

**City of Marion**



## **Marion Coast Park Walking Trail**

# **Asset Management Plan**



Scenario 1 Version 5

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## 1. EXECUTIVE SUMMARY

### Context

Coast Park is a State Government initiative to develop a 70 km linear park along the Adelaide metropolitan coastline from Sellicks Beach to North Haven. The coast park includes where possible, a continuous trail for walkers and cyclists. The Marion Coast Park is the 7.2km long section between Hallett Cove and Marino.

The Marion Coast Park contains a walking trail consisting of sections of elevated timber walkways and areas of gravel path.

In 2012–2013, Tonkin Consulting and Swanbury Penglase Architects (SPA) undertook a series of projects reviewing the current condition and future options for the trail.

Swanbury Penglase Architects (SPA) Report (ref# 11137) details concept plans to upgrade 18 areas of the path to increase accessibility to all user groups.

This asset management plan details the costs to maintain the path in its current form and provide a base from which Council can assess the costs and benefits of proceeding with some or all of the proposed SPA upgrades.

The plan is prepared over a period of 20 years to influence the development of Councils Long Term Financial Plan over a timeframe of 10 years. The Long Term financial plan in turn can be influenced by other factors including economic circumstances beyond the control of Council.

### Assets Servicing the Coast Park Walking Trail

The Walking trail and associated assets comprises:

- 6.5km of paths
- 0.56km of timber structures (other than path)
- 5.5km of fencing
- 26 links to the beach and suburbs
- 0.73km of balustrade
- signs, benches, viewing points and three bridges

The infrastructure assets have a replacement value of \$1.48m (Council audited valuations). It should be noted that the extensive survey undertaken by Tonkin Consulting found assets with a replacement cost of \$10.86 million (2015), which are detailed above.

The plan has been developed in accordance with Council's adopted Asset Management Policy (2014) with a focus on maintenance and like for like renewals (rather than upgrades and new. Accordingly any

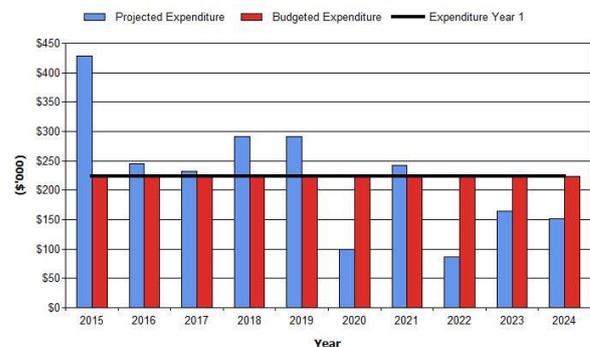
upgrades or new asset expenditure will require Council prioritisation.

### What does it cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$2,233,000 or \$223,000 on average per year.

Estimated available funding for this period is \$2,230,000 or \$223,000 on average per year which is 100 % of the cost to provide the service. Projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the Long Term Financial Plan are shown in the graph below.

Marion City - Projected and Budget Expenditure for (Coastal Walking Trail\_S1\_V5)



This document represents Councils second review of the AMP. In reviewing the initial plan funds have been sought through the LTFP to provide 100% of the identified renewal funds required over 10 years and annual maintenance funds that total 0.8% of the \$10.86m replacement cost. Changes to Council rates or service standards may impact on the forecasts outlined in this plan.

### What is included in financial projections

We plan to provide services for the following:

- Operation, maintenance, renewal and upgrade of the walking trail and associated infrastructure to meet service levels set in annual budgets.
- No major upgrades within the 10 year planning period.
- Rectify identified defects.

### What is not included in financial projections

We do **not** have enough funding to provide improved or new services. Works and services that cannot be provided under present funding levels are:

- Path upgrades designed by Swanbury Penglase Architects (SPA). Eighteen sites were identified for

upgrade by SPA with a total upgrade cost of \$14.7 million.

- Operation, maintenance, renewal and upgrade of the walking trail in excess of \$223,000 pa.

### **Managing the Risks**

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Rapid deterioration or failure of elements.
- Safety/Access for all users

We will endeavour to manage these risks within available funding by:

- Treating identified defects
- Periodic Inspections and associated maintenance

### **Confidence Levels**

This AM Plan is based on medium level of confidence information.

### **The Next Steps**

The actions resulting from this asset management plan are:

- Consider proposed SPA planned upgrades
- Integrate asset & financial systems
- Update existing valuations

### **Questions you may have**

#### **What is this plan about?**

This asset management plan covers the infrastructure assets that form part of the Marion Coast Park Walking Trail. These assets include the path itself along with associated beach links and street furniture. These assets help in providing the community an opportunity to enjoy an area of cultural and environmental significance.

#### **What is an Asset Management Plan?**

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An asset management plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

## 2. INTRODUCTION

### 2.1 Background

This asset management plan is to demonstrate proactive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 20 year planning period.

The asset management plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual<sup>1</sup>.

The asset management plan is to be read in conjunction with the City of Marion's, Community Plan, Asset Management Policy, and the following associated planning documents:

- Planning SA – Adelaide Metropolitan Coastal Park Concept Plan
- City of Marion – Walking & Cycling Strategy

Coast Park extends along the Adelaide Metropolitan Coastline from Sellicks Beach to North Haven. The Marion Coast Park is the 7.2km long section between Hallett Cove and Marino. The Marion Coastal Walking Trail was developed by the State Government in the mid to late 1990's with the aim of providing the local community with a significant recreational asset located on a stretch of Adelaide's coastline that is recognised for its high level of visual significance.

The trail was constructed in a relatively 'ad hoc' manner, with little background planning to justify its alignment. This has resulted in a pathway that is challenging to walk in certain sections through the many steps involved in traversing the terrain. The structures (stairways secured to cliff faces, boardwalks and bridges) involved in the walkway also present a challenge for renewal and maintenance activities.

In addition to the stunning geological formations, native coastal vegetation and sites of indigenous cultural significance, the Marion Coastal Park contains walking trails, lookouts and other public infrastructure such as bins and benches.

Swanbury Penglase Architects (SPA) have produced a report, in 2013, detailing 18 potential upgrade sites along the trail. The key objectives of the proposed upgrades are:

- To improve the recreational values of the trail i.e. walking, sight-seeing, jogging and cycling.
- To provide safer access for a range of trail users.
- To maximise opportunities for improving user experience and immersion within an iconic coastal landscape.
- To design for trails to accommodate pedestrians and cyclists.
- To improve trail amenities such as areas for rest and picnics.
- To strengthen links to the surrounding suburban environment.

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are provided to allow residents and visitors to have access to the area for recreation and tourism opportunities whilst protecting the natural environment.

The renewal costs shown in Table 2.1 have been estimated by Tonkin Consulting as part of an extensive survey they undertook in the preparation of this plan. These figures differ substantially to those recognised in Councils financial statements and a key improvement identified in this plan is to update Councils valuations.

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<sup>1</sup> IPWEA, 2011, Sec 4.2.6, Example of an Asset Management Plan Structure, pp 4 | 24 – 27.

**Table 2.1: Assets covered by this Plan**

Asset category	Dimension	Renewal Cost
Path	6.5km	\$5,402,613
Benches	38 no.	\$76,000
Signs	61 no.	\$18,300
Bins	3 no.	\$5,400
Bridges	3 (37m total length)	\$212,814
Structures	564m	\$3,813,636
Balustrade	728m	\$36,400
Fencing	5.489km	\$171,199
Drainage	36 items	\$26,240
Viewing Points	5 no.	\$112,500
Links	26 no.	\$988,680
<b>TOTAL</b>		<b>\$10,863,782</b>

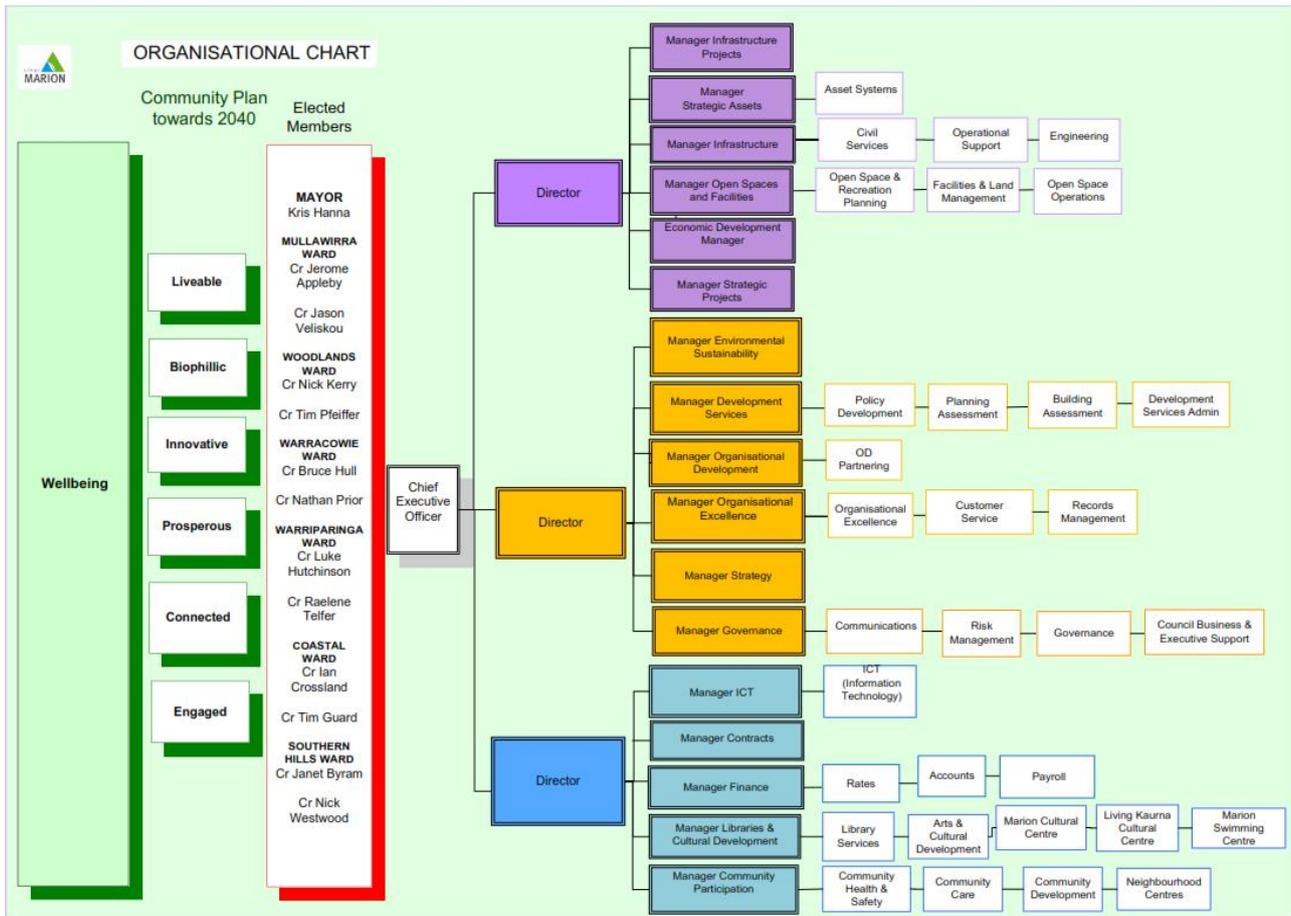
Key stakeholders in the preparation and implementation of this asset management plan are shown in Table 2.2.

**Table 2.2: Key Stakeholders in the AM Plan**

Key Stakeholder	Role in Asset Management Plan
Councillors	<ul style="list-style-type: none"> <li>• Represent needs of community/shareholders,</li> <li>• Allocate resources to meet the organisation's objectives in providing services while managing risks,</li> <li>• Ensure organisation is financial sustainable.</li> </ul>
Council Staff	<ul style="list-style-type: none"> <li>• Programming of maintenance and capital works, preparation and revision of asset management plans.</li> </ul>
Council Audit Committee	<ul style="list-style-type: none"> <li>• Review and challenge Council financial statements and associated rationale</li> </ul>
Community	Service level expectations as residents and visitors

Our organisational structure for service delivery from infrastructure assets is detailed in Figure 2.1.

**Figure 2.1: City of Marion – Organisational Structure**



## 2.2 Goals and Objectives of Asset Management

The City of Marion exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by ‘purchase’, by contract, construction by our staff, by donation of assets constructed by developers, by co contribution via grant funding and others to meet increased levels of service for open space.

Our goal in managing infrastructure assets is to meet the existing level of service (as amended from time to time, in accordance with Councils Asset Management Policy) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.<sup>2</sup>

<sup>2</sup> Based on IPWEA, 2011, IIMM, Sec 1.2 p 1|7.

### **2.3 Plan Framework**

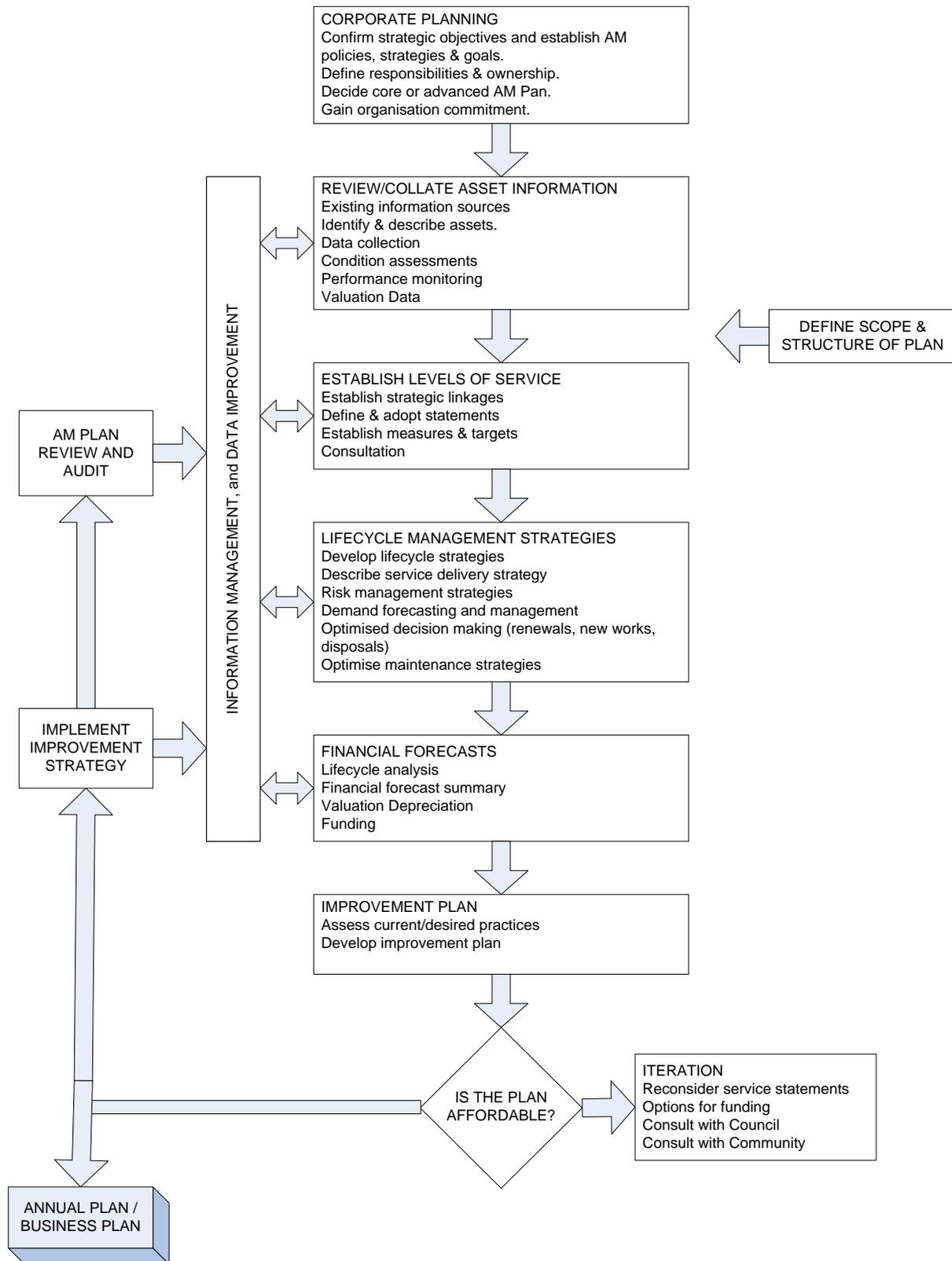
Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by Council,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Life cycle management – how we will manage our existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices,
- Monitoring – how the plan will be monitored to ensure it is meeting the organisation’s objectives,
- Asset management improvement plan.

