



# Public Lighting and Electrical Infrastructure Asset Management Plan Summary





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# EXECUTIVE SUMMARY

## 1 The Purpose of the Plan

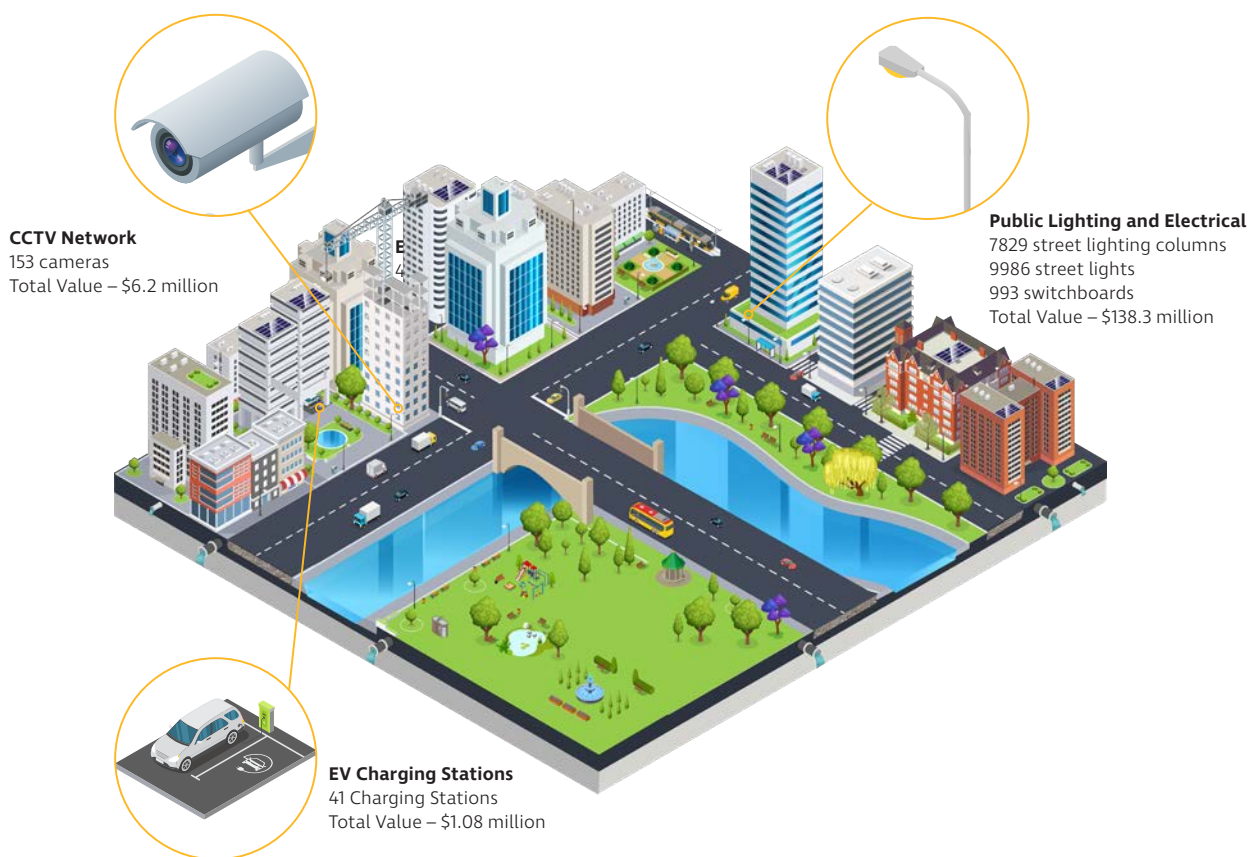
The City of Adelaide is responsible for an extensive and diverse asset portfolio valued at more than \$2 billion, which represents a significant investment made over multiple generations. These assets play a vital role in providing essential services to our community and it is critical to ensure these assets continue to be effectively managed to enable ongoing service provision and benefits for both current and future generations.

Under South Australia's *Local Government Act 1999*, we are required to develop Asset Management Plans for a period of at least 10 years, which includes information about the operation, maintenance, renewal, acquisition, expansion, upgrade and disposal for each infrastructure assets class under our care and control.

The City of Adelaide has six Asset Management Plans, which includes Public Lighting and Electrical Infrastructure, Transportation, Park Lands & Open Space, Buildings, Water Infrastructure, and Urban Elements.

