City of Kingston

2024 Asset Management Plan

Executive Summary and Introduction	Volume 1 Infrastructure, Transportation, Transit, & Emergency Services	Volume 2 Corporate Services & Parking Operations	**Volume 3 Community Services**	Volume 4 Parks, Parkland, & Trails	Volume 5 Police, Libraries, City Real Estate & Environment

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Appendices (Provided in a separate document)

Acronyms

Acronym	Definition
AMP	Asset Management Plan
CPI	Consumer Price Index
EUL	Expected Useful Life
FMCS	Facilities Management & Construction Services
IATSE	International Alliance of Theatrical Stage Employees
IPM	Integrated Pest Management
IT	Information Technology
KCP	Kingston Cultural Plan
LOS	Levels of Service
rH	Relative Humidity
SOLI	State of the Local Infrastructure

1.0 Overview

The asset management project includes 21 service areas, covering all assets owned by the City of Kingston (City) that are not already included in other Asset Management Plans (AMP). This is the first iteration of an AMP for these service areas. Given the extensive range of assets included in the project, the plan is presented in the following six documents:

- Executive Summary and Introduction
- Volume 1: Infrastructure, Transportation, Transit, & Emergency Services
- Volume 2: Corporate Services & Parking Operations
- Volume 3: Community Services
- Volume 4: Parks, Parkland, & Trails
- Volume 5: Police, Libraries, City Real Estate & Environment

Overview

The Introduction document presents key asset management principles and an overview of how each service area will be presented in its own chapter with the following sections: State of the Local Infrastructure (SOLI); Levels of Service (LOS); Risk Assessment; and Asset Management Strategy. The Introduction also includes a section on Growth and a Roadmap with Next Steps. The following sections are included in the Introduction document:

- Section 1.1 Asset Management
- Section 1.2 Scope of Assets
- Section 1.3 Alignment with Strategic Plan, Policy, and Regulation
- Section 1.4 Governance and Relationship to Other Planning Documents
- Section 1.5 Growth
- Section 1.6 Overview of the AMP
  - State of the Local Infrastructure
  - Levels of Service
  - Risk Assessment
  - Asset Management Strategy
- Section 1.7 Roadmap with Next Steps

1.1 Scope of Assets in Volume 3

The service areas included in **Volume 3: Community Services** are: Heritage Services; Arts & Culture Services; Residential Long-Term Care; and Indoor Recreation & Marinas. See **Table 1-1** for the respective asset classes for each service area and the relevant chapter.

Table 1-1: Service Areas included in Volume 3: Community Services

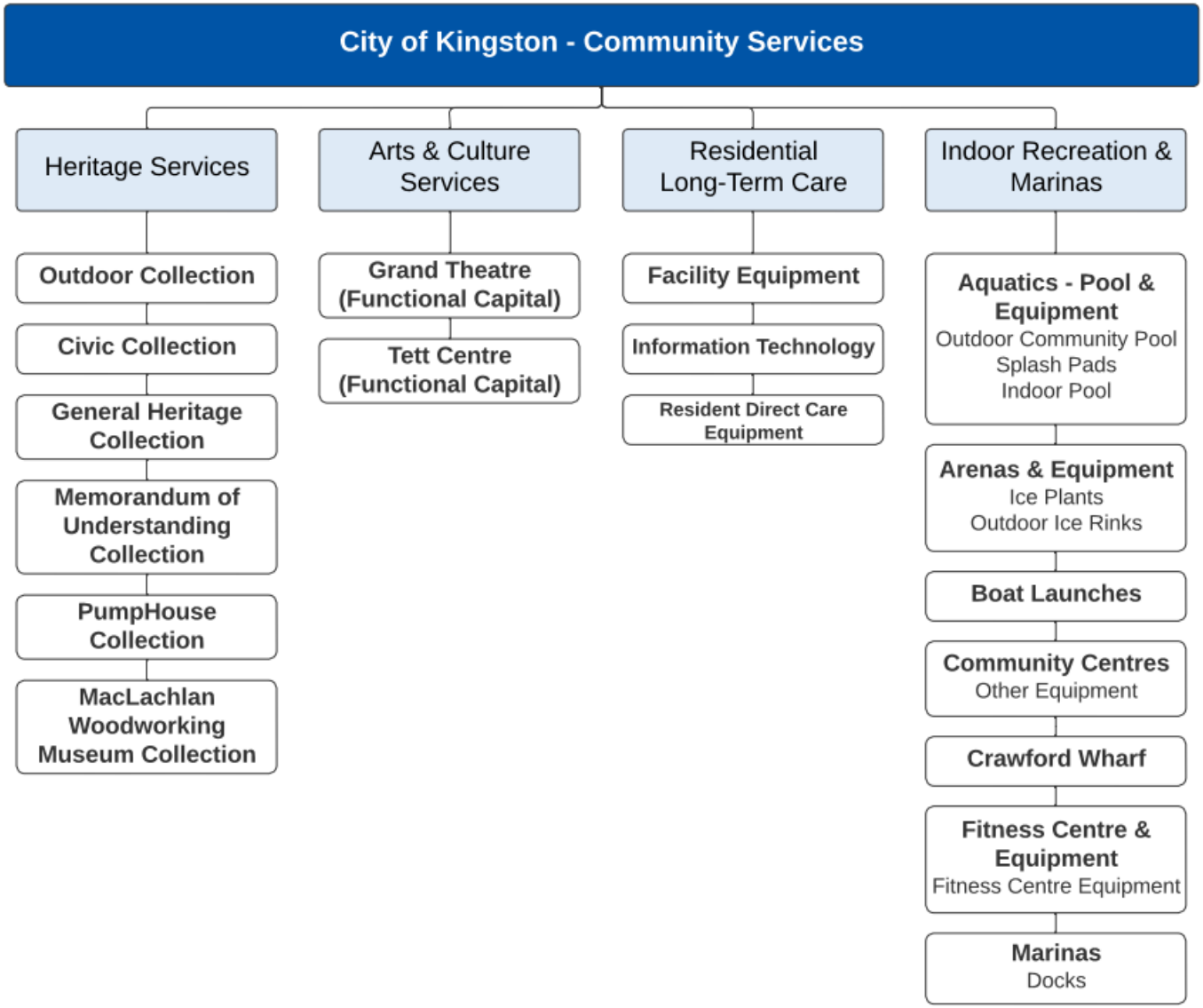
Service Area	Asset Classes	Report Chapter
Heritage Services	• Outdoor Collection • Civic Collection • General Heritage Collection	Chapter 2.0

Service Area	Asset Classes	Report Chapter
	• Memorandum of Understanding Collection • PumpHouse Collection • MacLachlan Woodworking Museum Collection	
Arts & Culture Services	• Grand Theatre (Functional Capital) • Tett Centre (Functional Capital)	Chapter 3.0
Residential Long-Term Care	• Facility Equipment • Information Technology (IT) • Resident Direct Care Equipment	Chapter 4.0
Indoor Recreation & Marinas	• Aquatics – Pool & Equipment • Arenas & Equipment • Boat Launches • Community Centres • Crawford Wharf • Fitness Centre & Equipment • Marinas	Chapter 5.0

1.2 Asset Hierarchy

The asset hierarchy that was generated and used for the City's assets is shown in **Figure 1-1**. The asset group (level 1) is shown in the blue box, the four service areas (level 2) are shown in the light blue boxes, the asset classes are shown in bold (level 3), and where applicable, the asset sub-classes are shown in regular text (level 4).

Figure 1-1: Asset Hierarchy for Community Services



1.3 Asset Inventory and Replacement Costs

An asset inventory was generated for all assets included in this AMP using Microsoft Excel. The inventory organizes assets using the various levels of the asset hierarchy and acts as a central repository for the asset data that can be used to inform asset management planning. It is recommended that the City continually updates the asset information stored within the asset inventory to facilitate asset management planning based on reliable data.

Where replacement costs were provided, the values were inflated based on the Bank of Canada Consumer Price Index (CPI) to estimate the replacement cost in 2023 dollars. If replacement costs were not provided, Dillon leveraged a unit cost model to assign replacement costs based on unit cost estimated for 2023. It is recommended that unit prices should be reviewed annually by the City based on costs observed from local suppliers and contractors.

1.4 Establishing Levels of Service

There were four LOS workshops that were held with staff. The service categories for this volume were covered in Workshop 3 and 4.

- Workshop 3 was held on November 21st, 2023, and included the stakeholders for Heritage, Arts & Culture, and Rideaucrest Long-term Care service categories.
- Workshop 4 was held on November 27, 2023, and included the stakeholders for Indoor Recreation & Marinas.

There were City staff from each service area that attended the workshop. The list of attendees is summarized in **Table 1-2**.

Table 1-2: Workshop Attendees – Community Services

Service	Name	Role
Heritage Services	Kevin Gibbs	Director Heritage Services
Heritage Services	Melanie Banks	Manager Heritage Programming
Arts & Culture Services	Danika Lochhead	Director, Arts & Culture Services
Arts & Culture Services	Diane Zemba	Grand Theatre Manager/Preforming Arts
Residential Long-Term Care	Casie Keyes	Administrator Rideaucrest
Residential Long-Term Care	Laura Rabbie	Administration Manager Rideaucrest
Indoor Recreation & Marinas	Luke Follwell	Director of Engineering
Indoor Recreation & Marinas	Neal Unsworth	Manager Parks & Shoreline
Indoor Recreation & Marinas	Amy Elgersma	Director Recreation & Leisure Services

1.5 Growth Related Impacts on Lifecycle of Assets

As the City continues to expand, there are impacts to existing service levels and assets based on these future needs. The growth-related assumptions and potential impact on the lifecycle of the assets is shown in **Table 1-3**.

Table 1-3: Growth Related Impacts on Lifecycle of Assets

Service Category	Growth Impact Assumptions	How Assumptions Relate to Lifecycle of Assets
Heritage Services	• Changing service demands based on population growth and demographic	• Potential increase in capital expenditures to maintain the state of collections
Arts & Culture Services	• Increase needs for service based on demands	• Potential increase in capital and maintenance costs for facility services • Potential increased operational costs due to number of assets
Residential Long-Term Care	• Increased needs to meet the continued growth and changing population age • Increases to internal capacity (staffing) required to maintain equipment	• Potential increase in operational costs due to an increase in the overall asset portfolio • Potential increase in capital expenditures for the purchase of additional assets to meet service needs for residents
Indoor Recreation & Marinas	• Increase in service demands due to increased operating hours • Increased development will occur as a result of continued growth	• Potential increase in capital expenditures for the purchase of additional assets to meet service needs for residents • Potential increase in operational costs due to an increase in the overall use of assets

2.0 Heritage Services

The City's Heritage Services is dedicated to preserving and celebrating the rich historical and cultural legacy of the City, with a particular emphasis on its diverse art collections. These collections, housed in various municipal facilities and public spaces, include an impressive array of artworks ranging from historical pieces to contemporary creations. The City Hall, for instance, features an extensive collection of portraits and artifacts that reflect Kingston’s storied past. Additionally, the PumpHouse Museum and the MacLachlan Woodworking Museum showcase unique collections that highlight the City’s industrial and craft heritage. Heritage Services also manages outdoor art installations throughout the City, enhancing urban spaces with sculptures, murals, and other artistic expressions. Through exhibitions, educational programs, and community events, Heritage Services ensures that these art collections are accessible and engaging, fostering a deeper appreciation for the City’s cultural and artistic heritage among residents and visitors. This chapter includes assets that are managed under Heritage Services.

2.1 State of the Local Infrastructure

2.1.1 Asset Inventory and Valuation

For inventory purposes, Heritage Services assets have been summarized into asset classes and further divided into applicable asset types. **Table 2-1** summarizes the asset inventory for Heritage Services by asset class, asset type and asset count. At the time of the AMP, there was no replacement cost data available for these assets as they are irreplaceable assets.

It should be noted that the City has an extensive civic collection of historical pieces. These priceless pieces of art and history will not have a specified replacement value or service life and are not subject to depreciation or depletion. City staff ensure these items are treated as unique and prioritize preservation techniques so they can be conserved and enjoyed by generations.

Table 2-1 Notes

[1] There is no available replacement cost or valuation data for these assets.

Table 2-1: Inventory Summary by Asset Type – Heritage Services

Asset Class	Asset Count	Total Replacement Cost (2023)
Outdoor Collection	94	Unknown
Civic Collection	2,313	Unknown
General Heritage Collection	76	Unknown
Memorandum of Understanding Collection	111	Unknown
PumpHouse Collection	1,339	Unknown
MacLachlan Woodworking Museum Collection	9,262	Unknown

Heritage Services

Asset Class	Asset Count	Total Replacement Cost (2023)
Overall	**13,195**	**Unknown[1]**

2.1.2 Asset Age Summary

Table 2-2 summarizes the average age and average condition of assets pertaining to Heritage Services. Unlike the other assets included in the AMP, these assets are intended to be preserved indefinitely. As such, their service life is different from those assets that are meant to be replaced over time. They have no defined service life or replacement schedule. **Table 2-2** does not include an expected useful life or average remaining useful life.

Table 2-2 Notes

[1] No condition data was available for Heritage Services assets at the time of preparing this AMP. Age data was only available for 1,592 of the 13,195 Heritage Services assets. The overall average age of Heritage Services assets is 74 years based on the available age data.

Table 2-2: Average Age and Average Condition – Heritage Services

Asset Class	Average Age (Years)	Average Condition Grade
Outdoor Collection	Unknown	Unknown
Civic Collection	67	Unknown
General Heritage Collection	69	Unknown
Memorandum of Understanding Collection	86	Unknown
PumpHouse Collection	90	Unknown
MacLachlan Woodworking Museum Collection	174	Unknown

Heritage Services

Asset Class	Average Age (Years)	Average Condition Grade
Overall	**74**	**Unknown**

2.1.3 Asset Condition

Since these assets are intended for perpetual preservation, traditional methods of determining the remaining service life are not applicable. Currently, City staff monitor the condition of Heritage Services assets through visual inspections. Inspection data was unavailable at the time of the AMP, and the current condition of these assets is unknown. However, with regular maintenance and inspections, it is anticipated that they will remain in good condition.

2.1.4 Data Sources and Confidence

The asset data for Heritage Services assets was provided in 2023 by City staff in the format of various Excel report files exported from a collections management software from Re:discovery Inc. called Proficio. Currently, this critical subscription-based software platform serves as the central repository for asset & condition data related to the assets.

Data confidence can be estimated based on the confidence level of various qualifiers and can be presented on a scale from 0% (low) to 100% (high), as shown in **Table 2-3**. The qualifiers chosen for evaluation are specifically targeted for estimating overall confidence of condition reporting within the SOLI.

Table 2-3: Data Confidence Scale

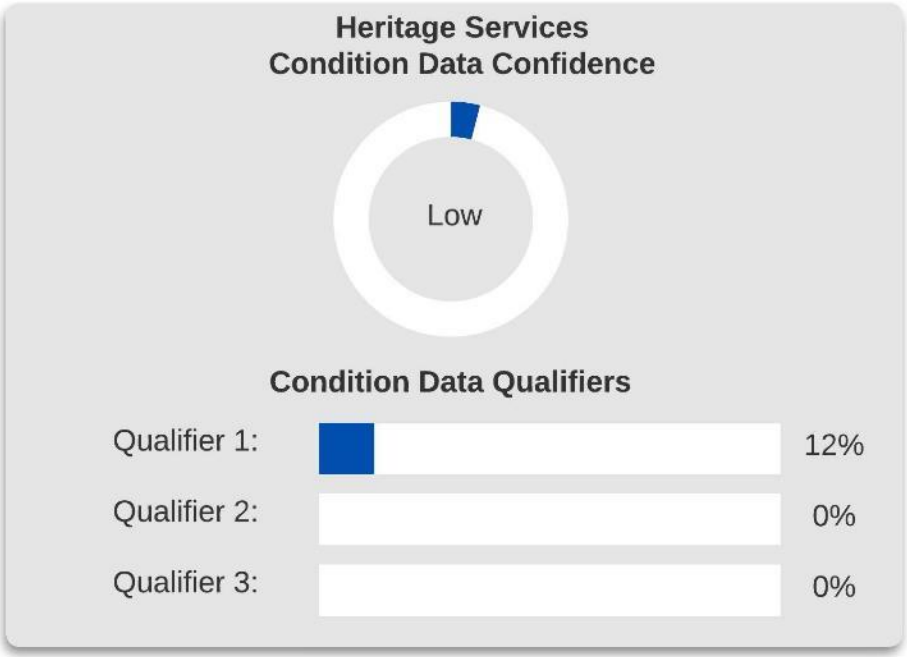
Confidence Level	Low	Low/ Moderate	Moderate	Moderate/ High	High
Average of Qualifiers	0% to 19%	20% to 39%	40% to 59%	60% to 79%	80% to 100%

Heritage Services

Assuming the data source is reliable, the following qualifiers were considered to estimate data confidence regarding the data utilized in the creation of this SOLI report:

- **Qualifier 1**: The percentage of assets in the asset inventory where construction, installation, or acquisition years are documented (12%);
- **Qualifier 2**: The percentage of assets in the asset inventory that have condition assessment data documented (0%); and,
- **Qualifier 3**: The percentage of the estimated overall replacement value, in 2023 dollars, attributed to assets in the asset inventory with documented condition assessment data (i.e., condition is not solely age-based) (0%).