A road map for preparing an asset management plan is shown in Figure 2.2.

**Figure 2.2: Road Map for preparing an Asset Management Plan**

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11.



## **2.4 Core and Advanced Asset Management**

This asset management plan has been prepared using advanced condition data collected at the individual asset level. Remaining lives have been estimated from this condition data and unit rates applied to the individual assets peculiar to the environment in which they are located.

It has been assumed in the preparation of this plan and Councils current asset management policy that service levels will remain the same and not substantial upgrades will be undertaken.

## **2.5 Community Consultation**

This asset management plan is prepared to facilitate community consultation initially through feedback on public display of draft asset management plans prior to adoption by the Council. Future revisions of the asset management plan will incorporate community consultation on desired / preferred service levels and provide clarity on the costs of providing the service. This will assist the Council and the community in aligning the level of service needed by the community, service risks and consequences with the community's ability and willingness to pay for the service.

### 3. LEVELS OF SERVICE

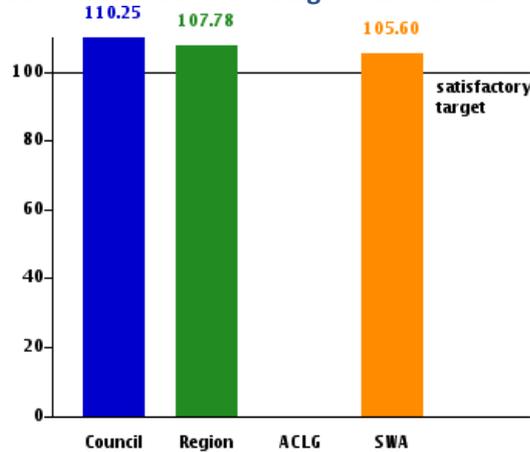
#### 3.1 Customer Research and Expectations

Council participates in the Local Government Association of South Australia Comparative Performance Measures in Local Government Customer Satisfaction survey. This telephone survey polled a sample of residents on their level of satisfaction with Council’s services. The most recent customer satisfaction survey reported above satisfaction levels for the following services

**Table 3.1: Community Satisfaction Survey Levels**

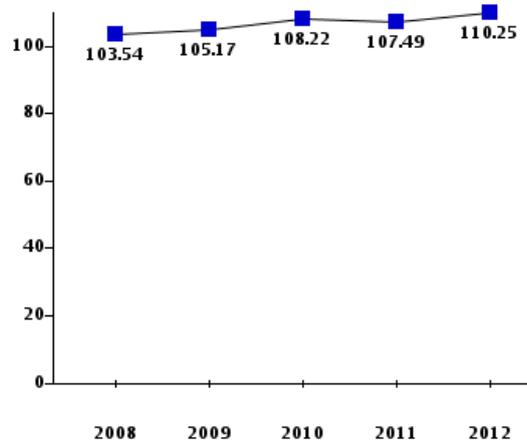
Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
Community satisfaction with asset management	√				

**Community Satisfaction with Asset Management for Marion Council 2012**



- Council: Marion Council
- Region (Local Government Association Region): [Metropolitan](#)
- ACLG (Australian Classification of Local Governments): [Urban Large \(UL\)](#)
- SWA: State Wide Average

### Variation in Community Satisfaction with Asset Management for Previous 5 Years



Source: LGA Customer Satisfaction Survey

Whilst this survey is a valuable tool, other measures are also used to gauge community satisfaction and Council effectiveness in the delivery of services. For example the City of Marion undertook a review of the strategic plan to map out a community vision for 2040 with significant opportunity for the community to input in to the future of the city. The information gathered through this process of community engagement will have a valuable input into future asset management strategies and plans.

### 3.2 Strategic and Corporate Goals

This asset management plan is prepared under the direction of the City of Marion’s Community Plan – Towards 2040.

Our vision is:

#### Wellbeing

The six themes of the Community Plan are:

- Liveable
- Biophilic
- Engaged
- Prosperous
- Innovative
- Connected

The Council is currently working on a Council Plan, which will detail how we aim to turn the community’s aspirations into reality.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 5.2

### 3.3 Legislative Requirements

We have to meet many legislative requirements including Australian and State legislation and State regulations. These include:

**Table 3.2: Legislative Requirements**

Legislation	Requirement
Local Government Act, 1999	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Environmental Protection Act 1993	Sets out the role, purpose, responsibilities and powers of Council relating to protection and preservation of the environment.
Natural Resource Management Act 2004	Sets out the role, purpose, responsibilities and powers of Council relating to managing natural resources.
Australian Accounting Standards	Sets out the financial reporting standards relating to the (re)valuation and depreciation of infrastructure assets.
Local Government (Financial Management and Rating) Amendments Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-term financial Plan.
Civil Liability Act 1936	Liability of road authorities – Section 42, May 2004 inclusion in the Act to provide a replacement for the non-feasance defence consequent to May 2001 High Court judgement.
Development Act 1993	An Act to provide for planning and regulate 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.
Public and Environmental Health Act 1987	An Act dealing with public and environmental health.

### 3.4 Current Levels of Service

We have defined service levels in two terms.

**Community Levels of Service** measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

Quality	How good is the service?
Function	Does it meet users' needs?
Capacity/Utilisation	Is the service over or under used?

**Technical Levels of Service** - Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services such as opening hours, cleansing frequency, mowing frequency, etc.
- Maintenance – the activities necessary to retain an assets as near as practicable to an appropriate service condition (e.g. replacement of stair treads),
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. frequency and cost of fence replacement and elevated walking platforms),

- Upgrade – the activities to provide an higher level of service (e.g. Replicating a path over a more favourable route) or a new service that did not exist previously (e.g. a new bridge). In accordance with Councils asset management policy upgrade has not been considered in the preparation of this plan.

Asset managers plan, implement and control technical service levels to influence the customer service levels.<sup>3</sup>

Our current service levels are detailed in Table 3.3.

**Table 3.3: Current and Desired Service Levels**

Key Performance Measure	Level of Service Objective	Performance Measure Process	Current Level of Service	Optimal Level of Service
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	Customer satisfaction	Customer Survey	Unknown	To be determined
Function	Meets user requirements	Customer Service Requests	10 Customer Service Requests were logged in the last year.	To be determined
Safety	Does not cause user hazard	Insurance Claims	Unknown	Nil Insurance Claims
<b>TECHNICAL LEVELS OF SERVICE</b>				
Condition	Average Condition of Assets (Average Weighted by CRC of assets)	Condition scores (1, good – 5, bad) at periodic inspections. (% consumption)	1.87, average all assets inspected  (47%)	Maintain at current level
Condition	Assets not providing acceptable level of service	Assets past expiry	6 Assets requiring replacements	Nil Assets requiring replacements
Condition	Assets requiring immediate repair/maintenance	Defects recorded at periodic inspections	200 defects recorded at last inspection: <ul style="list-style-type: none"> <li>• Environmental Defects – Erosion, vegetation encroachment, water ponding etc. 74 Locations</li> <li>• Safety Defects – Trip hazard, slippery path 65 Locations</li> <li>• Structural Defects – Corroded steel, split timber etc. 61 Locations</li> </ul>	To be determined

<sup>3</sup> IPWEA, 2011, IIMM, p 2.22

## 4. FUTURE DEMAND

### 4.1 Demand Drivers

Drivers affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

### 4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of the Coastal Walking Trail Assets are identified and are documented in Table 4.1.

### 4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of Coastal Walking Trail Assets are shown in Table 4.1.

**Table 4.1: Demand Drivers, Projections and Impact on Services**

Demand drivers	Present position	Projection	Impact on services
Population	The current population of Marion Council is estimated to be 85,398 <sup>4</sup> in 2013.	It is estimated that the population will grow to 97,867 <sup>5</sup> by 2031. This equates to a growth of 693 people or 0.8% per year.	Increased population will likely result in increased use of the asset which may result in higher maintenance costs.
Accessibility Requirements for disabled and elderly users	At present the walking trails contain large sections that are inappropriate for some trail users including: <ul style="list-style-type: none"> <li>• Extensive sections of steps and landings that do not meet current Australian Design Standards for access.</li> <li>• Some sections of trail are excessively steep and inappropriate for wider community use.</li> <li>• Some sections of trail are experiencing significant erosion problems due to poor and dilapidated surface treatments and unsustainable trail grades.</li> </ul>	Increased demand to provide services to broader group of users.	Requirement to upgrade assets to provide greater access. Swanbury Penglase Architects have identified 18 potential sites for upgrades.
Improve the recreational value of the trail for walking, jogging sight seeing and cycling.	Presently limited facilities for cyclists.	Increased demand for a “shared path” trail suitable for pedestrians and cyclists.	Potential demand to upgrade path assets to replace structures such as stairs (upgrades are presently unfunded in this plan in accordance with Councils asset management policy)
Links to surrounding urban environment.	Series of formal and informal links to the adjacent suburbs.	Increased demand to link trail in to surrounding suburbs.	Creation of additional links and formalising existing informal links.

<sup>4</sup> LGA Directory 2013

<sup>5</sup> Estimate Based on <http://www.id.com.au/>

#### 4.4 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets and (where Council resolves) upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include insuring against risks and managing failures.

In accordance with Councils current asset management policy no new or upgraded assets are included in this plan.

Opportunities identified to date for demand management are shown in Table 4.2. Further opportunities will be developed in future revisions of this asset management plan.

**Table 4.2: Demand Management Plan Summary**

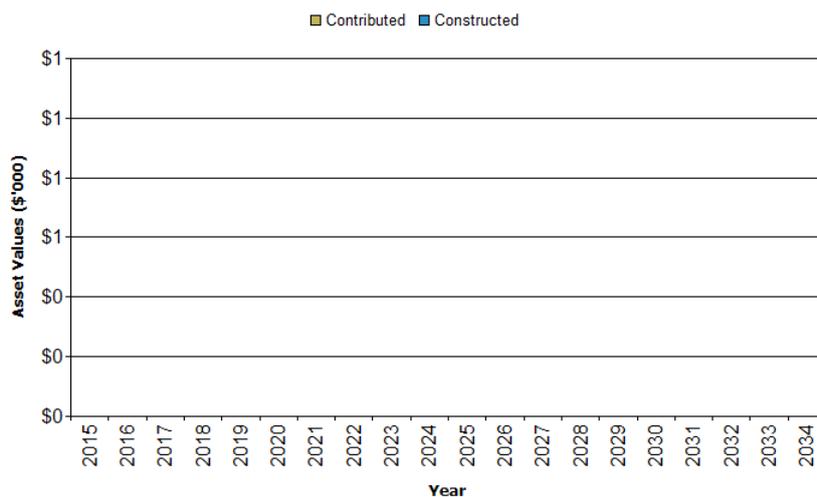
Demand Driver	Impact on Services	Demand Management Plan
Population Growth	Increased maintenance costs	Prioritise maintenance activities
Accessibility Requirements	Increased demand to provide services to broader group of users.	Provide section of path with continuous accessibility. 18 potential upgrade sites have been identified. These would require Councils prioritisation as they are currently not funded

#### 4.5 Asset Programs to meet Demand

In the preparation of this AMP it has been assumed that no new assets will be constructed or no substantial upgrades will be undertaken. Where sections of the path are being renewed it has been assumed that they will be constructed to a modern equivalent asset standard commensurate with the risk environment in which they are located. This may involve reconstructing a gravel path suffering from erosion to a gravel path with timber steps. The graph reflecting the funds dedicated to upgrade / new assets (figure 4.1 above) is accordingly blank.

**Figure 4.1: Upgrade and New Assets to meet Demand**

Marion City - Upgrade & New Assets to meet Demand (Coastal Walking Trail\_S1\_V5)



The Swanbury Penglase Architects Report “Marion Coastal Walking Trails - trail Upgrade report ref#11137” has outlined 18 potential upgrade sites to upgrade the path. An estimate of the associated costs for completing these additional upgrades has been provided and Council can consider these for inclusion in

future revisions of the plan. Table 4.3 summaries the estimated costs for upgrades at each site and a priority has been assigned by Council.

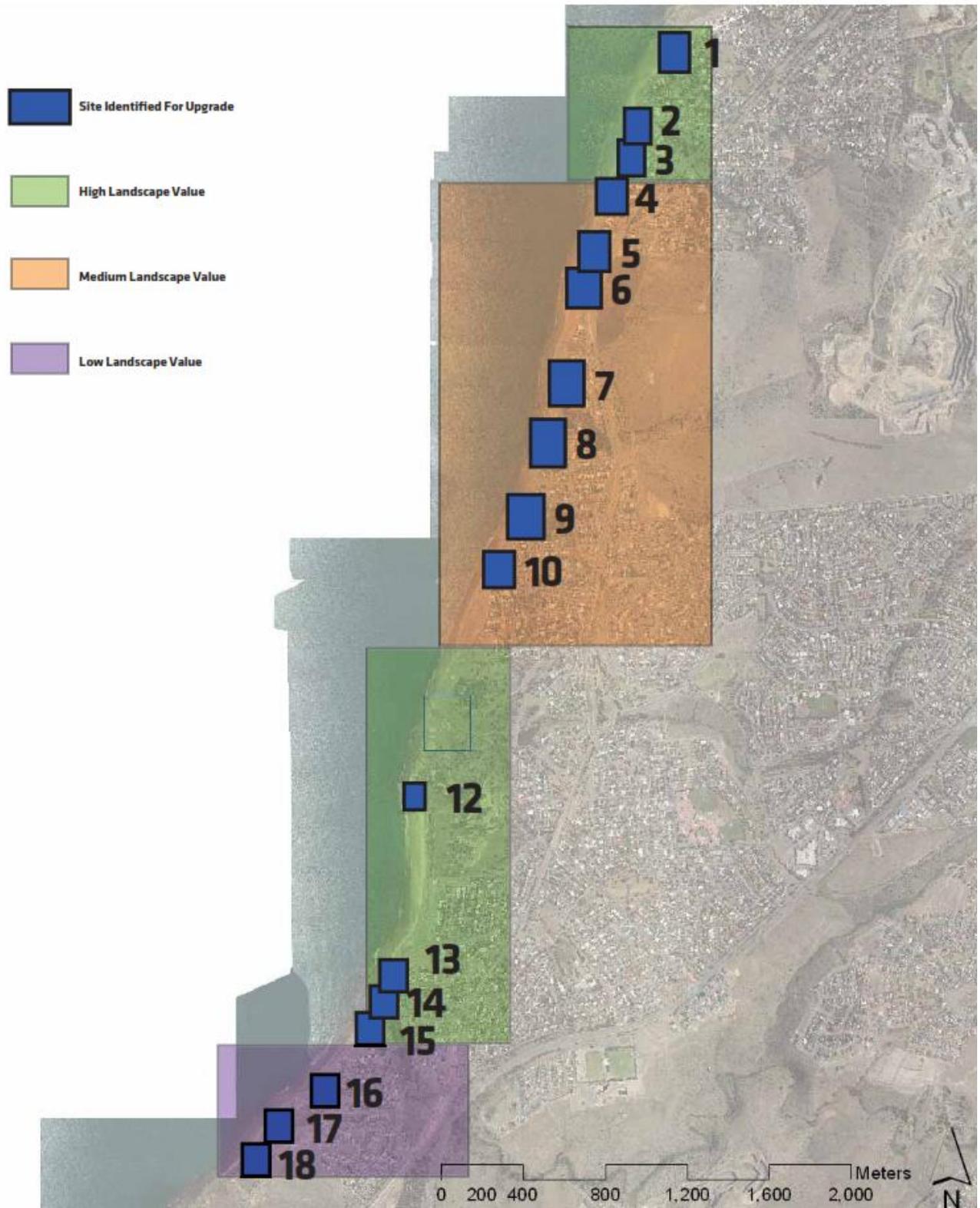
**Table 4.3: Summary of Estimated Costs for Upgrades**