The fundamental purpose of this Public Lighting and Electrical Infrastructure Asset Management Plan is to outline the Council's high-level asset management priorities for the operation, maintenance and renewal of our assets over the next 10 years. Additionally, it aims to improve the long-term strategic management of our Public Lighting and Electrical Infrastructure assets, to cater for the community's required levels of service both now and into the future.

Work is currently underway to significantly improve the spatial data, asset condition information and asset attribute information utilised within this Public Lighting and Electrical Infrastructure Asset Management Plan. These activities align with good asset management practices and will provide more granular information to enable robust analysis to inform future decision making. The outcome of this work, which is due for completion by June 2025, will enable a more mature Public Lighting and Electrical Infrastructure Asset Management Plan with a higher degree of confidence for the future requirements of the asset class.



Therefore, due to the current maturity level of the asset data, this Public Lighting and Electrical Infrastructure Asset Management Plan will be considered an interim document, which will be updated following the completion of the spatial data improvements, condition audit, and subsequent modelling and analysis.

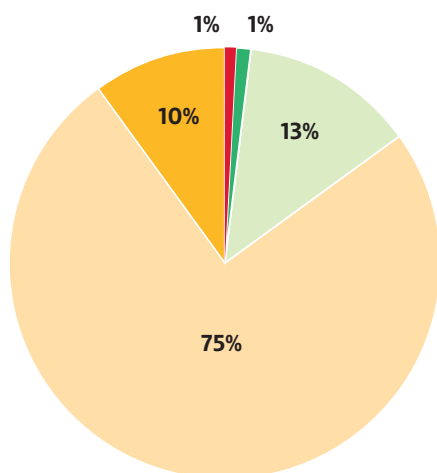
This interim plan defines the current state of our \$145.6 million Public Lighting and Electrical Infrastructure asset portfolio, as well as the asset management activities and associated funding requirements recommended for inclusion into the Long-Term Financial Plan.

## 2 Our Public Lighting and Electrical Infrastructure Assets

The City of Adelaide’s Public Lighting and Electrical Infrastructure network is valued at approximately \$145.6 million and provides services that facilitate safe access and enjoyment of the city and its amenities at night, in conjunction with supporting pedestrians, cyclists, motorists move into and around the city and Park Lands. These assets include street lighting, electrical reticulation infrastructure (i.e. cables, conduits and switchboards), CCTV cameras and EV charging stations.

Our Public Lighting assets consists of several different ownership and responsibility models. Some Public Lighting Assets are owned and operated entirely by City of Adelaide, some are owned entirely by South Australian Power Networks (SAPN), where we pay a contribution by way of a tariff for the maintenance and operation of these Public Lighting assets and some are a hybrid of City of Adelaide and SAPN ownership where Council own the luminaire (light fitting) and SAPN own the supporting structure (pole). Under a hybrid arrangement we also contribute to the maintenance and operation by way of a tariff.

To monitor the performance of our Public Lighting and Electrical Infrastructure assets, we undertake condition audits at regular intervals. Asset condition information is analysed with respect to technical intervention criteria to inform our maintenance and renewal programs. The current condition of our Public Lighting and Electrical Infrastructure is generally rated in a fair condition, with an overall condition index rating of 3.0. 89% of assets are rated in a very good to fair condition and 11% of assets are rated in poor or very poor condition, which form the general basis of our renewal program priorities.



Condition Grading	Description of Condition
1	<b>Very Good:</b> free of defects, only planned and/or routine maintenance required
2	<b>Good:</b> minor defects, increasing maintenance required plus planned maintenance
3	<b>Fair:</b> defects requiring regular and/or significant maintenance to reinstate service
4	<b>Poor:</b> significant defects, higher order cost intervention likely
5	<b>Very Poor:</b> physically unsound and/or beyond rehabilitation, immediate action required

It is important to note that this condition data is considered to be of low reliability, as the last full condition audit for our public lighting and electrical infrastructure was undertaken in 2018. Work is currently progressing with data cleansing to improve the overall data set for the asset categories referenced within this Asset Management Plan. In 2024 a condition audit for our Public Lighting and Electrical Infrastructure will commence to collect condition data to align with the updated spatial data and inform updates to this Asset Management Plan.

### 3 Community Engagement & Customer Satisfaction

In November 2021, we undertook an engagement process with city residents and visitors to better understand and measure levels of customer satisfaction for the services provided by our Public Lighting and Electrical Infrastructure assets. A summary of the responses is shown below.