Figure 2-1: SOLI Report Data Confidence – Heritage Services



As summarized in **Figure 2-1**, the overall asset condition data confidence for Heritage Services assets is estimated as Low. Currently, the City's Proficio software stores asset condition assessment reports completed by City staff for individual assets but does not allow for tabular asset condition data to be summarized and exported for individual assets within each asset class (i.e., asset condition data is only accessed by opening individual asset condition assessment reports). As a result, asset condition data could not be utilized for this AMP. For asset management planning purposes, it is recommended that the City investigates whether Proficio can be configured to summarize asset condition data for all assets within an asset class in tabular format to better inform future AMPs.

2.2 Levels of Service

In 2014, the City developed the Kingston Public Art Master Plan, a strategic document designed to enhance the cultural and aesthetic richness of the City through public art. The plan aims to outline the vision, goals, and actions needed to integrate public art into the urban fabric of Kingston, promoting community engagement, cultural expression, and placemaking. The master plan emphasizes the importance of diversity and inclusion, ensuring public art reflects the City's varied cultural heritage and contemporary society.

Key goals of the master plan include:

- Fostering a sense of identity and pride among Kingston residents.
- Creating vibrant and attractive public spaces.
- Supporting local and regional artists.

As the plan provides a long-term vision for public art included as part of the Civic Collection, the City has developed community and technical Levels of Service (LOS), for their existing assets within the collection. These LOS were developed based on contributions from the municipal staff. It was decided that Community Satisfaction and Quality were key attributes in gauging the performance of the assets. **Table 2-4** and **Table 2-5** outline the City's current community and technical LOS for Heritage Services.

Heritage Services

Table 2-4: Community LOS – Heritage Services

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Community Satisfaction	Curate vibrant collections that meet community expectations relating to cultural equity, diversity, and the City's geography.	Percentage of respondents that are satisfied with the City's existing collections, as informed by public survey.	Currently Unknown

Table 2-5: Technical LOS – Heritage Services

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Quality	Preserve Heritage Services assets in a good state of repair.	Percentage of assets that are meeting condition performance objectives.	Currently Unknown

2.3 Risk Assessment

The risk scores were calculated using the risk methodology and approach outlined in the Introduction document. **Table 2-6** summarizes the risk factors for the Heritage Services assets.

Table 2-6: Risk Factors – Heritage Services

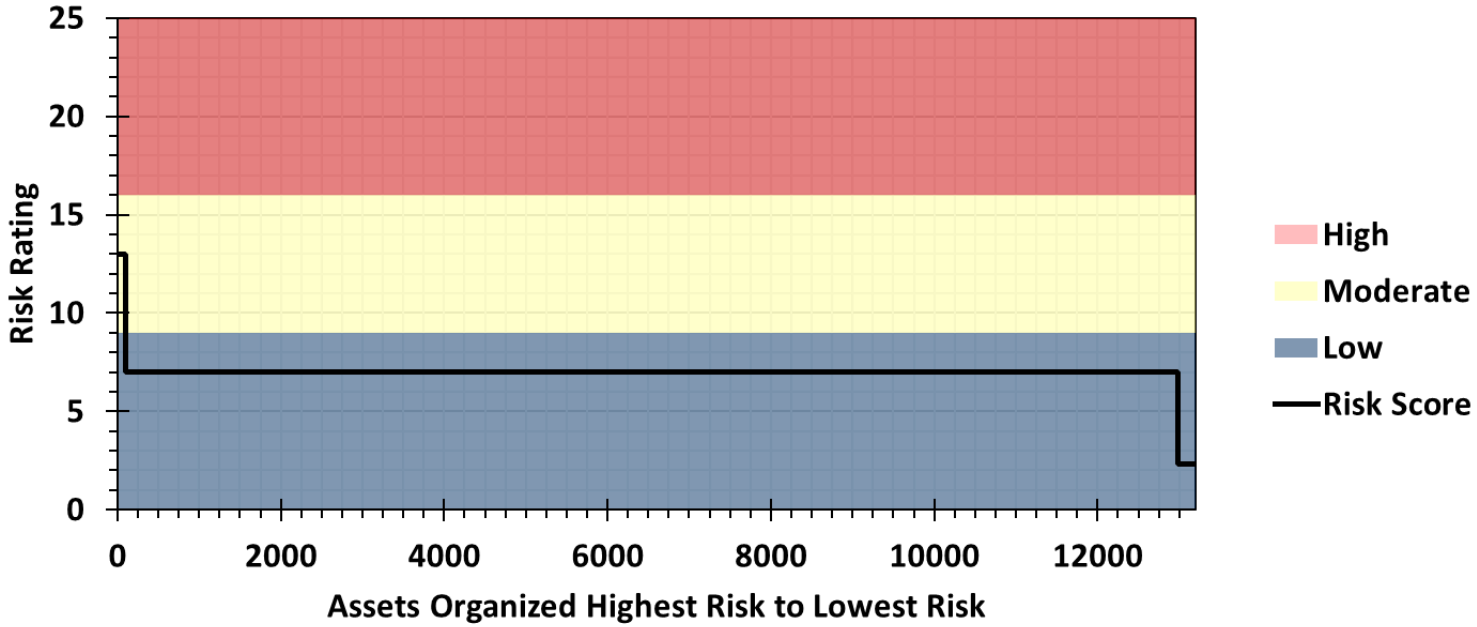
Factors	Risk Ratings
A - Condition	As the condition of the assets is unknown, a condition rating of 3 was assumed for all assets and a rating of 3 for calculating the risk scores.
B - Performance	The performance of all assets was identified as being “usually reliable” and assigned a rating of 3 for calculating risk scores.
C - Climate Change	The climate change ratings were determined at the asset class level by identifying climate change hazard interactions. Outdoor Collection assets were identified as a “high” risk and assigned a rating of 5 for calculating the risk scores. All other asset classes were assigned a rating of 1.
D - Impact	The impact of the assets was identified as "low" impact and assigned a rating of 0 for calculating risk scores.
E - Importance	The importance of the assets was identified as "high" importance and assigned a rating of 3 for calculating risk score, except for the General Heritage Collection. The General Heritage Collection was identified as “low” importance and assigned a rating of 1 for calculating risk scores.

The individual risk ratings were used in calculating the risk score for each of the assets.

2.3.1 Risk Profile

The Risk profile of the Heritage Services assets is displayed in **Figure 2-2**. Of the 13,195 assets tracked within the asset inventory, 104 assets are classified as Moderate risk and the remaining 13,091 assets as Low risk. Moderate risk assets primarily include Outdoor Collection assets subject to climate change impacts.

Figure 2-2: Risk Profile – Heritage Services (All Collections)



2.4 Asset Management Strategy

2.4.1 Lifecycle Activities – Heritage Services

The lifecycle activities considered in this AMP include:

- **Non-Infrastructure Solutions**: Actions or policies that can lower costs and extend useful lives.
- **Maintenance Activities**: Regularly scheduled inspection and maintenance, or more significant repair and activities associated with unexpected events.
- **Renewal / Rehabilitation Activities**: Significant repairs designed to extend the life of the asset.
- **Replacement / Construction Activities**: Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option.
- **Disposal Activities**: Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed.
- **Expansion / Growth / Service Improvement Activities**: Planned activities required to extend services to previously unserved areas or expand services to meet growth demands.

Table 2-7 describes the lifecycle activities that can be implemented within the asset management strategy for Heritage Services assets. The lifecycle activities presented below are existing activities performed by the City, identified during a workshop with City staff in January 2024.

Table 2-7: Lifecycle Activities – Heritage Services

Lifecycle Activity Type	Description of Activity	Frequency / Timing
Non-Infrastructure Solutions	Public Art Master Plan	Every 5 years
Maintenance Activities	Environment Controls - Temperature and relative humidity (rH) monitoring	Daily
Maintenance Activities	General Cleaning of Collections	Weekly
Maintenance Activities	Integrated Pest Management (IPM)	Monthly
Maintenance Activities	Deep Cleaning of Outdoor Assets	Bi-annually (spring and fall)
Renewal / Rehabilitation Activities	Rehabilitation of assets as needed, informed by condition reporting and larger assessments.	Ongoing

Lifecycle Activity Type	Description of Activity	Frequency / Timing
Renewal / Rehabilitation Activities	Conservation Work	Annually or bi-annually
Replacement / Construction Activities	Replacement of Assets in Critical Condition	As needed
Disposal Activities	Deaccessioning Process	As determined during quarterly Heritage Programs Committee meetings
Expansion / Growth / Service Improvement Activities	Review of City Policies. Creation of new policies as needed.	Bi-annually

2.4.2 Funding the Lifecycle Activities – Heritage Services

Lifecycle modeling allows for the City to understand the future reinvestment needs of their existing assets by generating a theoretical asset replacement forecast that considers available asset inventory data. For Heritage Services assets, however, the replacement values are highly subjective and influenced by factors like the artist's reputation, provenance, and market trends. This differs from traditional lifecycle approaches for other built infrastructure.

The primary goal of Heritage Services lifecycle management is preservation, not long-term operational performance. Historical data on maintenance and operation costs would aid in estimating future funding requirements for lifecycle activities. While this data was unavailable for this AMP, it should be considered in future iterations.

3.0 Arts & Culture Services

The City's Arts & Culture Services department is dedicated to enriching the community through a robust offering of arts and cultural programs. This includes the operation of key cultural facilities such as the Kingston Grand Theatre and Tett Centre for Creativity and Learning. The Kingston Grand Theatre, a historic and iconic venue, hosts a diverse array of performances including music, theatre, dance, and comedy, serving as a central hub for entertainment in the City. Meanwhile, the Tett Centre, located on the waterfront, offers dynamic spaces for arts education, studios, and galleries, fostering creativity and collaboration among community members. This section of the AMP summarizes asset inventories for Arts & Culture Services.

The City’s Facilities Management & Construction Services (FMCS) department is comprised of three divisions: Facilities Management, Energy & Asset Management, and Facilities Construction. FMCS maintains the City’s diverse portfolio of municipal buildings, thereby supporting departments and agencies in providing extensive front-line services to the community. This centralized, shared services collaborative approach has allowed the integration of energy management and sustainability considerations along with other aspects of facilities maintenance, asset management, space planning, design, construction, and demolition across all areas of the City.

It is important to note that the Arts & Culture Services facilities were included in the dedicated 2023 Facilities AMP developed by the City's FMCS department in consultation with GM BluePlan Engineering Limited. The assets in this AMP are considered functional capital assets within the facilities, which are managed separately through Arts & Culture Services in consultation with the Tett Centre, and as outlined in the Service Level Agreement within the Tett Centre Master Lease. For details on the facilities including data confidence and lifecycle modeling, please refer to the 2023 Facilities AMP.

3.1 State of the Local Infrastructure

3.1.1 Asset Inventory and Valuation

For inventory purposes, Arts & Culture Services assets are summarized into asset classes. The asset class and asset count are shown in **Table 3-1**. At the time of the AMP, there were no replacement cost data available for these assets.

Table 3-1: Inventory Summary by Asset Type – Arts & Culture Services

Asset Class	Count	Total Replacement Cost (2023)
Kingston Grand Theatre (Functional Capital)	1,454	Unknown
Tett Centre (Functional Capital)	537	Unknown
Overall	**1,991**	**Unknown**

3.1.2 Asset Age Summary

Table 3-2 summarizes the average age, average condition, expected useful life, and the average remaining useful life of assets pertaining to Arts & Culture Services. The overall average age of Arts & Culture Services assets is 13 years, and the average remaining useful life is three years.

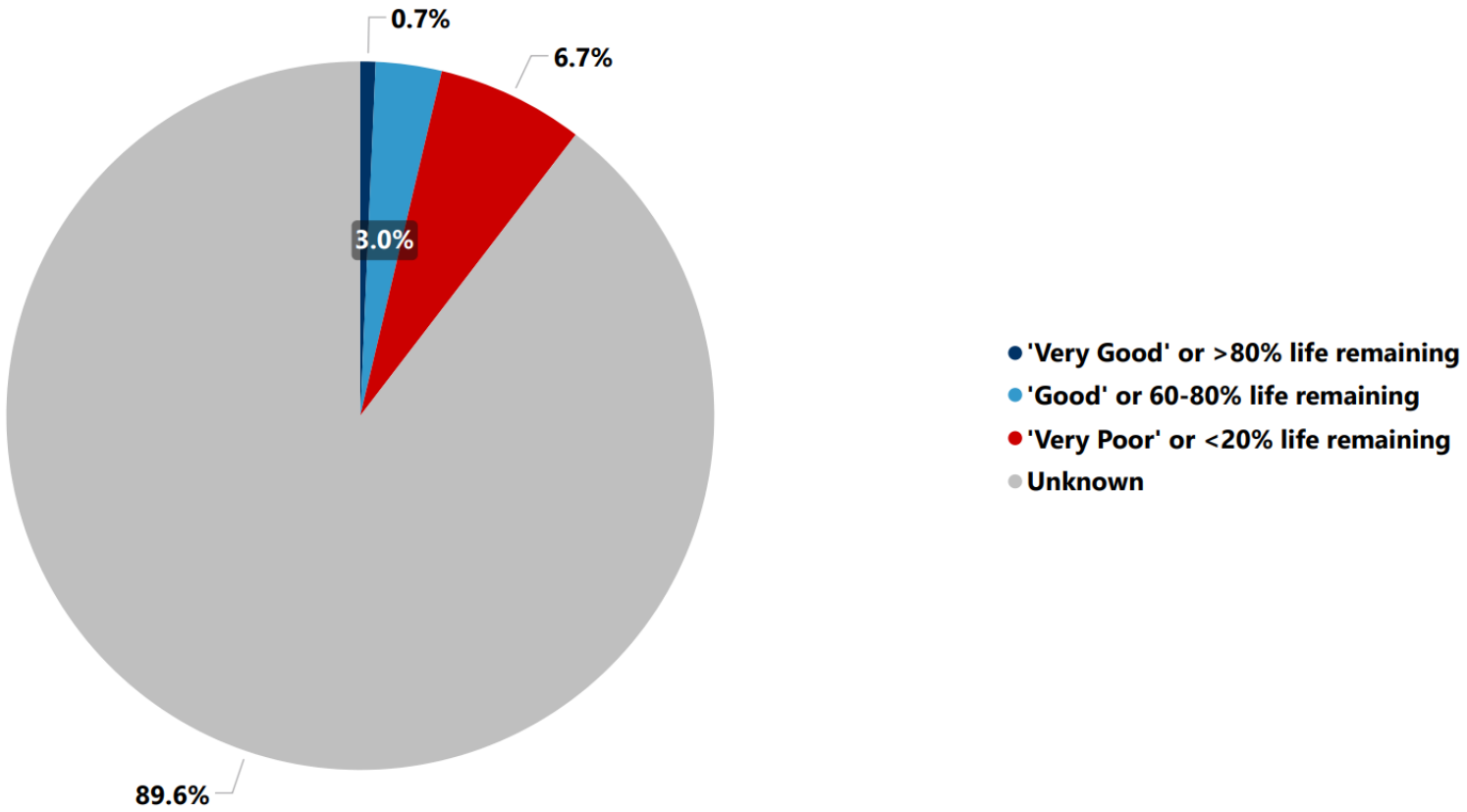
Table 3-2: Average Age, Average Condition, Expected Useful Life, and Remaining Useful Life – Arts & Culture Services

Asset Class	Average Age (Years)	Average Condition Rating	Expected Useful Life (Years)	Average Remaining Useful Life (Years)
Kingston Grand Theatre (Functional Capital)	13	Poor	10	3
Tett Centre (Functional Capital)	Unknown	Unknown	10	Unknown
Overall	**13**	**Poor**	**10**	**3**

3.1.3 Asset Condition

An overall condition summary for Arts & Culture Services assets is shown in **Figure 3-1**. Approximately 90% of the assets lack conditon data. There is approximately 3.7% of the assets that are in very good to fair condition, while 89.6% of the assets with an unknown condition.

