



2024 Asset Management Plan

Human Resources
Non-Core Assets
City of Brantford, Ontario



Prepared by: Infrastructure Planning Asset Management, Public Works
Corporation of the City of Brantford, June 2024

RECORD SHEET

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Asset Management Plan, Non- Core Assets	Human Resources	This Document
Asset Management Plan, Non-Core Assets	Airport Cemetery Clerks Services Economic Development & Tourism Facilities Fire Fleet & Transit Forestry & Horticulture Golf IT Services Library Parking Parks & Recreation Police Solid Waste	June 2024
Asset Management Plan, Non-Core Assets	Housing JNH	TBD

ASSET MANAGEMENT PLAN

HUMAN RESOURCES

TABLE OF CONTENTS

- RECORD SHEET..... 1**
- HUMAN RESOURCES INTRODUCTION..... 5**
- 1. HUMAN RESOURCES..... 6**
 - 1.1. INTRODUCTION..... 6
 - 1.2. HUMAN RESOURCES ASSETS’ DATA INVENTORY AND CONDITION APPROACH 6
 - 1.2.1. SERVICE LIFE 8
 - 1.2.2. CONDITION SCORING..... 9
 - 1.3. SUMMARY OF HUMAN RESOURCES ASSETS 10
 - 1.3.1. TOTAL SUMMARY OF ASSETS..... 10
 - 1.3.2. HEALTH AND SAFETY ASSETS..... 11
 - 1.4. LIFECYCLE OF HUMAN RESOURCES ASSETS..... 12
 - 1.4.1. KEY LIFECYCLE STAGES OF HUMAN RESOURCES ASSETS..... 12
 - 1.4.2. LIFECYCLE ACTIVITIES..... 14
 - 1.4.3. RISKS OF LIFECYCLE ACTIVITIES 15
 - 1.4.4. 10 YEAR LIFECYCLE COSTS OF HUMAN RESOURCES ASSETS 16
 - 1.5. CURRENT LEVELS OF SERVICE 20
 - 1.5.1. O. REG. 588/17 CUSTOMER LEVELS OF SERVICE..... 20
 - 1.5.2. O. REG. 588/17 TECHNICAL LEVELS OF SERVICE..... 20
 - 1.5.3. MUNICIPALLY DEFINED CUSTOMER LEVELS OF SERVICE 20
 - 1.5.4. MUNICIPALLY DEFINED TECHNICAL LEVELS OF SERVICE..... 21
 - 1.6. CURRENT ASSET PERFORMANCE 22
 - 1.6.1. HUMAN RESOURCES ASSETS CURRENT ENERGY PERFORMANCE 22
 - 1.6.2. HUMAN RESOURCES ASSETS CURRENT OPERATING PERFORMANCE 22
 - 1.7. DISCUSSION & CONCLUSIONS 23

TABLE OF TABLES

Table 1: Asset Type Breakdown 5
Table 2: Human Resources Assets' Inventory, Replacement Cost and Condition Origin and Data Confidence Level 7
Table 3: Human Resources Assets' Estimated Service Life 8
Table 4: Condition Score Description 9
Table 5: Total Summary of Human Resources Assets 10
Table 6: Lifecycle Activities for Human Resources Assets 14
Table 7: Municipally Defined Customer Levels of Service 20
Table 8: Levels of Service KPIs 21

TABLE OF FIGURES

Figure 1: Health and Safety Asset Summary 11
Figure 2: Lifecycle Stages of Human Resources Assets 13
Figure 3: 10-Year Lifecycle Cost Per Human Resources Asset Type 17
Figure 4: Existing Capital Budget Forecast from 2024–2033 for Human Resources Assets 19

HUMAN RESOURCES INTRODUCTION

Per O. Reg. 588/17 all municipal infrastructure assets which fall outside of the core asset categories (water, wastewater and stormwater) and their respective subcategories, shall be non-core or “other” infrastructure assets. These assets shall have qualitative descriptions and technical metrics established by the municipality.

Table 1 below outlines which Asset Types are included under each Asset Class, and will be reported on in this AMP. In addition, it is important to note that the AMP only includes assets owned by the City or Local Boards and does not include assets that are owned privately or by other organizations.

