City of Marion Asset Management Plan 2024-2034

Coastal Walkway

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CITY OF MARION

Contents

Executive summary

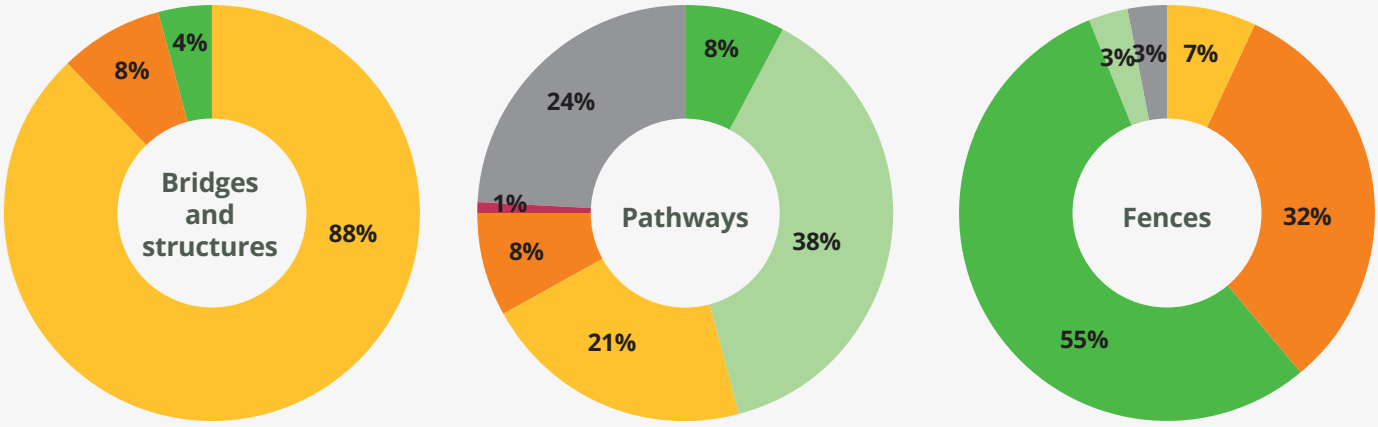
Purpose of the plan

The purpose of the Coastal Walkway Asset Management Plan (AMP) for the City of Marion (CoM) is to improve council's long-term strategic management of the Coastal Walkway assets to ensure the current and future Levels of Service are sustained. The plan defines the state of the Coastal Walkway assets and considers future requirements and risks together to inform the optimum lifecycle management and costs for the next 10 years. The Coastal Walkway AMP is aligned with the Council's Strategic Plan and Long-Term Financial Plan. Data used in this AMP is current as of February 2024 with the Plan monitored annually to make any necessary cost adjustments and is comprehensively reviewed 4-yearly.

State of council's Coastal Walkway assets

Asset parameters including quantities, useful life, and replacement value

Asset Sub-class	Quantity	Useful life (years)	Replacement value
Bridges and structures	24	50 years	$9,417,400
Pathways	5.44 km	20-50 years	$971,117
Signage	44	20 years	Not valued
Retaining walls	181 m	50 years	$153,500
Kerb ramps	1	50 years	$2,000
Street furniture (seating, bollards, etc.)	54	25 years	$61,600
Street furniture (fencing)	4353 m	30 years	$945,200
Natural assets	TBD	TBD	TBD
		Existing Assets sub-total	$11,550,817
		Under construction (Cell 5 & 6) sub-total	$9,700,000
		Total	**$21,250,817**



Condition score

Very good | Good | Fair | Poor | Very poor | No data

The above graphs show the condition profile of the Coastal Walkway assets. Note: condition data for Coastal Walkway assets was collected in 2019.

Service levels

The customer levels of service are considered in terms of the quality of the asset (condition); whether it is providing the intended service (function); and whether it is over/under utilised (capacity). The table below shows the customer service requirements and how we plan to deliver on that requirement.

Level of service measure	Customer service requirement	Activities funded to sustain the service requirement
Condition	CoM's Coastal Walkway is constructed and maintained to a high quality and safety standard.	The CoM Coastal Walkway is properly designed and constructed, regularly monitored, and maintained to enable infrastructure to be functional as per it's intended use.
Function	CoM's Coastal Walkway is planned, designed, and constructed to align with the Coastal Walkway Plan.	Function is measured using the current network vs what is left to build, while also applying timeframes on when it needs to be built. Tracked against program priorities matrix and expected timeframes.
Capacity	CoM's Coastal Walkway is built to the agreed trail rating standard.	Existing assets not to current standards to be planned and upgraded as per the Coastal Walkway Plan and tracked against expected timeframes.
Resilience	CoM's Coastal Walkway is planned, designed and constructed considering current and future demands.	Maintaining CoM Standards Drawings and technical specifications. Partnerships and trials for new methods, products and techniques in walkway design and construction.

The table below shows the performance of the asset category in relation to its condition, function and capacity. Majority of Coastal Walkway assets are meeting the targets and based on this asset management plan duration, performance of these assets will be improved.

Measure	Current performance	Expected trend based on the buget
Condition	Monitor	90% of assessed assets in very good to fair condition. This will be maintained in this AMP.
Function	On track	90% of assessed assets in very good to fair function. This will be maintained in this AMP.
Capacity	On track	90% of assessed assets in very good to fair capacity. This will be maintained in this AMP.

Future demand

Some of the key factors expected to influence future demand and the impact this will have on the network and assets are shown in the table below and have been accounted for in this AMP.

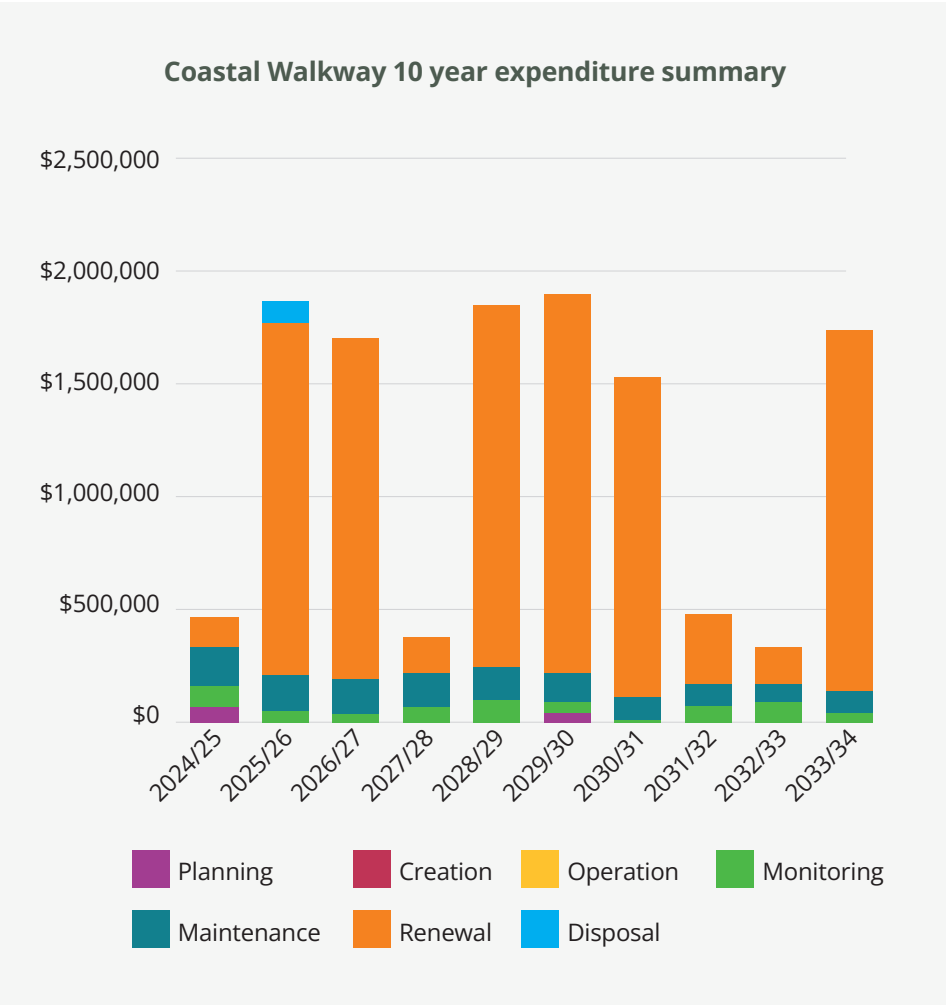
Demand impact	Demand impact management
Increase in community requests and a change in community expectations and service levels.	Renewal costs will be adjusted following the review of the Coastal Walkway Plan during 2024/25. Service Level Agreement based on risk for operational and maintenance activities.
Increased population density and/or increase utilisation of the Coastal Walkway.	Engineering, Assets and Environment division to identify and resolve risk locations and ensure critical assets are monitored, maintained and renewed.

Lifecycle management

What it will cost

The forecast lifecycle costs necessary to provide the services covered by this AMP include the activities of planning, creation, monitoring, operation, maintenance, renewal, and disposal of assets.

The forecast expenditure of this plan is used to inform the Long-Term Financial Plan – see below for details.



