

# District Council of **ROBE**

Infrastructure



## **Asset Management Plan**



**Version**

**06/May 2019**



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**Asset Management for Small, Rural or Remote Communities Practice Note**

The Institute of Public Works Engineering Australia.

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## 1. EXECUTIVE SUMMARY

### Context

The District Council of Robe is situated on Guichen Bay, about 350km south east of Adelaide. Robe has a population of approximately 1,400 people in winter months, with an influx of 15,000 people every summer.

Council has ageing infrastructure and in particular the road network and marina infrastructure needs maintenance, renewal and upgrading.

### The Infrastructure Service

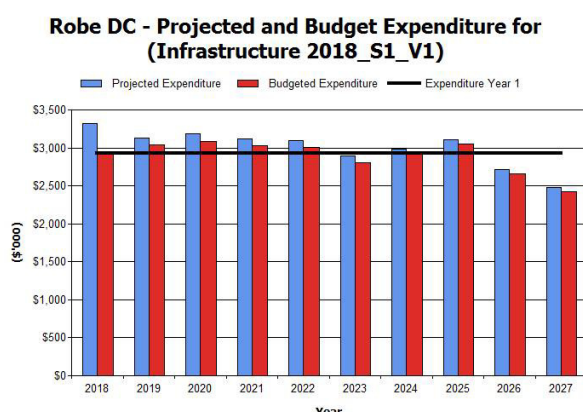
The infrastructure network comprises:

- Sealed & unsealed roads
- Kerbing
- Bridges
- Footpaths
- Stormwater drainage
- Marina
- Community Wastewater Management System (CWMS)

### What does it Cost?

The projected cost to provide the services covered by this Asset Management Plan includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$27,377,000 or \$2,737,000 per year.

Council's estimated available funding for this period is \$27,347,000 or \$2,735,000 per year which is 100% of the cost to provide the service. This is a funding shortfall of \$3,000 per year. Projected and budgeted expenditure are shown in the graph below.



Council's present funding levels are sufficient to continue to provide existing services at current levels in the medium term.

### What we will do

Council plans to provide operation, maintenance, renewal and upgrade of infrastructure service assets to meet service levels set by council in annual budgets 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.

### 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:

- Insufficient resources including funding and staff to replace/renew assets in a accordance with renewal forecasts.
- Incomplete/inaccurate asset data, particularly the condition of the road, marina and common effluent assets.

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

- Conducting regular condition assessments and site inspections to determine the remaining useful life of assets and maintenance requirements.
- Request funding for renewals as required and monitor trends of maintenance.

### The Next Steps

The actions resulting from this asset management plan are:

- Continue to improvement the data in relation to condition assessments of infrastructure assets.
- Use the condition assessments of infrastructure assets to better determine the remaining useful life.

## Questions you may have

### What is this plan about?

This asset management plan covers the infrastructure assets that serve the Robe Community's transport needs. These assets include Roads, Bridges, Footways, Stormwater Drainage, Marina Development and CWMS throughout the Council area that enable people to get to work and recreation, children to get to school, farm produce to markets and goods and services to shops.

### 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 transport network was constructed 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.

Council's 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, replacing existing and constructing new assets to optimise life cycle costs,
3. Identifying and managing risks associated with providing services from infrastructure,
4. Making tradeoffs 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 transport 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 transport infrastructure, the service level reduction may include loss of all-weather access for a number of unsealed roads and increase in footpath trip hazards and bridges with load limits.

### What can we do?

Council can develop options and priorities for future transport services with costs of providing the services, consult with the community to plan future services to match the community services needs with ability to pay for services and maximise benefit to the community for costs to the community.

## 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.

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

- District Council of Robe Strategic Plan 2014-2018
- District Council of Robe Long Term Financial Plan 2019-2028
- Development Plan
- Annual Budget

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

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

Asset category	Replacement Value
Road Assets	\$77,184,000
Bridges	\$134,000
Footpaths	\$1,010,000
Stormwater Drainage	\$2,262,000
Marina Development	\$3,806,000
CWMS	\$10,059,000
<b>TOTAL</b>	<b>\$94,455,000</b>

### 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 required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.<sup>1</sup>

The goal of this asset management plan is to:

- Document the services/service levels to be provided and the costs of providing the service,
- Communicate the consequences for service levels and risk, where desired funding is not available, and
- Provide information to assist decision makers in trading off service levels, costs and risks to provide services in a financially sustainable manner.

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<sup>1</sup> IPWEA, 2006, *IIMM* Sec 1.1.3, p 1.3.

This asset management plan is prepared under the direction of Council's vision, mission, goals and objectives.

Council's vision is:

***The District Council of Robe will be a vibrant, harmonious and prosperous place to live, work & visit.***

Council's mission is:

***The District Council of Robe will achieve its vision by;***

- ***Building a sense of community***
- ***Maintaining our built natural environment***
- ***Providing strong leadership and prudent stewardship***
- ***Delivering services within a sound financial framework***

Relevant goals and objectives and how these are addressed in this asset management plan are shown in Table 2.2.

**Table 2.2: Organisation Goals**

<b>Goal</b>	<b>Objective</b>	<b>How Goal and Objectives are addressed in AMP</b>
Governance and Financial sustainability – Provide leadership, good governance, and efficient, effective and responsive Council services	<ul style="list-style-type: none"><li>• Safeguarding Council assets by implementing appropriate asset management strategies and appropriate financial resources for those assets.</li><li>• Creating an environment where Council Elected Members and senior staff take an integral part in overall management of Council assets by creating and sustaining an asset management awareness throughout the organisation by training and development.</li><li>• Meeting legislative requirements for asset management.</li></ul>	This asset management plan documents the strategies and funding levels for asset replacement, renewal & upgrades over the long-term to ensure the ongoing financial sustainability of the Council.

### **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 the organisation will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services.
- Asset management practices
- Monitoring – how the plan will be monitored to ensure it is meeting the organisation's objectives.
- Asset management improvement plan



## 2.4 Core and Advanced Asset Management

This asset management plan is prepared as a first cut 'core' asset management plan in accordance with the International Infrastructure Management Manual<sup>2</sup>. 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.

## 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 to pay for the service.

## 3. LEVELS OF SERVICE

### 3.1 Customer Research and Expectations

Council has not carried out any research on customer expectations. This will be investigated for future updates of the asset management plan.

### 3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 3.2.

**Table 3.2: Legislative Requirements**

Legislation	Requirement
Local Government Act	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.
Local Government (Financial Management and Rating) Amendment Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-term Financial Plan
Environmental Protection Act 1993	This Act places a 'duty of care' on people not to undertake activities that will cause environmental harm.
Work Health and Safety Act 2012	An Act to provide for the health, safety and welfare of persons at work.
Development Act 1993	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings; to make provision for the maintenance and conservation of land and buildings where appropriate; and for other purposes.
Australian Accounting Standards	Sets out the financial reporting standards for the (re)valuation and depreciation of assets

### 3.3 Current Levels of Service

Council has defined service levels in two terms.