Site Number	Brief description	Upgrade Cost Estimate	Priority Ranking
1	Trailhead at northern path extent including stairs from beach to roadway	\$450,784	14
2	Widen existing trail on Marine Pde and install balustrade	\$72,767	13
3	Widen existing trail on Marine Pde south and provide Armco barrier	\$81,499	15
4	Bring trail off road (Allan St) toward coast via construction of raised boardwalk and provide footbridge	\$1,369,970	10
5	Realign path and provide boardwalk and footbridge	\$364,754	1
6	Realign path and provide footbridge	\$131,617	2
7	Realign path and provide footbridge and boardwalk	\$1,925,977	3
8	Upgrade existing steps and landings, install new sections of boardwalk and provide a new elevated footbridge.	\$2,502,761	7
9	Upgrade sections of natural surface to boardwalk steps and landings. Provide new elevated footbridge at gully crossing	\$1,539,286	6*
10	Upgrade natural surface to boardwalk with a series of steps and landings to negotiate steep gradient and erosive surface. Realign section and include steps and footbridge.	\$845,916	9
11	Bridge to replace steep steps	\$247,010	8
12	Steps and landings to replace eroding gravel / timber steps	\$928,598	4
13	Boardwalk through sand dunes, upgrade link to beach	\$1,223,612	5
14	Footbridge over field river and boardwalk over rocky beach	\$1,323,456	6*
15	New boardwalk and steps to replace gravel path	\$562,992	16
16	New viewing platform, footbridge, realign trail to avoid steep section	\$583,844	17
17	Realign trail and provide viewing platform and boardwalk access	\$462,945	18
18	Realign trail	\$40,365	12
<b>Total</b>		<b>\$14,658,153</b>	

\*Note: The supplied ranking contained two "6" ranks and no "11" rank.



**Example of SPA Upgrade Site**



Upgrade sites identified by Swanbury Penglase Architects

## 5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the organisation plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

### 5.1 Background Data

#### 5.1.1 Physical parameters

The assets covered by this asset management plan are shown in Table 2.1.

The trail itself varies and has wooden board walk bridge and stair sections, gravel paths and paved areas. There are also a range of ancillary assets such as benches, fencing and bins associated with the trail. The trail is generally in good condition with only the shorter useful life assets such as gravel paths showing any major deterioration.

It is understood that the majority of the assets comprising the walking trail were constructed between 1996 and 2006.

#### 5.1.2 Asset capacity and performance

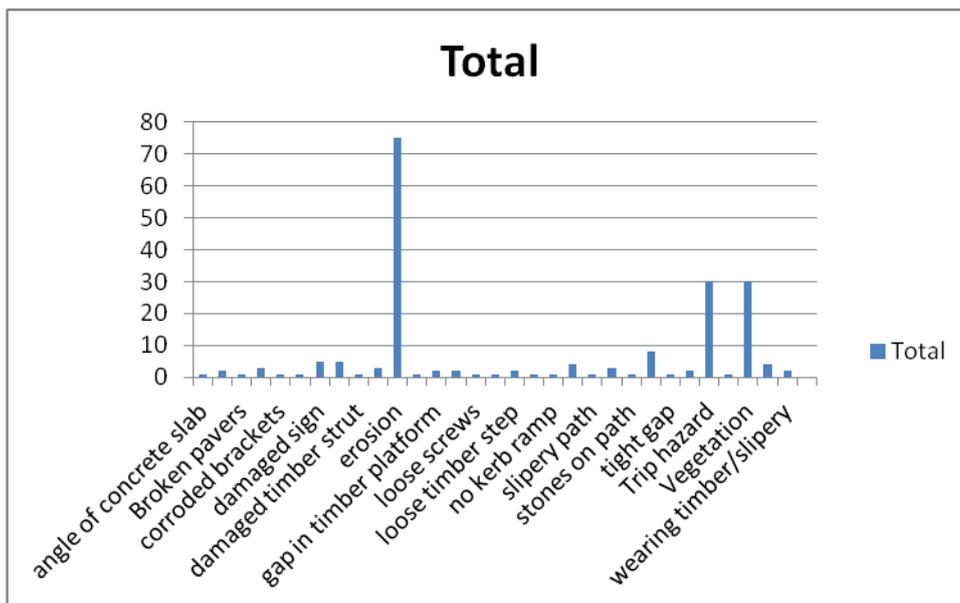
The organisation’s services are generally provided to meet design standards where these are available.

As part of the 2012 inspection of the walking trail locations where deficiencies in service performance were identified were recorded and are summarized in Table 5.1.

**Table 5.1: Known Service Performance Deficiencies**

Location	Service Deficiency
74 Locations	Environmental Defects – Erosion, vegetation encroachment, water ponding etc.
65 Locations	Safety – Trip hazard, slippery path
61 Locations	Structural – Corroded steel, split timber etc.

**Figure 5.2: Identified Service Deficiencies**



The above service deficiencies were identified from visual identification. A photograph of each defect and a GPS location have also been recorded to allow for easy prioritization and location.

Whilst most of the defects can be treated with maintenance expenditure some will require capital expenditure to renew the asset. An estimate of the capital expenditure required to rectify the defects has been included in the renewal profile.

### 5.1.3 Asset condition

Condition is monitored by undertaking a visual inspection of every asset and logging the following condition attributes:

- Structural Condition – A score of 1-5 was assigned based on apparent structural adequacy of the section/item in question, identified only via a visual assessment.
- Age – A score of 1 to 5 was determined based on the apparent age of the asset as a proportion of its useful life.
- Visual – A score of 1-5 was assigned based on the visual appearance of an asset. An asset that is visually as new was assigned a 1 with assets subject to graffiti, staining etc given higher scores.

These scores were aggregated into an overall 1-5 score with the following weightings against the individual condition attributes:

Structural	44.4%
Age	33.3%
Visual	22.2%

The overall score was then monitored against a group of assets inspected in the field. From this inspection a condition of 4 has been assigned as the condition at end of life for the assets and the NAMS Plus acquisition dates set accordingly.

The condition profile of the assets is shown in Figure 5.3.

**Figure 5.3: Asset Condition Profiles**

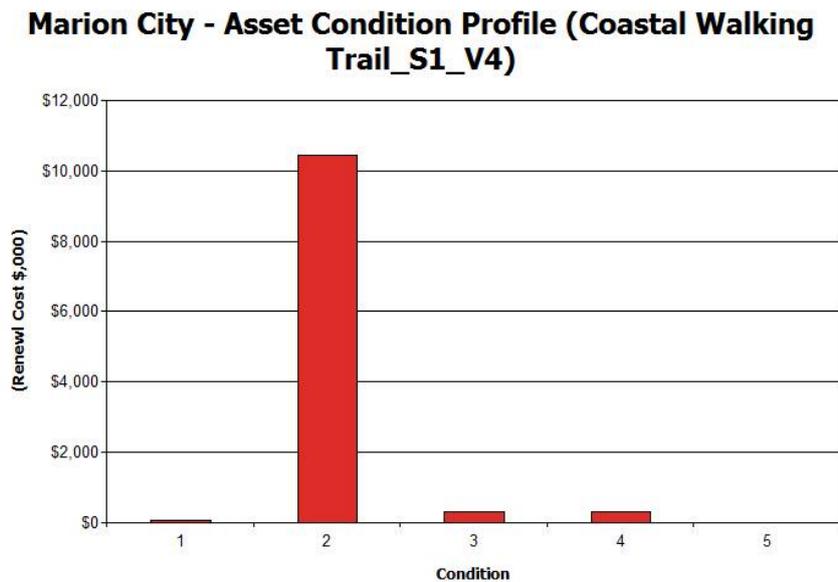


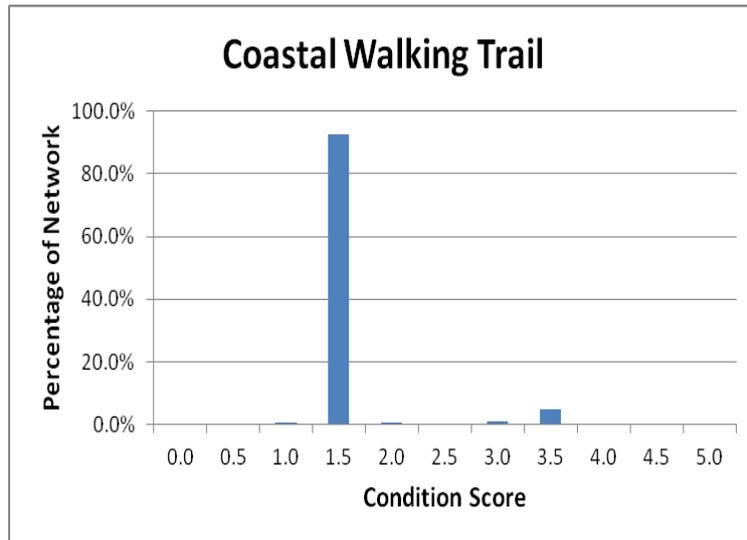
Table 5.1 illustrates the average condition of each of the asset sub-component types from 1 – 5 with an intervention level of 4.

**Table 5.1: Asset Condition**

Asset Type	Sub - component	Average Condition
Path	AC Bitumen	3.55
	Concrete	1.33
	Gravel - Timber Steps	3.03
	Gravel - No Steps	2.60
	Natural	2.72
	Pavers	2.00
	Timber	1.87
Benches	Plastic	1.60
	Timber	1.94
	Steel	1.84
Signs	All Signs	2.68
Bins	All Bins	3.00
Structures	Elevated Timber Structures	1.87
Balustrade	All	1.95
Fencing		2.54
Drainage	All	2.87
Viewing Points	All	1.87
Links	All Links	1.87

Figure 5.4 illustrates the the condition distribution of all assets within the coastal walking trail. The figures are displayed as a percentage of the asset total current replacement cost value.

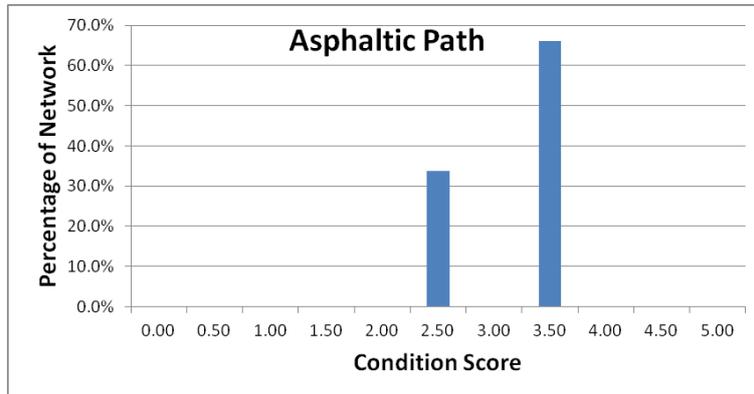
**Figure 5.4**



The majority of the replacement cost is made up of the high cost elevated timber portions of the path and as such the overall path score reflects this.

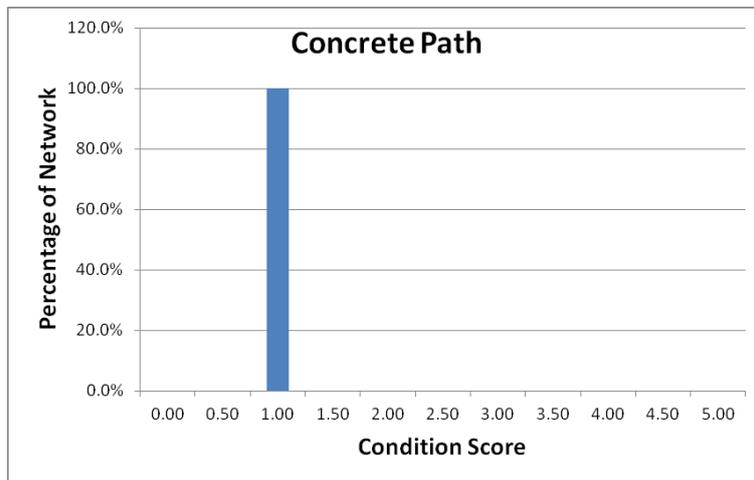
The condition break down of each of the asset sub classes is provided in Figures 5.5 to 5.12 below.

**Figure 5.5**



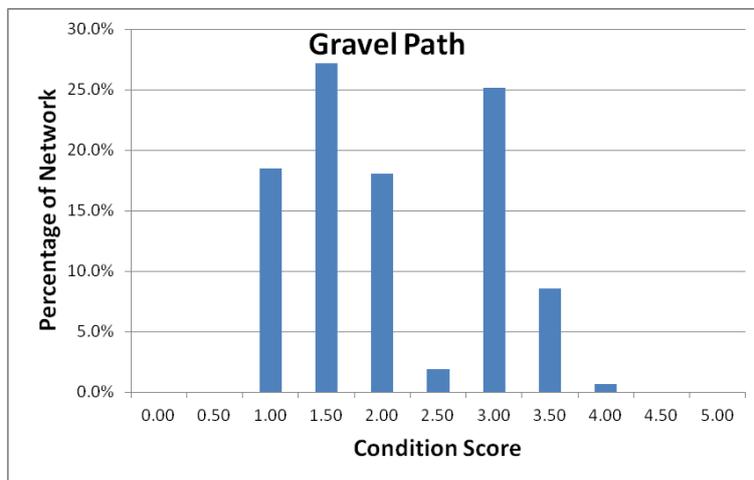
Whilst there are not many asphalt sections of path, those present are reaching the end of their useful life.

**Figure 5.6**



There are only a few minor sections of concrete path and these are all in excellent condition.

**Figure 5.7**



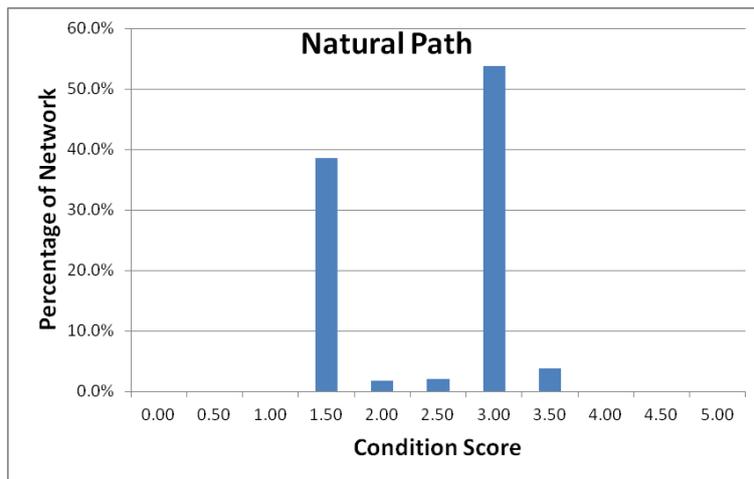
The condition of the gravel path varies from excellent to requiring replacement. This is to be expected considering the nature of the asset.