Coastal Walkway assets forecast 10-year expenditure for each asset lifecycle phase from 2024/25 to 2033/34

Year	Planning	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	Forecast Total
2024/25	80,000	0	0	110,500	172,000	140,000	0	$502,500
2025/26	0	0	0	58,000	163,000	1,646,200	100,000	$1,967,200
2026/27	0	0	0	38,000	167,000	1,578,200	0	$1,783,200
2027/28	0	0	0	78,000	150,000	166,400	0	$394,400
2028/29	0	0	0	110,500	153,000	1,674,400	0	$1,937,900
2029/30	50,000	0	0	58,000	133,000	1,758,400	0	$1,999,400
2030/31	0	0	0	38,000	101,000	1,488,000	0	$1,627,000
2031/32	0	0	0	78,000	105,000	313,200	0	$496,200
2032/33	0	0	0	110,500	100,000	160,000	0	$370,500
2033/34	0	0	0	63,000	102,000	1,680,000	0	$1,845,000
Total	**$130,000**	**$0**	**$0**	**$742,500**	**$1,346,000**	**$10,604,800**	**$100,000**	**$12,923,300**

Summary forecast expenditure

Forecast expenditure	10-year forecast	Average annual cost
Operational Cost (OpEx)	$2,218,500	$221,850
Capital Cost (CapEx)	$10,704,800	$1,070,480
Total	**$12,923,300**	**$1,292,330**

The forecast budget is sufficient to provide the services at the required performance levels for open space assets.

Managing the risk

Risks are managed in accordance with Council's Risk Management Policy and Framework. There are no high-level risks that have been identified for Coastal Walkway assets.

Critical assets have been identified as all bridges within the Coastal Walkway. Any failure of these assets may result in significant consequences to public health and safety and the Coastal Walkway network unserviceable for a moderate duration.

The forecasted budget in this asset management plan allows us to achieve all our service delivery objectives and to monitor and manage the risks accordingly.

Improvement

The Improvement Plan sets forward future activities that are required to ensure the asset management of Coastal Walkway assets are maturing. These initiatives have been included in the forecast budget and include:

- Improve the completeness and accuracy of condition data for coastal walkway assets.
- Add coastal reserves and coastal protection structures to formal management plans and align service levels with Coastal Walkway Plans.
- Integrate consistent asset structures terminology across Finance, Asset Management Information Systems (AMIS), and AMPs.

Introduction

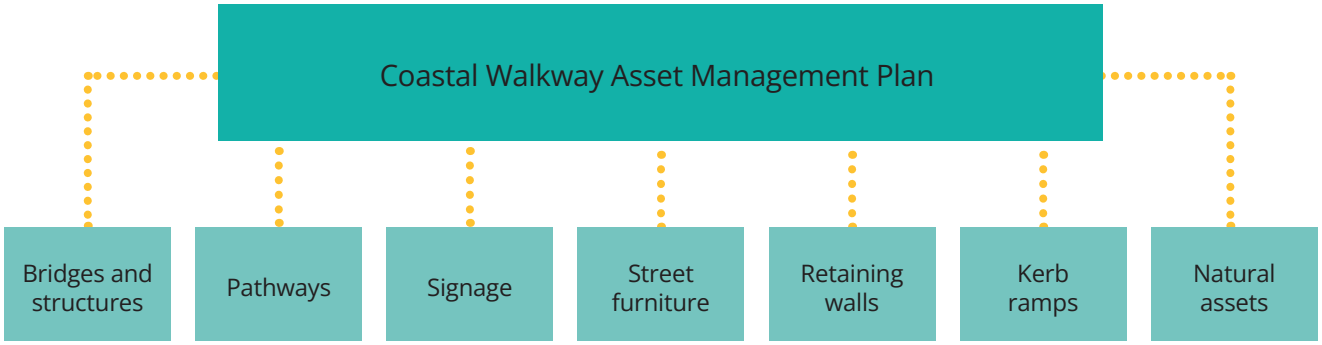
Background

The Coastal Walkway AMP provides information on the state of the coastal walkway assets and their capability to meet the levels of service and demand requirements in a safe, cost effective and sustainable manner for the following 10 years. In delivering the service, risks are identified and managed so that a balance is achieved between achieving the desired performance of the asset, against the cost of providing the service.

This AMP complies with the requirements of Section 122 of the *Local Government Act 1999*; and is an input for CoM's Long-Term Financial Plan. Information contained in this plan is current as of September 2024.

The assets under management of the Coastal Walkway AMP are shown below.

The Coastal Walkway assets included in this plan have a total replacement value of $16,153,691.



Planning documents

Documents from the CoM's Strategic Management Framework together with other asset specific strategic documents were used in the development of this AMP and are shown below.

CoM policies

- Environment Policy
- Climate Change Policy
- Open Space Policy
- Tree Management Policy
- Streetscape Policy

State Government documents

- Adelaide Metropolitan Coastal Park Concept Plan (2001)
- The 30-Year Plan for Greater Adelaide (Plan SA)

CoM plans, guidelines, frameworks

- Coastal Walkway Plan
- Hallett Cove Creeks Stormwater Management Plan
- Open Space Framework/Plan
- Streetscape Design Guidelines
- Biodiversity Plan
- Coastal Climate Change Monitoring Plan

Other documents

- Local Government Association Mutual Liability Scheme
- IPWEA NAMS+ and AMP template
- IPWEA Practise Notes
- International Infrastructure Management Manual 2015 (ISO 55000)
- Australian Standards

Community Vision Towards 2040	A shared Community Vision innovating a future for the city and its residents
Strategic Plan and Long Term Financial Plan	A suite of plans that focus council's contributions to the Community Vision
Asset Management Policy	A consistent and integrated approach to strategic and sustainable asset management decision making
Asset Management Strategy	Sets a clear direction to meet the evolving service delivery needs of our community - now and into the future
Asset Management Plans	Outline the financial and technical elements for managing assets to support the delivery of services to our community.
Business Process Manuals	Deliver defined levels of service in the most cost effective way throughout the asset management lifecycle.
Asset Management Operational Roadmap	Improvement Projects which build organisational capacity and refine processes.

Key stakeholders

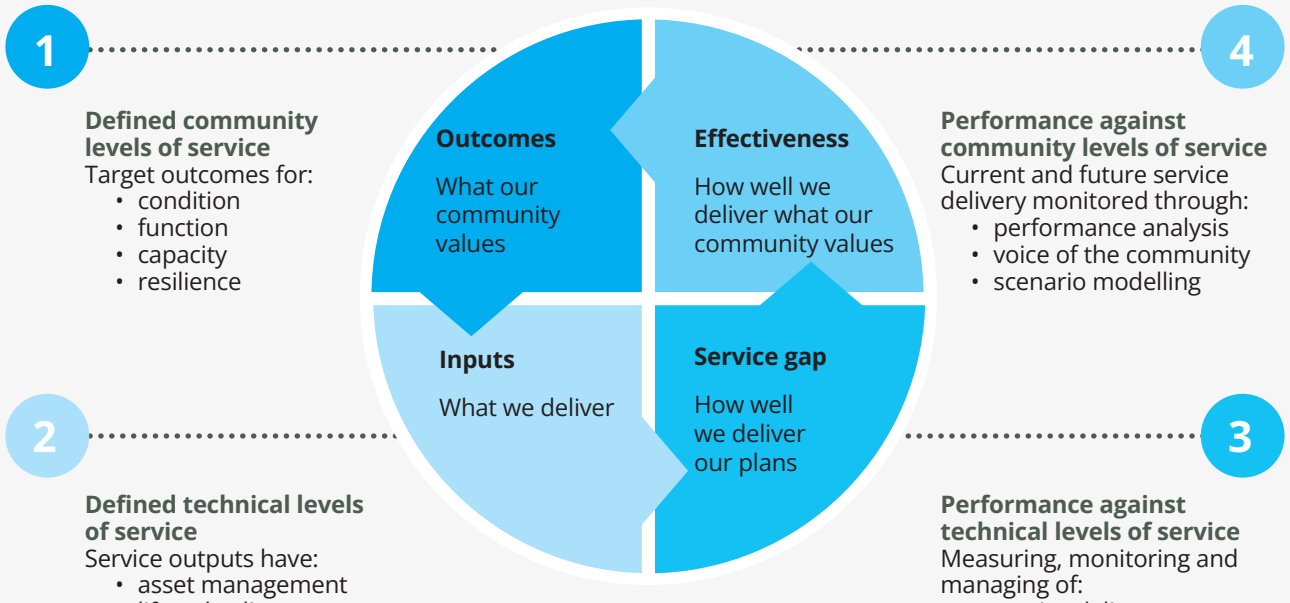
Key stakeholder	Role in Asset Management Planning
CoM Council Members	• Represent community needs and endorse levels of service and AMPs.
CoM Executive Leadership Team (ELT)	• Allocate resources to ensure the service is sustainable. • Ensure risks are managed while meeting objectives of the plan.
CoM Engineering, Assets, Environment Division	• Asset owner • Provide subject matter expertise advice and guidance regarding best practice. • Ensures the delivery of services to the agreed level. • Ensures the improvement plan is followed and actioned. • Manages and reviews risks and future demands. • Manages the asset data and asset management system.
CoM Operations Division	• Provides feedback on maintenance activities and resources required to complete the works to achieve the desired performance.
CoM City Activation Division	• Provide subject matter advice and guidance regarding best practice. • Delivers major projects outlined in the Asset Management Plan/Coastal Walkway Plan.
CoM Finance Division	• Provides advice on budget and cost allocations. • Allocate budgets according to forecasts and ensure alignment with the Long-Term Financial Plan (LTFP).
CoM Risk and Strategy Division	• Provides strategic advice and guidance. Risk management and future demand advice.
Community	• Provide feedback on level of service and offer a source of funding through rates.
State Government	• Provide strategic direction through State endorsed plans, strategies and departments. • Can be a source of funding to projects and plans within the Asset Management Plans.

Levels of service

Levels of service ensure we meet customer expectations by describing what we deliver. The primary reason assets exist is to deliver services.