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<sup>2</sup> IPWEA, 2006.

**Community Levels of Service** relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance.

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

Quality	How good is the service?
Function	Does it meet users' needs?
Safety	Is the service safe?

**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 council undertakes to best achieve the desired community outcomes.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services such as opening hours, cleansing frequency, mowing frequency, etc.
- Maintenance – the activities necessary to retain an assets as near as practicable to its original 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 an 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).

Council's current service levels are detailed in Table 3.3.

**Table 3.3: Current Service Levels**

Key Performance Measure	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service
<b>COMMUNITY LEVELS OF SERVICE</b>				
Quality	Well maintained and suitable sealed road network	Customer requests relating to maintenance	Less than 5 per year	Customer requests are recorded however a formal system needs to be set up and resources need to be allocated to accurately measure requests relating to maintenance
Quality	Well maintained and suitable unsealed road network	Customer requests relating to maintenance  Number of patrol grades per year	Less than 5 per year	Customer requests are recorded however a formal system needs to be set up and resources need to be allocated to accurately measure requests relating to maintenance
Quality	Well maintained and suitable kerbing, bridges, footpaths & stormwater drains	Customer requests relating to maintenance	Less than 5 per year	Customer requests are recorded however a formal system needs to be set up and resources need to be allocated to accurately measure requests relating to maintenance
Quality	Well maintained and suitable marina	Customer requests relating to maintenance	Less than 5 per year	Customer requests are recorded however a formal system needs to be set up and resources need to be

				allocated to accurately measure requests relating to maintenance
Quality	Well maintained and suitable CWMS	Customer requests relating to maintenance	Less than 5 per year	Customer requests are recorded however a formal system needs to be set up and resources need to be allocated to accurately measure requests relating to maintenance
Function	Access is available at all times for designated infrastructure assets	Customer requests relating to non-access	Less than 5 per year	Customer requests are recorded however a formal system needs to be set up and resources need to be allocated to accurately measure requests relating to non-access
Safety	Provide safe suitable infrastructure free from hazards	Number of Injury and/or property damage claims	Less than 2 per year	No claims in past year
<b>TECHNICAL LEVELS OF SERVICE</b>				
Operations	Infrastructure meets users' needs	Number of complaints	Maintenance & renewal to be implemented at optimal times to achieve best value for money	Maintenance and renewal work is undertaken in accordance with Annual Business Plan allocations and at optimal times
Maintenance	Infrastructure is well maintained	Inspection program	Infrastructure maintenance program meets community expectations	Further resources need to be allocated to develop and implement a formal inspection and maintenance program
Renewal	Infrastructure is safe and reliable	Annual renewal program is delivered on time and within budget	Renewal of infrastructure that the community is willing to accept and pay for	Capital works program is on target
Upgrade/New	Infrastructure is suitable for its purpose	Monitor to determine upgrade requirements	Infrastructure meets the capacity and safety requirements of the community	Consultant engineer provides practical completion documentation

### 3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including residents' feedback to Councillors and staff, service requests and correspondence.

## 4. FUTURE DEMAND

### 4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc.

Demand factor trends and impacts on service delivery are summarised in Table 4.1.

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

Demand factor	Present position	Projection	Impact on services
Population	1,400	+0.1%	Nominal

## 4.2 Changes in Technology

Technology changes are forecast to have little effect on the delivery of services covered by this plan.

## 4.3 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.

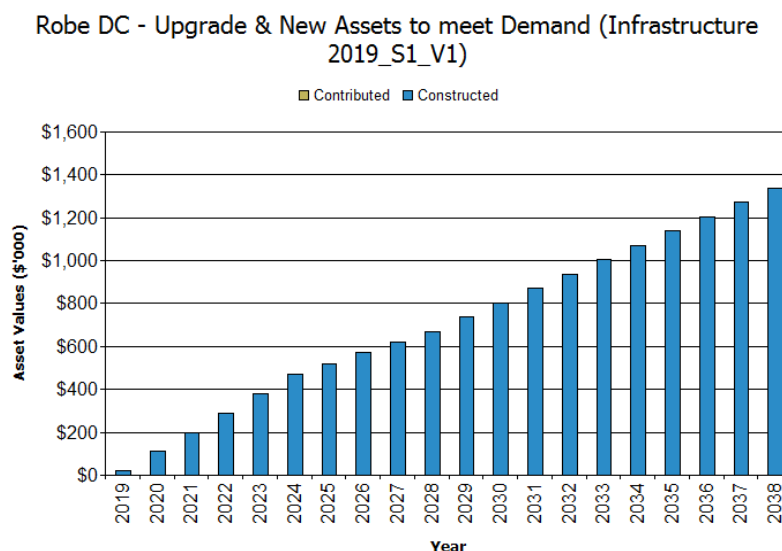
Non-asset solutions focus on providing the required service without the need for the council to own the assets. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another council area or public toilets provided in commercial premises.

There are no opportunities identified to date for demand management. Opportunities will be considered and developed in future revisions of this asset management plan.

## 4.4 New Assets for Growth

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by Council. There are no additional substantial infrastructure assets resulting from growth over the next ten years unless significant government funding becomes available. The new contributed and constructed asset values are summarised in Figure 1.

**Figure 1: New Assets for Growth**



Acquiring these new assets will commit council to fund ongoing operations and maintenance 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 and maintenance costs.

## 5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council 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.

Infrastructure assets are provided for the community throughout Robe. The majority of assets were constructed or reconstructed in their current forms from about the 1950's and reconstructions continue to occur as required. Over time the construction standards and techniques varied significantly with sealed roads varying from 4m wide to 7.2m wide in the rural areas and unsealed roads varying from 3.5m wide to 9.5m wide. Construction material for road pavements has generally been sourced from local limestone which also varies in quality and durability. In addition to this, sub-base material (natural soil) varies considerably throughout the district impacting on the useful life of the pavement.

