zebra Printers used by officers to issue tickets in the field.

3.2.2.6 ASSET USAGE AND PERFORMANCE

There are no known service performance deficiencies with technology.

Table 9: Known Service Performance Deficiencies

ASSET	SERVICE DEFICIENCY	DESCRIPTION OF DEFICIENCY
None	None	None

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4. MUNICIPALLY DEFINED LEVELS OF SERVICE

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

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

4.1 SURVEY METHODOLOGY

To develop customer values and customer levels of service, a Customer Engagement Survey entitled *Let's Connect, Hamilton – City Services & Assets Review:* **Animal Services, Licensing and Municipal Law Enforcement (By-law)** was released November 27, 2023, on the Engage Hamilton platform and closed on January 2, 2024. The survey results can be found in Appendix "A".

The survey received submissions from 70 respondents and contained 41 questions related to the *Animal Services, Licensing and Municipal Law Enforcement (By-law)* service delivery. Based on the number of responses, a sample size of 70 correlates to a 95% confidence level with a 12% margin of error based on an approximate population size of 570,000². This error is a significant amount and will cause uncertainty in the final results. The survey will be used to develop the initial customer values and customer performance measures for this AM Plan however there will be uncertainty and further detailed investigation should be made before any specific changes to levels of service are proposed. These survey results might point to trends or areas to consider further. It is important to note that respondents could opt out of questions, and so different questions may have different confidence levels depending on the opt-out rate for that question. Most survey respondents also indicated that they experienced the services *Very Infrequently* or *Infrequently* over the last two years which means that responses are based on their perception of the services and not necessarily on direct experience.

When reviewing demographic data for the survey it is noted that the 18–34-year age group is underrepresented in the respondents compared to the proportion of the population they represent and that the 35-64 age group is overrepresented. The geographic makeup has rural respondents largely underrepresented and upper city respondents somewhat underrepresented based on the known geographic distribution of residents. The majority of respondents indicate they are homeowners but there is also representation from tenants and other living situations identified as well.

² Census Profile, 2021 Census of Population, 2021

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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. 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. Although there are limitations to the survey methodology it does appear that these results can be used to provide some context about the feelings of customers on the services LBS provides, but decisions should not be made based on this survey alone.

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
		30%+ - significant error in results, hard to interpret data in a meaningful way

Table 10: Data Confidence Levels

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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 & Assets Review:* **Animal Services, Licensing and Municipal Law Enforcement (By-law).** This will be summarized as the 2024 LBS City Services & Assets Review Survey.

Table 11: Customer Values

SERVICE OBJECTIVE					
CUSTOMER VALUES	CUSTOMER SATISFACTION MEASURE	CURRENT FEEDBACK "Based on Average Survey Response…"	Data Consistency (Table 13)	EXPECTED TREND BASED ON PLANNED BUDGET (10-YEAR HORIZON)	
All service areas surveyed provided by LBS are rated as important services to provide	2024 LBS City Services & Assets Review Survey	 it is <i>important</i> for LBS to be responsible for providing these services: Business Licensing, Property Use Enforcement, and Trade Licensing. Animal Control Enforcement, Animal Adoption, Dog Licensing, Temporary Business Licensing. 	High Data Consistency Medium Data Consistency	Maintain	
Services provided by LBS should meet my needs		are <i>neutral</i> that services meet their needs.	Medium Data Consistency	Maintain	

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SERVICE OBJECTIVE					
CUSTOMER VALUES	CUSTOMER SATISFACTION MEASURE	CURRENT FEEDBACK "Based on Average Survey Response…"	Data Consistency (Table 13)	EXPECTED TREND BASED ON PLANNED BUDGET (10-YEAR HORIZON)	
Overall customers would possibly recommend LBS services to others		would <i>possibly</i> recommend LBS to others. Services that stood out as <i>probably recommended</i> include Animal Adoption and Dog Licensing services.	Medium Data Consistency	Maintain	
Rates (taxation) should be maintained		LBS should maintain rates.	Medium Data Consistency	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 LBS service in terms of their quality, reliability, accessibility, responsiveness, sustainability and, of 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 14** 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 12: Customer Levels of Service

TYPE OF MEASURE	LEVEL OF SERVICE STATEMENT	SOURCE	PERFORMANCE MEASURE	CURRENT PERFORMANC E	EXPECTED TREND BASED ON PLANNED BUDGET
	Provide effective and adequate Animal Services, Licensing and Municipal Law Enforcement Services.	2024 LBS City Services & Assets Review Survey	Average survey respondents on how LBS has performed overall in the last 24 months in all service areas.	Average	Maintain
			Confidence Level		Medium
			Data Consistency		Medium
Quality/ Condition	Ensure that LBS assets are	2024 LBS City Services & Assets Review Survey	Average survey respondent opinion on whether LBS facilities are physically accessible, welcoming, and inclusive over the last two years.	Neutral	Maintain
	maintained in good condition.		Confidence Level		Medium
			Data Consistency		Medium
	Be fiscally responsible when delivering services.	2024 LBS City Services & Assets Review Survey	Average survey respondent opinion on whether LBS is providing good value for money overall.	Neutral	Maintain
			Confidence Level		Medium
			Data Consistency		Medium
	Provide appropriate LBS services that meet needs.	2024 LBS City Services & Assets Review Survey	Average survey respondent opinion on whether LBS services meet their service needs overall.	Neutral	Maintain
			Confidence Level		Medium
Function			Data Consistency		Medium
Function	Ensure Response timelines are reasonable.	2024 LBS City Services & Assets Review Survey	Average survey respondent if LBS responds within a reasonable timeframe.	Neutral	Decrease
			Confidence Level		Medium
			Data Consistency		Medium
Capacity / Use	Services are easy to access.	2024 LBS City Services & Assets Review Survey	Average survey respondents if LBS services are easy to access in person, online or by phone over the last two years.	Neutral	Maintain
			Confidence Level		Medium
			Data Consistency		Medium

4.3.1 CUSTOMER INDICES

The two indices calculated to assess how customer expectations for a service are aligning with the perceived performance for a service are listed below in *Table 15.* These indices are explained and analyzed in detail in the sections below.

Table 13: Customer Indices

CUSTOMER INDICES	AVERAGE RESULT
Service Importance Versus Performance Net Differential ³	-26
Net Promoter Score (%) ⁴	-44

The information below is intended to provide context around the survey results to assist LBS 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 are indicative of a mismatch between expectations and service levels, equal to one point on the Likert⁵ scale.

Per *Figure 10*, below, the net differential exceeds 20 points for the majority of services offered by LBS. This indicates that there are mismatches between how respondents feel about the importance of the service versus how the service is performing. LBS could investigate Property Use Enforcement and Animal Control Enforcement if they were to consider proposing different levels of service. To reduce the net differential LBS would have to increase their performance to Good for property use and Very Good for Animal Control Enforcement which they could accomplish by altering their Technical Levels of Service as explained in *Section 4.3*. Differential results around licensing (trade, business and temporary) could be considered as well as areas of potential change however nearly 50% of respondents opted out of responding to these questions so results exceed a 20% margin of error indicating that these results are difficult to trust.

³ 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 of service levels.

⁴ 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.

⁵ 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).

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It is noted that there is a good match between performance and importance relating to Animal Adoption and Dog Licensing services.

Since the majority of respondents have infrequently used the service, these results are based on customers' perceptions of the performance and on limited experience with the service.

Service Area Performance (index score) Importance (index score) Net Opt Out % Differential 59 85 Total -26 29% Property use enforcement (Bylaws, such as: Fireworks, fences, noise control) 89 -45 13% 44 Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building 54 87 -34 46% repair) Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and 56 88 -32 13% safety of residents, protects property and prevents public issues) Business licencing (Example: Taxicabs, hotels, restaurants) 59 90 -31 44% Temporary business licencing (Valid for 30 days, used to test markets and promote business 56 77 -21 51% development with minimal risk) Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw) 69 79 -10 14% Animal adoption from City of Hamilton shelter (247 Dartnall Rd) 83 -9 74 24%

Figure 8: Importance versus Performance Index Score

NET PROMOTER SCORE INDICE

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

Likert choices (A Likert scale is a rating scale used to measure opinions, attitudes, or behaviours and consists of a statement or question followed by a series of five or seven answer statements) less than a score of four are considered 'Detractors' meaning that they would not recommend the service, while scores of five are considered 'Promoters' who would recommend the service and scores of four 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 below in *Figure 11*, LBS has a negative net promotor score indicating that on average customers would not recommend LBS services to others.

Figure 9: Net Promoter Score

Service Area	σ	N	PS	Detractors	Passives	Promoter
All Service Areas	1.34		-43.77	223	96	58
Animal Services, Licencing and Municipal Law Enforcement (By-law) services meet my needs	1.39		-50.00	43	7	12
I would be willing to increase taxation to provide better Licencing, Bylaw & Animal Services Division's services	1.42		-46.97	39	19	8
Licencing, Bylaw & Animal Services Division's respond within a reasonable timeframe	1.38		-46.15	32	12	8
Licencing, Bylaw & Animal Services Division's service provides good value for money	1.42		-45.00	36	15	9
Services are easy to access in person, online or by phone	1.27		-42.19	36	19	9
Spaces are physically accessible	1.05		-35.14	19	12	6
Spaces are welcoming and inclusive for all	1.09		-33.33	18	12	6

SERVICE RATES VERSUS VALUE FOR MONEY INDICE

The Service Rates versus Value for Money indices are 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 are indicative of a mismatch between expectations and service levels, equal to one point on the Likert⁶ 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.

Although these indices were not measured directly for this iteration of the Animal Services, Licensing and Municipal Law Enforcement (By-law) AM Plan when comparing past experiences and asking customers if"...services meet my needs" to "I would be willing to increase taxation to provide better... services" both are rated as 'Neutral' indicating a general match of perceived Value for money.

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

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).

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lifecycle activities to demonstrate how the City is performing in delivering the desired level of service as well as to influence how customers perceive the services they receive from the assets.

Technical service measures are linked to the activities and annual budgets covering Acquisition, Operation, Maintenance, and Renewal. Asset owners and managers create, implement and control technical service levels to influence the service outcomes.2F⁷

Table 16 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.

