city of Victor Harbor

Other Infrastructure Asset Management Plan

S2_V1 Capital - Forward Estimates Works Program

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1. Executive Summary

Context

Council provides a range of infrastructure, to enable a safe, well maintained, fit for purpose assets in accordance with Councils service delivery objectives.
The Other Infrastructure assets cannot be provided without the proper construction and maintenance of the supporting assets. The renewal and maintenance of these assets is critical to successful service delivery.

The other infrastructure provides the following:

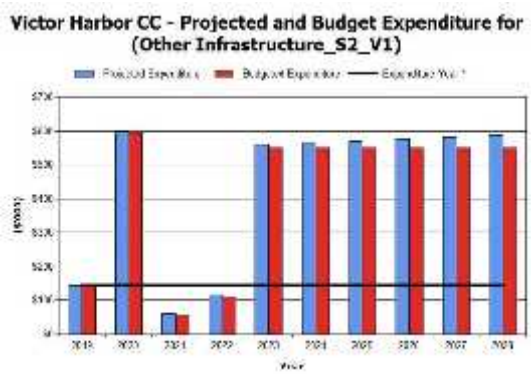
- Bluff Boat Ramp
- Sea Defence, Concrete Walls
- Encounter Lake Pumps & Chambers

These infrastructure assets have a replacement value of Other Infrastructure **$4,753,000**

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 **$4,352,000** or **$435,000** on average per year.

Council's estimated available funding for this period is **$4,201,000** or **$420,000** on average per year which is **97%** of the cost to provide the service. This is a funding shortfall of $15,000 on average per year. 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.



What we will do

Council plans to provide Other Infrastructure services for the following:

- Operation, maintenance, renewal and upgrade of Other Infrastructure to meet service levels set by Council in annual budgets.
- Bluff Boat Holding Area projects are expected within the 10 year planning period.

What we cannot do

Council does not have enough funding to provide all services at the desired service levels or provide new services. Works and services that cannot be provided under present funding levels are:

- Create new assets
- Over service

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:

- Lack of servicing to horse drawn carriages
- Lack of servicing and renewal of tram lines

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

- Action Plan
- Understand the ongoing costs through the audit committee & council

Confidence Levels

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

The Next Steps

The actions resulting from this asset management plan are:

- Review Works Program
- Ongoing review of service levels
- Advise audit committee
- Advise Council
- Annually review useful lives

Questions you may have

What is this plan about?

This asset management plan covers the infrastructure assets that serve the City of Victor Harbor community's Other Infrastructure needs. These assets include Horse drawn carriage, tram lines, Bluff boat ramp throughout the Council area that enable people to enjoy council's assets.

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.

Why is there a funding shortfall?

Most of the Council's Other Infrastructure network was constructed by developers and from government grants, often provided and accepted without consideration of ongoing operations, maintenance and replacement needs.

Many of these assets are approaching the later years of their life and require replacement, services from the assets are decreasing and maintenance costs are increasing.

Councils' present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

What options do we have?

Resolving the funding shortfall involves several steps:

1. Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels,
2. Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs,
3. Identifying and managing risks associated with providing services from infrastructure,
4. Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure,
5. Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs,
6. Consulting with the community to ensure that Other Infrastructure services and costs meet community needs and are affordable,
7. Developing partnership with other bodies, where available to provide services,
8. Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services.

What happens if we don't manage the shortfall?

It is likely that Council will have to reduce service levels in some areas, unless new sources of revenue are found. For Other Infrastructure, the service level reduction may a lower standard of assets that requires higher levels of maintenance due to a longer renewal period.

What can we do?

Council can develop options, costs and priorities for future Other Infrastructure services, consult with the community to plan future services to match the community service needs with ability to pay for services and maximise community benefits against costs.

What can you do?

Council will be pleased to consider your thoughts on the issues raised in this asset management plan and suggestions on how Council may change or reduce its Other Infrastructure mix of services to ensure that the appropriate level of service can be provided to the community within available funding.

2. Introduction

2.1 Background

This asset management plan is to demonstrate responsive 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[1].

The asset management plan is to be read with Council's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

- Community Plan 2036 and Strategic Directions 2016-2020
- Long Term Financial Plan (LTFP)
- Victor Harbor Urban Growth Strategy
- Past Population Growth & Future Projections Report 2005
- Victor Harbor Traffic Management Strategy 2005
- Victor Harbor Coastal Management Study 2013

This infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used by Council to provide safe and efficient services to its community.

Table 2.1: Assets covered by this Plan

Asset Category	Location	Renewal Cost
Tram Line	Horse Tram Office - Franklin Parade	$686,367.99
Horse Tram Equestrian Surfacing	Horse Tram Office - Franklin Parade	$11,268.00
Industrial Area Signage	Lincoln Park & Maude Street	$32,167.82
AC Charging Station - Voltron Bollard J1772	Barker Reserve - Bay Road	$6,592.74
AC Charging Station - Voltron Bollard J1772	Grosvenor Gardens - Coral Street	$6,592.74
Encounter Lakes Gate Lifting Mechanism	Encounter Lakes	$246,782.85
Power Box - Railway Terrace	Railway Terrace	$12,917.52
Inman River Bank Remediation	Bay Road/Kent Drive	$926,532.98
RV & Caravan Effluent Dump Point	Information Bay on Adelaide Road	$26,963.70
Coastal Protection	289 x Concrete Blocks for sea wall at the Causeway	$496,629.62
Boat Ramp - Causeway	Causeway/Amusement Area - Flinders Parade	$30,000.00
Landscaping - Caravan Park	Caravan Park	$3,500.00
Electric Barbeques - Caravan Park	Caravan Park	$8,250.00
Reserve Lighting - Caravan Park	Caravan Park	$28,858.00
Barbecue Shelters	Caravan Park	$7,350.00
Roadways - Caravan Park	Caravan Park	$354,500.00

[1] IPWEA, 2011, Sec 4.2.6, *Example of an Asset Management Plan Structure*, pp 4|24 – 27.

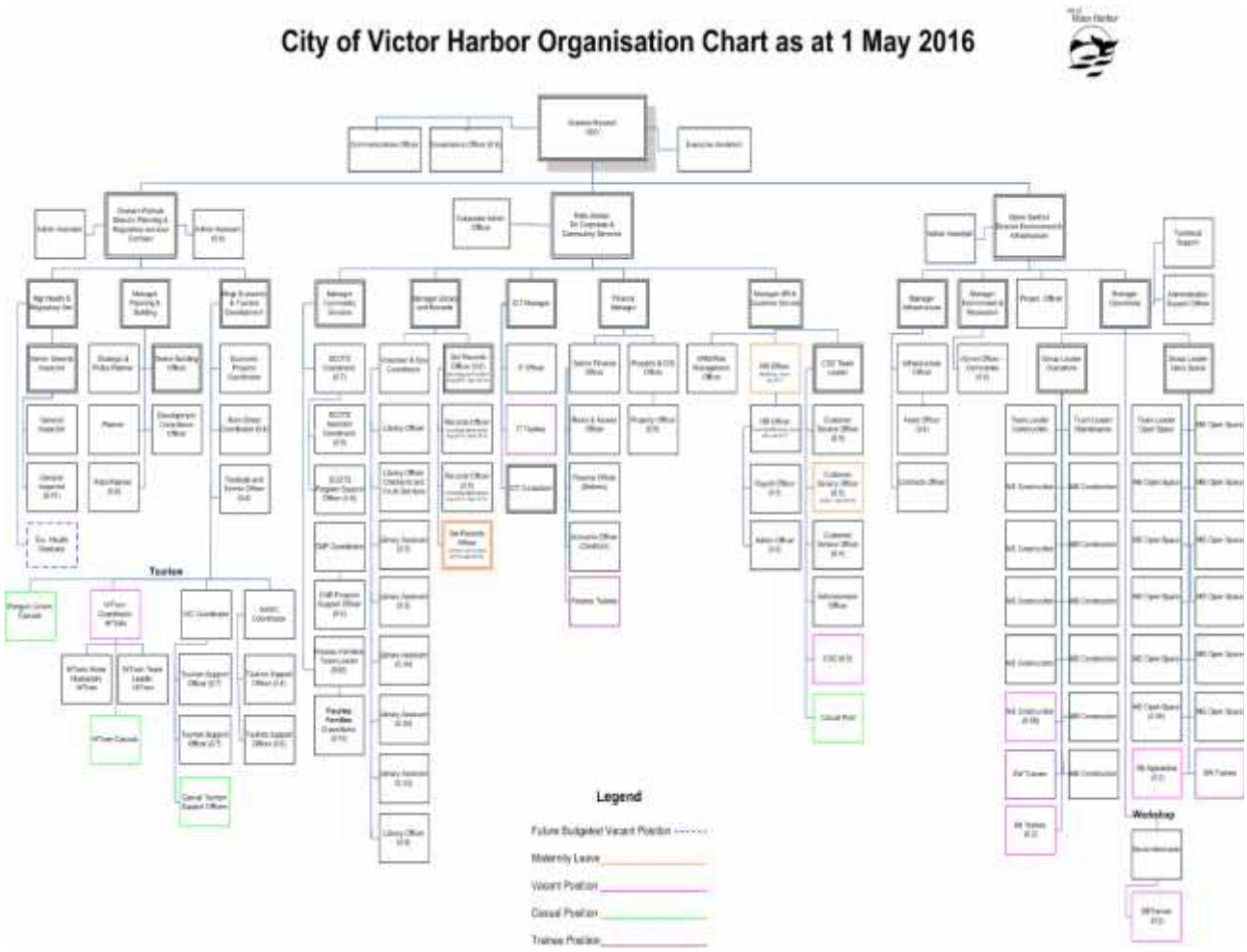
Rainwater Tank - Caravan Park	Caravan Park	$2,500.00
Power Outlets - Caravan Park	Caravan Park	$124,320.00
Water Outlets - Caravan Park	Caravan Park	$103,025.00
Fencing - Caravan Park	Caravan Park	$59,816.00
Boom Gate - Caravan Park	Caravan Park	$12,000.00
Picnic Setting - Caravan Park	Caravan Park	$6,050.00
Playground Equipment - Caravan Park	Caravan Park	$10,897.40
Concrete Waste Bins	Works Depot	$10,852.07
Concrete Mulch Bays	Works Depot	$8,042.86
Site works/Roadworks	Works Depot	$66,935.71
Depot Fencing	Works Depot	$26,000.00
Concrete Sand Bays	Works Depot	$12,000.00
Wash Bay	Works Depot	$17,823.81
Nursery Development	Works Depot	$5,000.00
Boat Ramp - Bluff	GS Read Reserve - Franklin Parade	$1,347,939.43
Weighbridge	Ex Victor Harbor Landfill Depot	$55,000.00
	TOTAL	$4,753,476.24