**Figure 5.8**



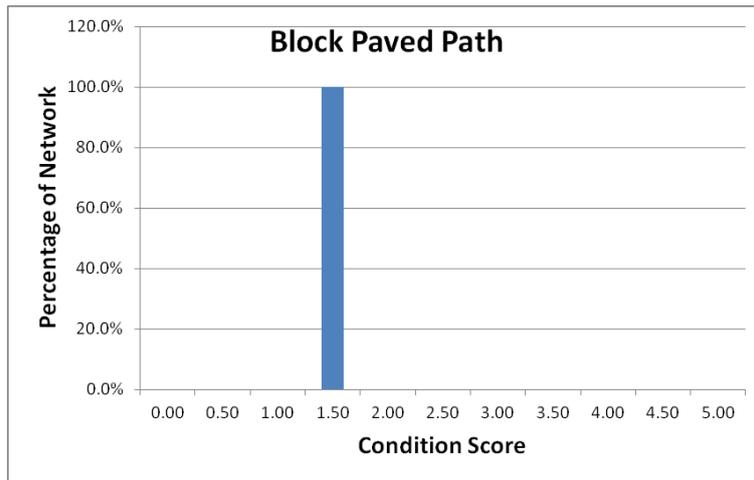
The gravel with timber steps portions in the path vary but a large portion are nearing the end of their useful life.

**Figure 5.9**



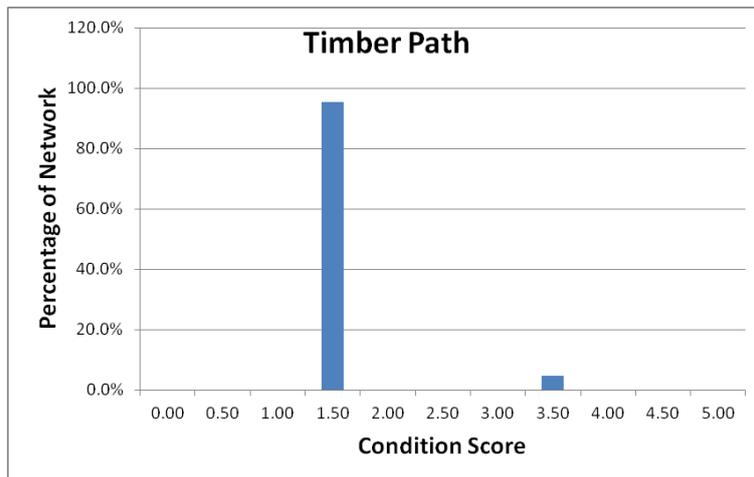
Natural paths are paths that have no surfacing (i.e. no gravel). Over 50% of the natural paths are in poor condition.

**Figure 5.10**



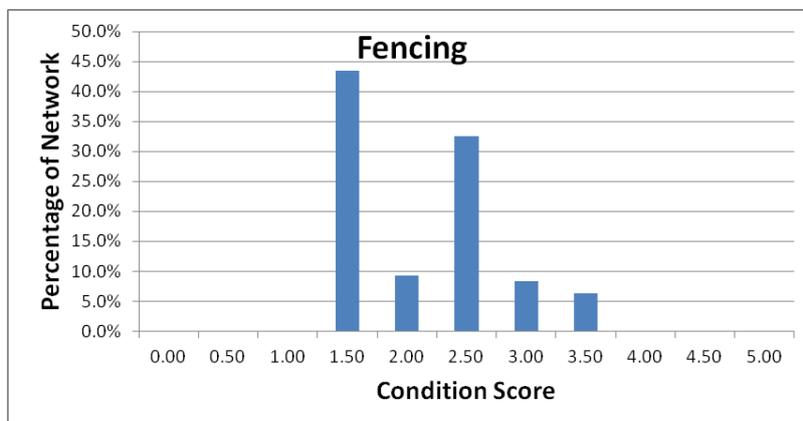
There are only small areas of block paved footpath all of which are in good condition.

**Figure 5.11**



The elevated timber walkways are generally in good condition.

**Figure 5.12**



Condition of fencing varies with the majority in good condition.

Condition is measured using a 1 – 5 grading system<sup>6</sup> as detailed in Table 5.3.

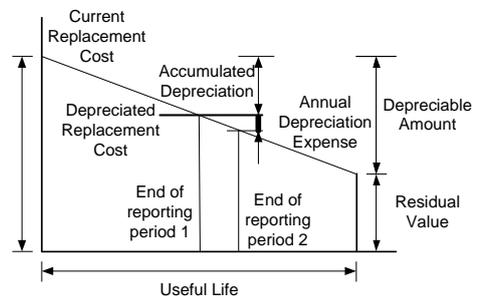
**Table 5.3: Simple Condition Grading Model**

Condition Grading	Description of Condition
1	<b>Very Good:</b> only planned maintenance required
2	<b>Good:</b> minor maintenance required plus planned maintenance
3	<b>Fair:</b> significant maintenance required
4	<b>Poor:</b> significant renewal/rehabilitation required
5	<b>Very Poor:</b> physically unsound and/or beyond rehabilitation

**5.1.4 Asset valuations**

The value of assets as appearing in Councils audited financial statements as 30 June 2014 are shown below.

Current Replacement Cost	\$1.46 m
Depreciable Amount	\$1.46 m
Depreciated Replacement Cost <sup>7</sup>	\$573 k
Annual Depreciation Expense	\$49 k



The above figures have been used in the development of this AMP.

The more recent and more detailed work done by Tonkin Consulting in the collection of the condition and extent data used in the preparation of this AMP, has determined the following valuation figures:

Current Replacement Cost	\$11.13 m
Depreciable Amount	\$11.13 m
Depreciated Replacement Cost <sup>8</sup>	\$5.72 m
Annual Depreciation Expense	\$248 k

Since these more recent figures do not yet appear on Councils financial statements they have not been used in the preparation of this AMP. The renewal program developed from this work has however been used in the development of this plan, accordingly there is a significant disparity when comparing the two sets of figures i.e. required renewals vs annual depreciation.

The unit rates used in the renewal program development include an allowance for the disposal of the existing asset and useful lives were reviewed in May 2013 by Tonkin Consulting and are provided below. The rates and lives assumed make allowance for the difficulty in accessing most of the assets and the marine environment.

<sup>6</sup> IPWEA, 2011, IIMM, Sec 2.5.4, p 2 | 79.

<sup>7</sup> Also reported as Written Down Current Replacement Cost (WDCRC).

<sup>8</sup> Also reported as Written Down Current Replacement Cost (WDCRC).

**Table 5.4: Unit Rates**

Asset Type	Sub - component	Rate	Unit	Life (yrs)
<b>Benches</b>	Plastic	\$2,000	each	20
	Timber	\$2,000	each	20
	Steel	\$2,000	each	20
<b>Bin</b>		\$1,800	each	20
<b>Sign</b>		\$300	each	20
<b>Drainage</b>	Grate Drain	\$500	m	40
	Pipe End	\$300	m	80
	Natural Swale	\$100	m	25
	Box Culvert	\$300	m	80
<b>Path</b>	AC	\$45	m <sup>2</sup>	25
	Concrete	\$90	m <sup>2</sup>	40
	Gravel With Steps	\$80	m <sup>2</sup>	15
	Gravel Without Steps	\$25	m <sup>2</sup>	15
	Natural	\$10	m <sup>2</sup>	20
	Pavers	\$90	m <sup>2</sup>	25
	Timber Boardwalk	\$3,000	m <sup>2</sup>	50
<b>Fence</b>	Post and Wire	\$25	m	25
	Cyclone Mesh and Shade Cloth	\$50	m	25
	Post and Single Rail	\$30	m	25
	Post and Double Rail	\$35	m	25
	Post and Rail with mesh infill	\$60	m	25
<b>Balustrade</b>	Timber Rail	\$50	m	20
<b>Bridges</b>	Timber Bridge	\$5,000	m <sup>2</sup>	50
<b>Viewing Points</b>	Platforms and Decks	Valued Individually	each	50

Various ratios of asset consumption and expenditure have been prepared as follows using the audit valuations as the basis. Do to the disparity between the valuations and actual renewal cost however they are of limited use in gauging asset management performance and trends over time.

Rate of Annual Asset Consumption                      3.30%  
(Depreciation/Depreciable Amount)

Rate of Annual Asset Renewal                              9.30%  
(Capital renewal exp/Depreciable amount)

Rate of Annual Asset Upgrade/New                      0%  
(Capital upgrade exp/Depreciable amount)

Rate of Annual Asset Upgrade/New                      0%  
(including contributed assets)

In 2013 the organisation plans to renew assets at 282% of the rate they are being consumed and will be increasing its asset stock by 0% in the year.

## 5.2 Infrastructure Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a ‘financial shock’ to the organisation. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as ‘Very High’ - requiring immediate corrective action and ‘High’ – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in Table 5.5. A more detailed explanation of the works outlined for specific structures below is provide in a separate structural assessment report.

**Table 5.5: Critical Risks and Treatment Plans**

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Rapid deterioration or failure of structures	Increased replacement costs and safety risks	H	Periodic Inspection	Risk remains if findings from inspection are not completed	To be determined
Structure ID1: Beach access consisting of a top landing, leading to a stair, then a boardwalk and another stair that leads to the beach	Identified as requiring repair from structural inspection.	H	<ul style="list-style-type: none"> <li>Replace up to 2 decking boards and 4 stair treads,</li> <li>Replace 4 stringers, 2 to each stair flight,</li> <li>Replace steel joist hangers,</li> <li>Replace broken handrail, missing baluster and re-fix bottom rail of balustrade to posts</li> </ul>	Risk remains if work is not completed	\$1,800 (estimated)
Structure ID4: Beach access consisting of a total of 13 stair flights with intermediate landings and 3 footbridges	Identified as requiring repair from structural inspection.	H	Replace stringer to 3 <sup>rd</sup> stair flight from beach	Risk remains if work is not completed	\$800 (estimated)
Structure ID6: Elevated Boardwalk	Identified as requiring repair from structural inspection	H	Replace badly split handrail	Risk remains if work is not completed	\$300 (estimated)
Structure ID8: Access across a gully consisting of a total of 9 stair flights with intermediate landings and a short footbridge	Identified as requiring repair from structural inspection	H	Replace badly split pole	Risk remains if work is not completed	\$500 (estimated)
Structure ID10: Beach access consisting of 8 stair flights and intermediate landings with a short footbridge at the top	Identified as requiring repair from structural inspection	H	Replace cracked stringer	Risk remains if work is not completed	\$500 (estimated)
Structure ID11: Series of ramps providing access from a car park to the Coastal Walkway		H	Provide additional cross bracing to posts of 1 <sup>st</sup> ramp	Risk remains if work is not completed	\$600 (estimated)

Note \* The residual risk is the risk remaining after the selected risk treatment plan is operational.

The treatment costs assume that all works occur as a single project. If treatments are undertaken as isolated jobs then the estimated cost will increase.

### 5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as, in the case of the walking trail, regular inspections, production of pamphlet's etc.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

#### 5.3.1 Operations and Maintenance Plan

Operations activities has not been considered in the preparation of this plan due to their minor overall costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating, e.g. replacement of corroded fasteners, isolated 'topping up' of gravel but excluding rehabilitation or renewal. Maintenance may be classifies into reactive, planned and specific maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past maintenance expenditure is shown in Table 5.6.

**Table 5.6: Maintenance Expenditure Trends**

Year	Maintenance Expenditure
	Planned, Specific and Unplanned
2011/2012	\$62,000
2012/2013	\$62,000
2013/2014	\$62,000

It is not known what portion of the maintenance work is planned maintenance expenditure.

Following a review of the first draft of this plan it is proposed to increase to increase maintenance expenditure to \$86 k pa or 0.8% of the estimated renewal cost of the assets as identified by Tonkin Consulting.

Maintenance expenditure levels are considered to be adequate to meet projected service levels.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

### 5.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities aim to include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner,
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 – 70% planned desirable as measured by cost),
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Maintain a current hierarchy of critical assets and required operations and maintenance activities,
- Develop and regularly review appropriate emergency response capability,
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used.

#### Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The Coastal Walking Trails service hierarchy is shown in Table 5.7.

**Table 5.7: Asset Service Hierarchy**

Service Hierarchy	Service Level Objective
Path Assets	To provide safe defined travel paths for users free of trip hazards and slippery surfaces.
Fencing	Delineate areas of the park from private property and protect areas of environmental or cultural sensitivity.
Drainage	Effectively channel stormwater runoff
Benches	Provide clean and functional areas for users to sit
Balustrade	Provide protection from hazards adjacent the path
Links	Provide access to or from the path to suburbs or the beach

### Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at the appropriate time.

Operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc. Critical assets failure modes and required operations and maintenance activities are detailed in Table 5.8.

**Table 5.8: Critical Assets and Service Level Objectives**

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Bridges and Elevated Walkways	Component failure	Periodic inspection to locate and treat areas of timber rot or metal corrosion.
Balustrade	Component failure	Periodic Inspection
Path	Trip Hazards and uneven surface	Periodic inspections and replacement of gravel

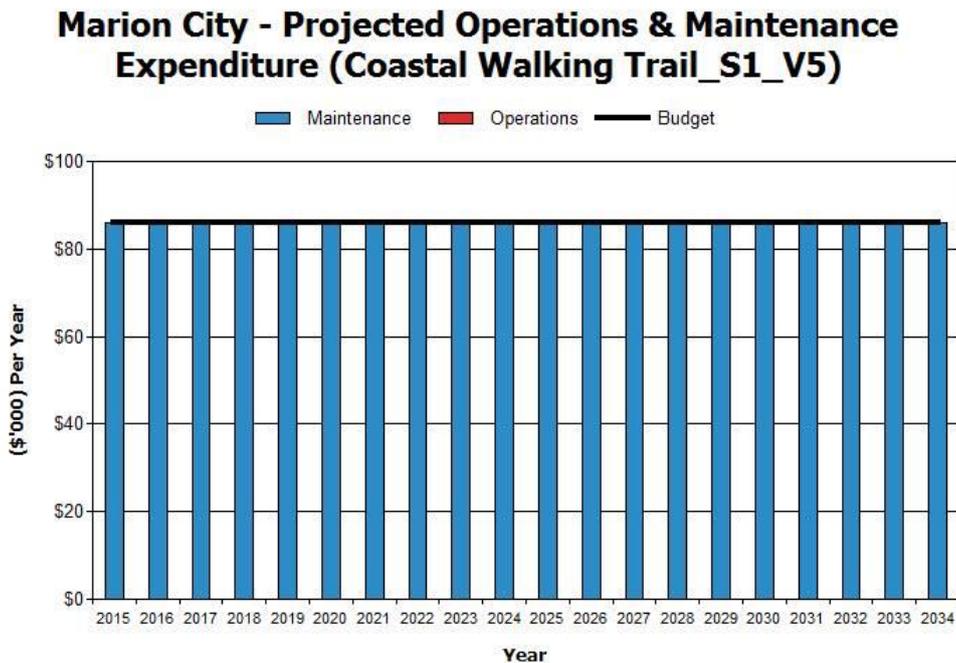
### Standards and specifications

Maintenance work for Infrastructure contained within this plan is generally carried out by Council Staff using practices developed over many years and in accordance with Australian Standards and other applicable legislative requirements.