Table 14: Technical Levels of Service

LIFECYCLE ACTIVITY	LEVEL OF SERVICE	ACTIVITY MEASURE	CURRENT ACTUAL PERFORMANCE (2023)	CURRENT TARGET PERFORMANCE (2024)	PROPOSED 10-YEAR PERFORMANCE
Acquisition	Ensure LBS has the capacity to reliably respond to service requests in a timely manner and new By- laws.	A number of new vehicles were purchased due to growth/demand (2024 Approved budget items, Business Cases and General Growth).	No approved Acquisitions in 2023.	PED23237 ⁸ = 1 PED23236 ⁹ = 1 PED23072(b) ¹⁰ = 3 5 Total	BC 1.1 = 1 PED23072(b) ¹⁰ = 13 PED23237 ⁸ = 1 PED23236 ⁹ = 1 Pop ratio = 4 20 Total
		Budget		\$273K	\$1.1M
	Customers desire	Number of working days it takes to respond to concerns coming through CCMLE.	-	24 Hours of Receiving Request	24 Hours of Receiving Request
Operation	quick turn-around to their By-law/Licensing and Animal Services related concerns.	Percent of times By-law clerks respond to incoming phone calls.	-	100%	Future continuous improvement initiatives to set targets and recommended performance
		Budget			TBD
Customers desire a high level of customer satisfaction (virtual or in-person services).		Number of annual service requests received via phone call.	3519 (YTD Sep 2023)	TBD	Future continuous improvement initiatives to set targets and recommended performance

¹⁰ Gillian Barkovitch / James O'Brien, 2024

⁸ Reid, 2023

⁹ Barkovitch, 2023

LIFECYCLE ACTIVITY	LEVEL OF SERVICE	ACTIVITY MEASURE	CURRENT ACTUAL PERFORMANCE (2023)	CURRENT TARGET PERFORMANCE (2024)	PROPOSED 10-YEAR PERFORMANCE
		Number of annual service requests received via email or online forms.	4617 (YTD Sep 2023)	TBD	Future continuous improvement initiatives to set targets and recommended performance
		Budget			TBD
	Customers want to be able to rely on the services when needed (virtual or in-person).	 Average number of open service desks. Number of days the website is operational. 	Not Currently Measured. Future continuous improvement items to track going forward	No Target	Future continuous improvement initiatives to set targets and recommended performance
		Budget			TBD
Maintenance	Ensure that By- law/MLE/Animal Services facilities assets are maintained in good condition.	Average Facility Condition Index for Facilities	Wentworth – 19.82% Jones Road – 11.75% Dartnall Road– 16.08%	<5%	<5%
		Budget			\$4.5M
Renewal	Ensure that Animal Services, Licensing and Municipal Law Enforcement assets are renewed when appropriate.	Percent of Fleet that exceeds Estimated Service Life in years.	Animal Services = 1 of 10 (10%) MLE, Licensing = 8 of 51 (15%)	5%	5%
		Budget			\$226K

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It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

It is important to note that these metrics were created specifically for this 2023 AM Plan with available data and some of these metrics are not yet being measured. Many of these metrics should be improved to include a target to be in line with SMART objectives identified on Page 43 of the <u>AM Plan Overview</u>.

4.3.3 PROPOSED LEVELS OF SERVICE DISCUSSION

LBS is developing and benchmarking potential additional Technical Levels of Service as a continuous improvement item in *Table 29*. When developing these Technical LOS consideration could be given to developing Technical LOS that match to Customer LOS. Since the confidence level associated with the survey is a maximum of medium, and most survey respondents were not actual users of the service, it is difficult to make any conclusive decisions based on this initial survey. LBS will need to collect more customer data before proposing any new levels of service beyond what has been approved as part of the 2024 budget process. It has been assumed in the interim that the current levels of service will be the proposed levels of service moving forward past 2025 in accordance with O. Reg 588/17. The information below is intended to provide context to direct LBS to areas for further investigation before proposing any new levels of service.

In addition, many of LBS asset customers are internal customers (e.g., staff) as they are the main users of LBS assets. For this first iteration of the AM Plan, the focus was on external customers (i.e., the public), and as a result, there are some gaps in the information below with respect to internal customers. This has been identified as a continuous improvement item in *Table 29.*

CONDITION / QUALITY

Based on the Customer Levels of Service **Table 14** and Technical Levels of Service **Table 16**, it seems likely that typically customer expectations match service levels, given the neutral rating given to many survey questions. Again, results must be interpreted recognizing the margin of error in the survey results.

Survey respondents thought that LBS had average performance overall and they felt neutral about using LBS services showing a match in customer expectations and technical targets.

In terms of providing good value for money, customers felt neutral about whether the services provided good value for money, showing a match in customer expectations and technical targets.

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As previously mentioned, LBS does not yet have an internal survey to survey internal staff on the condition of assets, and LBS does not yet have measures or targets for maintaining assets in acceptable condition. This has been identified as a continuous improvement item in *Table 29.*

FUNCTION

Survey respondents thought that LBS was neutral in meeting service needs overall. However, when asked about response times customers were also neutral if responses were received in a reasonable timeframe. This seems that there is agreement between service needs and response times and that current performance on Technical Key Performance Indicators (KPIs) could be considered when setting targets.

CAPACITY

Customers rated their satisfaction with their ability to access services as predominately neutral.

Customers were neutral on increasing taxation to provide better Licensing, By-law, and Animal Services. It will be difficult to greatly improve Levels of Service experiences as these improvements would typically require increasing the capacity of the service, and also costs, to respond more quickly or to resolve the ever-growing requests for service and expanding by-laws that require enforcement. Some LOS improvements that seem to be desired by customers, such as Noise By-law enforcement at all hours, are related to specific previous council reports and approvals and would require different approvals from council to implement changes.

When customers were asked about what could be done to improve services or spaces in the future from an open text box in the survey the word cloud summary reveals: dog enforcement (dogs, animals), fireworks, and proactive, as key themes to consider.

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 LBS service area, the key drivers are population growth and legislative change.

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 17*. Growth projections have been shown on *Page 45* of the <u>*AM Plan Overview*</u> document.

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

5.3 DEMAND IMPACT AND DEMAND MANAGEMENT PLAN

The impact of demand drivers that may affect future service delivery and use of assets is shown in *Table 17*. 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 17*. Climate change adaptation is included in *Table 23.*

Table 15: Demand Management Plan

DEMAND DRIVER	CURRENT POSITION	PROJECTION	IMPACT ON SERVICES	
Population Increase: Officer to Population Ratio 2023 levels	51 Officers population 570K = 9 officers per 100,000	Future Population (236 K increase) 21 additional officers could be considered by 2051 Add 2 officers every 3 years to maintain the current ratio	 Additional Officers are needed to maintain the current LOS/Ratio. If not added: Decrease in customer satisfaction; Decrease in the number of proactive inspections; and, Longer response times. 	 Request A Consider p Acquire ac computers Investigate service lev
Reputation (Number of complaints for investigation)	2023 Service Request Volume: 43,441 (7,621 per 100K residents)	Forecast Service Request volume: 62,500	Increased staff time to respond.Reputational impacts.	See the Dema • Additional complaints Additional
Population Growth – Additional Animal Services needed	One facility, Animal care capacity concerns exist today	Service needs will grow. New purpose-built facility with expanded capacity.	Unable to accept voluntary surrenders in a timely manner.	Population possibly ne
Financial (Unemployment rate & inflation)	Hamilton's unemployment rate is 6.0% (three-month average January 2024)	Unknown	 Increase in the number of shelter intakes at Animal Services as residents can't care for pets due to financial limitations. Decrease in pet adoptions due to lack of affordability. 	Expansion of f Additional Additional Assets for Additional Increase in Proposed but FTEs and Equ Officers.
Environmental Commitments (Reduction in carbon emissions)	54 Vehicles (10 Hybrid, 1 EV)	80+ Vehicles	Increase in operating cost. Increased fuel cost.	Procure more training, dispos vehicles/parkir
Technology (Digital notes - provincial initiative) (Body cameras) (QR codes)	Digital notes are currently entered into the AMANDA system Currently no body cameras Currently no use of QR codes	Procure advanced technology for digital notes whether it be a digital notebook, or apps on cell phones Procure body cameras for evidence Information integration using QR codes	 Reduce staff and officer's admin time; Improved accuracy/consistency in text, less confusion, easily readable; Consistency in courts that may increase credibility; Impact Freedom of Information (FOI) requests – ease of access; Possible use of body cameras can capture all incidents creating additional evidence; and, Use of QR codes specific to licensing, to minimize the use of paper documents, and mailing, improve accessibility, reduce errors, and can be used for contractors (ensure consistent information). 	 Active protection Additional Additional Possible a
An increase in the scope of By- laws draws demand for additional officers/impacts existing response times	51 officers currently		A mismatch between new by-laws and additional resources to enforce by-laws causes service delays and complaints.	 Request for new by-law PED23237 PED23072 By-law PED 2323

¹¹ Reid, 2023

¹² Gillian Barkovitch / James O'Brien, 2024

¹³ Barkovitch, 2023

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DEMAND MANAGEMENT PLAN

t Additional officers and support staff to ensure capacity. er part-time staff.

additional assets (vehicles, office space, furniture,

ers/laptops, cell phones) to support new FTEs.

ate jurisdictional scans to compare to other municipalities and their levels for benchmarking.

mand Management Plan above.

nal FTEs needed to receive complaints (by-law clerks) and address ints (officers), admin staff, and legal staff.

nal projects will require the addition of project managers to the staff.

ion growth will drive the need for additional shelter spaces and / new facilities.

of facility will need:

nal vet staff;

nal shelter;

for animal care;

nal staff to accommodate; and,

in shelter intakes.

ut not funded at this time - Business Case 1.1 requests additional quipment related to Animal Services related to current Animal Care

re EVs, active implementation of anti-idling, mandatory eco driver posal of aged vehicles additional charging stations, storage of rking.

rocurement of digital note solutions, body cameras and QR code bgy for information integration.

nal training in the use of new technology.

hal staff for roll out of new technology initiatives.

alignment with Hamilton Police Services for digital notes.

t for Additional FTEs /vehicles for Council Referred Items to support law enforcement.

237¹¹ – Waterfront Ambassador Program

072(b)¹² – Renovation License By-law and Safe Apartment Buildings

236¹³ - Industrial/Commercial Proactive By-law pilot project

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5.4 ASSET PROGRAMS TO MEET DEMAND

The new assets required to meet demand may be acquired, donated or constructed. For *Animal Services, Licensing and Municipal Law Enforcement (By-law)*, assets are typically purchased or constructed.

At this time there are additional vehicles and FTE officers planned to be acquired over the next 5 years related to PED23237 – Waterfront Ambassador Program¹⁴; PED23072(b) – Renovation License By-law and Safe Apartment Buildings¹⁵; and, By-law PED 23236 Industrial/Commercial Proactive By-law pilot project¹⁶. Acquiring new assets will commit Animal Services, Licensing and Municipal Law Enforcement (By-law) 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.

¹⁴ Reid, 2023

¹⁵ Gillian Barkovitch / James O'Brien, 2024

¹⁶ Barkovitch, 2023

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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'¹⁷.

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. The City of 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 18*. Failure modes may include physical failure, collapse or essential service interruption.

Table 16: Critical Assets

CRITICAL ASSET	FAILURE MODE	IMPACT
Animal Services Facility	Facility unusable (heat, fire, flood structural)	Unable to meet legislative requirements to meet care standards for animals.
By-Law and Animal Services Vehicles	Essential service interruption	Challenges to respond in a timely manner due to not enough serviceable vehicles.