Key stakeholders in the preparation and implementation of this asset management plan are: Shown in Table 2.1.1.

Table 2.1.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Elected Members	) Represent needs of community/shareholders,) Allocate resources to meet the organisation's objectives in providing services while managing risks,) Ensure organisation is financial sustainable.
City Manager	Driver of council plans and direction
Community	Consumers of service
Visitors	Consumers of service
Manager Infrastructure	Capital Works Program
Manager Finance	Long Term Financial Plan & Budgets
Manager Operations	Capital Works and Maintenance Programs

Council's organisational structure for service delivery from infrastructure assets is detailed below.



2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by Council staff and by donation of assets constructed by developers and others to meet increased levels of service.

Council's goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) 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.[2]

[2] Based on IPWEA, 2011, IIMM, Sec 1.2 p 1|7.

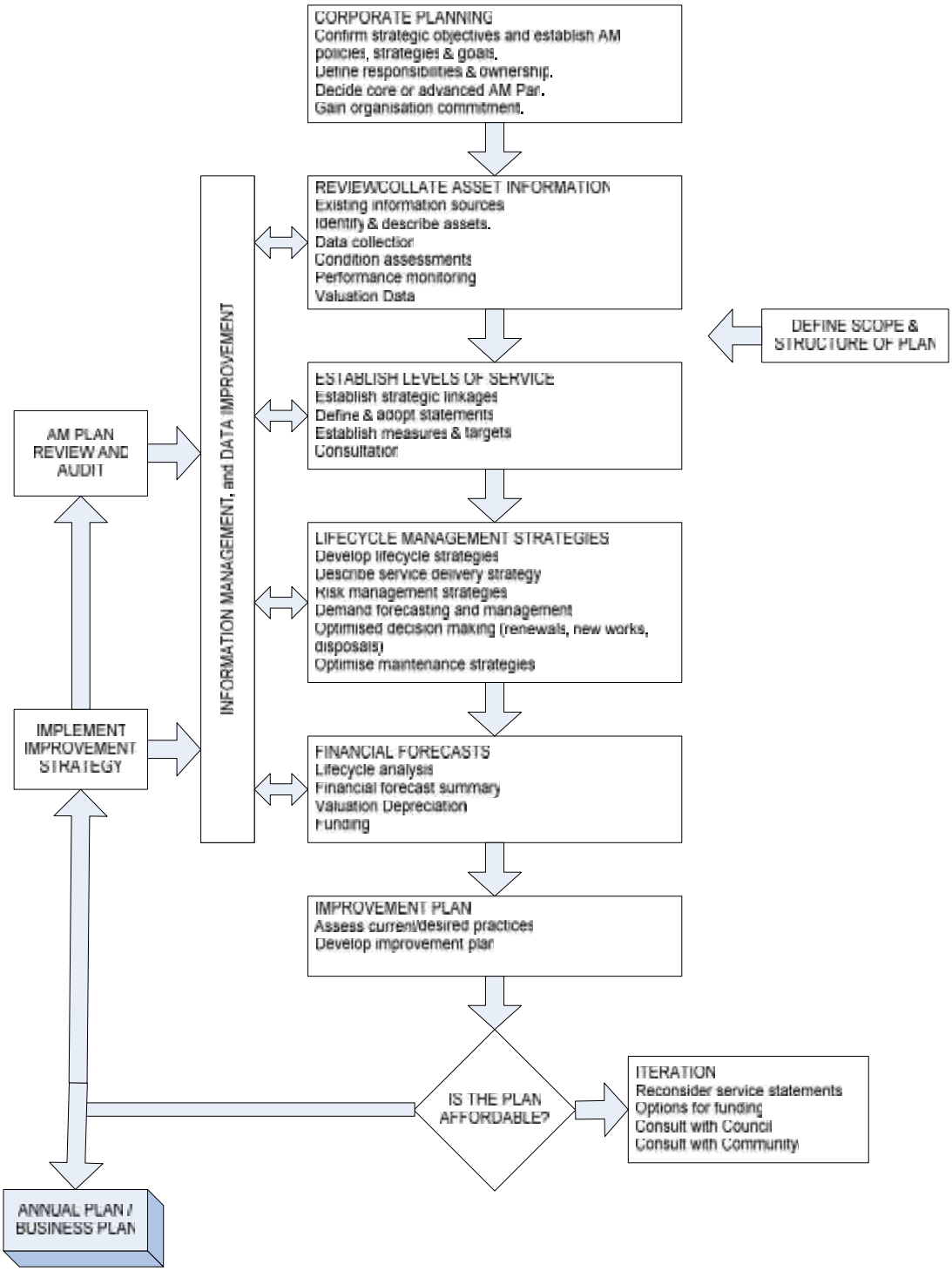
2.3 Plan Framework

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 Council will manage its 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 Council's objectives,
- Asset management improvement plan.

A road map for preparing an asset management plan is shown below.

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 is prepared as a 'core' asset management plan over a 20 year planning period in accordance with the International Infrastructure Management Manual[3]. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

2.5 Community Consultation

This 'core' asset management plan is prepared to facilitate community consultation initially through feedback on public display of draft asset management plans prior to adoption by Council. Future revisions of the asset management plan will incorporate community consultation on service levels and costs of providing the service. This will assist Council and the community in matching 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 participated in the 2012 Local Government Roy Morgan Customer Satisfaction survey. This telephone survey polls a sample of residents on their level of satisfaction with the organisation's services. The most recent customer satisfaction survey reported 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
Importance that Council provides & maintains roads, footpaths & cycle tracks			√ Mean (out of 10) 9.22		
Performance in providing & maintaining roads, footpaths & cycle track		√ Mean (out of 10) 5.94			

Council uses this information in developing its Strategic Plan and in allocation of resources in the budget.

[3] IPWEA, 2011, IIMM.

3.2 Strategic and Corporate Objectives

The Victor Harbor Community Plan 2036 will help shape the future of Victor Harbor for the next 20 years. It highlights the opportunities that have shaped our thinking and describes in broad terms how we plan to achieve our vision - **A city that offers opportunity and lifestyle.**

To achieve the Vision Council has identified five broad, interlinked objectives.

Objective 1 - Healthy environments

Objective 2 - Attractive lifestyle and inclusive community

Objective 3 - A thriving local economy

Objective 4 - Services and infrastructure supporting the community

Objective 5 - An innovative Council empowering the community

The Strategic Directions inform Council's annual business plans, work plans and budgets which detail what Council will do to achieve its objectives. Council's Long Term Financial Plan and Asset Management Plan are also informed by the Community Plan.