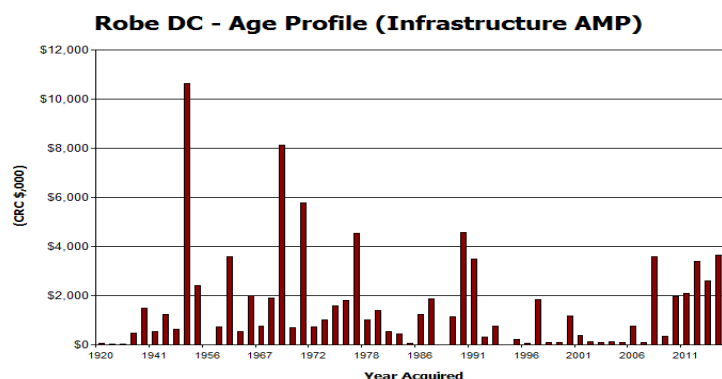
Kerb and gutter was originally constructed using prefabricated concrete slabs while today it is constructed in-situ on a compacted base using a mechanical kerbing machine. Footpaths vary from natural surface, to paved and concreted.

The changing construction standards and location of various assets provide variable service levels to residents throughout the community (for instance some farm accesses have all weather road access while others don't).

The aging infrastructure will increasingly see assets reach the end of their useful life and over the next 10 to 20 years and may exert higher than normal funding pressures. There has also been a substantial increase in traffic loads in the last 50 years so some pavements (in particular key freight routes) do not meet current standards and will need to be reconstructed to a higher standard. This means the cost of reconstructing will be higher than the reported replacement cost.

The following age profile has been developed based on a combination of data of known acquisition dates and assumed acquisition dates. The assumed acquisition dates rely on extrapolating acquisition dates based on the current condition of the asset. This is considered to be the best method for estimating with the present data. Improvement in this data will continue to be made and is noted in the Improvements section of this plan.

**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
Robe	Some town sealed roads are suffering surface texture defects and could lead to pavement failure.
Robe	Some town roads have no kerbing
Robe	Some roads have no footpaths
Robe marina	Condition assessments have highlighted the poor state of a number of infrastructure assets that could lead to infrastructure failure

The above service deficiencies were identified from inspections and engineering condition assessments

#### 5.1.3 Asset condition

Marina asset condition information is available via GHD Robe Marina Condition Assessment Report (January 2015).

#### 5.1.4 Asset valuations

The value of assets recorded in the asset register as at 01/07/2018 covered by this asset management plan is shown below. Assets were last revalued at 01/07/2018.

Current Replacement Cost	\$94,455,000
Depreciable Amount	\$70,427,000
Depreciated Replacement Cost	\$30,382,000
Annual Depreciation Expense	\$1,603,000

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Asset Consumption (Depreciation/Depreciable Amount)	2.30%
Asset renewal (Capital renewal exp/Depreciable amount)	4.20%
Annual Upgrade/New (Capital upgrade exp/Depreciable amount)	0.00%
Annual Upgrade/New (including contributed assets)	0.00%

Council is currently renewing assets at 183.40% of the rate they are being consumed.

To provide services in a financially sustainable manner, Council will need to ensure that it is renewing assets at the rate they are being consumed over the medium-long term and funding the life cycle costs for all new assets and services in its long term financial plan.

#### 5.1.5 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 does not have an asset hierarchy or service level hierarchy. This will be developed in future revisions of this asset management plan.

## 5.2 Risk Management Plan

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

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' - requiring prioritised corrective action identified in the Infrastructure Risk Management Plan are summarised in Table 5.2.

**Table 5.2: Critical Risks and Treatment Plans**

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Associated Costs
Roads	Vehicles being damaged as a result of road defects	H	Undertake scheduled road maintenance program. Undertake remedial road works when identified by inspections or identified by user feedback.	Annual road maintenance budget
Kerbing	Pedestrians tripping due to trip hazards	H	Undertake remedial works when identified by inspections or identified by user feedback.	Annual kerbing maintenance budget
Footpaths	Pedestrians tripping due to trip hazards	H	Undertake remedial works when identified by inspections or identified by user feedback	Annual footpath maintenance budget
Structural condition of stormwater culverts	Small percentage of new culverts can fail	H	Ensure new culverts are quality checked before installation to ensure no chance of structural failure.	Annual stormwater drainage budget
Lack of knowledge of stormwater drainage assets resulting in poor decision making	Most stormwater drainage assets are underground and condition is not easily assessed	H	Improve processes for capturing condition data, analyse data and prioritise works program	Yet to be determined
Road assets	Failure of pavement due to underground stormwater drainage culvert collapse	H	Introduction of CCTV program to identify areas of risk and aid in the development of future works programs	Yet to be determined
CWMS pump station	Power outage	H	Transportable backup pump is on hand.	Annual CWMS maintenance budget
CWMS pump station	Service failure due to aging infrastructure	H	Replace aging pumps	Annual CWMS capital budget

CWMS rising main	Main fails causing environmental damage	H	Develop regular inspection regime of problems mains to reduce the impact of failure	Annual CWMS maintenance budget
CWMS gravity line	Blockage, failure or cracking of pipe	H	Ensure ongoing maintenance program and develop CCTV monitoring program	Started 2017

### 5.3 Routine Maintenance Plan

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 Maintenance plan

Maintenance includes 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, building roof replacement, etc. This work generally 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
Previous Year 2016	\$615,000
Previous Year 2017	\$723,000
Last Year 2018	\$591,000

Current maintenance expenditure levels are considered to be adequate to meet required service levels. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

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

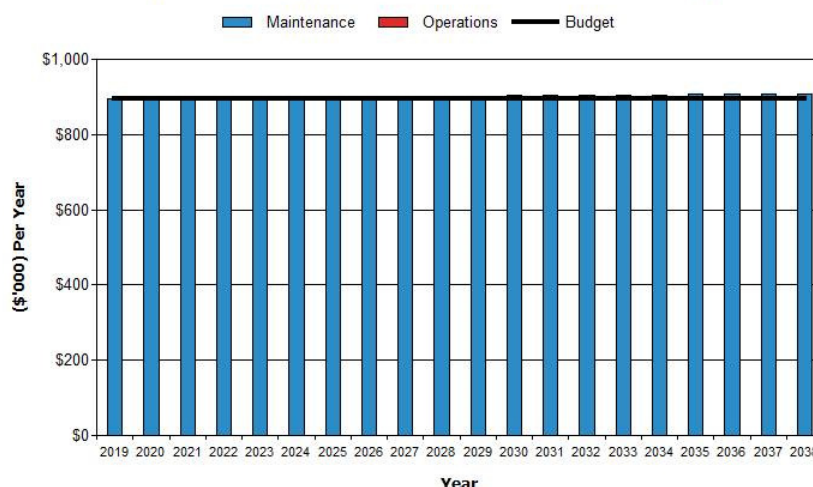
#### 5.3.3 Summary of future operations and maintenance expenditures

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 2019 dollar values.

**Figure 4: Projected Operations and Maintenance Expenditure**



### Robe DC - Projected Operations & Maintenance Expenditure (Infrastructure 2019\_S1\_V1)



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

Maintenance is funded from the operating budget and grants where available. This is further discussed in Section 6.2.