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

6.2 **RISK ASSESSMENT**

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

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

Critical risks are those assessed with 'Very High' (requiring immediate corrective action), and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan are shown in *Table 19*. It is essential that these critical risks and costs are reported to management. Additional risks will be developed in future iterations of the plan and are identified in *Table 29* in the Continuous Improvement Section of the plan.

SERVICE OR ASSET AT RISK	WHAT COULD HAPPEN	RISK RATING	RISK TREATMENT PLAN	RESIDUAL RISK	TREATMENT COSTS
Animal Services Facility	Animal Services facility uninhabitable (longer than 12 hours)	HIGH	Update and Practice Business Continuity Plans for various scenarios	MEDIUM	TBD
Animal Services Facility	Joint use of 247 Dartnall Road with HBSPCE ends	HIGH	Develop Risk Mitigation Plans	MEDIUM	All facility costs of the new facility would need to be paid 100% by the City of Hamilton and the City would need to construct a new facility

Table 17: Risks and Treatment Plans

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SERVICE OR ASSET AT RISK	WHAT COULD HAPPEN	RISK RATING	RISK TREATMENT PLAN	RESIDUAL RISK	TREATMENT COSTS
By-law Enforcement	Delays in enforcing By- laws due to available resources might lead to litigation/claims against the City	HIGH	Prioritize service requests. Public safety calls are given the highest priority. Advocate for additional resources to address increasing call volumes.	MEDIUM	See 2023 in year and 2024 budget Referred Item requests. Consider future year requests for growth-related FTEs.

6.3 INFRASTRUCTURE RESILIENCE APPROACH

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions the City needs to understand its capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service. We do not currently measure our resilience in service delivery, and this will be included in the next iteration of the AM Plan.

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

6.4 SERVICE AND RISK TRADE-OFFS

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

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

Table 18: Service and Risk T	rade-offs	
WHAT WE CANNOT DO	SERVICE TRADE-OFF	RISK TRADE-OFF
(What can we not afford over the next 10 years?)	(How will not completing this affect our service?)	(What risk consequences are we undertaking?)
Acquisition of additional vehicles and enforcement tools for additional officers related to growth.	Longer timelines to respond to non-life-threatening calls for service.	Reputational risk due to not meeting customer expectations.
Increase animal intake services without expansion of facilities, vehicles, equipment and staff.	Demand for services may exceed capacity as the city grows. Unable to accept surrendered animals and accommodate stray animals.	Health and safety concerns for animals. Public satisfaction with service will decline.
Develop, implement and enforce new Council- approved by-laws and schedules in reasonable timelines and implement new by-law programs with limited resources.	Increasing amounts and complexity of by-laws and enforcement requests will delay response times, investigation and resolution.	Financial risk of liability and claims against the City. Reputational risk due to not meeting customer expectations. Continued non-compliance with by-laws. Increased risk to the health and safety of residents.
Implement technology improvements/service process improvements due to the increasing volume of regular operational work.	Not able to provide services the way the public wants, missed efficiency opportunities.	Public satisfaction with service will decline. Lack of transparency with the public unable to access desired information. Staff frustrations with older processes.

7. CLIMATE CHANGE AND MITIGATION

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

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

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

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

If climate change mitigation/adaptation projects have already been budgeted, these costs have been incorporated into the lifecycle models. However, many asset owners have not yet quantified the effects of the proposed demand management and risk adaptation plans described in this section, and so associated levels of service and costs will be addressed in future revisions of the plan. This has been identified as a continuous improvement item in **Table 29**.

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 Plan¹⁸ (CEEP includes five low-carbon transformations necessary to achieve the City's target of net-zero GHG emissions by 2050:

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

¹⁸ Newbold, Skidmore, Chessman, Imhoff, & McDowell, 2022

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 21* below.

As previously mentioned, due to the high level of uncertainty with the demand management plans, the cost of the demand impacts below have not been included in the lifecycle models or levels of service at this time. The demand management plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should incorporate GHG emissions reduction methods, and changes which will be incorporated into future iterations of the AM Plan. This has been identified as a continuous improvement item in *Table 29.*

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

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MITIGATION DEMAND ANALYSIS

Table 19: Climate Change Mitigation Transformation

CLIMATE CHANGE MITIGATION TRANSFORMATION	MODELLED TARGET	IMPACT TO SERVICE OR ASSET	DEMAND MANAGEMENT PLAN
Changing How We Move	 100% of new municipal small and light-duty vehicles will be electric by 2040. 100% of new municipal heavy-duty vehicles switch to clean hydrogen by 2040. 	Electric vehicle chargers will need to be installed at all City yards. Initial upfront capital costs for electric vehicles. In the case of 24-hour operations, charging could be an issue.	Green Fleet Strategy deployment for MLE vehicles. Evaluate alternative vehicles under excessive idling conditions and ensure equipment (Automatic Vehicle Locating/Laptops) still operates when vehicles are off.
Revolutionizing Renewables	By 2050, 50% of municipal buildings will add rooftop solar PV, covering 30% of the building's electrical load.	Work with the CFEM division to incorporate any solar PV into buildings where appropriate considering capital cost for solar, and possible roof upgrades to support solar.	Work with the CFEM division to incorporate any solar PV into buildings where appropriate.
Transforming Our Buildings	By 2050, all municipal buildings will be retrofitted to achieve 50% energy efficiency relative to 2016.	The conversion may require the facility to be out of service for a period of time.	Facilities will need to be assessed to figure out the feasibility of any retrofits. Staff will need to be trained on the new system.
Transforming Our Buildings	e 1 5		Any new buildings constructed will look to achieve net-zero emissions in keeping with any City Policy.

MITIGATION RISK ANALYSIS

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

CURRENT MITIGATION PROJECTS

Mitigation projects LBS is currently pursuing are outlined below in *Table 22*. These projects may already be included in the budget and may be quantified in the lifecycle models.

Table 20: Asset Climate Mitigation Projects

PROJECT	CLIMATE CHANGE MITIGATION TRANSFORMATION	PROJECT DESCRIPTION	CLIMATE CHANGE IMPACT
None	Transforming our	LED Lighting was recently installed	Reduction in
	Buildings	at some facilities.	GHG

7.2 CLIMATE CHANGE ADAPTATION

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

The impacts of climate change may have a significant impact on the assets we manage and the services we provide. Climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which those impacts are responded to and managed.3F¹⁹

In 2021, the City of Hamilton completed a Vulnerability and Risk Assessment Report²⁰ 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.

 ¹⁹ IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure
 ²⁰ City of Hamilton & Local Governments for Sustainability Canada, 2021

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ADAPTATION DEMAND ANALYSIS

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

ADAPTATION IMPACT STATEMENT	BASELINE (1976- 2005) ²¹	AVERAGE PROJECTED CHANGE 2021-2050 ²¹ (ASSUMING RCP4.5 ²² SCENARIO)	POTENTIAL IMPACT ON ASSETS AND SERVICES	DEMAND MANAGEMENT PLAN
More frequent and intense heatwaves will increase instances of heat-related health and safety issues, particularly for households without access to reliable air- conditioning and the homeless.	2.1 average annual heat waves	4.7 average annual heat waves	Potential Increase in calls for service relating to proposed by-law for Adequate Temperature investigation and enforcement.	Additional Resources are requested through PED23072(b) ²³ .
Prolonged power outages during winter months due to an increase in ice storms resulting in public safety concerns.	187 mm average total winter precipitation	204 mm average total winter precipitation	Animal Services impacted by outages (heat/air conditioning, H&S of staff and animals). Unable to charge electric vehicles.	Document alternate locations for EV charging. Develop a Business Continuity Plan for the Animal Services Facility. Investigate alternative work locations for staff.

²¹ ICLEI Canada, 2022

²² RCP4.5 Scenario: Moderate projected Green House Gas concentrations, resulting from substantial climate change mitigation measures. It represents an increase of 4.5W/m2 in radiative forcing to the climate system. RCP 4.5 is associated with 580-720ppm of CO2 and would more than likely lead to 3°C of warming by the end of the 21st century.
²³ Gillian Barkovitch / James O'Brien, 2024

ADAPTATION IMPACT STATEMENT	BASELINE (1976- 2005) ²¹	AVERAGE PROJECTED CHANGE 2021-2050 ²¹ (ASSUMING RCP4.5 ²² SCENARIO)	POTENTIAL IMPACT ON ASSETS AND SERVICES	DEMAND MANAGEMENT PLAN
Rising summer temperatures and extreme heat will increase energy demand for air conditioning, causing a financial burden for low- income households.	25.9 degrees Celsius average summer seasonal temperature	27 degrees Celsius average summer seasonal temperature	Rising summer temperatures and extreme heat will increase energy demand for air conditioning, causing a higher load on equipment and more run time. This will increase costs and reduce the lifecycle of equipment.	Work with the CFEM division to ensure that critical HVAC systems are inspected and maintained at appropriate intervals and replace systems at the end of life when the risk of failure is highest to guard against reactive replacement.
Reduced capacity of flood protection measures and water storage caused by an increase in rainfall intensity leading to flooding.	6.7 total heavy precipitation days (20 mm)	7.7 total heavy precipitation days (20 mm)	EV Charging stations might be unusable. Flooding may leave the Animal Shelter unusable.	Damage to EV charging stations in the event of flooding. Infrastructure plan to accommodate the possibility of future flooding when installing charging stations. The business Continuity Plan should consider a relocation/evacuation plan for the Animal Services shelter. Any new infrastructure should consider a risk assessment for flooding based on current climate models (updated for climate change).

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 24.*

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 *Table 29.*

ADAPTATION IMPACT STATEMENT	SERVICE OR ASSET AT RISK DUE TO IMPACT	WHAT COULD HAPPEN	RISK RATING	RISK ADAPTATION PLAN
Various	Animal Shelter	Flooding of the facility. Power outage impacting utilities resulting in lack of ability to heat or cool.	High	Update and practice the Business Continuity Plan as outlined in the Risk Section of the AM Plan.

Table 22: Adapting to Climate Change

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CURRENT ADAPTATION PROJECTS

At this time this service area does not have any adaptation projects identified.

CLIMATE ADAPTATION DISCUSSION

Climate effects are more difficult to assess on LBS services and assets and need to be investigated further which has been identified as a continuous improvement item in *Table 29.*

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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 longterm financial plan but only to the extent that there is available funding.

At the time of writing, LBS does not have a Capital budget or forecast. A continuous improvement item noted in *Table 29* is to create a 10-year Capital budget and forecast. The budgets identified in the lifecycle management plan are based on the approved 2023 budget and in-year approvals for PED23237²⁴ and 2024 budget requests relating to PED 23072(b)²⁵, and PED23236²⁶. No additional increases have been assumed, i.e., the budget was flatlined across future years. Operating budgets are created annually. The budgets used are also the **gross budgets** as the impact of revenues collected by LBS will be considered as part of the Long-Term Financial plan impact, as such any funding gap identified is not necessarily attributed directly to the levy and may be recovered in part by increased enforcement activities.