Category	Average Score	Not Measured	Very Poor (<40%)	Poor (40–54%)	Average (55–69%)	Good (70–85%)	Excellent (>85%)
Public Lighting	62.5%				●		
CCTV Cameras	–	●					
EV Charging Stations	–	●					

For this Asset Management Plan, feedback was not sought for CCTV Cameras or Electric Vehicle Charging Stations, however ensuring this feedback is collected in the future has been recognised as an action within the Improvement Plan of this Asset Management Plan (Chapter 8).

The overall feedback confirmed appropriate levels of customer satisfaction for the maintenance and renewal of our existing public lighting and electrical infrastructure assets. Engagement did identify some locations where the community believed public lighting provisions could be improved. These locations were typically associated with city streets where public lighting infrastructure was owned and operated by SAPN and Park Lands locations where public lighting was not currently present. It is anticipated that the completion of the Public Lighting Strategy (currently under development) and the subsequent initiation, funding and delivery of new and upgrade Public Lighting projects, in conjunction with continuing to work with South Australian Power Networks to convert luminaires over to LED technology will incrementally bridge the gap between customer expectations and service provisions over time.

A Recommended Levels of Service Report was presented to Council, with the recommendations approved in October 2022. This report noted the community consultation undertaken and the associated benchmarking of current user satisfaction. Additionally, Council approved the development of the Public Lighting and Electrical Infrastructure Asset Management Plan based on the planning principles and recommended management strategies presented within the reports and its attachments.



## 4 Current and Future Demands

It is anticipated that the City of Adelaide will be subject to considerable change over the next ten years. This will result in our Public Lighting and Electrical Infrastructure assets being subject to new demands that have the potential to impact future service delivery and the requirements of our assets.

Key demand drivers and future challenges will include:

- City growth
- Changing demographic and user groups
- Tourism and event growth
- Climate change and carbon neutrality
- Emerging technology
- Legislation and regulation

Demand for new services will be managed through a combination of managing existing assets, upgrading existing assets, providing new assets and demand management. Demand management practices can include non-asset solutions, such as educating the community around alternative options, which facilitates service provision without the need to invest in new or upgraded infrastructure.

Demand management will include:

- Continuing to engage with our community through annual City User Profile surveys
- Finalising the Public Lighting Strategy (2024)
- Finalising the Integrated Transport Strategy (2024)
- Delivering priority upgrade/new projects identified within the Strategic Plan and strategic documents
- Ensuring climate risk mitigation and adaptation is a key focus for strategic planning, asset management and project delivery
- Continuing to review and update design standards and technical specifications to ensure our assets transition towards having a lower carbon footprint with improved circular economy outcomes through increased usage of recycled materials
- Continuing to partner with industry, to monitor and evaluate new and emerging technologies, with trials of new materials, approaches, and methodologies to inform appropriate changes to standards and practices
- Continuing to monitor changes to legislation and ensure appropriate adaptation into asset management practices



## 5 Strategic Planning

Under the *Local Government Act (SA) 1999*, we are legislatively required to establish a suite of Strategic Management Plans, which guide Council's future planning, asset management and financial sustainability. An overview of these strategic management plans are shown below:

<b>Strategic Plan</b> <i>Community</i>	Long term with a four year delivery focus. <i>Planning for the vision and aspirations of the Adelaide Capital City.</i>
<b>Long-Term Financial Plan</b> <i>Financial</i>	Ten year Plan, revised annually to ensure a ten year view is maintained. <i>Planning for the long-term financial sustainability of the City of Adelaide.</i>
<b>Asset Management Plans</b> <i>Infrastructure</i>	Suite of ten year Plans. <i>Planning for the sustainable renewal and maintenance of Council assets.</i>
<b>City Plan</b> <i>Development / Built Form</i>	Ten year Spatial Plan. <i>Planning for the future land uses and built form of the Adelaide Capital City.</i>

Through the City of Adelaide Strategic Plan 2024 – 2028, Council's vision is:

### **Our Adelaide. Bold. Aspirational. Innovative.**

Achieving our vision for the future will be guided by our long term aspirations:

- Our Community:** Vibrant, connected and inclusive
- Our Environment:** Resilient, protected and sustainable
- Our Economy:** Growing, innovative and responsive
- Our Places:** Interesting, purposeful and safe
- Our Corporation:** High performing, customer-centric and bold

As Adelaide grows, we will need to consider economic vitality, social connectivity and wellbeing, distinctive precincts, environmental and financial sustainability, asset management and service delivery. To ensure we maintain our liveability and to support growth, these principles will underpin everything we do:

- Exceptional Amenity – Be bold and courageous in our pursuit of excellence for our city
- Quality Housing – Strive for liveability and affordability to attract and retain residents
- Community Connection – Strengthen connection, accessibility, diversity and inclusivity by putting people first
- Unique Experiences – Create interesting experiences for our residents, workers and visitors
- Climate Resilience – Embed climate resilience in all that we do
- Economic Growth – Encourage innovation, investment and development in current and emerging sectors
- Budget Repair – Provide quality services and ensure long-term financial sustainability

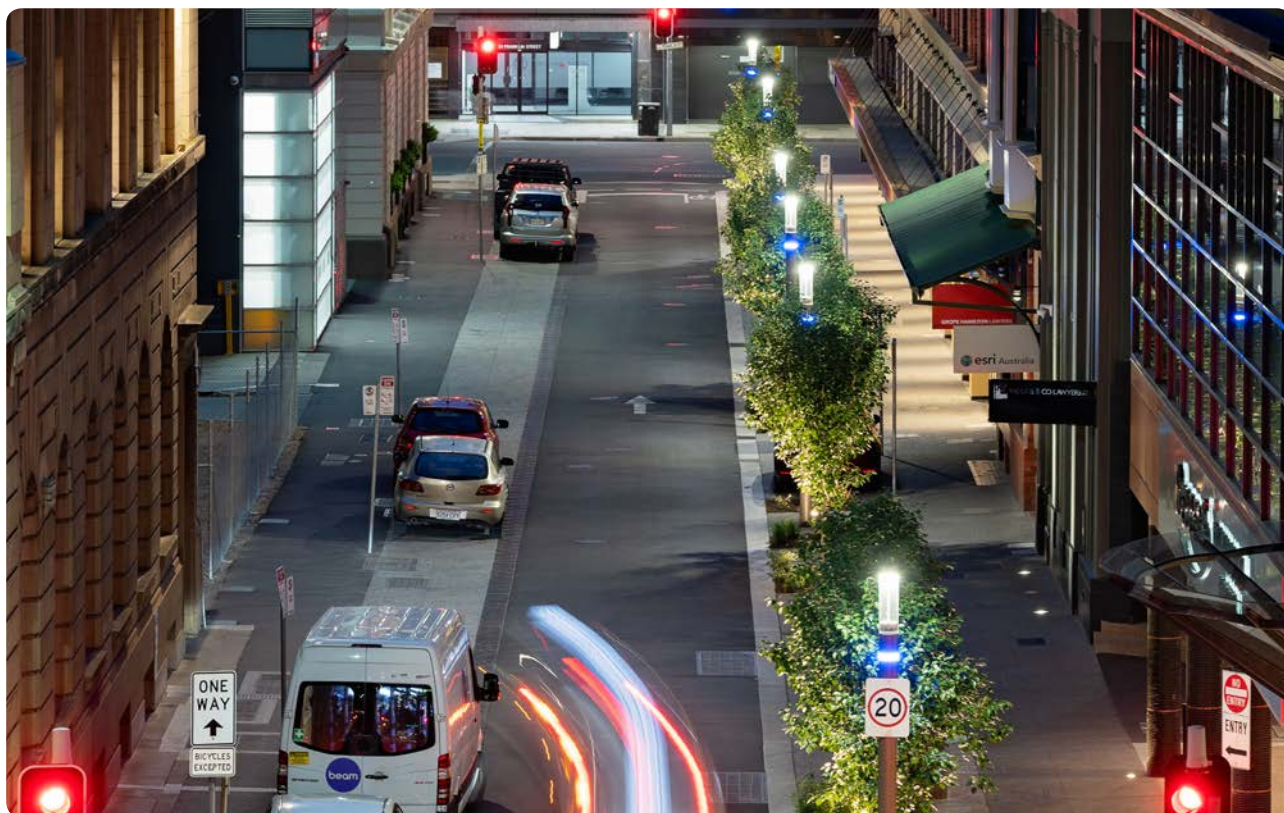
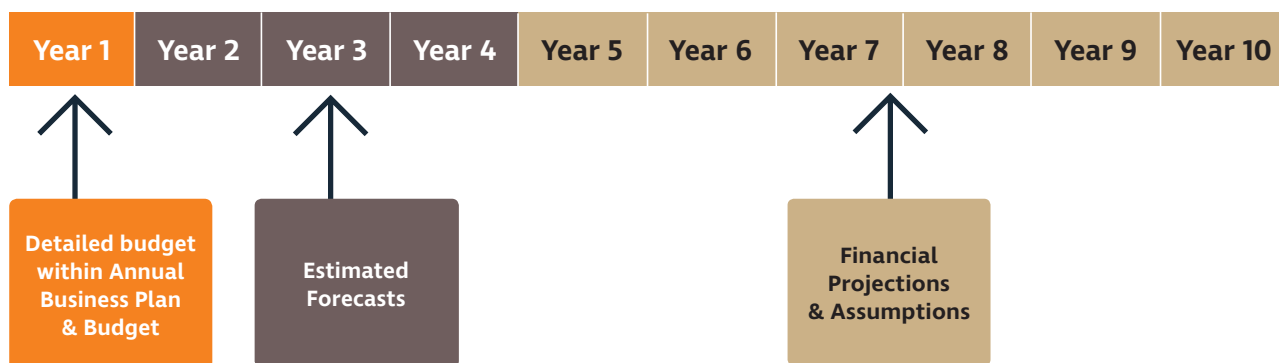
The Strategic Plan is supported by a suite of long and short-term strategies and action plans as well as a Resource Plan. The Resource Plan provides a four-year view of new and upgrade projects, resources, and budget requirements to deliver our Strategic Plan aspirations and objectives.