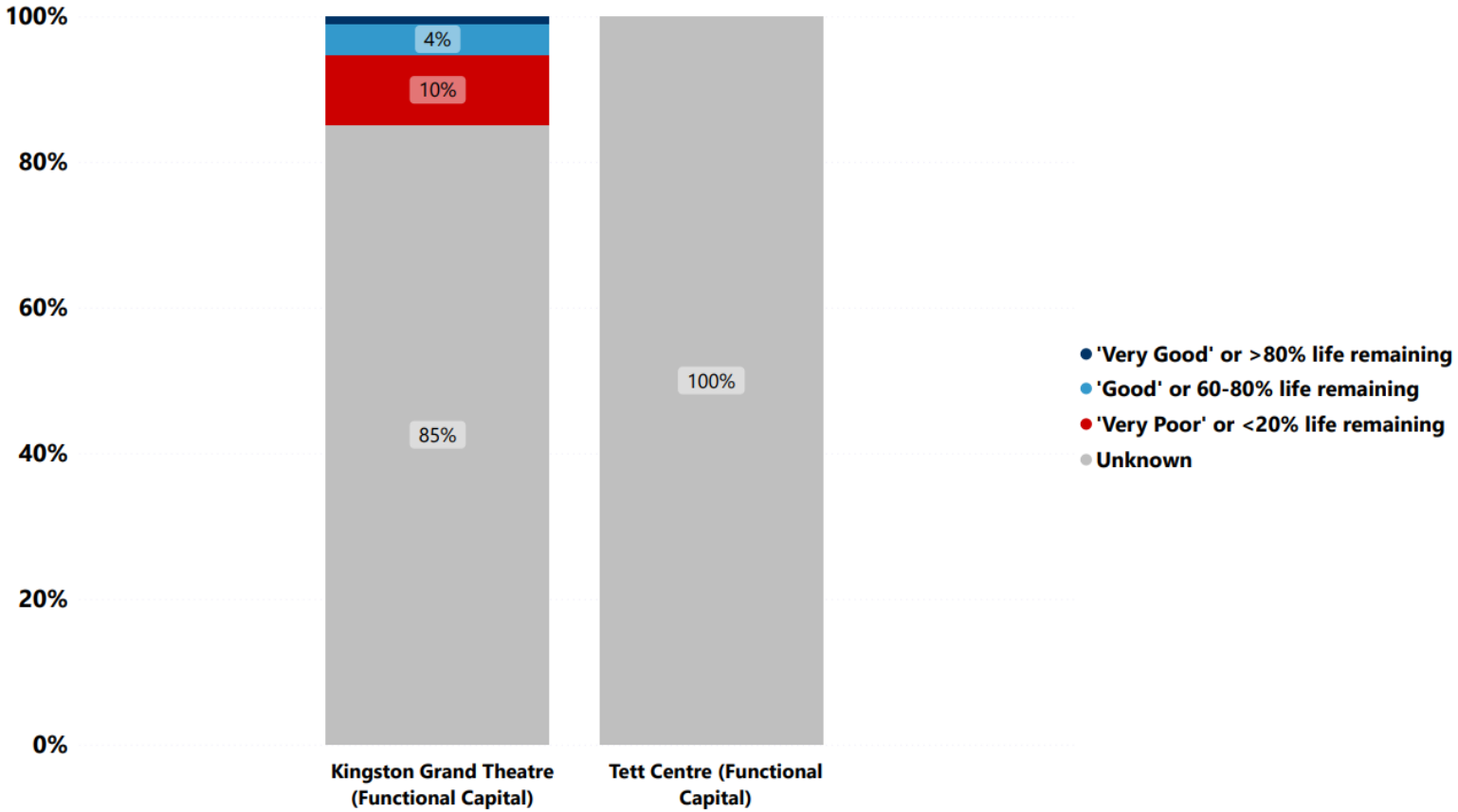
Figure 3-1: Condition Summary – Arts & Culture Services



Arts & Culture Services

A condition summary for Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital) is provided in **Figure 3-2** by asset type. In the absence of condition assessment data, the condition of the assets has been primarily determined based on age and expected useful life (if available).

Figure 3-2: Condition Summary by Asset Class – Arts & Culture Services (Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital))



3.1.4 Data Sources and Confidence

The asset data for assets pertaining to Arts & Culture Services was provided by City staff in the format of various Excel inventory files. Currently, there is no central repository for this asset data.

Data confidence can be estimated based on the confidence level of various qualifiers and can be presented on a scale from 0% (low) to 100% (high), as shown in **Table 3-3**. The qualifiers chosen for evaluation are specifically targeted for estimating overall confidence of condition reporting within the SOLI.

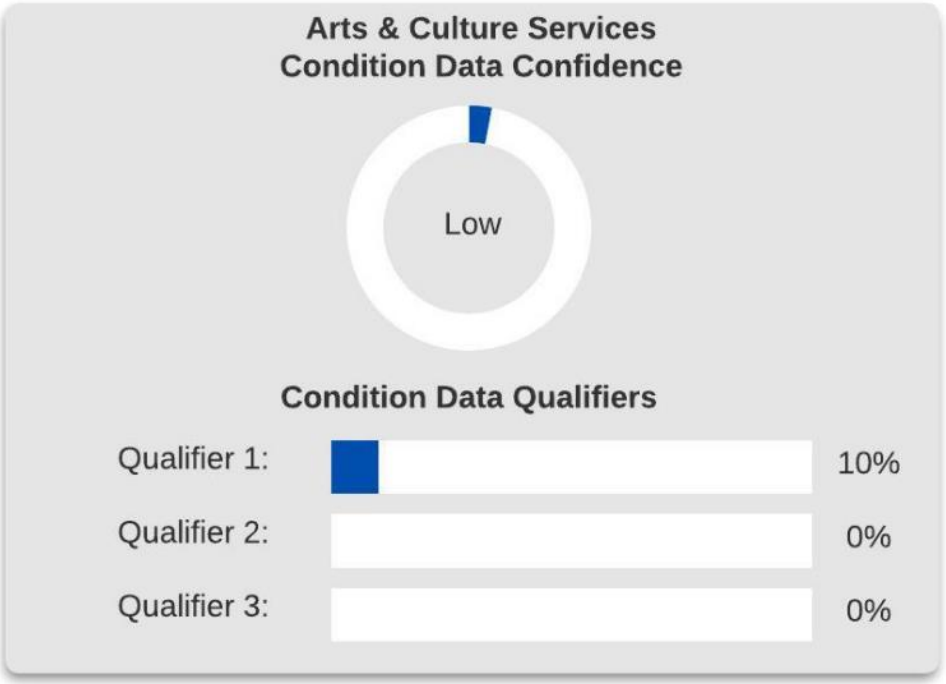
Table 3-3: Data Confidence Scale

Confidence Level	Low	Low/ Moderate	Moderate	Moderate/ High	High
Average of Qualifiers	0% to 19%	20% to 39%	40% to 59%	60% to 79%	80% to 100%

Assuming the data source is reliable, the following qualifiers were considered to estimate data confidence regarding the data utilized in the creation of this SOLI report:

- **Qualifier 1**: The percentage of assets in the asset inventory where construction, installation, or acquisition years are documented (10%);
- **Qualifier 2**: The percentage of assets in the asset inventory that have condition assessment data documented (0%); and,
  Qualifier 3: The percentage of the estimated overall Structures replacement value, in 2023 dollars, attributed to assets in the asset inventory where condition can be assessed using available data (i.e., based on condition assessment history and/or age-based condition) (0%).

Figure 3-3: SOLI Report Data Confidence – Arts & Culture Services



As summarized in **Figure 3-3**, the overall asset condition data confidence for Arts & Culture Services assets is estimated as Low. In the absence of a centralized repository for functional capital assets related to Arts & Culture Services, key attributes that inform asset management planning remain unknown including most asset ages, conditions, and replacement costs. Data confidence can be increased by improving the quality of the data and/or filling in data gaps.

3.2 Levels of Service

In 2010, the City published the Kingston Cultural Plan (KCP) which provided a comprehensive plan which focused on the following objectives:

- **Long-term vision**: Outlined a sustainable, authentic future for Kingston's cultural scene.
- **Collaboration:** Identified opportunities for partnerships between cultural organizations, other stakeholders, and City departments.
- **Strategic goals**: Developing a roadmap with specific actions, initiatives, and a timeline to achieve Kingston's cultural and municipal objectives.

The KCP outlines how the City can improve its residents' cultural experiences and strengthen its identity through cultural investment. It also defines the Arts & Culture Services department's role as a cultural development agency and identifies its required resources. To support the needs of cultural services, the City has developed the community and technical Levels of Service (LOS), based on contributions from the municipal staff. It was decided that Customer Satisfaction and Quality were key attributes in gauging the performance of the assets. **Table 3-4** and **Table 3-5** outline the City's current community and technical levels of service for Arts & Culture Services.

Table 3-4: Community LOS – Arts & Culture Services

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Customer Satisfaction	Provide cultural enrichment services that promotes and supports the development of cultural experiences.	Percentage of respondents that are satisfied with the City's existing cultural services by public survey.	Currently Unknown

Table 3-5: Technical LOS – Arts & Culture Services

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Quality	Provide Arts & Culture Services that meet the needs of the community.	Percentage of assets that are in poor or better condition.	Currently Unknown

3.3 Risk Assessment

The risk ratings for Arts & Culture Services assets included Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital). The risk scores were calculated using the risk methodology and approach outlined in the Introduction document. **Table 3-6** summarizes the risk factors for the Arts & Culture Services assets.

Table 3-6: Risk Factors - Arts & Culture Services

Factors	Risk Ratings
A - Condition	The condition of the assets was determined either by visual or age-based and can be found in the SOLI section of the AMP.
B - Performance	The performance of the Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital) assets was identified as "usually reliable" and assigned a rating of 3 for calculating risk score.

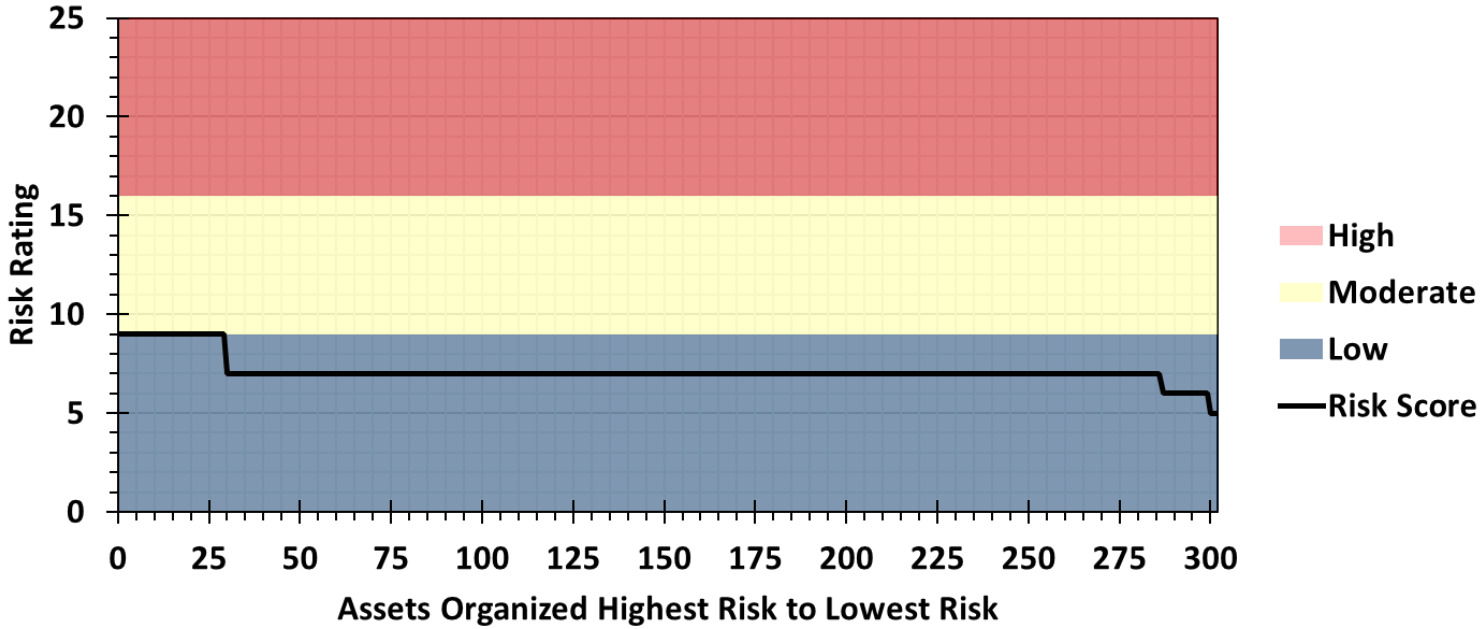
Factors	Risk Ratings
C - Climate Change	The climate change ratings were determined at the asset class level by identifying climate change hazard interactions. The Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital) assets were identified as a “low” risk and assigned a rating of 1 for calculating the risk score.
D - Impact	The Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital) assets was recognized as "moderate" impact and assigned a rating of 1 for calculating risk score.
E - Importance	The Kingston Grand Theatre (Functional Capital) and Tett Centre (Functional Capital) assets was assigned a “moderate” importance and a rating of 2 when calculating risk.

The individual risk ratings were used in calculating the risk score for each of the assets.

3.3.1 Risk Profile

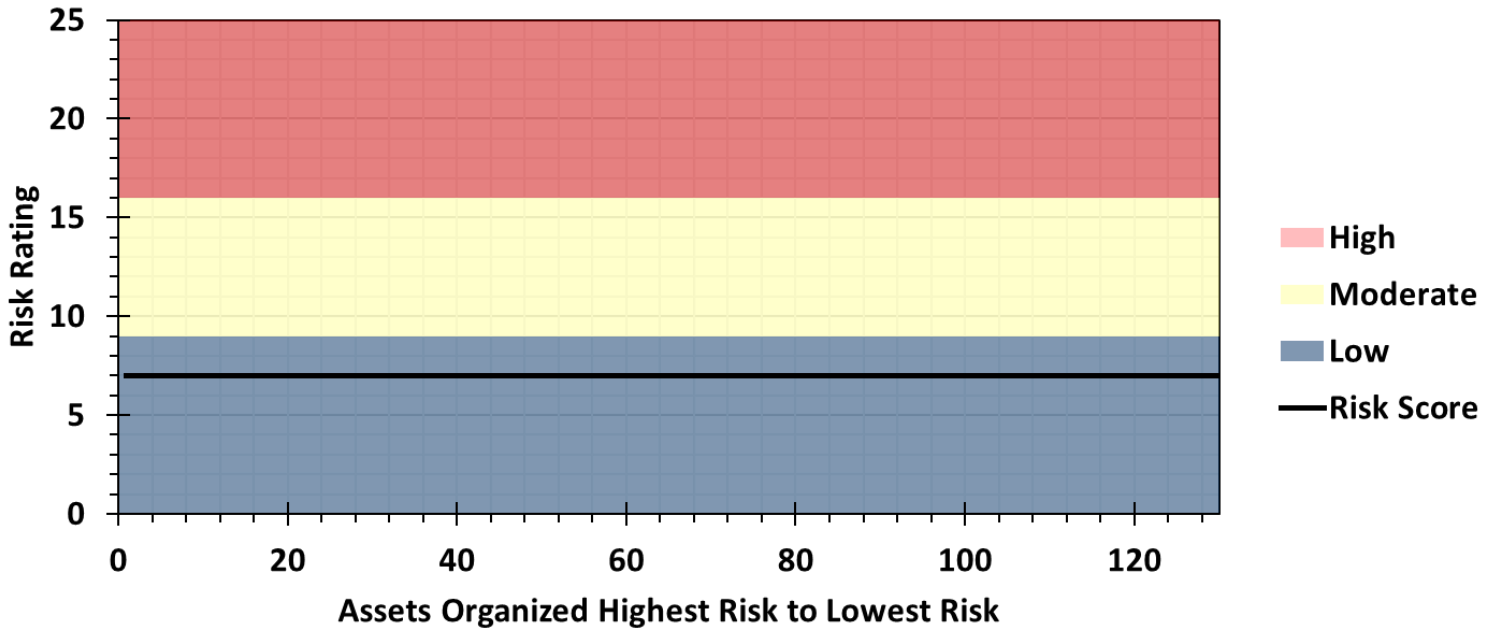
The Risk profile for the Kingston Grand Theatre (Functional Capital) assets is displayed in **Figure 3-4**. All 302 assets tracked in the asset inventory are considered as Low risk.

Figure 3-4: Risk Profile - Arts & Culture Services (Kingston Grand Theatre (Functional Capital))



The Risk profile for the Tett Centre (Functional Capital) assets is displayed in **Figure 3-5**. All 130 assets tracked in the asset inventory are considered as Low risk.

Figure 3-5: Risk Profile - Arts & Culture Services (Tett Centre (Functional Capital))



3.4 Asset Management Strategy

3.4.1 Lifecycle Activities – Arts & Culture Services

The lifecycle activities considered in this AMP include:

- **Non-Infrastructure Solutions**: Actions or policies that can lower costs and extend useful lives.
- **Maintenance Activities**: Regularly scheduled inspection and maintenance, or more significant repair and activities associated with unexpected events.
- **Renewal / Rehabilitation Activities**: Significant repairs designed to extend the life of the asset.
- **Replacement / Construction Activities**: Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option.

- **Disposal Activities**: Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed.
- **Expansion / Growth / Service Improvement Activities**: Planned activities required to extend services to previously unserved areas or expand services to meet growth demands.

Table 3-7 describes the lifecycle activities that can be implemented within the asset management strategy for Arts & Culture Services assets. The lifecycle activities presented below are existing activities performed by the City, identified during a workshop with City staff in January 2024.