8.1 ACQUISITION PLAN

The 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.

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.

²⁴ Reid, 2023

²⁵ Gillian Barkovitch / James O'Brien, 2024

²⁶ Barkovitch, 2023

CONSTRUCTED OR PURCHASED ACQUISITIONS

Over the next 30-year planning period, based on current proposed council-referred items, business cases, and maintaining existing officer-to-population ratio, the City may acquire approximately **\$1.5M** of purchased or constructed assets which can either be new assets which did not exist before or expansion of assets when they are to be replaced. Major possible acquisition expenditures over the next thirty years include:

- Approved acquisitions (15 additional vehicles):
 - Thirteen additional approved By-law Enforcement vehicles (\$709K) PED23072(b)²⁷;
 - One additional vehicle (\$55K) approved Waterfront Ambassador Vehicle PED 23237²⁸; and,
 - One additional vehicle (\$55K) approved Industrial/Commercial Proactive By-law pilot project PED 23236²⁹.
- Proposed acquisitions (11 additional vehicles):
 - One additional proposed Animal Services vehicle (\$90K) BC 1.1; and,
 - Forecast/proposed additional 10 vehicles and equipment costs for 20 FTEs to maintain the current ratio of officers to population based on the existing 2023 Bylaw scope of work (\$606K).

It is important to note that proposed acquisitions are not necessarily approved at this time but have been included in the financial projections to show the lifecycle impacts if they are approved by Council and if not implemented level of service may decrease as population growth occurs.

One additional acquisition that is not currently modelled is either the acquisition of new space for Animal Services or the participation in the renewal of the existing shared-use facility. Timing and costs for this are unknown and any renewal cost sharing arrangements are not publicly available. A facilities strategic plan should be completed for Animal Services. This has been identified as a continuous improvement item in *Table 29*.

One additional acquisition that is not currently modelled is the acquisition of new space to accommodate the additional vehicle parking and working space for new FTEs identified and approved as part of the 2024 budget process. It is not determined at this time if this expansion can be accommodated within the existing space allocation at 330 Wentworth Street North or if additional space or facilities will be needed.

The City has insufficient budget for its proposed purchased or constructed acquisitions at this time. This does not address future asset needs that may need to be purchased or constructed to ensure service levels are maintained over the long term. With competing needs for resources

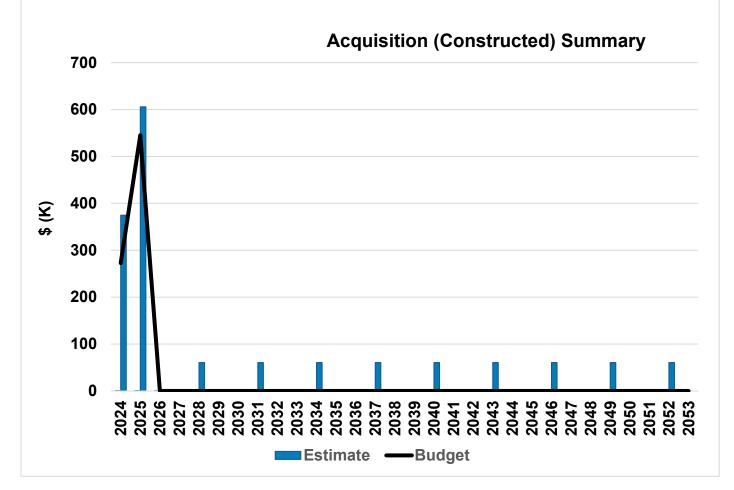
²⁷ Gillian Barkovitch / James O'Brien, 2024

²⁸ Reid, 2023

²⁹ Barkovitch, 2023

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. The City of Hamilton will continue to monitor its purchased and constructed assets annually and update the AM Plan when new information becomes available.



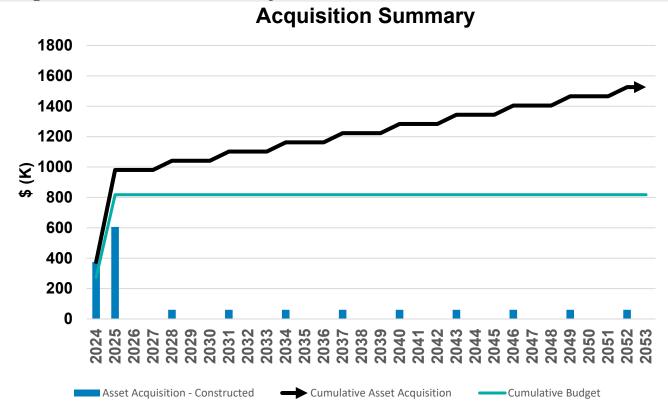


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ACQUISITIONS SUMMARY

Forecast acquisition costs are summarized in *Figure 13* and show the possible cumulative effect of asset acquisitions over the next 30-year planning period.

Figure 11: Acquisition Summary All figure values are shown in 2023-year dollars



When the City of Hamilton commits to constructing new assets, the municipality must be prepared to fund future operations, maintenance, and renewal costs. The City of 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. The cumulative value of all acquisition work, including assets that are constructed and contributed is shown in *Figure 13* above. The lack of future acquisitions is largely due to a lack of acquisition forecast rather than a lack of actual potential need to acquire additional assets in the future.

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8.2 OPERATIONS AND MAINTENANCE PLAN

Operations include all regular activities to provide services. Daily, weekly, seasonal and annual activities are undertaken by staff to ensure the assets perform within acceptable parameters and to monitor the condition of the assets for safety and regulatory reasons. Examples of typical operational activities include operating assets, utility costs, inspections and the necessary staffing resources to perform these activities. LBS is largely a people and operations-driven service and the majority of the costs required to deliver the service are employee-related costs. Some of the major operational investments over the next 10 years include:

- **\$8.1 million** allocated for employee-related costs in 2023 (i.e., salaries, wages, benefits, contractual agreements, etc.); and,
- Increases in operating costs and FTE complement related to:
 - Waterfront Ambassador Program PED23237³⁰ (\$79.6K Annualized);
 - Industrial/Commercial Proactive By-law pilot project PED23236³¹ (\$263K Annualized); and,
 - Renovation License By-law and Safe Apartment Buildings By-law components of PED23072(b)³² (Increasing from **\$1.4M in 2024 to \$3.4M Annualized in 2026**).

For the Animal Services facility at 247 Dartnall Road, the costs of facility operation, maintenance and repairs are shared with HBSPCA. The costs in this AM Plan are the City's portion of the shared costs to operate the facility. If the City were ever to operate their own facility the O&M costs would increase.

Maintenance should be viewed as the ongoing management of deterioration. The purpose of planned maintenance is to ensure that the correct interventions are proactively applied to assets 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.

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 LBS assets are reliable and can achieve the desired level of service.

There are no major maintenance activities identified for LBS in the available budgets and the gap is largely driven by facilities 10-year needs.

The forecast needs include costs related to Business Case 1.1 relating to additional proposed FTEs for Animal Services. It also includes estimated increases in operating costs related to

³¹ Barkovitch, 2023

³⁰ Reid, 2023

³² Gillian Barkovitch / James O'Brien, 2024

maintaining an officer-to-population ratio similar to the current 2023 ratio, which suggests an increase of approximately 20 officers over the next 30 years. It is important to note that these Business Cases and the proposed concept to maintain the ratio of officers to the current population are not approved at this time but have been included in the financial projections to show the lifecycle impacts if they are approved by Council in future considerations.

The forecast does not include any additional O&M costs related to any additional (if any) space requirements related to new FTEs approved as part of the 2024 budget process. It is possible these costs were included in the budget requests which have been modelled and may not need to be included separately.

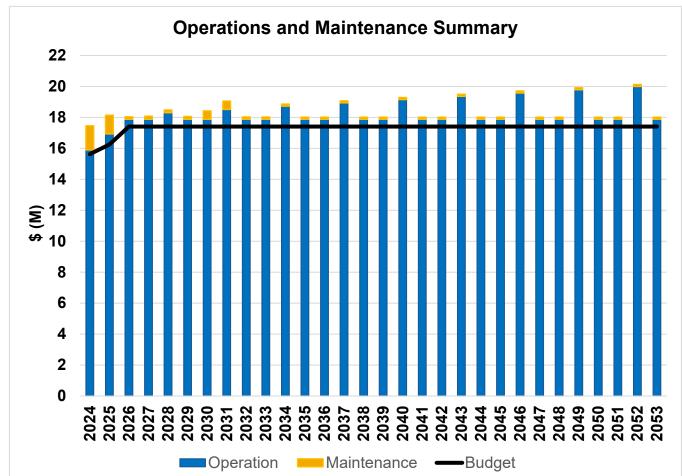


Figure 12: Operations and Maintenance Costs All figure values are shown in 2023-year dollars.

The forecasted operations and maintenance needs will increase steadily over time with the proposed implementation of the Animal Services Business Case. They will also increase based on the proposed addition of officers, vehicles and equipment to maintain the current LOS provided by the current ratio of officers to population. All of these costs have been incorporated into this model with information available at the time of writing.

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LBS does not have a sufficient budget to implement needed backlog repairs to facilities. It is important to note that priority repairs are being completed on these facilities and that major decisions should also be put on hold pending an operational review of their current spaces and needs to be driven in part by the Public Works/CFEM Yards Study and the current capacity limitations at 330 Wentworth Street North and the Animal Services Facilities.

There is not sufficient budget to implement Business Case item 1.1. It is also likely that with the current budgets, the ratio of officers to population will decrease resulting in fewer officers to handle calls related to a growing population.

8.3 RENEWAL PLAN

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

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

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in *Table 25* 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 2023 however they should be reviewed annually until their accuracy reflects the City's current practices.

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)	
Facilities	50	
Animal Services Fleet – Vans & Powered Equipment	10	
All Other Fleet – Vehicles	8	
IT Hardware	4	
Mobile Phones	2	
Mobile Printers	5	
Animal Care Equipment – Average	10	
Admin – Average	17	

Table 23: Useful Lives of Assets

ASSET SUBCATEGORY	ESTIMATED SERVICE LIFE (YEARS)	
Officer Equipment	5	
Officer Uniforms	3	

The estimates for renewals in the AM Plan were based on the register method which utilizes the data from the City's asset registry to analyze available lifecycle information and then determine the optimal timing for renewals based on the ESL. The alternate method was also used to quantify renewals for future anticipated acquisitions.