#### 5.3.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 5.13. Note that all costs are shown in current 2014/2015 dollar values (i.e. present day values).

**Figure 5.13: Projected Operations and Maintenance Expenditure**



It should be noted that the maintenance budgets shown in Figure 5.13 are estimated required maintenance expenditures. Historically actually maintenance expenditure has been less than these level refer Table 5.6. Following a review of the first draft of this plan it is proposed to increase to increase maintenance expenditure to \$86 k pa.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the infrastructure risk management plan.

Maintenance is funded from the operating budget where available.

## **5.4 Renewal/Replacement Plan**

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is considered upgrade/expansion or new works expenditure.

### **5.4.1 Renewal plan**

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the 'Expenditure template'.

Method 1 was used for this asset management plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown in Table 5.9. Asset useful lives were last reviewed 2013.

**Table 5.9: Useful Lives of Assets**

Asset (Sub)Category	Asset Type	Total Useful life (Years)
<b>Path</b>	AC Bitumen	25
	Concrete	40
	Gravel - Timber Steps	15
	Gravel - No Steps	15
	Natural	20
	Pavers	25
	Timber	50
<b>Benches</b>	Plastic	20
	Timber	20
	Steel	20
<b>Signs</b>	All Signs	20
<b>Bins</b>		20
<b>Bridges</b>	All Bridges	50
<b>Structures</b>	Elevated Timber Structures	50
<b>Balustrade</b>	All	20
<b>Fencing</b>	All Types	25
<b>Drainage</b>	Grate Drain	40
	Pipe End	80
	Natural Swale	25
	Box Culvert	80
<b>Viewing Points</b>	All	50
<b>Links</b>	Timber Stairs	50
	Gravel Path	15
	Gravel With Timber Stairs	20
	Concrete Path	40
	Paved Path	25

#### 5.4.2 Renewal and Replacement Strategies

The City of Marion aims to plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,
- Undertaking project scoping for all capital renewal and replacement projects to identify:
  - the service delivery 'deficiency', present risk and optimum time for renewal/replacement,
  - the project objectives to rectify the deficiency,
  - the range of options, estimated capital and life cycle costs for each option that could address the service deficiency,
  - and evaluate the options against evaluation criteria adopted by Council, and
  - select the best option to be included in capital renewal programs,
- Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible,
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required ,
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

### Renewal ranking criteria

The City of Marion has developed (as part of the revision of the AM Policy) a Strategic Asset Management Decision Making Matrix that details the process by which decisions are made as to whether an asset is maintained, renewed or upgraded. The Matrix is attached as Annexure G.

### Renewal and replacement standards

Renewal work is carried out in accordance with the following Standards and Specifications.

- AS1428 Design for access and mobility
- AS 1657 Fixed platforms, walkways, stairways and ladders- Design, construction and installation
- AS1684.1 Residential timber framed construction – Design criteria
- AS1720.1 Timber structures – Design methods

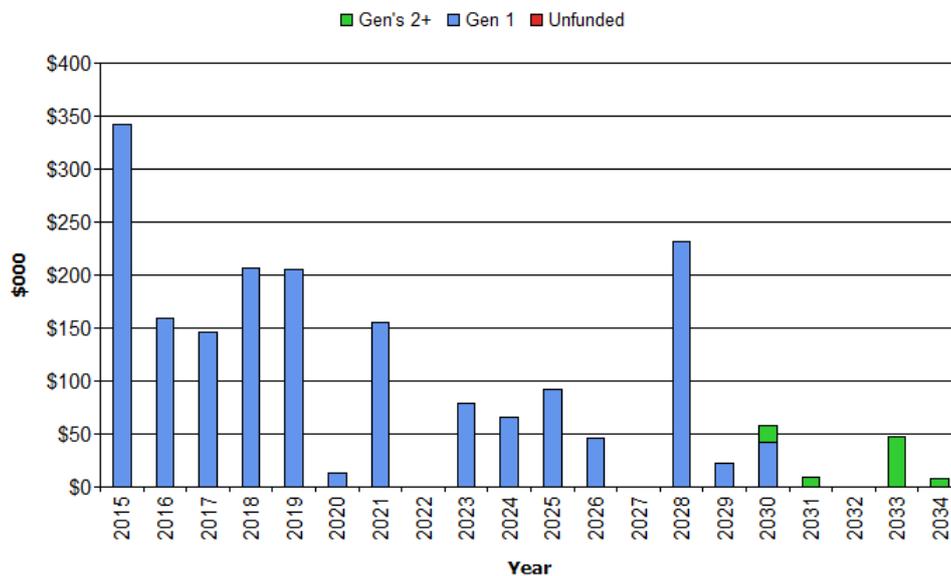
### 5.4.3 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock ages. The expenditure is summarised in Figure 5.14. Note that all amounts are shown in present day values.

The projected capital renewal and replacement program is shown in Appendix B.

**Figure 5.14: Projected Capital Renewal and Replacement Expenditure**

#### Marion City - Projected Capital Renewal Expenditure (Coastal Walking Trail\_S1\_V5)



Gen 2+ renewals indicate assets that are being renewed for the second time (or more) over the life. These will be assets with short useful lives such as gravel paths.

Deferred renewal and replacement, i.e. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the risk management plan.

Renewals and replacement expenditure in the organisation's capital works program will be accommodated in the long term financial plan. This is further discussed in Section 6.2.

## 5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the organisation from land development. organisation from land development, grant funding or contributions. These assets from growth are considered in Section 4.4.

### 5.5.1 Selection criteria

This AMP has been based on the adherence to recent policy decisions by Council, essentially requiring significant upgrade / renewals to gain Council approval with a subsequent revision of the LTFP. The Strategic Asset Management Decision Making Matrix that details the process by which decisions are made as to whether an asset is maintained, renewed or upgraded is attached as Annexure G.

Table 4.3 details a list of proposed upgrades to the path that are currently unfunded subject to decisions of Council.

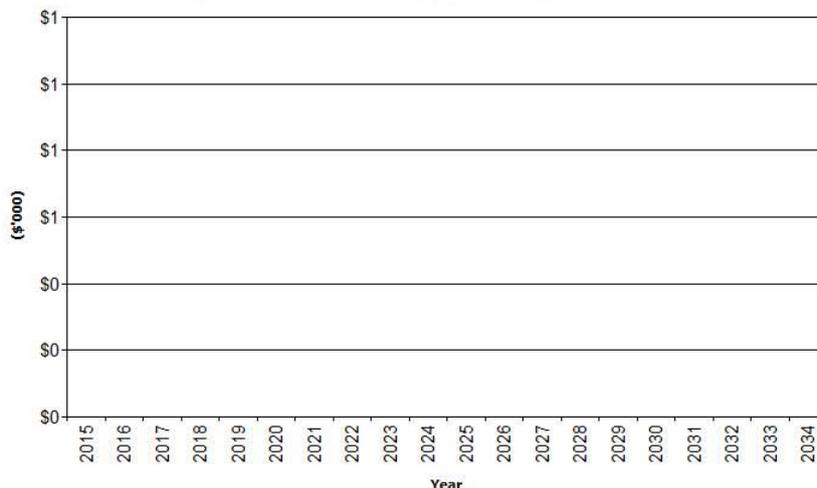
The Strategic Asset Management Decision Making Matrix that details the process by which decisions are made as to whether an asset is maintained, renewed or upgraded is attached as Annexure G.

### 5.5.3 Summary of future upgrade/new assets expenditure

At present no new / upgraded assets are proposed on the Coastal walking trail with existing funds dedicated to asset renewal as prioritised by risk. Accordingly Fig 5.15 which summarises the projected upgrade/new asset expenditures is blank.

**Figure 5.15: Projected Capital Upgrade/New Asset Expenditure**

#### Marion City - Projected Capital Upgrade/New Expenditure (Coastal Walking Trail\_S1\_V5)



Expenditure on new assets and services in the organisation’s capital works program (when approved) will be accommodated in the long term financial plan. This is further discussed in Section 6.

## 5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. There are no assets identified for disposal at this time.

## 5.7 Service Consequences and Risks

The City of Marion has prioritised decisions made in adopting this AM Plan to obtain the optimum benefits from its available resources

### 5.7.1 What we have chosen not to do

Council has adopted an Asset Management policy which places priority on maintenance before renewal and renewal before upgrade / new where it is cost effective to do so. Accordingly there are some capital projects that are not included in the financial forecasts contained within this AMP. These include:

- Swanbury Penglase Upgrades. The total cost of the 18 proposed upgrades is estimated to be \$14.7 Million. There will also be increased maintenance costs associated with these upgrades.

### 5.7.2 Service consequences

If capital projects that cannot be undertaken risk and service consequences for users include:

- Decrease in amenity
- Less accessibility for some user groups

### 5.7.3 Risk consequences

If capital projects cannot be undertaken may maintain or create risk consequences for the organisation include:

- Increased Customer Service Requests
- Increased user safety risks

These risks have been considered in the preparation of the Risk Management Plan summarised in Section 5.2 and risk management plan actions and expenditures included within projected expenditures.

## 6. FINANCIAL SUMMARY

The preparation of this plan allows for alignment of renewal and maintenance funds provided by the long term financial plan with that required to support the services provided by the coastal walking trail over an extended period of time.

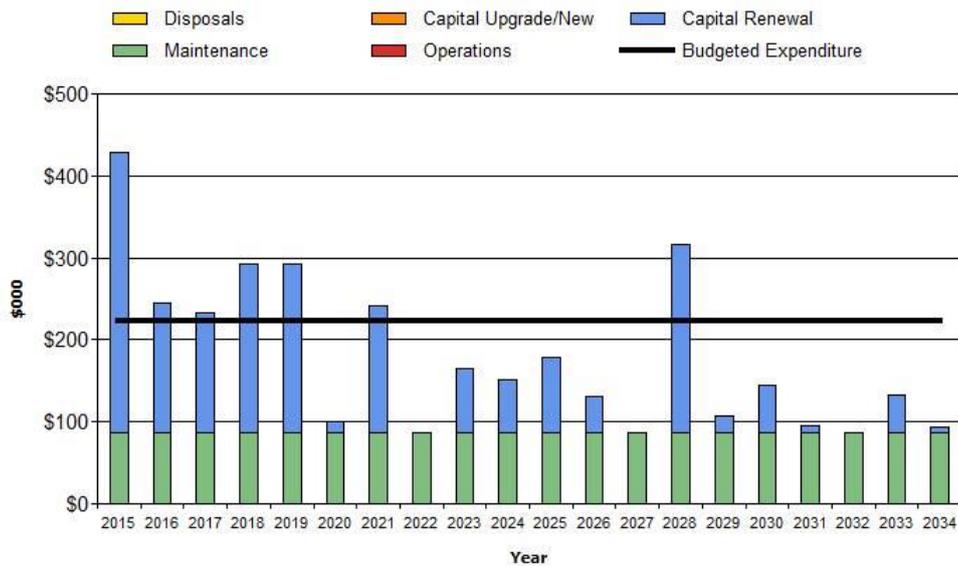
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved a further over time as additional information becomes available on desired levels of service and current and projected future asset performance.

### 6.1 Financial Statements and Projections

The financial projections are shown in Figure 6.1 for projected operating (operations and maintenance) and capital expenditure (renewal). Note that all costs are shown in present day values.

**Figure 6.1: Projected Operating and Capital Expenditure**

#### Marion City - Projected Operating and Capital Expenditure (Coastal Walking Trail\_S1\_V5)



#### 6.1.1 Sustainability of service delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

##### Asset Renewal Funding Ratio

Asset Renewal Funding Ratio<sup>9</sup>                      94%

<sup>9</sup> AIFMG, 2009, Financial Sustainability Indicator 8, Sec 2.6, p 2.18

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, Council is forecasting that it will have 94% of the funds required for the optimal renewal and replacement of its assets.

### Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is \$135,000 per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

Life cycle costs\* can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10 year planning period is \$223,000 per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

A shortfall between life cycle cost\* and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this asset management plan is \$88,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 166% of life cycle costs\*.

*\*A significant portion of the lifecycle cost is depreciation. As previously noted in this plan, Councils depreciation is calculated on the CRC used by Councils valuers which is \$1.48m yielding a depreciation figure of \$49k pa. The survey undertaken in preparation of this plan has found assets on the Coastal Walkway with a renewal cost of \$11.13m and an unaudited annual depreciation figure of \$248k pa. Accordingly it is not considered accurate to directly compare annual depreciation figures to budgeted renewals in this version of the plan.*

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the asset management plans and long term financial plan.

### Medium term – 10 year financial planning period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$223,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$223,000 on average per year giving a 10 year funding shortfall of \$0 per year. This indicates that Council expects to have 100% of the projected expenditures needed to provide the services documented in the asset management plan.

### Medium Term – 5 year financial planning period

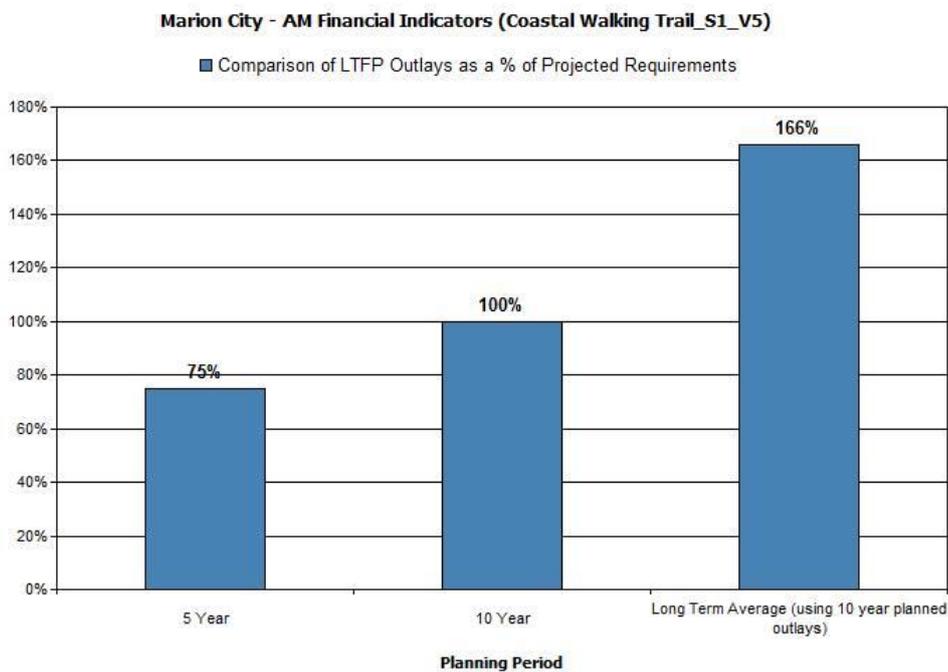
The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is \$298,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$223,000 on average per year giving a 5 year funding shortfall of \$75,000. This indicates that Council expects to have 75% of projected expenditures required to provide the services shown in this asset management plan.

### Asset management financial indicators

Figure 6.2 shows the asset management financial indicators over the 10 year planning period and for the long term life cycle.

**Figure 6.2: Asset Management Financial Indicators**



Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 10 year life of the Long Term Financial Plan.