## 5.4 Renewal/Replacement Plan

Renewal 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 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 are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, 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 3 was used for this asset management plan.

The District Council of Robe does not have a ranking system or criteria for renewal of infrastructure assets and it is envisaged this will be developed in future plans.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Examples of low cost renewal include

- Recycling of pavement material.

### 5.4.2 Renewal standards

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

- Council Internal Standards
- Austroads Pavement Design
- National and State Engineering design standards
- DPTI Standards
- Relevant Australian Standards and Guidelines

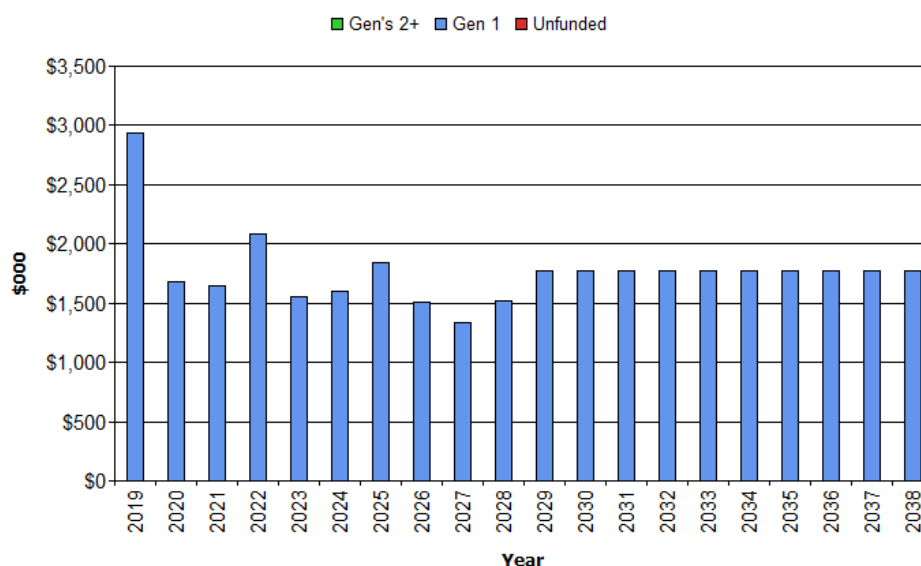
#### 5.4.3 Summary of projected renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 5. Note that all costs are shown in 2019 dollar values.

The projected capital renewal program is shown in Appendix B.

*Figure 5: Projected Capital Renewal Expenditure*

#### **Robe DC - Projected Capital Renewal Expenditure (Infrastructure 2019\_S1\_V1)**



Deferred renewal, ie those assets identified for renewal and not scheduled for renewal in capital works programs are to be included in the risk assessment process in the risk management plan.

Renewals are to be funded from capital works programs and grants where available. 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 Council 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 estimate. The District Council of Robe does not have a ranking system or criteria for creation/acquisition/upgrading of infrastructure assets and it is envisaged this will be developed in future plans.

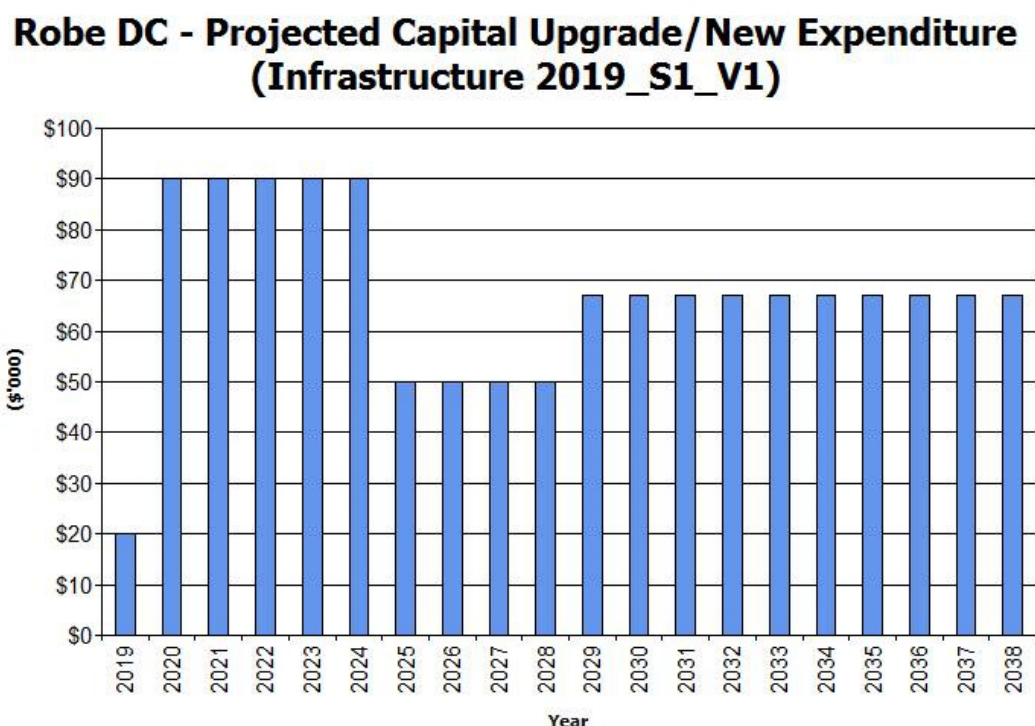
### 5.5.2 Standards and specifications

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 projected upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarised in Figure 6. The projected upgrade/new capital works program is shown in Appendix C. All costs are shown in current 2019 dollar values.

*Figure 6: Projected Capital Upgrade/New Asset Expenditure*



New assets and services are to be funded from capital works program and grants where available. 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.

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	Net Disposal Expenditure (Expend +ve, Revenue -ve)	Operations & Maintenance Annual Savings
N/A	N/A	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.