Integrated Delivery Planning ensures that prudent and efficient decisions are made, with line-of-sight between Council’s Strategic Plan objectives and the major infrastructure projects we deliver. While this Asset Management Plan does not identify financial forecasts associated with new and upgrade projects, it does ensure required asset renewals are aligned (where practical) with key new and upgrade projects specified within the Resource Plan.

Each year our annual business plan and budget formalises funding allocations to continue providing services and progress new projects. It enables existing projects to move from one delivery stage to the next (eg progress concept design to detailed design and detailed design to construction) as well as consider emerging risks and opportunities that may result from Council decisions, community requests or other external factors.

## Long Term Financial Plan – 10 Years



## 6 Lifecycle Management

In order to effectively manage our assets, it is important to understand the relationship between all stages of the asset lifecycle. Effective asset management and sustainable financial planning requires a balance between the maintenance, renewal and disposal of existing assets and the delivery of new and upgraded assets.

Our goal is to provide assets that service the needs of the community, providing the agreed levels of service at the lowest lifecycle cost. To enable this, it is important to understand:

- How our assets are performing
- How our assets should be operated and maintained
- When our assets should be renewed
- When we should consider upgrading existing assets or constructing new assets
- How funding for new and upgraded assets is prioritised
- When we should consider disposing underperforming or underutilised assets



This Asset Management Plan's renewal strategy aims to minimise the number of assets that deteriorate into a poor condition and prohibit assets reaching a very poor condition. This strategy ensures we can continue to provide services in line with the community's expectations, appropriately manage risk and optimise whole-of-life costs. Renewal requirements have been identified through a combination of workshops with key infrastructure and maintenance staff and available condition audit information.

While we have proactive maintenance programs associated with legislative requirements, general operational and maintenance activities are typically evaluated and prioritised with respect to budget provisions within the Long-Term Financial Plan and Annual Business Plan and Budget. Following the completion of this Asset Management Plan, we will be reviewing operations and maintenance standards for Public Lighting and Electrical Infrastructure assets, with a view to develop more structured and proactive maintenance regimes which provide an acceptable balance between cost, risk, and customer expectations. The associated financial impacts will need to be further considered in future revisions of this Asset Management Plan and the Long-Term Financial Plan.

This Asset Management Plan does not identify financial forecasts associated with asset disposal, however where recommended, significant assets will be identified for decommissioning and disposal through Council Reports, to then be considered within the Long-Term Financial Plan and Business Plan and Budget.