Table 1: Asset Type Breakdown

	Asset Class
	Human Resources
Asset Type:	Health and Safety Assets

1. HUMAN RESOURCES

1.1. INTRODUCTION

The City of Brantford owns and maintains several assets under the Human Resources asset class. The purpose of this section is to present specific information about the Human Resources asset class to answer the questions posed in **Section 2** of the **Asset Management Plan (AMP) Overview Document**, and includes the following:

- Human Resources Assets' Data Inventory and Condition Approach;
- Summary of Human Resources Assets;
- Lifecycle Activities and Cost of Human Resources Assets;
- Current Human Resources Assets' Levels of Service;
- Current Human Resources Assets' Performance; and
- Conclusion.

1.2. HUMAN RESOURCES ASSETS' DATA INVENTORY AND CONDITION APPROACH

Information related to the City's data collection methodologies as well as data confidence level definitions are defined in the **Asset Management Plan Overview Document**.

The one (1) approach the City currently uses to assess the condition of human resources assets is:

- Regular inspection and inventories conducted by City staff.

A list of all condition assessments for all core assets can be found in **Table 7** in the **Asset Management Plan Overview Document**.

The origin of the Human Resources asset data for inventory, replacement cost, and condition, as well as data confidence in each are provided in **Table 2** below.

Table 2: Human Resources Assets' Data Origin and Confidence Level

	Inventory			Replacement Cost			Condition		
Asset Type	Inventory (incl. Quantity and Age) From	Data Confidence Level	Data Confidence Description	Replacement Cost From	Data Confidence Level	Data Confidence Description	Condition From	Data Confidence Level	Data Confidence Description
Health and Safety Assets	Tracked via City inventory	High	Formal inventory with few unknowns	Cost estimate from supplier	High	Advertised estimate from supplier	Determined based on age	Medium	Informal assessment based on assumptions from age of assets

The Health and Safety asset type includes Automated External Defibrillators (AEDs) which are available at various City facilities for first aid use by City staff and/or members of the public during an emergency. Per **Table 2** above, Health and Safety assets' inventory and condition data are typically at a Medium to High confidence level, with an overall average confidence level of High.

Inventory data is at a High confidence level due to a formal inventory maintained by City staff. Replacement costs are also estimated at a High level, as these values are based on advertised price for replacement assets from a supplier.

Condition data is estimated at a Medium confidence level, as the condition of these assets is estimated based on age and service life assumptions by City staff.

1.2.1. SERVICE LIFE

Where condition assessments have not been completed, the condition has been estimated based on the estimated service life of the asset shown below in **Table 3**. The average overall estimated service life for assets can be found in **Table 5**.

Table 3: Human Resources Assets' Estimated Service Life

Asset	Estimated Service Life
Health and Safety Assets	25 years

1.2.2. CONDITION SCORING

For the purpose of this report and standardizing condition scores across all assets in the Asset Management Plan, the Condition Rating is defined by three (3) Condition Scores as defined in the table below. For assets with formal consultant condition assessments, the conditions have been modified to fit into this model.

Table 4: Condition Score Description

Condition Score	Condition Rating	Description
1 - 1.4	Good	Assets are in working order, have no or minor deficiencies. Where condition data is not available, this category applies to assets which are within the first 40% of their estimated service life.
1.5 - 2.4	Fair	Assets show general signs of deterioration, some elements may have significant deficiencies, and asset will likely require repairs in the next 10 years. Where condition data is not available, this category applies to assets which are within 41% - 80% of their estimated service life.
2.5 - 3	Poor	Asset is below standard showing signs of significant deterioration, is in danger of imminent failure, and will require repair or replacement within the next year. Where condition data is not available, this category applies to assets which have exceeded 80% of their estimated service life.

1.3. SUMMARY OF HUMAN RESOURCES ASSETS

The summary of assets for the Human Resources Asset Class can be found below. The summary of assets includes: Quantity, Replacement Cost, Average Age, and Average Condition Score for each asset type in accordance with O. Reg. 588/17.

1.3.1. TOTAL SUMMARY OF ASSETS

A table summarizing all Human Resources assets is included in **Table 5** below, and additional information regarding the Human Resources assets is included in the following section. Calculations of averages have been weighted by the overall replacement value of assets; this means that assets of higher estimated replacement value will have a stronger influence on the average than if the average was calculated based on the number of assets.

The total replacement cost for all Human Resources assets is approximately \$202.5K with an average age of 11 years old, which is 44% of the overall average estimated service life of 25 years. The average condition scores are shown to one decimal place to illustrate how close the scores are to being on a cusp of another rating and were used to calculate the weighted overall average condition score for the asset group, but are shown rounded to the nearest whole number in subsequent sections. Overall, Human Resources assets are in Fair condition with a weighted average condition score of 1.6.