Table 3-7: Lifecycle Activities – Arts & Culture Services

Lifecycle Type	Description of Activity	Frequency / Timing
Non-Infrastructure Solutions	Kingston Grand Theatre Business Plan	Every 10 years
Non-Infrastructure Solutions	Kingston Culture Plan	Every 5 years
Maintenance Activities	Maintenance Plan	Annually
Renewal / Rehabilitation Activities	15-year Capital Plan for The Kingston Grand Theatre and Tett Centre	Annually
Replacement / Construction Activities	Replacement at End of EUL	End of EUL
Disposal Activities	Decommissioning and disposal of assets in collaboration with the FCMS department	As needed

Lifecycle Type	Description of Activity	Frequency / Timing
Expansion / Growth / Service Improvement Activities	Multi-Year Accessibility Plan	Every 5 years

3.4.2 Funding the Lifecycle Activities – Arts & Culture Services

Lifecycle modeling allows for the City to understand the future reinvestment needs of their existing assets by generating a theoretical asset replacement forecast that considers available asset inventory data. The age, EUL, replacement cost, condition, and risk score of each asset can be leveraged within the lifecycle model to proactively plan for reinvestment over a period of interest.

The forecasted asset replacement for Arts & Culture Services assets could not be assessed at the time of preparing this AMP due to significant data gaps.

4.0 Residential Long-Term Care

The City's Residential Long-Term Care Service is dedicated to providing high-quality, compassionate care for its senior residents. Rideaucrest is a municipally operated long-term care facility that offers a safe and supportive environment for its residents, with tailored services designed to meet individual health and wellness needs. This section of the AMP summarizes asset inventories for this Residential Long-Term Care Centre.

It is important to note that the Rideaucrest Home was included in the dedicated 2023 Facilities AMP developed by the City's FMCS department in consultation with GM BluePlan Engineering Limited. As a result, the details on the facility in this AMP are limited to basic inventory information. The assets in this AMP are considered functional capital assets within the facility which are managed separately from facility components. For further detail on the facility including data confidence and lifecycle modeling, please refer to the 2023 Facilities AMP.

4.1 State of the Local Infrastructure

4.1.1 Asset Inventory and Valuation

The Residential Long-Term Care service oversees the City's Rideaucrest Home including facility equipment, information technology assets, and resident direct care equipment. **Table 4-1** summarizes the asset inventory by asset class, asset type, asset count, total replacement cost (in 2023 dollars). The total replacement cost (2023 dollars) is estimated at **$76.4 million** for the **1,057 assets** included in the inventory.

Table 4 -1 Notes

[1] As reported in Facilities AMP (2023)

Table 4-1: Inventory Summary by Asset Type – Residential Long-Term Care

Asset Class	Asset Type	Count	Total Replacement Cost (2023)
Facilities	Buildings	1	$74,900,000[1]
Facility Equipment	Appliances	54	$398,700
Facility Equipment	Furniture	270	$234,300
Information Technology	Telephone Systems	1	$178,200
Resident Direct Care Equipment	Appliances	194	$355,300
Resident Direct Care Equipment	Furniture	522	$142,900
Resident Direct Care Equipment	Patient Lifts	15	$150,000
Overall	**N/A**	**1,057**	**$76,359,400**

4.1.2 Asset Age Summary

Table 4-2 summarizes the average age, average condition, expected useful life, and the average remaining useful life of functional capital assets pertaining to Residential Long-Term Care. Refer to the 2023 Facilities AMP for details on the facility itself. The overall average age of Residential Long-Term Care assets is seven years, and the average remaining useful life is eight years.

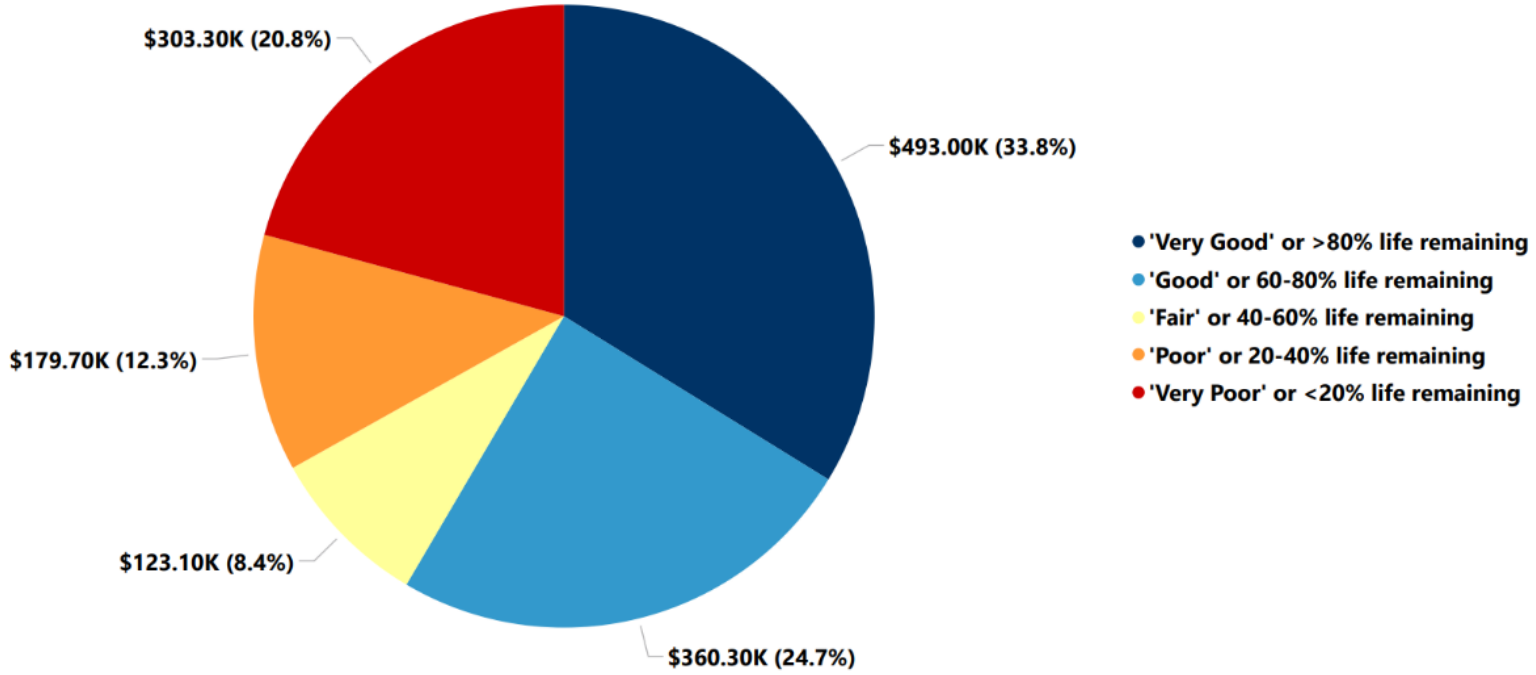
Table 4-2: Average Age, Average Condition, Expected Useful Life, and Remaining Useful Life – Residential Long-Term Care

Asset Class	Asset Type	Average Age (Years)	Average Condition Rating	Expected Useful Life (Years)	Average Remaining Useful Life (Years)
Facility Equipment	Appliances	11	Poor	10	3
Facility Equipment	Furniture	2	Very Good	15	13
Information Technology	Telephone Systems	7	Poor	10	3
Resident Direct Care Equipment	Appliances	3	Good	10	6
Resident Direct Care Equipment	Furniture	3	Very Good	15	12
Resident Direct Care Equipment	Patient Lifts	3	Very Good	15	12
Overall	**N/A**	**7**	**Good**	**10 to 15**	**8**

4.1.3 Asset Condition

An overall condition summary for Residential Long-Term Care assets by replacement cost (in 2023 dollars) is shown in **Figure 4-1**. There is approximately 66.9% of the assets that are in very good to fair condition.

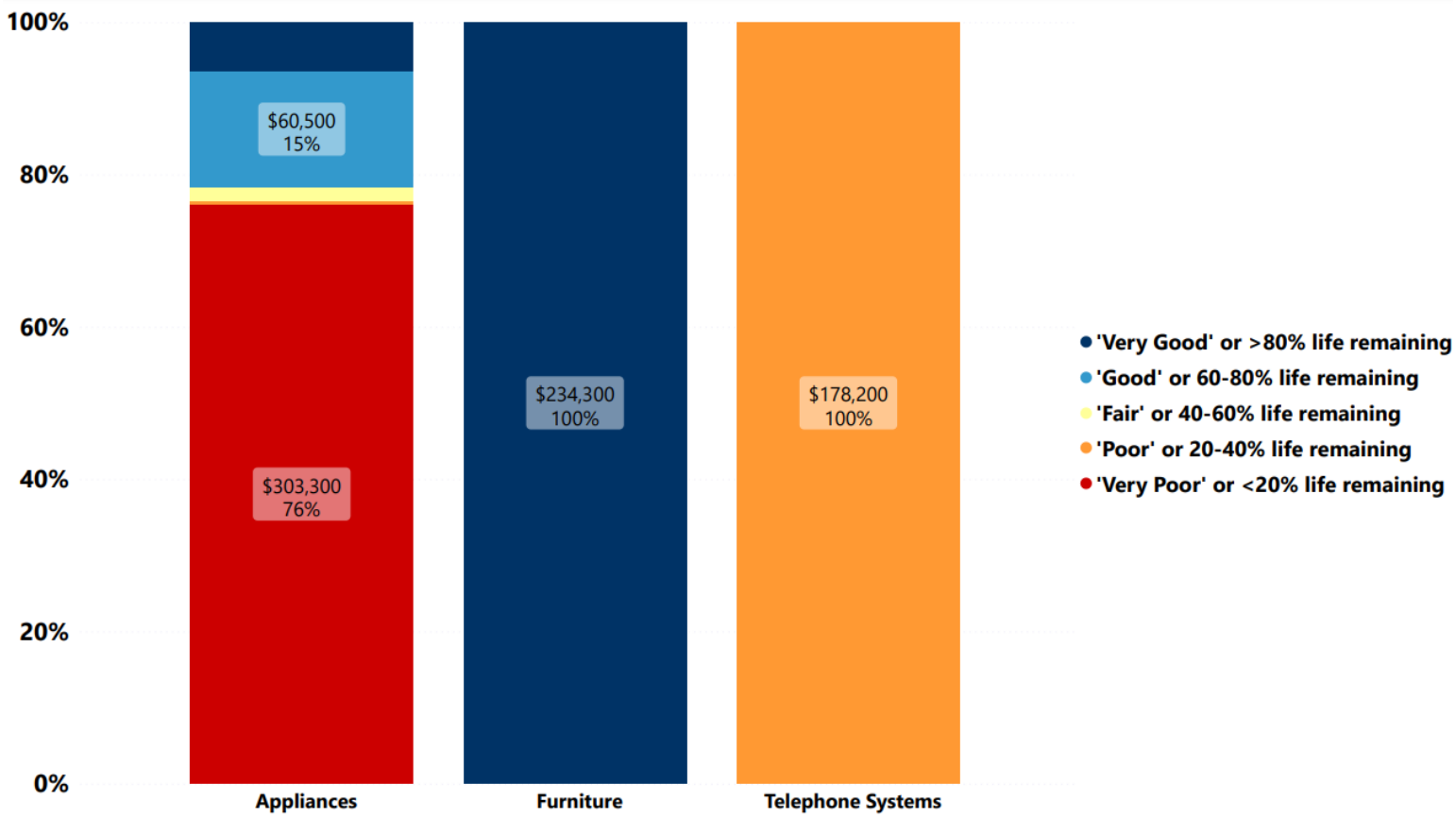
Figure 4-1: Condition Summary and 2023 Replacement Cost – Residential Long-Term Care



Residential Long-Term Care

A condition summary for the Residential Long-Term Care is provided in **Figure 4-2** by asset type. Condition has been determined primarily by an age-based linear deterioration approach.

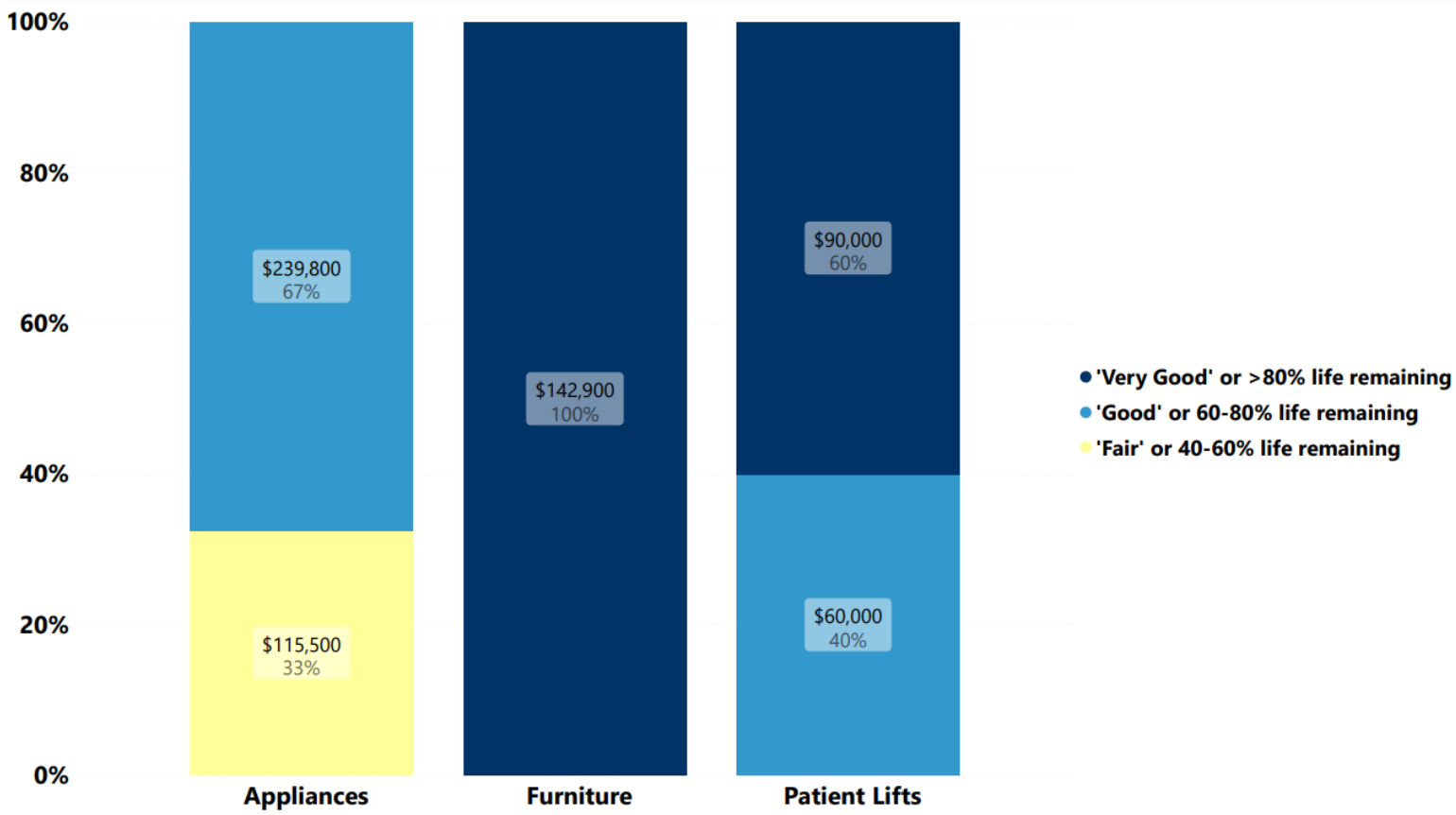
Figure 4-2: Condition Summary by Asset Type – Residential Long-Term Care (Facility Equipment and Information Technology)



Residential Long-Term Care

A condition summary for the Residential Long-Term Care assets is provided in **Figure 4-3** by asset type. Condition has been determined primarily by an age-based linear deterioration approach.

Figure 4-3: Condition Summary by Asset Type – Residential Long-Term Care (Resident Direct Care Equipment)



Residential Long-Term Care

Based on Figure 14 in the 2023 Facilities AMP, approximately 96% of the total replacement cost of the facility is attributed to building and site elements that are in good condition and the remaining 4% of the total replacement cost of the facility attributed to building and site elements that are in very poor condition. Further details are included in the 2023 Facilities AMP.

4.1.4 Data Sources and Confidence

Asset data for functional capital assets supporting the Rideaucrest Home was provided by City staff in the format of various Excel files. Currently, there is no central repository for this asset data.

Data confidence can be estimated based on the confidence level of various qualifiers and can be presented on a scale from 0% (low) to 100% (high), as shown in **Table 4-3**. The qualifiers chosen for evaluation are specifically targeted for estimating overall confidence of condition reporting within the SOLI.