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).0F³³

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.1F³⁴

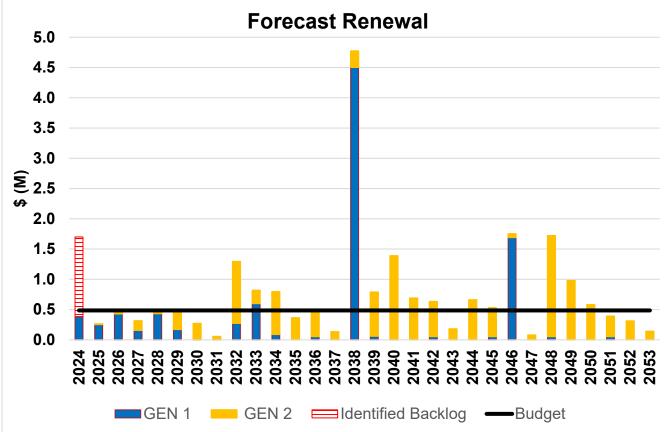
³³ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

³⁴ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

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 15.*

Figure 13: Forecast Renewal Costs All figure values are shown in 2023-year dollars.



The significant expense in 2038 is for the facility renewal for the By-law portion of 330 Wentworth Street North and the spike in 2046 is for the facility renewal for the Animal Services facility at Jones Road. Not shown are any funding requests for the renewal of the shared-use facility at Dartnall Road. This would occur in 2049 if an ESL of 50 years is used.

In addition, the other significant amount in the model above highlighted in red in 2024 represents the cumulative backlog of deferred work needed to be completed that has been identified through its current estimated service life per *Table 25*. This backlog represents nearly **\$1.32M** of deferred works that have accumulated and have created a backlog of necessary works.

Major backlog items include:

- \$822K in Fleet Renewal
- **\$101K** in Technology Renewal
- **\$265K** in Animal Care Equipment Renewal

There is insufficient budget to support the planned renewals over the 10-year horizon. This may change once a more detailed asset inventory and formalized condition assessment process is undertaken and it may be necessary to adjust the renewal backlog if some assets are found to be in worse condition than originally anticipated.

The additional expected renewal works over the 10-year planning horizon include:

- Replacement of vehicles as they reach the end of useful life;
- Replacement of IT equipment items as they reach the end of useful life;
- Replacement of officer equipment items as they reach the end of useful life; and,
- Replacement of animal care equipment items as they reach the end of useful life.

Since properly funded and timely renewals ensure the assets perform as expected, LBS is unable to perform satisfactorily by replacing assets at the suggested interval with an appropriate budget. Deferring renewals creates risks of higher financial costs, decreased availability and decreased satisfaction with asset performance. It is recommended to continue to analyze asset renewals based on criticality and availability of funds for future AM Plans. This may change if a more detailed asset inventory and a formalized condition assessment process are undertaken. It may be necessary to adjust the renewal intervals if some assets are found to be in worse condition than originally anticipated.

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 26**. A summary of the disposal costs and estimated reductions in annual operations and maintenance of disposing of the assets are also outlined in **Table 26**. Any costs or revenue gained from asset disposals is included in future iterations of the plan and the long-term financial plan.

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Table 24: Assets Identified for Disposal

ASSET	REASON FOR DISPOSAL	TIMING	DISPOSAL COSTS	OPERATIONS & MAINTENANCE ANNUAL SAVINGS
Fleet	End of Life	Unknown	Unknown	Unknown

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8.5 LIFECYCLE COST SUMMARY

The financial projects from this asset plan are shown in *Figure 16* below. These projects 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 lifecycle 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.

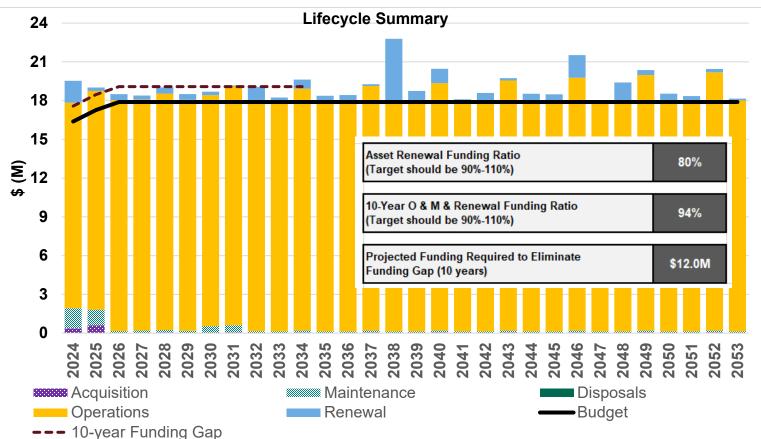


Figure 14: Lifecycle Summary All figure values are shown in 2023-year dollars.

If the implementation of proposed Council Referred Items, Business Cases and maintaining the current LOS/Ratio of officers to the population are desired then LBS will need to continue to increase their budgets annually. They will also need to consider allocating funding to facility renewal or if the program/facility review determines they may need funding to construct new or different facilities in future years. If the funding is not increased then they will be unable to

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maintain their current levels of service. The 10-year Operations, Maintenance and Renewal funding gap is explained in *Section 9.1*.

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

The City will continue to improve its lifecycle data, and this will allow for informed choices as to how best to mitigate impacts and how to address the funding gap itself. This gap in funding future plans will be refined over the next three years to improve the confidence and accuracy of the forecasts.

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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 LBS 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 that 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 the LBS service, the City will have difficult choices to make in the future which will include options such as higher costs reactive maintenance and operational costs, reduction of service and potential reputational damage.

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

9.1 SUSTAINABILITY OF SERVICE DELIVERY

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

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

ASSET RENEWAL FUNDING RATIO

Asset Renewal Funding Ratio³⁵ 80%

The Asset Renewal Funding Ratio 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.

³⁵ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

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 Operations, Maintenance & Renewal Financial Ratio 94%

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

The forecast operations, maintenance and renewal costs over the 10-year planning period is **\$18.8M** 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 **\$17.6M** on average per year giving a 10-year funding shortfall of **\$1.2M** per year or **\$12M** over the 10-year planning period. This indicates that **94%** of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget.

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 sustainably 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;
- Influence level of service expectations or demand drivers; and,
- Review revenue generated by LBS.

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

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

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

Table 27 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.

YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2024	\$374,781	\$15,896,785	\$1,562,102	\$1,699,842	\$0
2025	\$605,853	\$16,926,972	\$1,216,767	\$262,691	\$0
2026	\$0	\$17,875,894	\$165,699	\$458,901	\$0
2027	\$0	\$17,875,894	\$205,130	\$313,967	\$0
2028	\$60,603	\$18,299,894	\$185,690	\$471,880	\$0
2029	\$0	\$17,875,894	\$187,158	\$444,617	\$0

Table 25: Forecast Costs (Outlays) for the Long-Term Financial Plan**Forecast Costs Are Shown in 2023-year Dollar Values

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YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2030	\$0	\$17,875,894	\$545,827	\$270,084	\$0
2031	\$60,603	\$18,511,894	\$547,528	\$55,303	\$0
2032	\$0	\$17,875,894	\$154,369	\$1,293,998	\$0
2033	\$0	\$17,875,894	\$147,417	\$817,754	\$0
2034	\$60,603	\$18,723,894	\$137,795	\$795,832	\$0
2035	\$0	\$17,875,894	\$137,795	\$364,427	\$0
2036	\$0	\$17,875,894	\$137,795	\$475,180	\$0
2037	\$60,603	\$18,935,894	\$137,795	\$132,779	\$0
2038	\$0	\$17,875,894	\$137,795	\$4,774,096	\$0
2039	\$0	\$17,875,894	\$137,795	\$789,024	\$0
2040	\$60,603	\$19,147,894	\$137,795	\$1,389,475	\$0
2041	\$0	\$17,875,894	\$137,795	\$689,916	\$0
2042	\$0	\$17,875,894	\$137,795	\$632,816	\$0
2043	\$60,603	\$19,359,894	\$137,795	\$180,662	\$0
2044	\$0	\$17,875,894	\$137,795	\$662,658	\$0
2045	\$0	\$17,875,894	\$137,795	\$529,997	\$0
2046	\$60,603	\$19,571,894	\$137,795	\$1,753,494	\$0
2047	\$0	\$17,875,894	\$137,795	\$78,738	\$0
2048	\$0	\$17,875,894	\$137,795	\$1,721,017	\$0
2049	\$60,603	\$19,783,894	\$137,795	\$979,391	\$0
2050	\$0	\$17,875,894	\$137,795	\$580,440	\$0
2051	\$0	\$17,875,894	\$137,795	\$390,855	\$0
2052	\$60,603	\$19,995,894	\$137,795	\$312,091	\$0

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YEAR	ACQUISITION	OPERATION	MAINTENANCE	RENEWAL	DISPOSAL
2053	\$0	\$17,875,894	\$137,795	\$0	\$0

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

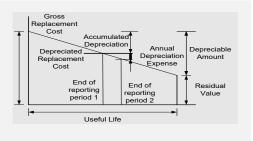
Asset values are forecast to increase as additional assets are added into service. As projections improve and can be validated with market pricing, the net valuations will likely increase significantly despite some assets being programmed for disposal that will be removed from the register over the 30-year 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 remove the high costs of 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

The best available estimate of the value of assets included in this AM Plan is shown below. The assets are valued at the estimated replacement costs.

Replacement Cost (Current/Gross)	\$9,357,701
Depreciable Amount	\$9,357,701
Depreciated Replacement Cost ³⁶	\$2,524,663
Depreciation	\$ 571,920



³⁶ Also reported as Written Down Value, Carrying or Net Book Value.

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The current replacement cost is the most common valuation approach for specialized infrastructure assets. The methodology includes establishing a comprehensive asset registry, assessing replacement costs (based on market pricing for the modern equivalent assets) and useful lives, determining the appropriate depreciation method, testing for impairments, and determining remaining useful life.

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

9.6 KEY ASSUMPTIONS MADE IN FINANCIAL FORECASTS

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

Key assumptions made in this AM Plan are:

- Operational forecasts are based on current budget allocations and are the basis for the projections for the 30-year horizon and do not address other operational needs not yet identified;
- Maintenance forecasts are based on current budget allocations and do not identify asset needs at this time. It is solely based on planned activities;
- Replacement costs were based on historical costing. They were also made without determining what the asset would be replaced with in the future;
- Known Business Cases and Council Referred Items have been included in needs and may not be funded;
- Additional officer FTEs and vehicles have been added to the lifecycle needs to account for population growth. Additional FTEs may be needed in addition to account for nonbackground growth (i.e., expansion of services). Support FTEs have not been included but would also need to be increased; and,
- Modelling is done at the Gross budget level and does not include offsetting revenue or grants that may be available.

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 <u>AM Plan Overview</u>.