Figure 6.3 shows the projected asset renewal and replacement expenditure over the 20 years of the AM Plan. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the current capital works program, which is accommodated in the long term financial plan

**Figure 6.3: Projected and LTFP Budgeted Renewal Expenditure**

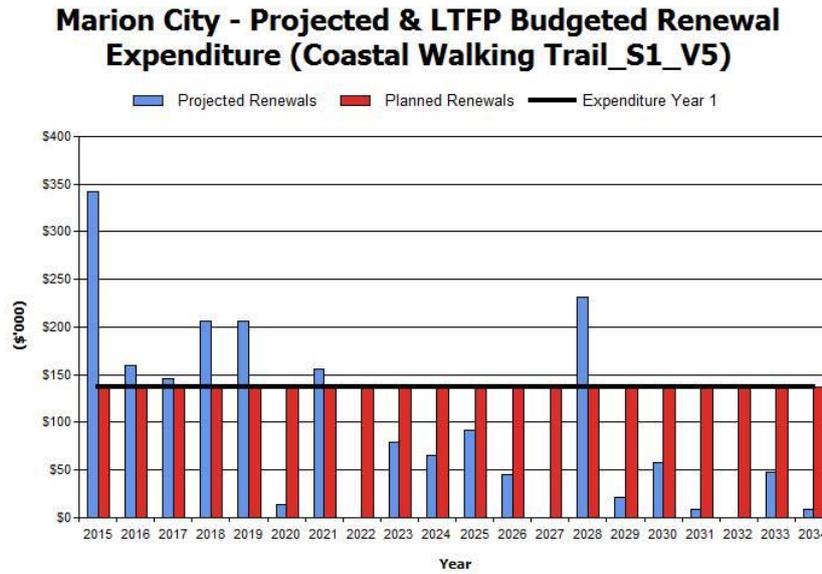


Table 6.1 shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in the long term financial plan. Budget expenditures accommodated in the long term financial plan or extrapolated from current budgets are shown in Appendix D.

**Table 6.1: Projected and LTFP Budgeted Renewals and Financing Shortfall**

Year	Projected Renewals (\$000)	LTFP Renewal Budget (\$000)	Renewal Financing Shortfall (\$000) (-ve Gap, +ve Surplus)	Cumulative Shortfall (\$000) (-ve Gap, +ve Surplus)
2015	\$342	\$137	-\$205	-\$205
2016	\$159	\$137	-\$22	-\$227
2017	\$146	\$137	-\$9	-\$237
2018	\$206	\$137	-\$69	-\$306
2019	\$206	\$137	-\$69	-\$374
2020	\$14	\$137	\$123	-\$251
2021	\$156	\$137	-\$19	-\$270
2022	\$0	\$137	\$137	-\$133
2023	\$79	\$137	\$58	-\$75
2024	\$66	\$137	\$71	-\$3
2025	\$92	\$137	\$45	\$42
2026	\$46	\$137	\$91	\$133
2027	\$0	\$137	\$137	\$270
2028	\$231	\$137	-\$94	\$176
2029	\$22	\$137	\$115	\$291
2030	\$58	\$137	\$79	\$370
2031	\$9	\$137	\$128	\$498
2032	\$0	\$137	\$137	\$635
2033	\$47	\$137	\$90	\$725
2034	\$8	\$137	\$129	\$854

Note: A negative shortfall indicates a financing gap, a positive shortfall indicates a surplus for that year.

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with **the corresponding** capital works program accommodated in the long term financial plan.

### 6.1.2 Projected expenditures for long term financial plan

Table 6.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in 2014/2015 real values.

**Table 6.2: Projected Expenditures for Long Term Financial Plan (\$000)**

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2015	\$0.00	\$86.00	\$342.15	\$0.00	\$0.00
2016	\$0.00	\$86.00	\$159.17	\$0.00	\$0.00
2017	\$0.00	\$86.00	\$146.25	\$0.00	\$0.00
2018	\$0.00	\$86.00	\$205.95	\$0.00	\$0.00
2019	\$0.00	\$86.00	\$205.81	\$0.00	\$0.00
2020	\$0.00	\$86.00	\$13.59	\$0.00	\$0.00
2021	\$0.00	\$86.00	\$155.66	\$0.00	\$0.00
2022	\$0.00	\$86.00	\$0.00	\$0.00	\$0.00
2023	\$0.00	\$86.00	\$79.08	\$0.00	\$0.00
2024	\$0.00	\$86.00	\$65.56	\$0.00	\$0.00

## 6.2 Funding Strategy

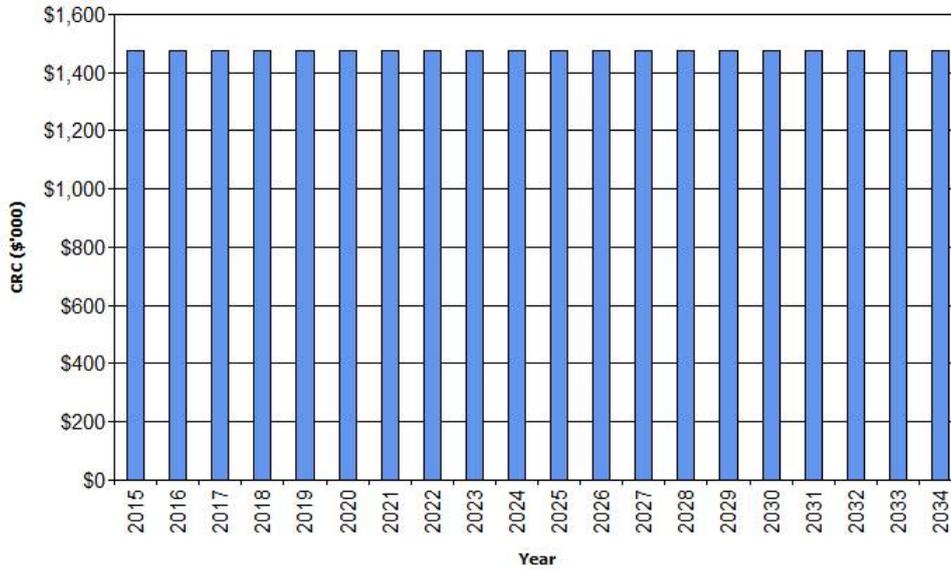
With due regard to the work done in the preparation of this AMP Council may consider its findings in the development of the next version of the long term financial plan.

## 6.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock.. Figure 6.4 shows the projected replacement cost asset values over the planning period in real values. The figure shows constant values due to new / upgrades not being considered in the preparation of this plan.

**Figure 6.4: Projected Asset Values**

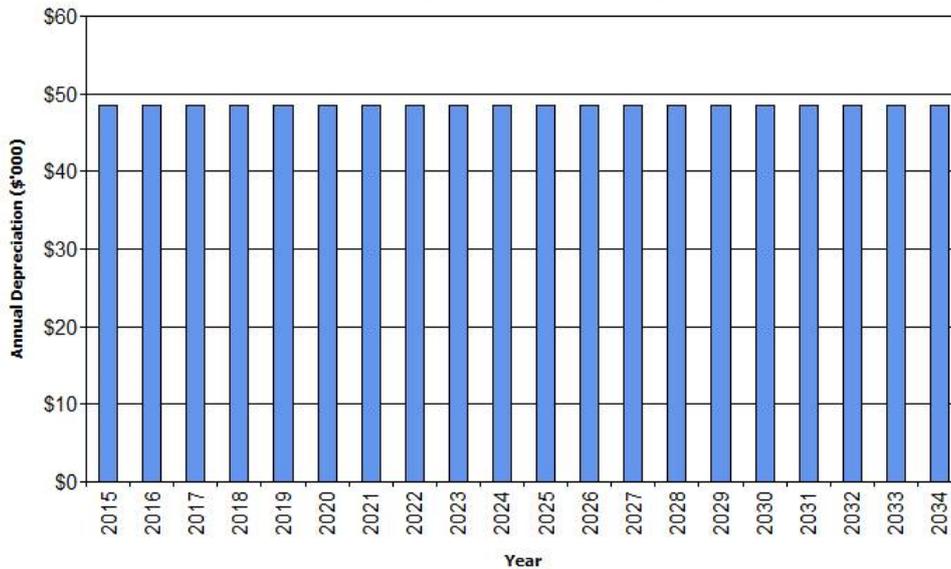
**Marion City - Projected Asset Values (Coastal Walking Trail\_S1\_V5)**



Depreciation expense values are forecast in line with asset values as shown in Figure 6.5.

**Figure 6.5: Projected Depreciation Expense**

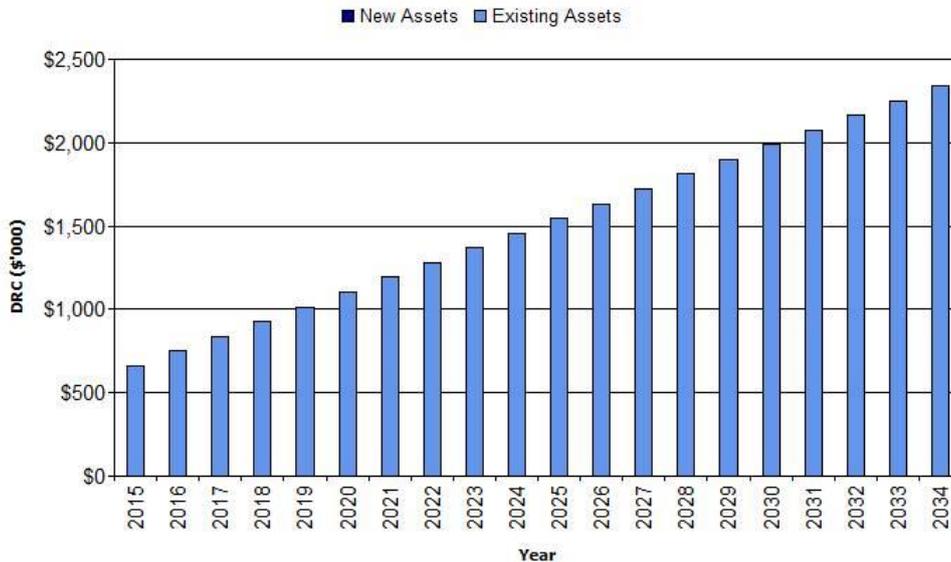
**Marion City - Projected Depreciation Expense (Coastal Walking Trail\_S1\_V5)**



The depreciated replacement cost is seen to be constant over the period of the plan due to the lack of new assets or upgrades. Forecast of the assets' depreciated replacement cost is shown in Figure 6.6. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.

**Figure 6.6: Projected Depreciated Replacement Cost**

**Marion City - Projected Depreciated Replacement Cost (Coastal Walking Trail\_S1\_V5)**



The marked increase in the depreciated replacement cost is an anomaly associated with low calculation of the CRC and hence DRC through valuations as previously noted. The DRC therefore increases dramatically as renewals associated with the higher actual renewal costs identified via the Tonkin survey are undertaken.

**6.4 Key Assumptions made in Financial Forecasts**

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan and risks that these may change are shown in Table 6.3.

**Table 6.3: Key Assumptions made in AM Plan and Risks of Change**

Key Assumptions	Risks of Change to Assumptions
Existing valuations do not accurately reflect the renewable assets contained within the Coastal Walking Trail corridor that are under the control of Council. Hence sustainability ratios calculated within this plan cannot be considered reasonable.	The sustainability ratios will become more accurate following revaluations undertaken by Council.

**6.5 Forecast Reliability and Confidence**

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale<sup>10</sup> in accordance with Table 6.4.

<sup>10</sup> IPWEA, 2011, IIMM, Table 2.4.6, p 2|59.

**Table 6.4: Data Confidence Grading System**

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and recognised as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B Reliable	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 $\pm 10\%$
C Uncertain	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 $\pm 25\%$
D Very Uncertain	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 $\pm 40\%$
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 6.5.

**Table 6.5: Data Confidence Assessment for Data used in AM Plan**

Data	Confidence Assessment	Comment
Demand drivers	B	
Growth projections	A	Data based on historical records and professional opinions
Operations expenditures	A	No operations costs are considered in preparation of the plan
Maintenance expenditures	A	Proactive maintenance program has been developed
Projected Renewal exps.	B	Renewal projections based on up to date register of assets
- Asset values	D	Valuations based on out of date register
- Asset residual values	A	No residual value is expected.
- Asset useful lives	B	Harsh coastal environment creates uncertainty
- Condition modelling	B	Full visual condition audit has been undertaken.
- Network renewals	E	No network assets currently considered
- Defect repairs	D	No specific data available
Upgrade/New expenditures	A	No new or upgraded assets unless approved by Council
Disposal expenditures	A	None considered

Over all data sources, the data confidence is assessed as medium confidence level for data used in the preparation of this AM Plan excluding the valuation data.

## **7. PLAN IMPROVEMENT AND MONITORING**

### **7.1 Status of Asset Management Practices**

#### **7.1.1 Accounting and financial systems**

The finance system used by the City of Marion is Authority, a product of Civica Pty Ltd. The financial modules within Authority include the following:

- General Ledger
- Receipting
- Payroll
- Rate Debtors/Property Management
- Purchasing
- Accounts Receivable/Accounts Payable
- Inventory
- Bank Reconciliation
- Estimates
- Contracts
- Loans
- Plant
- Work Orders
- Capital Value Register (CVR)

Within the Work Orders module, there are links to the General Ledger, the Plant Module and the AIM system.

Within the Capital Value Register, the following functions/programs are available:

- Asset capitalisation
- Asset disposal
- Depreciation
- Revaluation

All of the above programs perform automatic updates to the General Ledger via Control Accounts created for each Asset Record.

Depreciation charges are processed monthly according to the useful life (taking into consideration residual values) recorded against each Asset Record.

Infrastructure Assets are comprehensively revalued every 3-5 years and also have annual “desktop” valuations.

The Capital Value Register incorporates the following Asset Classifications:

- Land
- Buildings
- Plant & equipment
- Furniture & fittings
- Other
- Other infrastructure
- Intangibles

Infrastructure Assets including Roads, Drains, Kerb, Footpaths, Bridges and Traffic Devices are held on systems external to Authority, e.g. Pavement Management System, Spreadsheets. External Valuers use this data as a basis for providing valuations which are added to the Balance Sheet Control Accounts via a general journal.

### Accountabilities for financial systems

The responsibility for the integrity of the finance system is assigned to the Finance Manager and senior Accounting staff.

### Accounting standards and regulations

The accounting standards and guidelines that must be complied with are as follows:

- *Local Government Act 1999*
- Local Government General Regulations 1999
- Local Government (Financial Management) Regulations 2022
- State and Federal Legislation (e.g. taxes)
- Australian Accounting Standards set by the Australian Accounting Standards Board (AASB)
- City of Marion financial policies and procedures

### Capital/maintenance threshold

Assets should have a useful life of greater than one year in order for the expenditure to be capitalised and have a value above the Materiality Thresholds described below.

Any expenditure considered to be Capital must also pass a materiality test. Materiality levels are set so as not to misstate Financial Statements and to provide a guide whether it is practical from an Administrative perspective that expenditure is capitalised.

**Table 7.1: Materiality Levels**

Asset Group	New/Replacement
Infrastructure	\$5,000
Land	\$5,000
Buildings	\$5,000
Furniture & Fittings	\$3,000
Equipment	\$3,000
Other	\$3,000

Networked/Aggregate Assets - Expenditure can still be capitalised on items that fall below materiality thresholds individually but operate together as a cohesive whole to form a substantial/significant total value. Examples are the Computer Network, Library Books, and Reserve Furniture.

### Required changes to accounting financial systems arising from this AM Plan

Reviews and improvements to asset management systems is an ongoing and part of the organisation process towards best practice. Improvements are implemented as required.

#### 7.1.2 Asset management system

An asset management system is a combination of processes, data and software applied to provide the essential outputs for effective AM such as reduced risk and optimum infrastructure investment.