Table 3.2: Organisation Goals and how these are addressed in this Plan

Goal	Objectives
Assets & Infrastructure that are developed, managed and maintained so that they provide the levels of service needs to the community.	Objective 1 - Healthy environments Objective 2 - Attractive lifestyle and inclusive community Objective 3 - A thriving local economy Objective 4 - Services and infrastructure supporting the community Objective 5 - An innovative Council empowering the community

The organisation will exercise its duty of care to ensure public safety is 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

The organisation has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.3: 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	Sets out role, purpose, responsibilities of local government in protecting the environment.
WHS Act	Sets out role, purpose, responsibilities of local government in providing safe work practices and worksites.
Australian Road Rules and Road Safety Act	Set of model road rules developed by the National Road Transport Commission (NRTC) which form the platform for State and Territory road rules across Australia. The first edition of the Rules was published on 19 October 1999, and marked a milestone in road safety policy and legislation across Australia.
Native Vegetation Act	Provides incentives and assistance to landowners in relation to the preservation and enhancement of native vegetation; to control the clearance of native vegetation; and for other purposes.
River Murray Act	Provides for the protection and enhancement of the River Murray and related areas and ecosystems; and for other purposes.
Coastal Protection Act	Provides provision for the conservation and protection of the beaches and coast of this State; and for other purposes.
Mutual Liability Scheme	Sets out role, purpose, responsibilities of local government in managing risk and liabilities.
AAS27	Sets out responsibilities of local government for maintaining accounting standards.
Australian Standards and AUS PEC	Covers minor civil works NATSPEC's major service is providing a national master specification to the construction industry.

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

3.4 Community Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service.

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?

The organisation's current and expected community service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the agreed expected community levels of service based on resource levels in the current long-term financial plan and community consultation/engagement.

Table 3.4: Community Level of Service

Service Attribute	Service Objective	Performance Measure Process	Current Performance	Expected position in 10 years based on current LTFP
COMMUNITY OUTCOMES				
Provide Safe and Function Assets				
COMMUNITY LEVELS OF SERVICE				
Quality	Well Maintained Other Infrastructure Assets	Community Survey	Assets fit for purpose	Assets fit for purpose
	Organisational measure Confidence levels Medium			
Function	Ensure Facilities meet user expectations	Community Survey	Assets fit for purpose	Assets fit for purpose
	Organisational measure Confidence levels Medium			
Capacity/ Utilisation	Meeting capacity and need heavy for used areas	Community Survey	Assets fit for purpose	Assets fit for purpose
	Organisational measure Confidence levels Medium			

3.5 Technical Levels of Service

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, mowing grass, energy, inspections, etc.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (eg road patching, unsealed road grading, building and structure repairs),
- Renewal – the activities that return the service capability of an asset up to that which it had originally (eg frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- Upgrade – the activities to provide a higher level of service (eg widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (eg a new library).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.[4]

[4] IPWEA, 2011, IIMM, p 2.22

Table 3.5 shows the technical level of service expected to be provided under this AM Plan. The agreed sustainable position in the table documents the position agreed by the Council following community consultation and trade-off of service levels performance, costs and risk within resources available in the long-term financial plan.

Table 3.5: Technical Levels of Service

Service Attribute	Service Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **	Agreed Sustainable Position ***
TECHNICAL LEVELS OF SERVICE					
Operations	Maintain Assets				
		Budget	$ 000	$ 000	$ 000
Maintenance	Ongoing Maintenance Programs				
		Budget	$ 49,200	$ 45,000	$ 45,200
Renewal	Preferred Capital Cost				
		Budget	$ 10,000	$ 10,000	$ 10,000
Upgrade/New	Unfunded and an increase in operations and maintenance costs				
		Budget	$ 101,000	$ 100,000	$ 100,000

*Note: * Current activities and costs (currently funded).*

*** Desired activities and costs to sustain current service levels and achieve minimum life cycle costs (not currently funded).*

**** Activities and costs communicated and agreed with the community as being sustainable (funded position following trade-offs, managing risks and delivering agreed service level.*

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 assets were identified and are documented in Table 4.3.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of assets are shown in Table 4.3.

Table 4.3: Demand Drivers, Projections and Impact on Services

The Department of Planning, Transport and Infrastructure (DPTI) recently released the official population projections for local government areas across the State based on the 2011 Census report.

The following table shows that latest population projections for Victor Harbor and compares these to the previous projections.

Table 1: ABS Population

	2006 Census Projections	**2011 Census Projections**
2016 Victor Harbor base population – 14,670		
2016	16,171	15,607
2021	17,673	17,319
2026	19,343	19,204
2031		21,231

These figures indicate that Victor Harbor's population is not expected to grow as quickly as initially thought. Of particular note is the significant reduction in population growth anticipated between 2011 and 2016, which when projected over subsequent five-year periods, results in a slightly lower population for the City by 2026 (by 139 persons or 0.8%). The number of people aged 65 and over was projected to be in the order of 35.5% of the total population by 2026. The most recent projections indicate that by 2031, the number of people aged 65 and over in Victor Harbor will make up nearly 40% of the total population.

Demand drivers	Present position	Projection	Impact on services
Population	14,670	21,231 in 2031	Increase in demand for services.
Demographics	The increase in population is expected to occur mainly in the older demographic of 65+.	The increase in population of **1.5%** per annum is expected to continue in the built up area of the city rather than in the rural areas.	The infrastructure will increasingly have to cater for additional traffic, involving upgrading existing and supplying new infrastructure including footpaths, pedestrian access locations and parking.
Climate Change	Coastal Erosion	Sea Level Rise – 3mm/year	Before year 2050 Sea level inundation is likely to show some impact on Councils infrastructure. *Refer to 2013 AWE Coastal Management Study.*
Climate Change	Coastal Erosion	Sea Level Rise – 3mm/year	Before year 2100 Sea level inundation is likely to cause *'significant'* impact on Councils infrastructure. *Refer to 2013 AWE Coastal Management Study.*

4.4 Demand Management Plan

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

Non-asset solutions focus on providing the required service without the need for the Council to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets deteriorate beyond current service levels) or educating customers to accept appropriate asset failures[5]. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another Council area or public toilets provided in commercial premises.

Opportunities identified to date for demand management are shown in Table 4.4. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.4: Demand Management Plan Summary

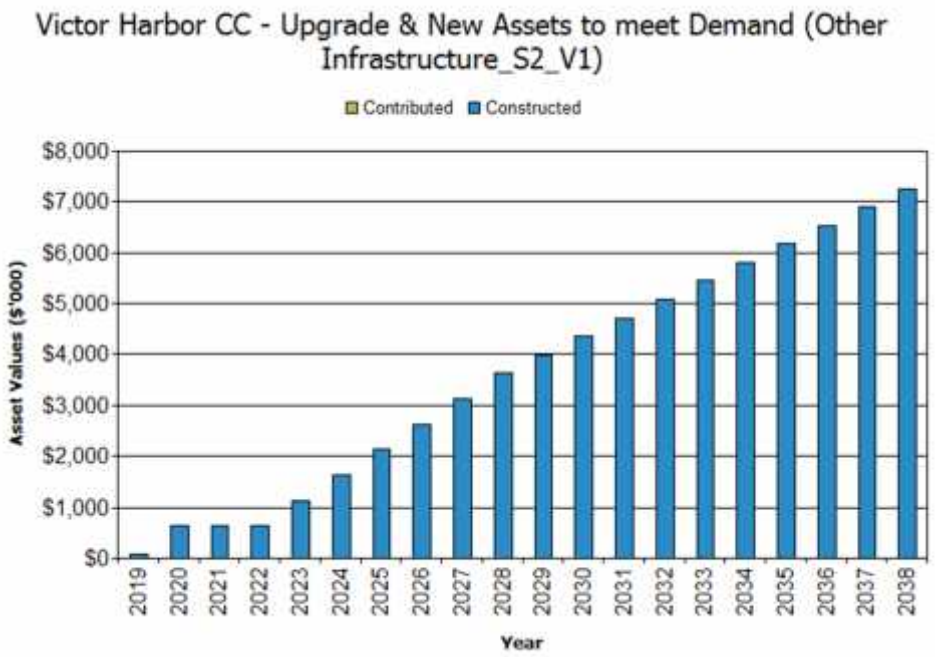
Demand Driver	Impact on Services	Demand Management Plan
Development of new residential subdivisions	Can affect future capacity and utilisation requirements	To meet requirements of township development plans.
Expectation of the need for new assets	Increased service level	Utilisation and demand.

[5] IPWEA, 2011, IIMM, Table 3.4.1, p 3|58.

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by Council. New assets constructed/acquired by Council are discussed in Section 5.5. The cumulative value of new contributed and constructed asset values are summarised in Figure 1.

Figure 1: Upgrade and New Assets to meet Demand



Acquiring these new assets will commit Council to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs in Section 5.

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.