Table 4-3: Data Confidence Scale

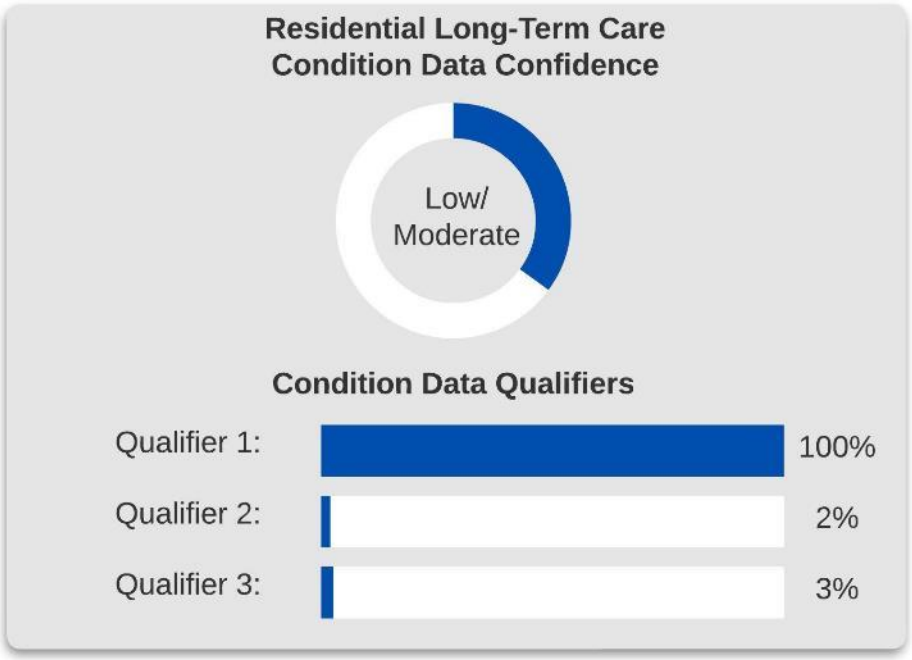
Confidence Level	Low	Low/ Moderate	Moderate	Moderate/ High	High
Average of Qualifiers	0% to 19%	20% to 39%	40% to 59%	60% to 79%	80% to 100%

Assuming the data source is reliable, the following qualifiers were considered to estimate data confidence regarding the data utilized in the creation of this SOLI report:

- **Qualifier 1**: The percentage of assets in the asset inventory where construction, installation, or acquisition years are documented (100%);
- **Qualifier 2**: The percentage of assets in the asset inventory that have condition assessment data documented (2%); and

- **Qualifier 3**: The percentage of the estimated overall replacement value, in 2023 dollars, attributed to assets in the asset inventory with documented condition assessment data (i.e., condition is not solely age-based) (3%).

Figure 4-4: SOLI Report Data Confidence – Residential Long-Term Care



As summarized in **Figure 4-4**, the overall asset condition data confidence for Residential Long-Term Care assets is estimated to be Low/Moderate. Data confidence can be increased by improving the quality of the data and/or filling in data gaps.

4.2 Levels of Service

The City has developed the community and technical Levels of Service (LOS), based on contributions from the municipal staff. It was decided that Capacity and Quality were key attributes in gauging the performance of the assets. **Table 4-4** and **Table 4-5** outline the City's current community and technical levels of service for Residential Long-Term Care.

Table 4-4: Community LOS – Residential Long-Term Care

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Capacity	Services are available to City residents when required.	Occupancy rate of home	97.27%

Table 4-5: Technical LOS – Residential Long-Term Care

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Quality	Provide care that that meet the residents' needs.	Percentage of assets that are in poor or better condition.	76%

4.3 Risk Assessment

The risk ratings for Residential Long-Term Care assets include Facility Equipment-Appliances, Facility Equipment-Furniture, Information Technology-Telephone Systems, Resident Direct Care Equipment-Appliances, Resident Direct Care Equipment-Patient Lifts, and Resident Direct Care Equipment-Furniture. The risk scores were calculated using the risk methodology and approach outlined in the Introduction document. **Table 4-6** summarizes the risk factors for the Residential Long-Term Care assets.

Table 4-6: Risk Factors – Residential Long-Term Care

Factors	Risk Ratings
A - Condition	The condition of the assets was determined either by visual or age-based and can be found in the SOLI section of the AMP.
B - Performance	The performance of the Information Technology asset class was identified as "usually reliable" and assigned a rating of 3 for calculating risk score. Facility Equipment and Resident Direct Care Equipment asset classes was identified as “always reliable” and assigned a rating of 1 for calculating risk score.
C - Climate Change	The climate change of the Information Technology asset class was identified as "moderate" and assigned a rating of 3 for calculating risk score. Facility Equipment and Resident Direct Care Equipment asset classes was identified as “low” and assigned a rating of 1 for calculating risk score.

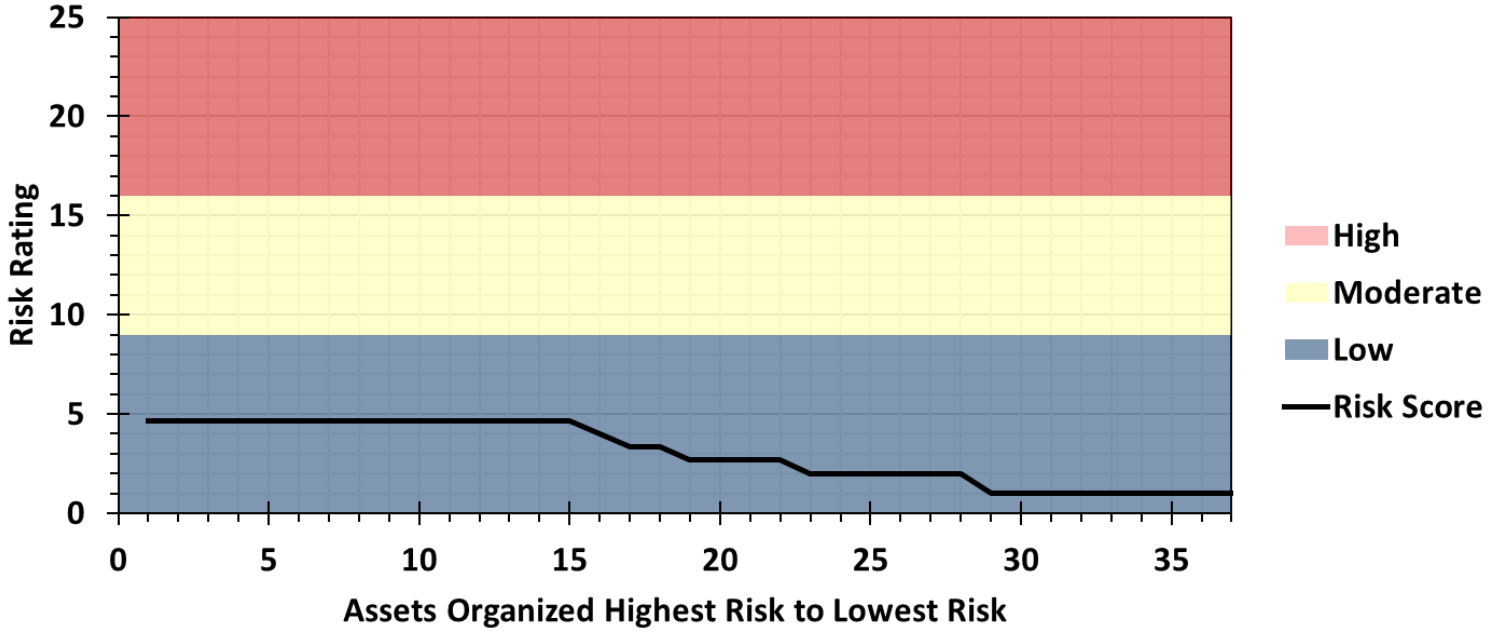
Factors	Risk Ratings
D - Impact	The impact of the Information Technology asset class and Facility Equipment-Appliances, Resident Direct Care Equipment-Appliances, and Resident Direct Care Equipment-Patient Lifts assets was identified as "moderate" impact and assigned a rating of 1 for calculating risk score. Facility Equipment-Furniture and Resident Direct Care Equipment-Furniture was identified as “low” impact and assigned a rating of 0 for calculating risk score.
E - Importance	The importance of the Information Technology asset class was identified as "moderate" importance and assigned a rating of 2 for calculating risk score. Facility Equipment and Resident Direct Care Equipment asset classes was identified as “low” importance and assigned a rating of 1 for calculating risk score.

The individual risk ratings were used in calculating the risk score for each of the assets.

4.3.1 Risk Profile

The Risk profile of the Facility Equipment assets is displayed in **Figure 4-5**. All of the 37 Facility Equipment assets tracked within the asset inventory are classified as Low risk.

Figure 4-5: Risk Profile – Residential Long-Term Care (Facility Equipment)

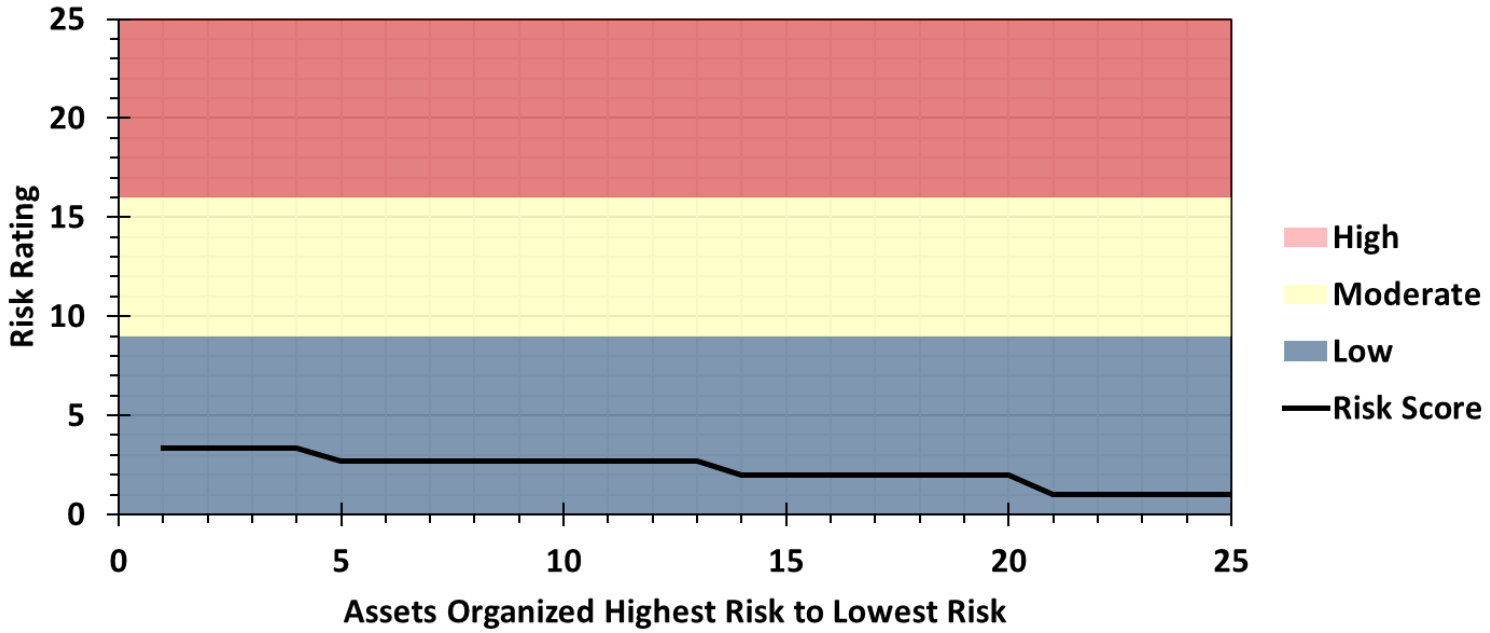


The Risk assessment of the one Information Technology asset is classified as Low risk.

Residential Long-Term Care

The Risk profile of the Resident Direct Care Equipment assets is displayed in **Figure 4-6**. All of the 25 Resident Direct Care Equipment assets tracked within the asset inventory are classified as Low risk.

Figure 4-6: Risk Profile – Residential Long-Term Care (Resident Direct Care Equipment)



4.4 Asset Management Strategy

4.4.1 Lifecycle Activities – Residential Long-Term Care

The lifecycle activities considered in this AMP include:

- **Non-Infrastructure Solutions**: Actions or policies that can lower costs and extend useful lives.
- **Maintenance Activities**: Regularly scheduled inspection and maintenance, or more significant repair and activities associated with unexpected events.

- **Renewal / Rehabilitation Activities**: Significant repairs designed to extend the life of the asset.
- **Replacement / Construction Activities**: Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option.
- **Disposal Activities**: Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed.
- **Expansion / Growth / Service Improvement Activities**: Planned activities required to extend services to previously unserved areas or expand services to meet growth demands.

Table 4-7 describes the lifecycle activities that can be implemented within the asset management strategy for Residential Long-Term Care assets. The lifecycle activities presented below are existing activities performed by the City, identified during a workshop with City staff in January of 2024.

Table 4-7: Lifecycle Activities – Residential Long-Term Care

Lifecycle Type	Description of Activity	Frequency / Timing
Maintenance Activities	Floor & Ceiling Lift Load Testing	Annually
Maintenance Activities	Routine IT System Maintenance & Updates	Ongoing
Maintenance Activities	Preventative Maintenance of Dietary Equipment	As needed
Maintenance Activities	Kingston Fire & Rescue Site Inspection	Annually
Renewal / Rehabilitation Activities	Renewal of Assets in Poor Condition	As able, without compromising resident safety (i.e., bed repair)

Residential Long-Term Care

Lifecycle Type	Description of Activity	Frequency / Timing
Replacement / Construction Activities	Replacement at End of EUL	End of EUL
Disposal Activities	Metal & Electronic Recycling	As needed
Expansion / Growth / Service Improvement Activities	Trials of new equipment with preferred vendors	As needed
Expansion / Growth / Service Improvement Activities	Renovations led by FMCS (resident bathrooms, dining rooms, serveries, centre lounge areas)	Ongoing

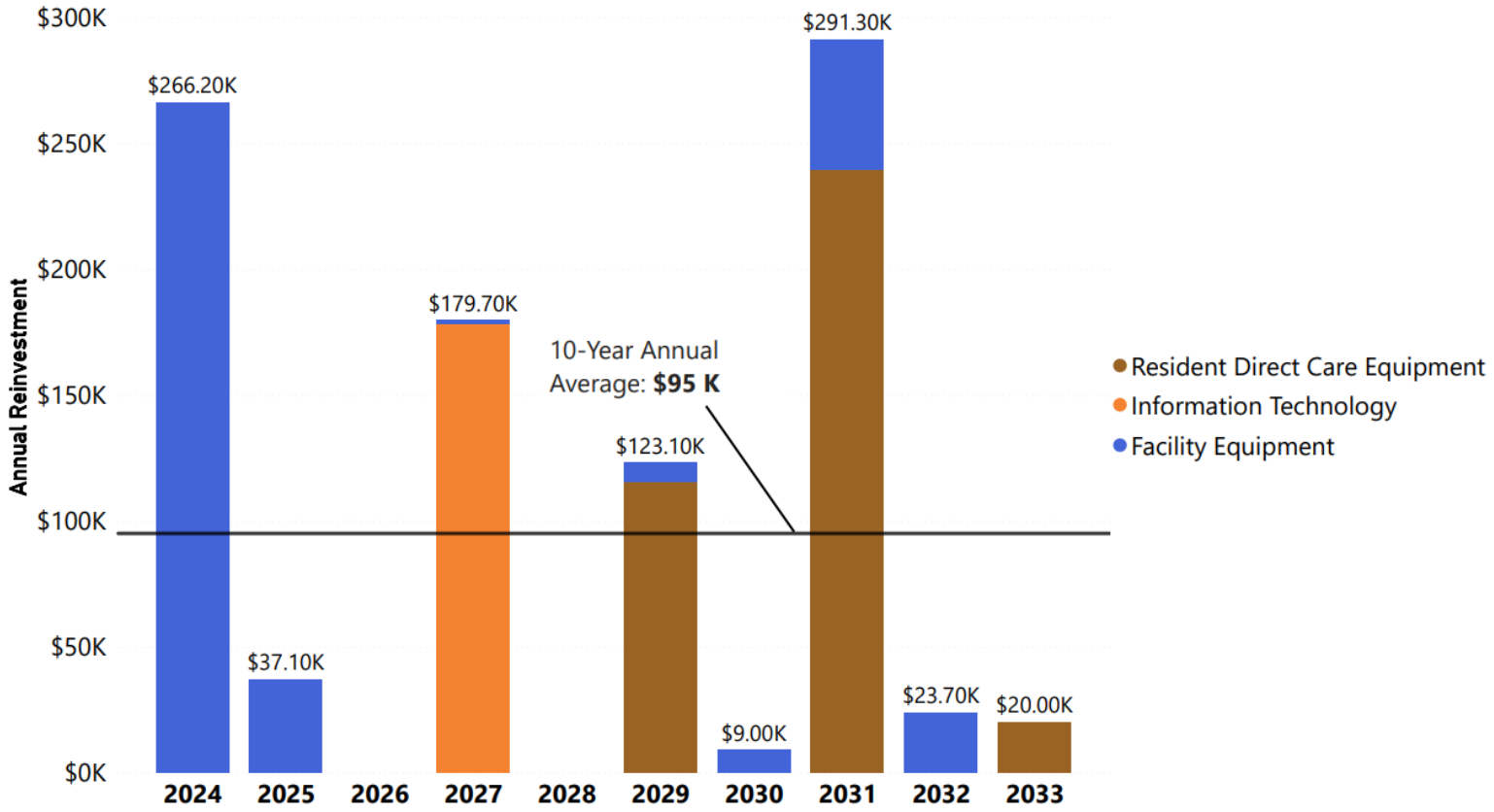
4.4.2 Funding the Lifecycle Activities – Residential Long-Term Care

Lifecycle modeling allows for the City to understand the future reinvestment needs of their existing assets by generating a theoretical asset replacement forecast that considers available asset inventory data. The age, EUL, replacement cost, condition, and risk score of each asset can be leveraged within the lifecycle model to proactively plan for reinvestment over a period of interest. Asset replacement forecasts within this subsection estimate the required reinvestment for Residential Long-Term Care assets over the next 10 years based on available asset inventory data.