Levels of service underpin asset management decisions. Defining and measuring levels of service is a key activity in developing Asset Management Plans. When levels of service are considered collectively, they provide clarity and assist with meeting council's strategic objectives.

Using levels of service to measure service delivery performance



When defining levels of service, council takes into consideration:

- the external context, including legislative requirements which may impose minimum standards.
- the internal context including strategic objectives, the availability of resources and financial constraints.
- customer expectations of the quality of service, balanced against the price they are willing and able to pay for that service.

These drivers influence council's decisions about the range, quality and quantity of services provided.

Strategic and corporate goals

Our purpose: To improve our resident's quality of life; continuously, smartly, and efficiently.

Our community vision: A community that is (L) Liveable, (VN) Valuing Nature, (E) Engaged, (P) Prosperous, (I) Innovative, and (C) Connected.

Coastal Walkway assets aim: To provide the community with a high-quality coastal walking trail and supporting infrastructure that attracts visitors from across the southern Adelaide region.

Objective ID	Council strategic objective	How the objectives are addressed in the AMP
L1	We will make our services, facilities and open spaces more accessible	The Coastal Walkway has been constructed and continues to be improved to provide a highly valued asset or the community.
VN2	We will build community resilience to the impacts of climate change.	The Coastal Walkway assets have been selected and built using environmentally sustainable products appropriate in a coastal setting. Designs also include future climate and coastal sea level rise predictions to ensure assets are future proofed.
C1	We will provide a variety of options for social interaction	The Coastal Walkway naturally encourages groups to walk or run the walkway for fitness or leisure and with supporting facilities along the route.
C2	We will encourage, where economically feasible, the provision of daily needs of residents within a short walk or bike ride.	Connecting the Coastal Walking Trail with other local paths and across local government boundaries (City of Holdfast Bay and City of Onkaparinga) provides a larger connected network.

Legislation

The legislation and relevant standards which are most relevant to the development of this AMP are shown in the table below.

Legislation	Relevance to this AMP
Aboriginal Heritage Act 1988	Provides for the protection and preservation of Aboriginal heritage and includes legislation governing the discovery, acquisition, damage or sale of sites, objects, or remains of Aboriginal significance.
Animal and Plant Control (Agricultural Protection and Other Purposes) Act (1986)	An Act to provide for the control of animals and plants for the protection of agriculture and the environment and for the safety of the public, and for other purposes.
AS / NZS 1428.2 Pedestrian and Cycling Paths	Defines national standards for Pedestrian and Cycling Paths.
Australian Accounting Standards	Set out the financial reporting standards relating to the (re)valuation and depreciation of infrastructure assets.
Coast Protection Act 1972	Informs council of need to seek of Coast Protection Board for developments.
Commonwealth Environment Protection and Biodiversity Conservation Act (1999)	Provides a legal framework to protect and manage unique plants, animals, habitats, and places.
Development Act	Regulates development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate; and for other purposes.
Disability Discrimination Act 1992, Disability Inclusion Act 2018 and other relevant disability legislation	Sets the standard for accessibility to eliminate, as far as possible, discrimination against persons on the grounds of disability.
Environmental Protection Act 1993	Provides guidelines for protection of the environment; establishes the Environment Protection Authority and defines its functions and powers, amongst other purposes.
Heritage Places Act (1993)	To encourage the sustainable use and adaptation of heritage places in a manner consistent with high standards of conservation practice, the retention of their heritage significance.
Local Government Act 1999	Sets out the role, purpose, responsibilities, and powers of local governments including the preparation of a Long-Term Financial Plan supported by infrastructure and asset management plans for sustainable service delivery.

What our community values

Community feedback

A key objective of asset management planning is matching the levels of service council delivers with the levels of service expectations of our community. Council uses a range of activities to engage with the community and stakeholders such as social media and website, community workshops and meetings, education services and through Council Members. This ensures that levels of service, funding and management practices proposed for our assets are appropriate.

A community satisfaction survey (CSS) was conducted by CoM in 2022. A range of channels were used to reach out to all groups across the community, including letterbox drop, social media, email, and face-to-face approaches to ensure a wide demographic spread of survey responses. Questions relating to age, gender, and relationship to CoM and suburb were also included to confirm the views were representative of a more balanced demographic spread. The measure calculation methodology remains unchanged from previous years to ensure accurate trend measurement.

The 2022 CoM survey results shows our residents believe that providing and maintaining Coastal Walkway assets are of a high importance, see below.

Performance measure	Satisfied	Importance
Coastal Walkway	88%	90%

The relative gap between the 2 measures of 'Importance' and 'Satisfaction' informs Council of the need to improve our management of Coastal Walkway assets. This AMP sets out a plan to ensure the community satisfaction of Coastal Walkway assets is maintained or improved from the current state.

Community levels of service

Community levels of service detail what is important to our community and how they receive and experience our services.

Building on the National State of the Assets reporting and emerging industry good practice, council considers the following service parameters:

Condition: Does the asset provide a safe and quality service?

Function: Is the asset fit for purpose?

Capacity: Is the service over or under used?

Resilience: Is the asset's design resilient against projected climate stressors?

By listening and understanding what is important to our community, we have developed Community Levels of Service. These factual measures provide a balance in comparison to the customer perception (importance and satisfaction) that may be more subjective. Performance is monitored against targets, using 1-5 rating scales.

Using industry standard measures (where available) enables Council to compare our performance. This includes submitting data to the National State of the Assets benchmarking project commissioned by the Australian Local Government Association. A summary of these parameters is shown in the table below.

Parameter	Community level of service	Achieved by	Predicted trend
Condition	CoM's Coastal Walkway is constructed and maintained to a high quality and safety standard.	The CoM Coastal Walkway is properly designed and constructed, regularly monitored, and maintained to enable infrastructure to be functional as per it's intended use.	Improve
Function	CoM's Coastal Walkway is planned, designed, and constructed to align with the Coastal Walkway Plan.	Function is measured using the current network versus what is left to build, while also applying timeframes on when it needs to be built. Tracked against program priorities matrix and expected timeframes.	Improve
Capacity	CoM's Coastal Walkway is built to the agreed trail rating standard.	Existing assets not to current standards to be planned and upgraded as per the Coastal Walkway Plan and tracked against expected timeframes.	Improve
Resilience	CoM's Coastal Walkway is planned, designed and constructed considering current and future demands.	Maintaining CoM Standards Drawings and technical specifications. Partnerships and trials for new methods, products and techniques in walkway design and construction.	Improve

Council and the community is a key focus of CoM's asset management transformation. Measures and targets are determined by the Assets Steering Committee. The performance of the Coastal Walkway assets against these community parameters is shown in the asset performance section.

Technical levels of service

Technical Levels of Service detail what we do to deliver our services. Council manages and operates assets at the agreed levels of service while managing whole-of-life costs to ensure the best value for resources used. It is important to monitor the levels of service regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time. Technical service measures are linked to the activities and annual budgets and details of each are shown below.

Lifecycle phase

Planning

The management and planning for Coastal Walkway assets include:

- Coastal Walkway Plan

The planning of Coastal Walkway assets ensures that decisions for investments into the Coastal Walkway is done on a priority basis, including the development and review of CoM standards, technical specifications and guidelines to ensure a consistent approach to walkway.

Creation

The creation of Coastal Walkway assets is determined using the Coastal Walkway Plan which identifies new or upgraded assets and outlines future projects to meet the service levels.

Operation

Operation is defined as the day-to-day activities undertaken to provide service delivery to the community. There are currently no operational activities defined within the Coastal Walkway.

It is noted that Remnant Native Vegetation care does occur within the Coastal Walkway area. The details of this are in the CoM Biodiversity Plan.

Note: CoM Environmental Sustainability team manage annual integrity inspections of cliff faces, Field River mouth and other natural assets along the coastal area. These are not integrated into this plan.

Monitoring

Monitoring of Coastal Walkway assets include:

- Post storm event emergency monitoring
- Coastal cliff and embankment monitoring
- Monitoring devices measuring utilisation of the walkway
- Defect (level 1), condition (level 2), and load rating assessment (level 3) of the Coastal Walkway assets

Maintenance

Maintenance is split into 2 types, Reactive and Proactive Maintenance.

Reactive Maintenance is unscheduled activities in a response to community notifications or following inspections after severe weather events. The types of reactive work activities are:

- Trip steps (within the pathway, bridges and structures)
- Damaged street furniture
- Fallen signs

Proactive Maintenance involves the regular scheduled activities including proactive repairs and improvements. The types of proactive work activities are:

- Bridge preventative maintenance
- Pathway regrading
- Defects identified during audits

Renewal

Renewal is defined as replacing the existing assets to the modern-day equivalent. Typically, this occurs when the condition of the asset is at or beyond the intervention level for renewal. The criteria for renewal is:

- When 40 per cent of the asset segment has defects (requires full renewal)
- When the condition of the asset is poor (IPWEA rating of 4 for footpaths and cycleways, trails, tracks and paths) or above.
- The Coastal Walkway Plan which identifies renewal based on it's proximity to a major upgrades in the immediate area (or cell identified for full renewal).

Disposal

Disposal is required when an asset is no longer required and has become redundant. These assets are removed or capped and buried.

- Beach Access structures and paths have been identified for decommissioning either through Asset Management Plans (end of life asset and there are no plans to renew) or Coastal Walkway Plan (change in functionality/service levels or risk assessment).

Service standards

Customer events system

CoM is committed to providing the highest level of customer service possible and aims to be the benchmark in Engineering, Civil Maintenance and Operations in Local Government.

CoM captures requests from the community through its Customer Event System (Salesforce) and has the structure of requests as listed including service level agreement and current performance in the table below.