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

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Table 26: Data Confidence Assessment for Data Used in AM Plan

DATA	CONFIDENCE ASSESSMENT	COMMENT
Demand Drivers	Low	Based on SME opinion of potential demand based on historical knowledge.
Growth Projections	Medium	Based on Greater Golden Horseshoe Growth Forecasts as outlined in the <u>Asset</u> <u>Management Overview Plan</u> .
Acquisition Forecast	Low	The acquisition forecast is based on proposed business cases and growth forecasts. A 10-year capital budget is not available.
Operation Forecast	Low	Currently, the budget is based on one year of budget and the remaining years are forecast with zero growth. Category allocation based on SME opinion.
Maintenance Forecast	Low	Currently, the budget is based on one year of budget and the remaining years are forecast with zero growth. Category allocation based on SME opinion.
Renewal Forecast - Asset Values	Low	Renewal forecast asset values are based on SME opinion.
Asset Useful Life	Low	With the exception of vehicles and facilities - based on SME opinion and a review of a report on university lab equipment suggested ESL. Continuous improvement is required to ensure data is vetted and aligns with the City of Hamilton's actual practices.
Condition Modelling	Low	No formalized condition assessment for many asset types and categories. Requires standardization along with predictable timelines for assessments.
Disposal forecast	Very Low	Current disposal information is largely rolled into renewal. Continuous improvements are required to ensure accurate data is available.

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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;
- PED23072(b)³⁷ Opportunities for Tax Levy Savings in the Hamilton Apartment Rental Program and Tenant Support Program Feb 15, 2024 General Issues Committee Meeting;
- PED23237³⁸ Waterfront Ambassador Nov 14, 2023 Planning Committee Meeting;
- PED23236³⁹ Industrial/Commercial Proactive By-law Pilot Program, Nov 14, 2023 Planning Committee Meeting;
- Business Case 1.1 Animal Services FTE/Vehicles;
- Building Condition Assessment Reports;
- Asset Management Data Collection Templates;
- Audited Financial Statements and Government Reporting (FIR, TCA etc.);
- Financial Exports from internal financial systems;
- Historical cost and estimates of budget allocation based on SME experience; and,
- Proposed Council Referred Items and Business Cases.

ASSET MANAGEMENT DATA SOURCES

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

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

³⁷ Gillian Barkovitch / James O'Brien, 2024

³⁸ Reid, 2023

³⁹ Barkovitch, 2023

10.2 IMPROVEMENT PLAN

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

The Improvement Plan **Table 29** below highlights proposed improvement items that will require further discussion and analysis to determine feasibility, resource requirements and alignment to current work plans. Future iterations of this AM Plan will provide updates on these improvement plans.

#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
1	Develop an Asset Register for Equipment and Technology Asset categories. The register should include inventory, relevant asset attributes and defined inspection and condition assessment criteria and intervals.	LBS/CAM	\$1500 Internal Staff Resources	1 Year 2024-2025
2	Update the AM Plan at regular intervals.	CAM/LBS	As needed	When an Update is scheduled
3	Recommend an update to BCA at 247 Dartnall Road as part of the overall Animal Services facility and operation review as the City shares in maintenance costs.	Facilities/LBS	\$3,000 Third-Party Consultant	1 Year 2024-2025
4	Based on continuous improvement item 3 above and this item: Coordinate with CFEM on Public Works Yard Study relating to Jones Road and future needs of Animal Services and develop a strategic facilities study with recommendations and cost projections to include in capital plans and future AM Plans.	Facilities/LBS	\$ Internal Resources	1 Year 2024-2025
5	Annual Review of Demand Drivers and Risk Assessment.	LBS	\$TBD Internal Resources	Annually

Table 27: Improvement Plan

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#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
6	Develop a 10-year multi-year Capital budget using asset renewal principles to identify a budget for renewal and acquisitions.	Finance/LBS	\$TBD Internal Resources	1 Year (2025- 2026)
7	The demand management plans discussed in this section should be explored by asset owners in more detail following the AM Plan, and new projects should incorporate GHG emissions reduction methods, and changes which will be incorporated into future iterations of the AM Plan.	LBS/Climate Office	\$TBD Internal Resources	TBD
8	Further, Develop and refine proposed Technical Levels of Service and identify targets.	LBS	\$TBD Internal Resources	1 Year (2024- 2025)
9	Incorporate Climate Mitigation and Climate Adaptation into future versions of the AM Plan once costs are better defined.	LBS	\$TBD Internal Resources	TBD
10	Update and practice Business Continuity Plan for Animal Shelter as part of Risk Management Plans.	LBS	\$TBD Internal Resources	TBD
11	Determine long-term facilities strategy relating to Municipal Law Enforcement and update AM Plan as needed.	LBS	\$TBD Internal Resources	TBD
12	Explore DC Funding opportunities for Capital funding for the next DC By-law update.	Finance/LBS	\$TBD Internal Resources	1 Year (2024- 2025)
13	Implement processes to keep up to date on facilities and square footage cost allocations and provide input into maintenance activities as they relate to %FCI.	LBS	\$TBD Internal Resources	TBD

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#	TASK	RESPONSIBILITY	RESOURCES REQUIRED	TIMELINE
14	Develop and implement internal staff survey and incorporate results into LOS for assets where staff are also the customer.	CAM/LBS	\$TBD Internal Resources	TBD

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 regularly 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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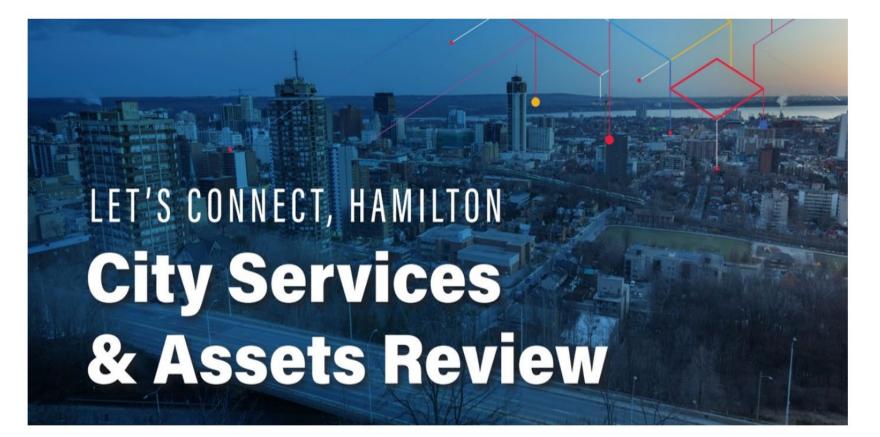
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12. APPENDIX A – SURVEY ANALYSIS





Animals Services, Licensing, and Municipal Law Enforcement (By-law)

Survey Period: November 27th - January 2, 2024

January 2024

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Animal Services and	Bylaw Enforcement	Survey Response Demographics		aw Enforcement Survey Response Demographics 11/27/2023 to 01/02/2024	
70	36	5	2423	351	
Respondents	Survey Questions	Demographic Questions	Survey Responses	Demographic Responses	

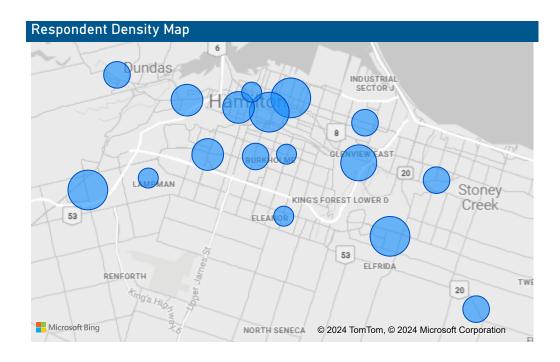
✓ Age	% Pop. by Age	% of Respondents	Respondents
65+	19.5%	17.1%	12
35 to 64	41.7%	67.1%	47
18 to 34	22.1%	8.6%	6

Home Status	% of Respondents	Respondents
Home owner	74.3%	52
Tenant	14.3%	10
Other	11.4%	8

Residency	% of Respondents	- Respondents
Yes	98.6%	69
Identity	% of Respondents	Respondents
Do not self identify	75.7%	53
Marginalized	14.3%	10
Prefer not to answer	8.6%	6

Region	% Pop. by Region	Population	% of Respondents	■ Respondents
Lower	45.6%	432,375	38.6%	27
Upper	37.3%	353,485	25.7%	18
Rural	17.1%	161,840	2.9%	2

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



Respondents By Day





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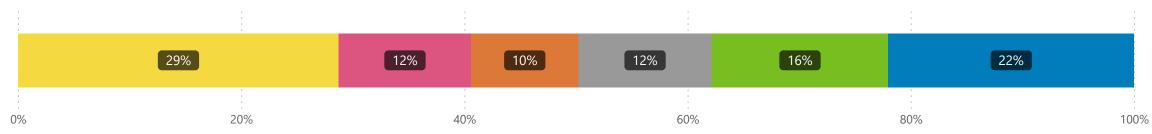
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Responses Respondents

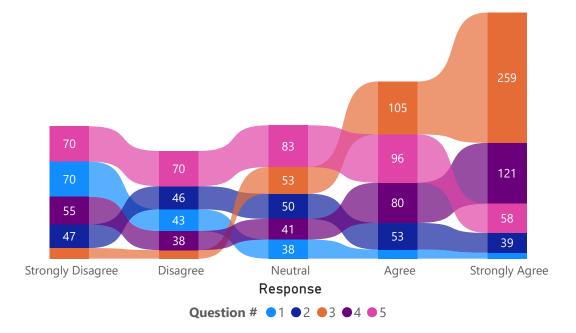
1784 70

Summary of Survey Results





Questions	σ	► Avg.		Opt Out	Opt Out %
All Questions	1.46		3.37	840	34.67%
Q3 Importance of services	1.09		4.24	32	6.57%
Q4 Recommend to Others	1.48		3.52	148	30.64%
Q5 Past experiences	1.34		3.01	110	22.59%
Q2 Overall performance	1.37		2.96	251	51.65%
Q1 Experience with services	1.24		2.22	299	62.29%





70

1784

Survey Question Summary

Question #	Survey Question	n (Sample Size)	σ (Consistency)	Margin of Error (Confidence Level ±)
1	How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	55	1.24	13%
2	How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By-law) has performed overall?	34	1.37	17%
3	How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	65	1.09	12%
4	How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	48	1.48	14%
5	Based on your experience with Animal Services, Licencing and Municipal Law Enforcement (By-law) over the past 2 years, do you agree with the following statements?	54	1.34	13%



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2.50% 3.75%

7.92%

8.96%

14.58%

41.88%

20.42%

Question

1

Hamilton

Experience with services

How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?

Responses	Service Area	Very infrequently (More than 2 years ago)	Infrequently (Once)	Occasionally (1-2 times)	Somewhat frequently (3-4 times)	Frequently (More than 5 times)	l have not
382	Total	70	43	38	18	12	201
	Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	11	6	3	1	2	35
Respondents	Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	7	14	11	4	4	21
00	Business licencing (Example: Taxicabs, hotels, restaurants)	12	1	1	1		34
	Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	5	15	14	5	2	19
	Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	14	7	8	5	4	22
	Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	11			1		35
	Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	10		1	1		35

Service Area	σ	-	Avg.	Opt Out	Opt Out %
Total	1.24		2.22	299	62.3%
Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	1.01		2.61	28	40.6%
Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	1.18		2.60	29	42.0%
Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	1.37		2.42	30	44.1%
Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	1.25		2.00	47	67.1%
Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	0.95		1.42	56	82.4%
Business licencing (Example: Taxicabs, hotels, restaurants)	0.88		1.40	53	77.9%
Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	0.83		1.25	56	82.4%



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

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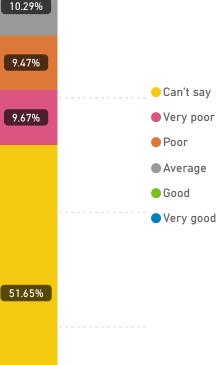
Overall performance

2

How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By-law) has performed overall?