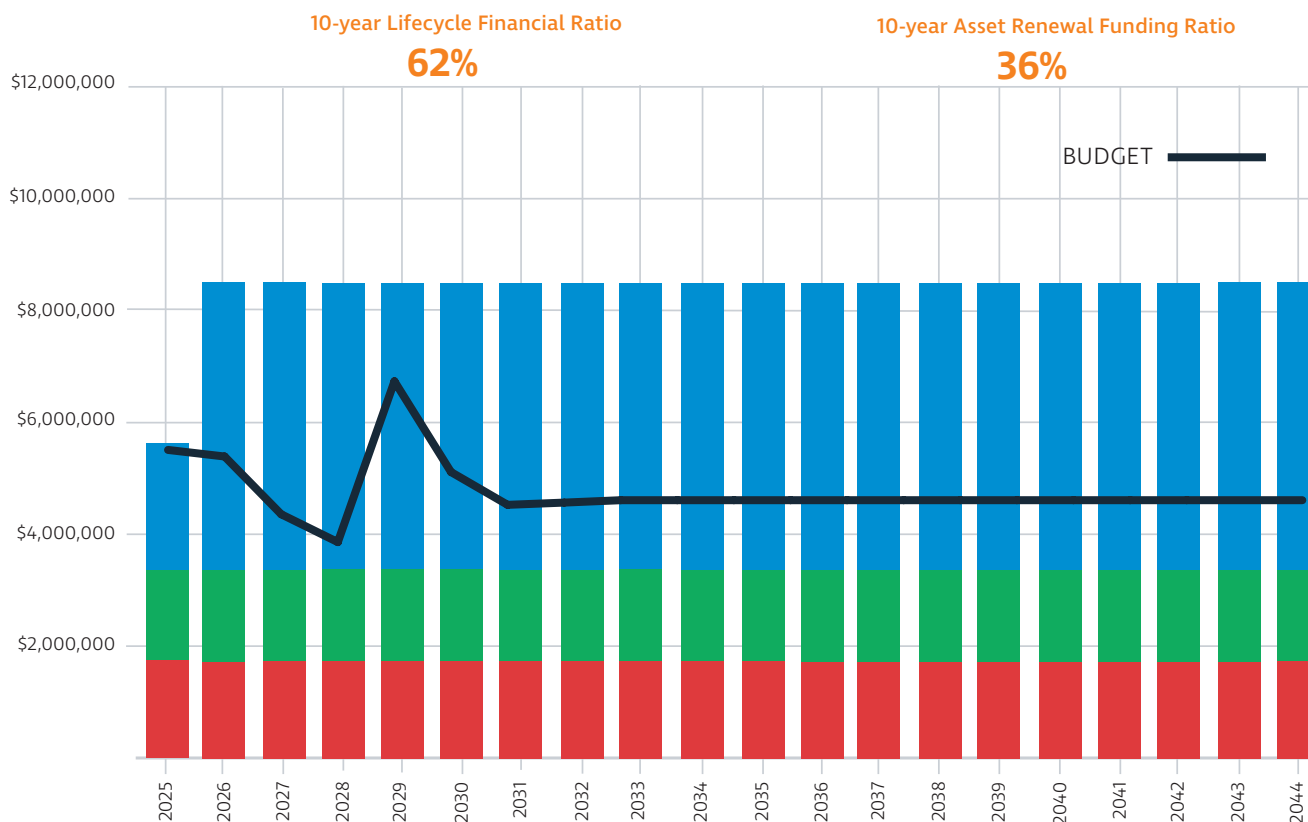


## 7 Financial Summary

This Asset Management Plan defines the asset management activities and associated funding requirements recommended for inclusion into the Long-Term Financial Plan to achieve our asset performance targets. The lifecycle costs necessary to operate, maintain and renew our assets as outlined within this Asset Management Plan is approximately \$8.10 million on average each year across the 10-year planning period. The associated 10-year annual average financial forecasts for renewal, maintenance and operation are presented below for Public Lighting and Electrical Infrastructure.

Lifecycle Category	10-Year Annual Average Forecast
<b>Renewal</b>	<b>\$4.88 M</b>
<b>Maintenance</b>	<b>\$1.48 M</b>
<b>Operation Cost</b>	<b>\$1.74 M</b>
<b>Lifecycle Cost</b>	<b>\$8.10 M</b>

Currently, the lifecycle budget allocation within the Long-Term Financial Plan is only \$4.99 million on average each year. This leaves a funding shortfall of \$3.11 million on average each year and means we currently only have 62% of the costs (Lifecycle Financial Ratio) to deliver the required activities to sustain current levels of service.