Council utilises a number of asset management systems which contribute to the overall management of the long term planning of infrastructure. These include Stormwater Management Database in the MapInfo Exponare and MapInfo Professional GIS linked to Microsoft spreadsheets, IBM Lotus Notes Customer Request System and Authority financial and asset modules.

The current systems are being reviewed with the aim of integrating asset information into the corporate AM system.

### Asset registers

A database of data collected in the field was used to compile this asset management plan.

### Linkage from asset management to financial system

Currently no linkage

### Accountabilities for asset management system and data maintenance

The responsibility of asset management is assigned to the Manager Strategic Assets and Strategic Asset Services staff.

### Required changes to asset management system arising from this AM Plan

Reviews and improvements to asset management systems are ongoing and part of the organisation process towards best practice. Improvements are implemented as required.

## 7.2 Improvement Program

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

**Table 7.2: Improvement Plan**

Task No	Task	Responsibility	Resources Required	Timeline
1	Consider proposed upgrades via referral to Council	Mgr. Strategic Assets	Elected Members/ Council Staff	2015
2	Update this IAMP	Mgr. Strategic Assets		2019
3	Integrate asset and financial systems	Mgr. Strategic Assets	Strategic Services staff	2016
4	Update existing valuations to reflect the extent of the assets identified via the detailed survey undertaken in the preparation of this AMP	Mgr. Strategic Assets	Valuers	2016
6	Proactive scheduling of maintenance and renewals considering risk, service deficiency and costs.	Mgr. Strategic Assets	Internal	2016
7	Review management of capital renewal and replacement activities	Mgr. Strategic Assets	Internal	2016

## 7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AM Plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset

disposal expenditures and projected expenditure values incorporated into the Council's long term financial plan.

The AM Plan has a life of 4 years (Council election cycle) and is due for complete revision and updating within 24 Months of each Council election.

#### **7.4 Performance Measures**

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into the organisation's long term financial plan,
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation's Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0.

## 8. REFERENCES

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/IIMM](http://www.ipwea.org.au/IIMM)

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/namsplus](http://www.ipwea.org.au/namsplus).

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/AIFMG](http://www.ipwea.org.au/AIFMG).

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/IIMM](http://www.ipwea.org.au/IIMM)

City of Marion, 2015 'Asset Management Policy',

City of Marion, 'Annual Plan and Budget'.

## **9. APPENDICES**

Appendix A Maintenance Response Levels of Service

Appendix B Projected 10 year Capital Renewal and Replacement Works Program

Appendix C Projected 10 year Capital Upgrade/New Works Program

Appendix D Budgeted Expenditures Accommodated in LTFP

Appendix E Abbreviations

Appendix F Glossary

Appendix G Strategic Asset Management Framework (AM Policy)

## **Appendix A Maintenance Response Levels of Service**

To be developed.

**Appendix B Projected 10 year Capital Renewal and Replacement Works Program**

Asset ID	Sub Category	Asset Name	From	Rem Life (Years)	Planned Renewal Year	Renewal Cost (\$)	Useful Life (Years)
DR0006	Drainage	Pipe End		0	2015	\$300	80
FE0039	Fencing	Shade Cloth (over Cyclone Mesh)		0	2015	\$22,492	25
FE0040	Fencing	Shade Cloth (over Cyclone Mesh)		0	2015	\$17,507	25
FE0042	Fencing	Timber Post and Single Rail		0	2015	\$3,400	25
PA0055	Path	AC Bitumen		0	2015	\$4,385	25
PA0023	Path	Gravel - No Steps	Upgrade to elevated timber	0	2015	\$648	15
PA0024	Path	Gravel - Timber Steps		0	2015	\$2,949	15
PA0087	Path	Gravel - Timber Steps		0	2015	\$493	15
PA0041	Path	Gravel - Timber Steps		0	2015	\$4,105	15
PA0057	Path	Gravel - Timber Steps		0	2015	\$2,904	15
PA0069	Path	Gravel - Timber Steps	Upgrade to elevated timber	0	2015	\$4,936	15
	Path	Gravel steps to timber upgrade		0	2015	\$146,250	25
	Path	Natural to gravel upgrade		0	2015	\$4,000	25
	Path	Stormwater upgrade		0	2015	\$2,000	25
PA0040	Path	Timber		0	2015	\$124,282	50
SI0060	Sign	Sign		0	2015	\$300	20
SI0056	Sign	Sign		0	2015	\$300	20
SI0055	Sign	Sign		0	2015	\$300	20
SI0033	Sign	Sign		0	2015	\$300	20
SI0027	Sign	Sign		0	2015	\$300	20
<b>Subtotal</b>						<b>\$342,153</b>	
Bal1	Balaustrade	Balaustrade		1	2016	\$1,381	20
Bal13	Balaustrade	Balaustrade		1	2016	\$1,425	20
DR0001	Drainage	Natural		1	2016	\$100	25
PA0022	Path	Gravel - No Steps		1	2016	\$2,054	15
PA0022	Path	Gravel - No Steps		1	2016	\$2,698	15
PA0022	Path	Gravel - No Steps		1	2016	\$1,365	15
PA0088	Path	Gravel - No Steps		1	2016	\$1,417	15
PA0088	Path	Gravel - No Steps	Upgrade to Gravel with Steps	1	2016	\$1,049	15
	Path	Gravel steps to timber upgrade		1	2016	\$146,250	25
PA0001	Path	Natural	Upgrade to Gravel	1	2016	\$530	20
SI0059	Sign	Sign		1	2016	\$300	20
SI0057	Sign	Sign		1	2016	\$300	20
SI0054	Sign	Sign		1	2016	\$300	20

Asset ID	Sub Category	Asset Name	From	Rem Life (Years)	Planned Renewal Year	Renewal Cost (\$)	Useful Life (Years)
						<b>Subtotal</b>	<b>\$159,168</b>
	Path	Gravel steps to timber upgrade		2	2017	\$146,250	25
						<b>Subtotal</b>	<b>\$146,250</b>
BI0002	Bins	Bins		3	2018	\$1,800	20
BI0001	Bins	Bins		3	2018	\$1,800	20
DR0038	Drainage	Grate Drain		3	2018	\$750	40
DR0036	Drainage	Grate Drain		3	2018	\$1,000	40
DR0035	Drainage	Grate Drain		3	2018	\$1,000	40
DR0034	Drainage	Grate Drain		3	2018	\$1,000	40
DR0033	Drainage	Grate Drain		3	2018	\$1,000	40
DR0031	Drainage	Grate Drain		3	2018	\$1,000	40
DR0030	Drainage	Grate Drain		3	2018	\$1,000	40
DR0029	Drainage	Grate Drain	Upgrade Drainage	3	2018	\$1,000	40
PA0004	Path	Gravel - No Steps		3	2018	\$1,214	15
PA0008	Path	Gravel - No Steps		3	2018	\$527	15
PA0010	Path	Gravel - No Steps		3	2018	\$255	15
PA0101	Path	Gravel - No Steps		3	2018	\$15,929	15
PA0072	Path	Gravel - No Steps		3	2018	\$738	15
PA0011	Path	Gravel - No Steps		3	2018	\$1,614	15
PA0004	Path	Gravel - No Steps	Upgrade to Gravel with Steps	3	2018	\$1,129	15
PA0011	Path	Gravel - No Steps	Upgrade to Gravel with Steps	3	2018	\$2,308	15
PA0058	Path	Gravel - Timber Steps		3	2018	\$5,749	15
PA0071	Path	Gravel - Timber Steps		3	2018	\$6,342	15
PA0073	Path	Gravel - Timber Steps		3	2018	\$6,371	15
PA0060	Path	Gravel - Timber Steps	Upgrade to elevated timber	3	2018	\$5,169	15
	Path	Gravel steps to timber upgrade		3	2018	\$146,250	25
PA0003	Path	Natural		3	2018	\$111	20
PA0002	Path	Natural	Upgrade to Gravel	3	2018	\$898	20
						<b>Subtotal</b>	<b>\$205,954</b>
DR0004	Drainage	Natural		4	2019	\$100	25
FE0011	Fencing	Timber Post and Rail with Cyclone Mesh		4	2019	\$9,308	25
FE0011	Fencing	Timber Post and Rail with Cyclone Mesh		4	2019	\$16,837	25

Asset ID	Sub Category	Asset Name	From	Rem Life (Years)	Planned Renewal Year	Renewal Cost (\$)	Useful Life (Years)
FE0011	Fencing	Timber Post and Rail with Cyclone Mesh		4	2019	\$23,312	25
PA0090	Path	Gravel - No Steps		4	2019	\$1,118	15
PA0012	Path	Gravel - No Steps		4	2019	\$1,320	15
PA0090	Path	Gravel - No Steps	Upgrade to Gravel with Steps	4	2019	\$339	15
PA0006	Path	Gravel - Timber Steps		4	2019	\$658	15
PA0082	Path	Gravel - Timber Steps		4	2019	\$3,187	15
PA0009	Path	Gravel - Timber Steps		4	2019	\$1,062	15
PA0089	Path	Gravel - Timber Steps		4	2019	\$672	15
	Path	Gravel path to gravel timber steps upgrade		4	2019	\$28,000	25
PA0052	Path	Natural		4	2019	\$1,961	20
PA0052	Path	Natural		4	2019	\$229	20
PA0053	Path	Natural		4	2019	\$3,744	20
PA0053	Path	Natural		4	2019	\$647	20
PA0027	Path	Timber		4	2019	\$112,718	50
SI0024	Sign	Sign		4	2019	\$300	20
SI0012	Sign	Sign		4	2019	\$300	20
<b>Subtotal</b>						<b>\$205,813</b>	
BE0020	Bench	Timber		5	2020	\$2,000	20
DR0017	Drainage	Grate Drain		5	2020	\$1,500	40
LK0014	Links	Informal Beach Link		5	2020	\$0	10
PA0081	Path	Gravel - No Steps	Upgrade to Gravel with Steps	5	2020	\$578	15
PA0007	Path	Gravel - Timber Steps		5	2020	\$530	15
PA0091	Path	Gravel - Timber Steps		5	2020	\$2,717	15
PA0013	Path	Gravel - Timber Steps		5	2020	\$801	15
PA0083	Path	Gravel - Timber Steps		5	2020	\$1,042	15
PA0025	Path	Natural		5	2020	\$227	20
SI0062	Sign	Sign		5	2020	\$300	20
SI0061	Sign	Sign		5	2020	\$300	20
SI0041	Sign	Sign		5	2020	\$300	20
SI0040	Sign	Sign		5	2020	\$300	20
SI0039	Sign	Sign		5	2020	\$300	20
SI0038	Sign	Sign		5	2020	\$300	20
SI0037	Sign	Sign		5	2020	\$300	20
SI0035	Sign	Sign		5	2020	\$300	20
SI0032	Sign	Sign		5	2020	\$300	20
SI0029	Sign	Sign		5	2020	\$300	20
SI0026	Sign	Sign		5	2020	\$300	20
SI0010	Sign	Sign		5	2020	\$300	20

Asset ID	Sub Category	Asset Name	From	Rem Life (Years)	Planned Renewal Year	Renewal Cost (\$)	Useful Life (Years)
SI0002	Sign	Sign		5	2020	\$300	20
SI0001	Sign	Sign		5	2020	\$300	20
						<b>Subtotal</b>	<b>\$13,594</b>
BE0009	Bench	Timber		6	2021	\$2,000	20
DR0032	Drainage	Grate Drain		6	2021	\$1,000	40
FE0012	Fencing	Timber Post and Dual Rail		6	2021	\$4,696	25
FE0017	Fencing	Timber Post and Dual Rail		6	2021	\$2,557	25
FE0003	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$9,797	25
FE0003	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$16,819	25
FE0008	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$26,126	25
FE0007	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$1,946	25
FE0002	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$32,735	25
FE0008	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$21,163	25
FE0005	Fencing	Timber Post and Rail with Cyclone Mesh		6	2021	\$4,204	25
FE0014	Fencing	Timber Post and Single Rail		6	2021	\$1,614	25
FE0014	Fencing	Timber Post and Single Rail		6	2021	\$1,834	25
PA0078	Path	Gravel - No Steps		6	2021	\$4,772	15
PA0097	Path	Gravel - No Steps		6	2021	\$5,390	15
PA0084	Path	Gravel - No Steps		6	2021	\$671	15
PA0084	Path	Gravel - No Steps		6	2021	\$2,029	15
PA0059	Path	Gravel - No Steps		6	2021	\$1,441	15
PA0016	Path	Gravel - No Steps		6	2021	\$1,620	15
PA0097	Path	Gravel - No Steps		6	2021	\$1,291	15
PA0020	Path	Gravel - No Steps		6	2021	\$358	15
PA0079	Path	Gravel - No Steps		6	2021	\$180	15
PA0079	Path	Gravel - No Steps		6	2021	\$268	15
PA0019	Path	Gravel - Timber Steps		6	2021	\$676	15
PA0021	Path	Gravel - Timber Steps		6	2021	\$1,015	15
PA0005	Path	Gravel - Timber Steps		6	2021	\$6,545	15
PA0080	Path	Gravel - Timber Steps		6	2021	\$1,714	15
SI0048	Sign	Sign		6	2021	\$300	20
SI0043	Sign	Sign		6	2021	\$300	20
SI0042	Sign	Sign		6	2021	\$300	20
SI0018	Sign	Sign		6	2021	\$300	20
						<b>Subtotal</b>	<b>\$155,662</b>

Asset ID	Sub Category	Asset Name	From	Rem Life (Years)	Planned Renewal Year	Renewal Cost (\$)	Useful Life (Years)
BE0033	Bench	Plastic		8	2023	\$2,000	20
BE0012	Bench	Steel		8	2023	\$2,000	20
BE0011	Bench	Steel		8	2023	\$2,000	20
LK0025	Links	Formal Beach Link		8	2023	\$15,000	15
LK0026	Links	Formal Beach Link		8	2023	\$15,000	15
LK0027	Links	Formal Beach Link		8	2023	\$7,000	15
LK0021	Links	Informal Beach Link		8	2023	\$1,000	15
LK0023	Links	Informal Beach Link		8	2023	\$1,600	15
LK0024	Links	Informal Beach Link		8	2023	\$1,600	15
LK0022	Links	Suburb Link		8	2023	\$3,750	15
LK0004	Links	Suburb Link		8	2023	\$3,000	15
PA0056	Path	Gravel - No Steps		8	2023	\$2,712	15
PA0074	Path	Gravel - No Steps		8	2023	\$2,714	15
PA0056	Path	Gravel - No Steps		8	2023	\$2,150	15
PA0098	Path	Gravel - No Steps		8	2023	\$1,413	15
PA0014	Path	Gravel - No Steps		8	2023	\$294	15
PA0074	Path	Gravel - No Steps		8	2023	\$1,323	15
PA0018	Path	Gravel - No Steps		8	2023	\$1,307	15
PA0076	Path	Gravel - No Steps		8	2023	\$690	15
PA0086	Path	Gravel - No Steps	Upgrade to elevated timber	8	2023	\$1,171	15
PA0015	Path	Gravel - Timber Steps		8	2023	\$535	15
PA0054	Path	Gravel - Timber Steps		8	2023	\$4,072	15
PA0067	Path	Gravel - Timber Steps		8	2023	\$2,788	15
PA0062	Path	Natural		8	2023	\$64	20
SI0058	Sign	Sign		8	2023	\$300	20
SI0036	Sign	Sign		8	2023	\$300	20
SI0034	Sign	Sign		8	2023	\$300	20
SI0030	Sign	Sign		8	2023	\$300	20
SI0028	Sign	Sign		8	2023	\$300	20
SI0017	Sign	Sign		8	2023	\$300	20
SI0011	Sign	Sign		8	2023	\$300	20
SI0009	Sign	Sign		8	2023	\$300	20
SI0008	Sign	Sign		8	2023	\$300	20
SI0007	Sign	Sign		8	2023	\$300	20
SI0006	Sign	Sign		8	2023	\$300	20
SI0005	Sign	Sign		8	2023	\$300	20
SI0004	Sign	Sign		8	2023	\$300	20
<b>Subtotal</b>						<b>\$79,083</b>	
BE0032	Bench	Plastic		9	2024	\$2,000	20
BE0031	Bench	Plastic		9	2024	\$2,000	20
BE0024	Bench	Plastic		9	2024	\$2,000	20