Table 5: Total Summary of Human Resources Assets

Asset	Quantity	Unit	Replacement Cost	Weighted Average Age (years)	Weighted Average Estimated Service Life (years)	% of Estimated Service Life Expended	Weighted Average Condition Score	Weighted Average Condition Description
Human Resources Total			\$202.5K	11	25	44%	1.6	FAIR
Health and Safety Assets	81	ea	\$202.5K	11	25	44%	1.6	FAIR

1.3.2. HEALTH AND SAFETY ASSETS

As seen in **Figure 1 below**, the Health and Safety assets have a total replacement cost of \$202.5K, and the assets are typically in Fair condition, with an average condition score of 2. The condition of the health and safety assets is estimated based on age and estimated service life of the assets.

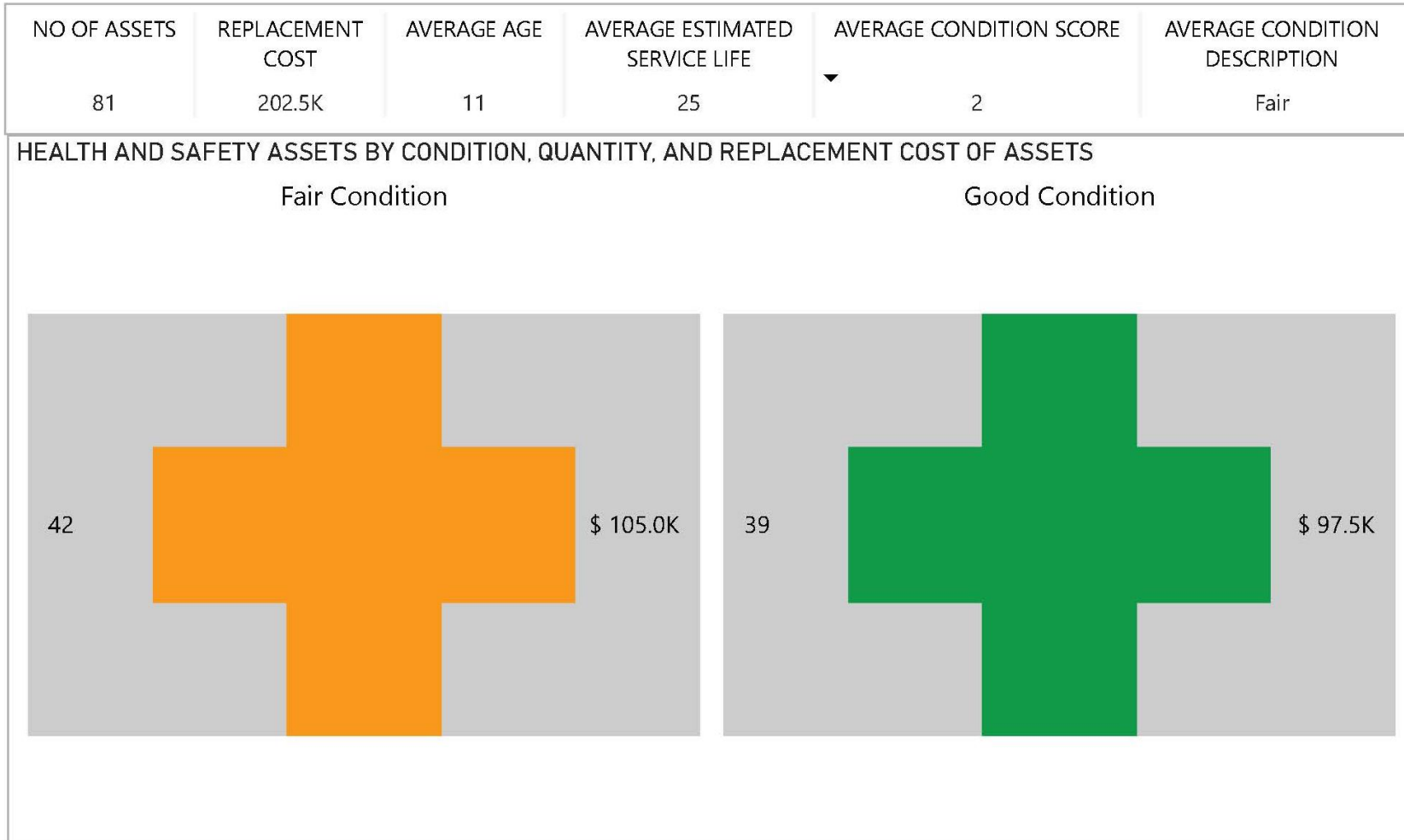


Figure 1: Health and Safety Asset Summary

1.4. LIFECYCLE OF HUMAN RESOURCES ASSETS

The lifecycle of Human Resources assets is described under four (4) categories which are described in this section:

- Key Lifecycle Stages of Human Resources Assets;
- Lifecycle Activities;
- Risks of Lifecycle Activities; and
- 10 Year Lifecycle Costs of Human Resources Assets.