Asset Category	Location	Renewal Cost
Tram Line	Horse Tram Office - Franklin Parade	$686,367.99
Horse Tram Equestrian Surfacing	Horse Tram Office - Franklin Parade	$11,268.00
Industrial Area Signage	Lincoln Park & Maude Street	$32,167.82
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Barbecue Shelters	Caravan Park	$7,350.00
Roadways - Caravan Park	Caravan Park	$354,500.00
Rainwater Tank - Caravan Park	Caravan Park	$2,500.00
Power Outlets - Caravan Park	Caravan Park	$124,320.00
Water Outlets - Caravan Park	Caravan Park	$103,025.00
Fencing - Caravan Park	Caravan Park	$59,816.00
Boom Gate - Caravan Park	Caravan Park	$12,000.00
Picnic Setting - Caravan Park	Caravan Park	$6,050.00
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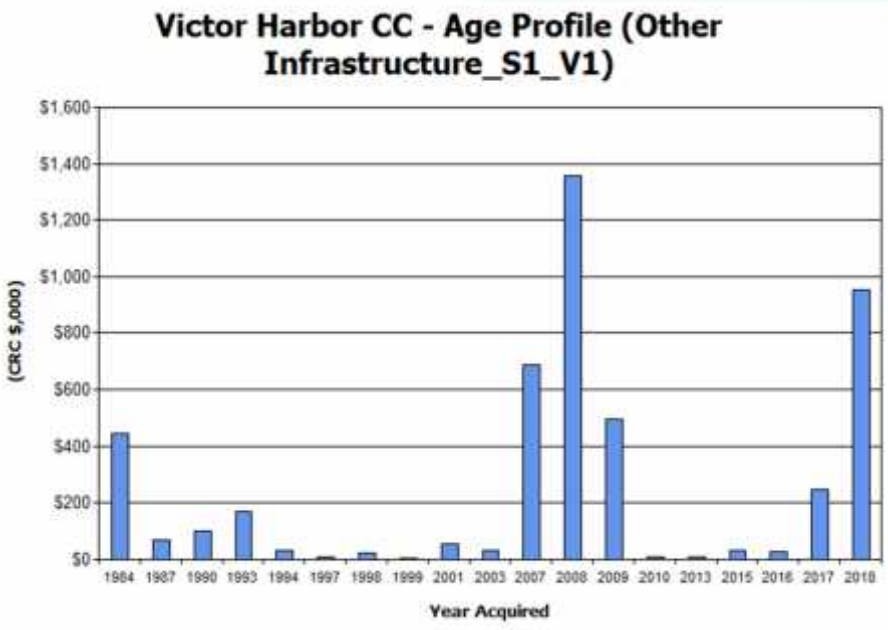
Depot Fencing	Works Depot	$26,000.00
Concrete Sand Bays	Works Depot	$12,000.00
Wash Bay	Works Depot	$17,823.81
Nursery Development	Works Depot	$5,000.00
Boat Ramp - Bluff	GS Read Reserve - Franklin Parade	$1,347,939.43
Weighbridge	Ex Victor Harbor Landfill Depot	$55,000.00
	TOTAL	$4,753,476.24

The age profile of the assets include in this AM Plan is shown in Figure 2.

Figure 2: Asset Age Profile



5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Other Infrastructure Assets	No known performance issues.

5.1.3 Asset condition

Condition is monitored in accordance with methods developed by the Department of Planning, Transport and Infrastructure which included measurement of key attributes which were missing from other systems in use and yet which represented the actual condition of the road assets better. The systematic approach was also in line with procedures outlined in the International Infrastructure Management Manual (IIMM).

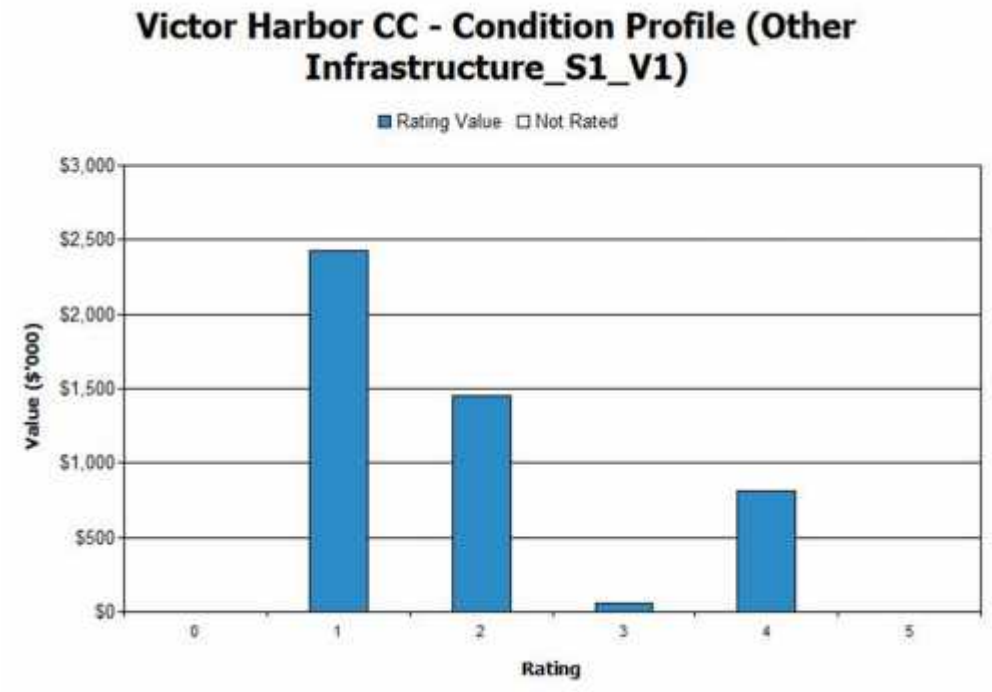
This approach was adopted here as the methods used in systems available locally at reasonable prices either did not rate the key attributes or attempted to force fit those attributes collected into other fields which obscured the output. This had resulted in some practitioners adopting parallel and somewhat independent databases based upon experience with their networks and to achieve outputs which more closely matched the actual field conditions.

The approach at City of Victor Harbor was to incorporate all relevant attribute criteria at the data collection with allowance for possible future changes and to accommodate system upgrades.

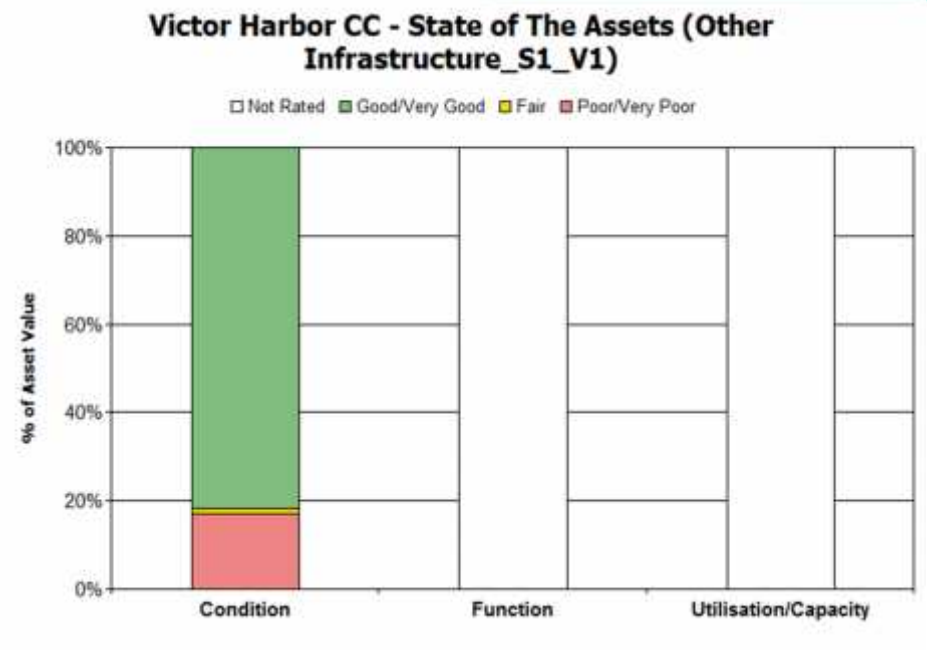
Refinements are continuing on the road asset register database.

The condition profile of Council's assets is shown in Figure 3.

Fig 3: Asset Condition Profile



Condition	CRC ($'000)	Weight (%)
0	$0	0%
1	$2,428	51%
2	$1,453	31%
3	$58	1%
4	$814	17%
5	$0	0%
		*all dollar values in ($'000)'s



Not Rated	**0 %**	**100 %**	**100 %**
Good / Very Good	**81.6 %**	**0 %**	**0 %**
Fair	**1.2 %**	**0 %**	**0 %**
Poor / Very Poor	**17.1 %**	**0 %**	**0 %**

Condition is measured using a 0 – 6 grading system[6] as detailed in Table 5.1.3.