Category	Request reason	Request sub reason	Service level agreement
Recreation/ events	Coastal Walkway	Maintenance	30 Days
		General Enquiry	30 Days
		Future Planning/ Renewal	5 Days

** Service level agreement is the time to complete all actions associated of the request. In cases that the request identifies a safety risk to the community immediate action is taken to isolate and make safe.*

Future demand

Demand drivers are those factors which have the potential to impact the Coastal Walkway function and service into the future.

Demand drivers include population, urban in-fill, planning and design code changes, political and community expectations, economic, and environmental factors.

Demand management plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

The impact of demand drivers that may affect future service delivery and use of assets including the opportunities identified for demand management are shown in the table below. Further opportunities will be developed in future revisions of this AMP.

Demand driver group	Driver and projection	Impact on services	Demand management plan
Community Requests	Community requests. Change in community expectations and service levels.	Expectations to respond to reactive service delivery requests leads to inefficient resource planning.	• Update of Coastal Walkway Plan during 2024/25 and ongoing review of the AMP. • Service Level Agreement based on risk for operational and maintenance activities.
Social	Increased population density and/or increase utilisation of the Coastal Walkway.	Increased risk of exposure to hazards within CoM.	• Engineering, Assets and Environment & Operations divisions to identify and resolve risk locations and ensure critical assets are monitored and maintained.
Technological	Sensors, GIS, remote sensing, Artificial Intelligence, LiDAR mapping.	Data collection and accuracy is improved assisting with decision making and reporting.	• Continue to collect and maintain Coastal Walkway asset data, aerial imagery, coastal cliff and embankment monitoring and asset utilisation data to help inform future decisions.

Climate change adaptation

Climate change is likely to affect Coastal Walkway asset life and functionality, and this is already being experienced through increase in more intense heavy rainfall events and increased sea levels.

The Department of Environment and Water produced Guide to Climate Projections for Risk Assessment and Planning in South Australia, 2022. This document outlines the trends, and these along with how CoM will manage resilience is shown in the table below.

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience will have the following benefits:

- Assets will withstand the impacts of climate change.
- Services can be sustained.
- Assets that can endure and may potentially lower the lifecycle cost and reduce their carbon footprint.
- Recycled content within the infrastructure asset or backfill material that will reduce the carbon footpath.

Climate parameter	Projected trend	Impact on asset and services	Resilience management
Temperature	• Maximum, minimum, and average temperatures will increase • Warmer spring temperatures. • Hotter and more frequent hot days.	• Decrease in utilisation of the Coastal Walkway on extreme heat days. • Higher temperature ranges and more sustained upper temperatures may also increase material degradation.	• Coastal Walkway defect inspections on a bi-annual frequency. • Use sustainable products that can resist high temperatures and marine environment.
Rainfall	• Declining rainfall, lower spring rainfall. • More drought	• Increase in dust (air pollution), undesirable for recreational walkers. Decrease in walkway utilisation.	• Use stabilised materials for the pathway surface treatment to minimise stormwater erosion and reduce dust.
Storms	• More intense heavy rainfall events and which carry intensified winds.	• Increase likelihood of erosion on walkway from stormwater surface runoff. • Embankment and coastal cliff deterioration/collapse. • Reactive responses increased frequency. • Budget impacts.	• Pre-storm event monitoring procedure on critical assets to ensure the Coastal Walkway is safe. • Coastal cliff and embankment monitoring program.
Sea Level	• Sea levels rise by 31cm in 2050. A total increase of 71cm is expected by 2100. This permanently inundates areas of low-lying coastline and increases vulnerability to storm surges.	• Assets within the high tide sea level rise projections at risk of inundation. • Coastal cliff/sand dune erosion.	• Coastal cliff and sand dune monitoring program. • Sand dune protection. • Identify and remove beach access structures at risk of inundation/ failure and/or prevent community member access to high tide isolation risk areas.

Lifecycle management

Preliminary information

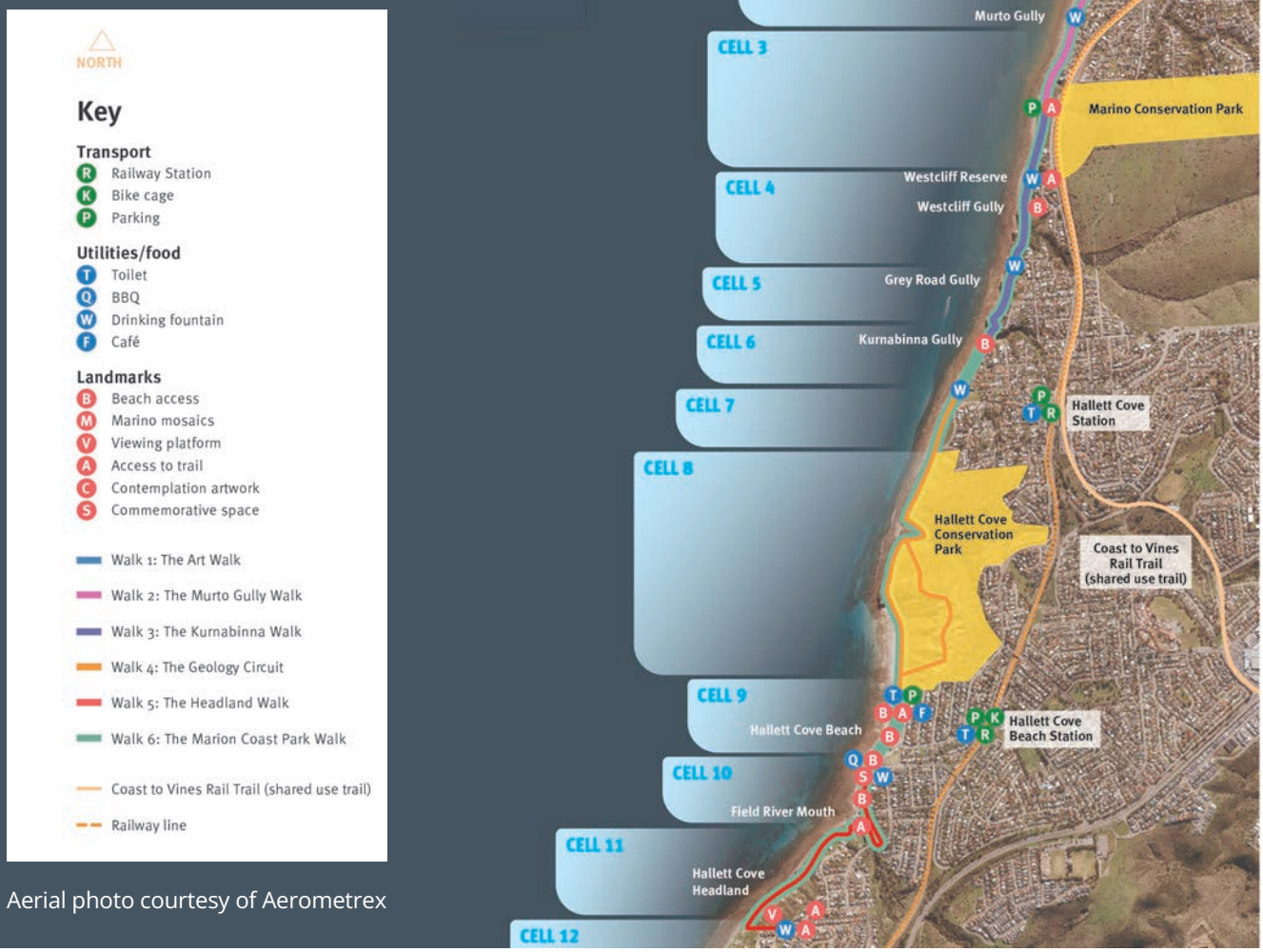
The Coastal Walkway from Marino to Hallett Cove commenced construction in the mid to late 1990s. The walkway today is a highly valued and well-used community asset which attracts visitors into the region and contributes to the livability of the city.

The broader Adelaide Metropolitan Coast Park Plan extends along Adelaide's coastline from Sellicks Beach to North Haven, with the CoM Coastal Walkway providing a 7.2km section between Marino and Hallett Cove.

In addition to the stunning geological formations, native coastal vegetation and sites of indigenous cultural significances, the CoM Coastal Walkway contains structures (stairways secured to cliff faces, boardwalks, and bridges), pathways at ground level, lookouts and other surrounding public infrastructure such as bins, signs, artwork and benches. The walkway was initially constructed with limited planning considerations to justify alignment and documented designs.

The Coastal Walkway has been segmented into twelve cells to support the analysis and potential renewal staging. The cells also represent similar/ consistent trail standards within the cells to help with the planning process.

Coastal Walkway Cell Location



Aerial photo courtesy of Aerometrex

Physical parameters

The assets covered by this AMP are shown in the table below including the expected useful life and replacement cost.