Responses	Service Area	Very poor	Poor	Average	Good	Very good	100%		
	Total	47	46	50	53	39		8.02%	
235	Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	4	4	2	5	1			
	Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	3	1	2	3	1		10.91%	
Respondents	Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	18	14	13	5	2			
68	Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	5	9	7	16	13	80%	10.29%	
	Business licencing (Example: Taxicabs, hotels, restaurants)	5	1	2	8	1		10.2770	
	Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents	10	13	14	7	8			
	public issues)	0	,	10	0	10		9.47%	
	Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	2	4	10	9	13			

Service Area	σ	Av	/g.	Opt Out	Opt Out %
Total	1.37		2.96	251	51.6%
Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	1.19		3.71	32	45.7%
Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	1.31		3.46	20	28.6%
Business licencing (Example: Taxicabs, hotels, restaurants)	1.39		2.94	51	75.0%
Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	1.32		2.81	18	25.7%
Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	1.40		2.80	59	85.5%
Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	1.31		2.69	53	76.8%
Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	1.13		2.21	18	25.7%



40%

20% -----

0%

51.65%



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Question

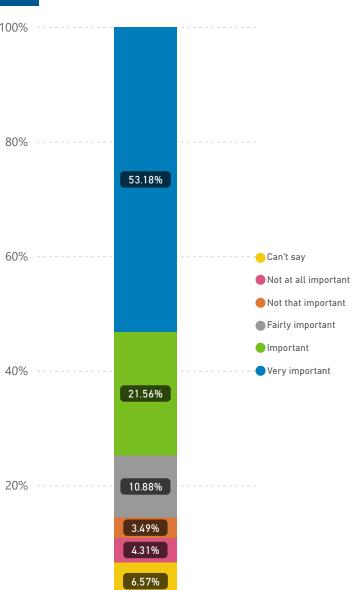
3

How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?

Importance of services

Responses	Service Area	Not at all important	Not that important	Fairly important	Important	Very important	100% -
455	Total	21	17	53	105	259	
455	Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	3		4	17	35	
Respondents	Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	4	2	11	22	18	
	Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	1	2	8	12	47	80% -
70	Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	7	6	7	14	36	
	Business licencing (Example: Taxicabs, hotels, restaurants)	2		4	15	39	
	Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	2	3	6	12	47	
	Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	2	4	13	13	37	

Service Area	σ	Avg.	Opt Out	Opt Out %
Total	1.09	4.24	32	6.6%
Business licencing (Example: Taxicabs, hotels, restaurants)	0.88	4.48	9	13.0%
Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	0.91	4.46		
Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	1.01	4.41		
Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	0.99	4.37	10	14.5%
Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	1.09	4.14	1	1.4%
Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	1.36	3.94		
Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	1.12	3.84	12	17.4%



0%



Respondents who opted out by not answering or selecting 'Can't Say' are included in opt out.

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.

esponses	Service Area	Performance (index score)	Importance (index score)	Net	Opt Out %
690				Differential	
070	Total	59	85	-26	29%
	Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	44	89	-45	13%
espondents	Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	54	87	-34	46%
40	Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	56	88	-32	13%
	Business licencing (Example: Taxicabs, hotels, restaurants)	59	90	-31	44%
	Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	56	77	-21	51%
	Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	69	79	-10	14%
	Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	74	83	- 9	24%

Performance *Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By-law) has performed overall?*

Importance Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?



Res

Res

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

Question

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60%

40%

20%

0%

8.49%

7.87%

11.39%

30.64%

4

How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?

Recommend to Others

Responses	Service Area	Definitely not	Probably not	Possibly	Probably	Definitely	100%		
	Total	55	38	41	80	121			
335	Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	7	4	4	9	10			
	Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	8	4	3	10	7		25.05%	
Respondents	Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	12	6	9	11	19			
68	Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	8	6	5	18	26	80%		
	Business licencing (Example: Taxicabs, hotels, restaurants)	7	4	3	6	11			
	Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	8	8	10	15	19		16.56%	
	Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	5	6	7	11	29			

Service Area	σ	Avg.		Opt Out	Opt Out %
Total	1.48		3.52	148	30.6%
Animal adoption from City of Hamilton shelter (247 Dartnall Rd)	1.34		3.91	12	17.1%
Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)	1.40		3.76	7	10.0%
Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)	1.40		3.48	10	14.3%
Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)	1.54		3.33	12	17.4%
Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)	1.51		3.32	34	50.0%
Business licencing (Example: Taxicabs, hotels, restaurants)	1.59		3.32	37	54.4%
Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)	1.52		3.13	36	52.9%





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Question

5

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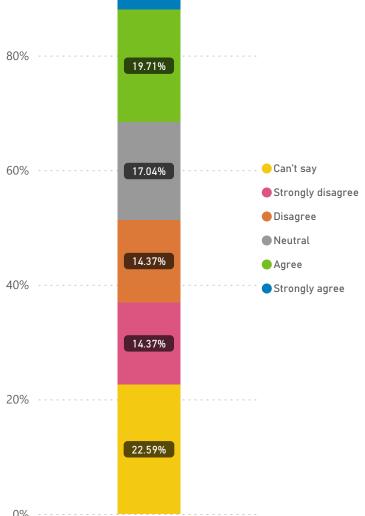
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Past experiences Based on your experience with Animal Services, Licencing and Municipal Law Enforcement (By-law) over the past 2 years, do you agree with the following statements?

es	Service Area	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	100%	-	
	Total	70	70	83	96	58			
7	Spaces are welcoming and inclusive for all	2	5	11	12	6		11.91%	
	Spaces are physically accessible	2	4	13	12	6			
	Services are easy to access in person, online or by phone	8	16	12	19	9			
ents	Licencing, Bylaw & Animal Services Division's service provides good value for money	15	11	10	15	9			
	Licencing, Bylaw & Animal Services Division's respond within a reasonable timeframe	12	7	13	12	8	80%	19.71%	
	l would be willing to increase taxation to provide better Licencing, Bylaw & Animal Services Division's services	18	12	9	19	8			
	Animal Services, Licencing and Municipal Law Enforcement (By-law) services meet my needs	13	15	15	7	12		_	
							60%	17.04%	
	Service Area	σ	A۱	/g.	Opt Out	Opt Out %			

Ŭ	▼		oprout	
1.34		3.01	110	22.6%
1.05		3.43	32	46.4%
1.09		3.42	33	47.8%
1.27		3.08	6	8.6%
1.38		2.94	17	24.6%
1.42		2.87	10	14.3%
1.39		2.84	8	11.4%
1.42		2.80	4	5.7%
	1.05 1.09 1.27 1.38 1.42 1.39	1.34 1.05 1.09 1.27 1.38 1.42 1.39	1.34 3.01 1.05 3.43 1.09 3.42 1.27 3.08 1.38 2.94 1.42 2.87 1.39 2.84	1.34 3.01 110 1.05 3.43 32 1.09 3.42 33 1.27 3.08 6 1.38 2.94 17 1.42 2.87 10 1.39 2.84 8

Hamilton



0%

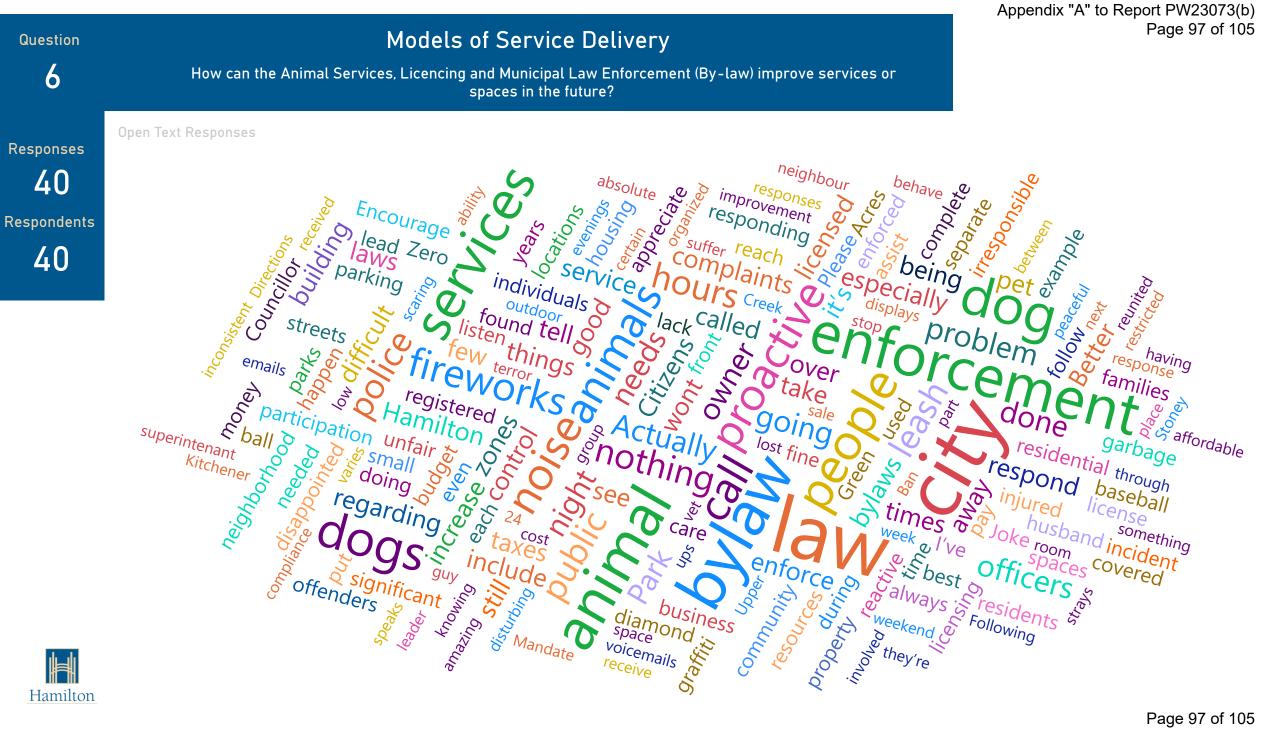
Question 5		Net Promoter Score nimal Services, Licencing and Municip years, do you agree with the following	al Law Enforcement (By-law,		pendix "A" to Report P Pag	W23073(b) e 96 of 105
Responses 377 Respondents		59.15%		25.46%	15.38%	Detractors Passives
70	0% 20%	40%	60%	80%	100%	Promoters