1.4.1. KEY LIFECYCLE STAGES OF HUMAN RESOURCES ASSETS

The lifecycle of an asset refers to the following stages: Planning, Creation/Acquisition, Operations and Maintenance, Renewal/Disposal which are defined in the Main Body of the report. For Human Resources assets specifically, our general process is as follows:

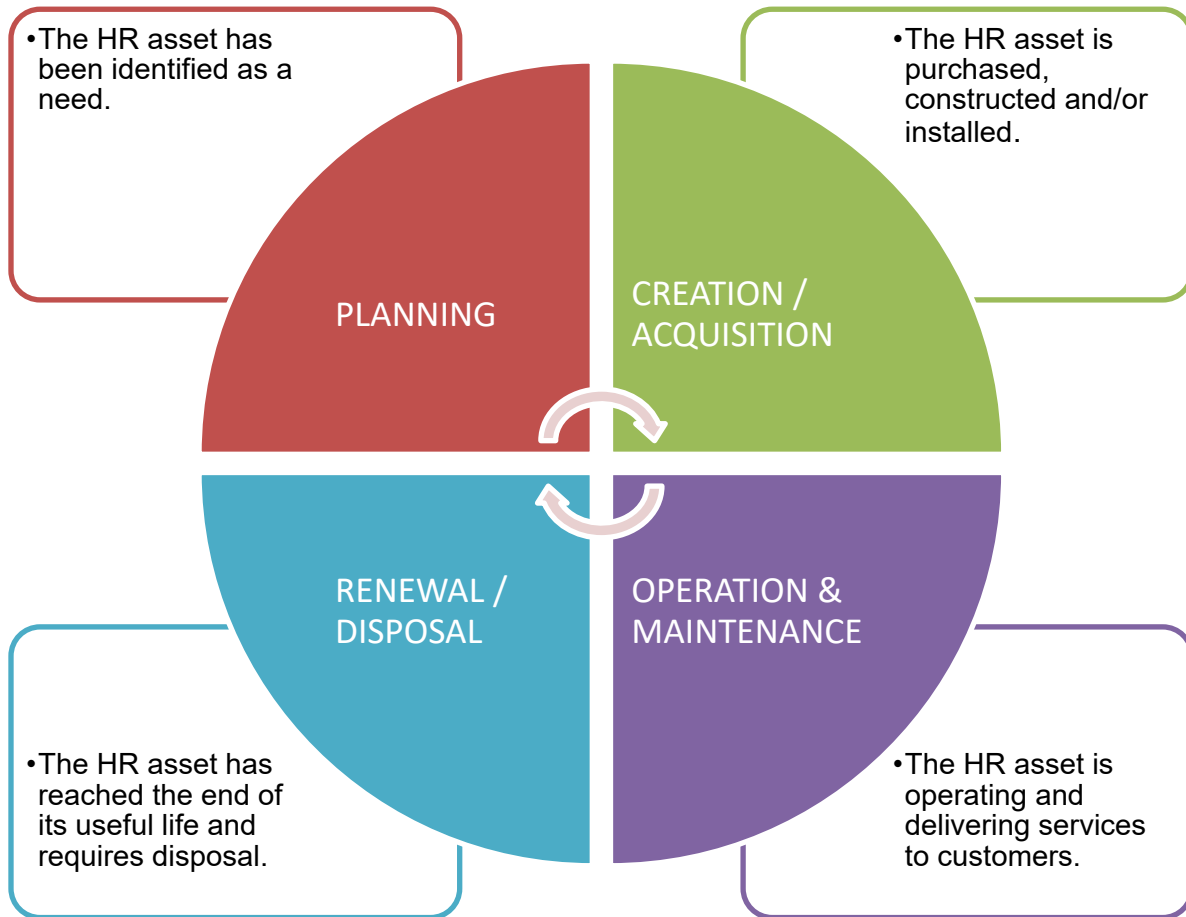


Figure 2: Lifecycle Stages of Human Resources Assets

1. **Planning** – The need to acquire the asset has been identified per the City’s regular business activities and coordinated with other departments, as required.
2. **Creation / Acquisition / Replacement** – The asset is purchased, constructed and/or installed as per any applicable standards and guidelines.
3. **Operation and Maintenance** – The asset is in use and assists in delivering a service to internal and external customers.
4. **Renewal / Disposal** – The asset has reached the end of its useful life, is in poor condition, and/or is underperforming, and requires disposal. The disposal considers the effect on customers such as level of service disruptions.