Table 5.1.3: Simple Condition Grading Model

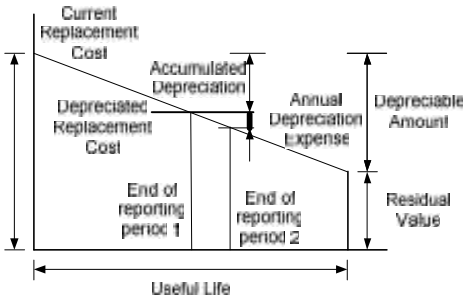
Condition Grading	Description of Condition
0	**Brand New:** Asset is brand new.
1	**Very Good**: Near as new condition with no defects.
2	**Good**: Superficial deterioration. No issue with reliability. No maintenance is required.
3	**Fair**: Minor deterioration present. Routine maintenance may be required.
4	**Poor**: Significant deterioration present. Requires maintenance to keep the asset serviceable and programming for renewal/rehabilitation on forward 5 year works program.
5	**Very Poor**: Extensive deterioration present. Requires significant maintenance to keep the asset serviceable and programming for renewal/rehabilitation within the following year.
6	**End of Life:** Asset is unserviceable and provides no service. Asset cannot be used.

[6] IPWEA, 2011, IIMM, Sec 2.5.4, p 2|79.

5.1.4 Asset valuations

The value of assets recorded in the asset register as at **2014** covered by this asset management plan is shown below. Assets were last revalued at **2018**. Assets are valued at fair-value asset accounting based on AASB116 (Australian Accounting Standard Board). Refer to Attachment Valuation Methodology.

Current Replacement Cost	**$4,753,000**
Depreciable Amount	**$4,753,000**
Depreciated Replacement Cost[7]	**$3,430,000**
Annual Depreciation Expense	**$90,000**



Useful lives were reviewed in **2018** by detailed condition analysis

Key assumptions made in preparing the valuations were:

Using local projects
Using local data (metric unit rates)
That the Roads Asset Register is a true reflection of the actual network dimensions & composition

Major changes from previous valuations are due to better knowledge of the current network profile and history of works completed as well as the impact of market forces of materials required for construction and renewal.

Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time.

Rate of Annual Asset Consumption (Depreciation/Depreciable Amount)	**1.9%**
Rate of Annual Asset Renewal (Capital renewal exp/Depreciable amount)	**0%**
Rate of Annual Asset Upgrade/New (Capital upgrade exp/Depreciable amount)	**1.9%**
Rate of Annual Asset Upgrade/New (including contributed assets)	**1.9%**

In **2018** Council plans to renew assets at **0%** of the rate they are being consumed and will be increasing its asset stock by **1.9%** in the year.

5.1.5 Historical Data

Maintenance Expenses

General Maintenance	2018-19 Budget	2017-18 Actual	2016-17 Actual	2015-16 Actual	2014-15 Actual	2013-14 Actual
	$38,700.00	$50,689.04	$33,626.09	$41,719.97	$41,390.51	$45.989.36
Total	$38,700.00	$50,689.04	$33,626.09	$46,719.97	$41,390.51	$45,989.36

[7] Also reported as Written Down Current Replacement Cost (WDCRC).

Operation Expenses

Operation Expenses	2018-19 Budget	2017-18 Actual	2016-17 Actual	2015-16 Actual	2014-15 Actual	2013-14 Actual
Account No. 56136	$14,000	$000	$000	$000	$000	$000
Total	$14,000	$000	$000	$000	$000	$000

5.2 Infrastructure Risk Management Plan

An assessment of risks[8] 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 5.2. These risks are reported to management and Council.

Table 5.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Encounter Lake Pumps	Breakdowns	H	Undertake regular pump checks Operator to record as per manufactures checklist Regular maintenance specified by pump manufacture	M	$1200/year maintenance
Bluff Boat Ramp	Slippery Surface, whilst using Boat Ramp	H	As required, pressure wash concrete surface to remove algae growth and sea grasses	L	$700/year maintenance (twice per year)

Note * The residual risk is the risk remaining after the selected risk treatment plan is operational.
Sample above, Refer to Other Infrastructure Risk Management Plan

5.3 Routine Operations and Maintenance Plan

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

[8] Reference to Infrastructure Asset Management Risk Document

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 affect service levels including quality and function through street sweeping and grass mowing frequency, intensity and spacing of street lights and cleaning frequency and opening hours of building and other facilities.

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, eg road patching 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, replacing air conditioning units, etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past maintenance expenditure is shown in Table 5.3.1.

Table 5.3.1: Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Planned and Specific	**Unplanned**
2013-14	$45.989.36	$000
2014-15	$41,390.51	$000
2015-16	$41,719.97	$000
2016-17	$33,626.09	$000
2017-18	$50,689.04	$000
2018-19 (budget)	$38,700.00	$000

Planned maintenance work is currently **100%** of total maintenance expenditure.

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that will result in a lesser level of service, the service consequences and service risks have been identified and service consequences highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

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

5.3.2 Operations and Maintenance Strategies

Council 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 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),

- Maintain a current infrastructure risk register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options,
- 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.

Council's service hierarchy is shown is Table 5.3.2.

Table 5.3.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
All listed assets as per Other Infrastructure asset register	Safe and Fit for Purpose
All listed assets as per Other Infrastructure asset register	Safe and Fit for Purpose

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 5.3.2.1.

Table 5.3.2.1: Critical Assets and Service Level Objectives

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Causeway Tram Line	Causeway	State Government Responsibility to Maintain

Standards and specifications

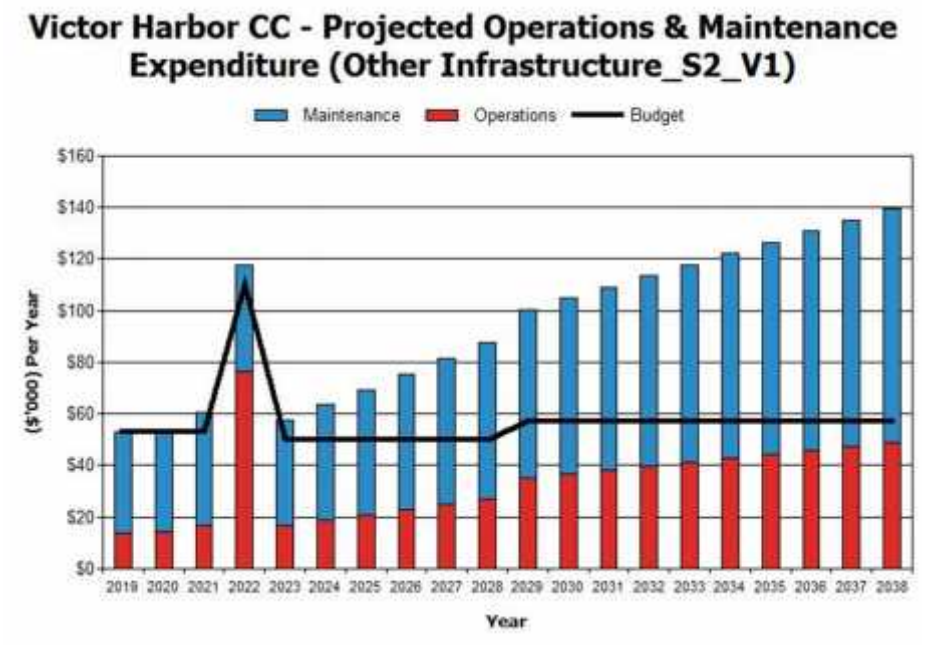
Maintenance work is carried out in accordance with the following Standards and Specifications.

- Australian Standards

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 4. Note that all costs are shown in current **2018** dollar values (ie real values).

Figure 4: Projected Operations and Maintenance Expenditure



Deferred maintenance, ie 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. This is further discussed in Section 6.2.

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 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 2 was used for this asset management plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown in Table 5.4.1. Asset useful lives were last reviewed on 2014.[9]

[9] Methodology Report

Table 5.4.1: Useful Lives of Assets

Asset (Sub)Category	Useful life Yrs.
TRAM LINE	50
CAUSEWAY PLAZA	50
HORSE TRAM EQUESTRIAN SURFACIN	15
BOAT RAMP - CAUSEWAY	30
CONCRETE WASTE BINS	50
CONCRETE MULCH BAYS	25
SITEWORKS/ROADWAYS	50
FENCING	25
CONCRETE SAND BAYS	50
WASH BAY	50
NURSERY DEVELOPMENT	20
BOAT RAMP - BLUFF	50
WEIGHBRIDGE	30
LANDSCAPING	20
ELECTRIC BARBEQUES	20
RESERVE LIGHTING	20
BARBECUE SHELTERS	20
ROADWAYS	50
RAINWATER TANK	20
CARAVAN PARK POWER OUTLETS	20
WATER OUTLETS	20
FENCING	25
BOOM GATE	20
PICNIC SETTING	20
CARAVAN PARK PLAYGROUND EQUIPM	20

5.4.2 Renewal and Replacement Strategies

Council will 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 options 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,
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- 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

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (eg replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (eg roughness of a road).[10]

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the organisation,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.[11]

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 5.4.2.