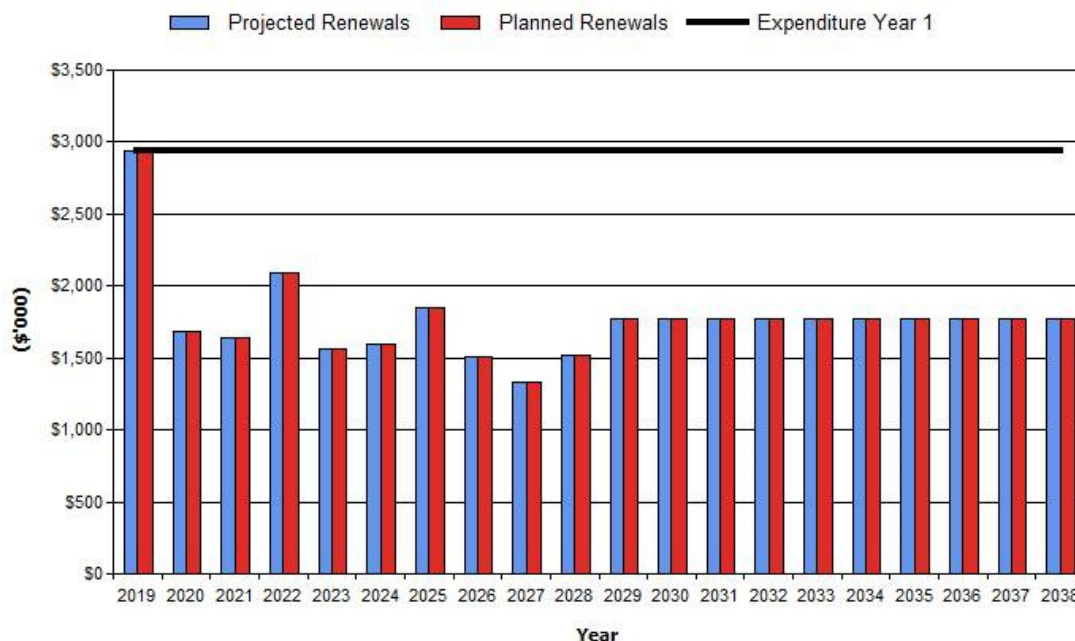
### 6.1 Financial Statements and Projections

The financial projections are shown in Figure 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

Note that all costs are shown in 2019 dollar values.

**Figure 7: Projected Operating and Capital Expenditure and Budget**

## Robe DC - Projected & LTFP Budgeted Renewal Expenditure (Infrastructure 2019\_S1\_V1)



### 6.1.1 Financial sustainability in service delivery

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

#### Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is \$2,502,000 per year (operations and maintenance expenditure plus depreciation expense in year 1).

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital renewal expenditure in year 1. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is \$2,668,000 (operations and maintenance expenditure plus budgeted capital renewal expenditure in year 1).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap.

The life cycle gap for services covered by this asset management plan is \$166,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 107% of life cycle costs giving a life cycle sustainability index of 1.07

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

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

#### ***Medium term – 10 year financial planning period***

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

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

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$2,671,000 per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$2,668,000 per year giving a 10 year funding shortfall of- \$3,000 per year and a 10 year sustainability indicator of 1.00. This indicates that Council has 100% of the projected expenditures needed to provide the services documented in the asset management plan.

#### ***ShortTerm – 5 year financial planning period***

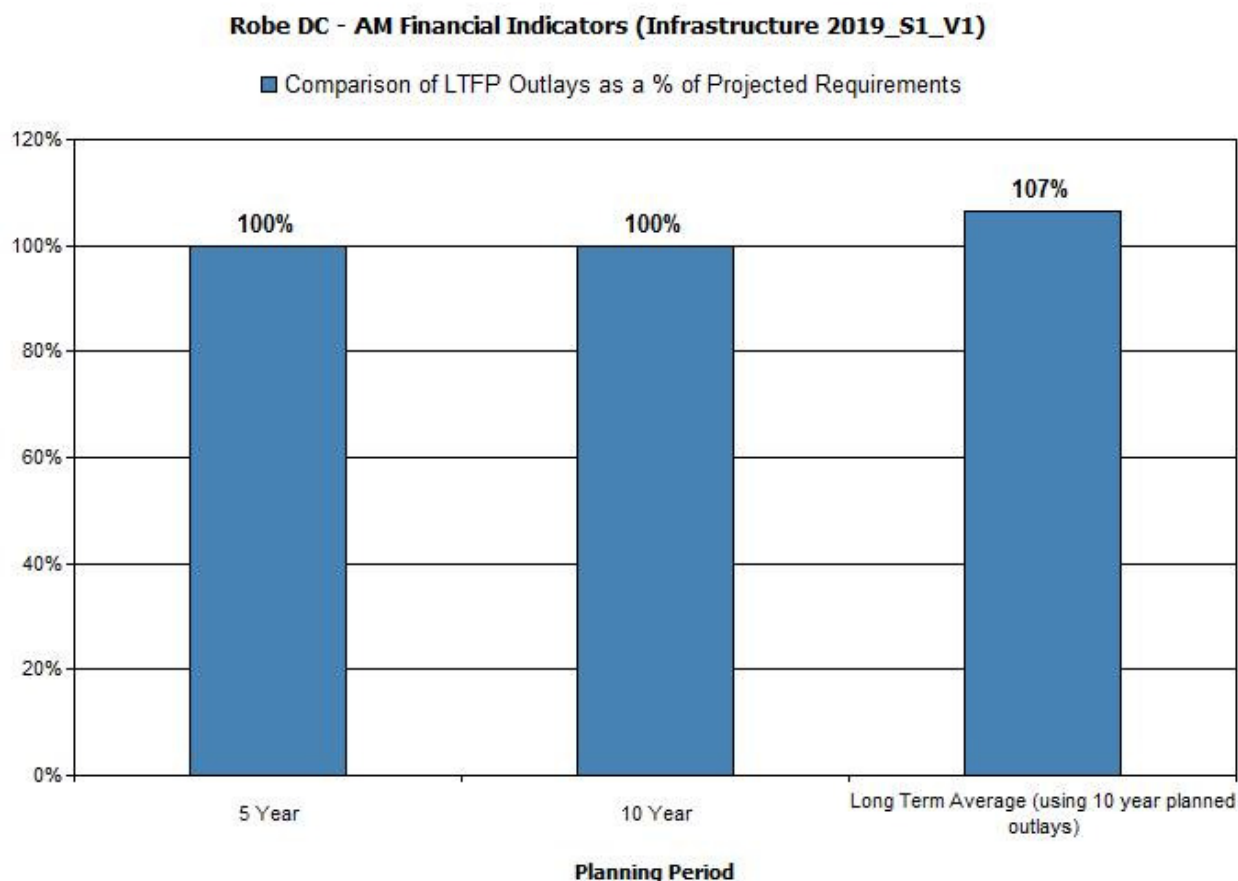
The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is \$2,880,000 per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$2,879,000 per year giving a 5 year funding shortfall of -\$1,000. This is 100% of projected expenditures giving a 5 year sustainability indicator of 1.

#### ***Financial Sustainability Indicators***

Figure 7A shows the financial sustainability indicators over the 10 year planning period and for the long term life cycle.

***Figure 7A: Financial Sustainability Indicators***



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

Figure 8 shows the projected asset renewals in the 10 year planning period from Appendix B. The projected asset renewals are compared to budgeted renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period in Figure 8.