There is a total of approximately **$950.0 thousand** to be reinvested into the Residential Long-Term Care assets owned by the City in the next 10 years. This translates to a 10-year annual average of approximately **$95.0 thousand**, as presented in **Figure 4-7.**

Residential Long-Term Care

Figure 4-7: 10-Year Capital Reinvestment Needs - Residential Long-Term Care

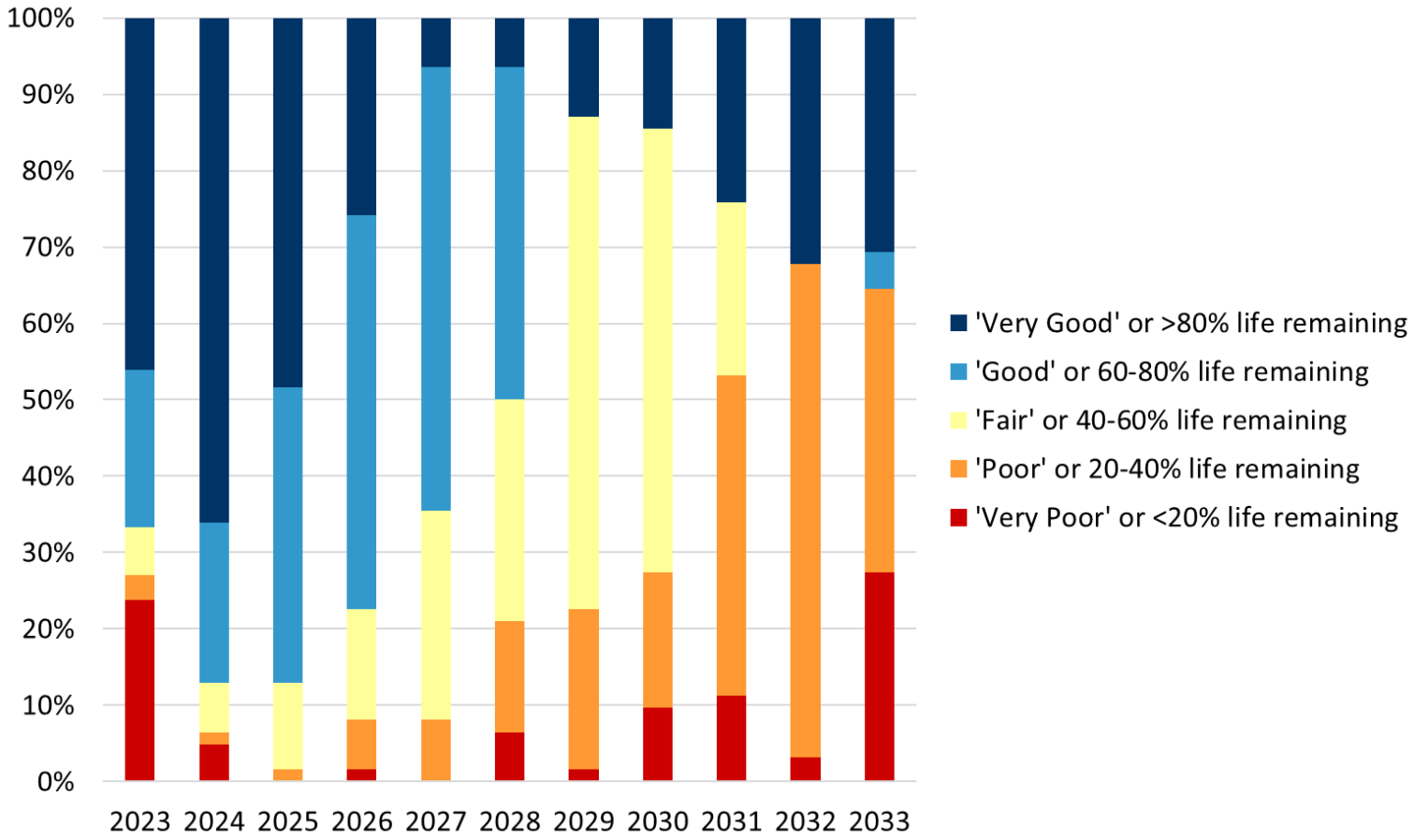


It is important to note that forecasting in this lifecycle model relies heavily on age and EUL to determine renewal or replacement needs and that tracking of condition data for residential long-term care assets by the City will assist at refining forecasted expenditures in the decades to come. The LOS includes maintaining assets in poor or better condition (76%). From the lifecycle model, the percentage of Residential Long-Term Care assets in poor or better condition fluctuates throughout the next 10-years, reaching a high of 100% in 2025 and 2027 and eventually finishing at 73% in 2033.

Residential Long-Term Care

Figure 4-8 shows an overview of the condition of Residential Long-Term Care over the next 10 years based on the lifecycle model.

Figure 4-8: Condition Overview by Year Based on Lifecycle Model – Residential Long-Term Care



5.0 Indoor Recreation & Marinas

The City's Indoor Recreation & Marinas Service manages and oversees the operation and maintenance of Aquatics – Pool & Equipment, Arenas & Equipment, Boat Launches, Crawford Wharf, Fitness Centre & Equipment, and Marina assets. The following section of the AMP includes assets that support Indoor Recreation & Marina services.

Note on Scope: At the time of this AMP, no data was available for Crawford Wharf assets. As a result, the asset class is not included in this AMP. It is recommended that the City further develops an inventory of assets comprising the asset class to be considered in subsequent iterations of this AMP.

5.1 State of the Local Infrastructure

5.1.1 Asset Inventory and Valuation

The Indoor Recreation & Marinas service oversees many Aquatics, Marinas, and Outdoor Recreation assets. For inventory purposes, Indoor Recreation & Marinas have been summarized into asset classes and further divided into applicable asset types. The asset classes, asset types, a count of assets therein, and the total replacement cost (in 2023 dollars) are show in **Table 5-1.** The total replacement cost (2023 dollars) is estimated at **$14.9 million** for the **500 assets** included in the inventory.

Table 5-1: Inventory Summary by Asset Type – Indoor Recreation & Marinas

Asset Class	Asset Type	Count	Total Replacement Cost (2023)
Aquatics – Pool & Equipment	Outdoor Aquatics Equipment	3	$90,400
Aquatics – Pool & Equipment	Pool Equipment	38	Unknown
Arenas & Equipment	Ice Rink Equipment	89	$4,998,000
Arenas & Equipment	Ice Rink Pumps	17	$337,000
Arenas & Equipment	Outdoor Ice Rinks	9	$637,900
Boat Launches	Boat Launches	6	Unknown
Fitness Centre & Equipment	Fitness Equipment	122	$454,900
Marinas	Dock – Steel Floats	170	$3,430,400
Marinas	Dock – Stone Filled Timber Crib	4	$3,445,000
Marinas	Dock – Styrofoam Floats	34	$1,047,700
Marinas	Gangway – Aluminium/Steel	8	$120,000

Asset Class	Asset Type	Count	Total Replacement Cost (2023)
Overall	**N/A**	**500**	**$14,561,300**

5.1.2 Asset Age Summary

Table 5-2 summarizes the average age, average condition, expected useful life, and the average remaining useful life of assets pertaining to Indoor Recreation & Marinas. Condition assessments for the Cataraqui and Kinsmen ice plants were completed in 2023. The overall average age of Indoor Recreation and Marinas assets is 22 years, and the average remaining useful life is eight years.

Table 5-2: Average Age, Average Condition, Expected Useful Life, and Remaining Useful Life - Indoor Recreation & Marinas

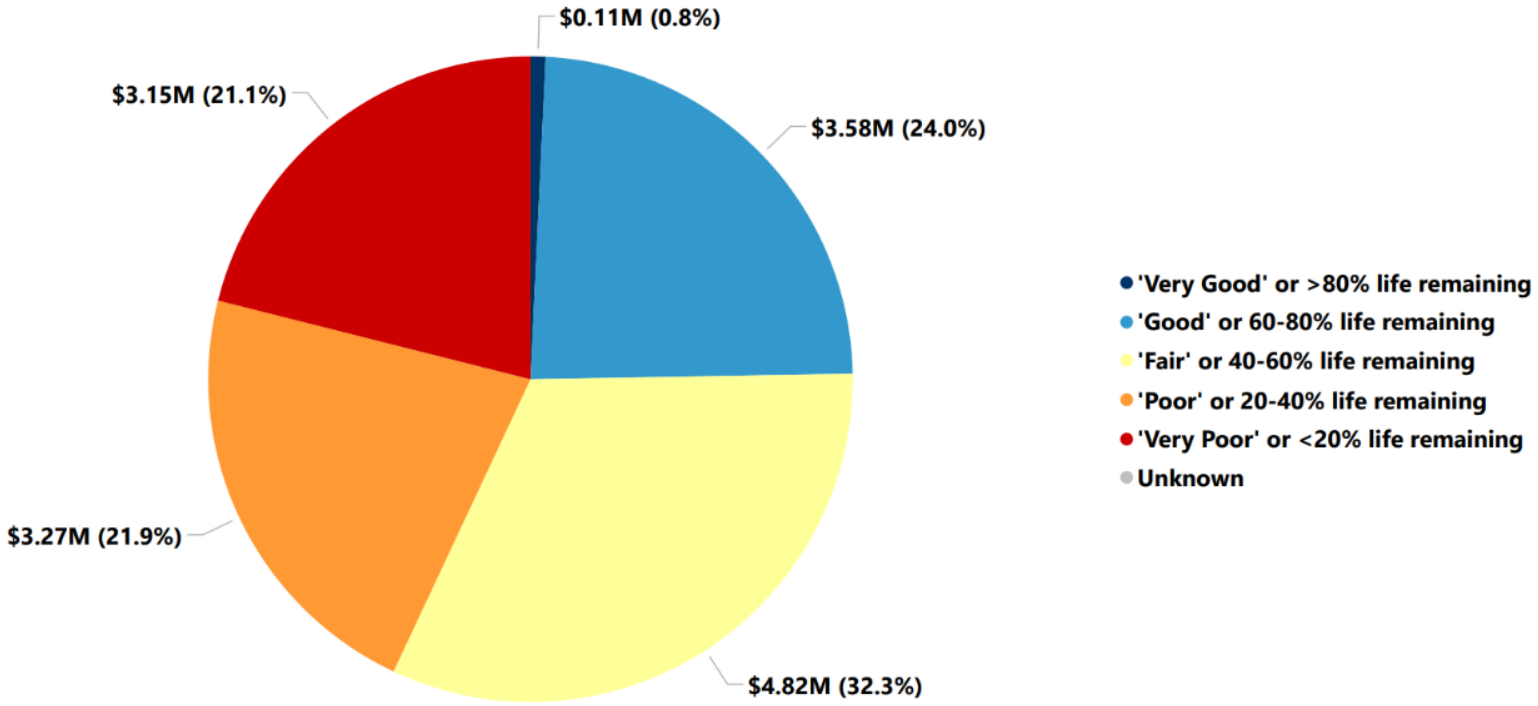
Asset Class	Asset Type	Average Age (Years)	Average Condition Rating	Expected Useful Life (Years)	Average Remaining Useful Life (Years)
Aquatics – Pool & Equipment	Outdoor Aquatics	Unknown	Good	20	14
Aquatics – Pool & Equipment	Pool Equipment	Unknown	Unknown	20	Unknown
Arenas & Equipment	Ice Rink Equipment	14	Fair	10 to 40	10
Arenas & Equipment	Ice Rink Pumps	16	Good	25	16

Asset Class	Asset Type	Average Age (Years)	Average Condition Rating	Expected Useful Life (Years)	Average Remaining Useful Life (Years)
Arenas & Equipment	Outdoor Ice Rinks	Unknown	Good	20	13
Boat Launches	Boat Launches	24	Poor	20	5
Fitness Centre & Equipment	Fitness Equipment	11	Good	10 to 15	9
Marinas	Dock – Steel Floats	35	Poor	30	6
Marinas	Dock – Stone Filled Timber Crib	57	Poor	50	15
Marinas	Dock – Styrofoam Floats	14	Very Poor	15	2
Marinas	Gangway – Aluminium/Steel	24	Fair	50	24
Overall	**N/A**	**22**	**Fair**	**10 to 50**	**8**

5.1.3 Asset Condition

An overall condition summary for Indoor Recreation & Marinas assets by replacement cost (in 2023 dollars) is shown in **Figure 5-1**. There is approximately 57.1% of the assets that are in very good to fair condition.

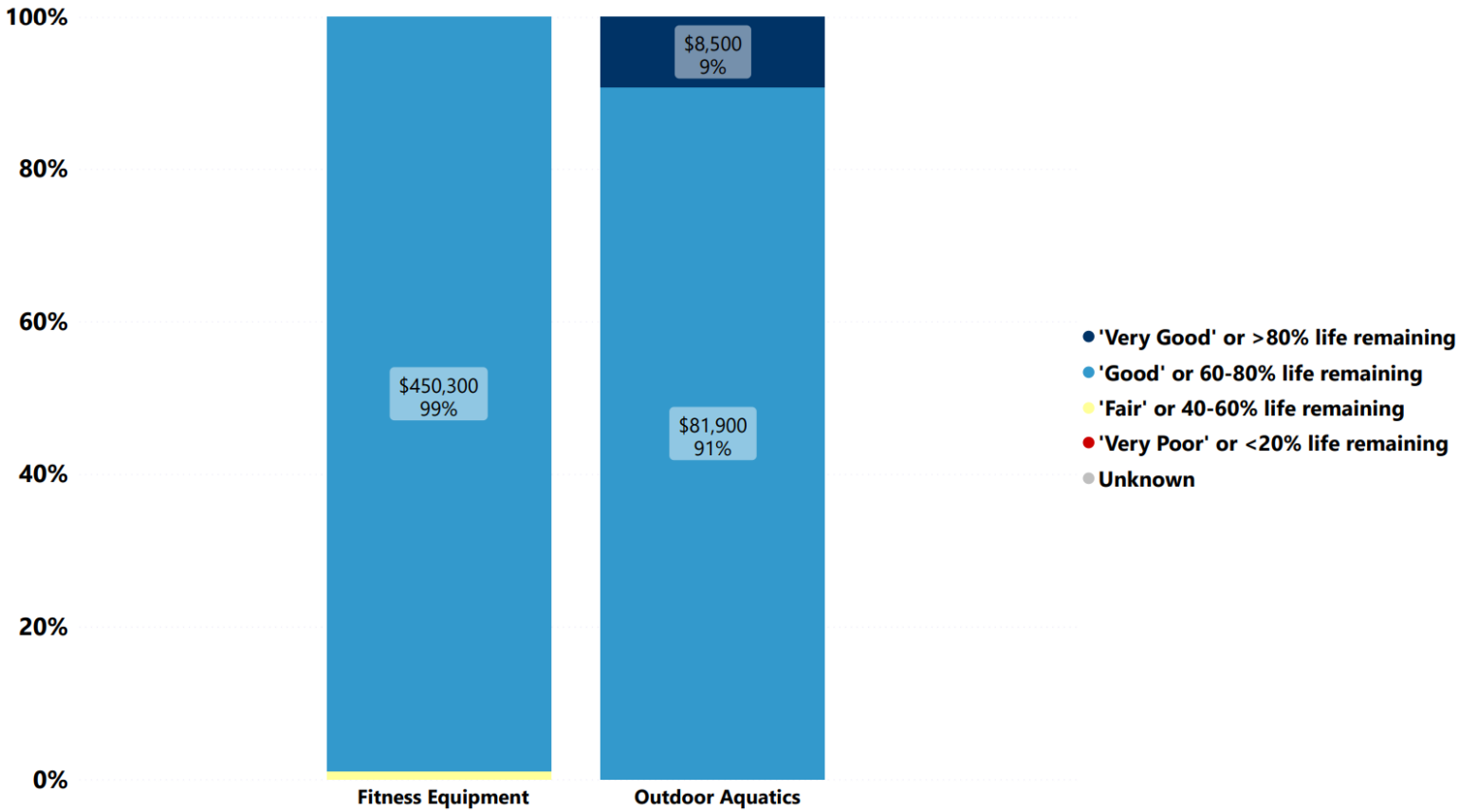
Figure 5-1: Condition Summary and 2023 Replacement Cost – Indoor Recreation & Marinas