Table 5.4.2: Renewal and Replacement Priority Ranking Criteria

Criteria	Weighting
Condition Rating (4 and 5)	30%
Risks – (residual high and/or extreme risks)	30%
Utilisation	20%
Public Need	20%
Total	**100%**

Renewal and replacement standards

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

- Australian Standards
- Policies
- Procedures
- Codes of Practice

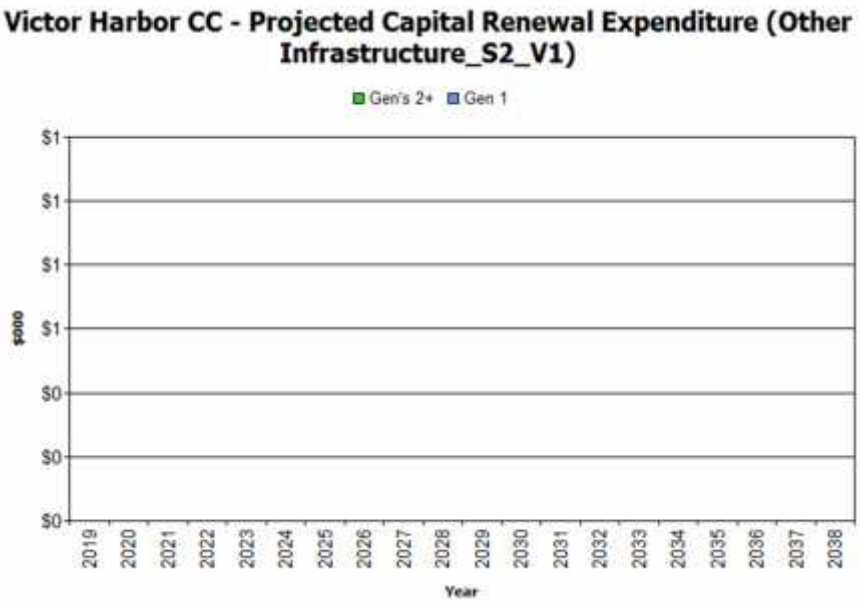
5.4.3 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in Fig 5. Note that all amounts are shown in real values.

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

[10] IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.
[11] Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3|66.

Fig 5: Projected Capital Renewal and Replacement Expenditure



Deferred renewal and replacement, ie 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 Council's capital works program will be accommodated in Council's 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. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below.

Table 5.5.1: New Assets Priority Ranking Criteria

Criteria	Weighting
Public Need	30%
Risks – (residual high or extreme risks)	20%
Utilisation	20%
Whole of Life Costing Analysis Considered	30%
Total	**100%**

5.5.2 Capital Investment Strategies

Council will plan capital upgrade and new projects to meet level of service objectives by:

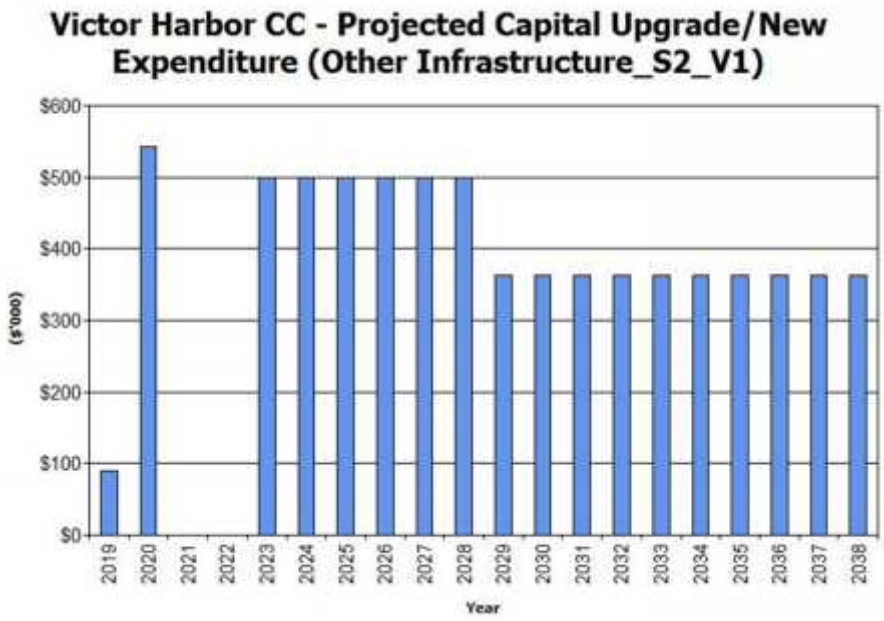
- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,
- Undertake project scoping for all capital upgrade/new projects to identify:
  - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
  - the project objectives to rectify the deficiency including value management for major projects,
  - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
  - management of risks associated with alternative options,
  - and evaluate the options against evaluation criteria adopted by Council, and
  - select the best option to be included in capital upgrade/new programs,
- Review current and required skills base and implement training and development to meet required construction and project management needs,
- Review management of capital project management activities to ensure Council is obtaining best value for resources used.

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarised in Fig 6. The projected upgrade/new capital works program is shown in Appendix C. All amounts are shown in real values.

Fig 6: Projected Capital Upgrade/New Asset Expenditure



Expenditure on new assets and services in Council's capital works program will be accommodated in Council's long term financial plan. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any revenue gained from asset disposals is accommodated in Council's long term financial plan.

Where cashflow projections from asset disposals are not available, these will be developed in future revisions of this asset management plan.

Table 5.6: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
Horse Drawn Assets	None Proposed	N/A	N/A	N/A
Bluff Boat Ramp	None Proposed	N/A	N/A	N/A

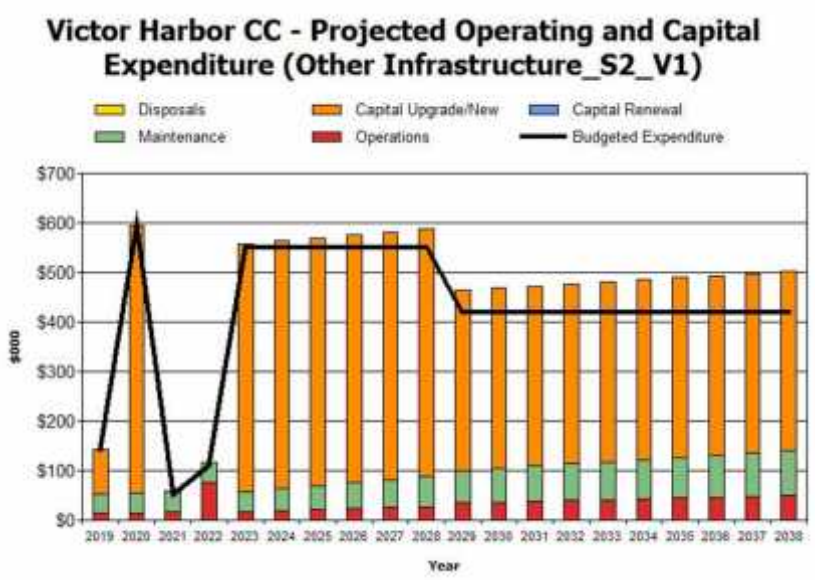
6. Financial Summary

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 as further 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 Fig 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

Fig 7: Projected Operating and Capital Expenditure



6.1.1 Sustainability of service delivery

Two 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, and
- medium term budgeted expenditures/projected expenditure (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[12] 0%

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have 0% of the funds required for the optimal renewal and replacement of assets.

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 $72,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $57,000 on average per year giving a 10 year funding shortfall of $15,000 per year. This indicates 79% of the projected expenditures needed to provide the services documented in the asset management plan. This excludes upgrade/new assets.

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 8 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 capital works program, which is accommodated in the long term financial plan.

Figure 8: Projected and LTFP Budgeted Renewal Expenditure

[12] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

Table 6.1.1 shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in long term financial plan. Budget expenditures accommodated in the long term financial plan or extrapolated from current budgets are shown in Appendix D.