1.4.2. LIFECYCLE ACTIVITIES

A list of the planned Lifecycle Activities, annual cost, and frequency for Human Resources assets can be found in **Table 6** below. These activities are currently being undertaken to maintain Human Resources assets and therefore maintain the current levels of service.

Table 6: Lifecycle Activities for Human Resources Assets

Asset Type	Lifecycle Activity	2024 Annual Cost*	Frequency	Completed by
Health and Safety Assets	Pad and/or Battery replacement	\$500	Ad hoc	JHSC members / City Staff
	Inspection	N/A	Monthly	JHSC members / City Staff

*2024 Annual Cost is typically based on estimates presented in the 2024 Operating Budget.

1.4.3. RISKS OF LIFECYCLE ACTIVITIES

The identified lifecycle activities in **Table 6** above are historical activities taken on by Human Resources staff and/or JHSC members. Some risks associated with these activities include:

- **Equipment Failure** - Equipment failure can occur during maintenance activities and this is mitigated by ensuring preventative maintenance is completed at regular intervals and completed following proper procedure.

However, if these activities were not completed, the risks would include:

- **Service Disruptions** due to premature failures that could have been mitigated with preventative maintenance;
- **Health and Safety Issues** due to lack of first aid equipment in the event of an emergency;
- **Increased Cost** due to reactive repairs which could have been prevented with preventative maintenance;
- **Noncompliance with Legislation**, where access to functioning AEDs is mandated by law.

1.4.4. 10 YEAR LIFECYCLE COSTS OF HUMAN RESOURCES ASSETS

Figure 3 below outlines the 10 year lifecycle costs of Human Resources assets. Typically, when the condition of an asset is estimated based on service life there are spikes in the first year to account for the backlog.

The Health and Safety Asset costs identified in **Figure 3** below are recommended based on an average annual proactive replacement schedule to replace all AEDs within their estimated service life to maintain state of good repair of the assets.

Based on the information presented in the figure below, the total average annual capital cost for the next 10 years to maintain the state of good repair for Human Resources assets is \$8.1K, and the average annual O&M cost to maintain the state of good repair is \$570. Therefore, it is recommended that the City invest \$8.7K annually in Human Resources assets to maintain the state of good repair.