Service Area	σ	N	PS	Detractors	Passives	Promoter
All Service Areas	1.34		-44	223	96	58
Animal Services, Licencing and Municipal Law Enforcement (By-law) services meet my needs	1.39		-50	43	7	12
I would be willing to increase taxation to provide better Licencing, Bylaw & Animal Services Division's services	1.42		-47	39	19	8
Licencing, Bylaw & Animal Services Division's respond within a reasonable timeframe	1.38		-46	32	12	8
Licencing, Bylaw & Animal Services Division's service provides good value for money	1.42		-45	36	15	9
Services are easy to access in person, online or by phone	1.27		-42	36	19	9
Spaces are physically accessible	1.05		-35	19	12	6
Spaces are welcoming and inclusive for all	1.09		-33	18	12	6

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

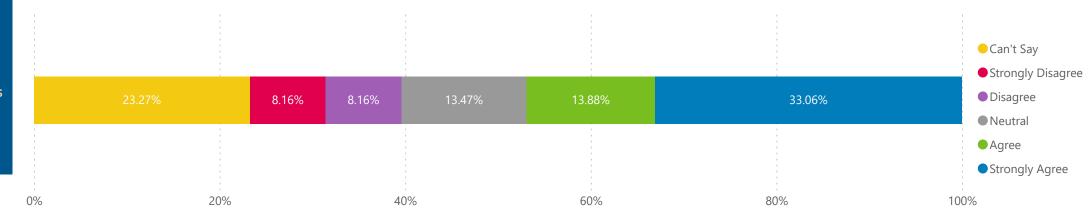


Likert choices less than or equal to 3 are considered 'Detractors', 4s are 'Passive' and 5s are considered 'Promoters'. Respondents who opted out by not answering or selecting 'Can't Say' were removed from the sample. Net Promoter score is calculated by subtracting (% Detractors) from (% Promoters). Page 96 of 105



Animal adoption from City of Hamilton shelter (247 Dartnall Rd)

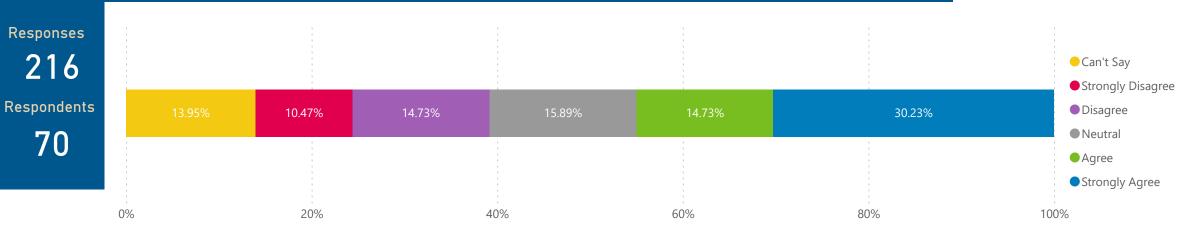
Responses 203 Respondents 70



Question	σ	Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.38		3.72	74.47	92	32.86%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	1.09		4.14	82.90	1	1.43%
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.34		3.91	78.28	12	17.14%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.19		3.71	74.21	32	45.71%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	1.25		2.00	40.00	47	67.14%



Animal control enforcement (The Responsible Animal Ownership Bylaw: Ensures the health and safety of residents, protects property and prevents public issues)

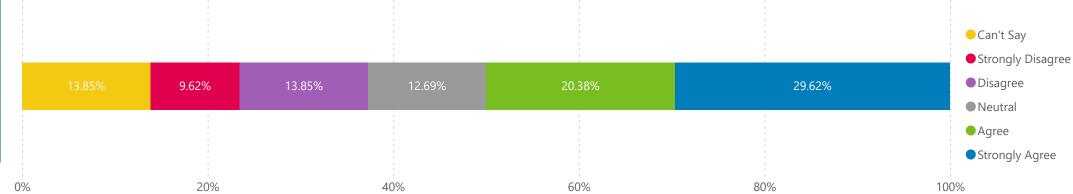


Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	1.42	3.46	69.19	57	20.43%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	1.01	4.41	88.29		
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.40	3.48	69.67	10	14.29%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.32	2.81	56.15	18	25.71%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	1.18	2.60	52.00	29	42.03%



Dog licencing (Enforced/required under The Responsible Animal Ownership Bylaw)

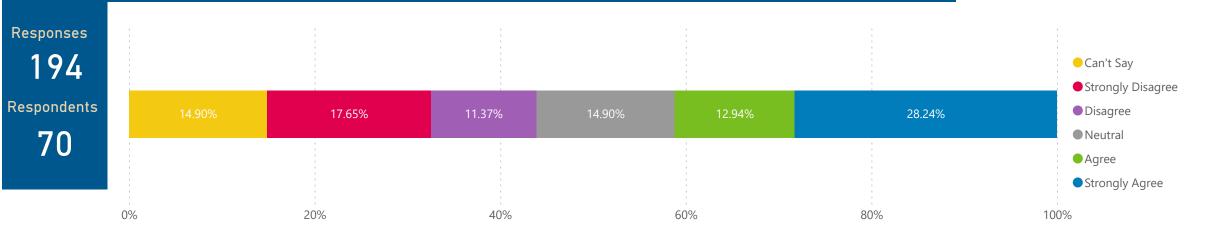




Question	σ	► Avg.		Avg. %	Opt Out	Opt Out %
All Questions	1.39		3.54	70.80	55	19.71%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	1.36		3.94	78.86		
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.40		3.76	75.24	7	10.00%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.31		3.46	69.20	20	28.57%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	1.01		2.61	52.20	28	40.58%



Property use enforcement (Bylaws, such as: Fireworks, fences, noise control)

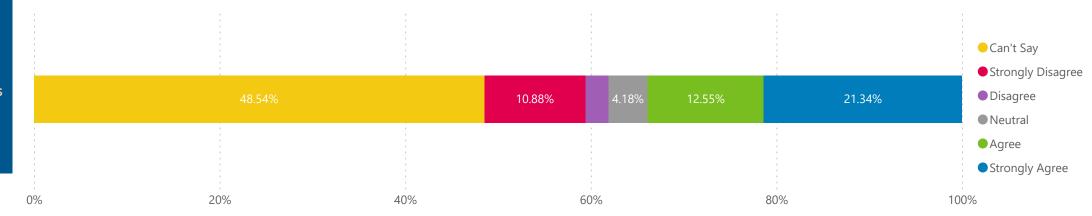


Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	1.54	3.27	65.35	60	21.66%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	0.91	4.46	89.14		
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.54	3.33	66.67	12	17.39%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	1.37	2.42	48.42	30	44.12%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.13	2.21	44.23	18	25.71%



Business licencing (Example: Taxicabs, hotels, restaurants)

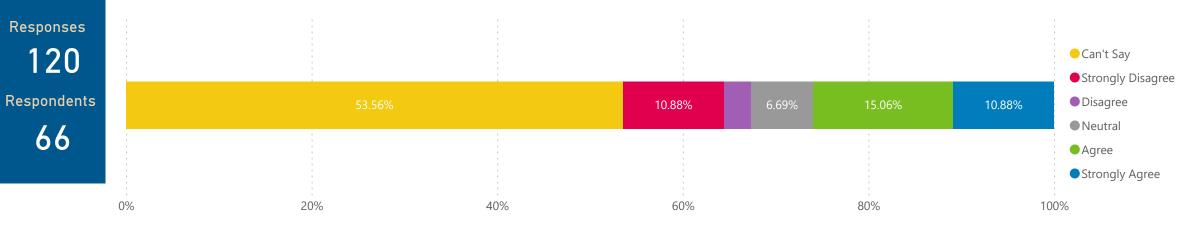
Responses 131 Respondents 66



Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	1.56	3.60	72.03	150	54.95%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	0.88	4.48	89.67	9	13.04%
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.59	3.32	66.45	37	54.41%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.39	2.94	58.82	51	75.00%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	0.88	1.40	28.00	53	77.94%



Temporary business licencing (Valid for 30 days, used to test markets and promote business development with minimal risk)



Question	σ	Avg. ▼	Avg. %	Opt Out	Opt Out %
All Questions	1.48	3.2	6 65.23	163	59.49%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	1.12	3.8	4 76.84	12	17.39%
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.52	3.1	3 62.50	36	52.94%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.40	2.8	0 56.00	59	85.51%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	0.83	1.2	5 25.00	56	82.35%



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Summary of Specific Service Areas over Several Questions

Trade licencing (Example: Plumbing, Heating, Ventilation and Air Conditioning (HVAC), building repair)





Question	σ	Avg.	Avg. %	Opt Out	Opt Out %
All Questions	1.53	3.56	71.24	153	55.84%
Q3 How would you rate the importance of the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services?	0.99	4.37	87.46	10	14.49%
Q4 How likely are you to recommend to others the following services offered by the Animal Services, Licencing and Municipal Law Enforcement (By-law)?	1.51	3.32	66.47	34	50.00%
Q2 How do you feel the Animal Services, Licencing and Municipal Law Enforcement (By- law) has performed overall?	1.31	2.69	53.75	53	76.81%
Q1 How many times have you experienced the following Animal Services, Licencing and Municipal Law Enforcement (By-law) services in the last 2 years?	0.95	1.42	28.33	56	82.35%



Data Grading Scales

Definition and Ranking of Consistency and Confidence

	Grade	Data Consistency Standard Deviation (σ, Consistency of Responses)	Confidence Level Margin of Error (at 95% Confidence in Sample Size)
AVery High0 to 0.5 - results are tightly grouped with little to no variance in response			
В	High	0.5 to 1.0 - results are fairly tightly grouped but with slightly more variance in response	5% to 10% - Error has become noticeable, but results are still trustworthy
С	Medium	1.0 to 1.5 - results are moderately grouped together, but most respondents are generally in agreeance	10% to 20% - Error is a significant amount and will cause uncertainty in final results
D	Low	1.5 to 2.0 - results show a high variance with a fair amount of disparity in responses	20% to 30% - Error has reached a detrimental level and results are difficult to trust
Е	Very Low	2.0+ - results are highly variant with little to no grouping	30%+ - Significant error in results, hard to interpret data in much of a meaningful way

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

Here we attribute a lower value of consistency of response (Standard Deviation) to a higher confidence grade, but it does not necessarily mean that the data is "better". In reality we receive insight about the data regardless. With a high consistency we can tell that respondents more often come to the same conclusion on a response for a question, whereas with low consistency we would see a split in people's opinion, some with a very high rating and others with a very low rating. Knowing this and then understanding why is the most important thing. The margin of error is calculated using a standard factor of 0.98 and the sample size (n). The margin of error mainly tells us whether the sample size of the survey is appropriate. This is because in the calculation above, sample size would is the main variable and thus has the largest impact. The margin of error is represented as a percentage and indicates the range above and below the calculated average the true value is likely to fall. A smaller margin of error indicates a more precise estimate and vice versa.