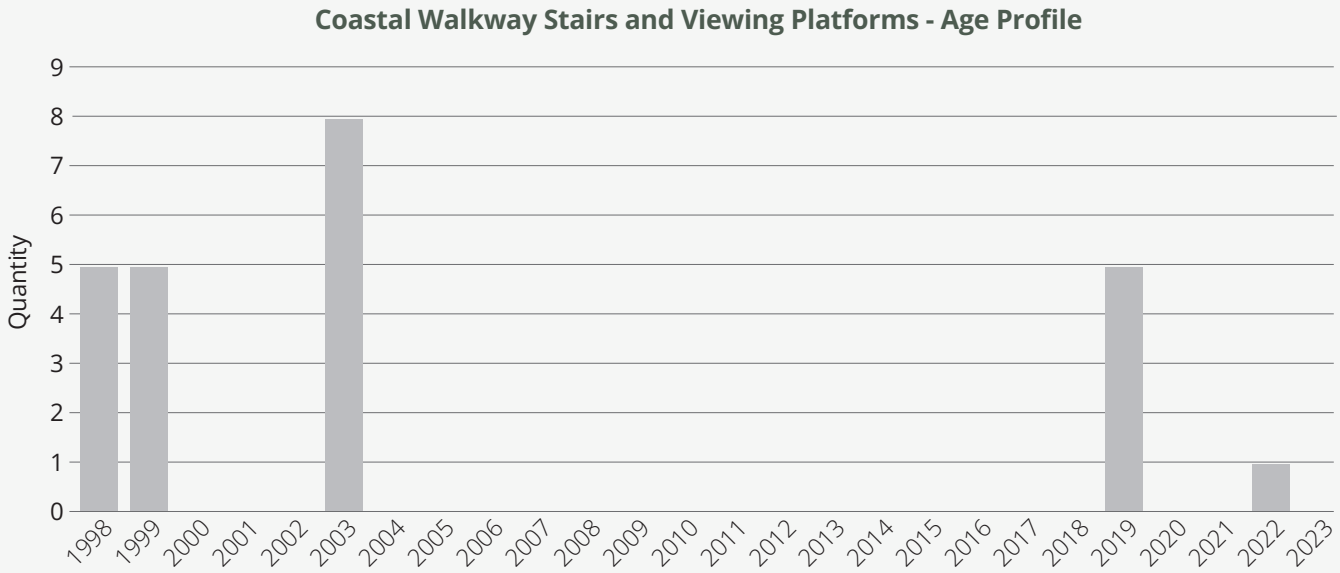
Asset sub class	Asset type	Quantity	Useful life (years)	Replacement value
Bridges and structures	Stairs	18	50 years	$7,522,900
	Boardwalk	1	30 years	$1,669,400
	Viewing platforms	5	50 years	$225,100
Pathways	Unsealed	3847 m	20 years	$385,200
	Paved	413 m	40 years	$95,160
	Concrete	1232 m	50 years	$294,057
	Steps	427 m	25 years	$196,700
Signage	Guide	1	20 years	Not valued
	Regulatory	2	20 years	Not valued
	Warning	3	20 years	Not valued
	Open Space	38	20 years	Not valued
Retaining walls	Sleeper	117 m	50 years	$89,400
	Standard	64 m	50 years	$64,100
Kerb ramps	Ramp	1	50 years	$2,000
Street furniture	Seats	34	25 years	Not valued
	Bollards	9	25 years	Not valued
	Fencing	5353 m	30 years	$945,200
	Memorials	5	TBD	$15,500
	Drinking fountains	5	TBD	$29,600
	Reserve shelter (sign)	1	TBD	$16,500
Natural assets	Biodiversity areas	TBD	TBD	TBD
	Coastal cliffs	TBD	TBD	TBD
	Sand dunes	TBD	TBD	TBD
	Gulley embankments	TBD	TBD	TBD
			***Existing assets sub-total**	**$11,550,817**
			****Under construction (Cell 5 and 6) sub-total**	**$9,700,000**
			Total	**$21,250,817**

** Values against asset categories are inferred as Finance descriptors are not aligned to Assetic. Values will reduce, e.g. steps, upon reconciliation from Cell 5&6 project (refer Treasury Accountant)*

*** Valuations cannot be reliably aligned to asset categories until an audit by Finance due Jul/Aug 2024 and prior to public consultation version of AMP (cost estimate refer PM Infrastructure, alignment issues refer Treasury Accountant).*

Age profile

Age profiles are used to understand how the life of an asset is progressing, it could be used as an indicator of when large peaks of assets may reach an end of life over the long term, although condition data is more appropriate driver of renewal programs. See below for age profiles for Coastal Walkway assets. CoM doesn't have the age of construction data available for other assets (Pathways, Retaining Walls or Fences) within the Coastal Walkway.



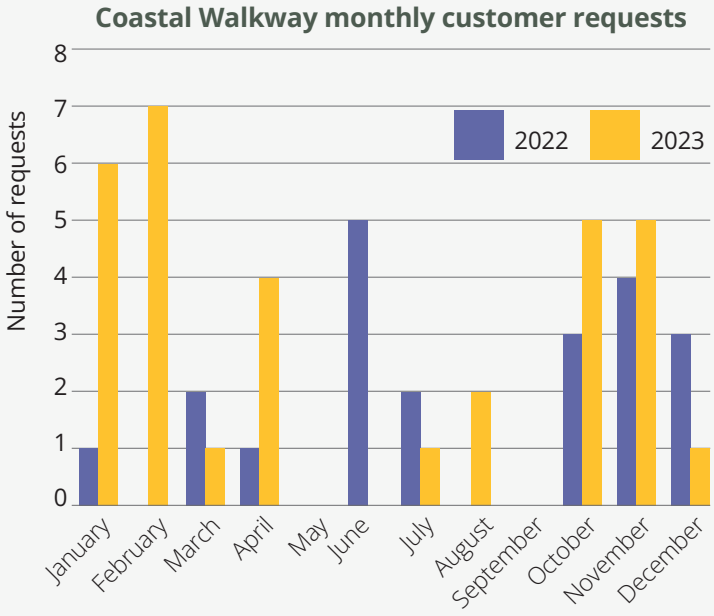
Asset performance

Customer notification trends

It is important to capture customer request information to determine how our customers are interacting with CoM and to track information regarding volumes, seasonal variations and the types of requests to understand how to best allocate resources. It is important to understand and analyse the data to be more proactive and action items before they are reported to CoM. Data from our customer event system and the monthly request for services are shown below.

It is projected that an increase in community requests for maintenance and operations within the Coastal Walkway network is likely over the next several years. It is then expected that after cells within the Coastal Walkway are renewed community requests will decrease.

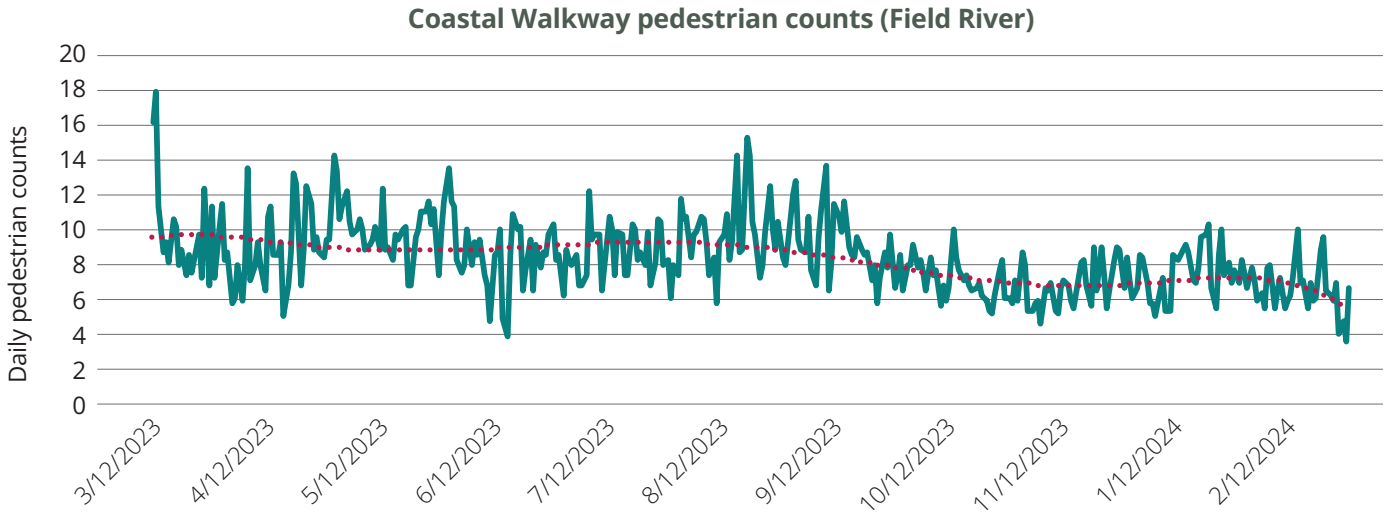
Customer event by reason	2022	2023	Total
Coastal Walkway	21	32	53



Customer utilisation

The collection of pedestrian utilisation data for the Coastal Walkway is essential for effective planning and design. This data provides insights into the volume of foot traffic, peak usage times, and seasonal variation. It helps in anticipating infrastructure needs, such as benches or rest areas, to enhance the visitor experience. Additionally, understanding pedestrian traffic patterns allows for better resource allocation, including maintenance and safety measures along the walkway.

There is one pedestrian counter on the Coastal Walkway which is located near River Parade adjacent to the Field River mouth. The data from this counter over a 12-month period (March 2023 to March 24) is shown below.



Asset condition

The service level that the community is willing to accept for condition of its Coastal Walkway Assets is described in shown below.