***Figure 8: Projected and Budgeted Renewal Expenditure***

### Robe DC - Projected & LTFP Budgeted Renewal Expenditure (Infrastructure 2019\_S1\_V1)

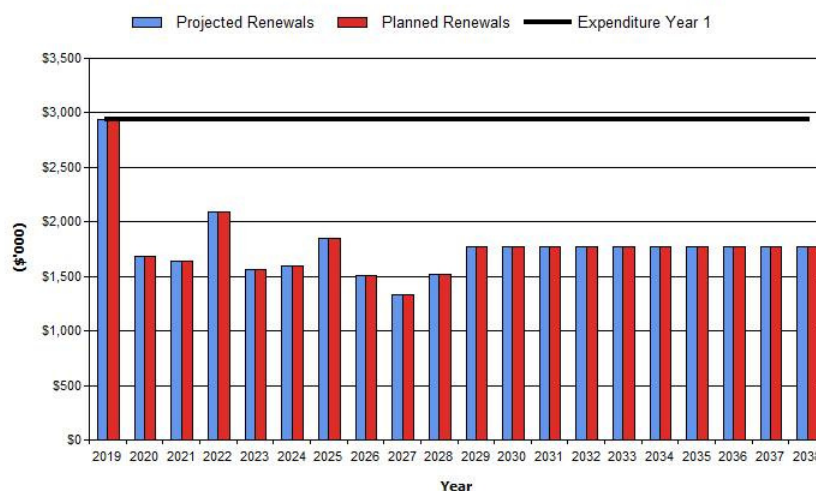


Table 6.1.1 shows the shortfall between projected and budgeted renewals

**Table 7.1.1: Projected and Budgeted Renewals and Expenditure Shortfall**

#### Robe DC - Report 4 - Table 7.1.1 Renewals Financing Comprehensive(Infrastructure 2019\_S1\_V1)

Year End Jun-30	Projected Renewals (\$'000)	LTFP Renewal Budget (\$'000)	Renewal Financing Shortfall (\$'000) (- gap, + surplus)	Cumulative Shortfall(\$'000) (- gap, + surplus)
2019	\$2,940	\$2,940	\$0	\$0
2020	\$1,681	\$1,681	\$0	\$0
2021	\$1,645	\$1,645	\$0	\$0
2022	\$2,088	\$2,088	\$0	\$0
2023	\$1,559	\$1,559	\$0	\$0
2024	\$1,596	\$1,596	\$0	\$0
2025	\$1,847	\$1,847	\$0	\$0
2026	\$1,511	\$1,511	\$0	\$0
2027	\$1,334	\$1,334	\$0	\$0
2028	\$1,516	\$1,516	\$0	\$0

*Note: An negative shortfall indicates a funding gap, a positive shortfall indicates a surplus for that year.*

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required 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 Expenditure projections for long term financial plan

Table 7.1.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in current (non-inflated) values. Disposals are shown as net expenditures (revenues are negative).

**Table 7.1.2: Expenditure Projections for Long Term Financial Plan (\$000)**

Robe DC - Report 5 - Table 7.1.2 Long Term Financial Plan (Infrastructure 2019_S1_V1)					
Year	Operations	Maintenance	Projected Capital Renewal	Capital Upgrade/New	Disposals
2019	\$0.00	\$896.00	\$2,940.00	\$20.00	\$0.00
2020	\$0.00	\$896.19	\$1,681.00	\$90.00	\$0.00
2021	\$0.00	\$897.04	\$1,645.00	\$90.00	\$0.00
2022	\$0.00	\$897.90	\$2,088.00	\$90.00	\$0.00
2023	\$0.00	\$898.75	\$1,559.00	\$90.00	\$0.00
2024	\$0.00	\$899.60	\$1,596.00	\$90.00	\$0.00
2025	\$0.00	\$900.46	\$1,847.00	\$50.00	\$0.00
2026	\$0.00	\$900.93	\$1,511.00	\$50.00	\$0.00
2027	\$0.00	\$901.41	\$1,334.00	\$50.00	\$0.00
2028	\$0.00	\$901.88	\$1,516.00	\$50.00	\$0.00

*Note: All projected expenditures are in 2019 values*

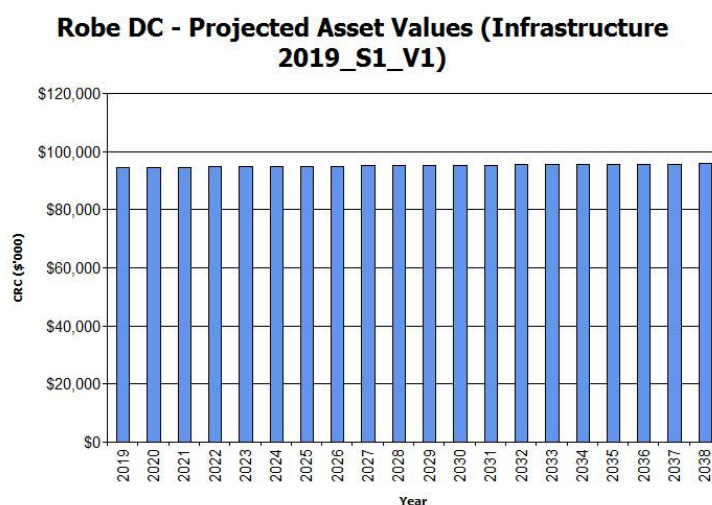
## 6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from future operating and capital budgets. The funding strategy is detailed in the organisation'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 2019 dollar values.