### LIFECYCLE SUMMARY

Annual Average first 10 years  
 Lifecycle Summary \$8,101,727  
 Planned Budget \$4,986,639  
 Shortfall -\$3,115,088



### MAINTENANCE

Annual Average first 10 years  
 Planned Budget \$1,478,327  
 Lifecycle Forecast \$1,478,327



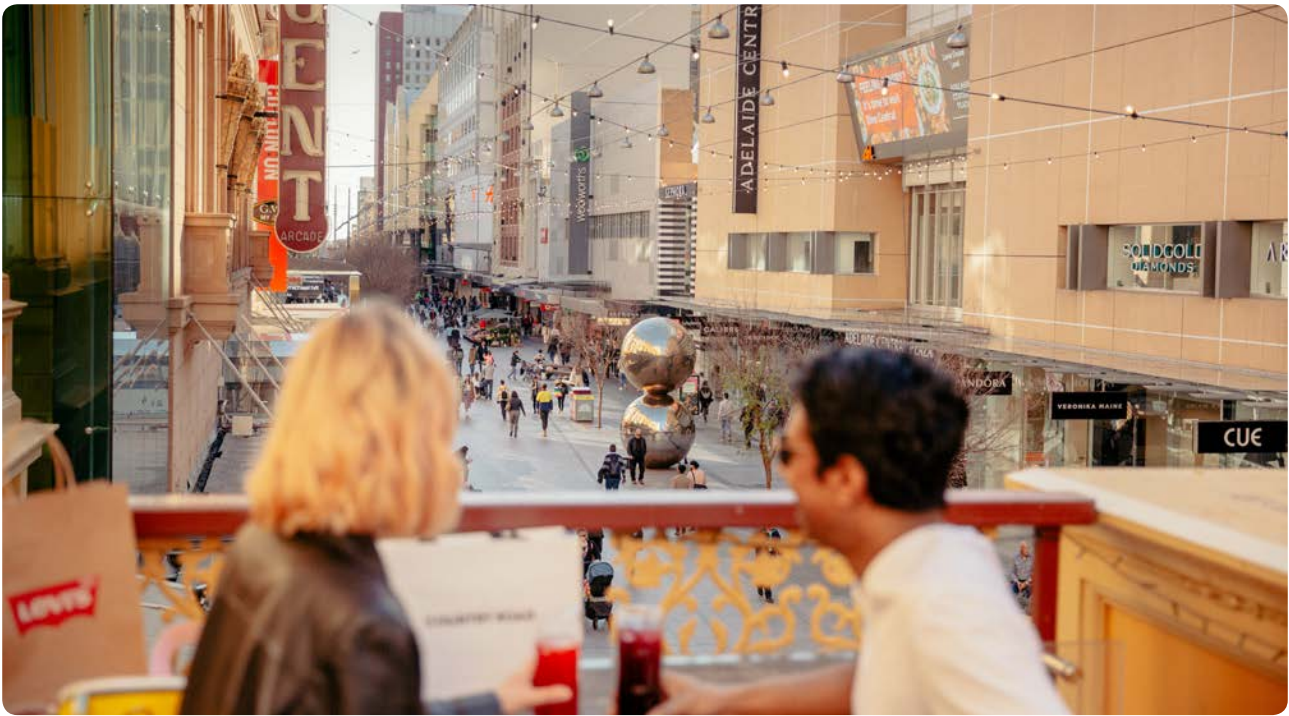
### OPERATION

Annual Average first 10 years  
 Planned Budget \$1,747,000  
 Lifecycle Forecast \$1,747,000



### RENEWAL

Annual Average first 10 years  
 Planned Budget \$1,761,312  
 Lifecycle Forecast \$4,876,400



Noting that this Asset Management Plan has not forecast any additional operational and maintenance requirements, the identified lifecycle funding shortfall is associated with the revised asset renewal forecasting. The Public Lighting and Electrical Infrastructure network will require additional renewal funding across the 10-year planning period to maintain existing levels of service.

The Asset Renewal Funding Ratio indicates that over the next 10 years our current budgets within the Long-Term Financial Plan account for 36% of the forecast funding required for the optimal renewal of our Public Lighting and Electrical Infrastructure. Contributing factors for the gap between the forecast renewal costs and current budgets within the Long-Term Financial Plan include:

- Not achieving our Asset Renewal Funding Ratio targets over the past four financial years as a result of Covid-19 resourcing impacts and project delays associated with post-pandemic market saturation.
- Undertaking a comprehensive review of existing funding allocations and appropriately re-forecasting asset renewal requirements within this Asset Management Plan.
- Ensuring we accurately recognise asset replacement costs, utilising current unit rates that take into consideration increasing costs associated with inflation and industry escalations.

Only what is funded in the Long-Term Financial Plan and approved through the Annual Business Plan and Budget can be delivered. Should the Long-Term Financial Plan be unable to accommodate the revised asset renewal forecasts recommended within this Asset Management Plan, there will be associated service and risk impacts.