Community level of service	Achieved by	Target	Tolerance range
CoM's Coastal Walkway is constructed and maintained to a high quality and safety standard.	• Frequently monitoring the network for Defects and undertaking Condition assessments. • Maintaining and renewing assets at or before condition intervention point.	90% of assessed assets in very good to fair condition.	**On track - 90% to 100%** **Monitor - 70% to 89.9%** **Off track - 0% to 69.9%**

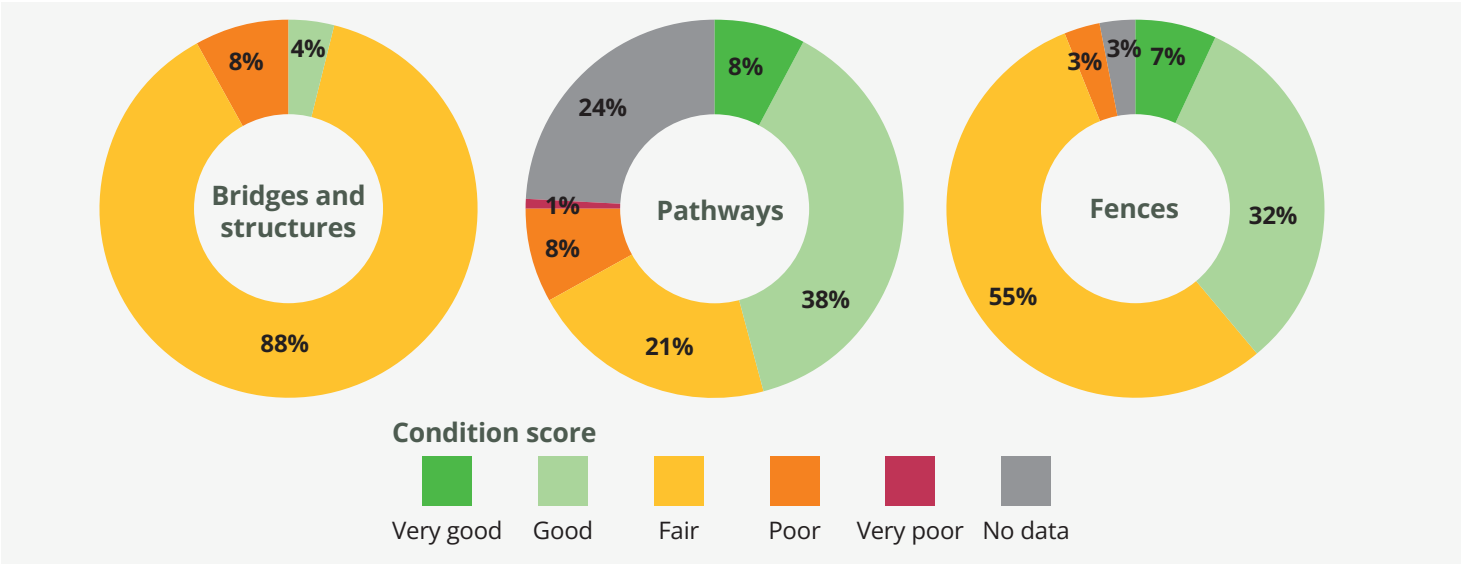
Coastal Walkway asset condition

Coastal Walkway asset condition is rated using the descriptions outlined IPWEA Practice Notes and a summary outlined in the table below. A condition audit was undertaken in 2019 to provide an up-to-date condition assessment of the network, this can be seen below.

The data shows that over 84% of assets are either rated Very Good, Good or Fair. This represents that the Coastal Walkway network performance is 'Monitor' and within the target range.

The pathways group of assets which includes steps and paths has a relatively large proportion of data missing on asset condition and has been identified as an improvement action on page 36.

Grade	Coastal Walkway Asset Condition Rating	Assessed Assets	%
1	Very Good: Sound physical condition. Insignificant deterioration. Asset likely to perform adequately without major work for 25 years of more.	Bridges, pathways and fences	10
2	Good: Acceptable physical condition. Minor deterioration / minor defects evident. Negligible short term failure but potential for deterioration in long-term (20 year or more).	Bridges, pathways and fences	41
3	Fair: Moderate to significant deterioration evident. Minor components or isolated sections of the asset need replacement or repair now but not affecting short term structural integrity. Failure unlikely within the next 4 years but further deterioration likely and major replacement likely within the next 10 - 20 years.	Bridges, pathways and fences	33
4	Poor: Serious deterioration and significant defects evident affecting structural integrity. Failure likely in short to medium term. Likely need to replace most of all of asset within the next 4 years.	Bridges, pathways and fences	7
5	Very Poor: Failed or failure imminent (less than 12 months). Immediate need to replace most or all of the asset. Major work or replacement required urgently.	Bridges, pathways and fences	1
Unknown	Condition or construction date information not available.		8



Asset function

The service level that the community is willing to accept for function of its Coastal Walkway assets is described below.

Community level of service	Achieved by	Target	Tolerance range
CoM's Coastal Walkway is planned, designed, and constructed to align with the Coastal Walkway Plan.	• Function is measured using the current network vs what is left to build.	90% of assessed assets are functioning 'very good'.	**On track - 90% to 100%** **Monitor - 70% to 89.9%** **Off track - 0% to 69.9%**

The function of the Coastal Walkway assets can be measured using a scale of 1 (Very Good) to 5 (Very Poor) and answering a statement of what is left to build of the network. See the table on the right for details on the function rating.

The data shows that 96% of assets are rated Very Good. This represents that the network performance is 'On Track' and within the target range.

Grade	Coastal Asset Function Rating	Assessed assets
1	Very Good Asset constructed (5.75km built)	96%
2	N/A	N/A
3	N/A	N/A
4	N/A	N/A
5	Very Poor: Asset not constructed (0.25km left to build)	4%

Asset capacity

The service level that the community is willing to accept for capacity of its Coastal Walkway assets is described below.

Community level of service	Achieved by	Target	Tolerance range
CoM's Coastal Walkway is built to the agreed trail rating standard.	• Existing cells not built to current endorsed standards to be planned and upgraded as outlined in the Coastal Walkway Plan.	90% of assessed assets are functioning 'very good'.	**On track - 90% to 100%** **Monitor - 70% to 89.9%** **Off track - 0% to 69.9%**

The capacity of the Coastal Walkway assets can be measured using a scale of 1 (Very Good) and 5 (Very Poor) and answering a statement of 'does the existing asset have the capacity to operate effectively'. This will determine if assets may need to be upgraded to meet the service level of capacity. See the table on the right for details on the capacity rating.

The data shows that 100% of assets are rated Very Good. This represents that the network performance is 'On Track' and within the target range.

Grade	Coastal Assets Capacity Description	Asset capacity
1	Very Good: Constructed to the endorsed trial rating and service level.	100%
2	N/A	N/A
3	N/A	N/A
4	N/A	N/A
5	Very Poor: Not constructed to the endorsed trial rating and service level.	0%

Resilience

The service level that the community is willing to accept for resilience of its Coastal Walkway assets is described below. No targets have been set for the service level of resilience. This will need further consideration and assessment in future Asset Management Plans.

Community level of service	Achieved by	Target	Tolerance range
CoM's Coastal Walkway is planned, designed and constructed considering current and future demands.	• Maintaining CoM Standards Drawings, Technical Specifications and Guidelines. • Seek partnerships and trials for new methods, products and techniques in design and construction. • Implementing Biodiversity Plan and Coastal Monitoring Plan.	Not established	Not established

Operations expenditure (OpEx)

Planning

The activities, initiatives, plans, strategies and wages required to plan the Coastal Walkway assets infrastructure over the 10 years is listed in below.

**all figures are in ,000 format*

Activity	2024/25	2025/26	2026/27	2027/2/8	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Coastal Walkway Plan Review	$80					$50				
Total	**$80**					**$50**				

Operations

There are no activities, initiatives and wages required to operate the Coastal Walkway assets infrastructure over the 10 years.

It should be noted that Remnant Native Vegetation care is undertaken along the Hallett Headland Coastal Reserve in the Coastal Walkway. This improves health, aesthetics and ecological function of all biodiversity reserves within/near the walkway by performing ongoing maintenance including weed control, fuel reduction and revegetation. Budget for this activity is included in the CoM Biodiversity Plan 2024-2029.

Note that other operational activities and costs associated with assets such as drinking fountains, bins and graffiti removal is located within the Open Space AMP.

Maintenance

The activities and wages required to maintain the Coastal Walkway assets infrastructure over the 10 years is listed below.

Activity	2024/25	2025/26	2026/27	2027/2/8	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Coastal Walkway Proactive Bridge Maintenance • Activities outlined in the bridge audit reports to undertake on a periodic frequency	$30	$30	$30	$30	$30	$30	$30	$30	$30	$30
Coastal Walkway Maintenance • Defects identified through customer events or through the inspection programs	$142	$133	$137	$120	$123	$103	$71	$75	$70	$72
Total	**$172**	**$163**	**$167**	**$150**	**$153**	**$133**	**$101**	**$105**	**$100**	**$102**

Monitoring

The activities and wages required to monitor the Coastal Walkway assets infrastructure over the 10 years is listed below.