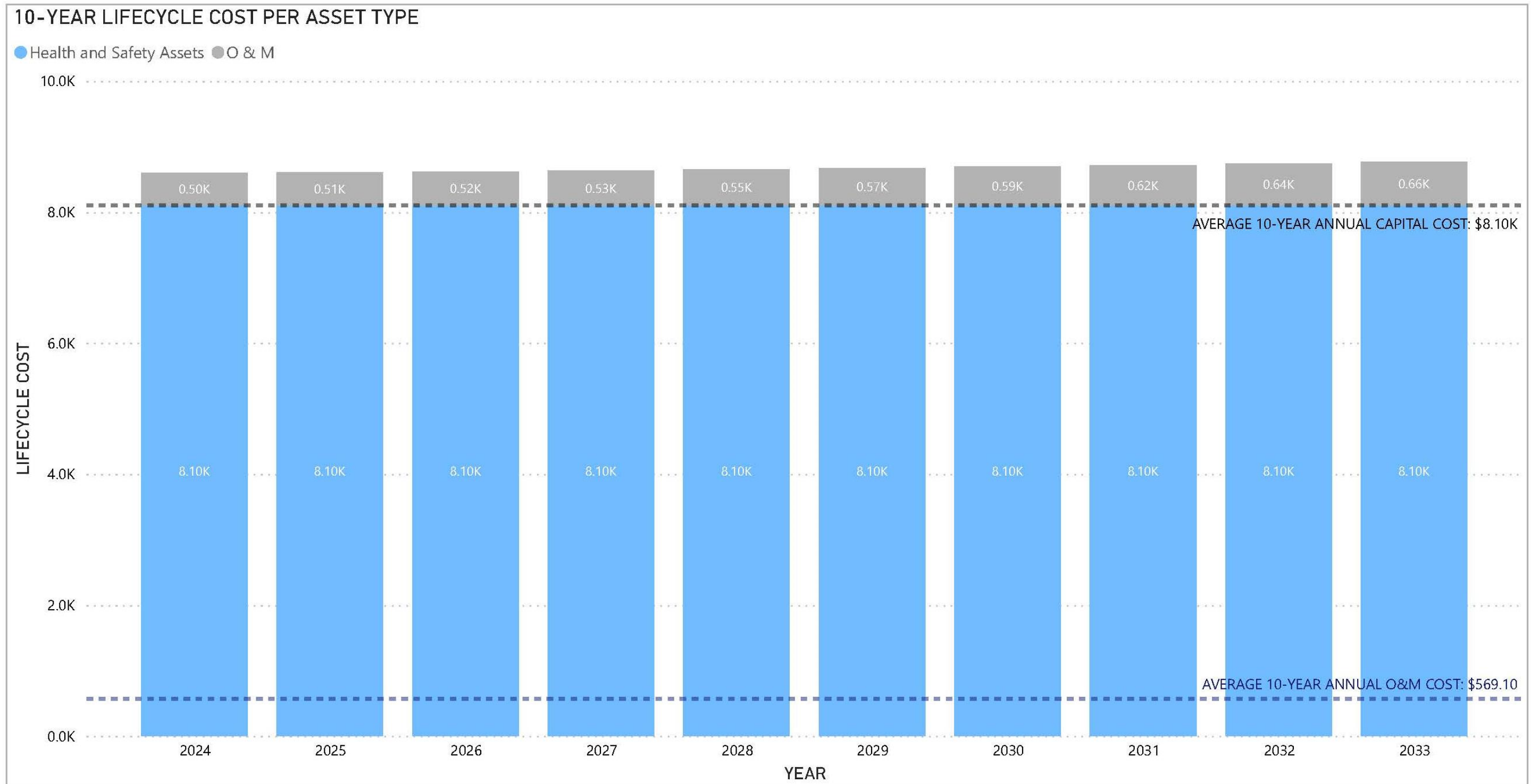


Figure 3: 10-Year Lifecycle Cost Per Human Resources Asset Type

- Notes:
- O&M costs are estimated based on the 2024-2027 Operating Budget. O&M costs beyond 2027 are estimated by 3.8% inflation each year.
 - Capital costs and lifecycle are estimated based on values and methodology identified in **Section 1.3**.

Per **Figure 4** below, the existing 10-year capital forecast from 2024–2033, as further explained in **Section 8.3** of the **Asset Management Plan Overview Document**, indicates that the City is not currently dedicating capital funding directly to the replacement of Health and Safety assets annually. The figure identifies an annual 10-year capital funding gap of \$8.1K for these assets.

The City of Brantford has moved to a four (4) year budget cycle and departments will complete long term planning as opposed to annual planning for projects within this time period. The Prioritization Matrix explained in **Section 9** of the **Asset Management Plan Overview Document** has also been implemented which will help departments confirm priority projects. It is anticipated that the new process for the City's 2024 budget cycle will help departments prepare and request funding in advance of significant replacement costs for assets reaching the end of their useful life.

It is important to note that currently the City does not have access to detailed data on Operation and Maintenance costs, but it is anticipated this information will improve in future iterations of the AMP.