Indoor Recreation & Marinas

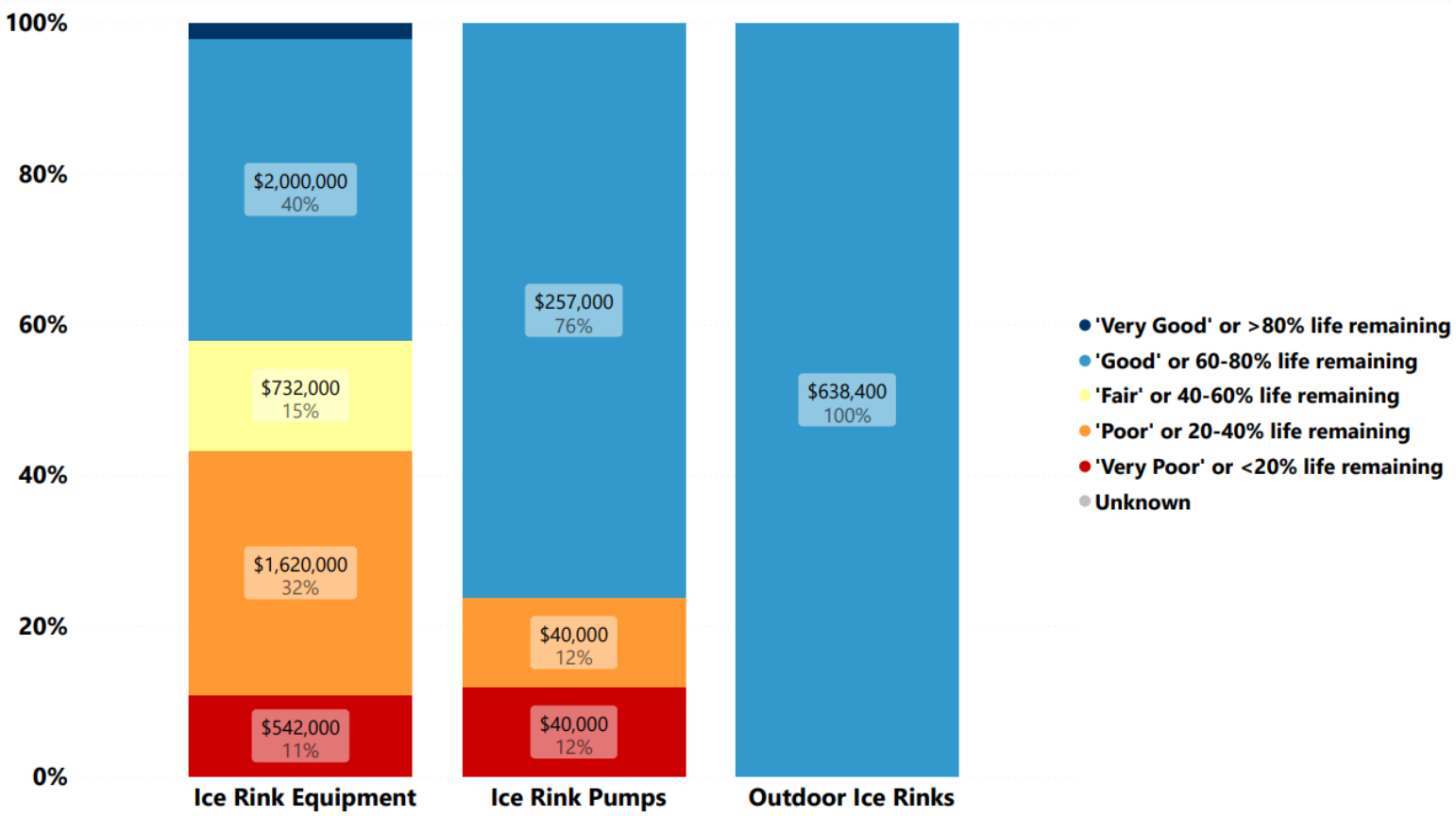
A condition summary for Aquatics – Pool & Equipment and Fitness Centre & Equipment assets is provided in **Figure 5-2** by asset type and replacement cost (in 2023 dollars). In the absence of condition assessment data, the condition of Aquatics – Pool & Equipment and Fitness Centre & Equipment assets has been primarily determined based on age and expected useful life. The Pool Equipment assets have been excluded from the figure, due to unknown condition and replacement costs.

Figure 5-2: Condition Summary by Asset Type and 2023 Replacement Cost - Indoor Recreation & Marinas (Aquatics – Pool & Equipment and Fitness Centre & Equipment)



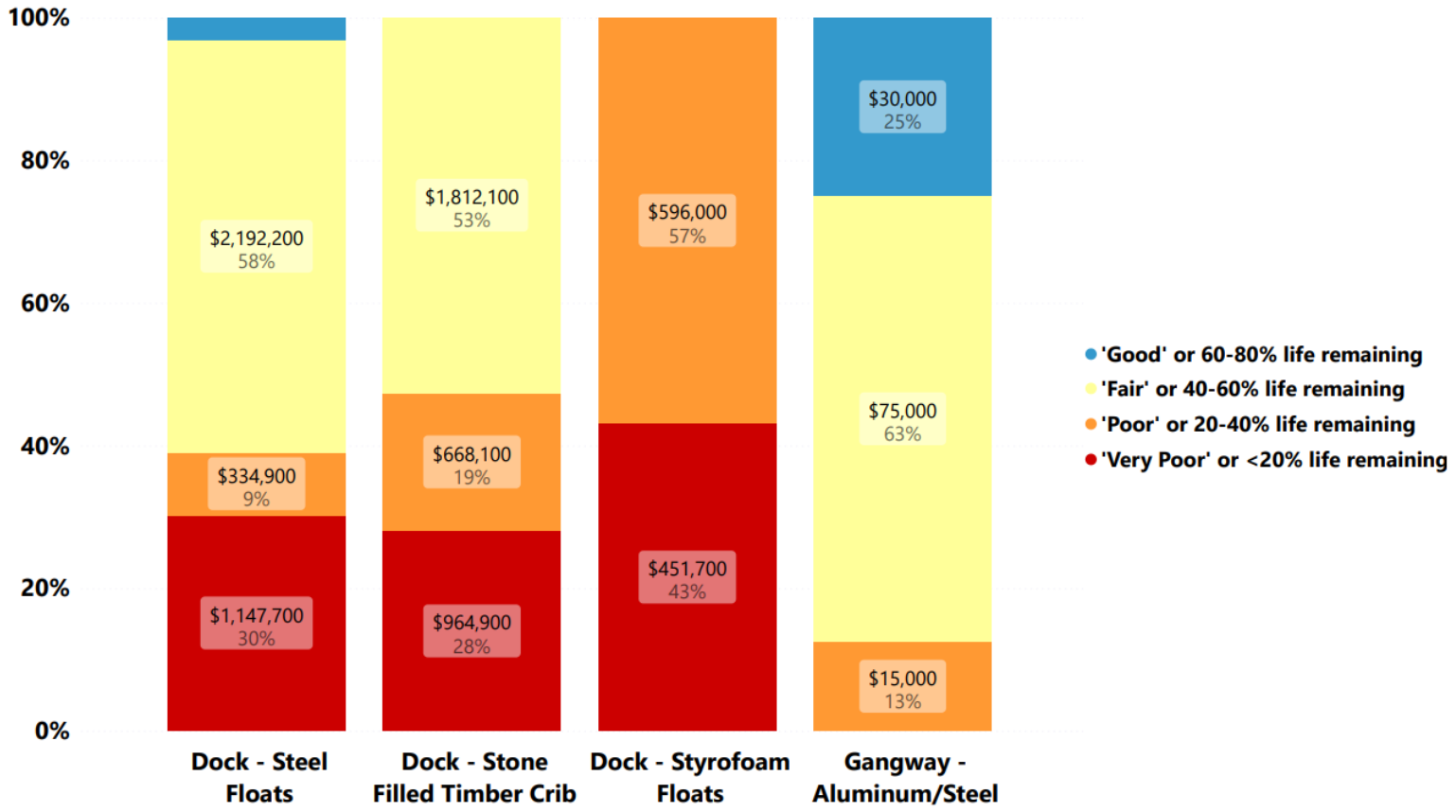
A condition summary for Arenas & Equipment assets is provided in **Figure 5-3** by asset type and replacement cost (in 2023 dollars). In the absence of condition assessment data, the condition of Arenas & Equipment assets has been primarily determined based on age and expected useful life.

Figure 5-3: Condition Summary by Asset Type and 2023 Replacement Cost - Indoor Recreation & Marinas (Arenas & Equipment)



A condition summary for Marina assets is provided in **Figure 5-4** by asset type and replacement cost (in 2023 dollars). In the absence of condition assessment data, the condition of Marina assets has been primarily determined based on age and expected useful life.

Figure 5-4: Condition Summary by Asset Type and 2023 Replacement Cost - Indoor Recreation & Marinas (Marinas)



5.1.4 Data Sources and Confidence

Asset data for assets pertaining to Indoor Recreation & Marinas was provided by City staff in the format of various Excel inventory files. Currently, there is no central repository for the asset data.

Data confidence can be estimated based on the confidence level of various qualifiers and can be presented on a scale from 0% (low) to 100% (high), as shown in **Table 5-3**. The qualifiers chosen for evaluation are specifically targeted for estimating overall confidence of condition reporting within the SOLI.

Table 5-3: Data Confidence Scale

Confidence Level	Low	Low/ Moderate	Moderate	Moderate/ High	High
Average of Qualifiers	0% to 19%	20% to 39%	40% to 59%	60% to 79%	80% to 100%

Assuming the data source is reliable, the following qualifiers were considered to estimate data confidence regarding the data utilized in the creation of this SOLI report:

- **Qualifier 1**: The percentage of assets in the asset inventory where construction, installation, or acquisition years are documented (58%);
- **Qualifier 2**: The percentage of assets in the asset inventory that have condition assessment data documented (90%); and,
- **Qualifier 3**: The percentage of the estimated overall replacement value, in 2023 dollars, attributed to assets in the asset inventory with documented condition assessment data (i.e., condition is not solely age-based) (97%).

Figure 5-5: SOLI Report Data Confidence – Indoor Recreation & Marinas

As summarized in **Figure 5-5**, the overall asset condition data confidence for Indoor Recreation & Marinas assets is estimated to be High.

5.2 Levels of Service

In 2021, the City approved the Parks and Recreation Master Plan. The master plan outlines a long-term vision and a strategic implementation approach guided by the City's values, priorities, and needs for enhancing parks and recreation services. Over the next 15 years, the master plan will help managing the development of parks and open spaces, as well as the provision of recreation and leisure services, programs, events, facilities, marinas, and other recreational amenities.

Indoor Recreation & Marinas

The master plan has since been updated in January 2023 to include an implementation strategy. The master plan has outlined 13 service areas for parks within the City boundaries. A summary of key items that could influence the current LOS are outlined below.

- Current Planning: Plan for future growth through facility renewal and investment, assessing the feasibility to reinvest in aging recreation facilities.
- Prioritization: Prioritize accessibility, security, safety, and sustainability in all new designs.
- Accessibility: All staff must complete training in accessibility. Development and renovations have been carried out in line with Kingston's Facility Accessibility Design Standards to ensure inclusivity for all residents.
- Service Standards: The current service standard aims to promote health and wellbeing while encouraging an active lifestyle for all residents.

In addition, in 2023 there has been a Marina infrastructure assessment completed for Confederation Basin and plans to complete a similar assessment for Portsmouth Olympic Harbour.

Table 5-4 and **Table 5-5** outline the City's current community and technical levels of service for Indoor Recreation & Marinas.

Table 5-4: Community LOS – Indoor Recreation & Marinas

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Customer Satisfaction	Marina customers are satisfied with the available marina services, infrastructure condition and can safely enjoy recreational amenities without restriction.	Percentage of marina customers that are satisfied with the service by means of public survey respondents or complaints.	To be determined (note: survey results to be consolidated for 2025 report)

Table 5-5: Technical LOS - Indoor Recreation & Marinas

LOS Parameter	LOS Statement	Performance Measure	Current LOS (2023)
Quality	Indoor recreation and marinas assets are kept in good working condition.	Percentage of assets that are in poor or better condition.	72%

5.3 Risk Assessment

The risk ratings for Indoor Recreation & Marinas assets included Aquatics – Pool & Equipment, Arenas & Equipment, Boat Launches, Fitness Centre & Equipment, and Marinas asset classes. The risk scores were

calculated using the risk methodology and approach outlined in Section 1.4 of the Introduction. **Table 5-6** summarizes the risk factors for the Indoor Recreation & Marinas assets.

Table 5-6: Risk Factors - Indoor Recreation & Marinas

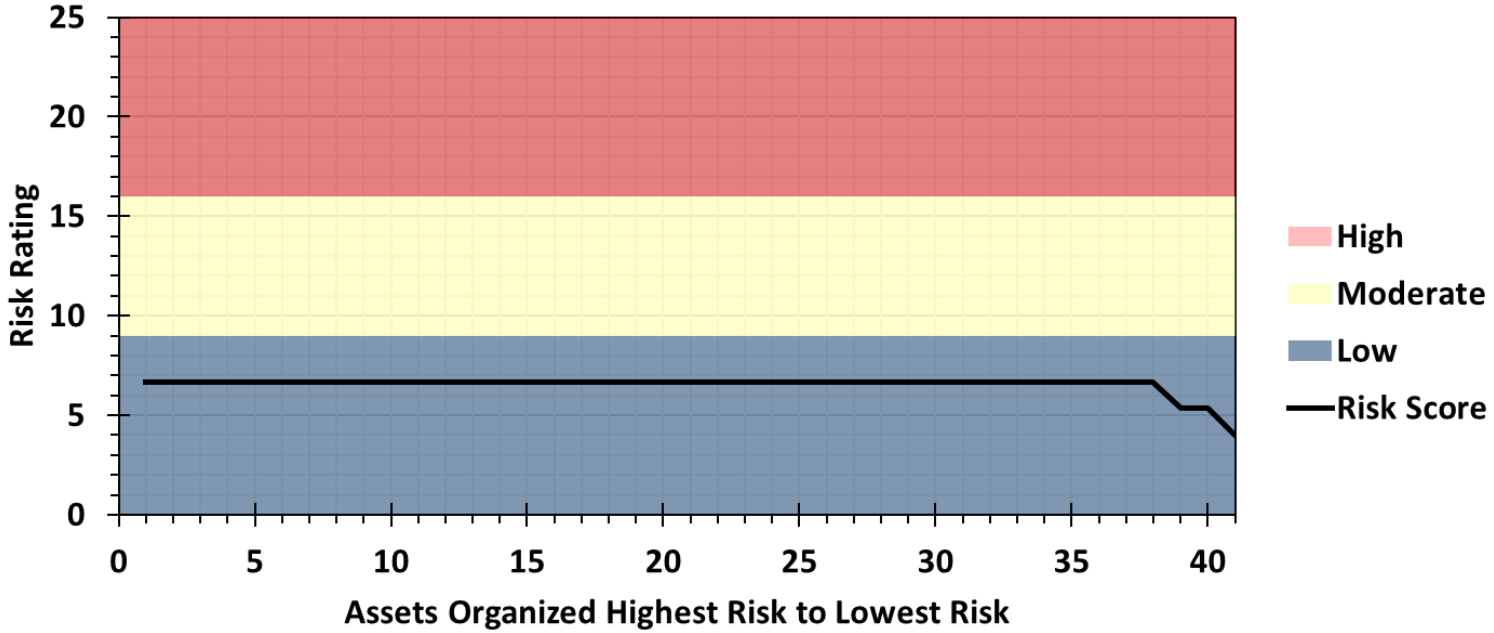
Factors	Risk Ratings
A - Condition	The condition of the assets was determined either by visual or age-based and can be found in the SOLI section of the AMP.
B - Performance	The performance of the Aquatics – Pool & Equipment, Arenas & Equipment, and Fitness Centre & Equipment assets was identified as "always reliable" and assigned a rating of 1 for calculating risk score. The Boat Launches and Marinas assets was identified as “usually reliable” and assigned a rating of 3 for calculating risk score.
C - Climate Change	The Aquatics – Pool & Equipment, Arenas & Equipment, Fitness Centre & Equipment, and Marina assets were identified as a “low” risk and assigned a rating of 1 for calculating the risk score. The Boat Launches assets were identified as “high” risk and assigned a risk rating of 5.
D - Impact	The Aquatics – Pool & Equipment, Arenas & Equipment, Boat Launches, Fitness Centre & Equipment, and Marina assets were recognized as "moderate" impact and assigned a rating of 1 for calculating risk score.
E - Importance	The Aquatics – Pool & Equipment, Arenas & Equipment, and Fitness Centre & Equipment assets were identified as “high” importance and assigned a rating of 3 when calculating risk. Boat Launches and Marinas was identified as “moderate” importance and assigned a rating of 2 when calculating risk.

The individual risk ratings were used in calculating the risk score for each of the assets.

5.3.1 Risk Profile

The Risk profile of the Aquatics – Pool & Equipment assets is displayed in **Figure 5-6**. All of the 41 assets tracked within the asset inventory are classified as Low risk.