Activity	2024/25	2025/26	2026/27	2027/2/8	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Bridge and Structures Inspections • Comprehensive (level 3) audit on bridge and structures in the Coastal Walkway. • Service level - 2 yearly.		$20		$20		$20		$20		$20
Coastal Walkway Condition Audit • Service level – 4 yearly. • Condition and Defect assessment on walkway infrastructure (excluding bridges and structures).	$80				$80				$80	
Coastal Walkway Defect Inspections • Defect inspection. • Service level - 6 monthly.	$7.5	$15	$15	$15	$7.5	$15	$15	$15	$7.5	$15
Post Storm Coastal Walkway Defect Inspections • Critical assets inspected post storm events.	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
Coastal Cliff and Embankment Monitoring*	$20	$20	$20	$20	$20	$20	$20	$20	$20	$20
Coastal Walkway Pedestrian Counters.	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2
Total	**$110.5**	**$58**	**$38**	**$78**	**$110.5**	**$58**	**$38**	**$78**	**$110.5**	**$63**

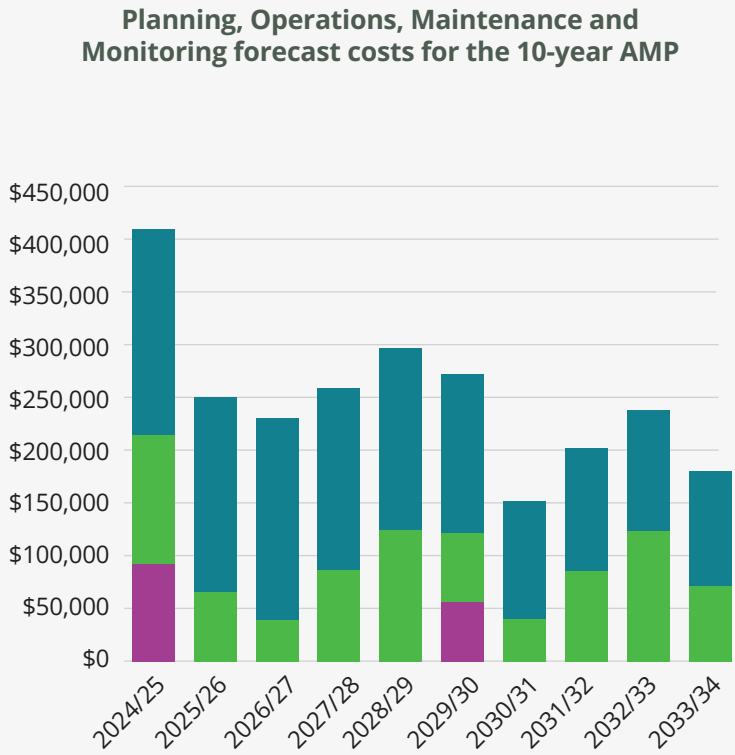
**all figures are in ,000 format*

** Action item from the CoM Coastal Climate Monitoring Plan (2019-2014)*

Operations expenditure summary

Cost Elements: The Planning, Operations, Maintenance and Monitoring costs comprise the direct costs of providing the service including Council labour, Contractor services, Plant and Equipment Hire and Specialist Contractors for monitoring and planning activities. The chart below shows the cost per year for each category of operational expenditure.

The Operational Expenditure budget levels of this plan are sufficient to meet the current service levels.



Capital Expenditure (CapEx)

Renewal

The activities, management and wages required to renewal the Coastal Walkway assets over the 10 years is listed below.

Renewal is defined as replacing the existing Coastal Walkway asset to the modern-day equivalent. Typically this occurs when the condition of the asset is at or beyond the intervention level for renewal. The criterion for renewal is:

- When 40 per cent of the asset segment has defects (full renewal)
- When the condition of the asset is 4 (IPWEA rating defined in related Practice Notes) or above.

Activity	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Coastal Walkway Design Costs • Costs associated with the design for cells requiring renewal (Refer to the Coastal Walkway Plan)*	$140	$68	-	$167	-	$84	$88	-	$160	-
Coastal Walkway Renewal Costs • Costs associated with the construction for cells requiring renewal (Refer to the Coastal Walkway Plan)*	-	$1,578	$1,578	-	$1,674	$1,674	$1,400	$313	-	$1,680
Total	**$140**	**$1,646**	**$1,578**	**$167**	**$1,674**	**$1,758**	**$1,488**	**$313**	**$160**	**$1,680**

**all figures are in ,000 format*

**Note that the Coastal Walkway Plan 2025-2030 will be reviewed in 24/25. Updates to the schedule and costs will be included in future asset management plans and annual expenditure forecast reviews.*

Creation

There are no current activities, construction, management and/or wages required to create Coastal Walkway assets infrastructure over the 10 years.

The creation of Coastal Walkway assets will be defined through:

- The Coastal Walkway Plan which will identify what infrastructure is required (to be reviewed in 24/25).
- Requests made by the public or staff on an issue (not identified through the Coastal Walkway Plan) will be placed on the Coastal Walkway Prioritisation Matrix and assessed against other projects.

Any endorsed plans for new assets or increase in service levels will be reflected into the next iteration of the Asset Management Plans.

Activity	2024/25	2025/26	2026/27	2027/2/8	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Coastal Walkway Beach Access Structures Decommissioning • Disposal of beach access structures (Refer to the Coastal Walkway Plan)*	-	$100	-	-	-	-	-	-	-	-
Total	**-**	**$100**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Disposal

The activities, management and wages required to dispose of Coastal Walkway assets over the 10 years is listed on the left.

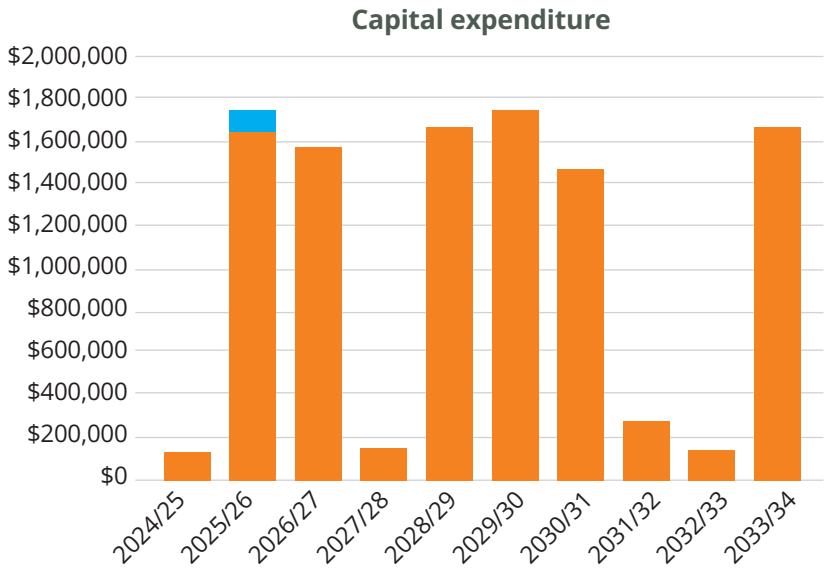
**all figures are in ,000 format*

**Note that the Coastal Walkway Plan 2025-2030 will be reviewed in 24/25. Updates to the schedule and costs will be included in future asset management plans and annual expenditure forecast reviews.*

Capital expenditure summary

Cost Elements: The renewal and creation comprise the direct costs of Council labour, Plant and Equipment Hire and Contractor services. The chart on the right shows the cost per year for Renewal and Creation categories of expenditure.

The Renewal and Creation budget levels of this plan are sufficient to meet the current service levels.



Risk management

Council's Risk Management Policy sets the overall framework for addressing risk within the framework of ISO31000.

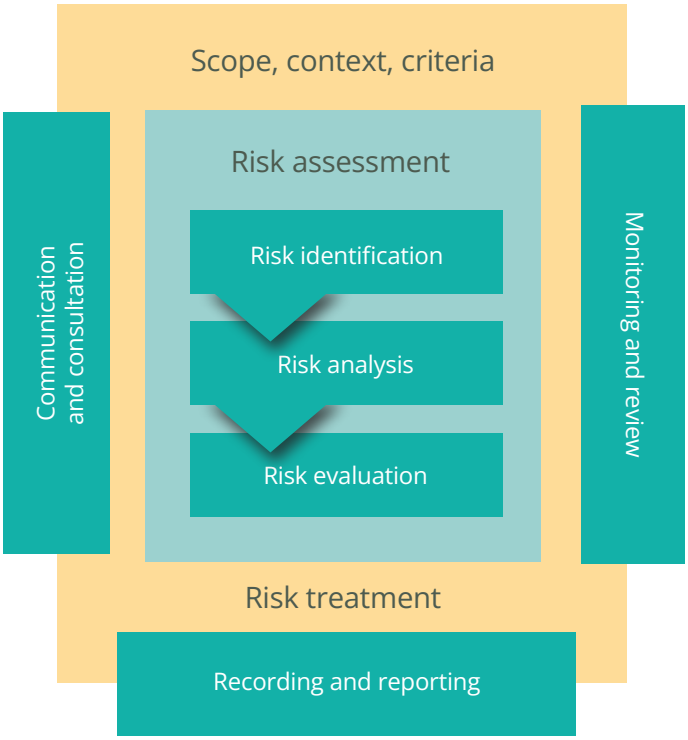
The elements of this framework are:

- Risk Management Context: Establishes the objectives, stakeholders, key issues, and criteria against which risks will be evaluated.
- Identify the Risk: Identifies what risk events are likely to impact on assets and services.
- Analyse the Risk: Reviews the existing controls and then analyses the likelihood of an event occurring and the consequence of the event to determine the level of risk.
- Evaluate the Risk: Assesses and ranks the identified risks in a Risk Register.
- Treat the Risks: Identifies actions to reduce/ control the risk.

Council manages its Coastal Walkway assets in line with the *Local Government Act*, specifically Section 244 liability for injury, damage, or loss on community land.

- High level or greater risks are reported in this AMP, and none have been identified according to the criteria of council's risk matrix.
- The impacts of sea level rise and storm surges including inundation and erosion in Coastal areas because of climate change in coming years has been identified on page 19 and in the Improvement Plan on page 36.

Risk Management Process from ISO 31000:2018



Critical assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. For the Coastal Walkway, critical assets include all bridge structures on the Coastal Walkway.

What we cannot do

The forecast budget is matched to the planned budget which enables the outcomes of this AMP to be achieved.