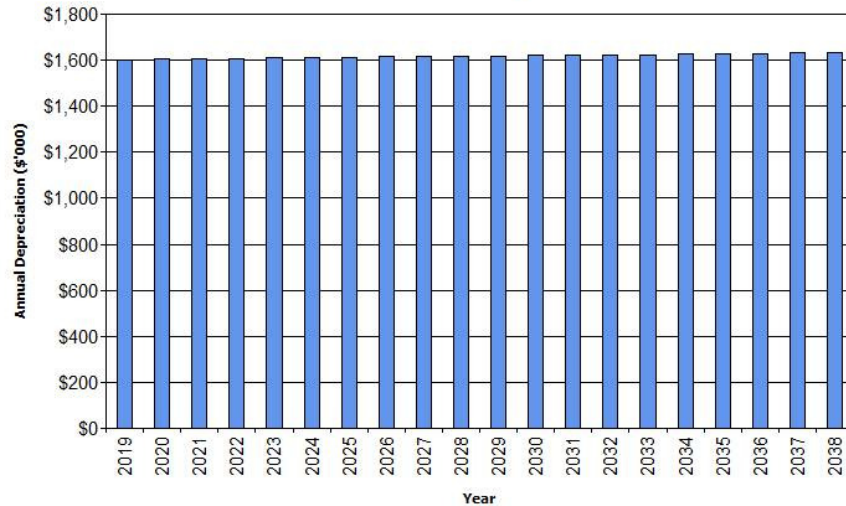
**Figure 9: Projected Asset Values**



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

**Figure 10: Projected Depreciation Expense**

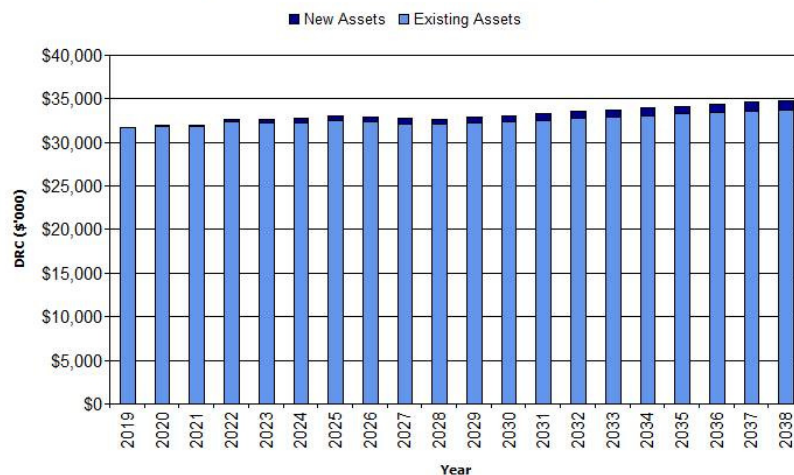
**Robe DC - Projected Depreciation Expense (Infrastructure 2019\_S1\_V1)**



The depreciated replacement cost (current replacement cost less accumulated depreciation) 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 effect of contributed and new assets on the depreciated replacement cost is shown in the darker colour.

**Figure 11: Projected Depreciated Replacement Cost**

**Robe DC - Projected Depreciated Replacement Cost (Infrastructure 2019\_S1\_V1)**



## **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 are:

- The Population of the District Council of Robe will remain relatively stable over the life of the plan
- All predicted financial figures are based on 2017/18 rates and are not adjusted by inflation for the particular year of work
- Operation and Maintenance costs for new assets will be consistent with the operation and maintenance costs of existing assets
- Current levels of service remain unchanged
- Community expectations remain consistent
- No significant changes in legislation

## **7. ASSET MANAGEMENT PRACTICES**

### **7.1 Accounting/Financial Systems**

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

Council's financial accounting system is a combination of ITVision's Synergy Soft System and Microsoft Spreadsheets. Synergy Soft is used to record the budgets for all projects and captures all operating and capital expenses. This information is manually transferred to Council's asset registers located in Microsoft Excel which produces the required outputs.

#### **7.1.2 Accountabilities for financial systems**

Management of Synergy Soft and the Council's Asset Registers is the responsibility of all staff.

#### **7.1.3 Accounting standards and regulations**

Council's accounting practices comply with the Local Government Act 1999 and the Local Government (Financial Management) Regulations and applicable Accounting Standards. Council is also subject to regular independent audits of its accounting systems and practices.

#### **7.1.4 Capital/maintenance threshold**

Council's Asset Capitalisation and Materiality Threshold Policy states that the Capitalisation threshold is \$1,000.

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

No changes are required to financial systems arising from this AM Plan.

### **7.2 Asset Management Systems**

#### **7.2.1 Asset management system**

Combination of SynergySoft and Microsoft excel spreadsheets

#### **7.2.2 Asset registers**

All Infrastructure asset register data is held in Microsoft excel spreadsheets

### 7.2.3 Linkage from asset management to financial system

Currently all financial data is linked manually to the asset register

### 7.2.4 Accountabilities for asset management system and data

All Staff

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

No changes to the asset management system are planned at this point. Council's current asset management system in conjunction with regular (every 5 years) asset revaluations keeps the asset data relevant.

## 7.3 Information Flow Requirements and Processes

The key information flows *into* this asset management plan are:

- Council strategic and operational plans,
- Service requests from the community,
- Network assets information,
- The unit rates for categories of work/materials,
- Current levels of service, expenditures, service deficiencies and service risks,
- Projections of various factors affecting future demand for services and new assets acquired by Council,
- Future capital works programs,
- Financial asset values.

The key information flows *from* this asset management plan are:

- The projected Works Program and trends,
- The resulting budget and long term financial plan expenditure projections,
- Financial sustainability indicators.

These will impact the Long Term Financial Plan, Strategic Longer-Term Plan, annual budget and departmental business plans and budgets.

## 7.4 Standards and Guidelines

Standards, guidelines and policy documents referenced in this asset management plan are:

- District Council of Robe Asset Management Policy
- District Council of Robe Asset Management Strategy
- District Council of Robe Strategic Plan 2014-2018

## 8. PLAN IMPROVEMENT AND MONITORING

### 8.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into the organisation's long term financial plan and Community/Strategic Planning processes and documents,
- 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;

### 8.2 Improvement Plan

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

Condition Data has been collected as at 1/7/18 and used for this plan. This Improvement plan is included as collection of condition data is ongoing to ensure the plans remain relevant

**Table 8.2: Improvement Plan**

Task No	Task	Responsibility	Resources Required	Timeline
1	Collect condition data on all infrastructure assets	Senior Managers	In house and consultants	Ongoing
2	Condition assessments of major infrastructure assets to be undertaken	Senior Managers	Consultants	Ongoing
3	Develop a formal system to accurately record and measure requests for maintenance and access across all infrastructure assets	Council Senior Managers	Budget allocations for IT system and staff resources	2022
4	Develop an inspection and maintenance program for infrastructure assets	Senior Managers	Staff resources	2021
5				
6				
7				
8				
9				
10				

### 8.3 Monitoring and Review Procedures

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

The Plan has a life of 4 years and is due for revision and updating annually.

## REFERENCES

District Council of Robe, Strategic Plan 2014-2018

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IPWEA, 2011, *Asset Management for Small, Rural or Remote Communities* Practice Note, Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/AM4SRRC](http://www.ipwea.org.au/AM4SRRC).

## **APPENDICES**

Appendix A	Maintenance Response Levels of Service
Appendix B	Projected 10 year Capital Renewal Works Program
Appendix C	Planned Upgrade/Exp/New 10 year Capital Works Program A
Appendix D	Abbreviations
Appendix E	Glossary

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

To be developed.