Table 6.1.1: Projected and LTFP Budgeted Renewals and Financing Shortfall

Year End Jun-30	Projected Renewals ($'000)	LTFP Renewal Budget ($'000)	Renewal Financing Shortfall ($'000) (- gap, + surplus)	Cumulative Shortfall($'000) (- gap, + surplus)
2019	$0	$0	$0	$0
2020	$0	$0	$0	$0
2021	$0	$0	$0	$0
2022	$0	$0	$0	$0
2023	$0	$0	$0	$0
2024	$0	$0	$0	$0
2025	$0	$0	$0	$0
2026	$0	$0	$0	$0
2027	$0	$0	$0	$0
2028	$0	$0	$0	$0
2029	$0	$0	$0	$0
2030	$0	$0	$0	$0
2031	$0	$0	$0	$0
2032	$0	$0	$0	$0
2033	$0	$0	$0	$0
2034	$0	$0	$0	$0
2035	$0	$0	$0	$0
2036	$0	$0	$0	$0
2037	$0	$0	$0	$0
2038	$0	$0	$0	$0

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.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the LTFP indicates that further work is required on reviewing service levels in the AM Plan (including possibly revising the LTFP) before finalising the asset management plan to manage required service levels and funding to eliminate any funding gap.

We will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services, and review future services, service levels and costs with the community.

6.1.2 Projected expenditures for long term financial plan

Table 6.1.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in **2018** real values.

Table 6.1.2: Projected Expenditures for Long Term Financial Plan ($000)

Year	Operations	Maintenance	Projected Capital Renewal	Capital Upgrade/New	Disposals
2019	$14.00	$39.00	$0.00	$90.00	$0.00
2020	$14.38	$39.70	$0.00	$542.00	$0.00
2021	$16.66	$43.91	$0.00	$0.00	$0.00
2022	$76.66	$40.91	$0.00	$0.00	$0.00
2023	$16.66	$40.91	$0.00	$500.00	$0.00
2024	$18.76	$44.79	$0.00	$500.00	$0.00
2025	$20.87	$48.67	$0.00	$500.00	$0.00
2026	$22.97	$52.55	$0.00	$500.00	$0.00
2027	$25.08	$56.43	$0.00	$500.00	$0.00
2028	$27.18	$60.32	$0.00	$500.00	$0.00
2029	$35.28	$65.10	$0.00	$363.20	$0.00
2030	$36.81	$67.92	$0.00	$363.20	$0.00
2031	$38.34	$70.74	$0.00	$363.20	$0.00
2032	$39.87	$73.56	$0.00	$363.20	$0.00
2033	$41.40	$76.38	$0.00	$363.20	$0.00
2034	$42.92	$79.20	$0.00	$363.20	$0.00
2035	$44.45	$82.02	$0.00	$363.20	$0.00
2036	$45.98	$84.84	$0.00	$363.20	$0.00
2037	$47.51	$87.65	$0.00	$363.20	$0.00
2038	$49.04	$90.47	$0.00	$363.20	$0.00

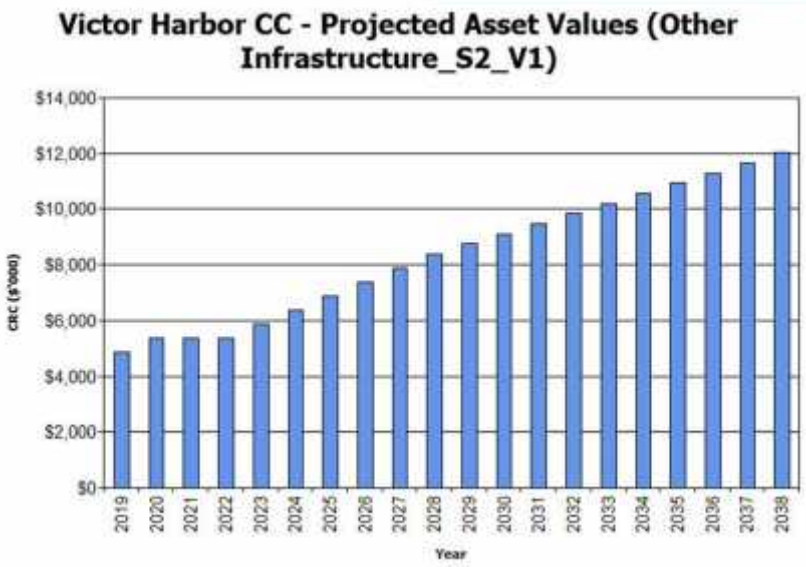
6.2 Funding Strategy

After reviewing service levels, as appropriate to ensure ongoing financial sustainability projected expenditures identified in Section 6.1.2 will be accommodated in the Council's 10 year long term financial plan.

6.3 Valuation Forecasts

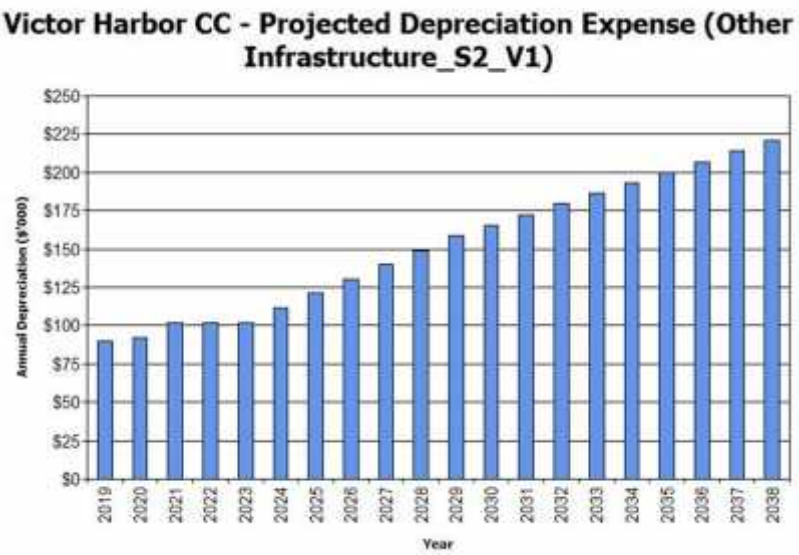
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Figure 9 shows the projected replacement cost asset values over the planning period in real values.

Figure 9: Projected Asset Values



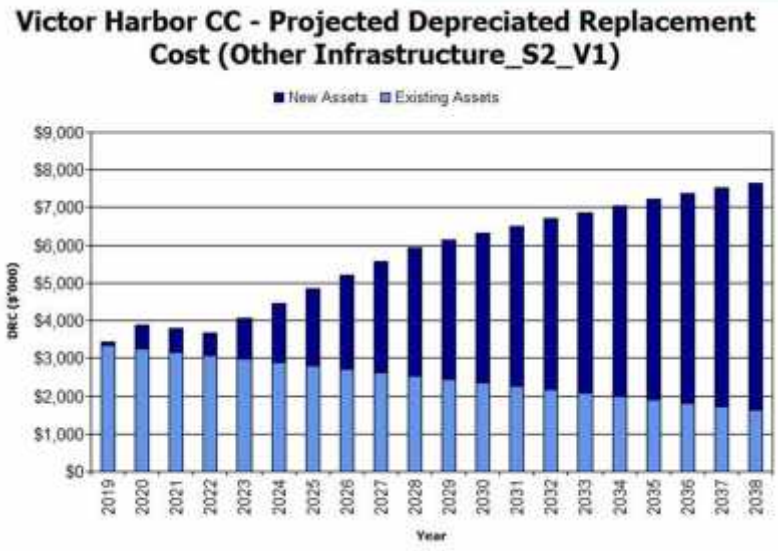
Depreciation expense values are forecast in line with asset values as shown in Figure 10.

Figure 10: Projected Depreciation Expense



The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in Figure 11. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.

Figure 11: Projected Depreciated Replacement Cost



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 6.4.

Table 6.4: Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
All expenditure is stated in dollar values as at **2018** with no allowance made for inflation over the 10-year planning period.	All values are in today's dollars no % increase has been included.
Initial renewal and new costs have been reviewed on the basis of historical costs, condition deterioration work, and compared to the depreciation provision and the funding available. Renewal costs typically increase by an average of **3-4%** per annum over the life of the Plan to allow for the impact of an enlarged asset base.	Cost assumptions based on past and known costs.
Similarly, Maintenance costs typically increase by about **3%** per annum to allow for the increase in total asset value (reflecting the higher costs associated with managing a larger network base). Again, as asset value is predicted to increase by some **0%** over the life of the Plan, this assumption will need to be closely monitored to ensure that sufficient maintenance funds are available to optimise long term expenditure and not create a backlog.	Cost assumptions based on past and known costs.
Continuation of the current rate and pattern of urban development.	Population growth factor of **1.5%** per year has been included.
Capital forecast costs for 'Renewal' & 'Upgrade/New' have been placed into their respective categories; this was based on limited information.	Cost assumptions are based on past and known costs including the break-down costs to reflect 'Renewal' & 'Upgrade/New' Capital costs.

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[13] in accordance with Table 6.5.

Table 6.5: 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 ± 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 ± 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 ± 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 ± 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 6.5.1.