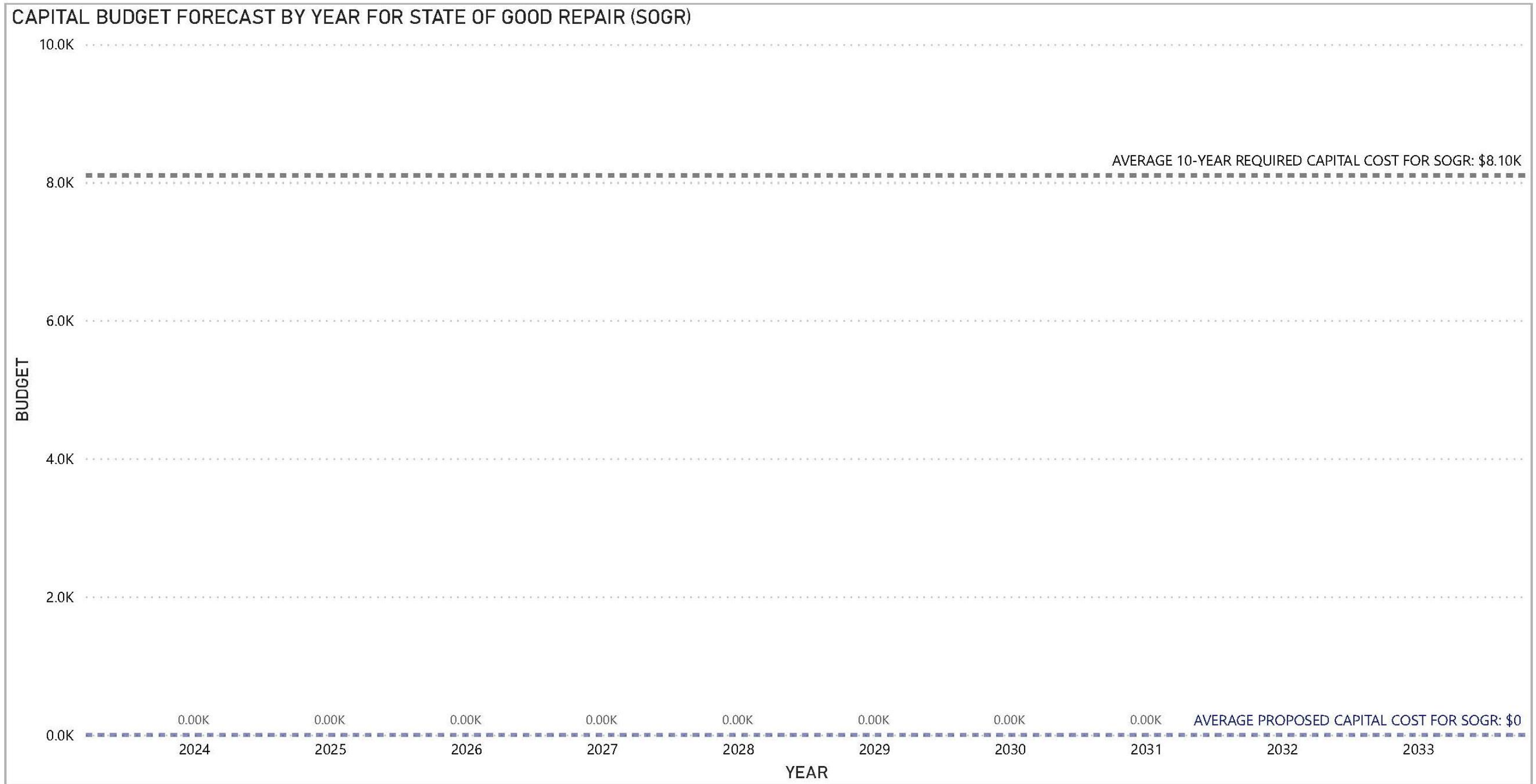


Figure 4: Existing Capital Budget Forecast from 2024–2033 for Human Resources Assets

Notes:

- Capital budget forecast is estimated based on the 2024-2027 Capital Budget. Capital budget beyond 2027 is estimated by 3.8% inflation each year.

1.5. CURRENT LEVELS OF SERVICE

1.5.1. O. REG. 588/17 CUSTOMER LEVELS OF SERVICE

O. Reg. 588/17 does not currently have defined customer levels of service for this asset class that must be reported in this plan. This section will be kept for future iterations in case O. Reg. 588/17 requires defined customer levels of service be reported.

1.5.2. O. REG. 588/17 TECHNICAL LEVELS OF SERVICE

O. Reg. 588/17 does not currently have defined technical levels of service for this asset class that must be reported in this plan. This section will be kept for future iterations in case O. Reg. 588/17 requires defined technical levels of service be reported.

1.5.3. MUNICIPALLY DEFINED CUSTOMER LEVELS OF SERVICE

The customer levels of service are defined in **Section 6.2** of the **Asset Management Plan Overview**. For Human Resources assets, the asset specific interpretation of these levels of service is defined below in **Table 7**.

Table 7: Municipally Defined Customer Levels of Service

Customer Level of Service	Definition
Accessibility	Health and Safety Assets should be accessible to staff and members of the public as needed.
Quality	Health and Safety Assets should deliver their intended purpose at a certain quality.
Cost Efficiency	Health and Safety Assets should meet the needs of users at an affordable cost to the City.
Safety	Health and Safety Assets should be safe to access and use, and promote community safety,
Environmental Sustainability	Health and Safety Assets should be operating and managed as environmentally as possible.
Reliability	Health and Safety Assets should be available and functioning when needed to City staff and members of the public in case of an emergency.
Responsiveness	Health and Safety Assets should be regularly inspected and maintained promptly to avoid service disruption.