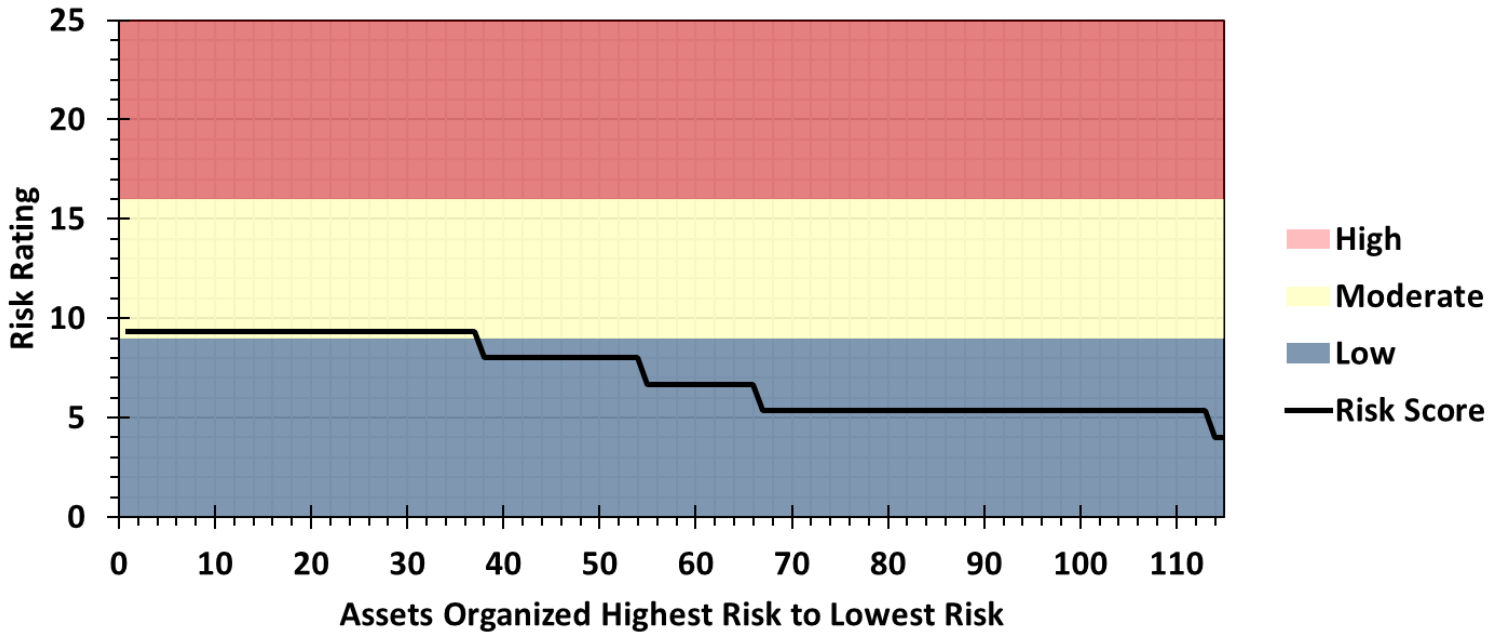
Figure 5-6: Risk Profile – Indoor Recreation & Marinas (Aquatics – Pool & Equipment)



Indoor Recreation & Marinas

The Risk profile of the Arenas & Equipment assets is displayed in **Figure 5-7**. Of the 115 assets tracked within the asset inventory, approximately 32.2% (37) are classified as Moderate risk., the remaining 67.8% (78) assets are classified as low risk.

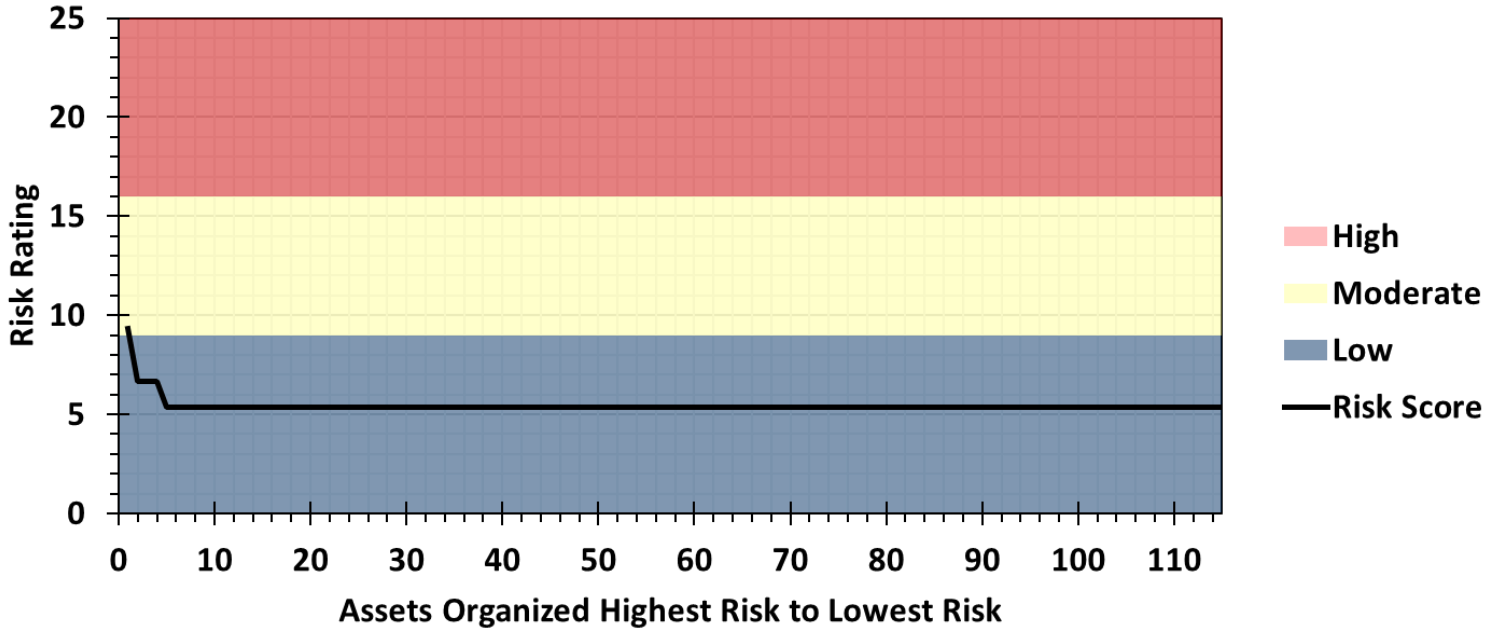
Figure 5-7: Risk Profile – Indoor Recreation & Marinas (Arenas & Equipment)



The Risk assessment of the six Boat Launches assets are classified as Moderate risk.

The Risk profile of the Fitness Centre & Equipment assets is displayed in **Figure 5-8**. All of the 122 assets tracked within the asset inventory are classified as Low risk, except for one asset that is classfied as Moderate risk.

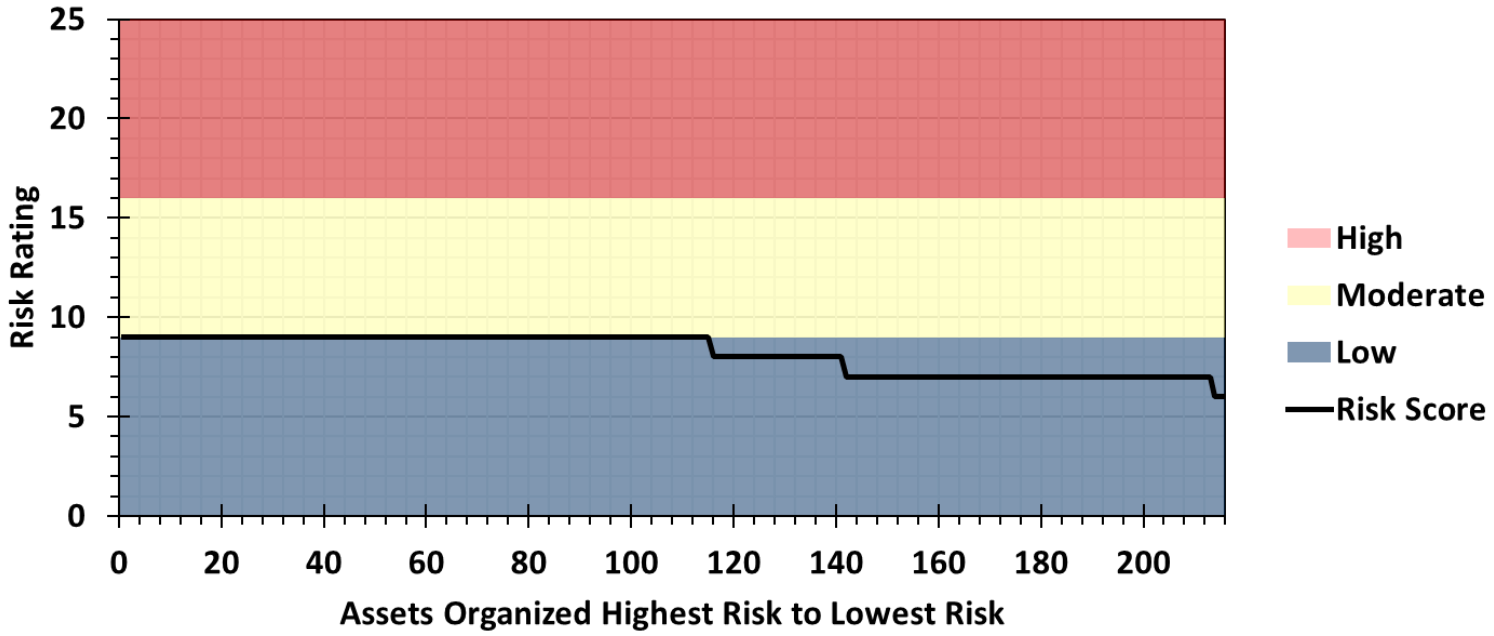
Figure 5-8: Risk Profile – Indoor Recreation & Marinas (Fitness Centre & Equipment)



Indoor Recreation & Marinas

The Risk profile of the Marina assets is displayed in **Figure 5-9**. All of the 216 assets tracked within the asset inventory are classified as Low risk.

Figure 5-9: Risk Profile – Indoor Recreation & Marinas (Marinas)



5.4 Asset Management Strategy

5.4.1 Lifecycle Activities - Indoor Recreation & Marinas

The lifecycle activities considered in this AMP include:

- **Non-Infrastructure Solutions**: Actions or policies that can lower costs and extend useful lives.
- **Maintenance Activities**: Regularly scheduled inspection and maintenance, or more significant repair and activities associated with unexpected events.

- **Renewal / Rehabilitation Activities**: Significant repairs designed to extend the life of the asset.
- **Replacement / Construction Activities**: Activities that are expected to occur once an asset has reached the end of its useful life and renewal/rehabilitation is no longer an option.
- **Disposal Activities**: Activities associated with disposing of an asset once it has reached the end of its useful life or is otherwise no longer needed.
- **Expansion / Growth / Service Improvement Activities**: Planned activities required to extend services to previously unserved areas or expand services to meet growth demands.

Table 5-7 describes the lifecycle activities that can be implemented within the asset management strategy for Indoor Recreation & Marinas. The lifecycle activities presented below are existing activities performed by the City, identified during a workshop with City staff in February of 2024.

Table 5-7: Lifecycle Activities - Indoor Recreation & Marinas

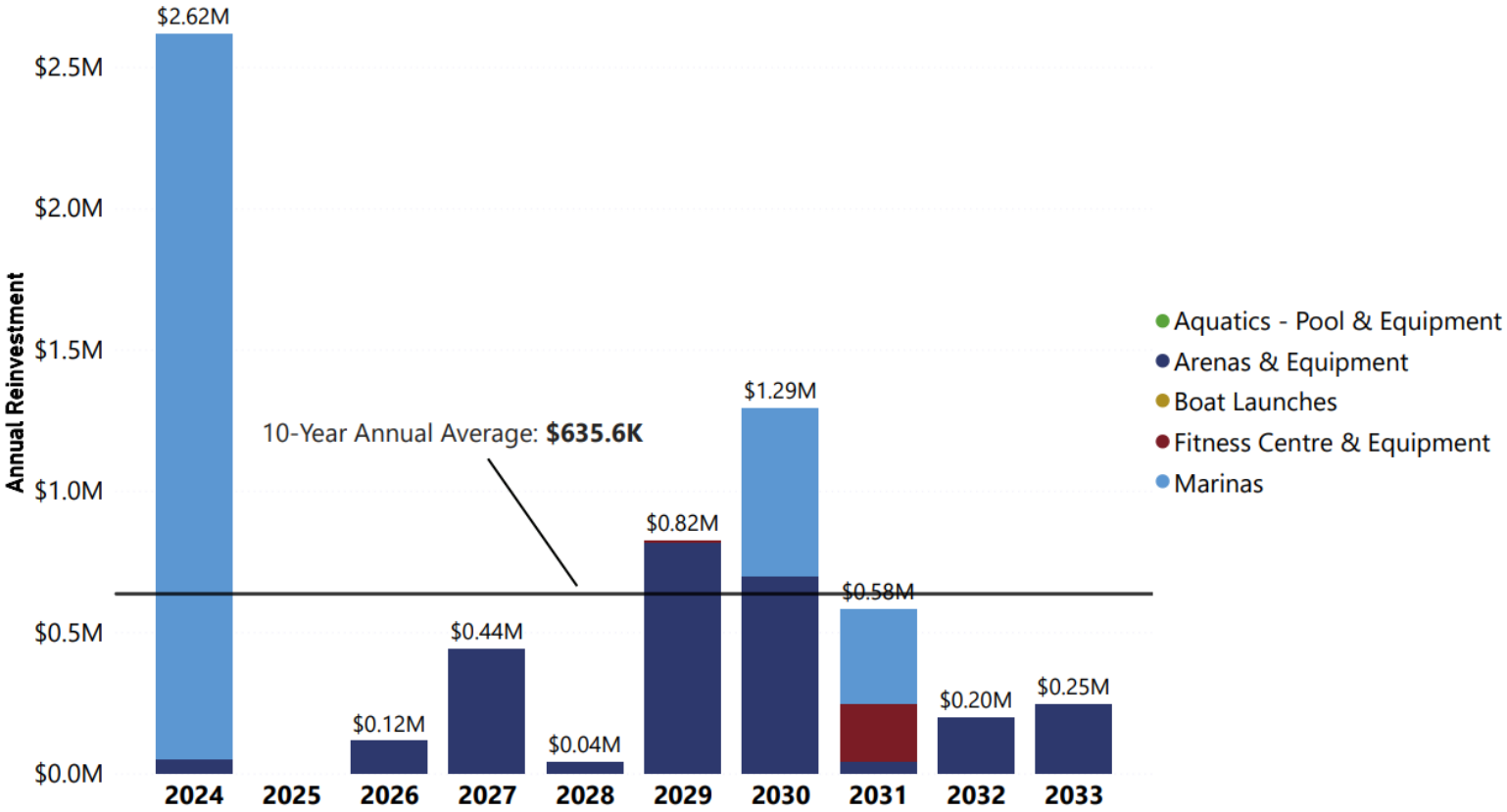
Lifecycle Type	Description of Activity	Frequency / Timing
Non-Infrastructure Solutions	Parks and Recreation Master Plan	Every 10 years
Non-Infrastructure Solutions	Operating Guidelines – Energy Reduction Strategies	Ongoing
Maintenance Activities	Ice Plant Preventative and Predictive Maintenance Plans	Every 5 to 10 years
Renewal / Rehabilitation Activities	Renewal / rehabilitation of assets	As needed
Replacement / Construction Activities	Marine Infrastructure Capital Replacement Plan	Annually
Replacement / Construction Activities	Ice Plant Capital Asset Replacement Program	Every 15 years

5.4.2 Funding the Lifecycle Activities - Indoor Recreation & Marinas

Lifecycle modeling allows for the City to understand the future reinvestment needs of their existing assets by generating a theoretical asset replacement forecast that considers available asset inventory data. The age, EUL, replacement cost, condition, and risk score of each asset can be leveraged within the lifecycle model to proactively plan for reinvestment over a period of interest. Asset replacement forecasts within this subsection estimate the required reinvestment for Indoor Recreation & Marinas assets over the next 10 years based on available asset inventory data.

There is a total of approximately **$6.35 million** to be reinvested into the Indoor Recreation & Marinas assets owned by the City in the next 10 years. This translates to a 10-year annual average of approximately **$635.6 thousand**, as presented in **Figure 5-10**. The Marinas docks have a large reinvestment need in 2024, due to six main docks and an extension crib that were assessed in very poor condition in 2022.

Figure 5-10: 10-Year Capital Reinvestment Needs - Indoor Recreation & Marinas



It is important to note that forecasting in this lifecycle model relies heavily on age and EUL to determine renewal or replacement needs and that tracking of condition data for Indoor Recreation & Marinas assets by the City will assist at refining forecasted expenditures in the decades to come.

The LOS includes maintaining assets in poor or better condition (72%). From the lifecycle model, the percentage of Indoor Recreation & Marinas assets in poor or better condition fluctuates throughout the next 10-years, reaching a high of 99% in 2025, eventually finishing at 69% in 2033.

Figure 5-11 shows a condition overview of the condition of Indoor Recreation & Marinas over the next 10 years based on the lifecycle model.

Figure 5-11: Condition Overview by Year Based on Lifecycle Model – Indoor Recreation & Marinas