## Appendix B Projected 10 year Capital Renewal Works Program

This capital works program is subject to change based on annual assessment and Council priorities

Robe DC			
Projected Capital Renewal Works Program - Infrastructure 2019_S1_V1			
			(\$000)
Year	Item	Description	Estimate
2019		<b>Network Renewals</b>	
	1	CWMS	\$1,740
	2	Reseals	\$151
	3	Paving Main Street / Robe Street Car Park	\$90
	4	Stormwater	\$100
	5	Dairy Range Road	\$625
	6	Nora Creina Road Survey Design	\$75
	7	Woodleigh Lane	\$149
	8	Hermitage Road	\$10
2019		<b>Total</b>	<b>\$2,940</b>
			(\$000)
2020		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Pump Station Upgrade	\$300
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	Ackson Park Road	\$386
	7	Fayrefield Lane	\$110
	8	Springs Road Northern End	\$225
2020		<b>Total</b>	<b>\$1,681</b>
			(\$000)
Year	Item	Description	Estimate
2021		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Pump Station Upgrade	\$300
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	Powells Road	\$341
	7	Cowans Road	\$344
2021		<b>Total</b>	<b>\$1,645</b>
			(\$000)
2022		<b>Network Renewals</b>	Estimate
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Construction of an independent Rising Main from PS18 that connects into the new PS21	\$642
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	Baxter Hill Road	\$786
2022		<b>Total</b>	<b>\$2,088</b>
			(\$000)
Year	Item	Description	Estimate
2023		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Conversion of PS20 to a 3 phase pump and addition of a second pump in a duty / standby	\$285
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	Parkers Road	\$177
	7	Long Island Road	\$437
2023		<b>Total</b>	<b>\$1,559</b>

<b>Robe DC</b>			
<b>Projected Capital Renewal Works Program - Infrastructure 2019_S1_V1</b>			
			(\$000)
<b>2024</b>		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Upgrade capacity at PS10 including emergency storage	\$300
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	Murraup Road	\$192
	7	Corina Road	\$155
	8	Bowaka Road	\$289
<b>2024</b>		<b>Total</b>	<b>\$1,596</b>
			(\$000)
<b>Year</b>	<b>Item</b>	<b>Description</b>	<b>Estimate</b>
<b>2025</b>		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Upgrade capacity at PS13 including emergency storage	\$300
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	West Avenue Road	\$109
	7	Jorgensons Road	\$778
<b>2025</b>		<b>Total</b>	<b>\$1,847</b>
<b>2026</b>		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	CWMS Upgrade capacity at PS8 including emergency storage	\$200
	4	Reseals	\$50
	5	Town Roads not yet identified	\$300
	6	Kangaroo Hill Road	\$390
	7	Hermitage Road	\$128
	8	Bog Lane	\$78
	9	Cormack Lane	\$55
<b>2026</b>		<b>Total</b>	<b>\$1,511</b>
			(\$000)
<b>Year</b>	<b>Item</b>	<b>Description</b>	<b>Estimate</b>
<b>2027</b>		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	Reseals	\$48
	4	Town Roads not yet identified	\$300
	5	Boomaroo Park Road	\$199
	6	Lou's Lane	\$143
	7	Dawsons Lane	\$83
	8	Ballantynes Road	\$159
	9	Sargents Hill Road	\$92
<b>2027</b>		<b>Total</b>	<b>\$1,334</b>
<b>2028</b>		<b>Network Renewals</b>	
	1	Coastal / Marina not yet identified	\$300
	2	Footways	\$10
	3	Reseals	\$71
	4	Town Roads not yet identified	\$438
	5	Sargents Hill Road	\$92
	6	Long Beach Road	\$105
	7	Unsealed Roads not yet identified	\$500
<b>2028</b>		<b>Total</b>	<b>\$1,516</b>

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

Robe DC			
Projected Capital Upgrade/New Works Program - Infrastructure 2019 S1_V1			
			((\$000))
Year	Item	Description	Estimate
2019	1	Beach Access	\$20
2019		Total	\$20
			((\$000))
Year	Item	Description	Estimate
2020	1	Footways	\$50
	2	Paving Main Street	\$40
2020		Total	\$90
			((\$000))
Year	Item	Description	Estimate
2021	1	Footways	\$50
	2	Paving Main Street	\$40
2021		Total	\$90
			((\$000))
Year	Item	Description	Estimate
2022	1	Footways	\$50
	2	Paving Main Street	\$40
2022		Total	\$90
			((\$000))
Year	Item	Description	Estimate
2023	1	Footways	\$50
	2	Paving Main Street	\$40
2023		Total	\$90
			((\$000))
Year	Item	Description	Estimate
2024	1	Footways	\$50
	2	Paving Main Street	\$40
2024		Total	\$90
			((\$000))
Year	Item	Description	Estimate
2025	1	Footways	\$50
2025		Total	\$50
			((\$000))
Year	Item	Description	Estimate
2026	1	Footways	\$50
2026		Total	\$50
			((\$000))
Year	Item	Description	Estimate
2027	1	Footways	\$50
2027		Total	\$50
			((\$000))
Year	Item	Description	Estimate
2028	1	Footways	\$50
2028		Total	\$50

## **Appendix D Abbreviations**

<b>AAAC</b>	Average annual asset consumption
<b>AMP</b>	Asset management plan
<b>ARI</b>	Average recurrence interval
<b>BOD</b>	Biochemical (biological) oxygen demand
<b>CRC</b>	Current replacement cost
<b>CWMS</b>	Community wastewater management systems
<b>DA</b>	Depreciable amount
<b>EF</b>	Earthworks/formation
<b>IRMP</b>	Infrastructure risk management plan
<b>LCC</b>	Life Cycle cost
<b>LCE</b>	Life cycle expenditure
<b>MMS</b>	Maintenance management system
<b>PCI</b>	Pavement condition index
<b>RV</b>	Residual value
<b>SS</b>	Suspended solids
<b>vph</b>	Vehicles per hour

## Appendix E Glossary

### Annual service cost (ASC)

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

### Asset

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

### Asset 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 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.

### 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.

**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.

**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.

**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.

**Fair value**

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

**Funding gap**

A funding gap exists whenever an entity has insufficient capacity to fund 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 funding gap means service levels have already or are currently falling. A projected funding 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 annual operations, maintenance and asset consumption expense, represented by depreciation expense. 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 actual or planned annual operations, maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of life cycle sustainability.

### **Loans / borrowings**

See borrowings.

### **Maintenance**

All actions necessary for retaining an asset as near as practicable to its original 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.

#### **• Significant 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 and renewal gap**

Difference between estimated budgets and projected required expenditures for maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

**Maintenance and renewal sustainability index**

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

**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 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.

**Pavement management system**

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**

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

**Rate of annual asset renewal**

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

**Rate of annual asset upgrade**

A measure of the rate at which assets are being upgraded and expanded per annum 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).

**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.

**Specific Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, 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.

**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