1.5.4. MUNICIPALLY DEFINED TECHNICAL LEVELS OF SERVICE

The technical levels of service for Health and Safety Assets have been adopted based on the customer levels of service defined in **Table 7**. The currently available customer levels of service with the corresponding technical levels of service and KPI metrics are defined in Error! Reference source not found..

The need for additional KPIs and KPI targets has been identified and future iterations of this AMP will look for opportunities to gather and include this information.

Table 8: Levels of Service KPIs

Customer Level of Service	Technical LOS	2024 KPI	Units
Accessibility*	Percent of Employees who feel comfortable locating and accessing AEDs.	81%	% of Employees
Quality	Not Available	Not Available	Not Available
Cost Efficiency	Not Available	Not Available	Not Available
Safety*	Percent of Employees whose needs are met or exceeded locating and accessing AEDs.	89%	% of Employees
Environmental Sustainability	Not Available	Not Available	Not Available
Reliability	Not Available	Not Available	Not Available
Responsiveness	Not Available	Not Available	Not Available

*Information obtained from staff surveys conducted in 2024, more details available in Overview Document.

1.6. CURRENT ASSET PERFORMANCE

The current asset performance for Human Resources assets has been separated into two (2) categories for this section of the report:

- Energy Performance; and
- Operating Performance

1.6.1. HUMAN RESOURCES ASSETS CURRENT ENERGY PERFORMANCE

The City of Brantford has a Corporate Energy Management Plan (CEMP) which emphasizes energy efficiency within the City. The goals of the CEMP are to reduce energy use, energy intensity, and greenhouse gas (GHG) emissions in our Facilities. In addition, through the City's Climate Change Action Plan and Climate Lens Tool explained in **Section 10** of the **Asset Management Plan Overview Document**, the City has been working to improve our facilities' energy efficiency and reduce the associated carbon footprint.

Currently, the City does not have a method to track Energy Performance for the Human Resources asset class. This section will be kept for future iterations as ways to track Energy Performance for this asset class are explored.

1.6.2. HUMAN RESOURCES ASSETS CURRENT OPERATING PERFORMANCE

Currently, the City does not have a method to track Operating Performance for the Human Resources asset class. This section will be kept for future iterations as ways to track Operating Performance for this asset class are explored.

1.7. DISCUSSION & CONCLUSIONS

In conclusion, the City of Brantford operates and maintains Automated External Defibrillators (AEDs) assets under the Human Resources asset class. These assets are typically in Fair condition with a total estimated replacement cost of approximately \$202.5K.

The inventory and condition data confidence for Human Resources assets are at a Medium to High level due to formal inventory data maintained by City staff. Replacement costs are also estimated at a High level, as these values are based on advertised price for replacement from a supplier. Condition data is estimated at a Medium confidence level, as the condition of these assets is estimated based on age and service life assumptions by City staff.

The lifecycle stages for Human Resources assets includes: Planning, Creation, O&M, and Disposal. During the Planning stage, the City identifies the need for the asset; during the Creation stage, the asset is purchased and installed; during the O&M stage, the asset is operating and lifecycle activities (i.e. maintenance) occur; and the Disposal stage is when the asset has reached the end of its useful life and requires disposal.

Lifecycle activities are currently completed through the Joint Health and Safety Committee and City staff. At this time, detailed tracking and costs associated with these activities are not available and are estimated based on the 2024 Operating Budget.

It is estimated based on the average annual cost in the 10 Year Lifecycle Costing that the City should be spending an average \$8.1K on capital investment annually on proactive replacement of assets, and be spending an average of \$570 on O&M for assets; however, the City is not currently dedicating any capital funding annually for Human Resources assets state of good repair.

Current Levels of Service have been identified for Human Resources assets. Currently, these levels of service and associated KPIs are based on a survey conducted with internal City employees who would utilize the Human Resources assets. Brantford is working to continue to develop the process to track these metrics which will assist in tracking these and any further identified KPIs for future iterations.

Finally, asset performance is separated into operating and energy performance in the City's AMPs. However, due to limited tracking for assets, the City is not able to provide information for Human Resources asset performance in this iteration of the AMP. Opportunities to track energy performance may be considered to provide updated information in future iterations of this plan.