Continuing to leverage off external funding opportunities will allow us to maintain and enhance the quality of the service we provide, while reducing financial pressures through the efficiencies in an increased revenue. We will continue to work in partnership with both the State and Federal Governments to pursue these opportunities for both renewal and significant new and upgrade projects.

## 8 Potential Service and Risk Impacts

If the forecast activities outlined within this Asset Management Plan (operations, maintenance, renewal) are unable to be accommodated into the Long-Term Financial Plan, there will be potential service consequences for users. These service consequences include:

- Reduced levels of service for the Public Lighting and Electrical Infrastructure
- Increased service disruptions and public lighting outages
- Reduced customer satisfaction levels associated with the management of our existing assets
- Intergenerational inequity (burdening future generations)

These associated risk consequences include:

- Increased safety risks associated with assets becoming inoperative
- Increased reputational risks associated with services not aligning with community expectations
- Increased financial risks associated with additional maintenance requirements that cannot be accommodated within existing budgets
- Increased financial risks associated with higher renewal and/or rehabilitation treatments as asset renewals are not funded at the optimal point in time
- Increased economic risk associated with reduced business activity, events and tourism
- Intergenerational inequity (passing on costs and risk to future generations)

If the forecast activities outlined within this Asset Management Plan are unable to be accommodated into the Long-Term Financial Plan, we will endeavour to manage these risks within available funding by:

- Continuing to undertake regular asset condition and maintenance inspections
- Prioritising all asset renewal and maintenance activities with respect to available budget
- Revising our levels of service to establish an acceptable balance between cost, level of service and risk
- Developing a communication strategy to manage expectations and educate the community around affordable levels of service
- Continuing to seek out external funding opportunities
- Prioritisation of the delivery of key actions from the Improvement Plan.



## 9 Monitoring and Improvement Program

The next steps resulting from this Asset Management Plan to improve asset management practices are:

Improvement Plan Actions	
1	Comprehensive update of this Asset Management Plan following the completion of spatial data improvements, asset condition audit and asset revaluation.
2	Finalise a 4-year Resource Plan to identify key upgrade/new projects to deliver Council's Strategic Plan objectives. Once key projects are recognised within the Long Term Financial Plan, Asset Management Plans will be updated to ensure associated acquisition costs (upgrade/new) and ongoing operational and maintenance costs are appropriately recognised, in conjunction with any scheduling adjustments required for asset renewal programs.
3	Finalise the Public Lighting Strategy to identify key priority projects for inclusion within the Resource Plan. Asset Management Plans to be reviewed and updated where required, considering any impacts to planned asset renewal programs.
4	Continue to review asset renewal forecasts and requirements for existing EV charging stations as the City of Adelaide Electrical Vehicle Charging Infrastructure Roadmap is implemented.
5	Review and update operations and maintenance standards, to develop more structured and proactive maintenance regimes which provide an acceptable balance between cost, risk, and customer expectations. Include changes into future revisions of this Asset Management Plan and Long Term Financial Plan.
6	Continue to work in partnership with both the State and Federal Governments to pursue external funding opportunities for both renewal and significant upgrade/new Public Lighting and Electrical Infrastructure projects.
7	Continue to undertake regular condition audits and revaluation for all Public Lighting and Electrical Infrastructure assets, including regular review of asset useful lives.
8	Continue to review our technical standards and their application across the Public Lighting and Electrical Infrastructure with respect to climate resilience, circular economy, recycled materials, durability and performance, whole-of-life cost, amenity, and heritage requirements.
9	Continue to monitor forecast climate change impacts to ensure we remain resilient through proactively implementing appropriate mitigation and adaptation controls.
10	Improve the capture of carbon emission data for technical standards and project procurement to support lower carbon decision making.
11	Engage with the community and seek feedback regarding levels of customer satisfaction for CCTV Cameras and Electrical Vehicles Charging Station assets for the next revision of this Asset Management Plan.
12	Review of corporate performance measure targets for customer satisfaction, to assist with performance gap analysis.
13	Review and standardise asset hierarchies for all asset classes within Public Lighting and Electrical Infrastructure.
14	Review customer service requests codes to better align with Level of Service reporting and operational and maintenance sub-activities.
15	Further develop processes to ensure asset data is updated following the completion of contracted maintenance work and emergency asset replacement resulting from vandalism or knockdowns.