Table 6.5.1: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	Highly Reliable	Regional trends available
Growth projections	Highly Reliable	
Operations expenditures	Reliable	Extrapolated from previous years
Maintenance expenditures	Highly Reliable	Extrapolated from previous years
Projected Renewal exps. - Asset values	Highly Reliable	Valuation completed **2014**
- Asset residual values	Reliable	Identified in Condition assessment but not applied to register
- Asset useful lives	Reliable	Identified in Condition assessment but not applied to register
- Condition modelling	Highly Reliable	Comprehensively completed in **2018**
- Network renewals	Highly Reliable	Based on Condition assessment and operational experience
- Defect repairs	Highly Reliable	Scheduled maintenance is approx**. 100%** of total maintenance
Upgrade/New expenditures	Reliable	Capital Works Program
Disposal expenditures	Reliable	From LTFP

[13] IPWEA, 2011, IIMM, Table 2.4.6, p 2|59.

Over all data sources the data confidence is assessed as high confidence level for data used in the preparation of this AM Plan.

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 Victor Harbor includes:

- SynergySoft (IT Vision)
  - Actual and historical transactions
  - Budgeting
  - Inventories
  - Recording of Infrastructure, including plant, property and equipment
  - Depreciation of the assets, including useful and remaining lives of assets
  - Creditors payments system
  - Debtors receipting
  - Banking and reconciliation with the general ledger
- Magic Performance (Magiq Software Pty Ltd)
  - Preparation of budgets
  - Budget Reviews
  - Reporting and analysis
  - Import / export of data from SynergySoft
- MyData (Assetic Pty Ltd)
  - Recording of infrastructure, land & building assets
  - Depreciation of infrastructure, land & buildings
  - Condition rating, useful lives and unit rates of infrastructure, land & buildings
  - Reporting and analysis

Accountabilities for financial systems

The responsibility for the integrity of the finance system is with the Finance Manager and the Team Leader Finance.

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 2011
- State and Federal Legislation (eg taxes)
- Australian Accounting Standards set by the Australian Accounting Standards Board (AASB)
- Australasian Equivalents to the International Financial Reporting Standards
- City of Victor Harbor Internal Control procedures

Capital/maintenance threshold

Capital thresholds vary between $1,000 and $10,000. If the improvements are below these amounts then it would be included in the operating budget as maintenance.

7.2.1 Asset management system

The council uses both SynergySoft and MyData software for asset maintenance. New infrastructure & open space assets are created and maintained within the Environment and Infrastructure Department.

New land & building assets are created and maintained within the Corporate & Community Services Department. A single line entry for each asset class in MyData is recorded in SynergySoft and records for depreciation, additions, disposals and adjustments are reconciled between the two systems. The asset register is sourced from both systems and compiled on an annual basis.

Accountabilities for asset management system and data maintenance

While the responsibility of the financial data of the assets is with the Finance Manager and the Team Leader Finance, the accountability for accuracy of the asset information is as follows:

- Manager Infrastructure – Infrastructure (excluding Open Space)
- Manager Environment & Recreation – Open Space & Buildings
- Manager Finance – Land

7.2 Improvement Program

The asset management improvement plan generated from this asset management plan is shown in Table 8.2.

Table 7.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Annually Review 10 Year Capital Works Program	GS, JR	Staff	October/ November each year
2	Reflect actual useful lives in next valuation of the associated infrastructure assets (desk top review)	GS, JS, JR, KKS, Assetic	Staff, Assetic	As per revaluation requirements
3	Review Levels of Service	GS	Staff	October/November each year
4	Continue to maintain and quality check the asset register	JS, JR	Staff	On-going
5	LTFP & Asset Management Plan to align	KKS, GS	Staff	Commencement at the end of each financial year in readiness for the new FY

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 organisation'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 2 years 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 Council'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 Council's Strategic Plan and associated plans.

8. References

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org/IIMM

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org/AIFMG.

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org/IIMM

Community Plan 2036 and Strategic Directions 2016-2020

Other Infrastructure Risk Management Plan

City of Victor Harbor Urban Growth Management Strategy

Organisation, 'Annual Plan and Budget'

Victor Harbor Coastal Management Study 2013

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 LTFP Budgeted Expenditures Accommodated in AM Plan

Appendix E Abbreviations

Appendix F Glossary

Appendix A Maintenance Response Levels of Service

Refer to Works Service Requests

Appendix B Projected 10 year Capital Renewal and Replacement Works Program

Yr 2019	Renewal	New/Upgrade	Total
Bridge Terrace VH Bowling Club - Block Wall Construction (Stage 1)	$ -	$ 90,000	$ 90,000
	$ -	$ 90,000	**$ 90,000**

Yr 2020	Renewal	New/Upgrade	
Landfill, Second Leachate Pond (EPA Requirement)	$ -	$ 350,000	$ 350,000
Bridge Terrace VH Bowling Club - Block Wall Construction (Stage 2)	$ -	$ 155,000	$ 155,000
Welcome Sign x 1 - Corner Waterport Rd/Adelaide Rd	$ -	$ 37,000	$ 37,000
	$ -	$ 542,000	**$ 542,000**

Yr 2021	Renewal	New/Upgrade	
	$ -	$ -	**$ -**

Yr 2022	Renewal	New/Upgrade	
	$ -	$ -	**$ -**

Yr 2023	Renewal	New/Upgrade	
Franklin Parade - Sea Wall - Stage 1 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**

Yr 2024	Renewal	New/Upgrade	
Franklin Parade - Sea Wall - Stage 2 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**

Yr 2025	Renewal	New/Upgrade	
Franklin Parade - Sea Wall - Stage 3 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000.00

	$ -	$ 500,000	**$ 500,000**
Yr 2026	**Renewal**	**New/Upgrade**	
Franklin Parade - Sea Wall - Stage 4 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**
Yr 2027	**Renewal**	**New/Upgrade**	
Esplanade - Sea Wall - Stage 1 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**
Yr 2028	**Renewal**	**New/Upgrade**	
Esplanade - Sea Wall - Stage 2 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**

Yr 2019	Renewal	New/Upgrade	Total
Bridge Terrace VH Bowling Club - Block Wall Construction (Stage 1)	$ -	$ 90,000	$ 90,000
	$ -	$ 90,000	**$ 90,000**

Yr 2020	Renewal	New/Upgrade	
Landfill, Second Leachate Pond (EPA Requirement)	$ -	$ 350,000	$ 350,000
Bridge Terrace VH Bowling Club - Block Wall Construction (Stage 2)	$ -	$ 155,000	$ 155,000
Welcome Sign x 1 - Corner Waterport Rd/Adelaide Rd	$ -	$ 37,000	$ 37,000
	$ -	$ 542,000	**$ 542,000**

Yr 2021	Renewal	New/Upgrade	
	$ -	$ -	**$ -**

Yr 2022	Renewal	New/Upgrade

	$ -	$ -	**$ -**
Yr 2023	**Renewal**	**New/Upgrade**	
Franklin Parade - Sea Wall - Stage 1 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**
Yr 2024	**Renewal**	**New/Upgrade**	
Franklin Parade - Sea Wall - Stage 2 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**
Yr 2025	**Renewal**	**New/Upgrade**	
Franklin Parade - Sea Wall - Stage 3 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000.00

	$ -	$ 500,000	**$ 500,000**
Yr 2026	**Renewal**	**New/Upgrade**	
Franklin Parade - Sea Wall - Stage 4 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**
Yr 2027	**Renewal**	**New/Upgrade**	
Esplanade - Sea Wall - Stage 1 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**
Yr 2028	**Renewal**	**New/Upgrade**	
Esplanade - Sea Wall - Stage 2 - Height 2.65m AHD	$ -	$ 500,000	$ 500,000
	$ -	$ 500,000	**$ 500,000**

Appendix D Budgeted Expenditures Accommodated in LTFP

Projected Expenditure	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Capital Expenditure on Renewal/Replacement of existing assets	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Capital Expenditure on Upgrade/New assets	$90.00	$542.00	$0.00	$0.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00
Operational cost of existing assets	$14.00	$14.00	$14.00	$74.00	$14.00	$14.00	$14.00	$14.00	$14.00	$14.00
Maintenance cost of existing assets	$39.00	$39.00	$39.00	$36.00	$36.00	$36.00	$36.00	$36.00	$36.00	$36.00
Operational cost of New assets	$0.00	$0.38	$2.66	$2.66	$2.66	$4.76	$6.87	$8.97	$11.08	$13.18
Maintenance cost of New assets	$0.00	$0.70	$4.91	$4.91	$4.91	$8.79	$12.67	$16.55	$20.43	$24.32
Disposal of Surplus Assets	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
										All dollar values in ($'000)'s

Appendix E Abbreviations

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

Additional and modified glossary items shown *