Financial summary

Financial sustainability

Sustainability of service delivery

Two key indicators of sustainable service delivery are considered in the Coastal Walkway AMP:

1. The forecast renewals are funded over the life of this plan to ensure the continuity of function that the asset provides. Assets are scheduled for renewal based on an end of estimated useful life.
2. OpEx is funded to ensure the day to day management and integrity of the asset to ensure the required levels of service are met.

This AMP is used to inform the LTFP, through an iterative process balancing cost, performance, and risk. As a part of its Annual Business Planning process, CoM undertakes a review of forecast asset management expenditures. This revised forecast annual funding requirement is incorporated into Council's currently adopted Annual Business Plan and Long-Term Financial Plan.

10-year financial planning period

This AMP identifies the OpEx and CapEx required to provide an agreed level of service to the community over a 10-year period.

This forecast is compared with the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

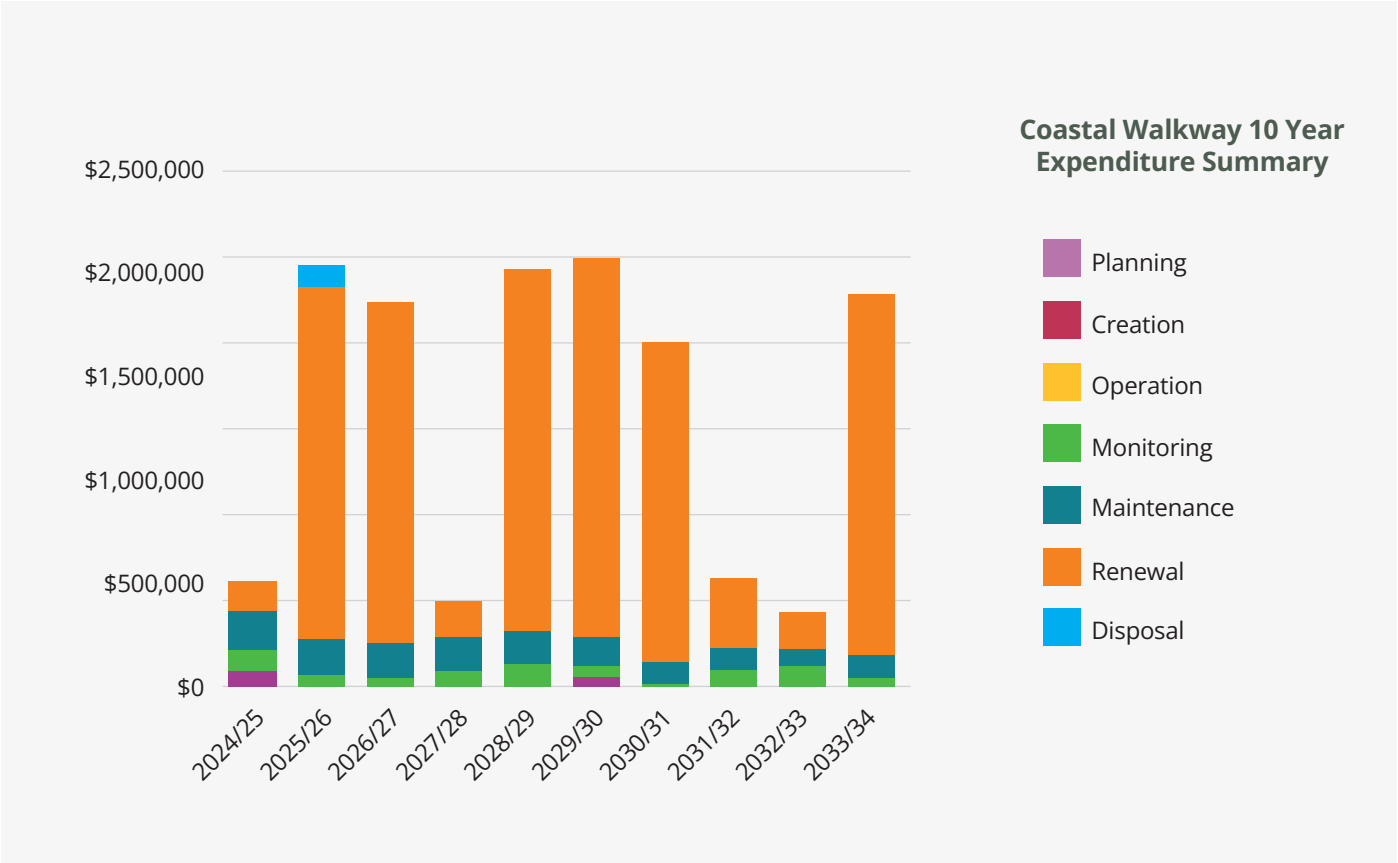
Forecast outlays for the Long Term Financial Plan

Funding Allocation for the Long Term Financial Plan

Funding allocation	10 year	Average annual cost
Operational Cost (OpEx)	$2,218,500	$221,850
Capital Cost (CapEx)	$10,704,800	$1,070,480
Total	**$12,923,300**	**$1,292,330**

Coastal walkway assets forecast 10-year expenditure for each asset lifecycle phase from 2024/25 to 2033/34

Year	Planning	Creation	Operation	Monitoring	Maintenance	Renewal	Disposal	Forecast Total
2024/25	80,000	0	0	110,500	172,000	140,000	0	$502,500
2025/26	0	0	0	58,000	163,000	1,646,200	100,000	$1,967,200
2026/27	0	0	0	38,000	167,000	1,578,200	0	$1,783,200
2027/28	0	0	0	78,000	150,000	166,400	0	$394,400
2028/29	0	0	0	110,500	153,000	1,674,400	0	$1,937,900
2029/30	50,000	0	0	58,000	133,000	1,758,400	0	$1,999,400
2030/31	0	0	0	38,000	101,000	1,488,000	0	$1,627,000
2031/32	0	0	0	78,000	105,000	313,200	0	$496,200
2032/33	0	0	0	110,500	100,000	160,000	0	$370,500
2033/34	0	0	0	63,000	102,000	1,680,000	0	$1,845,000
Total	**$130,000**	**$0**	**$0**	**$742,500**	**$1,346,000**	**$10,604,800**	**$100,000**	**$12,923,300**



Valuation forecasts

The best available estimate of the value of assets included in this AMP are shown below for the existing assets. Note that these will be reduced as new projects come online in 2024 replacing some of these assets. The asset values include the full cost of construction.

Existing Assets Valuation:

Accumulated Depreciation:	**$6,062,339**
Depreciated Replacement Cost:	**$5,627,398**
Annual Depreciation:	**$318,242**

Key assumptions in financial forecasts

- All data used in this AMP is current as of September 2024
- The forecast 10-year expenditure profile is provided in 2024 dollars.
- Long-Term Financial Plan will be adjusted annually to account for cost index increases and utility cost anomalies.
- Coastal Walkway asset estimated renewal dates are driven by condition
- Historical trends in storm events, maintenance and monitoring are reliable forecast for future budget planning.
- Climate Risk Assessments are used as a guide to inform budget planning.
- Community levels of service expectations remain consistent.
- Changes in legislation do not impact the service levels.
- Resources availability is not impacted because of pandemic, or other State Emergencies.

Forecast reliability and data confidence

The forecast costs, proposed budgets, and valuation projections in this AMP are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified in accordance with the table below.

Data confidence definitions and grades

Confidence grade	Description
A. Very high	Data based on sound records, procedures, investigations, and analysis, documented properly, and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%.
B. High	Data based on sound records, procedures, investigations, and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%.
C. Medium	Data based on sound records, procedures, investigations, and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%.
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%.
E. Very low	None or very little data held.

The Coastal Walkway AMP has a level of confidence for each dataset, see below table.

Data confidence assessment for different sections of the AMP

Data	Confidence Assessment
Asset Condition	C
Asset Function	A
Asset Capacity	C
Asset Age Profile	C
Replacement Value	C
Service Levels	C
Demand drivers	B
Asset Creation and Renewal Forecasts	C
Operating and Maintenance Forecast	C

Monitoring and review

This AMP will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

Cost changes will be reviewed annually, and any changes needed to the forecasts outlay for the Long Term Financial Plan will be published separately to this plan.

The AMP will be reviewed and updated every four years to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, creation and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

Improvement plan

The following improvement initiatives were identified as part of the development of this AMP and show alignment with the overall Council Strategy.

Alignment	Task	Resource	Completion
E1	Update the Coastal Walkway AMP service levels and expenditure profile when the Coastal Walkway Plan is completed.	Unit Manager Engineering / Coordinator Coastal Walkway	June 2025
I2	Review and revise chart of accounts to facilitate consistent and accurate cost allocation for all asset expenditure aligned with the Asset Management Lifecycle.	Manager Engineering, Assets and Environment	2025
I2	Implement a process to update this Asset Management Plan during annual budget planning processes to show any material changes in service levels and/or resources.	Manager Engineering, Assets and Environment	2025
I2	Improve the completeness and accuracy of condition data for coastal walkway assets.	Infrastructure Engineer	June 2025
I2	Investigate reallocation of coastal walkway assets into the Transport AMP.	Unit Manager Engineering	2027
I2	Consider incorporation of coastal natural assets in Coastal Walkway Asset Management Plan and AMIS.	Unit Manager Environmental Sustainability	2027
I2	Investigate changes to AMIS data structures to align with best practice and to provide consistency across different business units including Finance.	Unit Manager Engineering	June 2026
I2	Improve valuations information and alignment.	Finance Treasury Accountant Unit Manager Asset Solutions	2025
I2	Investigate creation of Coastal protection policy for CoM with associated management strategies.	Unit Manager Environmental Sustainability	2025

8375 6600

council@marion.sa.gov.au

@CityofMarion

@CityofMarion

City of Marion

marion.sa.gov.au

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