Asset ID	Sub Category	Asset Name	From	Rem Life (Years)	Planned Renewal Year	Renewal Cost (\$)	Useful Life (Years)
BE0034	Bench	Timber		9	2024	\$2,000	20
DR0022	Drainage	Natural		9	2024	\$400	25
DR0020	Drainage	Natural		9	2024	\$400	25
DR0007	Drainage	Natural		9	2024	\$200	25
FE0001	Fencing	Timber Post and Rail with Cyclone Mesh		9	2024	\$8,727	25
FE0038	Fencing	Timber Post and Rail with Cyclone Mesh		9	2024	\$25,840	25
FE0019	Fencing	Timber Post and Rail with Cyclone Mesh		9	2024	\$3,343	25
PA0095	Path	AC Bitumen		9	2024	\$1,825	25
PA0095	Path	AC Bitumen		9	2024	\$419	25
PA0033	Path	Gravel - No Steps		9	2024	\$1,588	15
PA0100	Path	Gravel - No Steps		9	2024	\$351	15
PA0032	Path	Gravel - No Steps		9	2024	\$117	15
PA0032	Path	Gravel - No Steps		9	2024	\$390	15
PA0100	Path	Gravel - No Steps		9	2024	\$1,356	15
PA0029	Path	Gravel - No Steps		9	2024	\$9,640	15
PA0017	Path	Gravel - Timber Steps		9	2024	\$307	15
PA0068	Path	Natural		9	2024	\$254	20
SI0053	Sign	Sign		9	2024	\$300	20
SI0052	Sign	Sign		9	2024	\$300	20
SI0051	Sign	Sign		9	2024	\$300	20
SI0050	Sign	Sign		9	2024	\$300	20
SI0049	Sign	Sign		9	2024	\$300	20
SI0047	Sign	Sign		9	2024	\$300	20
SI0046	Sign	Sign		9	2024	\$300	20
SI0045	Sign	Sign		9	2024	\$300	20
<b>Subtotal</b>						<b>\$65,557</b>	
<b>Program Total</b>						<b>\$1,373,235</b>	

### Appendix C Projected Upgrade/Exp/New 10 year Capital Works Program

It is currently assumed that the following upgrades will be undertaken to rectify identified defects.

Asset	AssetID	Defect_Class	Defect	Upgrade Required	Upgrade Cost
Path	PA0001	Safety	Slippery Path	Upgrade to Gravel	\$1,325
Path	PA0002	Safety	Trip Hazard	Upgrade to Gravel	\$2,244
Path	PA0004	Environmental	Erosion	Upgrade to Gravel with steps	\$7,498
Path	PA0011	Environmental	Water On Path	Upgrade to Gravel with steps	\$12,552
Path	PA0023	Environmental	Water On Path	Upgrade to elevated boardwalk	\$77,700
Path	PA0060	Safety	Other/Misc	Upgrade to elevated Boardwalk	\$193,950
Drainage	DR0029	Environmental	Other/Misc	Replace Grate Drain	\$1,500
Path	PA0069	Safety	Other/Misc	Upgrade to elevated Boardwalk	\$185,100
Path	PA0081	Safety	Trip Hazard	Upgrade to Gravel with steps	\$1,848
Path	PA0086	Structural	Other/Misc	Upgrade to elevated Boardwalk	\$140,400
Path	PA0088	Safety	Trip Hazard	Upgrade to Gravel with steps	\$7,888
Path	PA0090	Safety	Stones On Path	Upgrade to Gravel with steps	\$4,648
					<b>\$636,652</b>

As the existing assets to be upgraded have a current replacement value of approximately \$18,600 this reflects an increase in asset value of \$618,000.

There are also 18 potential upgrade site in the Swanbery Penglase report for future consideration.

## Appendix D Budgeted Expenditures Accommodated in LTFP

10 year Budgeted Expenditures from Worksheet *Form 3 Expenditure Planning* on the NAMS.PLUS2 Expenditure Template. See Appendix B of the NAMS.PLUS2 Guidelines for details.

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### Coastal Walking Trail\_S1\_V4 Asset Management Plan

First year of expenditure projections **2013** (yr ending 30 June)

#### Coastal Walking Trail

Asset values as at 30 June 2012		Calc CRC from Asset Register
Current replacement cost	\$11,127 (000)	\$11,127 (000)
Depreciable amount	\$11,127 (000)	This is a check for you.
Depreciated replacement cost	\$5,720 (000)	
Annual depreciation expense	\$248 (000)	

#### Operations and Maintenance Costs from New Assets

	% of asset value
Additional operations costs	0.00%
Additional maintenance	0.56%
Additional depreciation	2.23%
Planned renewal budget (information only)	

#### Planned Expenditures from LTFP

##### 20 Year Expenditure Projections

Note: Enter all values in current 2013 values

You may use these values calculated from your data or overwrite the links.

Year ending June	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Expenditure Outlays included in Long Term Financial Plan (in current \$ values)</b>										
<b>Operations</b>										
Operations budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Management budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AM systems budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total operations</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Maintenance</b>										
Reactive maintenance budget	\$63	\$63	\$63	\$63	\$63	\$63	\$63	\$63	\$63	\$63
Planned maintenance budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specific maintenance items budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total maintenance</b>	\$63	\$63	\$63	\$63	\$63	\$63	\$63	\$63	\$63	\$63
<b>Capital</b>										
Planned renewal budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Planned upgrade/new budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Non-growth contributed asset value</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Asset Disposals</b>										
Est Cost to dispose of assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carrying value (DRC) of disposed assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Additional Expenditure Outlays Requirements (e.g from Infrastructure Risk Management Plan)</b>										
Additional Expenditure Outlays required and not included above	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Operations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160	\$160
Capital Renewal	to be incorporated into Forms 2 & 2.1 (where Method 1 is used) OR Form 2B Defect Repairs (where Method 2 or 3 is used)									
Capital Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
User Comments #2										
<b>Forecasts for Capital Renewal using Methods 2 &amp; 3 (Form 2A &amp; 2B) &amp; Capital Upgrade (Form 2C)</b>										
Forecast Capital Renewal from Forms 2A & 2B	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Forecast Capital Upgrade from Form 2C	\$0	\$618	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

## **Appendix E Abbreviations**

<b>AAAC</b>	Average annual asset consumption
<b>AM</b>	Asset management
<b>AM Plan</b>	Asset management plan
<b>ARI</b>	Average recurrence interval
<b>ASC</b>	Annual service cost
<b>BOD</b>	Biochemical (biological) oxygen demand
<b>CRC</b>	Current replacement cost
<b>CWMS</b>	Community wastewater management systems
<b>DA</b>	Depreciable amount
<b>DRC</b>	Depreciated replacement cost
<b>EF</b>	Earthworks/formation
<b>IRMP</b>	Infrastructure risk management plan
<b>LCC</b>	Life Cycle cost
<b>LCE</b>	Life cycle expenditure
<b>LTFP</b>	Long term financial plan
<b>MMS</b>	Maintenance management system
<b>PCI</b>	Pavement condition index
<b>RV</b>	Residual value
<b>SoA</b>	State of the Assets
<b>SS</b>	Suspended solids
<b>vph</b>	Vehicles per hour
<b>WDCRD</b>	Written down current replacement cost

## Appendix F Glossary

### Annual service cost (ASC)

- 1) Reporting actual cost  
The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
- 2) For investment analysis and budgeting  
An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/opportunity and disposal costs, less revenue.

### Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

### Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

### Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

### Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

### Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

### Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

### Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an asset management plan for the same period [AIFMG Financial Sustainability Indicator No 8].

### Average annual asset consumption (AAAC)\*

The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

### Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

### Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

### Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is

discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

**Capital expenditure - new**

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

**Capital expenditure - renewal**

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

**Capital expenditure - upgrade**

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

**Capital funding**

Funding to pay for capital expenditure.

**Capital grants**

Monies received generally tied to the specific projects for which they are granted, which are

often upgrade and/or expansion or new investment proposals.

**Capital investment expenditure**

See capital expenditure definition.

**Capitalisation threshold**

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

**Carrying amount**

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

**Class of assets**

See asset class definition

**Component**

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

**Core asset management**

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision-making).

**Cost of an asset**

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

**Critical assets**

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and

rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

**Current replacement cost (CRC)**

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

**Deferred maintenance**

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

**Depreciable amount**

The cost of an asset, or other amount substituted for its cost, less its residual value.

**Depreciated replacement cost (DRC)**

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

**Depreciation / amortisation**

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

**Economic life**

See useful life definition.

**Expenditure**

The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

**Fair value**

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

**Financing gap**

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and

other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

**Heritage asset**

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

**Impairment Loss**

The amount by which the carrying amount of an asset exceeds its recoverable amount.

**Infrastructure assets**

Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

**Investment property**

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business.

**Key performance indicator**

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset

performance, reliability, efficiency, environmental protection and customer satisfaction.

#### **Level of service**

The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

#### **Life Cycle Cost \***

1. **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
2. **Average LCC** The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

#### **Life Cycle Expenditure**

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

#### **Loans / borrowings**

See borrowings.

#### **Maintenance**

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

- **Planned maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

- **Reactive maintenance**

Unplanned repair work that is carried out in response to service requests and management/supervisory directions.

- **Specific maintenance**

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

- **Unplanned maintenance**

Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.

#### **Maintenance expenditure \***

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

#### **Materiality**

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

#### **Modern equivalent asset**

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques

#### **Net present value (NPV)**

The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows

arising from eg the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

**Non-revenue generating investments**

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

**Operations**

Regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

**Operating expenditure**

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

**Operating expense**

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

**Operating expenses**

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

**Operations, maintenance and renewal financing ratio**

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

**Operations, maintenance and renewal gap**

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

**Pavement management system (PMS)**

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

**PMS Score**

A measure of condition of a road segment determined from a Pavement Management System.

**Rate of annual asset consumption \***

The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

**Rate of annual asset renewal \***

The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

**Rate of annual asset upgrade/new \***

A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

**Recoverable amount**

The higher of an asset's fair value, less costs to sell and its value in use.

**Recurrent expenditure**

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

**Recurrent funding**

Funding to pay for recurrent expenditure.

**Rehabilitation**

See capital renewal expenditure definition above.

**Remaining useful life**

The time remaining until an asset ceases to provide the required service level or economic

usefulness. Age plus remaining useful life is useful life.

**Renewal**

See capital renewal expenditure definition above.

**Residual value**

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

**Revenue generating investments**

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

**Risk management**

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

**Section or segment**

A self-contained part or piece of an infrastructure asset.

**Service potential**

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

**Service potential remaining**

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

**Specific Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

**Strategic Longer-Term Plan**

A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the asset management plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

**Sub-component**

Smaller individual parts that make up a component part.

**Useful life**

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

**Value in Use**

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, AIFMG Glossary

Additional and modified glossary items shown \*

**Appendix G Strategic Asset Management Framework**

**STRATEGIC ASSET MANAGEMENT FRAMEWORK**

In order for assets to be managed in a way that ensures efficient, effective and sustainable service delivery all assets are assessed using a decision-making matrix based on asset criticality and priority for action.

**1. Strategic Asset Criticality**

All City of Marion assets are categorised to determine their criticality, based on the definitions below.

<p><b>Priority 1- Critical</b></p>	<ul style="list-style-type: none"> <li>• Those assets that are <u>essential</u> in discharging council’s role and functions as set out in the LG Act 1999 eg to provide infrastructure for its community and for development within its area (including infrastructure that helps to protect any part of the local or broader community from any hazard or other event, or that assists in the management of any area);</li> <li>• Those assets that will result in <u>severe</u> consequence to community, or financial, business or service levels in event of failure, repurposing or disposal.</li> </ul>
<p><b>Priority 2- Important</b></p>	<ul style="list-style-type: none"> <li>• Those assets that contribute <u>significantly</u> to the role and function of council under the LG Act.</li> <li>• Those assets that are important in the delivery of identified services, with <u>major/moderate</u> consequence to community, or financial, business or service levels in event of failure, repurposing or disposal.</li> </ul>
<p><b>Priority 3- Aspirational/ Discretionary</b></p>	<ul style="list-style-type: none"> <li>• Those assets that <u>contribute</u> to the role and functions of council under the LG Act.</li> <li>• Those assets that <u>contribute</u> to the achievement of CoM Community aspirations and council outcomes.</li> <li>• Those assets that contribute to the delivery of identified services, with <u>minor</u> consequence to community, or financial, business or service levels in event of failure, repurposing or disposal.</li> </ul>

## 2. Asset Management Actions

All actions associated with asset management are categorised to determine their priority based on the definitions provided below. Asset management will follow an approach based on maintenance before renewal and renewal before new/upgrade (where it is cost effective to do so).

<b>Maintain</b>	All operational actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal. Maintenance <u>does not increase the service potential</u> of the asset or keep it in its original condition, it slows down deterioration and delays when rehabilitation or replacement is necessary (IIMM 2011).
<b>Renew/Replace</b>	Restores, rehabilitates, refurbishes existing asset to its original capacity. <u>Returns service capability</u> of the asset up to that which it had originally (AIFM Guidelines 2009).
<b>New/Develop/Upgrade</b>	Enhancements to an existing asset or creation of a new asset to provide <u>higher service levels, or new service level/output</u> that did not exist beforehand. Also includes the extension/expansion of an existing asset to provide benefits to a new user group. May also increase the life of the asset beyond that which it had originally (AIFM Guidelines 2009).

### References

International Infrastructure Management Manual 2011

Australian Infrastructure Financial Management Guidelines Version 1.0 2009

### 3. Strategic Asset Management Decision Making Matrix

Strategic decisions on asset management are made based on consideration of asset criticality and priority for action.

	<b>Priority 1- Critical</b>	<b>Priority 2- Important</b>	<b>Priority 3- Aspirational/ Discretionary</b>
<b>Priority 1- Maintain</b>			
<b>Priority 2- Renew</b>			
<b>Priority 3- New/Develop/Upgrade</b>			

 Any decision that falls in the green section of the matrix is considered operational/business as usual.

- These decisions are automatically planned for and funded as part of the Annual Business Planning and Budgeting process.
- These decisions are automatically reflected in the Asset Management Plans and Long Term Financial Plan.
- Decisions made on renewal actions will consider all options and opportunities for more efficient and effective means of service delivery prior to investment.



Any decision that falls in the yellow section of the matrix is considered beyond operational/business as usual.

- These decisions are automatically referred to the 'new initiatives' process to be assessed and prioritised for action. This process is a critical element of the Annual Business Plan and Budgeting process to ensure Council considers potential funding of prioritised initiatives as part of the setting of the budget.
- These actions are not reflected in the Asset Management Plans or Long Term Financial Plan until Council has made a decision to implement the action.

## REFERENCES

*Local Government Act 1999*

Community Plan – Towards 2040

Council Plan – Towards 2025

### PROCEDURE REFERENCE:

Acquisition and Sale of Land Assets Policy

- Roads Opening and Closing Policy

## AUTHOR

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